

# EVAPOTRANSPIRATION ANALYSIS OF NORTH CYPRUS

BERKAY KOYUNCU

SEPTEMBER 2019







EVAPOTRANSPIRATION ANALYSIS OF NORTH CYPRUS

A THESIS SUBMITTED TO

THE BOARD OF GRADUATE PROGRAMS

OF

MIDDLE EAST TECHNICAL UNIVERSITY, NORTHERN CYPRUS CAMPUS

BY

BERKAY KOYUNCU

IN PARTIAL FULFILLMENT OF THE REQUIREMENT

FOR

THE DEGREE OF MASTER OF SCIENCE

IN

THE SUSTAINABLE ENVIRONMENT AND ENERGY SYSTEMS PROGRAM

SEPTEMBER 2019



Approval of the Board of Graduate Programs

---

Prof. Dr. Gürkan Karakaş

Chairperson

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science

---

Asst. Prof. Dr. Ceren İnce Derogar

Program Coordinator

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

---

Asst. Prof. Dr. Bertuğ Akıntuğ

Supervisor

### **Examining Committee Members**

Assoc. Prof. Dr. Murat Fahrioglu

Electrical and Electronics Eng. Prog.,  
METU-NCC. \_\_\_\_\_

Asst. Prof. Dr. İbrahim Bay

Civil Engineering Department,  
European University of Lefke. \_\_\_\_\_

Asst. Prof. Dr. Bertuğ Akıntuğ

Civil Engineering Program,  
METU-NCC. \_\_\_\_\_



**I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all materials and results that are not original to this work.**

Name, Last Name : Berkay KOYUNCU

Signature :

## **ABSTRACT**

### **EVAPOTRANSPIRATION ANALYSIS OF NORTH CYPRUS**

Koyuncu, Berkay

M.Sc., Sustainable Environment and Energy Systems

Supervisor: Asst. Prof. Dr. Bertuğ Akıntığ

September 2019, 229 pages

Water is one of the first essentials to consider when the “sustainability” term comes to order. Especially the significance of potable water is highly critical corresponding to the allocation of available water on the Earth. Groundwater is the optimum option when it is compared with other resources to contribute potable water without any advanced treatment process. In North Cyprus, precipitations can be considered as the main (and almost only) feeder for groundwater resources; therefore, evapotranspiration parameter is vital for the sustainability of those resources. In this study, evapotranspiration (ET) of Northern Cyprus including the surface area of Guzelyurt Aquifer which is the largest fresh water resource in the island was analyzed. Before main tasks, quality control stages of raw data such as unexpected value detection, distribution fittings, outlier tests, and homogeneity analysis was completed. Data analysis section before further calculations is quite significant for reliability of the study results. For North Cyprus, evapotranspiration is the major natural water loss in the water balance of the country, moreover, it was estimated by using the different evapotranspiration methods according to the available data. Thirty-seven-year long daily data are available for temperature and precipitation from 33 meteorological stations. For estimation of evapotranspiration, five methods were

selected for comparison among applicable methods for North Cyprus in the literature due to implementation ease and accuracy. Thornthwaite and Hamon methods which are temperature based and Solar Radiation-Based, Blaney-Criddle, and Hargreaves methods which are radiation based are employed. Different ET Mapping applications by using Geographical Information Systems (GIS) was provided after calculation of single ET values for every station as annually, seasonally, and monthly. Results have showed that most of the months have negative balance; however, December, January, and February has positive balance for the water-budget of the North Cyprus. As the last step of the thesis, trend analysis of Potential Evapotranspiration has been completed in order to see if there is any statistically significant change in time-series.

Keywords: Data Quality Control, Homogeneity, Evapotranspiration, Trend Analysis, North Cyprus

## ÖZ

### KUZEY KIBRIS TÜRK CUMHURİYETİ BUHARLAŞMA ANALİZİ

Koyuncu, Berkay

Yüksek Lisans, Sürdürülebilir Çevre ve Enerji Sistemleri

Tez Yöneticisi: Yrd. Doç. Dr. Bertuğ Akıntığ

September 2019, 229 sayfa

“Sürdürülebilirlik” terimi gündeme geldiği zaman, su birincil olarak düşünülmesi gereken konuların başında gelir. Özellikle içilebilir kalitede olan kaynakların miktarı ve yüzdesi düşünüldüğünde, bu konunun önemi daha net anlaşılmaktadır. Diğer kaynaklar ile karşılaşıldığında, yeraltı su kaynakları ileri düzey arıtma gerektirmeden içme suyu tedarigi için en uygun seçenek olarak belirtilebilir. Kuzey Kıbrıs’ta yağışlar yeraltı su kaynakları için ana (ve neredeyse tek) besleyici olarak değerlendirilebilir; dolayısıyla bu kaynakların sürdürülebilirliği açısından buharlaşma hayatı parametrelerden biridir. Bu çalışmada Kuzey Kıbrıs Türk Cumhuriyeti’nin ve en önemli temiz su kaynağı olan Güzelyurt Akiferi’nin bulunduğu bölge de dahil olmak üzere buharlaşma değerleri belirli metotlar kullanılarak tahmin edilmiştir. Çalışmanın ana misyondan önce, aşırı değer tespiti, veri setlerinin dağılımı, üç değerlerin testleri gibi teslerle verinin kalitesine ve verinin homojenliğine bakılmıştır. Elde edilen ham veriyi kullanmadan önce veri analizi yapılması, çalışmanın güvenilirliği açısından çok önemlidir. Ada’daki su döngüsü incelendiğinde en ciddi doğal su kaybı olarak buharlaşma göze çarpmaktadır ve mevcut veriler ışığında en uygun metotlar ile hesaplanmıştır.

Bu çalışmada Kuzey Kıbrıs geneline dağılmış 33 meteoroloji istasyonda son 37 yıla ait (1978-2015) günlük ortalama sıcaklık ve toplam yağış verileri kullanılmıştır. Buharlaşma yöntemi olarak literatürde sıkça kullanılan ve mevcut veriyle uygulanabilecek yöntemler seçilmiştir. Bu bağlamda buharlaşma miktarları beş yöntemle, sıcaklık bazlı olan Thornthwaite ve Hamon yöntemleriyle ve radyasyon bazlı olan Solar Radiation-Based, Blaney Ciddle, and Hargreaves yöntemleriyle hesaplanmıştır. Sonuçlar göstermiştir ki aylardan çoğu negatif değişim içerisindeyken, sadece Aralık, Ocak, ve Şubat ayları pozitif değer vermiştir. Bunun yanı sıra gelecek adına ipucuna sahip olabilmek için çıkan evapotranspirasyon sonuçlarının eğilimleri incelenmiş olup, iklim değişikliği ile olan ilişkisi değerlendirilmiştir. Nihayetinde tüm istasyonlardan elde edilen buharlaşma sonuçları ile kullanılan tüm metotlara göre ArcGIS programı kullanılarak haritalandırma yapılmıştır. Son aşama olarak potansiyel buharlaşmaların trendlerine bakılarak zaman serilerinde kayda değer herhangi bir değişim olup olmadığı gözlemlenmiştir.

Anahtar Kelimeler: Veri Kalitesi Kontrolü, Evapotranspirasyon, Eğilim Analizi, Kuzey Kıbrıs

**To My Family & Lovely Wife**

## **ACKNOWLEDGEMENT**

I wish to express my deepest appreciation to Asst. Prof. Dr. Bertuğ Akıntuğ for his supportive and motivator approach all through our research. Also, I would like to declare my gratitude to his expertise and guidance every time I needed. He has always been optimistic and encouraging about my improvement and made me certain and determined for my targets in academia.

I would like to thanks in advance to Prof. Dr. Kahraman Ünlü for his guidance as an expert throughout the research. It would be more challenging without his creative and pathfinder advices.

I would also like to thank to my parents for their heartfelt supports and encouraging approach. It would be impossible to achieve this study without them.

In addition, I would like to present my appreciation to METU-NCC which supported my study by giving me a chance under the research project (BAP FEN-16-K-9) and Civil Engineering Program for giving me teaching assistantship position.

Finally, I would like to express my special appreciation to my lovely wife for her incredible patience and endless support even if she was far from me most of the time.

## TABLE OF CONTENTS

ABSTRACT.....	vi
ÖZ .....	viii
ACKNOWLEDGEMENT .....	xi
TABLE OF CONTENTS.....	xii
LIST OF TABLES.....	xiv
LIST OF FIGURES .....	xv
CHAPTER 1 INTRODUCTION .....	1
1.1.    Background .....	1
1.2.    Study Area.....	4
1.2.1.    Northern Cyprus (Climate and Geographical Location).....	4
1.2.2.    Water Resources in Northern Cyprus .....	4
1.2.3.    Observation Stations and Data Sets .....	5
1.3.    Problem Statement .....	10
1.4.    Scope and Objectives of the Study.....	11
1.5.    Organization of the Thesis .....	12
CHAPTER 2 LITERATURE REVIEW .....	13
2.1. Introduction.....	13
2.2. Raw Temperature Data Analysis.....	15
2.3. Evapotranspiration .....	16
CHAPTER 3 METHODOLOGY .....	18
3.1. Introduction.....	19
3.2. Statistical Analysis of Temperature Data and the Quality Control Stage.....	19

3.2.1. Distribution Fittings of Data Sets .....	19
3.2.2. Outlier Tests.....	20
3.2.3. Homogeneity Analysis.....	21
3.3. Evapotranspiration Estimation .....	23
3.3.1. Hamon Method .....	23
3.3.2. Thornthwaite Method.....	25
3.3.3. Solar Radiation Based Method .....	25
3.3.4. Hargreaves Method.....	26
3.3.5. Blaney-Criddle Method .....	27
3.4. Evapotranspiration Mapping by Using Geographical Information Systems (GIS) .....	27
3.5. Mann-Kendall Trend Test .....	28
<b>CHAPTER 4 RESULTS AND DISCUSSION .....</b>	<b>30</b>
4.1. Introduction .....	30
4.2. Statistical Test Results .....	30
4.3. Evapotranspiration Estimations.....	37
4.4. Mapping of PET by Using GIS .....	43
4.5. Trend Analysis .....	47
<b>CHAPTER 5 CONCLUSION AND FUTURE WORK .....</b>	<b>52</b>
5.1. PET Conclusion.....	52
5.2. Precipitation-PET Relation .....	52
5.3. Future Work Suggestions.....	53
<b>REFERENCES .....</b>	<b>54</b>
<b>APPENDIX A .....</b>	<b>59</b>
<b>APPENDIX B .....</b>	<b>225</b>

## **LIST OF TABLES**

Table 1.1 Meteorological station names and coordinates .....	6
Table 1.2 Maximum and minimum observed daily mean temperature values .....	9
Table 3.2 Duration of sunlight in units of 12 hours according to the Smithsonian Tables .....	24
Table 4.1 Normality test results for all the stations .....	32
Table 4.2 Inhomogeneity case for all stations .....	35
Table 4.3 Utilized parameters in the implemented methods.....	41
Table 4.4 Annual PET Correlation coefficients between all methods.....	41
Table 4.5 Winter PET Correlation coefficients between all methods .....	41
Table 4.6 Summer PET Correlation coefficients between all methods .....	42
Table 4.7 Spring PET Correlation coefficients between all methods .....	42
Table 4.8 Fall PET Correlation coefficients between all methods .....	42
Table 4.9 Mann-Kendall trend test results .....	48
Table 4.10 Guzelyurt station precipitation-PET comparison.....	50
Table 4.11 North Cyprus precipitation-PET comparison .....	50
Table 4.12 Comparison between average precipitation and average PET in wet months..	51

## LIST OF FIGURES

Figure 1.1 Global water categorization (left), and freshwater sub-categorization (right).	2
Figure 1.2 Location of observation stations in Northern Cyprus for rainfall and temperature.....	8
Figure 2.1 Hydrologic cycle of a basin (Schwartz and Zhang, 2003).....	14
Figure 2.2 Flow chart of the MODIS (Mu et al. 2013) .....	17
Figure 4.1 Normality test failures method by method .....	31
Figure 4.2 Total outliers for all the stations .....	33
Figure 4.3 Minimum outliers for each seasons .....	34
Figure 4.4 Maximum outliers for each season .....	34
Figure 4.5 Girne station homogeneity analysis.....	37
Figure 4.6 Annual cumulative PET averages based on stations .....	38
Figure 4.7 Cumulative PET averages of Fall season .....	38
Figure 4.8 Cumulative PET averages of Winter season.....	39
Figure 4.9 Cumulative PET averages of Spring season .....	39
Figure 4.10 Cumulative PET averages of Summer season .....	40
Figure 4.11 Wet season spatial distribution for Thornthwaite Method.....	43
Figure 4.12 Wet season spatial distribution for Hamon Method .....	44
Figure 4.13 Wet season spatial distribution for Hargreaves Method.....	45
Figure 4.14 Wet season spatial distribution for radiation based method .....	46
Figure 4.15 Wet season spatial distribution for Blaney-Criddle Method .....	47
Figure 4.16 Stations with positive trends on the North Cyprus map .....	49



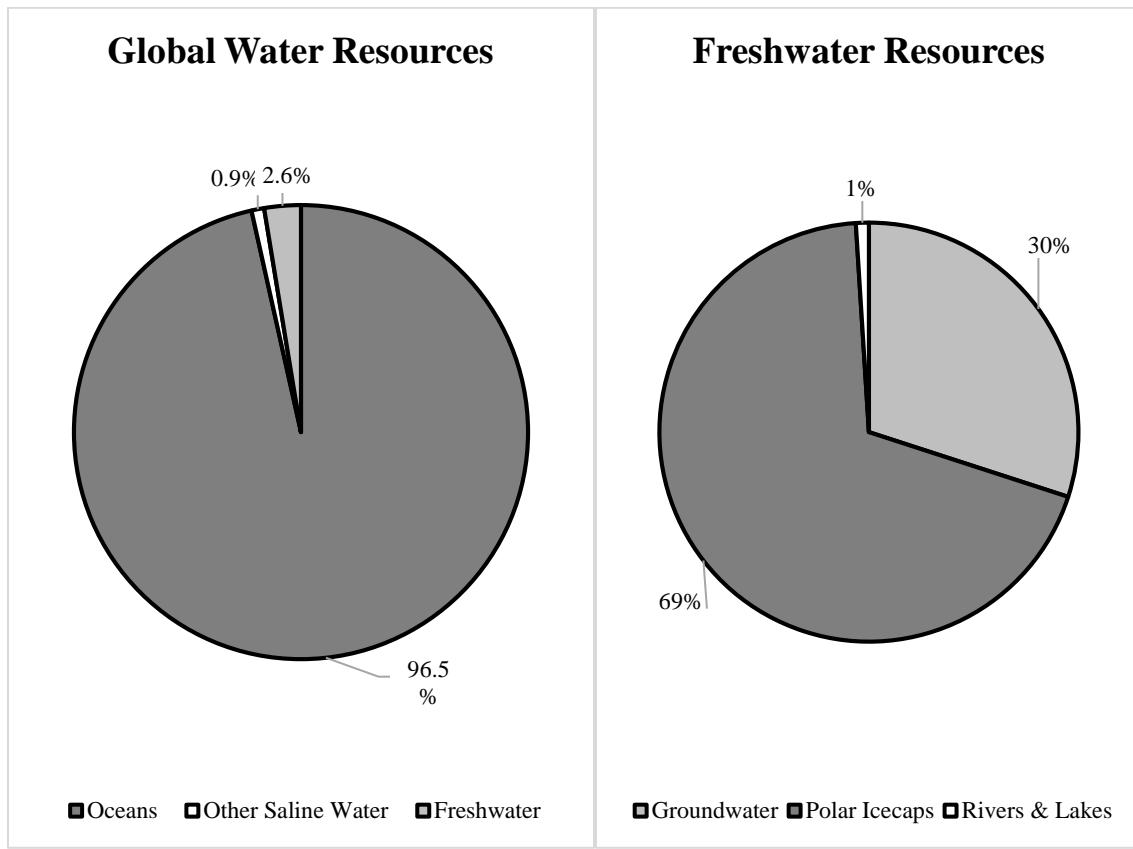
# **CHAPTER 1**

## **INTRODUCTION**

### **1.1. Background**

Significance of water resources is augmenting day by day due to overpopulation, climate change, and pollutants. Even if there is around eight-billion cubic kilometers water volume stored in the world (Rawls, David, Mullen, & Ward, 1996), only 2.6% of it can be categorized as freshwater resources, which is possible to use as potable water without an advance treatment method. However, major amount of 2.6% freshwater is in ice form; therefore, it is challenging to provide drinking water from them. Accordingly, understanding the hydrologic cycle (estimation of water resources, and transmission process studies such as evaporation and runoff) has critical role for regional solutions and successful management (Patra, 2008).

Despite the recent importance of water due to overpopulation and mismanagement, water resources management was essential even in 3000 B.C. to control or save resources in urban areas (Cech, 2010). Estimations for the Nile behaviors in Ancient Egypt, aqueduct ruins from Roman Empire, and other numerous evidences are showing that the water resources management was and will always be in agenda. As shown in Figure 1.1 available water resources were categorized based on their types (Gleick, 1993). Under the circumstances of this scene, groundwater resources can be counted as the major and the most common drinking water option. Since precipitation, evaporation, infiltration, and runoff are known for regions, further estimations can be done in order to understand the trend of regional water resources.



**Figure 1.1** Global water categorization (left), and freshwater sub-categorization (right)

Significance of utilizable water resources has been increasing rapidly for a century due to excessive population growth. In order to supply incremental demand in water, freshwater extraction from groundwater resources became essential and easier based on technologic development. Simplicity of groundwater treatment, which requires only physical treatment most of the cases, provides dramatic profits for the users and/or sellers especially in water-scarce areas. Contrary to surface water, deficiency on groundwater protection legislation is fostering overdrawing unfortunately. Also, there are several additional factors, which are also effective on groundwater resources in quality and quantity aspects, such as extreme precipitations and droughts, and regime changings on surface water streams due to climate change. Under today's conditions, no prosperous scenario can be expected without groundwater management, which can include

optimization on discharge rate (mostly reduction) or reallocating water resources (might be changing on crop type or industrial processes). When the population growth considered, may be a regular increase does not seem feasible on groundwater level; however, protecting current situation or extending the life time of the aquifer might be possible with a well-management (Konikow, & Kendy, 2005).

Depletion on subsurface water level is not causing only water deficiency problems but also causing land subsidence. To avoid drawdowns, recharge and discharge relations for each subsurface resources should be known because of difficulty on total water amount calculation in contrast to surface water. According to the mass balance equation, change in storage should always stay at the positive side or at least it should be zero to refuse water loss. All recharge calculations are always based on estimations by using numerical (theoretical) models, applicable (experimental) studies, chemical tracers, or simulation programs. On the other hand, discharge part is mostly based on data collection and much more reliable than recharge rate; however, usually these data sets are not completely accurate because of uncontrolled water extraction in particularly rural areas (Karamouz et al., 2011).

Surface water resources are also under danger of climate change effects and pollution issue. Since small portion of those resources can be available for daily use, unfortunately they are lack of required diligence. Contrary to what is believed, all the water resources are globally dependent each other. Every hydrologic cycle component should be considered as bidirectional, and all the scenarios must be developed based on this fact.

Besides the pollution and climate change, evaporation from surface water resources is a considerable loss depending on the climatic conditions, and precautions are inadequate due to having non-controllable size of area. Most of the hydrologic models in the literature makes countless assumptions for the evapotranspiration (ET) component; however, it must be examined deeply (Monteith, 1981).

## **1.2. Study Area**

### **1.2.1. Climate and Geographical Location of North Cyprus**

Cyprus is an island which lies about 70 km south of Turkey, in Mediterranean Sea, and it has always been struggling with droughts due to the geographical location. High annual temperature average (19°C) is not the only reason of these droughts but also limited water resources as a consequence of low precipitation (in average 402.8 mm/year) is another factor. As a semi-arid region, the most efficient precipitation period is December for North Cyprus, moreover, July and August have been recorded as the driest months in last four decades (Official Meteorology Office of TRNC). Payab and Türker (2017), analyzed characteristic of drought events in northern part of Cyprus with the help of data from nine different meteorological stations. When precipitation and temperature trends were scrutinized, increase trend on temperature was clearly observed contrary to stable precipitation. This situation is revealed that most of the droughts has been taking place for 12-months, in addition, shorter drought periods, such as 3-months, and 6-months droughts, are also willing to augment.

Under these circumstances, northern part of Cyprus can be defined as a water-scarce area, and as a consequence of that, a pipeline has been built between Turkey and Cyprus in order to supply fresh water. The capacity of the water supply project which is 75 million cubic meter per year, was estimated according to need of North Cyprus until the year 2045. 50.3% of this capacity will be used for municipal water requirements and 49.7% for irrigation purposes (Devlet Su İşleri Official Web Page). With the help of this project, development of future possible plans for the recovery of local water resources was mainly aimed.

### **1.2.2. Water Resources in North Cyprus**

When surface water resources are scrutinized there is no continuous flow in any river bed during all the year due to climatic reasons and amount of precipitation. After

precipitations, approximately  $45 \times 10^6$  m<sup>3</sup> water annually flows in total. In addition, island is quite poor when we consider natural reservoirs; therefore, around 20 man-made reservoirs, which has around  $15 \times 10^6$  m<sup>3</sup> capacity, were built for groundwater recharge and irrigation purposes (Gunyakti. A, Akintug. B, 1999).

Groundwater resources are quite significant for the island's future; however, almost all of them are on the edge of drought, or already dried out. As a largest freshwater resource in the region, Güzelyurt Aquifer, has approximately 920 m<sup>3</sup> water, and consequence of being a coastal aquifer, quantity of water is as significant as quality of water due to danger of seawater intrusion. In addition, according to previous studies, annual discharge rate is still much more than annual recharge despite the water coming from Turkey (Fanta, 2015).

As it was mentioned before, Northern Cyprus does not have actively flowing river; however, there are some artificial reservoirs (dams), and stored water in those reservoirs is quite significant when it comes to provide municipal water. Obviously, evaporation (especially during summer season) is quite high throughout the year due to sunshine exposure. Since the thesis is focused on evapotranspiration from precipitation, evaporation estimation from reservoirs are not calculated in here. In spite of this, this loss cannot be ignored in case of scenario development or water resources management.

### **1.2.3. Observation Stations and Data Sets**

Basically, data sets from 33 observation stations are considered for estimations and calculations under the scope of this study. Daily temperature and precipitation data sets from 1978 to 2015 for those stations were provided by the Meteorological Office of TRNC. North Cyprus has 3,354 km<sup>2</sup> surface area, in other words every 100 km<sup>2</sup> area has a station to represent that sub-area. Station coordinates can be found in Table 1.1.

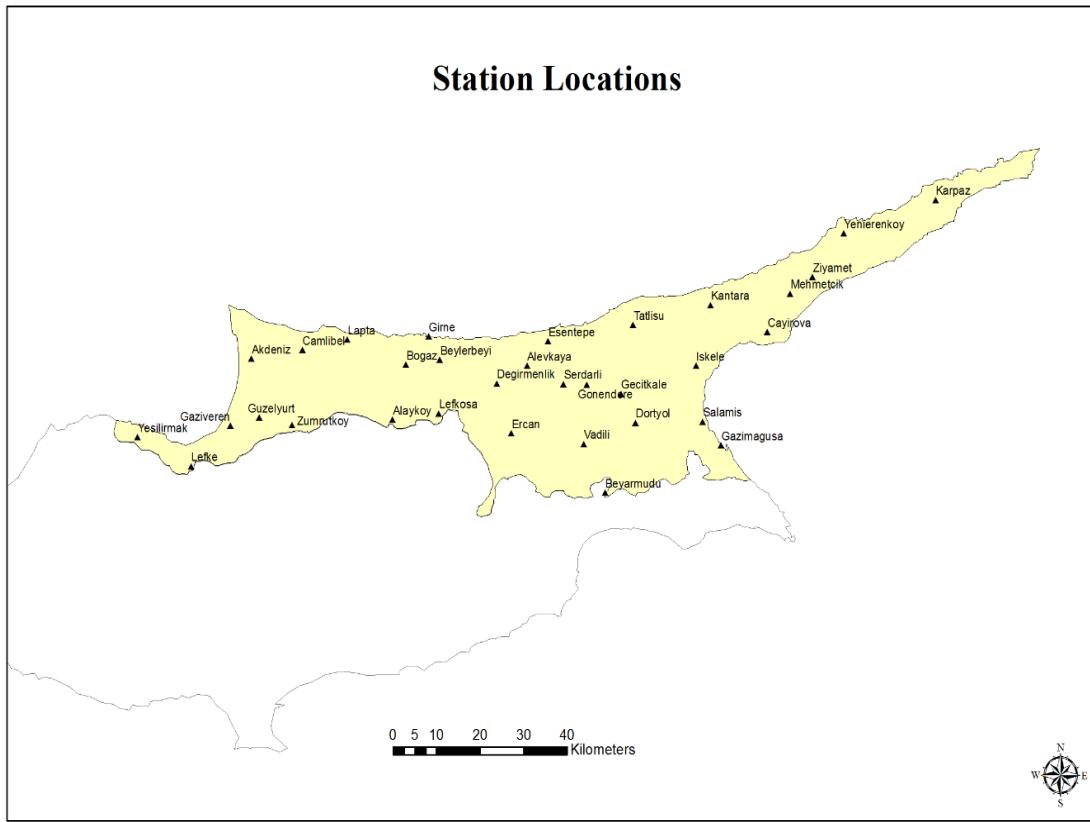
**Table 1.1** Meteorological station names and coordinates

FID	Latitude	Longitude	Name
1	35.33575	33.16336	Lapta
2	35.34194	33.33139	Girne
3	35.29729	33.35404	Beyerbeyi
4	35.28825	33.28484	Bogaz
5	35.33273	33.57852	Esentepe
6	35.23333	33.72861	Gecitkale
7	35.13869	33.65161	Vadili
8	35.04716	33.69582	Beyarmudu
9	35.13639	33.93556	Gazimagusa
10	35.1808	33.89734	Salamis
11	35.17889	33.75861	Dortyol
12	35.28611	33.88444	Iskele
13	35.34949	34.03129	Cayirova
14	35.42222	34.07833	Mehmetcik
15	35.4535	34.12451	Ziyamet
16	35.59889	34.37917	Karpaz
17	35.53556	34.18944	Yenierenkoy
18	35.40056	33.91361	Kantara
19	35.29972	32.965	Akdeniz
20	35.31611	33.07056	Camlibel
21	35.18889	32.98194	Guzelyurt
22	35.17306	32.92194	Gaziveren
23	35.09664	32.84091	Lefke
24	35.17444	33.04917	Zumrutkoy
25	35.15917	33.50194	Ercan
26	35.25183	33.61024	Serdarli
27	35.25276	33.47218	Degirmenlik
28	35.28583	33.53472	Alevkaya
29	35.18472	33.25667	Alaykoy
30	35.19639	33.35194	Lefkosa

31	35.363533	33.75399	Tatlisu
32	35.151978	32.729995	Yesilirmak
33	35.250169	33.658361	Gonendere

Daily average temperature data sets were converted into monthly averages for each stations. The reason behind is that the most of the methods are calibrated for monthly evapotranspiration calculation in the literature. In addition, daily evapotranspiration results may have umpteen fluctuation due to daily temperature changes.

Precipitation data sets were also in daily format in the beginning; however, they were also converted to monthly total in order to calculate the relationship between precipitation (P) and potential evapotranspiration (PET).



**Figure 1.2** Location of observation stations in North Cyprus for rainfall and temperature

Distribution of the stations is notably significant when the spatial analysis is part of the study. Equal distribution and representative stations for every corner of the island is necessary for reliable results. For this study, distribution of available stations is suitable for spatial analysis. Location of stations can be seen in Figure 1.2.

Raw data sets, which were provided by the Meteorological Office of TRNC, had some missing parts. Therefore, those missing data sets must be completed by using some statistical methods. In the previous study, Çakal (2015) was used Inverse Distance Method and Normal Ratio Method to fill those missing data sets.

Before any further analysis or estimation, raw data sets should be controlled in case of any human mistake. “Quick Analysis” function of Excel was used for this section in order to find extreme values in data sets. World Meteorological Organization’s extreme temperature events were taken as reference, and used for specifying the maximum and minimum thresholds. These values were measured instantaneously; however, data sets in the study are daily average. At this point, an interpolation method called “Inverse Distance Weighting (IDW)” was used to calculate maximum temperature that can be observed on island by using Greece (48°C), Tunisia (55°C), and Israel (54°C). Calculation of minimum threshold was not required due to having at least -4.2°C measured value in the all data sets. Fortunately, there were no unexpected value in the data sets.

**Table 1.2** Maximum and minimum observed daily mean temperature values

Station Name	Max Temperature (°C)	Min Temperature (°C)
Çamlıbel	34.1	1.5
Lapta	36.9	3.2
Girne	36.4	3.5
Alevkayası	34.6	-3.2
Güzelyurt	35.6	0.2
Lefkoşa	36.3	1.4
Ercan	41.2	1.5
Beyarmudu	37.3	2.6
Yeni Erenköy	36.0	1.5
Gazi Mağusa	33.4	3.4
Esentepe	35.0	1.3
Akdeniz	35.8	2.7
Boğaz	36.5	1.5

Beylerbeyi	34.2	2.9
Değirmenlik	34.7	0.1
Tatlısu	37.4	-0.4
Kantara	33.4	1.0
Zümrütköy	<u>32.5*</u>	2.4
Lefke	35.6	2.6
Gaziveren	32.9	2.4
Yeşilirmak	36.5	2.7
Alayköy	35.0	2.2
Serdarlı	35.4	0.0
Gönendere	33.8	0.2
Vadili	36.7	2.8
Salamis	33.7	3.5
İskele	37.3	2.1
Çayırova	33.1	3.4
Mehmetçik	34.1	<u>3.6**</u>
Ziyamet	34.6	2.1
Dipkarpaz	32.7	3.4
Dörtyol	34.1	2.8
Geçitkale	37.6	2.0

\*Minimum of maximum values

\*\*Maximum of minimum values

### 1.3. Problem Statement

Water has always been a sensitive issue in North Cyprus due to illegal and over discharge, and lack of analysis by experts. Almost all freshwater resources were lost slowly in last six decades, and north part of the island was faced with water scarcity. In the beginning of 2000's, this issue became a crisis, and immediate action had to be taken. Pipe connection between Turkey and North Cyprus has designed and constructed promptly.

Starting from 2015, this pipe system is operational, and transferring 75 million cubic meter fresh water per year. Almost half of this amount is regularly used as potable water and remaining will be used for irrigation purpose in the near future.

Under the circumstances, region's hydrologic cycle must be revealed, and further optimizations are required to make a long-term plan in order to remove country's dependency. The very first stage of this plan should be the estimation of natural water losses and gains which are potential evapotranspiration. Guzelyurt aquifer is the largest freshwater resource in North Cyprus, however, its state of affairs does not look promising for the near future under sea water intrusion and over discharge. Consequently, two significant questions rise in the light of this case;

*Question 1:* Is the potential evapotranspiration estimated based on precipitation and temperature data sets, and other parameters?

*Question 2:* Which regions (stations) have continuous negative balance based on estimation results?

#### **1.4. Scope and Objectives of the Study**

Since some serious scenario developers started to bring abominable outcomes about future of water resources and consequences, sustainability concept became crucial to implement in this field. Even today, water is a war reason for some sensitive regions like Sudan. North Cyprus is another sensitive region when the natural resources are considered. Apart from the water which consistently comes from Turkey, North Cyprus is not a self-sufficient country. Accordingly, water balance of North Cyprus should be revealed under this context.

The major objective of this study is revealing the main water losses (evapotranspiration) for better water management scenarios in North Cyprus. Due to climatic conditions, evapotranspiration is the main natural water loss and it should be calculated via different

methods for more reliable results. Moreover, trend analysis will help to understand the state of affairs for PET results in near future.

### **1.5. Organization of the Thesis**

Outline of the thesis is given in this section as follows. Chapter 1 aims to provide current water allocation and importance of it in basic terms in global scale and specifically for North Cyprus. Location of the study area, climatic conditions, and available data are emphasized in order to derive an idea about the case. In addition, it explains the current problems, moreover, objectives and scope of this study from a general perspective. The second chapter is more likely to explain previous and current applications of evapotranspiration estimations. Previously used theoretical and simulation methods were mentioned in this chapter. Chapter 3 presents the methods, which will be used in this study, their description, and reasons of selection. Furthermore, parameter tables and selection for methods takes place in this chapter. Fourth chapter presents the results, discussion of the results, and method comparison based on their features. The last chapter, Chapter 5, gives the conclusion, and possible suggested future works.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

Since the “sustainable development” term became agenda after World Commission on Environment and Development’s report called *Our Common Future* in 1987, viewpoint on water scarcity issues and possible solution ideas have changed. Subsequently, necessity of more comprehensive water-management increased, scenario development and forecasting studies widely spread, moreover, importance of groundwater resources inclined as solution against overpopulation and scarcity issues (Kresic, 2009).

Groundwater withdrawals has almost reached 1,000 km<sup>3</sup>/year in last 50-year period; subsequently, groundwater resources are consumed in many places due to their high economic profits (Konikow and Kendy, 2005). Under these circumstances, recharge conditions should be revealed in order to understand the water balance of aquifers. Recharge calculations require high sensitivity to measure accurately due to spatial and temporal fluctuations. In addition, precipitation, and evapotranspiration data are vital for all the recharge estimation methods, moreover, knowledge of soil characteristics, vegetation type, groundwater flows, and surface water leakages is increasing the reliability of estimation (Healy, 2010).

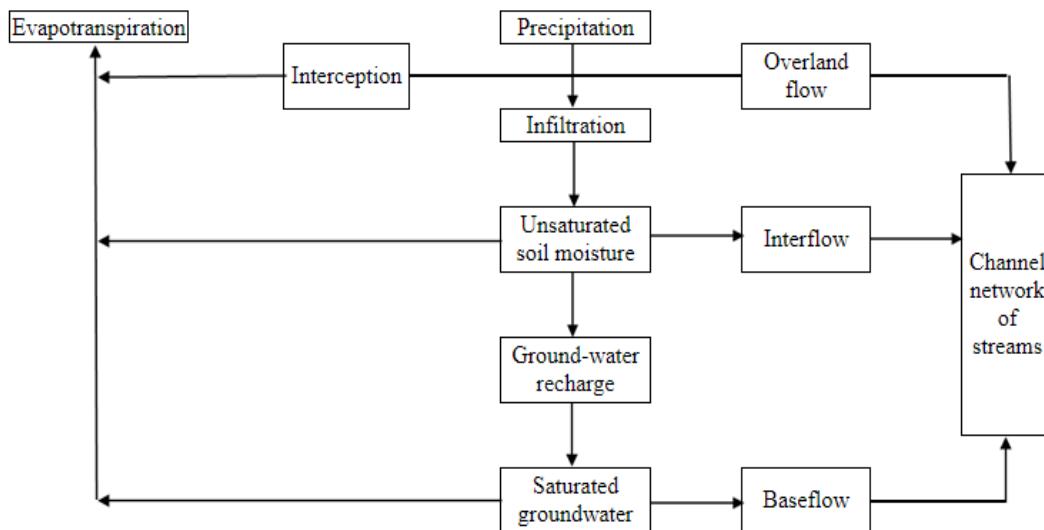
One of the most common recharge estimation methods is called groundwater budget, in addition the method considers groundwater flow, surface runoff, evaporation, and soil and vegetation type; therefore, the most vital data are precipitation and temperature in this method. Farvolden (1960) made a research and exemplified several applications of this method to estimate recharge rates for several basins in North America. More than 10 study areas have been analyzed by different researchers, represented which cases are applicable for water-budget method from hydrogeological aspect.

Despite *recharge* and *infiltration* terms are not exactly representing the same thing; however, they are substantially relevant. Czyzyk and Swierkot (2017) represented this relation in their model. By using the water balance, they created a model which is given as follows:

$$IE = P - S - ET - R \quad (2.1)$$

where IE is effective infiltration, P is precipitation, S represents surface runoff, ET means evapotranspiration, and R is the molecular water in the soil. Except R, which is a complex parameter to find due to high sensitivity for a region, other parameters are essential for effective infiltration, and for groundwater recharge.

In order to better understand the hydrologic cycle in a basin, the general model can be helpful at this stage. Stages of this cycle, and the order can be seen in the Figure 2.1 (Schwartz and Zhang, 2003).



**Figure 2.1** Hydrologic cycle of a basin (Schwartz and Zhang, 2003)

Evapotranspiration is a process that can be occurred at every stage of flow even after groundwater recharge. Depending on the climatic conditions, amount of water loss can be different. Especially, locations with arid and semi-arid climates have mostly high

evapotranspiration; therefore, this situation keeps soil unsaturated almost all the time (Manning, 1997).

Infiltration is the very first step on the way through the recharge. First of all, infiltration estimation is required when finding all the hydrologic cycle parameters. After infiltration stage, water continues to be evaporated and transpired; however, general water-balance method applications become unreliable without the infiltration estimations (Mao et al. 2016).

## **2.2. Raw Temperature Data Analysis**

Before using the provided data in any kind of analysis, some quality control stages must be employed to see whether the data are ready. Zaifoglu et al. (2017) have used homogeneity analysis to detect change-points in precipitation data sets. However, most steps of the statistical hydrology cannot be considered separately. In homogeneity analysis, the data set must be removed from outliers to avoid from effecting the change-points. Gokturk et al. (2007) performed similar homogeneity analysis and correction for Turkey's monthly precipitation data sets, and states that even a single outlier can manipulate the result. Another critical decision in here is the outlier method, and as it was mentioned before, this decision depends distribution of the data set which is the other statistical hydrology stage.

Peterson et al. (1998) had a study based on monthly temperature data analysis, and included all the quality stages. Significantly, they suggested interquartile range method (IQR) for the data set which follows an alternative hypothesis based on normality test result. They stated that, this method is performs well on climatic data. When the data set is normally distributed, Grubbs test would be an appropriate option, which is one of the most common outlier detection methods in the literature for the temperature data set.

### **2.3. Evapotranspiration**

Evapotranspiration is a term which is directly related with climatic and surface parameters such as temperature, humidity, wind speed, soil texture, and vegetation type. There are some conventional theoretical methods and simulation models that can estimate potential evapotranspiration based on those parameters. Most commonly used method is known as Penman-Monteith equation due to high accuracy and comprising almost all effective parameters. Bakundukize et al. (2011) used this method while creating a water-balance in Burundi to reveal groundwater estimation. This equation estimates daily potential evapotranspiration by using net radiation at the vegetative surface, wind speed at 2 m height, saturated vapour pressure, actual vapour pressure, slope of the saturation vapour pressure curve, psychrometric constant, solar heat density, and mean air temperature.

Penman-Monteith method does not have any limitation for climate; therefore, this issue makes it advantageous. The only deficit of this method is the vegetation factor. Normally  $R_n$  factor considers vegetation during measurement; however, it is possible for only the observation point. Despite the accuracy of Penman-Monteith method, it is not possible to use it for North Cyprus due to inadequacy of wind speed, and net radiation data.

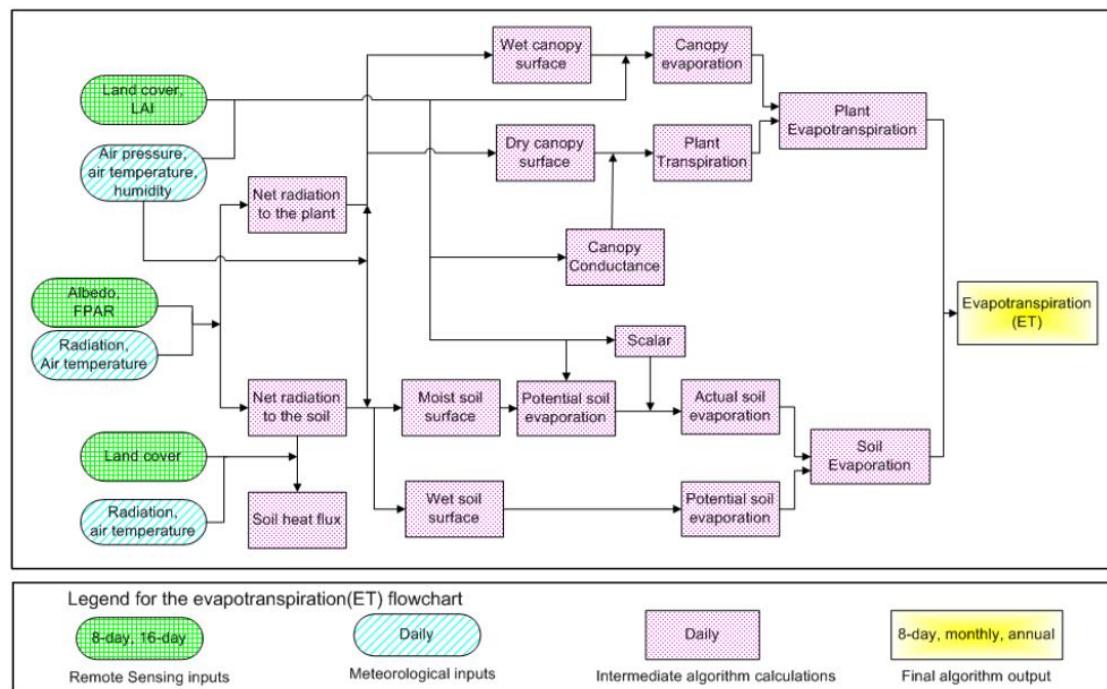
The other commonly used method is known as Priestley-Taylor equation. Lu et al. (2005) defines this equation, and explained parameters which were used in the method. It calculates  $PET$  as daily potential evapotranspiration (mm/day), uses latent heat vaporization (MJ/kg), daily temperature ( $^{\circ}\text{C}$ ), and calibration constant depending on the climatic conditions.

Other parameters were defined in Penman-Monteit equation. This equation is suggested to be used in humid climates and on wet surfaces. However, this method cannot be used either due to same data problems as it was defined in Penman-Monteith equation (Zhao et al. 2013).

The other conventional and widely used method was developed by Hargreaves-Samani in 1985. Zhao (2013) explained that this method is suggested for arid and semi-arid climates

with grassland. In theory, it fits well for North Cyprus from climatic aspect; however, method requires the difference of maximum daily temperature and minimum daily temperature which is not available for North Cyprus.

Apart from aforementioned conventional methods, there are recently spread simulation models in literature. The most common model is developed by NASA with the name of MODIS. Basically, this model uses satellite data to create spatial distribution of potential and actual evapotranspiration. Behind the model, it uses Penman-Monteith equation to estimate; however, it also uses standard vegetation references like leaf area index (LAI) and albedo in order to increase reliability of results. The other advantage is that the model calculates the soil evaporation and plant evapotranspiration separately. Figure 2.2 shows the diagram of the model (Mu et al. 2013).



**Figure 2.2** Flow chart of the MODIS (Mu et al. 2013)

Kite and Droogers (2000), has completed an evapotranspiration study in Izmir and Manisa, Turkey. Western region of Turkey can be considered as semi-arid climate, and results are comparable with Northern Cyprus in this sense. Basically, purpose was the estimating evapotranspiration by using crop coefficients. They have used FAO-24 methods which includes Blaney-Criddle, Hargreaves, radiation based, and pan evaporation methods. The study has been completed in 1998 summer, and results from two measurements (June and August) obtained. Averagely, FAO-24 methods estimated 5.1 mm/day and 5.5 mm/day potential evapotranspiration in June and August respectively. Substantially, 150 mm evapotranspiration can be expected in these months including July.

In another study, Mutiga et al. (2010) completed actual ET measurement with satellite remote sensing in upper Ewaso Ng'iro North basin, Kenya. Depending on the area's characteristics, they have found daily actual ET in the range of 2.5 mm/day to 7.5 mm/day. Since Kenya is considered as an arid region, and study has completed in summer, obtained 5.5 mm/day average value is quite reasonable.

Goyal (2004) has used Penman-Monteith method which is the most common and comprehensive one in the literature. Distinctly from other studies, parameters were waived in this study. From -20% to +20%, they have waived their data in order to have a ET range instead of one certain value at the end. Eventually, they have found that, estimated ET value is directly proportional with wind speed, temperature, and vapor pressure parameters.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1. Introduction**

The aforementioned objectives in Section 1.4 will be achieved under this chapter with the available methods, models, and data sets. In consequence of semi-arid climate conditions, North Cyprus has a quite sensitive case from water resources management aspect. This chapter explains the methods for data mining and evapotranspiration estimation. Those methods were selected exclusively based on some factors such as climatic conditions, data length, and available parameters.

#### **3.2. Statistical Analysis of Temperature Data and the Quality Control Stage**

Meteorological Office of North Cyprus provided daily average temperature and daily total precipitation data; however, raw data should be examined by using some statistical methods before any further analysis. As it was mentioned in Section 1.2.3, unexpected values controlled at the beginning, moreover, detailed data mining was done under this chapter. Quality control of the precipitation data sets were already completed in Zaifoglu et al. (2017); therefore, similar stages was followed in this study for temperature data set.

##### **3.2.1. Distribution Fittings of Data Sets**

Controlling the distribution fitting is a significant step while analyzing the data to understand if it is suitable for future studies such as trend analysis and evapotranspiration estimation. According to the literature, hypothesis test is required before implementing outlier tests. Depending on the results of normality tests, the method selection is changing to determine outliers in the data.

Six different methods were used at this step to see the distribution fitting with 5% significance level to be on the safe side; Shapiro-Wilk, Anderson-Darling, Lilliefors, Jarque-Bera, Kolmogorov-Smirnov Test, and Chi-square. Chi-square test was

implemented on MATLAB, and other five test completed by using XLSTAT which is an Excel extension. Result of the tests can be found in Chapter 4.

### 3.2.2. Outlier Tests

Normality test results have critical significance to determine outliers, and outliers should be specified for homogeneity analysis (Peterson et al, 1998). According to the literature, basic standard deviation methods are not accurate enough on climatic data. One of the most suggested methods in the literature is **interquartile range test (IQR)** which is basically finding maximum and minimum threshold values for every data sets. Values above the maximum threshold, and values below the minimum threshold defined as outlier according to the method. Method hinges on the difference between maximum (3<sup>rd</sup>) quartile and minimum (1<sup>st</sup>) quartile, called interquartile range, and after that, this difference will act like a standard deviation to find outliers such as;

$$IQR = Q_3 - Q_1 \quad (3.1)$$

$$P_{out} = Q_3 + 1.5 IQR \quad (3.2)$$

$$P_{out} = Q_1 - 1.5 IQR \quad (3.3)$$

where;

$Q_3$ : third quartile (data point on 75<sup>th</sup> percentile of the data set

$Q_1$ : first quartile (data point on 25<sup>th</sup> percentile of the data set

$P_{out}$ : maximum and minimum thresholds (critical values)

IQR method is suggested when data is not-normally distributed, otherwise, results may not be accurate.

Applies **Grubbs' test** for outliers, which removes one outlier per iteration based on hypothesis testing. This method assumes that the data set is normally distributed. This test

was implemented in MATLAB for the ones which do not reject null hypothesis. The method uses mean and standard deviation.

$$T_{min} = \frac{x_{mean} - x_i}{s} \quad (3.4)$$

$$T_{max} = \frac{x_n - x_{mean}}{s} \quad (3.5)$$

where

$X_i$  = suspected minimum outlier

$X_n$  = suspected maximum outlier

$X_{mean}$  = average of the data set

$S$  = standard deviation

$T_{min}$  = minimum critical value

$T_{max}$  = maximum critical value

After checking both points,  $T_{min}$  and  $T_{max}$  should be compared with critical value list. If these points are not in the confidence level, then they are defined as outliers, moreover, second maximum and second minimum values should be checked.

### 3.2.3. Homogeneity Analysis

Homogeneity analysis aims to find change-points in data sets. After changing the outliers with thresholds, data sets were ready to homogeneity analysis. Basically, it specifies when there is a significant change at some point. This significance depends on the mean, confidence level, number of observations, and standard deviation (Lanzante and Klein, 2002). Standard Normal Homogeneity Test (SNHT) was employed to control change-points and reveal whether they are significant. Khaliq and Ouarda (2007) emphasized accuracy of this method on climatological data, and revealed critical values based on observation numbers. The equation is given as follows:

$$T = \max \{az_1^2 + (n - a)z_2^2\} \quad 1 \leq a \leq n - 1 \quad (3.6)$$

where  $z_1$  and  $z_2$  represent averages before and after change-point,  $T$  is the maximum critical value,  $n$  is number of observations, and  $a$  represents a possible change-point in the data sets (first and last points cannot be a change-point). Logic behind this equation is that every data point is considered as a possible change-point. When the maximum  $T$  comes out, it should be compared with the critical value. Critical values are given in Khalil and Ouarda (2007), and represented in Figure 3.1.

**Table 3.1** Critical values of SHNT

Sample Size	Critical Level (%)				
	90	92	94	95	97.5
10	4.96	5.20	5.47	5.64	6.19
12	5.29	5.55	5.88	6.07	6.73
14	5.54	5.83	6.19	6.40	7.15
16	5.75	6.06	6.44	6.67	7.49
18	5.92	6.25	6.65	6.90	7.77
20	6.07	6.41	6.83	7.09	8.01
22	6.20	6.55	6.99	7.26	8.22
24	6.31	6.67	7.12	7.40	8.40
26	6.42	6.78	7.25	7.53	8.56
28	6.51	6.88	7.35	7.64	8.70
30	6.59	6.97	7.45	7.75	8.82
32	6.67	7.06	7.54	7.84	8.94
34	6.74	7.13	7.63	7.93	9.05
36	6.80	7.20	7.70	8.00	9.14
38	6.86	7.26	7.77	8.08	9.23
40	6.92	7.32	7.83	8.15	9.31
42	6.97	7.38	7.89	8.21	9.39
44	7.02	7.43	7.95	8.27	9.46
46	7.07	7.48	8.00	8.33	9.53
48	7.11	7.53	8.05	8.38	9.59
50	7.15	7.57	8.10	8.43	9.65

When daily temperature data sets were converted to monthly data sets, there were 37 months to control homogeneity for every station (i.e. 37 september, 37 october, etc.). Therefore, interpolation (sample size = 37) was implemented to find the critical value in the 95% confidence level.

### **3.3. Evapotranspiration Estimation**

Depending on the climatic conditions, evapotranspiration can cause significant amount of water loss throughout the year. Evapotranspiration is a factor which effects reservoirs, crop types, and efficiency. Besides the theoretical methods and simulation models, there are applied ways to measure evapotranspiration such as lysimeters. However, these are expensive methods, moreover, not practical for large scale measurements. They are mostly useful while measuring crop and specific vegetation related losses (Kashyap and Panda, 2001).

#### **3.3.1. Hamon Method**

Hamon (1960) developed a temperature based equation by using limited parameters. Method is calibrated for monthly and daily calculations. Hamon does not have any climatic or vegetation limitation. Despite the disadvantages on reliability due to parameter limitation, it is advantageous on implementation ease. Following equation gives the monthly estimation as:

$$PET = (13.97d)D^2W_t \quad (3.7)$$

where

*PET*: potential evapotranspiration (mm/month)

*d*: the number of days in a month

*D*: the mean monthly hours of daylight in units of 12 hours (such as 15/12=1.25)

*W<sub>t</sub>*: saturated vapor density (g/m<sup>3</sup>)

Saturated vapor density,  $W_t$ , can be obtained as:

$$W_t = (4.95e^{0.62T})/100 \quad (3.8)$$

where  $T$  is the mean monthly temperature ( $^{\circ}\text{C}$ ).

In Equation 12,  $D$  is an important parameter and it is based on the location's latitude.  $D$  values for the location of North Cyprus are given in Table 3.1 according to the Smithsonian Meteorological Outcomes.

**Table 3.2** Duration of sunlight in units of 12 hours according to the Smithsonian Tables

<b>Latitude = 35.095192</b>	
<b>Month</b>	<b>D</b>
January	0.83
February	0.91
March	1.00
April	1.09
May	1.17
June	1.21
July	1.19
August	1.12
September	1.03
October	0.95
November	0.86
December	0.82

### 3.3.2. Thornthwaite Method

Thornthwaite is a temperature based method one of the oldest ways to estimate PET in the literature, which is developed in 1948. Due to being in the literature for a long time, it was used frequently for hydrologic models and water balance methods such as Palmer Drought Analysis. This method has climatic limitations contrary to Hamon equation which is given in the previous section. Even though it was developed for humid regions it is suitable to use due to implementation ease and field appropriateness. Moreover, it will be beneficial in order to see difference on results with other methods. The equation is given as follows:

$$PET_0 = 16 \left( \frac{10T_i}{I} \right)^a \left( \frac{N}{12} \right) \left( \frac{1}{30} \right) \quad (3.9)$$

$$I = \sum_{i=1}^{12} \left( \frac{T_i}{5} \right)^{1.514} \quad (3.10)$$

$$\alpha = (492390 + 17820I - 771I^2 + 0.675I^3)x10^{-6} \quad (3.11)$$

where

$T_i$ : monthly temperature ( $^{\circ}\text{C}$ )

$N$ : mean monthly sunshine hour

$I$ : annual heat index (every year has one index)

### 3.3.3. Solar Radiation Based Method

Irmak et al. (2003) has used Food and Agriculture Organization Penman-Monteith (FAO56-PM) method as an index to derive radiation based equation. Basically, this equation estimates daily potential evapotranspiration as a grass reference method. The equation is given as follows:

$$PET = -0.611 + 0.149R_{sn} + 0.079T \quad (3.12)$$

where  $PET$  is potential evapotranspiration (mm/day), and  $R_{sn}$  is net incoming solar radiation (MJ/m<sup>2</sup>day).

At this point,  $R_{sn}$  is the main factor that effects the PET estimation. This factor is totally depending on vegetation type of the region due to plant absorption.

$$R_{sn} = (1 - a)R_s \quad (3.13)$$

where  $R_s$  is incoming radiation (MJ/m<sup>2</sup>day), and  $a$  is the albedo grass reference.

### 3.3.4. Hargreaves Method

Hargreaves developed a method in 1975 based on short wave radiation. In 1980s, his method is derived couple of times. At first, daily mean temperature is used in the equation:

$$PET = 0.0135(T + 17.8)\left(\frac{R_s}{\lambda}\right) \quad (3.14)$$

where  $PET$  is potential evapotranspiration (mm/day),  $T$  is the daily mean temperature (°C),  $R_s$  is the incoming short wave radiation (MJ/m<sup>2</sup>day), and  $\lambda$  is the latent heat of vaporization (MJ/kg).

Harrison (1963) gives the latent heat vaporization as follows:

$$\lambda = 2.501 - (2.361 * 10^{-3})T \quad (3.15)$$

After derivations, Hargreaves and Samani (1985) gave a radiation based equation and this time they have used daily temperature difference ( $T_{max} - T_{min}$ ). Due to inadequacy of daily maximum and minimum temperature data, Hargreaves (1975) equation is used. Results of this method is given in Chapter 4, and Appendix A as monthly outcomes.

### **3.3.5. Blaney-Criddle Method**

In 1959, Blaney-Criddle method was developed and suggested to employ on arid and semi-arid regions. The major advantage of this method is that it considers vegetation type and density in order to give reliable results. Equation is given as follows (Usul, 2015):

$$PET = 25.4kf \quad (3.16)$$

where  $PET$  is the potential evapotranspiration in mm/month,  $k$  is the monthly coefficient of crop (depending on vegetation type) varies from 0.5 for orange tree to 1.2 for dense vegetation, and  $f$  is the climatic factor which is given as

$$f = \frac{1.8T + 32}{100} p \quad (3.17)$$

where  $T$  is the mean monthly temperature,  $p$  is the monthly sunshine hours as a percentage of annual amount.

In Xu and Singth (2002),  $k$  value was taken as 0.45 and 0.85 for non-growing season (October to March), and growing season (April to September) respectively based on Blaney-Criddle recommendation in the case study of Switzerland. The same values for the same periods were taken in this study.

### **3.4. Evapotranspiration Mapping by Using Geographical Information Systems**

The representation of PET with spatial analysis in GIS is mostly willing to provide better conclusions in order to understand the situation using results in tables. In this study, results are entered station by station into the GIS, and seasonal and annual maps are developed. Basically, border of North Cyprus is defined, stations located, and results were uploaded in GIS, moreover, inverse distance weighting (IDW) interpolation technique is implemented for spatial distribution.

Elevation factor is ignored in this study due to uncertainty of stations altitude. However, elevation should be considered while the interpolation implementation. Vicente-Serrano

(2007) emphasized and analyzed elevation factor for ET mapping in GIS based on Hargreaves method in Europe, the Ebro Valley.

### 3.5. Mann-Kendall Trend Test

As the last step of computations, Mann-Kendall trend test will be employed in order to see if there are any significant changes in the time-series. Zaifoğlu et al. (2017) has revealed that there is no significant change observed for daily precipitation data. If there is any increasing trend for PET, this will mean that North Cyprus will be getting more and more dry every year.

Basically, Mann-Kendall is the most commonly employed test for trend specification in the literature especially for the climatic data sets. The equation is given as follows:

$$S = \sum_{k=1}^{n-1} \sum_{j=k+1}^n sgn(x_j - x_i) \quad (3.18)$$

$$sgn(x_j - x_i) \begin{cases} 1, & x_i < x_j \\ 0, & x_i = x_j \\ -1, & x_i > x_j \end{cases} \quad (3.19)$$

where,  $S$  is the Mann-Kendall test statistic value,  $x_i$  and  $x_j$  are the consecutive data points, and  $sgn$  represents the sign of the change. While observing the trend in a time-series, change between data points should be specified with the positive or negative sign (can be also zero in case of steadiness). Variance of  $S$  should be calculated as the next step:

$$Var(S) = [n(n - 1)(2n + 5) \sum_{i=1}^m t_i(t_i - 1)(2t_i + 5)]/18 \quad (3.20)$$

where  $m$  represents number of groups, and  $t_i$  is the number of tied observations. As the last step, the significance should be specified because there are trends in most of the cases;

however, the important point is the revealing whether this trend is significant. Subsequently Z scores should be calculated:

$$Z = \begin{cases} (S - 1)/\sqrt{Var(S)} & S > 0 \\ 0 & S = 0 \\ (S + 1)/\sqrt{Var(S)} & S < 0 \end{cases} \quad (3.21)$$

In the Chapter 4, computations will be shared which includes statistical test results, evapotranspiration estimations, and method comparisons. Basically, next chapter will give the most remarkable results, moreover, detailed numerical results, and extra tables and figures will be displayed in appendixes.

## **CHAPTER 4**

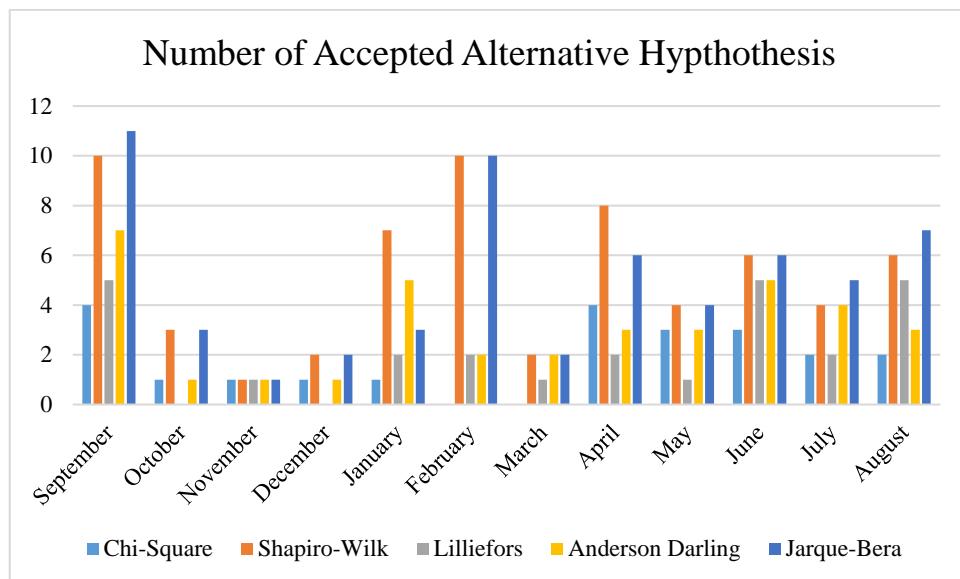
### **RESULTS AND DISCUSSION**

#### **4.1. Introduction**

In Chapter 3, implemented evapotranspiration methods were presented. Statistical test results are available in this chapter. With the monthly and daily data sets, evapotranspiration estimations are completed, and water balance of the island is revealed substantially.

#### **4.2. Statistical Test Results**

The very first step was the normality test before doing any further analysis. Next steps require to know whether the data set is normally distributed. In order to understand this, five different distribution tests were implemented: (1) Shapiro-Wilk, (2) Anderson-Darling, (3) Lilliefors, (4) Jarque-Bera, and (5) Chi-Square. In order to decide the distribution of a data set, majority of the results should be considered. If at least three methods accept null hypothesis, then the data set is considered as normally distributed. Otherwise, the data set considered as not-normally distributed. Figure 4.1. shows the failures month by month for each tests.



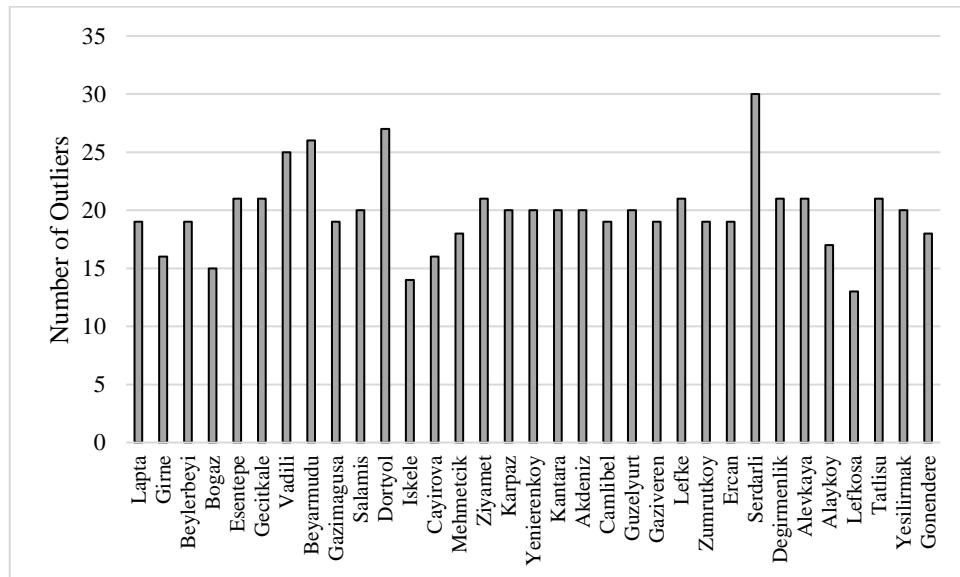
**Figure 4.1** Normality test failures method by method

**Table 4.1** Normality test results for all the stations

Name	September	October	November	December	January	February	March	April	May	June	July	August
Lapta	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL
Girne	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Beylerbeyi	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Bogaz	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL
Esentepe	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Gecitkale	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Vadili	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Beyarmudu	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Gazimagusa	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Salamis	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Dortyol	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Iskale	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL
Cayirova	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Mahmetcik	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Ziyemet	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Karpaz	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Yenierenkoy	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Kantara	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL
Akdemiz	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Camlibel	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT
Guzelyurt	NOT	NOT	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NOT	NOT	NOT	NOT	NOT
Gaziveren	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NOT	NOT	NORMAL
Lefke	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Zumrutkoy	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NOT	NOT	NOT	NORMAL
Ercan	NOT	NORMAL	NOT	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Serdarli	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Degirmenlik	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Alavkaya	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Alaykoy	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Lefkosa	NOT	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NOT	NORMAL	NOT	NOT	NOT	NOT
Tatliu	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Yesilirmak	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NOT	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Gonendere	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL

In Table 4.1, results of all the data sets are shared based on aforementioned normality tests. At this point, Güzelyurt, Zümrütkoy, and Lefkoşa seem like most problematic ones with their at least four not-normal distributed months. Moreover, when Güzelyurt region's sensitivity considered due to the largest groundwater resource in the island, this issue makes it harder to create water management scenarios.

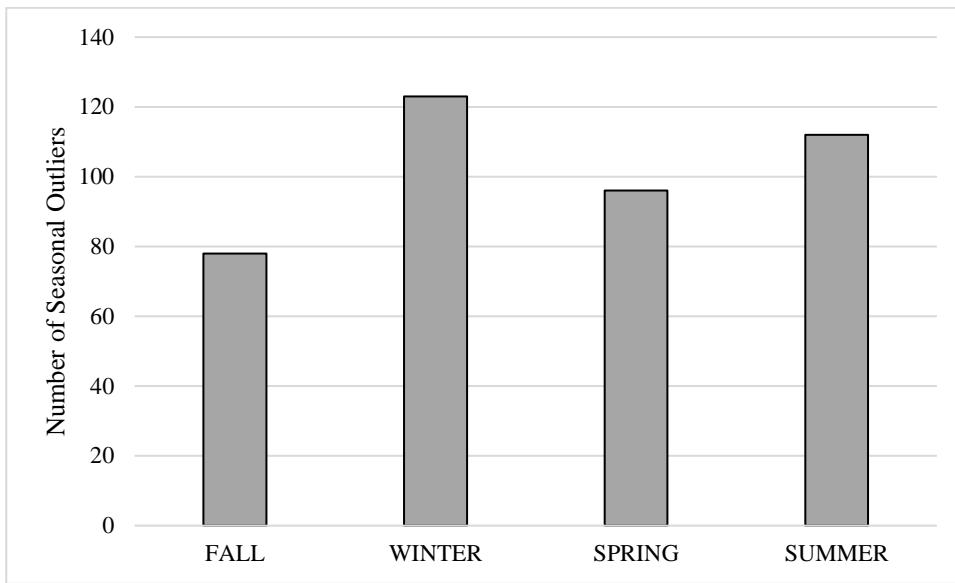
Outlier specification was the second step before homogeneity analysis. Two different methods were used; (1) Grubbs test for normally distributed months, and (2) IQR method for not-normally distributed months.



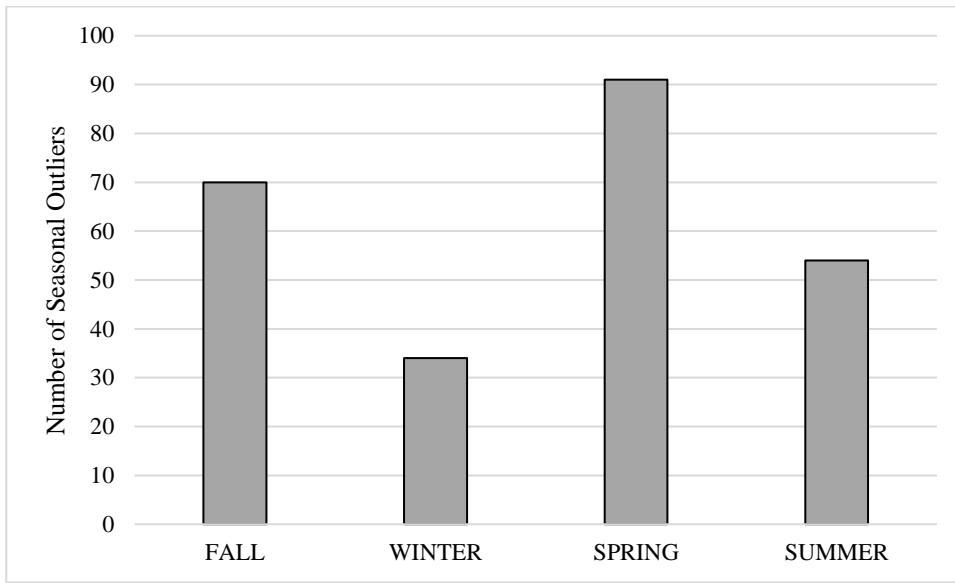
**Figure 4.2** Total outliers for all the stations

Every station has 12 months, thereby, 12 data sets to check. Sample size is 37 years (i.e. 37 Septembers, 37 Octobers, etc.); therefore, some data sets have more than one outlier, and some of them have none. The most interesting result in here is about Lefkosa station. As one of the most not-normally distributed sets, Lefkosa gives the least outliers in total (Figure 4.2.).

In order to see seasonal outliers, minimum and maximum outliers were separated and displayed in Figure 4.3 and Figure 4.4, respectively. Winter season shows quite consistent results in here. According to the minimum outliers, winter seasons experience low values more than normal. Also this season is quite weak to have high values compared to other seasons.



**Figure 4.3** Minimum outliers for each seasons



**Figure 4.4** Maximum outliers for each season

After outlier specification, all of them should be changed before the homogeneity analysis. According to the literature, there are three approaches; (1) outliers can be completely removed, (2) outliers can be changed with threshold values, (3) outliers can be change

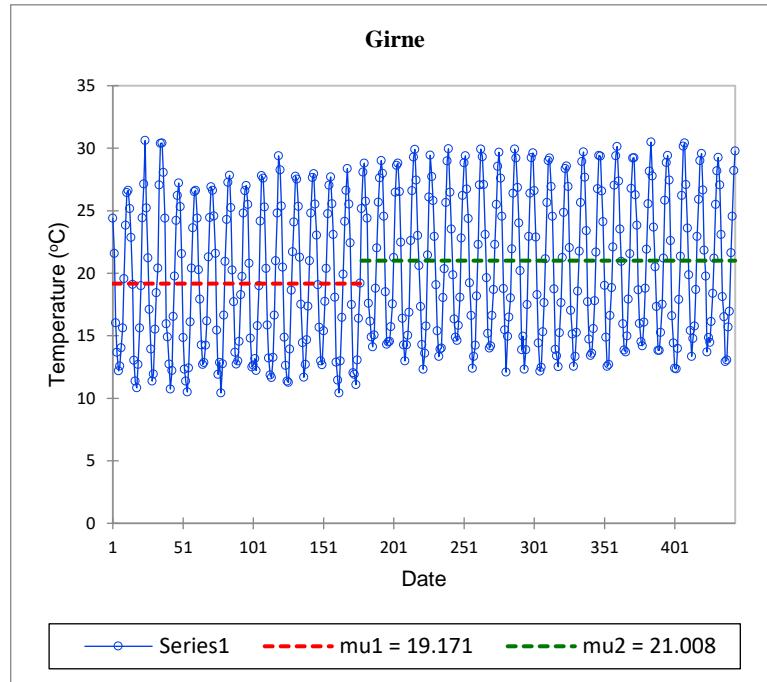
with minimum and maximum values. In this study, third approach was chosen. All the outliers were changed, and then SNHT was performed on all stations. There is an important issue at this point. While outlier specification, all the months were examined separately; however, homogeneity test can analysis fluctuated data sets. Therefore, complete time-series used as input for each stations.

**Table 4.2** Inhomogeneity case for all stations

Name	Inhomogeneity	p-value	Mean 1	Mean 2
Lapta	-	0.276	-	-
Girne	1993 April	0.037	19.17	21.01
Beylerbeyi	-	0.357	-	-
Bogaz	-	0.764	-	-
Esentepe	-	0.697	-	-
Gecitkale	-	0.611	-	-
Vadili	-	0.635	-	-
Beyarmudu	-	0.444	-	-
Gazimagusa	-	0.568	-	-
Salamis	-	0.584	-	-
Dortyol	-	0.504	-	-
Iskele	-	0.384	-	-
Cayirova	-	0.433	-	-
Mehmetcik	-	0.582	-	-
Ziyamet	-	0.335	-	-
Karpaz	-	0.734	-	-
Yenierenkoy	-	0.253	-	-
Kantara	-	0.714	-	-
Akdeniz	-	0.714	-	-

Camlibel	-	0.526	-	-
Guzelyurt	-	0.473	-	-
Gaziveren	-	0.486	-	-
Lefke	-	0.668	-	-
Zumrutkoy	-	0.496	-	-
Ercan	-	0.521	-	-
Serdarli	-	0.18	-	-
Degirmenlik	-	0.57	-	-
Alevkaya	-	0.594	-	-
Alaykoy	-	0.529	-	-
Lefkosa	-	0.558	-	-
Tatlisu	-	0.77	-	-
Yesilirmak	-	0.777	-	-
Gonendere	-	0.565	-	-

As seen from Table 4.2, only Girne station has inhomogeneity at April, 1993. Figure 4.5 shows the change point, and the mean difference. In Figure 4.5, “mu1” is the mean before change-point, and “mu2” is the mean after change-point.

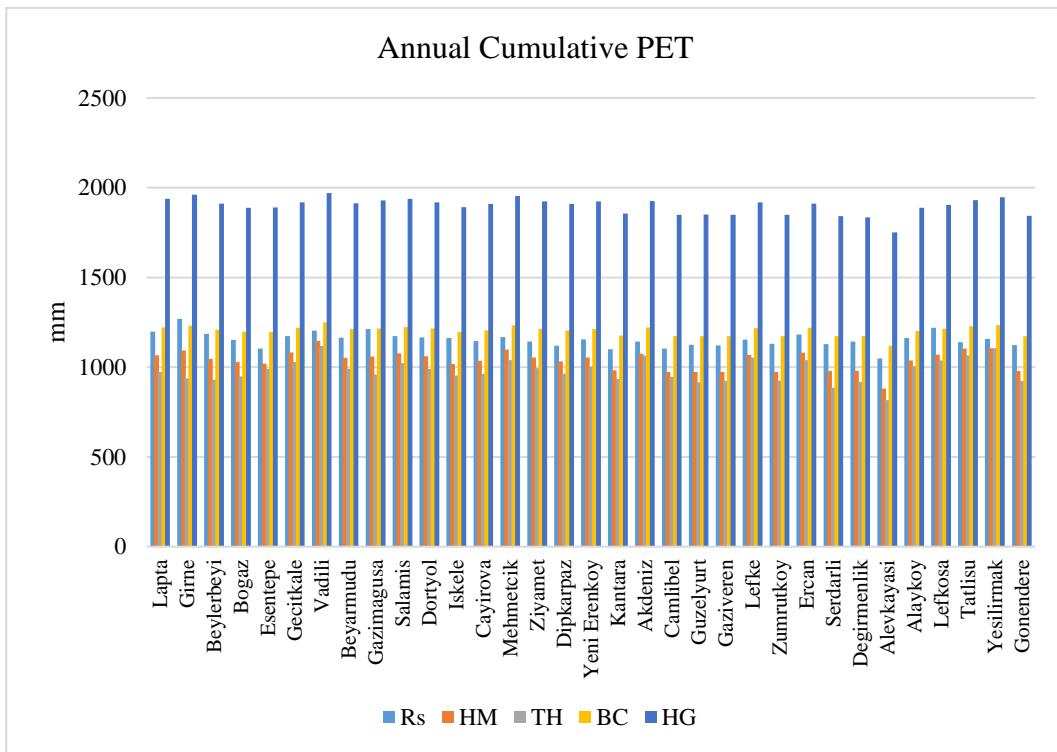


**Figure 4.5** Girne station homogeneity analysis

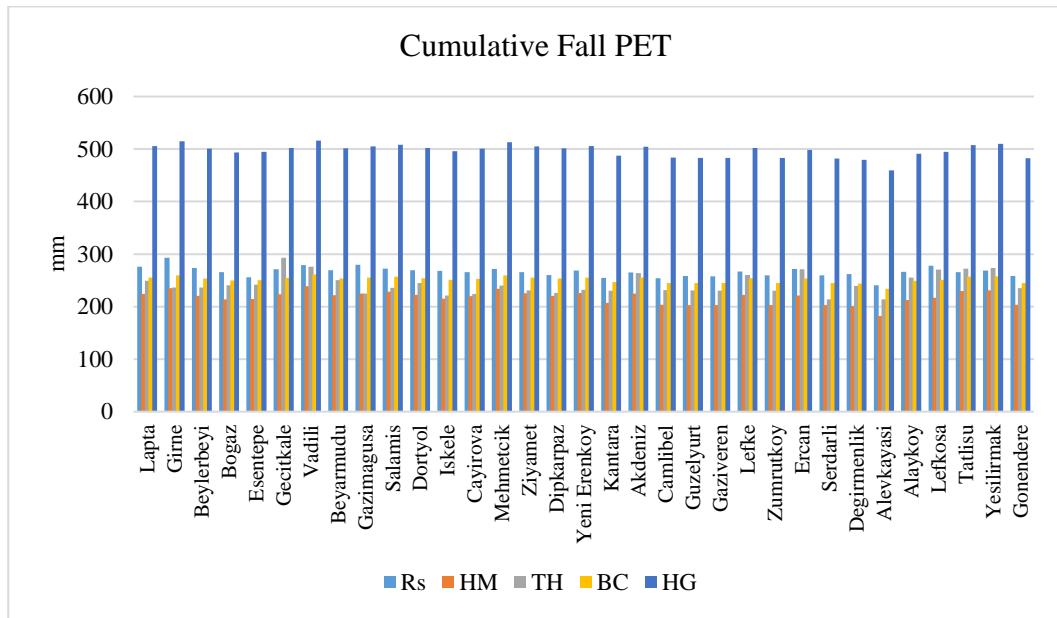
In the Figure 4.5, x-axes display the date. The very first point (1) is the September 1978, and the last point (444) is the August 2015. The homogeneity is observed at 177<sup>th</sup> point which is April 1993. After this month, Girne observation station started to measure higher air temperature. The reason behind it might be method change, climate change, calibration problem, or environmental change.

### 4.3. Evapotranspiration Estimations

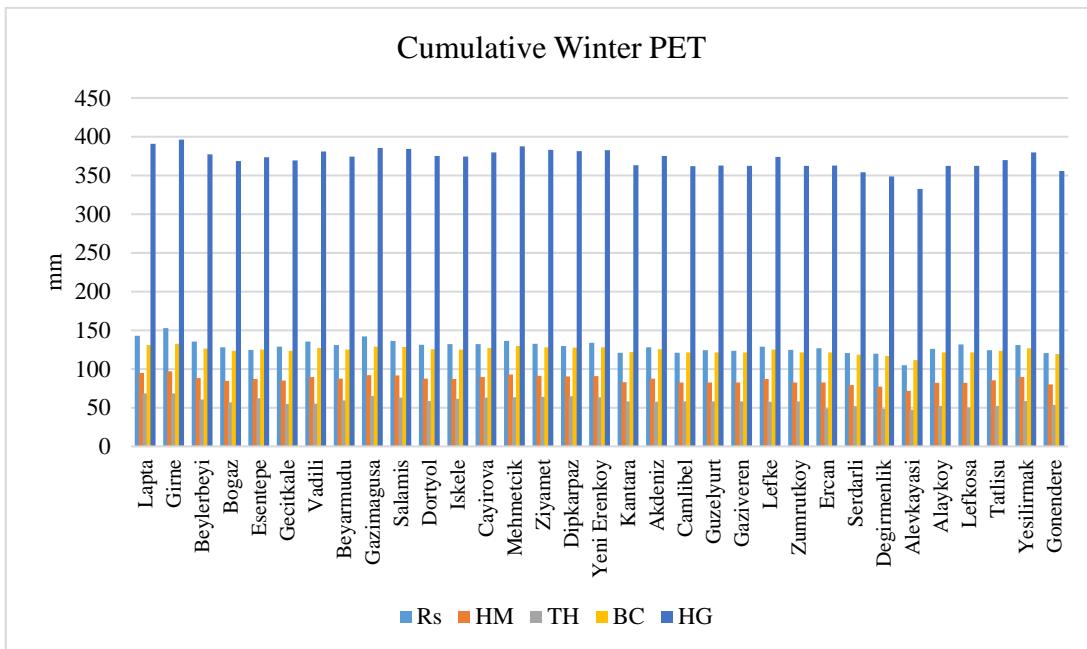
Thirty-three stations across North Cyprus was examined, and evapotranspiration estimations have completed for all the stations. Five different methods were performed during the computations; (1) Radiation-based method (Rs), (2) Hamon equation (HM), (3) Thornthwaite equation (TH), (4) Blaney-Criddle method (BC), and (5) Hargreaves equation (HG).



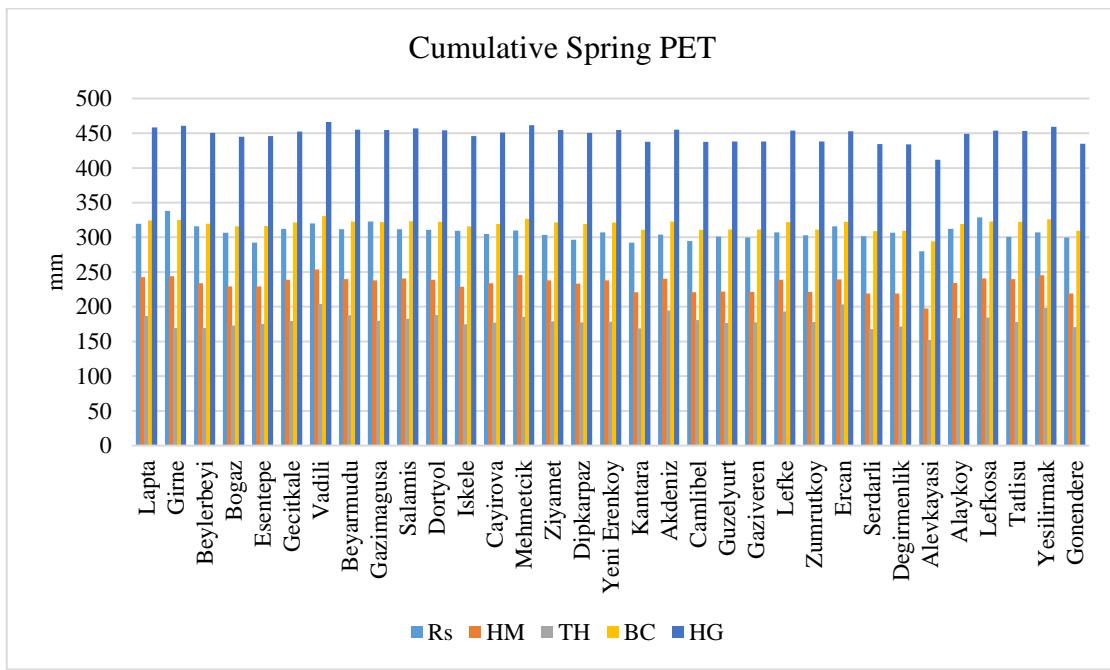
**Figure 4.6** Annual cumulative PET averages based on stations



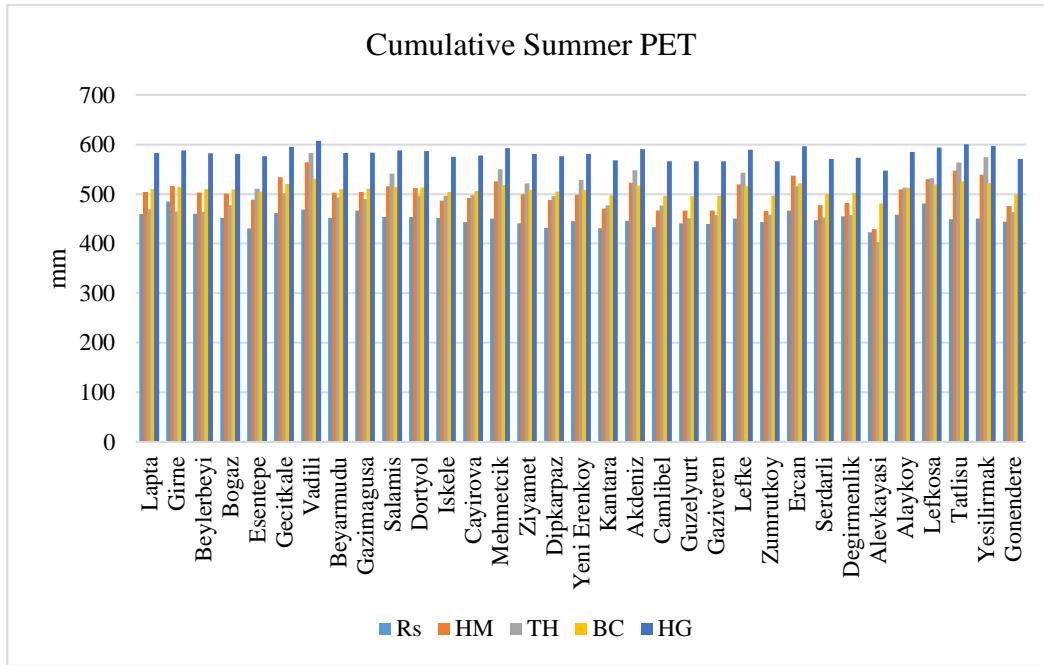
**Figure 4.7** Cumulative PET averages of Fall season



**Figure 4.8** Cumulative PET averages of Winter season



**Figure 4.9** Cumulative PET averages of Spring season



**Figure 4.10** Cumulative PET averages of Summer season

Figure 4.6 to 4.10 display the PET estimated amounts annually and seasonally. Results show differences based on varied parameters. The most remarkable outcome seems like the Hargreaves equation's overestimation compared to other methods. Since the temperature is high, Hargreaves estimations approach to the other method estimations. The reason behind it is the solar radiation. When the solar radiation is going to be included, vegetation factor must be considered too in the method. Vegetation is a factor that can change solar radiation's effect on ET calculations. For instance, Rs method uses albedo grass reference in the equation because the method is based on solar radiation. High vegetation decreases the effect of solar radiation, and prevents over estimated results. This is the basic reason of the overestimation of Hargreaves equation especially in low temperature.

Table 4.3 indicates the related parameters for the implemented methods in the scope of this thesis. Based on parameter utilization, radiation-based method seems as the most comprehensive one.

**Table 4.3** Utilized parameters in the implemented methods

Method	Parameter		
	Temperature	Radiation	Vegetation
Hamon (HM)	+	-	-
Thornthwaite (TH)	+	-	-
Hargreaves (HG)	+	+	-
Blaney-Criddle (BC)	+	-	+
Radiation-based (Rs)	+	+	+

As the next step, Pearson correlation coefficients were calculated to understand if there is any relation between some of the implemented methods. Significance level is taken as 0.5% as previous processes. Annual (Table 4.3) and seasonal (Table 4.4, 4.5, 4.6, and 4.7) coefficients were calculated separately. The reason behind is that they are not based on only temperature. In order to see the effect of other factors, seasonal coefficients are quite important.

**Table 4.4** Annual PET Correlation coefficients between all methods

Variables	RS	HM	TH	BC	HG
RS	1	0.742	0.436	0.754	0.749
HM	0.742	1	0.881	0.993	0.966
TH	0.436	0.881	1	0.854	0.794
BC	0.754	0.993	0.854	1	0.988
HG	0.749	0.966	0.794	0.988	1

**Table 4.5** Winter PET Correlation coefficients between all methods

Variables	RS	HM	TH	BC	HG
RS	1	0.917	0.737	0.915	0.916
HM	0.917	1	0.870	0.999	0.999
TH	0.737	0.870	1	0.866	0.857
BC	0.915	0.999	0.866	1	1.000
HG	0.916	0.999	0.857	1.000	1

**Table 4.6** Summer PET Correlation coefficients between all methods

<b>Variables</b>	<b>RS</b>	<b>HM</b>	<b>TH</b>	<b>BC</b>	<b>HG</b>
<b>RS</b>	1	0.673	0.285	0.678	0.677
<b>HM</b>	0.673	1	0.842	0.999	0.999
<b>TH</b>	0.285	0.842	1	0.843	0.844
<b>BC</b>	0.678	0.999	0.843	1	1.000
<b>HG</b>	0.677	0.999	0.844	1.000	1

**Table 4.7** Spring PET Correlation coefficients between all methods

<b>Variables</b>	<b>RS</b>	<b>HM</b>	<b>TH</b>	<b>BC</b>	<b>HG</b>
<b>RS</b>	1	0.710	0.399	0.712	0.706
<b>HM</b>	0.710	1	0.748	0.999	0.993
<b>TH</b>	0.399	0.748	1	0.745	0.710
<b>BC</b>	0.712	0.999	0.745	1	0.997
<b>HG</b>	0.706	0.993	0.710	0.997	1

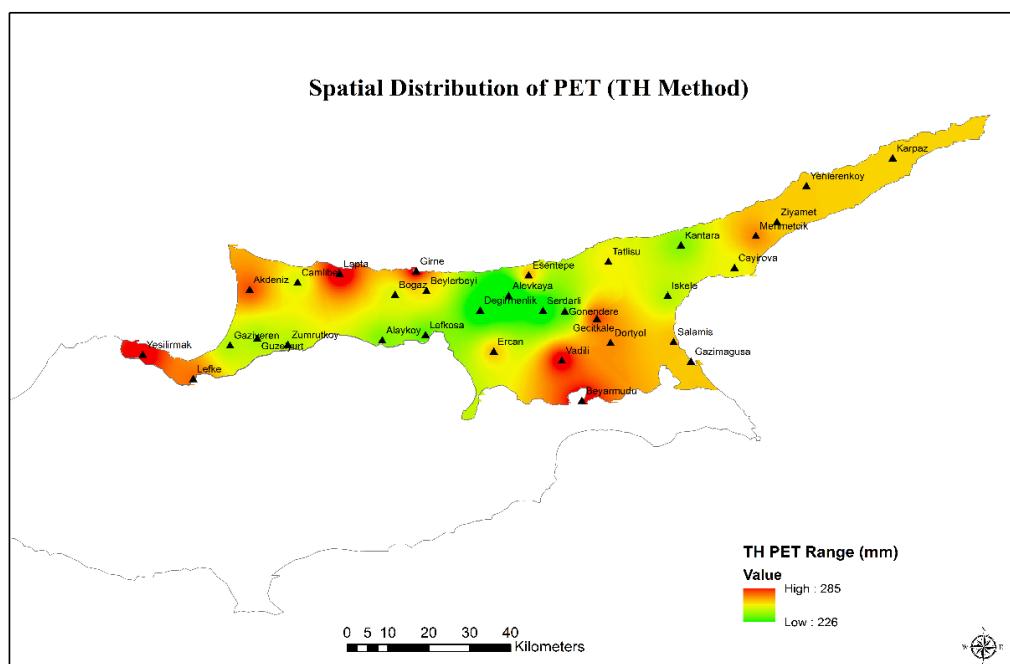
**Table 4.8** Fall PET Correlation coefficients between all methods

<b>Variables</b>	<b>RS</b>	<b>HM</b>	<b>TH</b>	<b>BC</b>	<b>HG</b>
<b>RS</b>	1	0.805	0.400	0.806	0.803
<b>HM</b>	0.805	1	0.513	0.999	0.996
<b>TH</b>	0.400	0.513	1	0.505	0.466
<b>BC</b>	0.806	0.999	0.505	1	0.998
<b>HG</b>	0.803	0.996	0.466	0.998	1

Depending on the season, methods display different correlation coefficients. The most interesting result came out from Rs and TH methods. Even though there is another temperature based method among them (HM) only TH represents lowest relation with radiation based method. In addition, weight of radiation factor can be understood from Summer season. In Summer, Rs method gives low coefficients with all other methods.

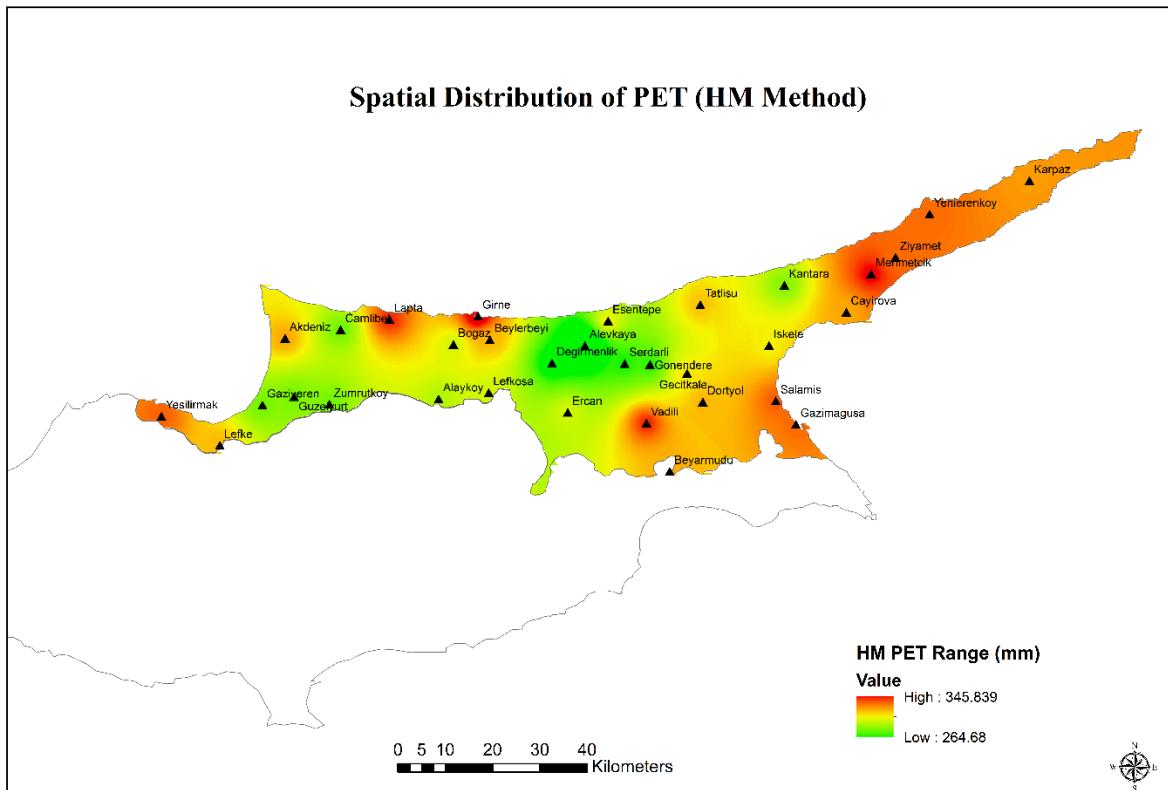
#### 4.4. Mapping of PET by Using GIS

Maps were developed based on stations. During the study, spatial analysis required interpolation between measurement points for a better representation. As it was mentioned before, the important period is the wet season (October to April) when it comes to evapotranspiration estimation in this climatic conditions. Therefore; five maps were developed for the wet season for each method.



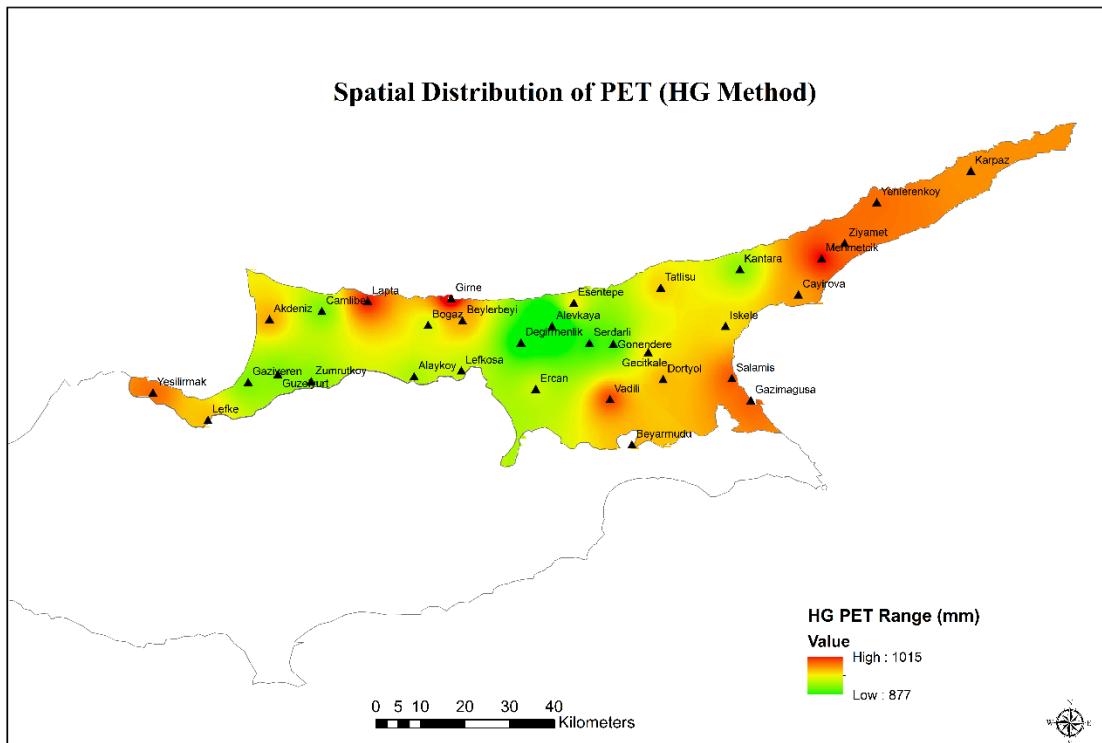
**Figure 4.11** Wet season's spatial distribution for Thornthwaite Method

Since it is a basic method, Thornthwaite's PET estimations are quite reasonable compared to other estimations. Nevertheless, method's limitations (works well in humid climates, and valleys) should not been forgotten when it comes to make a decision for the result.



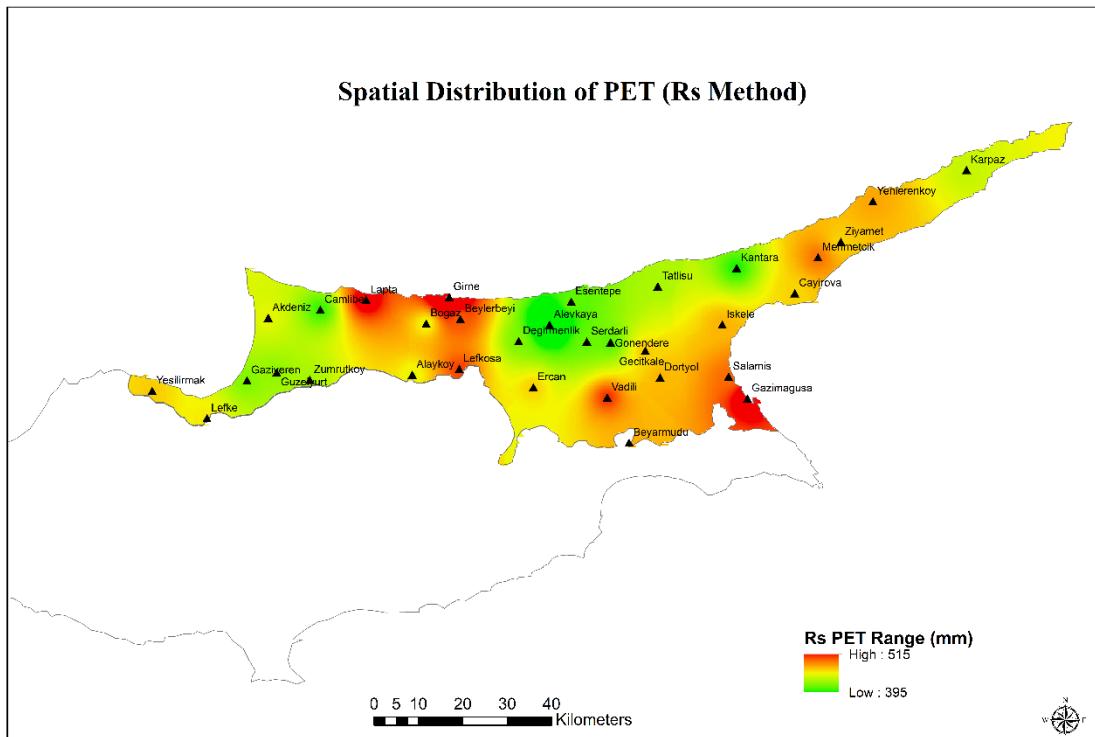
**Figure 4.12** Wet season's spatial distribution for Hamon Method

Thornthwaite (Figure 4.11), and Hamon (Figure 4.12) methods are the most basic ones due to parameter limitations among all implemented methods. As a result of that, their estimations are lower than other methods, nevertheless, they have mostly high correlation with other methods. Furthermore, Hamon equation does not have any climatic limitation and cannot be ignored in this study. Even if Thornthwaite works well in humid climates, its estimations are not very different than Hamon so that, it should be taken into consideration too.



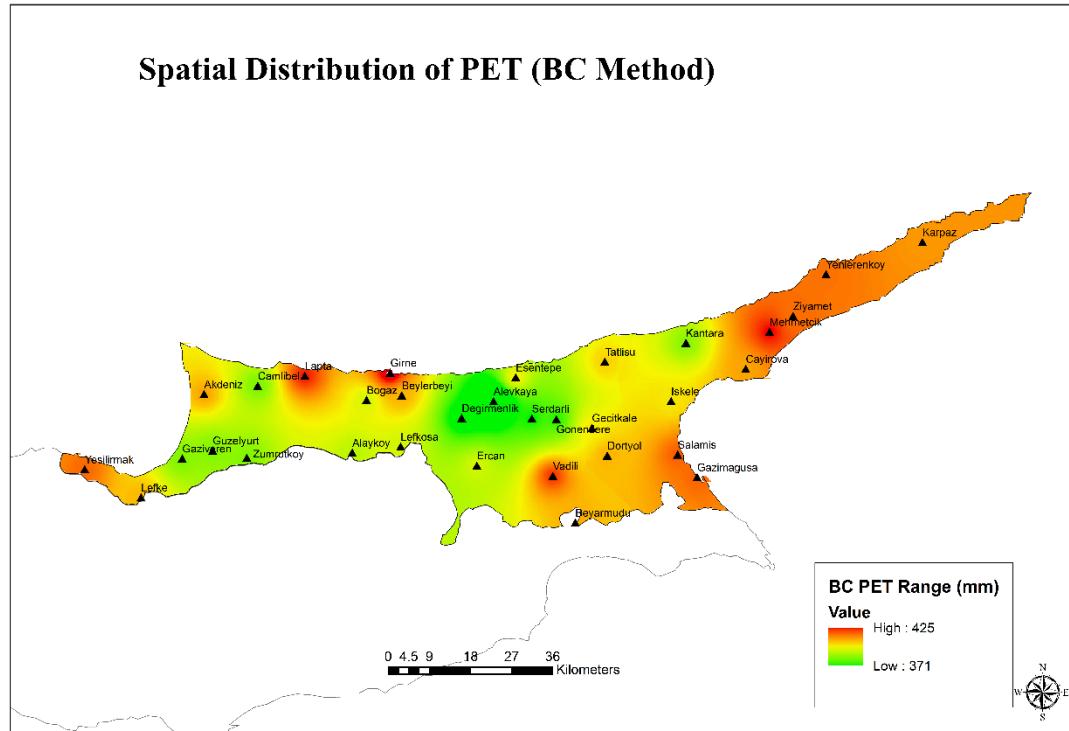
**Figure 4.13** Wet season's spatial distribution for Hargreaves Method

As it was mentioned before, Hargreaves (Figure 4.13) considers solar radiation but without vegetation cover. In this case, it gives quite high estimations, moreover, it even more overestimates PET on the north-east and west of the island which is densely covered by vegetation. With its averagely 950 mm estimated PET, precipitation cannot contribute island's water resources.



**Figure 4.14** Wet season's spatial distribution for radiation based method

Rs method considers vegetation like BC method; however, BC method's consideration is based on transpiration (Figure 4.15), Rs method's consideration is based on radiation (Figure 4.14). When vegetation is considered from radiation aspect, that can be said that high vegetation cover will prevent high evapotranspiration. In other words, evapotranspiration is less with vegetation cover compared to bare soil or asphalt due to coolant effect. In BC method, vegetation's absorption is considered and that cause more water loss.



**Figure 4.15** Wet season's spatial distribution for Blaney-Criddle Method

BC is the other method which considers vegetation cover. Despite that, it estimates quite high in vegetative regions (around Karpaz and Yesilirmak stations). The reason of it is the climatic factor and the weight of air temperature in the equation. In the Appendix B, annual PET maps can also be found from all five methods.

#### 4.5. Trend Analysis

Significant change specification in a data set is the first step while doing a water balance calculations and scenarios for a region. Firstly, it should be understood that whether there is a considerable increase or decrease in the time-series. Mann-Kendall trend test is commonly used for climatic data sets in the literature; therefore, rainy period is taken into consideration in this thesis. The reason behind this logic is that even if there is an

incremental trend in a dry season, it will only effect reservoirs but not storm events. Consequently, rainy period matters while comparing precipitation and PET relation.

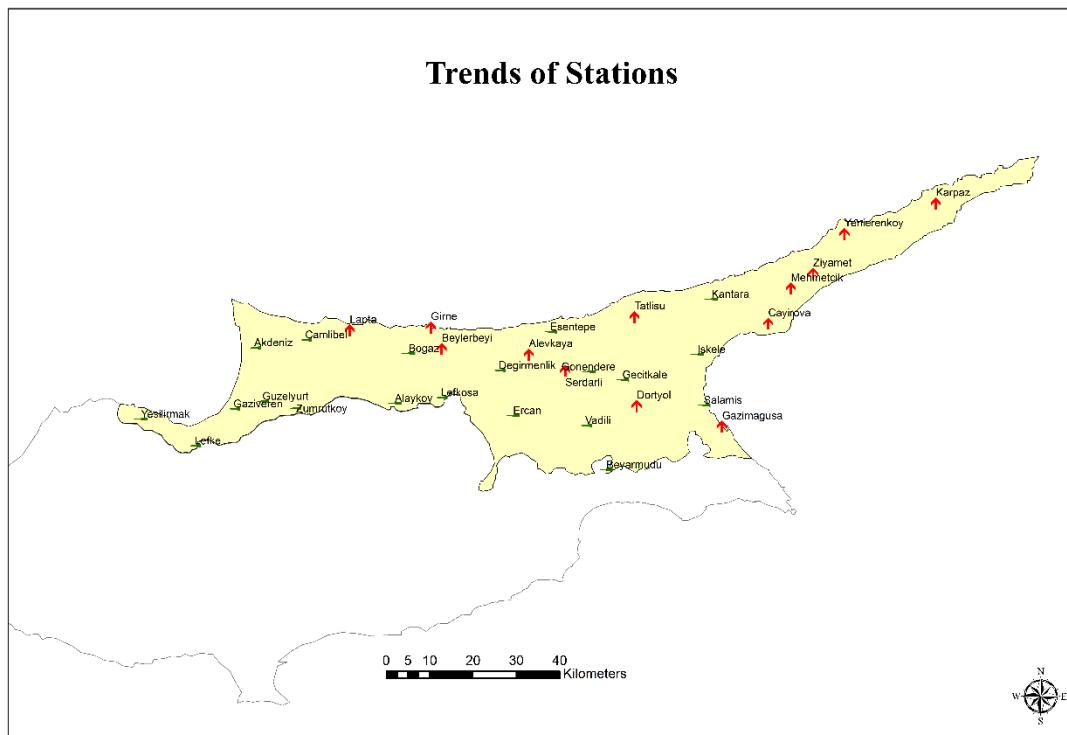
Based on five implemented methods, wet season (October to April) is taken into consideration, and trends were revealed by using Mann-Kendall trend test. Table 4.8 includes all the results station by station. Plus (+) sign means there is an incremental trend, and minus (-) sign means there is no trend.

**Table 4.9** Mann-Kendall trend test results

	HM	TH	BC	HG	Rs
Lapta	+	+	+	+	+
Girne	+	+	+	+	+
Beylerbeyi	+	-	+	+	+
Bogaz	-	-	-	-	-
Esentepe	-	-	-	-	-
Gecitkale	-	+	-	-	-
Vadili	-	-	-	-	-
Beyarmudu	-	-	-	-	-
Gazimagusa	+	-	+	+	+
Salamis	-	+	-	-	-
Dortyol	+	-	+	+	+
Iskele	-	+	-	-	-
Cayirova	+	+	+	+	+
Mehmetcik	+	-	+	+	+
Ziyamet	+	-	+	+	+
Dipkarpaz	+	-	+	+	+
Yeni Erenkoy	+	-	+	+	+
Kantara	-	-	-	-	-
Akdeniz	-	-	-	-	-
Camlibel	-	-	-	-	-
Guzelyurt	-	+	-	-	-
Gaziveren	-	-	-	-	-
Lefke	-	-	-	-	-
Zumrutkoy	-	-	-	-	-
Ercan	-	-	-	-	-
Serdarli	+	-	+	+	+

Degirmenlik	-	-	-	-	-
Alevkayasi	-	-	+	+	+
Alaykoy	-	-	-	-	-
Lefkosa	-	-	-	-	-
Tatlisu	-	-	+	+	+
Yesilirmak	-	-	-	-	-
Gonendere	-	-	-	-	-

The decision on station trends whether they have a trend was completed based on the majority. If a station has significant change from at least three PET estimation methods, then this station follows an increasing trend. Spatial representation of the trend analysis results can be found in Figure 4.11 in order to understand regionalism.



**Figure 4.16** Stations with positive trends on the North Cyprus map

Generally, it can be said that there is an increasing trend in PET estimations, especially in the north-east region of the island. Except these 13 stations with incremental trend, rest of the stations did not display any change in their time-series.

The Table 5.1 provides a chance to see differences of the situation in wet season. Precipitation row is given as range based on precipitation data which is provided by Meteorological Office of North Cyprus. Depending on year, precipitation can contribute to the water resources of Guzelyurt and North Cyprus. PET estimations are given as averages of all stations in Table 5.1 and 5.2. Except overestimation of Hargreaves, other methods display that precipitation is willing to recover Guzelyurt Aquifer in long term.

**Table 4.10** Guzelyurt station precipitation-PET comparison

Guzelyurt	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Precipitation (mm)	0-61	1-130	4-128	8-155	10-159	0-90	0-51
TH PET (mm)	73.5	38.3	22.1	16.5	19.6	30.1	56.4
HM PET (mm)	65.6	37.6	27.5	25.9	29.3	46.1	68.9
Rs PET (mm)	85.4	55.5	40	39.3	44.8	76	97.5
BC PET (mm)	61.5	47.4	41.6	40.2	39.8	51.6	115.8
HG PET (mm)	166.2	140.5	129.8	121.8	111	131.1	142.2

**Table 4.11** North Cyprus precipitation-PET comparison

North Cyprus	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Precipitation (mm)	0-95	1-159	5-238	9-225	7-166	1-115	0-70
TH PET (mm)	76.6	40.3	22	16.8	19.5	30.7	58.1
HM PET (mm)	70.1	39.5	28.6	27.1	30.5	48.5	71.8
Rs PET (mm)	91.1	54.4	41.5	41.2	46.4	78.1	99.3
BC PET (mm)	63.2	48.5	42.4	41.2	40.6	53	118.2
HG PET (mm)	171	144	132.5	125.2	113.6	134.7	145.2

It can be seen that from Table 5.1 and 5.2, most efficient months for this island are November, December, January, February, and March. October and April is also willing to contribute to the water balance of the island; however, their contribution is not consistent.

In order to have a better result, comparison between precipitation averages and PET averages is calculated. In this case, Hargreaves method is precluded due to manipulation of overestimated values. Table 5.3 displays the wet months and average values. Based on this case, it can be said that, precipitations in November to February definitely contributes the water balance of North Cyprus. Even though the “Average” row shows the negative balance, PET should be considered month by month. For the “Balance” column, negative values were not written. The logic behind this is that the balance in this study is created between precipitation and PET; therefore, the budget cannot lose more water than it precipitates.

**Table 4.12** Comparison between average precipitation and average PET in wet months

Month	Average PET (mm/month)	Average P (mm/month)	Balance (mm/month)
October	75.25	24.29	0
November	45.67	49.63	3.96
December	33.62	78.65	45.03
January	31.57	70.17	38.6
February	34.25	63.44	29.19
March	52.57	39.38	0
April	86.85	20.58	0
Average	51.4	49.44	0

Based on this situation, December, January, and February months are the most contributed periods for the islands water-budget.

## CHAPTER 5

### CONCLUSION AND FUTURE WORK

#### **5.1. PET Conclusion**

Among all the PET methods, Hargreaves is the most disadvantageous one due to its over estimation for winter and fall seasons. The reason behind this over estimation is the solar radiation parameter. In North Cyprus, solar radiation is a quite important factor, and should be considered; however, elevation of the station is also important at this stage, moreover, solar radiation parameter works well when vegetation type is also considered. With elevation and vegetation consideration, this over estimation will change. Because of the same reason, they have derived this method, and added daily temperature difference into the formulation.

Trend analysis stage revealed that almost all seasons display an incremental trend. However, summer and spring seasons are mostly quite dry and without precipitation. Accordingly, Fall and Winter seasons' trends (wet season trends) become more critical. It has shown that, North Cyprus is willing to lose more and more water every year due to incremental PET. Since precipitation does not have any trend, negative balance will increase, furthermore, recovery of local water resources will be impossible in this case.

#### **5.2. Precipitation-PET Relation**

In order to provide a tool for future studies, the water balance of the North Cyprus should be revealed, moreover, Guzelyurt station must be examine distinctively due to the aquifer lying under it. For this balance, PET loss must be converted into a national level. In other words, the amount of water contribution from precipitation must be obtained, moreover, only positive balance situations must be taken into consideration (November, December, January, and February). In total, annual precipitations contributes 116.78 mm/year (0.11678 m/year) amount of water into the general water-budget of the island. If we

consider the land area of North Cyprus ( $3,354 \text{ km}^2$ ), then 391 million  $\text{m}^3$  water amount contributes the hydrologic cycle of the country.

### **5.3. Future Work Suggestions**

Despite the total evapotranspiration and precipitation comparison is given in this thesis, this analysis is completed with monthly estimations. Therefore, some critical factors are excluded such as initial saturation and storm duration. For a better analysis, precipitation-PET relation should be revealed in smaller time intervals (daily or even hourly). Other suggestion can be the computer models such as MODIS for PET estimation. MODIS is a spatial analysis tool, and works by using satellite data to calculate PET and ET. The most significant advantage of this model is that it can estimate PET and ET with very small time intervals; therefore, it is able to consider initial saturation and other time related factors.

In order to improve PET analysis, methods with different parameters can be used and compared with the method results which were computed in this thesis. The most and commonly used method is the Penman-Monteith should be definitely used for more reliable results. At this point, data collection has a critical role. Meteorological Office of Northern Cyprus have better to collect wind speed at 2m height, net radiation, and surface temperature.

The very next step after PET stage must be the analysis of another hydrologic cycle parameter. Infiltration estimation is the key for such semi-arid climates in order to sustain local water resources. As it was mentioned in the Introduction Chapter, groundwater resources have critical significance while providing potable water; therefore, infiltration and recharge stages must be known for more reliable water management scenarios.

As an extra suggestion, forecasting on PET will be very helpful in order to exact calculation of recovery time of Guzelyurt Aquifer and other groundwater resources in the island. Since the precipitation is known, it can be compared with PET, and water balance can be calculated for next couple of decades.

## REFERENCES

- Akan, A. O., Houghtalen R. J., (2003). Urban Hydrology, Hydraulics, and Stormwater Quality: Engineering Applications and Computer Modeling. Hoboken, NJ: John Wiley & Sons. Inc.
- Al-Azawi, S., (1985). Experimental evaluation of infiltration models. *Journal of Hydrology (New Zeland)*, 24(2): 77-88.
- Assoulin, S., (2012). Infiltration into soils: Conceptual approaches and solutions. *Water Resources Research*, 49: 1755-1772.
- Bakundukize, C., Camp, M. F. V., & Walraevens, K. (2011). Estimation of groundwater recharge in Bugesera region (Burundi) using moisture budget approach. *Geologica Belgica*, 14(1-2): 85-102.
- Cakal, S. (2016). Palmer Drought Analysis of North Cyprus. Master of Science Thesis, METU NCC.
- Cech, V. T. (2010). Principles of Water Resources (3rd ed.). New Jersey: John Wiley & Sons, Inc.
- Czyzyk, F., Swierkot, Z. (2017). Recharging Infiltration of Precipitation Water Through the Light Soil in the Absence of Surface Runoff. *Journal of Water and Land Development*. No. 32 p. 25-30. DOI: 10.1515/jwld-2017-0003.
- Devlet Su İşleri, Official Web Page. Available in ->  
<http://www.dsi.gov.tr/haberler/2015/10/20/asrinprojesidenizgecisikktc>. Last Access: 04.08.2019.
- Fanta, D. B., (2015). Conceptual Model for Güzelyurt Aquifer, North Cyprus. M.Sc Thesis, Environmental Engineering, Middle East Technical University.
- Farvolden, R. N., (1960). *Methods of Study of the Ground-water Budget in North America*, U.S. Department of Interior, Office of Water Resources Research.

- Gleick, P. H., (1993). Water in Crisis: A Guide to the World's Fresh Water Resources. New York: Oxford University Press.
- Gokturk, O. M., Bozkurt, D., Sen O.L., Karaca, M., (2007). Quality Control and Homogeneity of Turkish Precipitation Data. *Hydrological Processes*, 22: 3120-3218.
- Goyal, R. K., (2004). Sensitivity of Evapotranspiration to Global Warming: A Case Study of Arid Zone of Rajasthan (India). *Agricultural Water Management*, 69: 1-11.
- Gunyakti, A., Akintug, B. (1999). K.K.T.C. Su Sorunları ve Şehir Şebekelerindeki Su Kaçakları, II. Kentsel Altyapı Sempozyumu, Adana, Turkey.
- Hamon, W. R., (1960). Estimating Potential Evapotranspiration. *Massachusetts Institute of Technology*, Bachelor's Thesis.
- Hargreaves, G. H., (1975). Moisture availability and crop production. *American Society of Agricultural and Biological Engineers*.
- Hargreaves, G. H., and Samani Z. A., (1985). Reference Crop Evapotranspiration from Temperature. *Applied Engineering in Agriculture*, 1(2): 96-99.
- Harrison, L. P., (1963). Fundamentals concepts and definitions relating to humidity. *Humidity and Moisture* (3), N.Y.: Reinhold Publishing Co.
- Hayek, M. (2016). Analytical solution to transient Richards' equation with realistic water profiles for vertical infiltration and parameter estimation. *Water Resources Research*, 52: 4438-4457.
- Healy, R. W., (2010). Estimating Groundwater Recharge. New York, NY: Cambridge University Press. Pg: 6-7
- Irmak, S., Irmak, A., Allen, R.G., and Jones, J.W. (2003). Solar and Net Radiation-Based Equations to Estimate Reference Evapotranspiration in Humid Climates. *Journal of Irrigation and Drainage Engineering*, 129(5): 336-347.

Karamouz, M., Ahmadi, A., Akhbari, M., (2011). Groundwater Hydrology: Engineering, Planning, and Management. FL: CRC Press, FL, Pg: 33-35.

Kashyap, P. S., Panda, R. K., (2001). Evaluation of evapotranspiration estimation methods and development of crop-coefficients for potato crop in a sub-humid region. *Agricultural Water Management*, 50: 9-25.

Khaliq, M. N., Ouarda, T. B. M. J., (2007). Short Communication On the critical values of the standard normal homogeneity test (SNHT). *International Journal of Climatology*, 27: 681-687.

Kite, G., Droogers, P., (2000). Comparing Estimates of Actual Evapotranspiration from Satellites, Hydrologic Model, and Field Data: A Case Study from Western Turkey. International Water Management Institute.

Konikow, L. F., Kendy, E., (2005). Groundwater Depletion: A Global Problem. *Hydrogeology* 13:317-320.

Kresic, N. (2009). Groundwater Resources: Sustainability, Management, and Restoration. McGraw-Hill.

Lanzante, J. R., Klein, S. A., (2002). Temporal homogenization of monthly radiosonde temperature data. *Journal of Climate*, 16: 224-240.

Lu J., Sun, G., McNulty S. G., & Amatya, D. M. (2005). A Comparison of six potential evapotranspiration methods for regional use in the southeastern united states. *Journal of American Water Resources Association*, 41(3): 621-633.

Manning J. C. (1997). Applied Principles of Hydrology (3rd ed.) New Jersey: Prentice Hall.

Mao, L., Yuzhong, L., Hao, W., Zhou, X., Xu, C., & Lei, T. (2016). A New Method to Estimate Soil Water Infiltration Based on a Modified Green-Ampt Model. *Soil & Tillage Research*, 161(2016) 31-37.

Meteorology Department of Northern Cyprus, Official Web Page, Available in -> <http://kktcmeteor.org/meteorolojikbilgi/kibris-iklimi>. Last access: 04.08.2019.

Mishra S. K., Singh, V. P., (2002). Mathematical Models of Small Watershed Hydrology and Applications. Highlands Ranch, Colorado: water Resources Publications, LLC. (391-396)

Mishra, S. K., Singh, V. P., (2004). Validity and extension of the SCS-CN method for computing infiltration and rainfall-excess rates. *Hydrological Processes*, 18: 3323-3345.

Monteith, J. L., (1981). Evaporation and Surface Temperature. *Quarterly Journal of the Royal Meteorological Society*, 107:1-27.

Mu, Q., Zhao, M., Running, S. W., (2013). MODIS Global Terrestrial Evapotranspiration (ET) Product (NASA MOD16 A2/A3) Algorithm Theoretical Basis Document, Collection 5. The University of Montana.

Mutiga, J. K., Su, Z., Woldai, T., (2010). Using Satellite Remote Sensing to Assess Evapotranspiration: Case Study of the Upper Ewaso Ng'iro North Basin, Kenya. *International Journal of Applied Earth Observation and Geoinformatics*, 12S: S100-S108.

Pachepsky, Y., Timlin, D., Rawls, W. (2003). Generalized Richards' equation to simulate water transport in unsaturated soils. *Journal of Hydrology*, 272: 3-13.

Patra, K. C. (2008). Hydrology and Water Resources Engineering (2nd ed.). Oxford, UK: Alpha Science.

Payab, H. A., Türker, U., (2018) Analyzing Temporal-Spatial Characteristics of Drought Events in the Northern Part of Cyprus. *Development, and Sustainability*, 20(4): 1553-1574.

Peterson, T. C., Vose, R., Schmoyer, R., and Razuaev V., 1998. Global historical climatology network (GHCN) quality control of monthly temperature data. *International Journal of Climatology*, 18: 1169-1179.

Rawls, W. J., Brakensiek, D. L., Miller, N., (1983). Green-Ampt Infiltration Parameters from Soil Data. *Journal of Hydraulic Engineering*, 109(1): 62-70.

Rawls, W. J., David, G., Mullen, J., & Ward, T. (1996). Hydrology Handbook (2nd ed.). New York, NY: ASCE.

Schwartz, F. W., Zhang, H. (2003). Fundamentals of Groundwater. New York, NY: John Wiley & Sons, Inc.

Vicente-Serrano, S. M., Lanjeri, S., Lopez-Moreno, J. I. (2007). Comparison of different procedures to map reference evapotranspiration using geographical information systems and regression-based techniques. *International Journal of Climatology*, 27: 1103-1118.

Xu, C. Y., Singth, V. P., (2002). Cross comparison of empirical equations for calculating potential evapotranspiration with data from Switzerland. *Water Resources Management*, 16: 197-219.

Zaifoglu, H., Akıntuğ, B., Yanmaz, A. M., (2017). Quality Control, Homogeneity Analysis, and Trends of Extreme Precipitation Indices in Northern Cyprus. *Journal of Hydrologic Engineering*, 22(12): 05017024.

Zhao, L., Xia, J., Xu, C., Wang, Z., Sobkowiak, L., & Long, C. (2013). Evapotranspiration estimation methods in hydrological models. *Journal of Geographical Sciences*, 23(2): 359-369.

## **APPENDIX A**

### **NUMERICAL RESULTS OF PET METHODS**

In this appendix, results of PET methods are shared for all stations method by method. Monthly averages and annual total evapotranspiration amounts can be found starting from 1978-1979 water year till 2014-2015. Tables listed station by station alphabetically. All the tables have codes to understand which method is used. HM is giving Hamon results, TH gives Thornthwaite results, Rs is for radiation based method's results, BC is Blaney-Criddle, T means Turc, and H means Hargreaves.

**Table A.1** Akdeniz station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	102.4	73.7	39.2	31.8	29.9	35.7	52.5	75.8	112.2	168.6	188.9	157.7	1068.5
1979-1980	115.3	75.8	46.0	28.4	25.4	30.0	46.0	68.4	111.5	163.3	188.0	175.2	1073.5
1980-1981	106.2	74.0	43.6	30.2	27.2	30.6	52.3	74.3	101.8	168.6	192.1	168.6	1069.6
1981-1982	107.0	79.2	37.3	32.1	29.1	28.1	44.7	75.2	113.9	155.8	179.1	168.4	1049.9
1982-1983	118.5	75.9	36.9	27.8	24.1	28.1	45.7	72.0	119.4	149.8	186.0	160.8	1045.0
1983-1984	107.8	77.2	49.5	33.9	29.7	33.6	49.6	69.4	118.5	152.2	178.0	158.2	1057.7
1984-1985	106.8	71.1	37.6	26.4	28.8	27.4	47.4	74.1	128.8	162.8	200.2	178.3	1089.9
1985-1986	117.6	66.5	44.5	29.7	28.4	34.9	53.2	87.5	112.5	165.5	188.3	167.4	1096.0
1986-1987	123.1	71.7	35.7	28.2	29.6	34.5	41.5	69.4	110.0	162.9	203.4	175.5	1085.4
1987-1988	120.8	68.4	39.1	28.6	27.7	31.0	47.0	76.4	127.1	170.9	222.1	178.8	1137.9
1988-1989	122.6	70.7	35.0	27.9	23.1	29.0	50.6	88.3	127.5	155.4	200.6	169.9	1100.5
1989-1990	110.5	64.7	41.3	29.3	24.4	30.0	49.3	74.2	113.6	156.0	188.3	166.3	1048.0
1990-1991	107.8	72.9	42.9	29.8	26.6	30.0	52.4	76.0	107.1	157.3	176.1	159.9	1038.9
1991-1992	107.9	73.3	39.9	25.4	24.3	24.6	42.6	67.8	108.3	149.1	175.8	175.0	1014.0
1992-1993	104.3	71.4	39.7	23.3	25.5	28.1	45.5	68.7	101.8	162.8	185.0	157.1	1013.1
1993-1994	96.1	79.2	36.9	29.8	30.1	31.6	47.9	79.9	120.0	157.3	185.4	173.8	1068.2
1994-1995	120.6	78.3	37.5	26.1	28.2	31.9	50.8	70.5	116.6	177.0	196.8	170.4	1104.6
1995-1996	111.2	68.0	33.5	26.7	25.4	32.3	47.6	68.0	131.0	172.1	198.0	150.7	1064.6
1996-1997	111.0	64.9	42.5	31.2	29.0	28.9	45.1	65.9	122.3	170.0	208.6	159.8	1079.1
1997-1998	106.5	69.3	41.0	29.4	26.9	31.1	45.9	80.1	114.3	159.7	215.7	199.0	1118.9
1998-1999	120.2	80.6	46.7	31.5	29.5	32.7	50.8	76.1	134.8	182.0	208.5	180.1	1173.4
1999-2000	116.7	76.7	41.1	32.3	22.7	28.3	46.2	75.8	117.1	179.5	217.3	173.8	1127.6
2000-2001	115.4	68.8	41.4	28.6	28.6	31.9	58.5	78.3	126.0	163.9	197.0	175.2	1113.8
2001-2002	113.2	71.9	38.9	28.3	24.3	33.7	53.1	70.8	112.4	163.9	201.7	167.3	1079.6
2002-2003	107.1	73.0	43.6	26.4	30.1	28.4	43.7	71.9	140.7	177.4	216.0	189.5	1147.8
2003-2004	114.7	77.3	42.0	29.6	26.6	31.3	52.5	74.7	115.1	166.8	203.5	168.5	1102.5
2004-2005	114.0	80.3	40.9	27.4	28.6	29.6	51.9	78.5	120.8	161.8	200.9	174.8	1109.4
2005-2006	118.0	68.0	37.6	30.3	26.6	31.4	50.3	79.6	122.6	168.5	202.5	182.5	1117.8
2006-2007	126.0	76.0	38.3	27.4	22.3	26.8	40.6	55.3	102.9	135.7	159.1	142.1	952.6
2007-2008	89.5	63.3	35.3	24.0	25.7	29.0	59.2	77.9	110.9	158.1	187.4	166.9	1027.2
2008-2009	109.2	69.0	45.3	30.8	30.0	33.2	49.9	74.4	111.1	163.1	187.8	163.4	1067.2
2009-2010	105.5	77.2	41.0	31.3	28.8	33.0	54.4	77.4	115.9	150.1	173.3	176.8	1064.6
2010-2011	115.6	73.8	47.1	34.4	29.5	33.1	50.4	72.1	108.5	152.1	182.4	162.7	1061.7
2011-2012	112.8	67.7	35.7	29.2	27.5	29.6	47.0	73.7	110.4	156.8	196.4	171.0	1057.7
2012-2013	109.8	73.7	43.8	31.1	28.9	34.9	52.7	77.7	125.7	153.1	179.4	164.5	1075.4
2013-2014	108.1	65.5	45.2	27.4	31.7	34.9	54.9	77.0	111.1	151.8	174.7	164.4	1046.7
2014-2015	110.1	70.2	40.4	33.2	28.2	32.0	52.7	69.5	113.8	140.6	175.1	167.4	1033.2
AVERAGE	111.6	72.4	40.6	29.2	27.4	31.0	49.4	74.1	116.7	161.2	192.4	169.2	

**Table A.2** Akdeniz station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	118.0	83.1	38.0	26.8	20.5	28.0	35.2	62.4	93.0	180.5	190.2	154.6	1030.2
1979-1980	144.0	89.9	54.0	20.8	13.0	17.5	25.8	51.8	95.2	178.8	195.6	181.0	1067.3
1980-1981	127.3	85.7	48.3	24.2	16.0	18.4	35.7	61.5	80.5	185.0	199.0	171.5	1053.0
1981-1982	134.6	99.3	36.5	29.3	20.2	14.4	24.5	65.9	102.1	173.3	190.5	178.6	1069.1
1982-1983	162.5	97.8	37.2	21.3	11.7	15.1	27.5	63.2	115.8	172.4	210.0	177.3	1111.8
1983-1984	124.8	88.0	58.7	30.7	19.8	23.4	29.9	50.8	100.1	153.6	173.7	152.8	1006.2
1984-1985	130.5	81.8	36.1	17.0	19.2	12.8	28.2	62.1	120.6	179.1	212.6	185.7	1085.7
1985-1986	135.3	66.8	46.6	21.5	16.8	25.0	34.3	78.1	88.6	166.4	179.6	157.7	1016.7
1986-1987	156.4	82.1	31.7	20.3	20.5	26.4	18.8	53.4	92.9	177.7	214.7	180.8	1075.7
1987-1988	139.7	69.8	35.6	19.3	15.7	17.7	25.0	60.0	107.4	173.2	217.7	169.7	1050.9
1988-1989	153.2	79.0	29.7	19.4	9.0	15.3	32.5	85.3	115.9	163.4	207.8	171.5	1082.0
1989-1990	144.9	74.0	46.6	24.1	12.0	18.6	33.0	66.1	104.5	178.9	208.9	180.9	1092.5
1990-1991	136.9	88.0	49.3	24.5	15.7	18.2	37.6	67.9	92.5	176.9	187.7	168.9	1064.2
1991-1992	157.2	101.7	48.7	17.7	13.1	9.7	24.4	61.0	108.0	188.5	214.7	214.5	1159.2
1992-1993	149.3	97.2	47.9	13.2	15.5	16.5	29.6	62.4	96.5	213.0	228.0	187.9	1156.9
1993-1994	110.6	95.5	34.2	23.5	21.4	20.4	28.6	71.6	106.8	168.7	191.3	178.4	1051.1
1994-1995	145.6	90.1	33.9	15.5	17.2	20.2	31.9	52.7	97.9	190.0	197.4	167.4	1059.7
1995-1996	146.7	80.9	29.0	18.5	13.8	23.6	30.2	54.8	131.4	206.0	223.0	161.1	1119.0
1996-1997	137.5	70.3	46.7	26.6	19.6	15.5	24.4	47.8	111.3	190.2	223.1	163.2	1076.0
1997-1998	121.8	73.7	40.7	21.5	14.7	18.4	24.2	68.2	93.8	163.2	217.6	197.2	1054.8
1998-1999	122.0	79.4	44.7	21.9	16.5	18.2	26.9	52.0	103.2	165.0	178.0	151.2	979.0
1999-2000	136.2	85.2	40.4	26.8	8.0	13.2	24.3	60.1	96.2	188.8	216.5	167.4	1063.1
2000-2001	130.8	70.0	40.0	19.3	17.1	19.2	42.1	62.6	105.2	162.6	188.1	164.9	1021.9
2001-2002	140.1	82.6	38.4	20.6	11.1	24.9	37.2	55.9	96.4	179.4	212.8	171.1	1070.4
2002-2003	117.6	76.8	44.2	15.3	19.5	13.0	20.1	52.0	123.5	180.4	208.8	179.4	1050.6
2003-2004	133.6	86.6	42.4	21.7	14.1	18.5	33.9	58.5	93.8	171.6	201.3	162.0	1038.0
2004-2005	131.3	90.9	39.7	17.4	17.3	15.5	32.7	64.1	100.5	163.0	196.4	167.6	1036.3
2005-2006	138.3	70.4	33.3	23.0	14.1	18.7	30.5	66.4	103.7	173.7	199.6	177.1	1048.8
2006-2007	217.6	120.9	50.1	25.0	10.6	15.8	23.5	40.5	111.0	184.6	211.5	186.1	1197.2
2007-2008	114.9	76.9	35.5	14.2	15.5	18.0	54.8	79.3	108.6	197.8	224.5	195.9	1136.0
2008-2009	129.8	75.1	50.9	24.9	20.6	23.1	31.0	60.4	91.8	173.0	189.7	162.0	1032.3
2009-2010	123.0	89.3	41.6	25.8	18.4	22.5	38.1	65.2	98.2	152.9	170.5	176.9	1022.4
2010-2011	137.5	82.2	53.7	31.6	19.5	22.4	31.2	55.3	86.6	153.5	179.5	158.2	1011.1
2011-2012	148.1	79.4	33.7	23.7	17.6	17.6	28.9	64.7	99.2	179.1	218.7	185.9	1096.7
2012-2013	126.2	80.7	46.2	24.6	18.1	25.6	34.4	63.8	108.4	152.6	173.0	158.0	1011.7
2013-2014	131.3	70.7	52.0	18.7	24.5	27.3	40.2	66.6	94.2	160.4	177.7	167.4	1031.1
2014-2015	140.3	82.6	43.5	31.8	18.6	22.2	37.9	55.7	102.3	149.3	185.6	177.8	1047.4
AVERAGE	137.7	83.6	42.2	22.2	16.4	19.2	31.1	61.3	102.1	174.8	200.4	173.2	

**Table A.3** Akdeniz station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	178.7	174.9	144	140.5	132.7	124	140.9	149.4	168.6	187.6	201.9	198.6	1941.7
1979-1980	186.9	177	154.9	132.6	121.3	112.9	131.5	142.3	168.2	185.4	201.5	206.1	1920.6
1980-1981	181.2	175.2	151.2	136.9	125.9	114.2	140.6	148	161.8	187.7	203	203.4	1929.1
1981-1982	181.7	179.9	140.7	141.2	130.6	108.8	129.5	148.8	169.7	182.2	198.1	203.2	1914.5
1982-1983	188.7	177.1	139.8	131.1	117.5	108.7	131.1	145.8	173	179.5	200.7	199.9	1892.9
1983-1984	182.2	178.1	160	145.1	132.1	120.1	136.8	143.4	172.5	180.7	197.7	198.9	1947.4
1984-1985	181.6	172.5	141.2	127.4	130.1	107.2	133.7	147.8	178.3	185.3	205.9	207.3	1918.3
1985-1986	188.1	167.7	152.7	135.8	128.9	122.5	141.7	159	168.9	186.4	201.7	202.8	1956.2
1986-1987	191.2	173	137.7	132.1	131.8	121.7	124.3	143.3	167.3	185.3	207	206.1	1920.8
1987-1988	190	169.7	143.8	133	127.3	115	133.1	149.9	177.4	188.6	213.2	207.4	1948.5
1988-1989	191	172	136.2	131.2	114.4	110.8	138.2	159.7	177.7	182.1	206.1	203.8	1923.3
1989-1990	184	165.8	147.6	134.8	118.4	112.9	136.4	147.9	169.5	182.4	201.6	202.3	1903.6
1990-1991	182.2	174.2	150.2	135.9	124.4	112.9	140.7	149.5	165.3	182.9	196.9	199.6	1914.8
1991-1992	182.3	174.6	145.2	124.6	117.8	100.4	126.1	141.7	166.2	179.2	196.8	205.9	1860.9
1992-1993	180	172.7	144.8	118.7	121.4	108.6	130.7	142.6	161.8	185.3	200.4	198.3	1865.2
1993-1994	174.5	180	139.9	135.9	133.1	116.1	134.3	152.9	173.4	182.9	200.6	205.5	1929.3
1994-1995	189.8	179.3	140.9	126.5	128.5	116.7	138.4	144.4	171.3	191	204.7	204.1	1935.7
1995-1996	184.3	169.3	133.2	128.1	121.1	117.6	133.9	142	179.5	189	205.2	195.4	1898.7
1996-1997	184.2	166	149.5	139.1	130.5	110.5	130.1	139.8	174.7	188.2	208.8	199.5	1921.0
1997-1998	181.4	170.6	147	134.9	125.1	115.2	131.3	153.1	170	183.9	211.2	215	1938.9
1998-1999	189.6	181.3	156	139.9	131.6	118.3	138.5	149.6	181.5	192.8	208.8	208	1996.0
1999-2000	187.6	177.7	147.3	141.6	113.2	109.1	131.9	149.3	171.7	191.9	211.7	205.5	1938.4
2000-2001	186.9	170.1	147.7	133.1	129.5	116.8	148.4	151.6	176.8	185.7	204.8	206.1	1957.5
2001-2002	185.5	173.2	143.4	132.3	118	120.4	141.6	144.7	168.8	185.7	206.5	202.8	1922.9
2002-2003	181.8	174.3	151.3	127.5	133.1	109.3	128	145.7	184.5	191.1	211.3	211.5	1949.3
2003-2004	186.5	178.3	148.7	135.4	124.4	115.5	140.8	148.4	170.4	186.9	207.1	203.3	1945.7
2004-2005	186	181	146.8	130	129.4	112.1	139.9	151.7	173.8	184.8	206.2	205.8	1947.6
2005-2006	188.4	169.3	141.1	137	124.4	115.7	137.8	152.6	174.9	187.6	206.7	208.9	1944.5
2006-2007	192.8	177.1	142.5	130	112.1	105.8	122.8	127.8	162.5	172.9	189.7	191.3	1827.3
2007-2008	169.6	164.2	136.8	120.6	122	110.7	149.3	151.2	167.8	183.3	201.3	202.6	1879.4
2008-2009	183.1	170.3	153.8	138.3	132.8	119.4	137.2	148.1	167.9	185.4	201.5	201.1	1938.8
2009-2010	180.7	178.2	147	139.4	130	118.9	143.3	150.7	170.9	179.7	195.8	206.7	1941.4
2010-2011	187	175.1	156.5	146	131.7	119.1	137.9	145.9	166.3	180.6	199.4	200.8	1946.3
2011-2012	185.3	169	137.7	134.5	126.7	112	133	147.4	167.5	182.6	204.6	204.3	1904.6
2012-2013	183.5	175	151.6	138.9	130.2	122.5	141.1	151	176.7	181	198.2	201.6	1951.3
2013-2014	182.4	166.7	153.7	130	136.8	122.6	144	150.4	167.9	180.4	196.4	201.5	1932.8
2014-2015	183.6	171.5	146.1	143.6	128.5	117	141.1	143.4	169.7	175.3	196.5	202.8	1919.1
AVERAGE	184.4	173.6	146.2	134.2	126.1	114.7	136.2	147.6	171.2	184.4	203.0	203.5	

**Table A.4** Akdeniz station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	137.3	64.65	48.49	44.91	43.67	44.31	55.38	121.4	147.1	169.5	179.4	166.1	1222.2
1979-1980	143.5	65.41	52.16	42.4	39.89	40.38	51.72	115.8	146.7	167.5	179	172.3	1216.8
1980-1981	139.2	64.76	50.92	43.75	41.43	40.83	55.28	120.4	141.2	169.5	180.4	170	1217.6
1981-1982	139.6	66.52	47.36	45.13	42.98	38.89	50.88	121	148.1	164.6	176	169.9	1211.0
1982-1983	145	65.42	47.07	41.91	38.64	38.87	51.53	118.6	151	162.2	178.4	167.2	1205.7
1983-1984	140	65.87	53.86	46.39	43.49	42.93	53.77	116.6	150.5	163.2	175.6	166.2	1218.4
1984-1985	139.5	63.73	47.53	40.73	42.8	38.33	52.55	120.2	155.6	167.4	183	173.3	1224.7
1985-1986	144.6	62	51.41	43.4	42.42	43.79	55.71	129.4	147.3	168.4	179.2	169.6	1237.1
1986-1987	146.9	63.94	46.32	42.21	43.38	43.52	48.84	116.6	145.9	167.4	184	172.3	1221.4
1987-1988	146	62.73	48.42	42.51	41.89	41.14	52.31	121.9	154.8	170.3	189.5	173.4	1244.9
1988-1989	146.7	63.57	45.87	41.95	37.65	39.61	54.33	129.9	155	164.5	183.1	170.4	1232.7
1989-1990	141.3	61.29	49.68	43.11	38.96	40.36	53.61	120.3	147.9	164.7	179.2	169.2	1209.5
1990-1991	140	64.37	50.57	43.44	40.94	40.39	55.31	121.6	144.3	165.3	175	166.9	1208.0
1991-1992	140.1	64.52	48.9	39.84	38.78	35.87	49.56	115.3	144.9	161.9	174.9	172.2	1186.7
1992-1993	138.3	63.84	48.76	37.92	39.93	38.84	51.38	116	141.2	167.4	178	165.8	1187.3
1993-1994	134	66.54	47.12	43.46	43.82	41.52	52.81	124.4	151.3	165.3	178.2	171.8	1220.1
1994-1995	145.9	66.25	47.44	40.44	42.29	41.76	54.44	117.4	149.5	172.5	181.9	170.6	1230.4
1995-1996	141.6	62.58	44.84	40.94	39.86	42.07	52.63	115.4	156.6	170.8	182.3	163.4	1213.2
1996-1997	141.5	61.35	50.34	44.46	42.95	39.53	51.14	113.7	152.4	170	185.6	166.8	1219.8
1997-1998	139.4	63.06	49.5	43.14	41.17	41.17	51.64	124.5	148.3	166.2	187.7	179.8	1235.5
1998-1999	145.7	67.01	52.52	44.73	43.31	42.31	54.44	121.6	158.4	174.2	185.5	173.9	1263.7
1999-2000	144.2	65.7	49.59	45.26	37.24	39.01	51.83	121.4	149.8	173.4	188.1	171.8	1237.3
2000-2001	143.6	62.87	49.74	42.56	42.62	41.77	58.34	123.3	154.2	167.8	182	172.3	1241.0
2001-2002	142.6	64.02	48.28	42.3	38.84	43.04	55.66	117.7	147.3	167.8	183.5	169.5	1220.4
2002-2003	139.7	64.42	50.94	40.75	43.8	39.08	50.3	118.5	161	172.7	187.7	176.9	1245.7
2003-2004	143.3	65.91	50.07	43.29	40.93	41.29	55.35	120.6	148.7	168.8	184	170	1232.2
2004-2005	142.9	66.91	49.43	41.56	42.59	40.09	55.02	123.4	151.6	167	183.2	172.1	1235.8
2005-2006	144.7	62.55	47.51	43.82	40.91	41.38	54.18	124.2	152.6	169.5	183.7	174.6	1239.7
2006-2007	148.2	65.45	47.95	41.56	36.87	37.84	48.25	103.9	141.8	156.2	168.6	159.9	1156.5
2007-2008	130.3	60.69	46.05	38.57	40.15	39.6	58.7	123	146.4	165.6	178.8	169.4	1197.2
2008-2009	140.7	62.94	51.79	44.21	43.69	42.69	53.94	120.4	146.5	167.5	179	168.1	1221.5
2009-2010	138.8	65.86	49.5	44.57	42.77	42.51	56.34	122.6	149.1	162.3	174	172.8	1221.2
2010-2011	143.7	64.71	52.69	46.67	43.34	42.58	54.21	118.7	145.1	163.1	177.2	167.9	1219.8
2011-2012	142.4	62.45	46.35	43	41.69	40.04	52.27	119.9	146.2	165	181.8	170.8	1211.8
2012-2013	141	64.66	51.04	44.41	42.84	43.81	55.47	122.8	154.1	163.6	176.1	168.5	1228.4
2013-2014	140.1	61.59	51.73	41.57	45.02	43.83	56.6	122.3	146.5	163	174.5	168.5	1215.3
2014-2015	141.1	63.39	49.19	45.89	42.29	41.83	55.45	116.6	148	158.3	174.6	169.6	1206.3
AVERAGE	141.7	64.1	49.2	42.9	41.5	41.0	53.5	120.0	149.4	166.6	180.3	170.1	

**Table A.5** Akdeniz station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	113.7	91.53	56.27	45.03	44.38	50.96	79.58	99.27	127.1	147.8	155	142.1	1152.7
1979-1980	118.3	92.71	62.39	40.61	37.96	44.77	74.35	95.32	126.8	146.6	154.8	146.2	1140.8
1980-1981	115.1	91.71	60.33	43.02	40.55	45.49	79.43	98.53	123.3	147.9	155.6	144.7	1145.6
1981-1982	115.4	94.35	54.42	45.43	43.21	42.46	73.18	98.94	127.7	144.8	152.9	144.6	1137.4
1982-1983	119.3	92.74	53.89	39.76	35.82	42.4	74.12	97.27	129.6	143.3	154.4	142.8	1125.3
1983-1984	115.6	93.34	65.22	47.61	44.03	48.78	77.28	95.91	129.2	143.9	152.6	142.2	1155.8
1984-1985	115.3	90.16	54.71	37.72	42.88	41.57	75.54	98.39	132.5	146.5	157.3	146.9	1139.5
1985-1986	119	87.5	61.13	42.4	42.24	50.12	80.04	104.7	127.2	147.2	154.9	144.4	1160.8
1986-1987	120.7	90.49	52.71	40.31	43.87	49.69	70.27	95.9	126.3	146.5	157.9	146.3	1140.9
1987-1988	120	88.62	56.15	40.81	41.33	45.96	75.22	99.59	132	148.3	161.4	147	1156.4
1988-1989	120.6	89.91	51.91	39.83	34.11	43.58	78.11	105.1	132.2	144.7	157.3	145	1142.3
1989-1990	116.6	86.44	58.29	41.87	36.35	44.75	77.05	98.44	127.6	144.9	154.8	144.2	1131.3
1990-1991	115.7	91.13	59.73	42.46	39.71	44.78	79.5	99.37	125.2	145.2	152.2	142.6	1137.6
1991-1992	115.7	91.37	56.97	36.14	36.02	37.73	71.28	94.99	125.7	143.1	152.1	146.2	1107.3
1992-1993	114.4	90.29	56.74	32.8	38.02	42.36	73.89	95.47	123.3	146.5	154.1	141.9	1109.8
1993-1994	111.3	94.41	53.99	42.49	44.61	46.57	75.89	101.3	129.8	145.2	154.3	145.9	1145.7
1994-1995	119.9	93.99	54.53	37.18	42.04	46.91	78.22	96.5	128.6	149.7	156.6	145.1	1149.3
1995-1996	116.8	88.39	50.21	38.07	37.88	47.42	75.65	95.13	133.2	148.6	156.8	140.3	1128.5
1996-1997	116.8	86.55	59.36	44.26	43.15	43.42	73.53	93.91	130.5	148.2	158.9	142.6	1141.1
1997-1998	115.2	89.13	57.98	41.93	40.1	46.02	74.23	101.4	127.9	145.7	160.2	151.3	1151.1
1998-1999	119.8	95.13	63	44.71	43.75	47.8	78.24	99.38	134.3	150.7	158.9	147.3	1183.1
1999-2000	118.7	93.12	58.1	45.63	33.42	42.65	74.53	99.25	128.8	150.2	160.5	145.9	1150.8
2000-2001	118.3	88.83	58.35	40.91	42.59	46.97	83.78	100.5	131.7	146.7	156.6	146.2	1161.5
2001-2002	117.5	90.56	55.93	40.46	36.14	48.95	79.99	96.65	127.2	146.7	157.6	144.4	1142.1
2002-2003	115.4	91.19	60.36	37.72	44.6	42.72	72.34	97.2	136	149.8	160.3	149.3	1156.9
2003-2004	118.1	93.44	58.92	42.18	39.71	46.22	79.54	98.73	128.1	147.4	157.9	144.7	1154.9
2004-2005	117.8	94.97	57.82	39.15	42.52	44.32	79.06	100.6	130	146.3	157.4	146.1	1156.0
2005-2006	119.1	88.39	54.66	43.1	39.69	46.33	77.86	101.1	130.6	147.8	157.7	147.8	1154.2
2006-2007	121.6	92.74	55.42	39.17	32.79	40.79	69.44	87.18	123.7	139.5	148.2	138	1088.5
2007-2008	108.6	85.54	52.22	33.91	38.37	43.55	84.31	100.3	126.6	145.4	154.6	144.3	1117.7
2008-2009	116.2	88.93	61.78	43.81	44.4	48.4	77.54	98.55	126.7	146.6	154.8	143.5	1151.0
2009-2010	114.8	93.37	57.98	44.44	42.84	48.1	80.97	100	128.4	143.4	151.6	146.6	1152.5
2010-2011	118.3	91.63	63.28	48.12	43.81	48.22	77.93	97.34	125.8	143.9	153.6	143.3	1155.2
2011-2012	117.4	88.2	52.74	41.68	40.99	44.25	75.15	98.18	126.5	145	156.5	145.2	1131.8
2012-2013	116.4	91.56	60.53	44.15	42.95	50.16	79.7	100.2	131.6	144.1	152.9	143.7	1158.0
2013-2014	115.8	86.91	61.68	39.18	46.67	50.18	81.34	99.86	126.7	143.8	151.9	143.7	1147.7
2014-2015	116.5	89.64	57.46	46.76	42.03	47.05	79.69	95.94	127.7	140.9	152	144.4	1140.0
AVERAGE	116.9	90.8	57.5	41.5	40.7	45.7	77.0	98.3	128.5	146.0	155.6	144.8	

**Table A.6** Alaykoy station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	99.7	73.2	36.9	29.7	27.3	33.8	52.2	74.3	117.7	172.2	197.9	162.0	1076.9
1979-1980	116.3	70.4	41.3	26.6	24.3	28.0	43.5	65.5	108.7	159.0	185.8	163.0	1032.4
1980-1981	102.5	69.3	40.7	27.9	25.7	29.6	51.3	72.7	101.3	167.0	191.4	164.8	1044.1
1981-1982	113.1	76.0	33.9	29.8	27.1	26.9	42.9	72.4	112.1	153.8	175.0	162.7	1025.8
1982-1983	114.0	71.2	33.9	25.4	22.9	26.6	44.3	70.7	115.5	146.6	181.0	155.7	1007.8
1983-1984	103.8	62.9	41.3	29.2	28.2	31.8	47.6	66.5	124.5	145.3	167.8	144.4	993.3
1984-1985	95.9	62.8	33.5	24.1	27.5	26.3	44.8	71.3	119.9	148.7	176.6	161.7	993.0
1985-1986	104.2	59.3	39.4	25.9	26.7	32.2	50.8	81.8	105.1	159.4	184.6	158.3	1027.7
1986-1987	113.7	66.5	33.8	26.6	27.8	31.8	38.9	65.3	104.6	152.6	188.3	162.2	1012.2
1987-1988	111.4	63.3	35.3	27.1	25.9	29.3	44.3	72.2	121.1	160.8	205.8	168.5	1065.0
1988-1989	111.6	62.7	32.8	26.4	22.8	28.4	49.4	88.3	124.3	147.1	190.0	157.9	1041.7
1989-1990	105.5	59.9	37.3	27.6	23.5	29.2	48.7	73.0	113.7	152.3	180.4	159.2	1010.4
1990-1991	103.2	70.3	40.6	28.0	26.0	29.0	51.7	74.2	107.6	155.8	172.2	155.4	1014.0
1991-1992	105.5	68.1	37.7	23.7	23.2	23.7	41.9	68.0	106.2	147.8	170.4	164.9	981.1
1992-1993	102.0	70.9	36.9	22.7	24.4	26.9	44.2	68.4	100.0	157.4	180.8	157.6	992.2
1993-1994	98.5	78.2	35.2	28.9	28.6	30.3	47.2	78.3	119.3	154.1	181.2	165.2	1044.9
1994-1995	115.0	75.0	35.2	24.4	26.9	30.9	48.3	68.5	114.3	165.6	183.8	161.5	1049.5
1995-1996	105.7	64.8	32.0	25.7	24.9	31.5	46.1	65.6	124.9	164.3	187.6	153.5	1026.6
1996-1997	104.0	61.6	39.7	29.3	27.4	27.8	43.4	62.3	122.6	162.6	194.4	146.9	1021.9
1997-1998	99.7	66.0	38.8	27.9	26.1	30.7	45.0	79.6	112.7	158.9	201.2	185.6	1072.3
1998-1999	111.0	75.0	43.5	29.7	22.9	24.9	38.8	57.0	97.0	126.9	150.5	131.4	908.6
1999-2000	82.3	56.8	31.4	23.6	22.7	28.2	44.2	72.2	113.0	171.7	199.6	158.2	1003.9
2000-2001	105.3	62.8	38.0	26.0	26.2	29.7	55.2	72.2	118.6	159.9	186.0	164.2	1044.1
2001-2002	105.9	67.5	36.8	26.7	23.8	32.9	51.5	69.5	111.1	159.5	192.6	159.9	1037.6
2002-2003	102.2	69.1	41.0	25.4	28.8	27.1	42.9	68.0	134.5	165.5	199.4	172.9	1076.9
2003-2004	105.0	71.2	39.2	27.4	25.4	29.2	51.3	72.7	111.4	158.9	197.0	159.7	1048.4
2004-2005	107.4	74.0	38.0	26.4	27.4	28.9	52.7	78.7	122.6	158.2	197.0	168.1	1079.5
2005-2006	115.4	68.4	37.4	30.1	25.7	31.4	50.4	80.7	122.6	167.2	193.3	172.3	1094.9
2006-2007	116.5	69.4	36.2	26.8	26.7	32.0	50.8	72.4	124.4	179.7	211.7	178.5	1125.2
2007-2008	115.7	75.9	40.5	27.3	23.0	28.9	55.6	78.4	114.3	168.6	193.9	173.1	1095.4
2008-2009	105.5	66.0	41.0	27.0	26.9	29.8	45.6	71.9	112.9	171.4	196.8	165.8	1060.7
2009-2010	103.1	74.3	37.4	29.2	27.8	31.5	51.1	75.7	116.4	152.7	181.3	182.0	1062.5
2010-2011	114.2	70.1	42.3	30.6	26.8	30.1	47.3	68.0	108.4	157.5	190.4	168.4	1054.3
2011-2012	113.0	64.5	32.9	25.7	24.3	26.5	43.5	72.0	109.4	165.5	205.5	175.7	1058.6
2012-2013	110.8	70.5	41.0	27.8	25.5	31.5	49.0	75.3	125.3	157.5	182.3	169.8	1066.4
2013-2014	106.0	63.4	41.6	24.9	28.6	31.7	52.2	75.2	109.8	158.1	182.0	166.7	1040.1
2014-2015	107.9	65.7	36.0	29.5	24.7	28.4	48.8	66.3	115.6	144.7	185.1	172.6	1025.3
AVERAGE	106.8	68.0	37.6	27.1	25.8	29.4	47.5	72.0	114.7	158.2	187.6	163.5	

**Table A.7** Alaykoy station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	113.6	76.9	32.8	22.8	16.0	23.7	32.9	55.2	90.8	160.2	179.2	147.8	951.8
1979-1980	160.0	81.9	46.9	19.2	12.6	15.3	23.6	48.1	90.5	163.7	188.2	167.6	1017.5
1980-1981	128.6	76.5	43.7	20.9	14.4	17.6	34.0	57.3	77.3	166.9	186.6	162.8	986.6
1981-1982	153.6	91.5	30.5	25.8	17.6	13.4	22.7	59.2	94.5	156.1	174.7	166.7	1006.2
1982-1983	168.2	89.5	33.0	17.9	10.8	13.8	26.6	60.9	106.5	157.9	196.1	170.6	1051.8
1983-1984	140.5	70.0	48.2	25.1	20.3	23.2	30.6	51.0	113.5	148.7	170.5	148.8	990.4
1984-1985	137.2	76.1	33.2	15.7	20.5	13.7	28.4	64.2	116.9	167.3	197.7	184.9	1055.7
1985-1986	135.7	61.0	42.1	17.4	16.7	23.2	34.3	73.6	84.5	162.0	184.3	160.0	994.8
1986-1987	163.8	78.7	32.0	20.1	19.9	23.9	17.8	50.3	89.3	163.2	201.1	175.1	1035.2
1987-1988	145.0	66.4	32.4	19.3	14.8	17.1	24.0	56.8	102.6	159.6	203.4	167.6	1009.0
1988-1989	150.9	67.6	28.1	18.7	9.9	16.2	32.4	84.5	110.2	146.8	192.3	161.0	1018.6
1989-1990	147.1	65.8	40.0	22.2	11.6	18.5	32.9	63.1	101.4	162.1	190.4	170.7	1025.9
1990-1991	135.0	81.2	45.2	21.8	15.5	17.2	35.8	61.8	88.4	158.3	170.8	157.7	988.9
1991-1992	163.1	89.8	45.0	15.4	12.2	9.2	24.3	60.3	100.2	171.7	195.8	195.4	1082.5
1992-1993	150.4	92.4	41.5	12.7	14.2	15.0	27.4	59.1	87.9	180.9	203.6	179.8	1064.9
1993-1994	118.9	89.8	31.3	22.5	19.2	18.6	27.6	64.7	98.0	147.3	171.7	160.2	969.8
1994-1995	151.1	86.5	32.0	14.1	16.6	20.2	29.7	51.0	94.0	165.7	178.6	159.5	998.9
1995-1996	146.2	74.6	27.5	18.0	14.0	23.0	28.5	50.2	115.5	177.4	197.6	162.1	1034.6
1996-1997	140.8	67.6	44.3	25.3	18.7	15.4	24.0	44.2	111.0	172.6	203.0	151.7	1018.5
1997-1998	119.4	68.7	38.3	20.2	14.7	19.1	24.1	65.8	88.9	151.5	191.3	179.8	981.9
1998-1999	192.6	113.8	65.8	32.5	12.7	12.6	21.0	43.9	94.0	151.1	182.8	162.1	1084.8
1999-2000	112.9	66.6	29.4	15.2	11.2	18.3	28.6	68.7	111.5	211.0	238.2	188.1	1099.9
2000-2001	134.9	65.9	38.2	17.3	15.4	18.1	40.1	57.0	99.9	159.2	182.1	163.5	991.6
2001-2002	138.2	75.3	36.2	19.0	11.4	24.4	35.1	53.6	91.9	161.3	192.7	161.1	1000.2
2002-2003	124.0	73.9	42.9	15.6	19.4	12.9	21.2	48.5	114.9	160.0	189.6	166.7	989.6
2003-2004	132.3	79.4	40.2	19.8	13.9	16.8	33.8	57.1	89.6	155.7	191.9	156.2	986.6
2004-2005	127.4	78.8	35.4	16.6	16.4	15.3	33.8	62.0	97.1	144.9	179.8	155.4	962.8
2005-2006	135.7	67.7	33.0	22.8	13.1	19.0	29.7	62.8	94.0	150.5	170.2	154.7	953.3
2006-2007	134.1	67.7	30.1	16.5	14.3	19.6	29.7	50.2	94.0	160.9	184.4	157.5	959.1
2007-2008	136.9	79.5	39.1	17.9	9.0	14.9	36.9	59.9	85.2	153.0	171.7	156.3	960.3
2008-2009	131.7	69.7	43.5	18.8	16.2	17.7	25.4	55.2	90.6	169.6	189.5	161.3	989.2
2009-2010	121.9	80.2	34.6	22.3	17.2	20.0	32.0	58.5	91.1	140.1	165.4	171.7	955.1
2010-2011	143.3	74.9	45.3	25.4	15.8	17.9	27.1	48.2	83.1	148.8	178.5	160.6	969.0
2011-2012	155.2	71.9	28.6	17.5	12.5	12.8	23.8	59.1	92.0	173.7	212.7	183.6	1043.2
2012-2013	134.8	74.2	41.7	19.5	13.3	20.1	29.0	57.9	101.4	146.0	166.5	159.1	963.5
2013-2014	133.9	66.0	45.3	14.9	19.5	21.5	35.1	60.7	87.6	154.6	174.9	163.9	977.9
2014-2015	146.5	74.3	35.6	25.5	13.3	16.3	32.1	50.1	100.7	145.9	189.7	180.9	1010.9
AVERAGE	140.7	76.6	38.2	19.8	15.0	17.7	29.1	57.7	96.8	160.2	187.5	165.7	

**Table A.8** Alaykoy station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	176.8	174.4	139.8	135.7	126.1	120.4	140.4	147.8	171.9	189	205.1	200.4	1927.8
1979-1980	187.3	171.6	147.5	128	118.1	108.4	127.4	139.3	166.3	183.5	200.5	200.8	1878.8
1980-1981	178.7	170.5	146.5	131.3	121.8	111.9	139.1	146.4	161.4	186.9	202.6	201.6	1898.8
1981-1982	185.4	177	134	135.9	125.7	106	126.5	146.2	168.5	181.3	196.4	200.7	1883.7
1982-1983	186	172.4	134.1	124.6	113.8	105.2	128.8	144.6	170.6	178	198.7	197.6	1854.4
1983-1984	179.5	163.7	147.6	134.4	128.5	116.4	134	140.4	175.9	177.5	193.4	192.3	1883.5
1984-1985	174.2	163.6	133.2	120.9	126.7	104.4	129.7	145.1	173.3	179	196.9	200.3	1847.2
1985-1986	179.8	159.5	144.2	125.9	124.6	117.4	138.5	154.5	164	183.7	200.2	198.7	1891.1
1986-1987	185.8	167.6	133.8	127.9	127.4	116.6	119.7	139	163.6	180.8	201.6	200.5	1864.4
1987-1988	184.3	164.2	136.8	129.1	122.4	111.2	128.9	146	173.9	184.3	207.8	203.2	1892.1
1988-1989	184.5	163.5	131.8	127.5	113.5	109.4	136.4	159.7	175.8	178.2	202.1	198.6	1881.1
1989-1990	180.6	160.3	140.6	130.5	115.7	111.2	135.5	146.6	169.5	180.6	198.6	199.2	1868.8
1990-1991	179.2	171.5	146.4	131.4	122.8	110.7	139.6	147.8	165.6	182.2	195.3	197.5	1890.0
1991-1992	180.7	169.3	141.2	119.8	114.8	97.86	124.8	141.8	164.7	178.6	194.5	201.7	1829.9
1992-1993	178.4	172.1	139.7	116.7	118.4	105.9	128.6	142.3	160.5	182.9	198.7	198.5	1842.5
1993-1994	176	179	136.5	133.8	129.4	113.5	133.3	151.5	172.9	181.4	198.9	201.8	1907.8
1994-1995	186.6	176.1	136.6	121.7	125.1	114.8	134.8	142.4	169.9	186.3	199.8	200.2	1894.4
1995-1996	180.8	165.8	130	125.5	119.7	116	131.5	139.4	176.1	185.8	201.3	196.6	1868.5
1996-1997	179.7	162.3	144.7	134.6	126.4	108.1	127.3	135.9	174.8	185	203.8	193.5	1876.1
1997-1998	176.8	167.1	143.3	131.2	123.1	114.3	129.9	152.6	168.9	183.5	206.2	210	1907.1
1998-1999	184.1	176.1	151	135.8	113.9	101.1	119.5	129.8	158.3	168.2	185.7	185.7	1809.1
1999-2000	163.8	156.5	128.8	119.4	113.1	108.9	128.7	145.9	169	188.8	205.7	198.7	1827.2
2000-2001	180.5	163.6	141.8	126.3	123.2	112.3	144.2	145.9	172.5	183.9	200.7	201.4	1896.3
2001-2002	180.9	168.7	139.5	128.1	116.4	118.7	139.4	143.3	167.9	183.8	203.1	199.5	1889.3
2002-2003	178.5	170.3	147	124.7	129.9	106.5	126.6	141.9	181.3	186.3	205.6	205	1903.5
2003-2004	180.4	172.4	143.9	130	121.1	111	139.1	146.5	168.1	183.5	204.7	199.4	1899.9
2004-2005	181.9	175.1	141.9	127.2	126.5	110.4	141.1	151.8	174.8	183.2	204.7	203	1921.7
2005-2006	186.8	169.7	140.8	136.5	122	115.9	137.9	153.5	174.8	187	203.4	204.8	1932.9
2006-2007	187.4	170.7	138.6	128.5	124.6	117	138.6	146.1	175.9	191.9	209.8	207.2	1936.2
2007-2008	187	176.9	146.1	129.7	114.2	110.5	144.9	151.5	169.9	187.6	203.6	205.1	1927.0
2008-2009	180.7	167.1	146.9	128.9	125	112.4	130.9	145.7	169	188.6	204.7	202	1902.0
2009-2010	179	175.4	140.8	134.5	127.4	115.9	138.9	149.2	171.2	180.8	198.9	208.6	1920.4
2010-2011	186.1	171.3	149.1	137.8	124.9	113.2	133.4	141.9	166.1	182.9	202.3	203.2	1912.2
2011-2012	185.4	165.5	131.9	125.6	117.9	105	127.5	145.7	166.8	186.3	207.7	206.1	1871.4
2012-2013	184	171.8	147	130.9	121.4	116.1	135.8	148.8	176.3	182.9	199.3	203.7	1918.0
2013-2014	181	164.3	148	123.2	129.4	116.3	140.3	148.7	167	183.1	199.2	202.4	1902.9
2014-2015	182.2	166.8	138.1	135.2	119.1	109.3	135.6	140.1	170.7	177.1	200.3	204.9	1879.4
AVERAGE	181.4	169.0	140.8	128.9	122.0	111.4	133.4	145.6	169.9	183.1	201.1	200.9	

**Table A.9** Alaykoy station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.9	64.49	47.07	43.4	41.53	43.07	55.21	120.3	150.1	170.8	182.3	167.6	1221.8
1979-1980	144	63.47	49.67	40.93	38.87	38.77	50.13	113.3	145.2	165.9	178.3	168	1196.5
1980-1981	137.4	63.05	49.36	41.99	40.12	40.04	54.7	119.1	140.9	168.9	180.2	168.7	1204.3
1981-1982	142.5	65.47	45.14	43.46	41.39	37.91	49.76	118.9	147.1	163.8	174.6	167.9	1197.9
1982-1983	142.9	63.76	45.16	39.85	37.45	37.62	50.66	117.6	148.9	160.9	176.7	165.3	1186.8
1983-1984	138	60.53	49.7	42.98	42.31	41.66	52.67	114.2	153.5	160.4	171.9	160.9	1188.7
1984-1985	133.9	60.5	44.86	38.67	41.7	37.33	50.97	118	151.2	161.8	175.1	167.5	1181.6
1985-1986	138.2	58.99	48.59	40.27	41.03	41.99	54.47	125.7	143.1	166.1	177.9	166.3	1202.6
1986-1987	142.8	61.98	45.09	40.9	41.93	41.72	47.08	113.1	142.8	163.4	179.2	167.7	1187.7
1987-1988	141.7	60.69	46.08	41.28	40.29	39.8	50.68	118.8	151.8	166.6	184.7	170	1212.4
1988-1989	141.8	60.43	44.4	40.76	37.39	39.15	53.65	129.9	153.4	161.1	179.7	166.1	1207.9
1989-1990	138.8	59.25	47.36	41.72	38.06	39.76	53.29	119.3	147.9	163.3	176.5	166.6	1191.9
1990-1991	137.7	63.44	49.31	42.03	40.42	39.6	54.92	120.2	144.6	164.6	173.6	165.2	1195.6
1991-1992	138.8	62.61	47.58	38.32	37.79	35	49.09	115.4	143.8	161.4	172.9	168.7	1171.4
1992-1993	137.1	63.65	47.07	37.31	38.96	37.88	50.57	115.8	140.1	165.3	176.6	166	1176.3
1993-1994	135.3	66.2	45.98	42.79	42.58	40.59	52.43	123.3	150.9	164	176.8	168.8	1209.5
1994-1995	143.4	65.13	45.98	38.93	41.17	41.05	53.03	115.9	148.3	168.4	177.6	167.4	1206.4
1995-1996	139	61.32	43.8	40.15	39.39	41.49	51.74	113.4	153.7	167.9	178.9	164.5	1195.3
1996-1997	138.1	60	48.75	43.04	41.63	38.65	50.07	110.6	152.6	167.3	181.1	161.9	1193.7
1997-1998	135.9	61.8	48.25	41.96	40.52	40.88	51.09	124.2	147.4	165.9	183.3	175.7	1216.8
1998-1999	141.5	65.13	50.85	43.41	37.49	36.14	47	105.6	138.2	152	165.1	155.3	1137.7
1999-2000	125.9	57.86	43.38	38.18	37.23	38.95	50.61	118.7	147.6	170.6	182.8	166.2	1178.1
2000-2001	138.8	60.5	47.75	40.38	40.57	40.16	56.74	118.7	150.5	166.2	178.4	168.4	1207.2
2001-2002	139.1	62.37	47.01	40.98	38.34	42.44	54.82	116.6	146.5	166.1	180.6	166.9	1201.7
2002-2003	137.2	62.98	49.5	39.89	42.75	38.08	49.78	115.4	158.3	168.4	182.7	171.5	1216.5
2003-2004	138.6	63.78	48.46	41.57	39.88	39.73	54.7	119.2	146.7	165.9	182	166.8	1207.2
2004-2005	139.8	64.76	47.79	40.69	41.64	39.52	55.47	123.5	152.6	165.6	182	169.8	1223.2
2005-2006	143.6	62.73	47.41	43.65	40.15	41.43	54.21	124.9	152.6	169	180.8	171.3	1231.7
2006-2007	144	63.1	46.67	41.08	41.01	41.86	54.47	118.9	153.5	173.4	186.5	173.4	1237.9
2007-2008	143.7	65.42	49.21	41.49	37.59	39.54	56.96	123.3	148.3	169.5	181	171.5	1227.6
2008-2009	138.9	61.79	49.49	41.24	41.14	40.22	51.48	118.5	147.5	170.5	181.9	169	1211.8
2009-2010	137.6	64.86	47.42	43.02	41.96	41.46	54.61	121.4	149.4	163.4	176.8	174.5	1216.5
2010-2011	143	63.36	50.23	44.06	41.13	40.46	52.46	115.4	145	165.3	179.9	169.9	1210.3
2011-2012	142.5	61.21	44.45	40.16	38.78	37.55	50.16	118.6	145.6	168.4	184.6	172.4	1204.4
2012-2013	141.4	63.52	49.5	41.86	39.95	41.51	53.44	121.1	153.9	165.3	177.1	170.4	1219.1
2013-2014	139.1	60.74	49.86	39.39	42.61	41.63	55.18	121	145.8	165.6	177	169.3	1207.2
2014-2015	140.1	61.66	46.52	43.23	39.2	39.09	53.36	114	149	160.1	178.1	171.4	1195.7
AVERAGE	139.4	62.5	47.4	41.2	40.2	39.8	52.5	118.4	148.3	165.5	178.8	168.1	

**Table A.10** Alaykoy station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116.3	94.05	55.71	43.82	42.31	50.88	82.46	102.2	133.7	153.8	162	147.7	1184.9
1979-1980	122.2	92.52	60.04	39.48	37.81	44.12	75.2	97.41	130.5	150.7	159.4	148	1157.4
1980-1981	117.4	91.89	59.5	41.37	39.91	46.12	81.74	101.4	127.8	152.6	160.6	148.4	1168.7
1981-1982	121.1	95.55	52.49	43.94	42.09	42.78	74.69	101.3	131.8	149.4	157.1	147.9	1160.2
1982-1983	121.5	92.95	52.52	37.59	35.39	42.33	75.95	100.4	133	147.6	158.4	146.2	1143.8
1983-1984	117.9	88.09	60.09	43.06	43.63	48.64	78.86	98.02	135.9	147.3	155.5	143.2	1160.0
1984-1985	114.9	88	52.02	35.52	42.61	41.88	76.45	100.7	134.5	148.1	157.4	147.7	1139.7
1985-1986	118	85.73	58.21	38.33	41.47	49.18	81.41	105.9	129.2	150.8	159.2	146.8	1164.3
1986-1987	121.4	90.28	52.39	39.44	43.04	48.74	70.86	97.28	129	149.1	160	147.8	1149.3
1987-1988	120.6	88.32	54.06	40.13	40.21	45.73	76.02	101.2	134.8	151.1	163.5	149.3	1164.9
1988-1989	120.7	87.94	51.27	39.19	35.25	44.72	80.23	108.8	135.9	147.7	160.3	146.7	1158.7
1989-1990	118.5	86.15	56.19	40.89	36.45	45.68	79.72	101.5	132.3	149	158.3	147.1	1151.8
1990-1991	117.6	92.46	59.43	41.42	40.44	45.44	82.04	102.2	130.2	149.9	156.5	146.1	1163.7
1991-1992	118.5	91.22	56.54	34.9	35.98	38.22	73.74	98.85	129.6	147.9	156.1	148.5	1130.0
1992-1993	117.2	92.79	55.68	33.15	37.99	42.73	75.84	99.11	127.3	150.3	158.4	146.7	1137.1
1993-1994	115.9	96.64	53.9	42.73	44.15	46.98	78.48	104.3	134.2	149.5	158.5	148.5	1173.7
1994-1995	121.8	95.05	53.91	35.98	41.72	47.73	79.34	99.16	132.6	152.2	159.1	147.6	1166.2
1995-1996	118.5	89.23	50.26	38.1	38.69	48.39	77.5	97.49	136	151.9	159.9	145.6	1151.6
1996-1997	117.9	87.28	58.51	43.17	42.48	43.94	75.14	95.53	135.3	151.5	161.3	143.9	1155.9
1997-1998	116.3	89.97	57.69	41.29	40.65	47.46	76.57	104.9	132	150.7	162.6	153.1	1173.3
1998-1999	120.4	95.02	62.01	43.84	35.47	40.05	70.75	92.09	126	142	151.1	139.5	1118.4
1999-2000	109	84	49.56	34.64	35	44.41	75.9	101.1	132.1	153.6	162.3	146.8	1128.5
2000-2001	118.4	88	56.87	38.55	40.69	46.3	84.62	101.1	134	150.9	159.5	148.3	1167.3
2001-2002	118.6	90.85	55.59	39.57	36.87	49.89	81.91	99.67	131.4	150.8	160.9	147.2	1163.3
2002-2003	117.3	91.79	59.77	37.66	44.42	43.05	74.72	98.86	139	152.2	162.3	150.3	1171.3
2003-2004	118.3	92.96	58.01	40.59	39.49	45.59	81.72	101.5	131.5	150.6	161.8	147.2	1169.3
2004-2005	119.2	94.46	56.89	39.05	42.51	45.28	82.85	104.4	135.3	150.5	161.8	149.2	1181.5
2005-2006	121.9	91.41	56.28	44.25	39.98	48.32	81.06	105.4	135.3	152.6	161.1	150.2	1187.8
2006-2007	122.3	91.97	55.04	39.76	41.45	48.98	81.44	101.3	135.9	155.4	164.6	151.6	1189.6
2007-2008	122	95.46	59.29	40.46	35.62	45.34	84.98	104.3	132.5	153	161.2	150.3	1184.5
2008-2009	118.5	89.98	59.74	40	41.69	46.4	77.13	101	132.1	153.5	161.8	148.6	1170.4
2009-2010	117.6	94.61	56.29	43.14	43.05	48.33	81.62	103	133.3	149.1	158.5	152.3	1180.8
2010-2011	121.5	92.35	60.97	44.98	41.64	46.8	78.56	98.91	130.4	150.3	160.4	149.3	1176.2
2011-2012	121.1	89.09	51.32	38.13	37.69	42.23	75.24	101	130.8	152.2	163.5	150.9	1153.3
2012-2013	120.4	92.61	59.77	41.12	39.64	48.44	79.9	102.8	136.2	150.3	158.8	149.6	1179.4
2013-2014	118.7	88.39	60.35	36.78	44.18	48.6	82.43	102.7	130.9	150.4	158.7	148.8	1171.0
2014-2015	119.3	89.78	54.81	43.53	38.37	44.62	79.8	97.89	133	147.1	159.3	150.2	1157.8
AVERAGE	118.9	91.0	56.3	40.0	40.0	45.8	78.6	100.9	132.6	150.4	159.8	148.0	

**Table A.11** Alevkaya station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	89.1	63.4	31.4	25.7	23.3	28.9	41.9	61.0	95.0	129.7	151.8	133.1	874.3
1979-1980	94.0	61.7	39.4	24.2	21.9	23.6	38.2	56.3	94.1	141.6	165.3	147.1	907.4
1980-1981	84.7	61.0	36.5	24.7	23.1	26.7	39.7	60.9	82.5	134.9	147.7	126.2	848.6
1981-1982	89.5	67.0	29.9	28.2	22.9	22.0	33.9	53.4	84.2	131.0	141.8	136.3	839.9
1982-1983	93.6	58.1	29.2	22.5	19.9	23.5	38.5	58.4	96.3	118.5	155.3	134.9	848.6
1983-1984	90.8	55.3	35.8	24.9	23.9	27.2	41.5	54.7	103.7	132.6	161.5	118.1	869.9
1984-1985	77.0	66.3	28.8	22.4	24.5	23.0	38.0	61.3	105.9	130.8	154.5	137.6	870.0
1985-1986	86.6	51.1	34.6	23.1	22.2	26.2	41.1	66.7	83.2	125.9	149.5	127.9	838.2
1986-1987	94.9	55.6	27.8	22.4	22.3	27.1	32.5	55.2	93.6	121.8	157.1	129.7	840.2
1987-1988	86.8	50.7	31.9	23.1	22.2	24.3	36.6	61.1	98.4	129.1	170.2	137.1	871.4
1988-1989	90.6	52.1	26.0	21.7	18.9	23.4	40.5	77.6	101.2	124.0	157.7	130.8	864.5
1989-1990	83.2	52.0	33.7	26.5	20.7	24.6	41.8	61.5	94.3	123.3	142.2	133.7	837.5
1990-1991	83.5	58.3	34.4	25.4	22.6	24.6	44.2	62.6	87.2	133.0	139.1	122.1	836.9
1991-1992	85.5	60.7	32.1	20.6	19.3	17.2	26.0	47.4	85.1	108.2	126.2	146.2	774.5
1992-1993	87.9	59.5	30.6	18.6	20.2	20.6	36.4	57.1	75.2	129.3	144.1	148.4	828.0
1993-1994	94.0	73.6	29.4	23.8	23.6	25.0	38.5	64.8	95.3	123.3	146.0	138.5	876.0
1994-1995	95.3	63.6	28.3	19.6	21.5	25.3	38.8	53.0	99.7	132.0	147.9	126.6	851.4
1995-1996	82.1	53.0	25.5	20.3	19.6	25.2	37.8	53.6	106.5	136.3	159.9	134.9	854.6
1996-1997	85.1	51.1	34.4	24.9	23.3	22.8	31.8	45.7	100.8	137.9	159.8	115.1	832.7
1997-1998	82.4	55.0	34.7	22.9	20.2	24.6	37.6	66.6	96.9	142.7	174.6	154.5	912.7
1998-1999	91.2	60.7	35.5	24.0	25.3	25.0	43.8	61.4	110.0	136.3	176.6	141.4	931.0
1999-2000	94.3	61.8	34.8	26.6	20.8	24.8	37.2	60.6	94.3	129.9	166.0	142.6	893.8
2000-2001	98.5	59.2	37.8	25.1	24.3	27.5	51.6	65.5	104.8	139.1	167.2	143.2	943.6
2001-2002	93.7	59.8	33.0	23.4	20.8	29.2	45.5	57.5	91.2	134.4	165.1	135.9	889.6
2002-2003	88.4	59.3	36.1	22.6	26.0	23.5	36.5	62.4	125.5	146.6	182.4	159.3	968.6
2003-2004	95.7	67.4	36.7	24.5	23.2	26.6	48.7	66.9	100.2	146.1	182.9	141.1	959.9
2004-2005	102.3	69.2	35.2	22.5	23.0	24.7	43.1	63.1	94.6	125.2	164.3	137.4	904.5
2005-2006	93.6	54.0	29.8	23.5	21.4	25.2	40.5	62.1	98.3	139.0	157.2	145.9	890.4
2006-2007	92.9	55.6	29.6	21.9	21.6	25.6	40.8	57.1	99.8	139.9	172.4	136.2	893.5
2007-2008	91.0	62.3	33.8	23.2	20.6	23.4	53.7	70.6	97.2	138.3	165.9	148.0	928.0
2008-2009	88.4	57.0	35.9	24.3	24.1	26.6	40.0	62.3	96.2	149.4	163.9	138.5	906.5
2009-2010	86.3	65.5	32.8	32.0	30.9	31.9	46.1	65.2	101.0	124.0	152.0	157.4	924.9
2010-2011	96.8	60.4	40.4	28.1	23.4	26.4	41.3	57.3	89.0	129.2	163.6	143.0	898.7
2011-2012	96.3	54.6	29.0	23.0	21.3	23.9	37.9	64.9	90.1	141.7	175.6	147.8	906.2
2012-2013	95.0	60.8	35.4	24.8	23.0	28.6	44.0	66.1	109.0	133.1	154.5	149.0	923.2
2013-2014	89.0	55.1	37.2	22.3	26.0	28.0	44.8	63.6	92.8	132.8	151.2	138.9	881.8
2014-2015	86.2	54.9	32.1	26.7	22.2	25.4	43.5	56.6	98.9	116.5	156.5	143.4	862.9
AVERAGE	90.2	59.1	33.0	23.9	22.5	25.2	40.4	60.6	96.5	132.1	158.6	138.6	

**Table A. 12** Alevkaya station Thorntwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	103.3	77.9	30.4	22.0	15.0	22.9	28.0	47.1	76.0	117.3	135.1	126.0	800.9
1979-1980	106.2	72.0	44.9	18.1	11.7	11.4	20.9	38.8	72.4	125.3	142.4	134.8	798.9
1980-1981	102.9	78.4	43.4	21.1	15.5	19.3	25.7	49.8	64.7	130.5	139.1	126.1	816.5
1981-1982	116.2	94.3	30.4	30.2	15.7	9.7	16.4	39.8	70.2	132.3	139.5	143.9	838.6
1982-1983	124.5	77.9	29.2	17.2	9.4	13.0	25.1	48.8	87.2	118.4	156.1	144.2	851.1
1983-1984	108.1	64.8	40.2	20.8	16.5	19.6	27.9	38.6	87.7	123.1	147.3	112.8	807.4
1984-1985	90.4	88.4	26.6	16.1	18.3	11.2	22.7	50.4	93.6	125.8	146.1	138.5	828.2
1985-1986	111.2	62.0	41.3	18.5	14.2	19.0	29.6	61.5	68.7	125.8	147.6	134.0	833.3
1986-1987	129.2	74.0	26.5	17.4	15.0	21.9	14.5	44.4	85.4	125.1	161.2	141.0	855.8
1987-1988	108.1	59.2	33.9	18.0	13.8	14.2	20.6	51.0	86.0	125.9	164.0	140.2	834.8
1988-1989	117.0	63.8	21.2	15.0	7.2	12.7	28.4	77.8	91.6	122.8	155.4	136.6	849.4
1989-1990	105.6	63.8	39.2	26.2	10.9	15.5	31.0	53.2	83.4	122.6	139.8	140.7	831.8
1990-1991	103.8	75.4	40.0	23.1	14.9	15.1	34.7	53.8	72.7	131.8	133.6	124.9	823.9
1991-1992	140.0	105.2	45.0	16.0	10.2	1.8	4.8	37.6	89.9	130.9	153.8	195.1	930.2
1992-1993	125.2	87.8	35.2	9.3	11.0	7.6	23.1	50.4	63.4	143.1	155.8	172.1	883.9
1993-1994	111.2	96.2	26.6	18.2	15.7	14.7	22.5	53.1	77.0	111.2	130.6	132.6	809.5
1994-1995	126.0	88.3	26.8	10.5	12.7	17.1	25.6	39.3	90.9	134.2	146.9	133.5	851.6
1995-1996	109.2	69.5	21.3	12.8	9.0	17.8	24.6	42.1	103.5	145.6	166.6	149.2	871.3
1996-1997	115.3	65.9	43.3	23.9	17.5	12.1	13.4	28.5	96.9	148.5	167.7	125.9	858.9
1997-1998	92.5	62.1	36.8	16.0	8.9	13.6	20.6	54.7	77.5	130.0	154.6	145.4	812.7
1998-1999	96.1	65.9	35.2	16.7	17.3	13.1	28.3	43.3	84.3	112.8	143.2	122.0	778.3
1999-2000	109.3	74.2	36.9	23.4	9.9	14.0	19.8	46.0	74.4	116.1	146.5	133.8	804.2
2000-2001	99.3	59.8	37.2	17.7	14.6	16.9	37.7	46.1	74.9	109.1	128.2	116.8	758.2
2001-2002	108.8	70.8	33.5	17.1	10.0	23.3	33.7	41.6	71.0	121.3	146.2	127.7	805.0
2002-2003	89.0	61.4	35.0	13.6	17.8	10.1	16.6	43.1	95.6	118.3	142.7	132.5	775.6
2003-2004	94.6	71.1	34.7	16.5	12.5	15.0	33.2	47.1	69.6	113.7	138.1	113.5	759.6
2004-2005	115.1	83.1	36.2	14.5	13.6	13.2	28.4	47.5	71.6	106.3	139.0	123.5	792.1
2005-2006	112.5	62.5	27.7	17.9	11.4	15.3	26.2	49.9	81.7	130.4	143.6	141.9	820.9
2006-2007	112.1	65.9	27.5	14.6	11.9	16.4	26.9	42.6	84.0	132.1	158.7	133.1	825.9
2007-2008	96.9	69.3	32.5	15.3	8.8	10.4	43.5	55.9	72.2	116.0	136.0	129.0	785.7
2008-2009	97.7	63.4	37.9	18.3	15.8	17.1	23.7	47.0	74.2	132.1	140.3	126.0	793.7
2009-2010	83.3	68.4	28.1	29.6	25.5	24.6	29.5	45.1	70.5	94.0	114.7	126.8	740.2
2010-2011	107.0	67.8	45.6	25.3	14.2	16.3	25.2	39.2	64.9	109.6	137.3	127.6	779.9
2011-2012	115.1	62.9	25.8	16.6	11.3	12.5	21.6	53.6	71.2	131.8	158.9	142.3	823.7
2012-2013	100.3	65.7	34.7	18.2	12.9	19.9	28.4	49.2	82.9	109.1	124.3	127.8	773.5
2013-2014	101.1	61.7	41.4	14.6	19.9	20.5	32.2	50.0	72.1	118.4	132.0	129.4	793.3
2014-2015	104.3	66.1	33.5	25.2	13.4	16.2	32.2	42.7	84.6	107.9	146.8	143.3	816.2
AVERAGE	107.8	72.1	34.2	18.5	13.6	15.3	25.6	47.3	79.4	122.9	144.9	135.0	

**Table A. 13** Alevkaya station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	168.7	163.8	128.4	125.1	114.7	110.2	124.6	134.1	156.4	169.2	185.8	186	1766.9
1979-1980	172.3	161.9	143.8	120.7	110.2	97.37	118	128.6	155.7	175.2	191.8	193.1	1768.7
1980-1981	165.3	161.1	138.7	122.4	114.1	105.1	120.7	134	146.5	171.9	183.9	182.3	1745.9
1981-1982	169	167.6	125.1	131.6	113.4	92.81	109.6	125	147.9	169.8	181	187.7	1720.7
1982-1983	172	157.7	123.5	115.7	103.5	96.9	118.5	131.1	157.4	163	187.4	187	1713.7
1983-1984	170	154.2	137.3	122.9	116.5	106.3	123.9	126.6	162.6	170.7	190.2	177.6	1758.7
1984-1985	158.7	166.9	122.6	115.5	118	95.58	117.6	134.4	164	169.8	187.1	188.4	1738.7
1985-1986	166.8	148.7	135.1	117.7	111.3	103.9	123.1	140.1	147.1	167.2	184.8	183.2	1728.9
1986-1987	173	154.5	120.3	115.5	111.7	106	106.8	127.3	155.4	164.9	188.2	184.3	1707.8
1987-1988	166.9	148	129.5	117.7	111.2	99.1	114.9	134.2	158.8	168.9	193.9	188.1	1731.3
1988-1989	169.8	150	115.7	113.1	99.96	96.88	122.2	150.4	160.9	166.1	188.5	184.8	1718.3
1989-1990	164	149.8	133.3	127.2	106.2	100	124.4	134.6	155.9	165.8	181.2	186.4	1728.8
1990-1991	164.2	157.9	134.7	124.1	112.7	100	128.3	135.8	150.4	170.9	179.7	180	1738.7
1991-1992	165.9	160.8	129.9	109.5	101.4	77.34	91	116.9	148.7	156.9	172.8	192.6	1623.7
1992-1993	167.8	159.3	126.7	102.5	104.7	88.72	114.7	129.5	140	169	182.2	193.7	1678.9
1993-1994	172.3	174.2	124.1	119.8	115.6	100.9	118.6	138.2	156.6	165.8	183.1	188.9	1758.1
1994-1995	173.2	164	121.3	105.9	108.9	101.7	119.2	124.5	159.8	170.4	184	182.5	1715.4
1995-1996	163.1	151.1	114.4	108.7	102.4	101.6	117.2	125.2	164.4	172.6	189.5	187	1697.1
1996-1997	165.5	148.6	134.8	122.9	114.5	95.17	105.1	114.4	160.6	173.3	189.4	175.8	1700.3
1997-1998	163.4	153.8	135.2	116.9	104.6	99.9	117	140	157.8	175.7	195.7	196.5	1756.6
1998-1999	170.3	160.7	136.8	120.3	120.6	100.9	127.7	134.5	166.7	172.5	196.4	190.3	1797.6
1999-2000	172.5	162	135.4	127.4	106.6	100.4	116.1	133.6	155.9	169.3	192.1	190.9	1762.4
2000-2001	175.5	159	141.1	123.3	117.6	106.9	139.1	138.9	163.3	173.9	192.6	191.2	1822.3
2001-2002	172.1	159.7	131.9	118.5	106.6	110.9	130.3	130	153.6	171.6	191.8	187.5	1764.6
2002-2003	168.1	159.1	137.9	115.9	122.3	96.99	114.8	135.6	175.9	177.5	198.8	198.6	1801.7
2003-2004	173.6	168.1	138.9	121.7	114.3	104.8	135.2	140.3	160.1	177.2	198.9	190.1	1823.3
2004-2005	178.1	170	136.2	115.7	113.7	100.1	126.6	136.4	156.1	166.7	191.4	188.2	1779.2
2005-2006	172	152.6	124.8	118.9	108.5	101.3	122.1	135.3	158.8	173.9	188.3	192.5	1749.1
2006-2007	171.5	154.6	124.4	113.9	109.3	102.6	122.7	129.6	159.9	174.3	194.8	187.7	1745.2
2007-2008	170.1	162.6	133.5	117.8	105.8	96.83	141.9	144	158	173.5	192.1	193.5	1789.8
2008-2009	168.1	156.3	137.5	121.2	117	104.8	121.3	135.5	157.3	178.8	191.2	188.9	1777.8
2009-2010	166.5	166.1	131.4	140.5	134.4	116.4	131.2	138.6	160.7	166.1	185.9	197.8	1835.5
2010-2011	174.3	160.4	145.6	131.4	114.8	104.3	123.4	129.9	151.8	168.9	191.1	191.1	1787.0
2011-2012	173.9	153.3	123.1	117.4	108.5	98.01	117.5	138.3	152.7	175.2	196	193.4	1747.5
2012-2013	173	160.9	136.5	122.6	113.6	109.4	128	139.5	166	170.9	187.1	193.9	1801.6
2013-2014	168.6	154	140	115.1	122.2	108.1	129.2	136.9	154.7	170.8	185.5	189	1774.3
2014-2015	166.4	153.7	129.8	127.7	111.2	102	127.1	129	159.2	161.9	188	191.3	1747.4
AVERAGE	169.4	158.6	131.3	119.6	112.0	101.1	121.3	133.3	157.2	170.3	188.7	188.7	

**Table A. 14** Alevkaya station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	130	60.74	43.36	40.12	37.86	39.53	49.13	109.4	136.9	153.3	165.6	156	1122.1
1979-1980	132.8	60.03	48.57	38.72	36.37	34.93	46.53	105	136.3	158.8	171	162	1131.0
1980-1981	127.4	59.74	46.84	39.25	37.66	37.72	47.6	109.3	128.2	155.8	163.9	152.9	1106.3
1981-1982	130.3	62.16	42.25	42.21	37.42	33.29	43.24	102	129.5	153.9	161.4	157.5	1095.1
1982-1983	132.6	58.48	41.73	37.09	34.15	34.76	46.76	107	137.7	147.8	167.1	156.9	1102.0
1983-1984	131	57.19	46.37	39.42	38.44	38.13	48.84	103.3	142.3	154.7	169.5	149	1118.3
1984-1985	122.3	61.9	41.43	37.04	38.97	34.28	46.38	109.6	143.6	153.9	166.8	158	1114.2
1985-1986	128.6	55.13	45.64	37.74	36.73	37.26	48.56	114.3	128.7	151.5	164.7	153.7	1102.7
1986-1987	133.3	57.3	40.62	37.03	36.88	38.02	42.1	103.9	136	149.5	167.8	154.6	1097.0
1987-1988	128.6	54.89	43.72	37.76	36.73	35.55	45.33	109.5	139	153.1	172.8	157.8	1114.9
1988-1989	130.9	55.64	39.06	36.26	32.99	34.74	48.18	122.7	140.8	150.6	168.1	155	1115.0
1989-1990	126.4	55.55	45.03	40.8	35.06	35.87	49.06	109.8	136.4	150.2	161.6	156.3	1102.2
1990-1991	126.6	58.56	45.48	39.81	37.19	35.87	50.59	110.8	131.6	154.9	160.2	151	1102.6
1991-1992	127.9	59.61	43.86	35.1	33.48	27.73	35.88	95.4	130.1	142.2	154.1	161.6	1046.9
1992-1993	129.3	59.08	42.78	32.87	34.57	31.82	45.25	105.7	122.6	153.2	162.4	162.5	1082.0
1993-1994	132.8	64.61	41.91	38.43	38.15	36.2	46.78	112.7	137.1	150.2	163.2	158.4	1120.6
1994-1995	133.5	60.84	40.97	33.96	35.95	36.47	47	101.6	139.9	154.4	164	153.1	1101.7
1995-1996	125.7	56.06	38.62	34.85	33.79	36.44	46.23	102.2	143.9	156.4	168.9	156.9	1100.0
1996-1997	127.6	55.12	45.51	39.42	37.82	34.14	41.45	93.37	140.6	157.1	168.9	147.5	1088.5
1997-1998	126	57.02	45.67	37.51	34.54	35.83	46.14	114.2	138.1	159.3	174.4	164.9	1133.6
1998-1999	131.2	59.59	46.2	38.57	39.79	36.17	50.37	109.7	145.9	156.4	175.1	159.6	1148.7
1999-2000	133	60.09	45.73	40.86	35.17	36.03	45.8	109.1	136.5	153.4	171.3	160.1	1127.1
2000-2001	135.3	58.96	47.65	39.55	38.81	38.36	54.87	113.4	142.9	157.6	171.7	160.4	1159.5
2001-2002	132.6	59.22	44.56	38.02	35.2	39.78	51.4	106.1	134.4	155.5	170.9	157.3	1125.1
2002-2003	129.6	59.01	46.58	37.18	40.38	34.79	45.28	110.6	154	160.9	177.2	166.6	1162.2
2003-2004	133.8	62.34	46.94	39.03	37.75	37.6	53.3	114.5	140.2	160.7	177.3	159.5	1162.9
2004-2005	137.3	63.03	46.01	37.09	37.55	35.92	49.92	111.3	136.6	151.2	170.6	157.9	1134.3
2005-2006	132.6	56.57	42.15	38.13	35.83	36.35	48.15	110.4	139	157.6	167.9	161.5	1126.1
2006-2007	132.2	57.33	42.03	36.53	36.08	36.79	48.37	105.7	139.9	158	173.6	157.4	1124.1
2007-2008	131.1	60.29	45.1	37.79	34.94	34.73	55.97	117.5	138.3	157.3	171.2	162.3	1146.6
2008-2009	129.6	57.96	46.44	38.87	38.61	37.61	47.82	110.6	137.7	162	170.5	158.4	1136.1
2009-2010	128.3	61.58	44.37	45.06	44.36	41.76	51.74	113.1	140.7	150.6	165.7	165.9	1153.2
2010-2011	134.4	59.46	49.17	42.13	37.91	37.41	48.68	106	132.9	153.1	170.3	160.3	1131.7
2011-2012	134.1	56.86	41.58	37.65	35.82	35.15	46.35	112.9	133.7	158.8	174.8	162.2	1129.8
2012-2013	133.4	59.66	46.11	39.34	37.52	39.26	50.49	113.8	145.4	154.9	166.8	162.7	1149.3
2013-2014	130	57.1	47.28	36.92	40.35	38.8	50.97	111.7	135.4	154.8	165.4	158.6	1127.4
2014-2015	128.3	57.01	43.86	40.96	36.71	36.57	50.14	105.2	139.4	146.7	167.6	160.5	1112.9
AVERAGE	130.6	58.8	44.4	38.4	37.0	36.3	47.9	108.7	137.6	154.3	168.2	158.3	

**Table A. 15** Alevkaya station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	108.3	85.53	47.7	36.6	34.42	43.4	70.59	90.85	120.4	137.7	146.2	135.2	1056.8
1979-1980	110.3	84.46	56.37	34.14	31.89	36.18	66.89	87.78	120	141	149.6	139.2	1057.8
1980-1981	106.4	84	53.49	35.08	34.09	40.55	68.42	90.78	114.8	139.2	145.1	133.1	1045.0
1981-1982	108.5	87.69	45.87	40.28	33.68	33.61	62.18	85.72	115.6	138	143.5	136.2	1030.8
1982-1983	110.2	82.09	44.98	31.28	28.13	35.91	67.2	89.17	120.9	134.2	147.1	135.8	1026.9
1983-1984	109	80.15	52.71	35.36	35.43	41.2	70.18	86.67	123.9	138.5	148.6	130.5	1052.2
1984-1985	102.7	87.31	44.48	31.2	36.31	35.17	66.67	91.01	124.7	138	146.9	136.6	1040.9
1985-1986	107.2	77.03	51.51	32.43	32.5	39.83	69.77	94.26	115.2	136.5	145.6	133.7	1035.5
1986-1987	110.7	80.3	43.13	31.18	32.77	41.03	60.58	87.05	119.8	135.2	147.5	134.2	1023.6
1987-1988	107.3	76.67	48.31	32.46	32.5	37.15	65.17	90.91	121.8	137.5	150.7	136.4	1036.8
1988-1989	108.9	77.79	40.54	29.85	26.14	35.9	69.24	100	122.9	135.9	147.7	134.5	1029.5
1989-1990	105.7	77.66	50.47	37.79	29.65	37.67	70.49	91.15	120.1	135.7	143.6	135.4	1035.4
1990-1991	105.8	82.24	51.25	36.05	33.29	37.66	72.66	91.83	117	138.6	142.7	131.8	1041.0
1991-1992	106.7	83.82	48.54	27.81	26.97	24.91	51.7	81.2	116.1	130.7	138.9	138.9	976.3
1992-1993	107.8	83	46.74	23.89	28.84	31.31	65.06	88.28	111.2	137.6	144.1	139.5	1007.3
1993-1994	110.3	91.42	45.3	33.64	34.92	38.17	67.23	93.15	120.5	135.7	144.7	136.8	1051.9
1994-1995	110.8	85.67	43.73	25.8	31.17	38.6	67.54	85.45	122.3	138.3	145.2	133.2	1027.8
1995-1996	105.1	78.42	39.81	27.37	27.5	38.56	66.44	85.87	124.9	139.6	148.2	135.8	1017.6
1996-1997	106.5	77	51.29	35.36	34.35	34.94	59.63	79.8	122.8	140	148.2	129.5	1019.3
1997-1998	105.3	79.89	51.55	32.01	28.77	37.6	66.33	94.19	121.2	141.3	151.7	141.1	1051.0
1998-1999	109.2	83.79	52.43	33.88	37.74	38.14	72.35	91.08	126.2	139.5	152.2	137.6	1074.1
1999-2000	110.5	84.55	51.64	37.89	29.86	37.91	65.85	90.6	120.1	137.7	149.7	138	1054.3
2000-2001	112.1	82.84	54.84	35.6	36.06	41.56	78.76	93.57	124.3	140.3	150	138.1	1088.0
2001-2002	110.2	83.24	49.71	32.91	29.91	43.8	73.81	88.58	118.8	139	149.5	136.1	1055.5
2002-2003	108	82.91	53.07	31.45	38.73	35.97	65.09	91.71	131.4	142.3	153.5	142.3	1076.4
2003-2004	111	87.95	53.65	34.68	34.23	40.37	76.54	94.35	122.5	142.2	153.5	137.5	1088.6
2004-2005	113.5	89.02	52.11	31.28	33.89	37.74	71.71	92.13	120.2	136.3	149.3	136.5	1063.7
2005-2006	110.2	79.23	45.69	33.13	30.98	38.41	69.2	91.54	121.8	140.3	147.6	138.9	1046.8
2006-2007	109.9	80.37	45.48	30.31	31.39	39.1	69.51	88.32	122.3	140.5	151.2	136.2	1044.6
2007-2008	109.1	84.86	50.61	32.51	29.45	35.87	80.34	96.43	121.3	140.1	149.7	139.4	1069.7
2008-2009	108	81.32	52.83	34.42	35.71	40.38	68.74	91.65	120.9	143	149.2	136.8	1063.0
2009-2010	107	86.81	49.38	45.26	45.51	46.9	74.31	93.38	122.8	135.9	146.2	141.9	1095.5
2010-2011	111.4	83.6	57.38	40.12	34.52	40.08	69.95	88.48	117.8	137.5	149.2	138.1	1068.1
2011-2012	111.2	79.65	44.74	32.26	30.96	36.53	66.61	93.24	118.3	141	151.9	139.4	1045.9
2012-2013	110.7	83.89	52.28	35.22	33.84	42.96	72.51	93.91	125.8	138.6	146.9	139.7	1076.4
2013-2014	108.2	80.03	54.22	30.98	38.67	42.24	73.2	92.45	119.5	138.6	146	136.9	1061.0
2014-2015	107	79.88	48.53	38.07	32.49	38.75	72.02	87.97	122	133.6	147.4	138.2	1045.9
AVERAGE	108.7	82.6	49.4	33.5	32.9	38.3	68.8	90.4	120.9	138.3	147.8	136.7	

**Table A. 16** Beyarmudu station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	100.0	71.8	36.6	29.1	26.6	33.6	51.4	73.9	111.2	156.6	183.8	142.8	1017.3
1979-1980	111.2	72.4	44.8	28.3	26.0	31.2	50.0	73.1	117.7	160.6	181.3	163.9	1060.5
1980-1981	104.6	73.1	45.8	30.0	27.1	31.2	51.9	76.0	106.1	161.6	183.9	165.9	1057.3
1981-1982	116.4	83.6	37.7	30.9	28.9	28.2	44.2	72.7	115.6	150.6	168.0	158.7	1035.5
1982-1983	116.5	74.0	37.8	26.9	24.9	28.4	44.0	73.0	119.8	149.9	183.8	158.0	1036.9
1983-1984	108.2	70.8	44.3	30.5	29.1	33.9	50.4	67.9	134.0	152.7	184.5	159.6	1066.0
1984-1985	94.5	65.9	39.2	26.1	29.2	27.9	50.7	69.7	121.3	157.3	184.3	165.2	1031.3
1985-1986	111.3	65.9	45.6	32.0	30.8	36.7	57.4	90.3	110.6	161.2	178.0	159.9	1079.7
1986-1987	111.0	65.5	34.8	28.1	28.9	33.6	40.2	64.7	105.2	146.3	180.3	156.4	995.0
1987-1988	102.7	59.8	34.9	25.4	24.8	27.7	44.2	74.0	119.2	157.3	211.6	173.0	1054.6
1988-1989	113.7	67.2	34.6	27.3	23.7	29.1	51.5	93.2	125.1	152.2	191.3	157.9	1066.9
1989-1990	108.7	65.6	39.5	28.3	24.3	30.0	49.6	75.3	116.3	154.8	176.2	163.3	1031.9
1990-1991	105.3	71.3	42.8	29.7	25.8	28.7	50.9	72.3	110.9	146.8	177.2	151.2	1012.9
1991-1992	104.6	70.1	38.0	23.1	21.7	22.5	39.4	66.7	98.6	134.2	162.0	161.3	942.2
1992-1993	100.2	70.2	36.7	22.6	23.6	24.9	49.7	72.3	105.0	159.2	188.5	165.6	1018.7
1993-1994	111.3	87.9	39.1	31.2	32.3	33.5	53.3	73.0	112.0	162.3	184.6	171.2	1091.5
1994-1995	126.1	86.2	38.6	26.6	28.4	33.6	51.5	66.9	109.3	145.8	168.6	145.4	1026.8
1995-1996	103.5	63.8	32.4	26.5	26.3	31.0	44.4	63.2	111.5	148.9	172.2	150.2	973.8
1996-1997	96.2	59.4	41.4	31.8	29.3	27.8	44.1	61.2	104.8	141.0	168.6	132.9	938.7
1997-1998	93.3	63.0	40.2	28.8	26.9	32.0	44.8	71.9	104.1	143.8	169.8	156.5	975.2
1998-1999	105.1	70.6	45.8	29.6	30.9	36.9	59.8	77.9	136.0	141.5	199.7	169.5	1103.5
1999-2000	118.7	73.1	41.1	31.9	26.6	32.0	48.5	74.4	116.6	163.9	182.3	160.4	1069.5
2000-2001	109.9	68.8	42.5	28.9	29.4	34.1	60.6	79.0	120.6	157.4	177.4	157.8	1066.4
2001-2002	107.2	74.1	40.5	29.6	26.2	35.6	55.8	73.5	115.3	165.1	194.2	161.1	1078.2
2002-2003	105.9	73.3	44.6	27.0	31.8	27.1	42.5	68.3	136.9	163.9	200.1	177.9	1099.3
2003-2004	113.5	76.9	43.7	30.7	27.7	31.2	53.3	73.4	107.7	147.1	180.6	159.1	1045.0
2004-2005	110.2	80.4	41.2	28.7	31.6	32.4	49.5	74.2	114.0	148.6	178.2	155.3	1044.3
2005-2006	111.0	65.1	36.2	29.0	25.8	31.3	51.0	78.3	120.9	163.3	191.4	174.2	1077.4
2006-2007	120.9	73.0	38.0	28.4	27.0	31.3	48.8	69.7	119.9	166.6	196.9	165.8	1086.2
2007-2008	112.8	76.5	42.4	28.0	24.5	27.5	58.5	82.4	117.1	168.0	193.4	170.5	1101.8
2008-2009	111.3	72.6	44.2	28.9	28.7	31.7	47.2	74.5	118.5	175.7	196.1	171.7	1101.0
2009-2010	107.9	80.3	40.8	31.6	30.1	33.4	54.3	79.9	119.0	156.8	180.6	183.8	1098.4
2010-2011	121.2	78.3	47.8	33.7	28.6	31.6	50.4	71.5	112.7	156.0	185.8	171.5	1089.1
2011-2012	116.2	68.8	35.4	28.0	26.4	28.7	46.1	76.8	115.4	164.4	206.5	180.8	1093.5
2012-2013	116.7	77.4	44.1	29.9	27.1	33.3	52.5	80.5	129.3	164.6	188.5	175.4	1119.3
2013-2014	112.5	65.7	46.2	27.1	31.3	33.9	55.6	79.4	113.8	162.6	183.9	165.4	1077.5
2014-2015	114.4	70.9	39.2	32.1	26.3	30.6	51.2	70.6	122.7	148.8	186.1	179.2	1072.0
AVERAGE	109.6	71.7	40.5	28.8	27.5	31.0	50.0	73.9	116.1	155.6	184.3	163.2	

**Table A. 17** Beyarmudu station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.2	90.7	37.1	24.3	16.6	27.1	36.6	68.6	91.5	149.9	197.6	150.7	1006.0
1979-1980	121.5	83.8	51.6	20.6	14.1	19.8	31.4	60.8	91.5	141.8	177.4	163.2	977.5
1980-1981	111.2	84.4	53.3	23.8	15.9	19.7	34.0	65.4	77.5	141.8	179.0	164.2	970.1
1981-1982	134.1	108.6	37.7	27.1	20.1	14.8	23.6	63.0	92.8	135.9	168.2	163.7	989.6
1982-1983	140.6	94.9	39.8	19.5	13.3	15.9	24.4	66.6	102.2	141.4	197.3	170.5	1026.5
1983-1984	113.5	78.3	48.6	24.3	19.1	24.4	31.0	49.7	106.8	128.8	175.3	153.1	953.1
1984-1985	107.2	79.5	43.5	18.2	21.9	15.1	35.6	60.8	105.0	152.0	199.8	181.4	1020.1
1985-1986	110.0	64.8	47.9	25.4	20.7	28.0	38.8	82.4	75.7	129.2	156.5	143.4	922.9
1986-1987	142.9	84.5	35.7	24.0	22.7	29.3	20.0	55.2	90.3	147.8	208.8	182.0	1043.2
1987-1988	123.2	68.5	34.3	16.9	13.5	15.0	25.6	71.1	104.7	155.4	240.5	195.7	1064.5
1988-1989	128.8	76.7	30.5	19.2	10.5	16.3	34.8	100.6	103.0	136.3	195.1	160.9	1012.7
1989-1990	128.1	77.7	43.7	22.5	12.2	19.1	33.4	70.9	97.5	146.9	186.5	176.6	1015.3
1990-1991	123.9	90.0	51.9	25.7	15.1	16.6	35.9	65.7	91.3	138.0	189.4	162.3	1005.8
1991-1992	158.3	114.2	52.8	15.6	9.9	7.5	22.5	72.4	96.4	156.5	219.2	226.4	1151.7
1992-1993	125.7	95.6	40.7	12.0	11.9	10.4	36.7	71.9	90.7	166.4	222.2	196.5	1080.7
1993-1994	110.5	100.9	35.4	24.0	23.4	22.0	33.1	54.5	77.5	130.8	164.3	155.9	932.3
1994-1995	147.8	113.3	39.7	18.0	19.2	25.7	35.1	52.0	85.1	130.2	168.9	147.0	982.1
1995-1996	140.1	86.9	32.1	21.9	18.5	25.0	29.1	56.2	106.1	162.4	212.3	186.3	1076.8
1996-1997	129.7	78.6	58.1	36.3	26.1	17.8	29.3	53.3	98.5	154.5	211.9	163.1	1057.2
1997-1998	115.4	80.8	50.6	26.3	18.9	26.2	28.5	72.1	90.7	147.7	198.2	186.5	1041.8
1998-1999	99.5	70.7	47.1	20.5	20.4	27.7	41.0	60.5	99.5	106.1	175.1	149.7	917.9
1999-2000	128.5	82.9	42.2	27.3	14.7	20.9	28.4	61.4	88.1	141.9	174.0	155.0	965.4
2000-2001	113.9	73.4	44.1	20.9	19.3	24.4	45.5	67.7	90.7	131.9	164.4	148.7	945.0
2001-2002	111.0	83.1	40.4	22.3	13.8	27.6	38.6	58.8	85.2	141.0	184.6	153.3	959.7
2002-2003	109.6	82.1	49.0	17.4	23.8	11.8	19.5	50.1	109.1	140.2	191.9	172.5	977.1
2003-2004	124.5	91.9	49.1	25.5	17.1	19.9	36.4	61.2	79.9	126.3	176.4	157.4	965.5
2004-2005	119.7	97.9	43.6	21.4	24.4	22.1	30.5	62.6	87.0	127.9	173.1	152.5	962.8
2005-2006	121.7	70.7	33.2	22.1	13.8	20.2	33.1	70.6	95.8	145.6	190.4	176.0	993.1
2006-2007	132.2	83.1	36.0	20.4	15.5	19.6	29.0	53.6	92.4	145.7	192.0	162.2	981.7
2007-2008	116.2	85.6	43.4	18.8	10.8	12.1	41.9	72.5	85.6	141.2	179.9	160.6	968.5
2008-2009	113.8	78.5	46.8	20.4	17.8	19.4	25.4	58.9	86.7	148.5	182.0	161.2	959.3
2009-2010	105.3	88.1	38.3	24.5	19.4	21.7	34.2	65.2	84.2	124.3	158.7	167.7	931.6
2010-2011	123.1	85.6	52.5	28.8	17.1	18.7	29.1	52.3	78.3	124.5	165.8	156.5	932.3
2011-2012	128.6	77.3	31.3	20.2	14.8	15.2	25.5	67.7	89.1	146.4	207.5	183.0	1006.7
2012-2013	113.9	81.4	43.8	21.0	14.1	21.1	31.1	64.5	92.8	129.3	163.4	155.5	931.9
2013-2014	116.1	67.2	51.2	17.2	22.4	23.8	37.7	67.6	82.2	135.9	169.8	155.4	946.3
2014-2015	124.1	79.9	38.8	27.9	14.4	18.4	32.7	55.4	96.1	126.7	180.5	178.3	973.4
AVERAGE	122.4	84.7	43.1	22.2	17.2	20.0	31.9	63.9	91.8	139.9	186.4	166.9	

**Table A. 18** Beyarmudu station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	177	173	139.2	134.1	124.4	120.1	139.2	147.5	167.9	182.5	199.8	191.5	1896.3
1979-1980	184.2	173.6	153.1	132.2	122.7	115.2	137.3	146.8	171.9	184.2	198.9	201.2	1921.5
1980-1981	180.1	174.3	154.6	136.3	125.5	115.3	140	149.4	164.6	184.6	199.9	202.1	1926.8
1981-1982	187.3	183.7	141.2	138.5	130.1	108.9	128.6	146.5	170.7	179.8	193.5	198.9	1907.9
1982-1983	187.4	175.1	141.4	128.6	119.7	109.3	128.3	146.7	173.2	179.5	199.8	198.6	1887.7
1983-1984	182.4	172.1	152.2	137.6	130.7	120.6	137.9	141.7	181.1	180.8	200.1	199.3	1936.4
1984-1985	173.2	167	143.9	126.7	130.9	108.3	138.2	143.5	174	182.8	200	201.8	1890.4
1985-1986	184.3	167	154.2	140.9	134.7	125.6	147.1	161.2	167.6	184.5	197.6	199.5	1964.0
1986-1987	184.1	166.6	135.8	131.8	130	120	121.9	138.5	164	177.9	198.5	197.9	1867.1
1987-1988	178.9	160.2	136	124.5	119.2	107.7	128.7	147.6	172.8	182.8	209.7	205	1873.2
1988-1989	185.8	168.4	135.4	129.7	116.2	110.9	139.4	163.4	176.2	180.5	202.6	198.6	1907.2
1989-1990	182.7	166.7	144.5	132.3	118	112.8	136.8	148.8	171.1	181.7	196.9	201	1893.1
1990-1991	180.6	172.5	149.9	135.6	122.2	110	138.7	146.1	167.7	178.1	197.2	195.6	1894.1
1991-1992	180.1	171.4	141.8	118	109.8	94.59	120.6	140.6	159.4	172	190.9	200.1	1799.2
1992-1993	177.2	171.5	139.4	116.5	115.9	101.1	136.8	146.1	163.9	183.6	201.6	202	1855.5
1993-1994	184.3	187.3	143.7	139	138	119.8	141.8	146.7	168.4	184.9	200.1	204.3	1958.4
1994-1995	192.8	185.9	142.9	127.8	129	120.1	139.4	140.7	166.7	177.6	193.8	192.8	1909.4
1995-1996	179.4	164.7	131	127.7	123.5	114.9	128.9	136.9	168.2	179.1	195.3	195.1	1844.4
1996-1997	174.3	159.7	147.7	140.5	131.1	108	128.5	134.7	163.8	175.4	193.7	186.5	1844.0
1997-1998	172.3	163.8	145.7	133.5	125.1	117	129.6	145.7	163.3	176.7	194.2	198	1864.8
1998-1999	180.4	171.9	154.6	135.5	135	126.1	149.9	151.1	182.1	175.6	205.7	203.6	1971.4
1999-2000	188.7	174.3	147.1	140.7	124.2	117	135.2	148	171.2	185.6	199.3	199.7	1931.1
2000-2001	183.4	170	149.4	133.8	131.4	121	150.9	152	173.6	182.9	197.3	198.6	1944.3
2001-2002	181.7	175.2	146.2	135.5	123.1	123.8	145	147.2	170.5	186.1	203.7	200	1938.1
2002-2003	180.9	174.5	152.7	129	136.8	106.5	125.9	142.1	182.5	185.6	205.8	207	1929.4
2003-2004	185.6	177.9	151.4	138	127.2	115.4	141.8	147.1	165.7	178.2	198.6	199.1	1925.9
2004-2005	183.6	181	147.3	133.3	136.5	117.7	136.6	147.8	169.7	178.9	197.7	197.4	1927.6
2005-2006	184.1	166.1	138.5	133.9	122.1	115.5	138.8	151.5	173.8	185.4	202.7	205.5	1917.9
2006-2007	189.9	174.2	141.8	132.4	125.2	115.5	135.7	143.6	173.2	186.7	204.7	202.1	1925.0
2007-2008	185.2	177.5	149.3	131.4	118.5	107.3	148.4	154.9	171.6	187.3	203.4	204	1938.9
2008-2009	184.3	173.8	152.1	133.7	129.7	116.3	133.2	148.1	172.4	190.3	204.4	204.5	1942.8
2009-2010	182.2	180.9	146.6	139.9	132.9	119.6	143.1	152.8	172.7	182.6	198.6	209.3	1961.2
2010-2011	190.1	179.1	157.4	144.6	129.4	116.2	137.9	145.3	168.9	182.2	200.6	204.4	1956.0
2011-2012	187.2	170	136.9	131.6	123.8	110.1	131.5	150.2	170.5	185.8	208	208.1	1913.9
2012-2013	187.6	178.3	151.9	136.1	125.6	119.5	140.8	153.3	178.5	185.9	201.6	206	1965.2
2013-2014	185	166.8	155.1	129.2	135.8	120.6	144.8	152.4	169.5	185.1	199.9	201.9	1946.1
2014-2015	186.1	172.1	144	141.1	123.5	114.1	138.9	144.4	174.9	179	200.7	207.5	1926.4
AVERAGE	183.1	172.6	145.8	133.3	126.4	114.7	136.9	147.3	170.8	182.0	199.9	200.8	

**Table A. 19** Beyarmudu station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	136.1	63.99	46.89	42.9	40.94	42.96	54.76	120	146.6	164.9	177.6	160.2	1197.9
1979-1980	141.6	64.21	51.56	42.28	40.39	41.22	54.03	119.4	150	166.5	176.8	168.3	1216.5
1980-1981	138.4	64.45	52.08	43.58	41.33	41.25	55.06	121.6	143.7	166.9	177.7	169.1	1215.1
1981-1982	144	67.94	47.56	44.29	42.84	38.96	50.57	119.2	149	162.5	172	166.4	1205.3
1982-1983	144.1	64.76	47.62	41.14	39.39	39.09	50.45	119.3	151.2	162.3	177.6	166.2	1203.1
1983-1984	140.2	63.63	51.27	44	43.03	43.14	54.25	115.3	158.1	163.4	177.9	166.8	1220.9
1984-1985	133.1	61.76	48.47	40.51	43.1	38.73	54.37	116.8	151.9	165.3	177.8	168.8	1200.6
1985-1986	141.7	61.76	51.95	45.05	44.33	44.94	57.84	131.1	146.3	166.7	175.6	166.9	1234.2
1986-1987	141.5	61.59	45.74	42.14	42.81	42.93	47.94	112.7	143.2	160.8	176.4	165.5	1183.4
1987-1988	137.5	59.22	45.83	39.82	39.26	38.53	50.61	120.1	150.8	165.3	186.5	171.5	1204.9
1988-1989	142.8	62.27	45.61	41.47	38.25	39.67	54.85	132.9	153.8	163.2	180.1	166.1	1221.1
1989-1990	140.4	61.63	48.67	42.3	38.85	40.33	53.78	121.1	149.3	164.3	175	168.1	1203.8
1990-1991	138.8	63.81	50.5	43.36	40.24	39.33	54.52	118.9	146.4	161	175.4	163.6	1195.7
1991-1992	138.4	63.37	47.76	37.74	36.15	33.83	47.41	114.4	139.2	155.4	169.7	167.4	1150.8
1992-1993	136.2	63.4	46.94	37.25	38.15	36.16	53.82	118.9	143.1	166	179.2	168.9	1188.0
1993-1994	141.7	69.25	48.4	44.46	45.43	42.85	55.78	119.3	147	167.2	177.9	170.9	1230.2
1994-1995	148.2	68.73	48.12	40.87	42.45	42.93	54.82	114.5	145.5	160.6	172.2	161.3	1200.2
1995-1996	137.9	60.88	44.09	40.82	40.65	41.1	50.69	111.3	146.8	161.9	173.6	163.2	1172.8
1996-1997	134	59.06	49.74	44.94	43.18	38.64	50.52	109.6	143	158.5	172.2	156	1159.4
1997-1998	132.4	60.56	49.06	42.7	41.17	41.86	50.97	118.5	142.5	159.7	172.7	165.6	1177.8
1998-1999	138.7	63.55	52.06	43.33	44.43	45.1	58.96	122.9	159	158.7	182.8	170.3	1239.9
1999-2000	145.1	64.45	49.54	44.99	40.88	41.86	53.18	120.4	149.5	167.8	177.1	167	1221.8
2000-2001	141	62.87	50.31	42.8	43.26	43.28	59.33	123.7	151.6	165.3	175.4	166.1	1224.9
2001-2002	139.7	64.79	49.24	43.32	40.54	44.29	57.05	119.7	148.8	168.2	181.1	167.3	1224.1
2002-2003	139.1	64.53	51.42	41.25	45.04	38.09	49.51	115.7	159.3	167.8	183	173.1	1227.8
2003-2004	142.7	65.78	50.99	44.13	41.87	41.28	55.78	119.6	144.6	161.1	176.6	166.6	1211.0
2004-2005	141.2	66.92	49.63	42.63	44.95	42.11	53.72	120.3	148.1	161.7	175.7	165.1	1212.1
2005-2006	141.5	61.42	46.67	42.81	40.21	41.34	54.57	123.3	151.7	167.5	180.2	171.9	1223.1
2006-2007	146	64.4	47.76	42.34	41.23	41.34	53.36	116.8	151.2	168.8	182	169	1224.2
2007-2008	142.4	65.65	50.28	42.03	39.01	38.37	58.37	126.1	149.8	169.3	180.8	170.7	1232.8
2008-2009	141.7	64.28	51.24	42.76	42.69	41.6	52.41	120.5	150.5	172.1	181.7	171.1	1232.4
2009-2010	140.1	66.91	49.37	44.74	43.76	42.79	56.28	124.4	150.7	165.1	176.6	175.1	1235.7
2010-2011	146.2	66.23	53.03	46.24	42.61	41.55	54.21	118.2	147.4	164.7	178.3	171	1229.7
2011-2012	143.9	62.85	46.13	42.09	40.75	39.37	51.74	122.2	148.9	168	184.9	174.1	1224.9
2012-2013	144.2	65.92	51.18	43.54	41.33	42.76	55.38	124.8	155.8	168	179.2	172.3	1244.5
2013-2014	142.2	61.68	52.25	41.33	44.69	43.16	56.96	124	148	167.3	177.7	168.9	1228.1
2014-2015	143.1	63.66	48.49	45.12	40.67	40.8	54.64	117.5	152.6	161.8	178.4	173.6	1220.4
AVERAGE	140.7	63.8	49.1	42.6	41.6	41.0	53.9	119.9	149.1	164.5	177.7	167.9	

**Table A. 20** Beyarmudu station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.3	92.41	54.85	42.47	40.82	50.1	80.84	100.8	130	148.5	157.4	141.3	1154.8
1979-1980	119.3	92.76	62.62	41.41	39.89	47.38	79.77	100.4	132.2	149.4	156.9	146.7	1168.9
1980-1981	117	93.14	63.48	43.68	41.48	47.43	81.25	101.9	128.1	149.7	157.4	147.2	1171.8
1981-1982	121.1	98.42	55.96	44.92	44.06	43.85	74.86	100.3	131.5	147	153.9	145.5	1161.2
1982-1983	121.1	93.6	56.06	39.39	38.18	44.04	74.69	100.4	132.9	146.8	157.4	145.3	1149.9
1983-1984	118.3	91.87	62.13	44.41	44.36	50.38	80.11	97.6	137.3	147.5	157.6	145.7	1177.3
1984-1985	113.1	89.05	57.48	38.29	44.48	43.48	80.27	98.61	133.4	148.7	157.5	147.1	1151.4
1985-1986	119.4	89.05	63.26	46.26	46.61	53.2	85.22	108.5	129.8	149.6	156.2	145.8	1192.7
1986-1987	119.3	88.79	52.94	41.17	44	50.05	71.12	95.79	127.8	145.9	156.7	144.9	1138.3
1987-1988	116.3	85.21	53.07	37.09	37.94	43.16	74.91	100.9	132.7	148.7	163	148.9	1141.8
1988-1989	120.2	89.84	52.72	39.98	36.23	44.95	80.95	109.7	134.6	147.4	159	145.3	1160.8
1989-1990	118.5	88.86	57.82	41.44	37.26	45.99	79.45	101.5	131.7	148	155.8	146.6	1153.0
1990-1991	117.3	92.15	60.85	43.29	39.62	44.42	80.51	100	129.8	146	156	143.6	1153.5
1991-1992	117	91.5	56.29	33.43	32.67	35.8	70.35	96.96	125.2	142.6	152.4	146.1	1100.3
1992-1993	115.4	91.55	54.92	32.59	36.08	39.44	79.49	100	127.7	149.1	158.4	147.2	1131.9
1993-1994	119.4	100.4	57.37	45.23	48.46	49.93	82.28	100.4	130.2	149.8	157.6	148.5	1189.6
1994-1995	124.1	99.63	56.9	38.95	43.4	50.09	80.9	97.03	129.3	145.8	154	142	1162.1
1995-1996	116.6	87.73	50.21	38.85	40.32	47.2	75.03	94.87	130.1	146.6	154.9	143.3	1125.6
1996-1997	113.8	84.94	59.6	46.05	44.63	43.34	74.79	93.65	127.6	144.5	154	138.5	1125.4
1997-1998	112.6	87.22	58.46	42.12	41.23	48.37	75.42	99.82	127.4	145.2	154.3	144.9	1137.0
1998-1999	117.2	91.78	63.45	43.25	46.78	53.46	86.82	102.9	137.9	144.6	160.7	148	1196.9
1999-2000	121.8	93.12	59.27	46.15	40.73	48.37	78.59	101.1	131.8	150.2	157.1	145.9	1174.3
2000-2001	118.9	90.74	60.54	42.31	44.77	50.61	87.36	103.4	133.2	148.7	156	145.2	1181.7
2001-2002	117.9	93.64	58.77	43.22	40.12	52.17	84.08	100.7	131.4	150.5	159.6	146.1	1178.2
2002-2003	117.5	93.26	62.39	39.59	47.79	42.47	73.35	97.82	138.2	150.2	160.8	150	1173.3
2003-2004	120.1	95.13	61.68	44.64	42.41	47.47	82.29	100.6	128.7	146.1	156.7	145.6	1171.4
2004-2005	119	96.89	59.4	42.01	47.65	48.78	79.34	101	131	146.5	156.2	144.6	1172.3
2005-2006	119.3	88.52	54.46	42.35	39.56	47.55	80.58	103.1	133.3	150.1	159	149.1	1166.9
2006-2007	122.5	93.07	56.3	41.51	41.31	47.55	78.83	98.62	132.9	150.8	160.1	147.2	1170.8
2007-2008	119.9	94.95	60.5	40.97	37.52	42.92	85.97	105	132	151.2	159.4	148.3	1178.7
2008-2009	119.4	92.87	62.09	42.23	43.8	47.97	77.47	101.2	132.5	152.9	160	148.6	1180.8
2009-2010	118.2	96.84	58.98	45.72	45.63	49.84	82.99	103.8	132.6	148.6	156.7	151.3	1191.2
2010-2011	122.6	95.82	65.06	48.33	43.65	47.89	80.06	99.62	130.5	148.3	157.8	148.5	1188.3
2011-2012	121	90.71	53.56	41.07	40.51	44.49	76.52	102.3	131.4	150.3	162	150.6	1164.6
2012-2013	121.2	95.37	61.98	43.6	41.49	49.8	81.71	104.1	135.9	150.4	158.4	149.4	1193.4
2013-2014	119.8	88.93	63.75	39.73	47.21	50.41	83.97	103.6	130.9	149.9	157.4	147.1	1182.7
2014-2015	120.4	91.92	57.51	46.38	40.36	46.72	80.67	99.09	133.8	146.5	157.9	150.3	1171.6
AVERAGE	118.7	92.2	58.6	42.0	42.0	47.1	79.5	100.7	131.5	148.2	157.5	146.5	

**Table A. 21** Beylerbeyi station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	97.8	70.8	36.9	29.4	27.5	32.8	50.0	68.1	106.9	148.4	174.2	147.6	990.4
1979-1980	108.0	72.5	44.1	27.7	24.7	28.3	44.7	64.3	100.6	149.8	176.9	176.0	1017.6
1980-1981	102.7	68.0	40.3	29.1	26.4	30.5	51.8	74.9	103.0	177.1	197.2	170.8	1071.8
1981-1982	117.5	79.5	35.7	31.3	28.1	27.7	42.8	68.4	103.5	146.0	164.3	153.4	998.2
1982-1983	107.4	68.6	34.2	26.3	23.9	27.7	44.5	68.1	109.2	138.7	169.9	148.1	966.6
1983-1984	100.7	62.9	41.5	29.7	28.5	32.2	49.0	66.4	116.6	145.6	171.8	140.4	985.3
1984-1985	97.2	68.2	34.7	25.6	28.8	27.5	45.1	70.4	114.3	144.4	171.2	156.2	983.7
1985-1986	102.6	60.8	40.4	27.7	27.8	32.1	50.2	78.0	101.2	149.2	170.5	149.7	990.3
1986-1987	108.0	65.0	33.8	26.8	28.0	32.5	39.6	65.1	100.4	142.8	179.9	153.6	975.5
1987-1988	104.5	62.3	36.2	27.8	26.7	29.6	45.5	70.0	112.9	149.8	197.2	160.8	1023.2
1988-1989	105.7	62.3	33.3	26.7	23.2	28.9	48.7	82.5	117.3	142.6	180.0	152.9	1004.0
1989-1990	103.3	64.0	39.5	29.9	25.7	31.0	50.2	72.6	111.0	147.5	175.1	156.5	1006.2
1990-1991	104.0	72.6	43.1	31.3	28.2	31.0	53.1	74.5	106.2	150.5	168.9	152.6	1016.0
1991-1992	105.2	72.6	40.2	26.2	25.1	24.8	42.0	66.2	103.4	140.2	162.7	162.6	971.2
1992-1993	104.4	71.6	38.9	24.8	26.0	27.6	45.1	68.3	97.3	152.2	179.1	166.6	1001.8
1993-1994	107.4	81.4	38.3	31.7	31.0	33.0	49.9	78.6	117.1	153.4	176.1	166.0	1064.0
1994-1995	120.1	83.0	39.5	27.5	29.7	33.8	51.4	70.3	113.3	161.7	182.9	160.6	1073.8
1995-1996	107.9	68.5	35.0	27.9	27.1	33.5	49.3	67.7	122.7	162.7	190.9	169.7	1063.0
1996-1997	111.8	68.6	45.3	33.9	29.9	29.7	44.8	62.5	116.4	160.3	194.2	148.5	1046.0
1997-1998	104.0	70.7	42.7	30.4	28.0	32.8	47.4	77.1	109.0	159.0	194.5	178.8	1074.2
1998-1999	110.3	75.0	45.0	32.0	29.2	31.2	48.7	68.0	112.9	145.9	176.3	155.7	1030.2
1999-2000	102.0	71.5	39.9	30.4	26.5	31.7	47.2	74.4	116.2	170.9	199.1	165.8	1075.7
2000-2001	113.3	70.8	43.9	30.0	29.5	33.4	59.3	76.5	119.6	156.5	187.6	170.1	1090.5
2001-2002	115.0	76.4	41.3	30.3	26.3	35.8	55.3	72.8	113.9	161.0	199.0	165.5	1092.6
2002-2003	110.5	75.2	45.3	28.2	31.8	29.8	46.3	71.6	132.6	163.5	197.0	173.9	1105.6
2003-2004	110.7	73.7	41.7	29.4	27.2	31.0	53.5	74.2	112.2	158.3	195.8	165.6	1073.4
2004-2005	114.0	79.6	42.0	28.2	28.9	30.8	52.8	75.3	114.4	149.6	188.3	163.7	1067.6
2005-2006	114.7	68.9	38.3	30.8	27.3	32.6	51.7	78.1	117.1	159.2	189.5	172.8	1081.1
2006-2007	117.2	72.3	38.6	29.0	28.4	33.1	52.3	72.7	117.8	169.1	201.2	171.3	1103.2
2007-2008	113.1	77.8	42.8	29.7	26.3	30.8	58.0	79.8	116.2	167.5	194.5	176.2	1112.8
2008-2009	112.4	72.2	46.2	30.9	29.4	32.6	49.4	73.7	113.1	168.3	193.4	166.6	1088.2
2009-2010	106.8	76.8	41.0	33.1	31.7	34.7	54.2	77.7	116.6	151.7	180.5	182.6	1087.3
2010-2011	118.1	74.4	46.7	34.3	29.2	32.8	50.7	70.6	109.2	155.5	189.5	169.4	1080.4
2011-2012	116.3	68.9	36.1	28.6	26.7	29.5	46.6	74.1	110.2	162.0	204.7	178.3	1082.1
2012-2013	114.1	74.3	44.4	30.6	28.2	34.7	52.7	77.4	124.7	156.8	186.7	171.9	1096.6
2013-2014	109.7	66.8	44.8	27.5	31.3	34.3	54.4	76.1	110.2	154.3	180.3	167.2	1056.9
2014-2015	111.2	70.5	39.7	32.7	27.4	31.2	52.3	68.5	114.6	142.7	182.2	172.4	1045.3
AVERAGE	108.9	71.3	40.3	29.4	27.8	31.3	49.5	72.3	112.3	154.4	184.4	163.8	

**Table A. 22** Beylerbeyi station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.2	84.7	39.5	25.6	18.8	25.4	34.8	52.9	87.0	145.6	168.3	159.8	954.5
1979-1980	125.2	85.7	55.7	21.5	13.4	16.1	25.7	45.8	77.3	144.1	167.6	191.9	969.9
1980-1981	105.6	69.9	41.9	21.9	14.8	18.4	33.3	56.2	72.6	160.0	171.0	167.1	932.6
1981-1982	140.6	99.0	36.1	29.4	19.6	15.2	23.2	52.7	81.7	140.7	155.1	165.4	958.7
1982-1983	141.2	89.7	36.9	21.2	13.5	17.0	28.9	58.8	99.6	147.7	181.4	178.6	1014.5
1983-1984	116.9	70.3	50.7	26.4	20.7	24.2	33.3	50.2	99.3	142.1	165.8	150.3	950.1
1984-1985	118.1	84.8	36.5	18.7	22.4	15.8	28.6	60.0	101.9	148.9	174.7	181.5	991.9
1985-1986	119.9	66.3	48.0	22.1	19.4	24.1	35.1	68.6	79.8	146.6	164.2	162.7	956.8
1986-1987	138.6	80.2	35.0	21.7	21.3	26.8	20.0	52.0	84.9	149.6	188.9	181.6	1000.6
1987-1988	121.4	68.3	37.5	21.9	17.0	18.9	27.3	55.4	93.6	145.9	191.9	175.3	974.3
1988-1989	128.1	71.2	31.8	20.4	11.3	18.1	33.6	77.9	102.9	142.0	179.9	171.8	989.0
1989-1990	118.1	70.5	44.7	26.1	15.1	21.4	34.3	58.6	90.2	141.1	165.6	167.6	953.2
1990-1991	111.9	80.6	49.9	27.2	18.5	20.0	36.5	57.8	79.3	135.9	149.1	152.5	919.1
1991-1992	134.8	95.9	52.3	20.5	15.5	11.1	24.1	54.2	89.7	146.9	168.7	195.7	1009.6
1992-1993	126.2	88.7	45.8	16.3	16.5	15.7	27.8	54.8	76.8	154.9	179.0	190.0	992.4
1993-1994	106.2	86.4	35.5	25.7	21.5	21.5	29.1	58.2	84.0	127.0	142.9	153.4	891.5
1994-1995	122.1	88.8	37.8	18.1	19.4	22.9	31.2	47.1	80.0	135.9	149.4	147.6	900.3
1995-1996	115.0	72.3	31.3	20.2	16.3	24.2	30.3	47.0	96.4	147.3	168.4	169.3	938.0
1996-1997	118.7	71.5	52.9	31.5	20.8	17.1	23.6	39.0	88.2	142.7	169.5	142.7	918.2
1997-1998	103.8	71.8	45.3	23.6	16.9	21.7	26.2	57.2	76.9	135.6	163.1	169.9	912.0
1998-1999	117.1	82.1	52.4	27.9	19.7	19.8	29.3	47.0	84.7	126.7	152.4	151.7	910.6
1999-2000	103.0	74.3	40.4	24.2	14.7	20.2	26.4	54.6	86.0	150.8	170.2	158.9	923.7
2000-2001	108.6	67.5	44.7	21.5	18.2	21.3	40.0	52.9	82.8	124.4	146.9	150.6	879.4
2001-2002	112.2	76.5	40.2	22.2	13.5	25.6	35.3	48.9	78.2	130.9	159.1	148.0	890.6
2002-2003	106.0	74.3	47.7	18.4	21.9	15.6	23.4	47.0	96.2	132.5	156.3	155.6	894.9
2003-2004	112.4	76.3	43.3	21.8	15.6	18.6	34.5	53.2	80.2	134.6	164.0	155.7	910.2
2004-2005	116.0	84.8	43.5	19.5	18.2	18.0	33.4	54.4	82.1	124.4	156.2	152.8	903.4
2005-2006	116.2	68.3	35.8	24.1	15.7	21.0	31.7	57.9	84.6	134.1	156.4	161.5	907.3
2006-2007	115.7	71.1	35.2	20.2	16.9	21.3	31.6	49.2	82.7	140.1	162.1	155.0	901.2
2007-2008	106.9	76.4	41.9	20.6	13.1	16.8	37.8	56.3	78.4	133.6	150.8	154.5	887.3
2008-2009	109.5	70.7	50.1	23.4	18.4	20.3	27.7	50.2	77.8	138.9	154.8	149.7	891.4
2009-2010	100.0	75.4	38.8	26.7	21.4	23.3	33.1	54.1	79.3	118.6	139.6	161.7	871.9
2010-2011	115.5	73.4	50.6	29.4	18.0	20.5	29.1	45.8	73.1	124.7	150.1	151.4	881.5
2011-2012	123.9	71.6	33.0	21.0	15.2	16.6	26.0	55.1	80.8	143.7	178.5	175.5	940.9
2012-2013	108.7	71.9	45.2	22.3	16.1	23.2	31.2	53.7	87.2	123.8	144.9	151.1	879.2
2013-2014	111.3	65.9	49.7	18.3	22.4	24.3	35.8	55.9	78.2	130.5	149.7	157.6	899.5
2014-2015	118.0	74.6	40.8	29.2	16.6	19.6	34.2	47.6	86.4	122.6	157.9	170.4	918.0
AVERAGE	116.9	77.1	42.7	23.0	17.5	20.0	30.5	53.7	84.9	138.2	162.6	163.1	

**Table A. 23** Beylerbeyi station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	175.5	172.1	139.8	134.9	126.7	118.5	137.4	142	165.2	178.9	196	193.8	1880.7
1979-1980	182.3	173.7	151.9	130.7	119.2	109.1	129.4	138	160.9	179.5	197.2	206.3	1878.2
1980-1981	178.8	169.2	145.9	134.1	123.8	114	139.8	148.5	162.5	190.9	204.8	204.2	1916.6
1981-1982	188	180.2	137.5	139.3	128.1	107.9	126.5	142.2	162.9	177.7	191.9	196.6	1878.9
1982-1983	181.9	169.8	134.6	127.1	116.7	107.7	129.2	142	166.6	174.3	194.3	194.1	1838.3
1983-1984	177.5	163.7	147.8	135.7	129.2	117.3	136	140.2	171.3	177.5	195.1	190.3	1881.7
1984-1985	175.1	169.4	135.7	125.3	129.9	107.3	130.1	144.3	169.8	177	194.8	197.8	1856.6
1985-1986	178.8	161.4	145.9	130.8	127.5	117.2	137.6	151.2	161.3	179.2	194.6	194.9	1880.3
1986-1987	182.3	166.1	133.9	128.3	128	117.9	120.9	138.9	160.7	176.3	198.3	196.6	1848.1
1987-1988	180	163	138.6	131	124.5	112.1	130.7	143.9	169	179.5	204.8	199.9	1876.9
1988-1989	180.8	163.1	132.7	128.1	114.8	110.4	135.5	155	171.7	176.1	198.4	196.4	1863.0
1989-1990	179.3	164.9	144.4	136.2	121.9	115	137.6	146.3	167.8	178.4	196.4	198	1886.1
1990-1991	179.7	173.8	150.4	139.2	128.4	114.9	141.5	148.1	164.7	179.8	193.9	196.2	1910.7
1991-1992	180.5	173.8	145.7	126.9	120.2	100.9	125	140	162.8	175	191.2	200.7	1842.7
1992-1993	180	172.8	143.4	122.9	122.8	107.6	130.1	142.2	158.5	180.5	198	202.4	1861.2
1993-1994	181.9	181.9	142.4	140.3	135.1	118.8	137.2	151.7	171.5	181.1	196.8	202.2	1941.1
1994-1995	189.5	183.3	144.4	130.3	132.2	120.4	139.4	144.1	169.2	184.7	199.5	199.8	1936.6
1995-1996	182.2	169.7	136.3	131.3	125.7	119.9	136.3	141.5	174.9	185.1	202.5	203.7	1909.2
1996-1997	184.6	169.8	153.8	145	132.6	112.3	129.6	136.1	171.1	184.1	203.7	194.3	1917.1
1997-1998	179.6	171.9	149.8	137.2	127.8	118.6	133.5	150.4	166.5	183.6	203.8	207.3	1930.2
1998-1999	183.7	176.1	153.3	140.9	130.8	115.4	135.6	141.9	169	177.7	196.9	197.6	1918.9
1999-2000	178.3	172.7	145.2	137.4	123.9	116.4	133.3	148	171	188.4	205.5	202.1	1922.4
2000-2001	185.5	172.1	151.7	136.4	131.5	119.6	149.3	149.9	173.1	182.4	201.3	203.9	1956.7
2001-2002	186.6	177.4	147.5	137	123.5	124	144.4	146.5	169.6	184.4	205.4	201.9	1948.3
2002-2003	183.8	176.3	153.8	131.9	136.8	112.4	131.9	145.4	180.3	185.5	204.7	205.4	1948.3
2003-2004	183.9	174.8	148.2	134.9	125.8	115	142.1	147.8	168.6	183.2	204.3	202	1930.8
2004-2005	186	180.3	148.6	132	130.1	114.4	141.2	148.8	170	179.4	201.5	201.2	1933.5
2005-2006	186.4	170.2	142.4	138.3	126.2	118.1	139.7	151.3	171.6	183.7	202	204.9	1934.8
2006-2007	187.9	173.5	142.9	134.1	129	119.1	140.6	146.5	172	187.7	206.2	204.4	1943.9
2007-2008	185.4	178.7	150	135.6	123.5	114.5	147.8	152.7	171	187.1	203.8	206.3	1956.5
2008-2009	185	173.4	155.2	138.4	131.4	118.1	136.5	147.4	169.2	187.4	203.4	202.4	1947.7
2009-2010	181.5	177.8	147.1	143.2	136.7	122.1	142.9	151	171.3	180.3	198.6	208.9	1961.2
2010-2011	188.4	175.6	155.9	145.9	130.9	118.5	138.3	144.4	166.6	182	202	203.5	1952.0
2011-2012	187.3	170.1	138.4	132.9	124.5	111.8	132.4	147.7	167.3	184.8	207.4	207.2	1911.9
2012-2013	186	175.4	152.5	137.7	128.4	122.1	141	150.7	176	182.6	200.9	204.6	1958.0
2013-2014	183.4	168	153.1	130.1	135.8	121.3	143.2	149.5	167.3	181.5	198.5	202.6	1934.5
2014-2015	184.2	171.7	144.7	142.4	126.5	115.2	140.4	142.4	170.1	176.2	199.2	204.8	1918.0
AVERAGE	182.7	172.4	145.6	134.7	127.3	115.3	136.3	145.9	168.5	181.5	199.9	201.1	

**Table A. 24** Beylerbeyi station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	134.9	63.63	47.08	43.14	41.72	42.38	54.03	115.5	144.2	161.7	174.3	162.1	1184.6
1979-1980	140.1	64.23	51.17	41.81	39.24	39.04	50.88	112.3	140.4	162.2	175.2	172.5	1189.2
1980-1981	137.5	62.55	49.14	42.9	40.77	40.76	54.99	120.8	141.8	172.5	182	170.8	1216.6
1981-1982	144.5	66.63	46.31	44.56	42.18	38.58	49.73	115.7	142.2	160.6	170.6	164.4	1186.1
1982-1983	139.8	62.79	45.31	40.65	38.44	38.53	50.8	115.5	145.5	157.5	172.7	162.4	1169.9
1983-1984	136.4	60.54	49.77	43.4	42.55	41.97	53.48	114.1	149.5	160.5	173.4	159.2	1184.8
1984-1985	134.6	62.64	45.7	40.06	42.75	38.37	51.17	117.4	148.3	160	173.2	165.5	1179.6
1985-1986	137.4	59.66	49.16	41.84	41.96	41.91	54.13	123	140.8	162	172.9	163	1187.8
1986-1987	140.1	61.4	45.09	41.04	42.13	42.18	47.53	113	140.3	159.3	176.3	164.5	1172.8
1987-1988	138.4	60.27	46.68	41.88	40.98	40.09	51.38	117.1	147.5	162.2	182	167.2	1195.7
1988-1989	138.9	60.3	44.7	40.97	37.79	39.5	53.27	126.1	149.9	159.2	176.3	164.2	1191.2
1989-1990	137.8	60.96	48.63	43.54	40.13	41.14	54.11	119	146.5	161.3	174.6	165.6	1193.3
1990-1991	138.1	64.28	50.65	44.53	42.26	41.11	55.66	120.5	143.8	162.5	172.4	164.1	1199.8
1991-1992	138.7	64.28	49.09	40.57	39.57	36.07	49.16	113.9	142.1	158.1	170	167.8	1169.5
1992-1993	138.3	63.9	48.3	39.28	40.42	38.49	51.17	115.7	138.3	163.2	176	169.3	1182.4
1993-1994	139.8	67.25	47.96	44.87	44.49	42.51	53.97	123.5	149.7	163.7	175	169.1	1221.8
1994-1995	145.7	67.76	48.63	41.67	43.51	43.06	54.8	117.2	147.7	166.9	177.3	167.1	1221.4
1995-1996	140.1	62.76	45.88	42	41.37	42.9	53.61	115.2	152.6	167.3	180	170.4	1214.1
1996-1997	141.9	62.79	51.79	46.36	43.64	40.16	50.97	110.7	149.4	166.4	181.1	162.5	1207.8
1997-1998	138.1	63.57	50.44	43.88	42.09	42.42	52.51	122.4	145.4	165.9	181.2	173.4	1221.2
1998-1999	141.2	65.12	51.64	45.06	43.07	41.28	53.3	115.4	147.5	160.6	175	165.3	1204.6
1999-2000	137.1	63.86	48.92	43.93	40.8	41.65	52.43	120.4	149.3	170.3	182.7	169	1220.4
2000-2001	142.6	63.63	51.09	43.61	43.3	42.79	58.73	122	151	164.9	178.9	170.5	1233.1
2001-2002	143.4	65.6	49.7	43.79	40.65	44.36	56.79	119.2	148.1	166.7	182.6	168.9	1229.7
2002-2003	141.3	65.18	51.79	42.17	45.04	40.22	51.88	118.3	157.4	167.6	182	171.8	1234.7
2003-2004	141.4	64.65	49.93	43.15	41.43	41.14	55.88	120.3	147.1	165.6	181.6	168.9	1221.2
2004-2005	142.9	66.67	50.05	42.23	42.84	40.93	55.54	121.1	148.3	162.2	179.2	168.3	1220.1
2005-2006	143.3	62.92	47.96	44.21	41.56	42.24	54.94	123.1	149.8	166	179.5	171.4	1226.9
2006-2007	144.4	64.16	48.13	42.87	42.48	42.61	55.28	119.2	150.1	169.7	183.3	170.9	1233.1
2007-2008	142.5	66.08	50.52	43.37	40.64	40.96	58.13	124.3	149.3	169.1	181.2	172.6	1238.7
2008-2009	142.2	64.11	52.26	44.25	43.24	42.24	53.68	119.9	147.6	169.4	180.8	169.3	1229.0
2009-2010	139.5	65.73	49.53	45.8	44.98	43.66	56.22	122.8	149.5	163	176.5	174.7	1231.9
2010-2011	144.8	64.91	52.52	46.64	43.11	42.37	54.39	117.5	145.5	164.5	179.5	170.3	1226.0
2011-2012	144	62.92	46.61	42.51	40.97	40	52.07	120.2	146	167	184.4	173.3	1220.0
2012-2013	143	64.87	51.35	44.04	42.28	43.65	55.47	122.6	153.6	165.1	178.6	171.1	1235.7
2013-2014	140.9	62.11	51.56	41.61	44.71	43.4	56.33	121.6	146	164.1	176.4	169.5	1218.3
2014-2015	141.6	63.5	48.75	45.54	41.63	41.22	55.23	115.9	148.4	159.2	177.1	171.3	1209.4
AVERAGE	140.5	63.7	49.0	43.1	41.9	41.2	53.6	118.7	147.0	164.0	177.7	168.2	

**Table A. 25** Beylerbeyi station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116.4	93.4	56.13	43.68	43.01	50.23	81.49	99.81	131	149.2	158.1	145.1	1167.7
1979-1980	120.3	94.31	62.93	41.35	38.81	44.97	77.02	97.59	128.6	149.6	158.7	152.1	1166.3
1980-1981	118.3	91.77	59.58	43.27	41.4	47.69	82.87	103.5	129.5	156	163	150.9	1187.8
1981-1982	123.5	97.96	54.87	46.17	43.81	44.28	75.38	99.95	129.7	148.6	155.8	146.7	1166.7
1982-1983	120	92.14	53.21	39.31	37.43	44.18	76.9	99.82	131.8	146.6	157.1	145.3	1143.9
1983-1984	117.5	88.72	60.62	44.14	44.43	49.59	80.71	98.8	134.4	148.5	157.6	143.2	1168.2
1984-1985	116.2	91.92	53.85	38.3	44.78	43.94	77.42	101.1	133.6	148.2	157.4	147.4	1154.1
1985-1986	118.3	87.39	59.59	41.41	43.44	49.5	81.64	105	128.8	149.4	157.3	145.7	1167.5
1986-1987	120.2	90.03	52.83	40	43.74	49.91	72.23	98.06	128.5	147.8	159.4	146.7	1149.4
1987-1988	119	88.31	55.47	41.49	41.78	46.64	77.73	100.9	133.1	149.6	163	148.5	1165.5
1988-1989	119.4	88.37	52.18	39.89	36.35	45.72	80.43	107.1	134.7	147.7	159.4	146.5	1157.8
1989-1990	118.5	89.36	58.73	44.4	40.32	48.27	81.62	102.2	132.5	149	158.3	147.4	1170.7
1990-1991	118.8	94.37	62.08	46.12	43.95	48.23	83.82	103.2	130.7	149.8	156.9	146.5	1184.5
1991-1992	119.2	94.39	59.47	39.18	39.37	40.35	74.58	98.69	129.7	147	155.4	148.9	1146.3
1992-1993	118.9	93.82	58.17	36.93	40.81	44.12	77.44	99.93	127.3	150.2	159.2	149.9	1156.7
1993-1994	120	98.9	57.62	46.71	47.74	50.42	81.42	105.3	134.6	150.5	158.6	149.8	1201.5
1994-1995	124.3	99.68	58.71	41.1	46.09	51.28	82.62	101	133.3	152.5	160.1	148.5	1199.0
1995-1996	120.2	92.08	54.16	41.69	42.42	51.05	80.9	99.56	136.4	152.8	161.8	150.6	1183.7
1996-1997	121.6	92.14	63.98	49.34	46.31	46.76	77.13	96.52	134.3	152.2	162.4	145.4	1188.1
1997-1998	118.8	93.32	61.74	44.98	43.65	50.3	79.35	104.5	131.8	151.9	162.5	152.7	1195.4
1998-1999	121	95.65	63.72	47.06	45.33	48.5	80.48	99.75	133.1	148.6	158.6	147.2	1189.1
1999-2000	118	93.74	59.19	45.07	41.46	49.08	79.22	103.2	134.3	154.6	163.4	149.7	1191.0
2000-2001	122.1	93.4	62.81	44.52	45.7	50.87	88.21	104.3	135.4	151.2	161	150.8	1210.3
2001-2002	122.6	96.4	60.49	44.84	41.22	53.33	85.43	102.3	133.5	152.3	163.4	149.7	1205.6
2002-2003	121.1	95.76	63.98	41.99	48.68	46.84	78.45	101.7	139.5	152.9	163	151.6	1205.6
2003-2004	121.2	94.95	60.88	43.69	42.53	48.29	84.13	103.1	132.9	151.7	162.8	149.7	1195.8
2004-2005	122.3	98	61.09	42.08	44.93	47.95	83.65	103.6	133.7	149.5	161.2	149.2	1197.3
2005-2006	122.5	92.33	57.61	45.57	42.75	50.01	82.8	105	134.6	151.9	161.4	151.3	1198.0
2006-2007	123.4	94.22	57.9	43.22	44.31	50.58	83.29	102.3	134.8	154.2	163.8	151	1203.1
2007-2008	122	97.12	61.88	44.1	41.19	47.99	87.36	105.8	134.3	153.9	162.5	152.1	1210.2
2008-2009	121.8	94.15	64.77	45.64	45.63	50	81	102.8	133.2	154	162.3	149.9	1205.2
2009-2010	119.8	96.6	60.22	48.35	48.59	52.24	84.63	104.9	134.4	150.1	159.5	153.5	1212.8
2010-2011	123.7	95.35	65.18	49.83	45.39	50.21	82	101.1	131.8	151	161.5	150.6	1207.6
2011-2012	123.1	92.32	55.35	42.59	41.75	46.49	78.7	103	132.2	152.6	164.5	152.6	1185.2
2012-2013	122.3	95.28	63.25	45.27	43.97	52.23	83.55	104.7	137.1	151.3	160.9	151.2	1211.0
2013-2014	120.8	91.1	63.61	41.02	48.12	51.83	84.78	104	132.2	150.7	159.5	150.1	1197.8
2014-2015	121.3	93.2	58.9	47.9	42.89	48.41	83.22	100	133.8	147.7	159.9	151.3	1188.6
AVERAGE	120.5	93.6	59.4	43.6	43.4	48.4	80.9	102.0	132.8	150.7	160.3	149.2	

**Table A. 26** Bogaz station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	99.1	70.8	37.0	29.8	28.2	33.3	49.3	69.2	105.4	149.0	172.0	148.0	991.0
1979-1980	107.4	71.9	44.9	28.2	25.4	28.4	45.4	65.6	102.3	152.2	178.6	171.3	1021.5
1980-1981	99.9	68.9	41.6	29.5	26.8	30.8	50.4	73.1	99.2	165.4	185.1	160.4	1031.0
1981-1982	110.1	77.4	36.2	32.2	27.9	27.0	42.1	66.7	101.0	146.2	162.9	153.7	983.4
1982-1983	107.9	68.6	33.7	26.4	23.5	27.2	44.1	65.5	106.7	134.9	170.9	148.5	958.1
1983-1984	102.9	63.6	42.5	29.5	28.5	32.7	49.4	66.2	117.1	148.0	169.5	138.0	988.0
1984-1985	95.9	70.8	36.5	27.6	29.2	27.3	46.0	72.1	115.8	145.6	174.3	155.6	996.7
1985-1986	104.7	61.9	41.3	28.6	27.9	32.0	49.4	77.0	99.3	147.4	169.9	149.7	989.2
1986-1987	109.4	65.7	34.2	27.2	28.2	32.1	39.4	65.1	102.1	143.5	182.2	152.6	981.6
1987-1988	103.6	62.2	37.6	28.7	27.3	29.8	45.5	70.4	111.5	147.3	192.2	158.2	1014.4
1988-1989	108.4	62.1	32.1	26.1	23.5	28.3	48.6	82.6	118.7	143.8	181.8	150.8	1006.8
1989-1990	100.9	62.7	39.1	29.2	24.9	30.2	49.5	72.1	108.5	144.3	167.0	150.8	979.3
1990-1991	95.1	71.4	40.3	29.3	25.8	29.4	52.9	73.2	104.6	148.1	166.5	146.1	982.6
1991-1992	100.0	72.0	38.5	24.9	23.7	22.9	37.9	61.4	98.0	127.9	153.6	164.7	925.4
1992-1993	99.7	68.8	37.6	23.5	25.2	26.6	43.8	66.0	91.9	149.5	177.1	165.6	975.4
1993-1994	105.1	79.5	37.1	30.5	29.7	31.4	46.4	74.6	111.1	148.8	174.8	163.9	1032.8
1994-1995	112.1	74.0	35.1	23.7	24.9	28.9	43.9	60.7	102.8	159.6	185.9	159.0	1010.7
1995-1996	106.0	67.3	33.5	27.5	26.7	33.1	48.4	67.3	126.0	170.1	190.0	163.9	1059.8
1996-1997	104.2	62.1	41.7	30.3	26.6	25.7	39.4	57.4	117.8	151.1	195.4	152.8	1004.5
1997-1998	93.6	64.3	39.8	28.6	26.9	31.9	45.3	77.9	110.9	174.5	211.6	192.0	1097.3
1998-1999	113.1	76.9	45.0	32.0	28.7	32.8	51.0	71.4	118.2	158.1	183.1	158.8	1069.3
1999-2000	109.8	73.9	41.7	32.0	24.6	29.8	44.0	73.2	116.1	179.0	218.1	169.4	1111.6
2000-2001	111.7	70.3	42.1	28.6	28.9	32.3	58.5	77.9	126.2	172.2	199.4	168.8	1116.9
2001-2002	109.6	71.3	39.2	28.3	25.9	36.0	56.4	74.7	121.7	178.8	214.1	177.4	1133.4
2002-2003	115.2	74.5	42.3	26.8	30.4	27.0	44.6	69.8	140.7	171.3	207.7	180.4	1130.8
2003-2004	110.2	73.4	42.2	28.9	25.6	29.7	51.2	72.7	115.8	162.6	196.7	154.6	1063.7
2004-2005	104.7	72.9	37.6	26.1	26.8	27.8	47.6	73.0	111.7	148.3	189.7	161.7	1028.0
2005-2006	109.9	62.0	35.2	28.7	25.1	29.8	46.5	74.6	116.7	169.7	196.3	183.2	1077.9
2006-2007	115.2	69.9	37.2	27.4	26.0	31.4	49.6	71.2	123.9	180.0	210.4	176.7	1119.0
2007-2008	112.6	75.6	40.1	27.6	24.3	29.1	56.8	77.6	113.8	174.4	191.8	172.1	1095.8
2008-2009	106.2	66.3	42.8	29.0	28.7	29.9	46.2	71.7	116.0	180.3	209.0	167.7	1093.9
2009-2010	104.7	75.7	39.9	30.2	28.7	32.0	52.1	76.9	110.2	139.0	164.2	171.4	1024.9
2010-2011	108.2	67.2	45.0	30.2	26.9	30.2	46.4	65.4	100.9	144.3	174.5	157.8	997.1
2011-2012	107.4	61.7	32.7	26.7	24.2	26.8	43.2	70.8	101.6	155.0	191.5	166.9	1008.5
2012-2013	104.7	69.3	40.5	28.0	25.9	31.7	47.6	73.4	121.4	148.1	172.1	163.2	1025.8
2013-2014	99.9	62.3	41.5	24.8	28.8	31.6	50.1	69.6	101.7	148.5	164.5	150.6	973.9
2014-2015	98.8	63.8	36.4	30.0	25.0	28.1	47.7	62.8	108.6	132.1	171.5	159.8	964.5
AVERAGE	105.6	69.0	39.0	28.3	26.6	29.9	47.5	70.6	111.3	155.1	184.2	161.8	

**Table A. 27** Bogaz station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114.1	85.1	38.3	25.9	19.8	26.4	33.9	54.3	85.3	144.9	164.1	149.6	941.5
1979-1980	123.1	84.5	54.3	21.9	14.2	16.1	26.8	47.1	78.8	144.4	166.3	171.5	949.1
1980-1981	108.6	76.7	45.6	23.9	16.2	19.9	33.6	56.9	72.8	155.8	168.2	154.7	932.9
1981-1982	135.2	100.2	37.5	32.0	19.9	14.3	22.9	51.9	82.0	145.7	158.3	161.1	961.0
1982-1983	147.0	93.5	35.6	21.8	13.0	16.5	29.2	55.6	99.6	145.5	186.8	172.3	1016.5
1983-1984	119.9	71.6	50.6	25.2	20.4	25.0	34.0	49.5	100.0	143.3	160.9	137.1	937.4
1984-1985	111.5	87.1	38.0	21.8	22.1	14.8	29.1	60.2	100.6	143.6	170.2	162.1	961.3
1985-1986	123.4	68.8	48.2	23.5	19.3	23.8	34.2	66.9	77.7	143.4	162.3	152.2	943.9
1986-1987	139.9	81.5	34.5	22.1	21.2	25.6	19.4	51.3	86.9	148.2	188.5	166.6	985.6
1987-1988	121.2	69.0	39.7	23.7	18.2	19.2	27.7	56.2	93.1	142.7	186.3	161.7	958.7
1988-1989	133.9	71.8	28.4	19.0	11.9	17.0	34.1	78.5	106.2	143.8	182.0	159.1	985.6
1989-1990	122.5	73.5	45.1	25.9	14.5	21.1	35.9	61.6	93.4	145.3	165.7	160.1	964.6
1990-1991	110.0	88.0	46.6	25.3	15.7	18.9	40.7	61.8	85.8	146.5	160.8	150.2	950.4
1991-1992	145.3	110.1	52.7	19.9	14.7	8.7	19.9	52.7	94.5	147.2	178.6	211.7	1055.7
1992-1993	129.5	91.9	44.7	15.0	16.0	14.8	28.0	55.4	75.8	163.7	190.6	191.2	1016.6
1993-1994	113.0	92.2	35.0	25.1	20.9	20.5	26.8	57.5	84.9	132.4	153.3	154.5	916.2
1994-1995	140.3	95.1	35.6	14.2	14.4	18.4	26.3	42.7	85.6	165.5	187.5	169.9	995.5
1995-1996	115.5	72.7	28.0	19.5	15.9	24.0	30.1	47.5	103.1	158.6	170.5	156.1	941.5
1996-1997	127.4	72.0	51.2	28.3	17.5	12.0	18.8	37.2	105.3	154.1	198.1	162.0	983.9
1997-1998	92.2	63.8	38.7	20.5	15.4	20.5	24.0	59.5	81.0	154.4	181.2	175.0	926.2
1998-1999	113.1	80.0	46.7	25.6	17.5	21.1	30.7	48.2	85.1	130.4	147.6	135.9	881.9
1999-2000	109.2	75.8	40.6	25.6	11.2	16.0	21.2	50.8	83.2	152.3	179.1	146.6	911.6
2000-2001	105.6	66.3	39.1	18.6	17.0	19.1	39.0	53.8	88.7	137.6	154.1	138.3	877.2
2001-2002	102.9	67.7	34.0	18.1	12.5	25.1	36.2	49.7	84.3	143.7	166.1	145.8	886.2
2002-2003	112.4	74.2	40.4	16.0	19.6	11.2	21.3	44.8	105.0	140.0	164.9	152.2	902.0
2003-2004	116.2	79.4	44.2	21.3	13.5	16.9	32.8	53.1	87.6	143.5	169.6	139.8	917.8
2004-2005	119.5	86.6	38.5	17.8	16.8	15.1	30.2	58.7	90.8	140.1	178.8	161.4	954.4
2005-2006	119.5	62.7	31.2	21.7	13.1	17.5	26.8	57.3	91.2	156.0	174.4	173.9	945.3
2006-2007	116.1	69.6	32.1	17.6	13.4	18.8	28.9	48.1	91.3	153.3	172.5	153.5	915.3
2007-2008	114.0	79.1	38.1	18.0	10.9	15.1	39.3	57.1	81.6	149.2	157.7	150.8	910.9
2008-2009	107.3	65.7	43.9	20.9	18.0	16.8	24.8	49.9	85.1	157.6	175.5	148.6	914.2
2009-2010	112.3	85.8	40.8	24.6	19.0	21.7	35.2	60.7	83.8	120.5	142.0	162.0	908.4
2010-2011	127.0	77.6	55.9	26.6	17.2	19.9	28.9	47.9	78.8	137.5	165.3	159.8	942.6
2011-2012	136.2	73.0	30.7	20.9	13.5	14.5	25.7	61.0	86.0	163.5	198.7	183.9	1007.5
2012-2013	116.5	78.0	43.6	21.1	14.8	21.9	29.5	57.8	100.1	136.2	155.8	159.0	934.3
2013-2014	121.6	73.0	51.1	16.6	21.9	24.0	37.0	57.8	84.6	151.9	163.6	160.7	963.9
2014-2015	126.0	80.0	40.9	29.1	15.4	17.8	34.5	48.8	98.7	135.9	180.7	180.8	988.7
AVERAGE	120.2	79.0	41.1	22.0	16.4	18.7	29.7	54.3	89.1	146.4	171.0	160.3	

**Table A. 28** Bogaz station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	176.3	172	139.9	135.8	128.3	119.5	136.2	143	164.1	179	195.1	193.9	1883.2
1979-1980	181.8	173.1	153.1	132	120.9	109.4	130.5	139.3	161.9	180.5	197.8	204.2	1884.5
1980-1981	176.9	170	147.9	135.1	124.7	114.4	137.8	146.7	159.8	186.2	200.2	199.6	1899.3
1981-1982	183.5	178.2	138.4	141.3	127.7	106.1	125.1	140.5	161.1	177.8	191.3	196.6	1867.6
1982-1983	182.1	169.7	133.5	127.3	115.6	106.6	128.4	139.2	165	172.3	194.6	194.2	1828.6
1983-1984	178.9	164.4	149.4	135.1	129.1	118.3	136.4	140	171.5	178.6	194	189.1	1884.7
1984-1985	174	172	139.1	130.3	130.8	106.9	131.3	145.7	170.7	177.5	196	197.6	1872.0
1985-1986	180.1	162.5	147.4	132.9	127.7	117	136.4	150.3	159.9	178.3	194.2	194.8	1881.4
1986-1987	183	166.7	134.7	129.4	128.3	117	120.4	138.8	161.8	176.5	199.1	196.1	1851.8
1987-1988	179.4	162.8	141.1	133.2	126.1	112.3	130.6	144.2	168.1	178.2	202.9	198.7	1877.8
1988-1989	182.4	162.8	130.2	126.3	115.6	109	135.3	155	172.4	176.7	198.9	195.3	1860.0
1989-1990	177.5	163.5	143.7	134.5	119.7	113.2	136.6	145.8	166.2	176.8	193	195.3	1865.7
1990-1991	173.5	172.6	145.7	134.5	122.1	111.5	141.3	146.8	163.6	178.6	192.8	193.1	1876.1
1991-1992	177	173.1	142.7	123.1	116.2	95.51	117.8	134.8	159	168.7	187.1	201.5	1796.5
1992-1993	176.7	170	141	119.2	120.4	105.1	127.9	139.9	154.4	179.3	197.1	201.9	1832.9
1993-1994	180.3	180.1	140.1	137.4	132.1	115.6	132.1	148.1	167.8	179	196.3	201.1	1909.9
1994-1995	184.8	175	136.4	119.7	119.7	110.5	128.2	134.1	162.3	183.7	200.5	199	1853.8
1995-1996	180.9	168.4	133.2	130.1	124.6	119	135	141.1	176.7	188.1	202.1	201.1	1900.3
1996-1997	179.7	162.7	148.2	137.1	124.1	102.9	120.4	130.2	171.9	180	204.1	196.2	1857.5
1997-1998	172.4	165.2	144.8	132.9	125.1	116.7	130.3	151.1	167.7	189.8	209.6	212.3	1918.0
1998-1999	185.4	177.8	153.2	140.9	129.6	118.5	138.7	145.1	172.1	183.1	199.5	198.9	1942.9
1999-2000	183.3	175	148	140.8	118.6	112.3	128.3	146.9	170.9	191.5	211.8	203.5	1931.0
2000-2001	184.5	171.4	148.8	132.9	130.1	117.4	148.3	151	176.8	188.9	205.5	203.2	1958.9
2001-2002	183.2	172.4	144	132.2	122.3	124.3	145.8	148.2	174.2	191.4	210.5	206.7	1955.3
2002-2003	186.6	175.6	149	128.3	133.6	106	129.3	143.6	184.4	188.6	208.4	207.9	1941.3
2003-2004	183.5	174.5	148.9	133.7	121.7	112.2	138.9	146.4	170.7	185	204.5	197	1917.1
2004-2005	180.1	174.1	141	126.5	124.8	108.1	133.8	146.6	168.1	178.7	202	200.2	1884.0
2005-2006	183.4	162.7	136.6	133.2	120.3	112.3	132.2	148.1	171.3	187.9	204.4	209	1901.2
2006-2007	186.6	171.1	140.2	129.9	122.7	115.8	136.7	145	175.5	191.9	209.3	206.4	1931.0
2007-2008	185	176.6	145.5	130.3	117.8	110.8	146.3	150.8	169.5	189.8	202.8	204.6	1929.7
2008-2009	181	167.4	149.9	134	129.7	112.7	131.7	145.4	170.8	192.1	208.8	202.8	1926.2
2009-2010	180.1	176.7	145	136.8	129.5	117	140.1	150.1	167.3	174.3	191.8	204.3	1913.0
2010-2011	182.3	168.3	153.3	136.9	125	113.2	132.1	139.2	161	176.9	196.1	198.5	1882.6
2011-2012	181.8	162.2	131.5	128	117.7	105.6	127	144.6	161.5	181.7	202.6	202.4	1846.6
2012-2013	180.1	170.5	146	131.5	122.4	116.4	133.8	147	174	178.6	195.1	200.9	1896.2
2013-2014	176.9	162.9	147.7	122.9	129.8	116.1	137.4	143.4	161.6	178.8	191.9	195.2	1864.6
2014-2015	176.1	164.6	138.8	136.3	119.9	108.7	133.9	136.4	166.2	170.8	194.9	199.3	1845.9
AVERAGE	180.6	170.0	143.2	132.0	124.2	112.3	133.3	144.1	167.6	181.5	199.6	200.1	

**Table A. 29** Bogaz station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.6	63.61	47.16	43.44	42.26	42.75	53.61	116.4	143.3	161.9	173.5	162.3	1185.8
1979-1980	139.8	64.03	51.58	42.21	39.82	39.13	51.36	113.4	141.4	163.2	175.9	170.9	1192.7
1980-1981	136	62.9	49.83	43.23	41.06	40.94	54.21	119.4	139.6	168.3	178.1	167	1200.7
1981-1982	141.1	65.94	46.64	45.22	42.05	37.96	49.23	114.3	140.7	160.7	170.1	164.5	1178.5
1982-1983	140.1	62.81	45	40.73	38.06	38.16	50.54	113.3	144.1	155.8	173.1	162.5	1164.1
1983-1984	137.6	60.82	50.33	43.21	42.54	42.31	53.68	114	149.8	161.5	172.6	158.2	1186.4
1984-1985	133.8	63.63	46.87	41.71	43.08	38.23	51.69	118.6	149.1	160.5	174.3	165.3	1186.8
1985-1986	138.5	60.11	49.68	42.52	42.03	41.86	53.66	122.3	139.6	161.2	172.7	163	1187.3
1986-1987	140.8	61.68	45.36	41.39	42.26	41.87	47.38	113	141.3	159.6	177.1	164.1	1175.8
1987-1988	137.9	60.22	47.55	42.62	41.54	40.19	51.4	117.3	146.8	161.2	180.4	166.2	1193.5
1988-1989	140.3	60.21	43.88	40.43	38.08	39.01	53.23	126.2	150.6	159.7	176.9	163.4	1192.0
1989-1990	136.5	60.46	48.42	43.01	39.42	40.55	53.75	118.6	145.1	159.9	171.6	163.4	1180.8
1990-1991	133.4	63.84	49.1	43.05	40.22	39.91	55.59	119.5	142.8	161.5	171.4	161.6	1181.9
1991-1992	136.1	64.05	48.08	39.38	38.29	34.18	46.31	109.7	138.8	152.5	166.4	168.6	1142.4
1992-1993	135.9	62.89	47.53	38.15	39.65	37.62	50.33	113.8	134.8	162.1	175.3	168.9	1167.1
1993-1994	138.7	66.63	47.19	43.95	43.51	41.38	51.96	120.5	146.5	161.8	174.5	168.3	1205.0
1994-1995	142.1	64.76	45.95	38.3	39.4	39.54	50.42	109.1	141.8	166.1	178.3	166.5	1182.3
1995-1996	139.1	62.29	44.86	41.61	41.04	42.59	53.13	114.9	154.3	170.1	179.7	168.3	1211.9
1996-1997	138.2	60.19	49.93	43.86	40.88	36.82	47.38	106	150.1	162.8	181.5	164.2	1181.8
1997-1998	132.6	61.13	48.8	42.52	41.21	41.75	51.28	123	146.4	171.6	186.5	177.6	1224.4
1998-1999	142.5	65.78	51.64	45.09	42.68	42.42	54.57	118.1	150.4	165.6	177.4	166.5	1222.6
1999-2000	141	64.74	49.88	45.05	39.07	40.18	50.47	119.5	149.2	173.2	188.4	170.3	1231.0
2000-2001	141.9	63.42	50.13	42.52	42.87	42.03	58.35	122.9	154.4	170.8	182.7	170.1	1242.1
2001-2002	140.9	63.79	48.5	42.3	40.28	44.48	57.36	120.6	152.1	173.1	187.2	173	1243.6
2002-2003	143.5	64.95	50.21	41.04	44	37.95	50.86	116.9	161.1	170.5	185.3	174	1240.2
2003-2004	141.2	64.55	50.18	42.76	40.06	40.16	54.66	119.2	149.1	167.3	181.9	164.9	1215.8
2004-2005	138.5	64.39	47.52	40.45	41.11	38.67	52.63	119.4	146.8	161.6	179.6	167.5	1198.2
2005-2006	141	60.17	46.04	42.63	39.6	40.18	52	120.5	149.6	169.9	181.8	174.9	1218.3
2006-2007	143.5	63.29	47.25	41.56	40.39	41.43	53.8	118	153.2	173.5	186.1	172.7	1234.9
2007-2008	142.3	65.33	49.02	41.7	38.78	39.64	57.55	122.7	148	171.6	180.3	171.2	1228.2
2008-2009	139.2	61.92	50.51	42.87	42.72	40.32	51.83	118.3	149.2	173.7	185.7	169.7	1225.9
2009-2010	138.5	65.36	48.87	43.78	42.65	41.86	55.12	122.2	146	157.6	170.6	171	1203.5
2010-2011	140.2	62.24	51.66	43.78	41.17	40.53	51.95	113.3	140.6	159.9	174.4	166.1	1185.8
2011-2012	139.8	60.01	44.3	40.96	38.75	37.78	49.95	117.7	141	164.3	180.2	169.4	1184.2
2012-2013	138.5	63.06	49.21	42.06	40.29	41.65	52.63	119.7	152	161.5	173.5	168.1	1202.1
2013-2014	136	60.27	49.78	39.34	42.75	41.53	54.04	116.7	141.1	161.7	170.7	163.4	1177.3
2014-2015	135.4	60.9	46.75	43.6	39.49	38.89	52.69	111	145.1	154.5	173.3	166.8	1168.5
AVERAGE	138.9	62.9	48.2	42.2	40.9	40.2	52.4	117.3	146.4	164.1	177.5	167.4	

**Table A. 30** Bogaz station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115	91.95	55.35	43.48	43.12	49.85	79.29	98.47	128	146.7	155	142.8	1149.1
1979-1980	118.1	92.59	62.73	41.33	38.95	44.19	76.08	96.4	126.8	147.6	156.5	148.6	1149.9
1980-1981	115.4	90.84	59.79	43.13	41.07	47.02	80.18	100.6	125.6	150.7	157.9	146	1158.2
1981-1982	119.1	95.47	54.49	46.57	42.78	42.33	73.05	97.07	126.3	146	152.8	144.3	1140.4
1982-1983	118.3	90.71	51.75	38.7	35.98	42.63	74.91	96.35	128.5	143	154.7	143	1118.5
1983-1984	116.5	87.71	60.62	43.07	43.57	49.16	79.39	96.81	132.2	146.5	154.4	140.1	1150.0
1984-1985	113.8	92	54.85	40.43	44.51	42.77	76.53	100	131.7	145.9	155.5	144.9	1142.8
1985-1986	117.2	86.64	59.55	41.87	42.75	48.44	79.36	102.6	125.7	146.3	154.5	143.3	1148.1
1986-1987	118.8	88.99	52.37	39.89	43.13	48.46	70.4	96.1	126.7	145.3	157.2	144.1	1131.5
1987-1988	116.8	86.82	56	42.05	41.9	45.84	76.15	99.13	130.3	146.3	159.4	145.5	1146.1
1988-1989	118.5	86.79	49.88	38.18	35.99	43.98	78.74	105.2	132.7	145.4	157.1	143.6	1136.1
1989-1990	115.7	87.19	57.45	42.75	38.26	46.35	79.49	100	129.2	145.5	153.8	143.6	1139.3
1990-1991	113.5	92.29	58.57	42.79	39.64	45.4	82.14	100.6	127.7	146.5	153.7	142.3	1145.1
1991-1992	115.4	92.61	56.87	36.37	36.35	36.4	68.92	93.88	125.1	140.9	150.5	147.1	1100.5
1992-1993	115.3	90.86	55.96	34.19	38.65	41.78	74.61	96.71	122.6	146.9	156.1	147.3	1120.9
1993-1994	117.3	96.53	55.42	44.38	45.26	47.69	76.95	101.3	130.1	146.7	155.6	146.9	1164.1
1994-1995	119.8	93.67	53.34	34.46	38.26	44.8	74.76	93.45	127	149.4	158	145.7	1132.6
1995-1996	117.6	89.94	51.53	40.28	41.05	49.59	78.61	97.41	135.1	151.8	158.9	146.9	1158.7
1996-1997	117	86.75	59.96	44.23	40.76	40.55	70.41	91.29	132.4	147.3	160	144.1	1134.7
1997-1998	112.9	88.17	58.09	41.87	41.34	48.26	75.97	103	130	152.8	163.1	153.1	1168.7
1998-1999	120.1	95.24	62.8	46.37	43.84	49.31	80.67	99.67	132.5	149	157.4	145.6	1182.7
1999-2000	119	93.66	59.89	46.3	37.69	45.8	74.85	100.6	131.8	153.8	164.3	148.2	1175.9
2000-2001	119.6	91.67	60.3	41.86	44.14	48.71	86.05	103	135.1	152.3	160.8	148.1	1191.6
2001-2002	118.9	92.23	57.6	41.48	39.75	52.56	84.64	101.4	133.7	153.7	163.6	150	1189.6
2002-2003	120.8	93.99	60.43	39.28	46.09	42.31	75.38	98.81	139.4	152.1	162.4	150.7	1181.7
2003-2004	119.1	93.38	60.39	42.29	39.38	45.79	80.8	100.4	131.7	150.1	160.3	144.6	1168.2
2004-2005	117.2	93.13	55.96	38.25	41.17	43.44	77.91	100.5	130.3	146.6	158.8	146.4	1149.6
2005-2006	119	86.74	53.48	42.05	38.6	45.8	77.01	101.3	132	151.7	160.2	151.3	1159.3
2006-2007	120.8	91.46	55.5	40.17	39.95	47.78	79.56	99.57	134.4	154	162.9	149.9	1176.0
2007-2008	119.9	94.55	58.43	40.42	37.21	44.96	84.91	102.8	131.1	152.8	159.3	148.8	1175.2
2008-2009	117.7	89.38	60.93	42.47	43.91	46.03	76.76	99.81	131.8	154.1	162.7	147.8	1173.3
2009-2010	117.2	94.61	58.21	44.08	43.8	48.44	81.46	102.5	129.8	144.1	153.1	148.7	1165.9
2010-2011	118.4	89.87	62.85	44.08	41.27	46.35	76.94	96.32	126.3	145.5	155.5	145.4	1148.8
2011-2012	118.1	86.48	50.59	39.12	37.16	42.05	74.08	99.35	126.6	148.3	159.2	147.6	1128.6
2012-2013	117.2	91.12	58.77	41.07	39.77	48.11	77.9	100.7	133.6	146.5	155	146.7	1156.4
2013-2014	115.4	86.87	59.72	36.28	43.95	47.93	79.92	98.67	126.6	146.6	153.2	143.5	1138.7
2014-2015	114.9	87.83	54.68	43.76	38.4	43.78	77.98	94.74	129.2	142.1	154.8	145.9	1128.2
AVERAGE	117.4	90.8	57.2	41.3	40.8	45.8	77.6	99.1	130.0	148.1	157.5	146.3	

**Table A. 31** Camlibel station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	88.4	64.3	36.6	30.0	28.6	33.0	48.7	69.9	99.9	147.5	164.6	139.8	951.4
1979-1980	101.2	68.9	41.7	26.7	24.1	28.5	42.9	62.7	102.0	149.4	169.5	153.9	971.2
1980-1981	94.4	66.5	40.0	27.9	25.8	29.7	50.6	71.0	95.7	161.0	174.6	152.8	990.1
1981-1982	106.2	71.6	34.6	29.8	27.2	25.9	42.1	69.1	103.5	140.6	160.3	150.5	961.4
1982-1983	106.5	68.5	34.2	25.7	22.9	26.4	43.0	65.8	107.5	136.3	167.3	146.8	951.1
1983-1984	99.9	62.2	41.7	29.7	28.2	32.0	46.5	64.3	112.3	133.6	144.0	139.1	933.3
1984-1985	87.6	61.3	33.6	24.0	26.3	25.3	43.2	64.3	111.2	143.8	185.4	157.9	963.8
1985-1986	105.3	62.0	41.0	28.2	26.9	33.6	50.0	78.3	101.3	148.6	165.8	146.1	987.2
1986-1987	108.3	65.2	33.9	27.0	28.1	32.8	39.0	64.5	101.3	147.7	176.7	157.1	981.6
1987-1988	111.9	62.8	36.4	26.9	26.8	29.2	43.5	70.5	115.5	152.8	196.3	158.0	1030.6
1988-1989	112.0	65.0	33.1	26.8	22.7	28.2	48.1	84.4	117.4	133.9	178.6	146.8	997.1
1989-1990	99.2	58.5	37.9	27.3	23.3	28.1	47.3	67.7	103.7	137.5	159.4	146.8	936.7
1990-1991	93.2	65.5	38.8	27.1	24.8	27.5	47.1	65.3	93.2	137.1	150.8	135.2	905.5
1991-1992	94.3	64.3	36.4	22.7	23.2	23.0	40.2	61.5	94.4	129.1	153.2	153.2	895.4
1992-1993	93.6	64.1	35.3	21.3	24.6	27.5	42.7	61.4	88.0	139.9	154.1	124.3	876.8
1993-1994	77.5	72.9	34.1	28.0	28.1	29.7	45.1	71.5	105.8	133.6	158.4	143.2	927.9
1994-1995	98.7	64.9	33.4	23.7	25.5	30.1	46.3	63.0	103.9	151.5	167.5	148.5	957.1
1995-1996	97.7	61.8	30.7	25.7	24.4	30.8	45.2	62.5	115.4	153.0	170.7	120.9	938.9
1996-1997	97.0	58.8	38.6	27.9	27.4	27.6	41.8	59.4	110.3	145.9	172.8	134.4	941.7
1997-1998	91.0	60.7	37.0	27.0	25.4	29.4	42.2	73.1	99.6	132.7	186.9	173.8	978.8
1998-1999	108.6	75.1	44.4	30.2	28.0	32.1	49.7	74.0	130.8	168.2	182.6	154.1	1078.0
1999-2000	103.5	69.0	37.9	30.8	20.4	25.4	43.9	66.5	104.0	157.3	187.5	147.7	994.0
2000-2001	100.4	60.7	37.2	26.1	26.8	30.0	54.4	69.6	110.2	143.6	164.1	149.0	972.1
2001-2002	97.2	62.4	35.1	25.9	22.8	31.2	49.1	63.6	98.9	140.8	166.8	139.3	933.2
2002-2003	89.0	64.3	39.8	23.7	27.5	26.1	41.0	66.0	124.9	157.3	189.5	166.9	1016.1
2003-2004	100.3	71.4	39.0	27.7	25.1	29.0	49.2	68.2	101.4	144.4	179.0	145.9	980.6
2004-2005	101.8	72.6	37.2	26.1	27.6	27.6	47.6	69.9	107.8	141.6	173.5	147.6	980.9
2005-2006	103.9	61.0	34.6	28.4	24.9	28.9	46.0	71.7	110.9	146.5	174.6	157.4	988.9
2006-2007	111.1	68.5	36.8	26.8	26.6	29.8	47.8	66.2	109.4	155.4	181.2	150.2	1009.8
2007-2008	100.7	70.4	38.3	26.7	23.8	26.9	54.1	73.6	106.1	151.3	177.0	157.6	1006.6
2008-2009	100.8	64.9	41.9	28.0	27.6	30.4	46.1	69.8	106.1	157.7	179.4	153.3	1006.0
2009-2010	98.6	72.8	38.1	30.0	28.8	32.0	51.4	72.2	108.7	140.4	162.8	165.9	1001.6
2010-2011	108.3	68.2	44.0	31.5	27.3	30.6	47.1	66.7	102.1	144.6	172.4	154.5	997.4
2011-2012	106.7	62.9	33.3	26.8	24.8	27.8	44.4	69.8	103.6	152.3	187.6	162.9	1002.9
2012-2013	104.3	69.8	41.2	28.7	26.9	33.0	48.6	72.6	116.6	143.6	165.4	155.4	1006.1
2013-2014	100.6	61.9	41.5	25.8	29.6	32.5	51.2	71.8	103.0	145.9	165.4	152.6	981.8
2014-2015	103.3	64.9	37.2	30.7	25.7	29.4	49.8	64.5	108.3	134.0	169.1	159.8	976.8
AVERAGE	100.1	65.7	37.5	27.2	25.9	29.2	46.4	68.3	106.4	145.4	171.2	150.0	

**Table A. 32** Camlibel station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	98.5	72.8	38.9	28.1	22.3	27.1	34.1	60.6	85.2	158.1	169.0	135.8	930.5
1979-1980	118.5	81.0	50.5	21.0	13.5	18.1	24.9	48.1	88.2	161.1	175.4	151.8	952.0
1980-1981	102.5	72.9	44.2	22.3	15.8	19.5	35.3	59.2	75.1	167.7	171.9	142.9	929.1
1981-1982	126.8	86.4	34.7	27.8	19.7	13.2	23.9	59.7	91.1	149.6	165.1	149.0	947.1
1982-1983	135.3	86.1	36.0	20.3	12.1	15.0	26.9	57.6	102.8	152.7	185.1	153.7	983.7
1983-1984	118.6	70.4	51.4	27.9	21.9	25.5	31.2	51.8	104.4	140.7	145.4	137.5	926.8
1984-1985	105.3	73.2	35.0	16.7	19.1	12.9	27.4	55.2	109.3	166.2	210.9	168.3	999.5
1985-1986	114.6	63.5	44.9	22.2	17.5	26.2	33.4	68.9	80.3	146.7	156.9	132.2	907.3
1986-1987	127.0	73.3	32.4	21.4	21.0	26.4	18.7	50.4	85.9	156.1	181.2	152.9	946.6
1987-1988	121.5	63.7	34.9	19.3	16.9	17.8	23.5	55.7	96.8	149.6	187.5	142.0	929.3
1988-1989	128.6	71.1	29.7	20.3	10.6	16.8	31.9	81.8	104.9	132.3	178.3	137.9	944.2
1989-1990	124.6	67.6	45.4	24.2	12.9	18.6	34.3	61.5	97.9	155.9	175.9	154.9	973.6
1990-1991	120.5	85.2	50.0	24.7	16.8	18.2	35.6	60.0	85.9	163.5	172.5	147.6	980.5
1991-1992	134.8	91.2	48.3	15.9	14.8	9.9	25.8	58.1	96.9	165.9	194.2	187.1	1042.9
1992-1993	136.7	93.0	46.4	12.9	18.3	20.5	31.2	59.3	87.4	190.8	200.6	149.5	1046.6
1993-1994	87.1	94.4	35.8	25.5	22.8	22.0	30.3	68.3	100.5	148.7	173.5	149.7	958.5
1994-1995	121.1	78.2	33.6	15.7	17.1	22.6	31.9	51.5	96.0	173.7	182.7	153.7	977.9
1995-1996	125.1	75.7	28.7	20.8	15.6	25.2	31.5	53.1	118.2	184.7	195.9	125.3	999.8
1996-1997	120.3	67.8	46.7	25.2	21.4	17.5	24.8	45.7	107.2	168.1	192.8	139.0	976.5
1997-1998	104.0	67.2	40.3	21.9	16.3	20.0	24.1	66.9	85.8	138.3	198.6	174.6	958.1
1998-1999	100.0	70.8	43.4	22.1	16.5	19.6	27.8	51.8	98.3	143.0	146.9	118.4	858.4
1999-2000	119.5	79.5	41.1	29.3	6.9	12.0	26.0	53.6	89.2	168.7	193.1	142.1	960.8
2000-2001	114.9	65.2	39.5	19.2	18.2	20.7	42.3	58.9	97.7	149.5	165.1	143.4	934.6
2001-2002	122.9	76.1	39.1	21.2	12.2	25.6	37.8	54.5	91.7	163.2	188.3	147.6	980.4
2002-2003	95.4	69.8	44.1	14.1	19.3	13.0	21.1	51.5	114.5	164.6	190.7	158.7	956.8
2003-2004	112.8	82.1	42.7	22.2	15.0	18.3	33.6	55.6	84.2	148.0	179.9	137.8	932.2
2004-2005	115.1	84.3	39.0	19.2	19.5	15.8	31.2	58.4	92.9	144.2	173.7	139.8	933.1
2005-2006	119.4	65.5	33.5	24.1	14.7	18.5	29.0	62.1	98.1	152.8	176.9	151.7	946.3
2006-2007	122.5	74.0	36.2	19.5	16.9	19.1	30.3	49.8	90.7	155.6	174.3	136.3	925.2
2007-2008	109.1	77.5	39.7	19.5	12.1	13.9	39.7	61.9	87.1	151.2	170.7	144.7	927.1
2008-2009	107.5	67.5	46.3	21.7	18.5	20.1	27.5	54.9	85.6	157.0	170.7	138.2	915.6
2009-2010	101.8	78.0	37.5	24.9	20.2	22.3	34.3	57.1	86.7	130.9	148.1	146.9	888.7
2010-2011	115.9	71.7	49.7	28.1	17.8	20.1	28.5	49.3	79.4	137.8	160.5	137.5	896.3
2011-2012	123.4	68.7	30.7	20.7	14.5	16.3	26.6	58.9	88.1	160.9	192.1	157.4	958.3
2012-2013	108.9	73.0	43.6	22.4	16.8	24.1	30.1	57.4	95.8	134.3	150.2	136.2	892.8
2013-2014	110.0	64.3	46.7	17.9	22.8	24.4	35.7	59.7	83.9	145.6	159.2	141.0	911.3
2014-2015	117.4	71.4	38.9	28.6	16.1	19.2	34.7	49.5	93.7	133.6	168.6	152.8	924.6
AVERAGE	115.9	75.0	40.5	21.9	16.9	19.3	30.2	57.3	93.4	154.4	176.3	146.4	

**Table A. 33** Camlibel station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	168.3	165.1	139.1	136.2	129.4	118.7	135.3	143.6	160.2	178.2	191.8	189.8	1855.5
1979-1980	177.5	169.9	148	127.9	117.1	109.4	126.3	136.1	161.6	179	193.8	196.6	1843.2
1980-1981	172.9	167.4	145.2	131	121.9	112.1	138	144.6	157.1	184.1	196	196	1866.4
1981-1982	180.8	172.6	135.2	135.6	125.7	103.3	125.1	142.8	162.7	175	189.9	194.9	1843.8
1982-1983	181.1	169.5	134.4	125.3	113.6	104.5	126.6	139.5	165.3	172.8	193	193.2	1818.9
1983-1984	176.7	162.7	147.9	135.3	128.4	116.7	132.1	137.8	168.4	171.4	182.4	189.4	1849.2
1984-1985	167.7	161.7	133.3	120.5	123.3	101.8	126.8	137.8	167.7	176.4	200.2	198.4	1815.6
1985-1986	180.3	162.5	146.7	131.7	125	119.9	137.2	151.2	161.2	178.7	192.3	192.9	1879.6
1986-1987	182.2	166	133.9	128.9	128	118.4	119.7	138	161.2	178.3	196.8	198	1849.3
1987-1988	184.4	163.4	138.8	128.4	124.6	111.1	127.3	144.2	170.4	180.6	204.2	198.4	1875.6
1988-1989	184.5	165.8	132.2	128.2	113.1	108.8	134.5	156.4	171.5	171.6	197.5	193.2	1857.4
1989-1990	176.2	158.4	141.5	129.6	114.8	108.5	133.2	141.4	162.8	173.4	189.5	193.2	1822.6
1990-1991	172	166.4	143	128.9	119.2	107.1	132.9	138.9	155.3	173.2	185.7	187.4	1809.9
1991-1992	172.7	165	138.6	116.4	114.7	95.73	121.9	134.8	156.2	169.1	186.7	196.2	1768.2
1992-1993	172.3	164.8	136.6	112	118.5	107	126	134.7	151.3	174.6	187.2	181.5	1766.5
1993-1994	159.4	173.9	134.2	131.3	128.1	112.1	129.8	145.1	164.2	171.5	189.1	191.4	1830.0
1994-1995	175.9	165.7	132.8	119.7	121.3	113	131.7	136.5	163	180	193	194	1826.5
1995-1996	175.2	162.2	127.2	125.1	118.2	114.5	130.1	135.9	170.3	180.7	194.4	179.5	1813.3
1996-1997	174.7	158.7	142.7	131	126.3	107.4	124.5	132.4	167.1	177.4	195.2	187	1824.4
1997-1998	170.4	160.9	139.8	128.8	121	111.4	125.1	146.6	160	171	200.7	205.1	1840.8
1998-1999	182.4	176	152.2	136.7	127.8	117	136.7	147.5	179.1	187.1	199.1	196.6	1938.2
1999-2000	179.1	170	141.5	138.2	105.5	102.2	127.9	140.2	163	182.6	201	193.6	1844.6
2000-2001	177	161	140.2	126.2	124.5	112.7	143	143.3	167.1	176.4	191.6	194.2	1857.3
2001-2002	174.9	162.9	136.3	126	113.4	115.1	135.9	137.1	159.4	175	192.7	189.5	1818.2
2002-2003	168.9	165	144.7	119.5	126.6	104	123.2	139.7	175.9	182.6	201.7	202.2	1853.8
2003-2004	177	172.4	143.4	130.5	120.2	110.4	135.9	141.9	161.3	176.8	197.7	192.8	1860.2
2004-2005	178	173.6	140.3	126.5	126.6	107.5	133.6	143.5	165.5	175.4	195.5	193.6	1859.5
2005-2006	179.4	161.4	135.2	132.4	119.5	110.4	131.2	145.3	167.5	177.7	196	198.1	1853.9
2006-2007	183.9	169.5	139.4	128.2	124.1	112.3	134.1	139.9	166.5	181.7	198.6	194.8	1873.0
2007-2008	177.3	171.4	142.2	128	116.3	105.7	142.7	147	164.4	179.9	196.9	198.2	1870.1
2008-2009	177.3	165.6	148.3	131.3	126.6	113.6	131.5	143.4	164.4	182.7	197.9	196.3	1879.0
2009-2010	175.8	173.8	141.7	136.1	129.7	116.7	139.1	145.7	166.1	174.8	191	201.8	1892.4
2010-2011	182.2	169.2	151.5	139.5	126	114	133	140.4	161.7	176.9	195.1	196.8	1886.2
2011-2012	181.2	163.5	132.5	128.2	119.2	107.8	128.7	143.5	162.7	180.4	201	200.5	1849.2
2012-2013	179.7	170.8	147.2	133.1	125	118.7	135.1	146.1	171	176.4	192.2	197.2	1892.3
2013-2014	177.2	162.4	147.6	125.6	131.7	117.7	138.7	145.4	162.3	177.4	192.2	196	1874.2
2014-2015	179	165.6	140.2	137.8	121.8	111.4	136.9	138.1	165.9	171.7	193.7	199.2	1861.2
AVERAGE	176.6	166.4	140.4	129.1	122.1	110.8	131.7	141.8	164.4	177.1	194.4	194.5	

**Table A. 34** Camlibel station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	129.6	61.11	46.91	43.62	42.64	42.52	53.27	117	140	161.3	170.7	159	1167.6
1979-1980	136.7	62.9	49.91	40.96	38.6	39.18	49.75	110.9	141.2	162	172.6	164.6	1169.3
1980-1981	133.1	62	48.97	41.95	40.18	40.15	54.35	117.8	137.4	166.7	174.4	164.2	1181.1
1981-1982	139.2	63.92	45.6	43.43	41.46	37.02	49.25	116.3	142.2	158.3	169.1	163.3	1169.1
1982-1983	139.4	62.77	45.34	40.13	37.46	37.44	49.85	113.6	144.5	156.4	171.7	161.8	1160.5
1983-1984	136	60.22	49.9	43.35	42.31	41.8	52	112.3	147.2	155.2	162.3	158.6	1161.2
1984-1985	129.1	59.87	44.94	38.6	40.64	36.45	49.95	112.3	146.6	159.7	178.2	166.1	1162.4
1985-1986	138.8	60.17	49.5	42.19	41.21	42.95	54.01	123.2	140.9	161.7	171.2	161.6	1187.4
1986-1987	140.2	61.45	45.14	41.26	42.21	42.39	47.15	112.5	140.9	161.4	175.2	165.8	1175.5
1987-1988	141.9	60.5	46.79	41.11	41.06	39.78	50.14	117.4	148.9	163.5	181.8	166.2	1199.0
1988-1989	142	61.4	44.59	41.05	37.29	38.98	52.96	127.4	149.9	155.3	175.9	161.8	1188.6
1989-1990	135.6	58.64	47.73	41.51	37.83	38.85	52.46	115.2	142.3	157	168.7	161.8	1157.6
1990-1991	132.4	61.59	48.25	41.28	39.3	38.34	52.34	113.2	135.7	156.8	165.3	157	1141.4
1991-1992	133	61.11	46.75	37.28	37.79	34.28	48	109.8	136.5	153.1	166.2	164.3	1128.2
1992-1993	132.6	61.05	46.07	35.87	39.07	38.34	49.63	109.7	132.2	158	166.6	152	1121.3
1993-1994	122.7	64.39	45.26	42.03	42.22	40.14	51.12	118.2	143.5	155.2	168.3	160.4	1153.5
1994-1995	135.4	61.35	44.8	38.32	39.98	40.48	51.86	111.2	142.4	162.9	171.8	162.5	1163.0
1995-1996	134.9	60.06	42.89	40.08	38.96	41	51.22	110.7	148.9	163.5	173	150.4	1155.6
1996-1997	134.5	58.78	48.12	41.93	41.63	38.47	49.03	107.9	146.1	160.6	173.8	156.6	1157.4
1997-1998	131.1	59.59	47.15	41.25	39.89	39.88	49.28	119.4	139.8	154.7	178.7	171.8	1172.7
1998-1999	140.4	65.16	51.35	43.76	42.15	41.91	53.82	120.1	156.6	169.4	177.2	164.7	1226.6
1999-2000	137.9	62.94	47.72	44.23	34.76	36.59	50.38	114.2	142.5	165.3	178.9	162.2	1177.5
2000-2001	136.3	59.61	47.28	40.43	41.06	40.38	56.33	116.7	146	159.6	170.5	162.7	1177.0
2001-2002	134.6	60.34	45.97	40.33	37.37	41.22	53.49	111.7	139.4	158.4	171.6	158.8	1153.1
2002-2003	130	61.09	48.82	38.26	41.73	37.23	48.51	113.8	153.7	165.3	179.5	169.4	1187.3
2003-2004	136.2	63.82	48.36	41.78	39.62	39.56	53.54	115.6	140.9	160	176	161.5	1176.9
2004-2005	137	64.28	47.31	40.51	41.75	38.49	52.62	116.9	144.7	158.8	174	162.1	1178.5
2005-2006	138.1	59.75	45.58	42.4	39.39	39.53	51.67	118.4	146.4	160.9	174.4	165.9	1182.4
2006-2007	141.6	62.76	47.02	41.05	40.9	40.21	52.79	114	145.6	164.5	176.8	163.2	1190.3
2007-2008	136.4	63.48	47.98	40.98	38.35	37.86	56.19	119.8	143.7	162.8	175.3	166	1188.9
2008-2009	136.5	61.34	50.01	42.06	41.75	40.7	51.77	116.9	143.7	165.4	176.1	164.4	1190.6
2009-2010	135.3	64.34	47.81	43.58	42.77	41.8	54.78	118.7	145.2	158.2	170	169.1	1191.6
2010-2011	140.2	62.64	51.11	44.67	41.53	40.83	52.36	114.4	141.4	160.1	173.6	164.9	1187.7
2011-2012	139.5	60.54	44.7	41.07	39.29	38.61	50.69	116.9	142.2	163.3	178.9	168	1183.6
2012-2013	138.3	63.24	49.64	42.62	41.2	42.52	53.2	119	149.5	159.6	171	165.2	1195.1
2013-2014	136.4	60.13	49.78	40.22	43.43	42.15	54.64	118.4	141.9	160.6	171	164.1	1182.8
2014-2015	137.8	61.34	47.28	44.13	40.16	39.9	53.9	112.5	145	155.4	172.4	166.8	1176.6
AVERAGE	136.0	61.6	47.4	41.3	40.2	39.7	51.8	115.5	143.7	160.3	173.1	162.9	

**Table A. 35** Camlibel station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	108.1	86.22	53.67	42.8	42.65	48.17	76.62	96.23	122.6	142.8	149.6	137.4	1106.8
1979-1980	113.3	88.93	58.68	38.12	35.76	42.91	71.61	92.02	123.4	143.3	150.8	141.2	1099.9
1980-1981	110.6	87.55	57.12	39.88	38.46	44.44	78.16	96.81	120.9	146.1	152	140.9	1112.9
1981-1982	115.1	90.48	51.51	42.47	40.61	39.53	70.9	95.78	124	141	148.6	140.3	1100.2
1982-1983	115.2	88.74	51.07	36.67	33.81	40.19	71.75	93.92	125.5	139.8	150.3	139.3	1086.2
1983-1984	112.8	84.87	58.66	42.3	42.08	47.04	74.82	93.01	127.2	139	144.3	137.2	1103.3
1984-1985	107.8	84.34	50.44	33.98	39.22	38.65	71.89	93.01	126.8	141.8	154.3	142.2	1084.4
1985-1986	114.8	84.79	57.99	40.29	40.2	48.83	77.69	100.5	123.1	143.1	149.9	139.1	1120.4
1986-1987	115.9	86.74	50.75	38.68	41.91	47.97	67.9	93.12	123.1	142.8	152.4	142	1103.3
1987-1988	117.1	85.29	53.5	38.41	39.95	43.87	72.16	96.56	128.3	144.1	156.6	142.2	1118.1
1988-1989	117.2	86.66	49.81	38.29	33.53	42.62	76.19	103.4	129	139.1	152.8	139.3	1107.9
1989-1990	112.5	82.47	55.07	39.11	34.45	42.41	75.47	95	124.1	140.1	148.3	139.3	1088.3
1990-1991	110.1	86.96	55.91	38.68	36.95	41.61	75.29	93.61	119.8	140	146.2	136	1081.2
1991-1992	110.6	86.21	53.42	31.69	34.39	35.26	69.1	91.32	120.4	137.7	146.8	141	1057.8
1992-1993	110.3	86.11	52.29	29.21	36.55	41.61	71.42	91.24	117.6	140.8	147	132.7	1056.8
1993-1994	103.1	91.19	50.94	40.02	41.93	44.44	73.55	97.09	124.9	139	148.1	138.3	1092.5
1994-1995	112.3	86.59	50.18	33.5	38.11	44.95	74.6	92.24	124.2	143.8	150.3	139.8	1090.5
1995-1996	111.9	84.63	47.01	36.58	36.36	45.78	73.7	91.94	128.3	144.2	151.1	131.6	1083.1
1996-1997	111.7	82.68	55.69	39.85	40.91	41.81	70.57	89.96	126.5	142.4	151.5	135.8	1089.3
1997-1998	109.2	83.9	54.1	38.63	37.97	44.03	70.93	97.91	122.5	138.7	154.6	146	1098.6
1998-1999	116	92.36	61.08	43.05	41.79	47.21	77.4	98.41	133.2	147.8	153.7	141.2	1153.3
1999-2000	114.2	88.99	55.03	43.89	29.22	38.87	72.51	94.32	124.2	145.3	154.8	139.5	1100.7
2000-2001	113	83.94	54.29	37.19	39.94	44.8	80.99	96.06	126.5	141.8	149.5	139.9	1107.8
2001-2002	111.8	85.04	52.12	37.03	33.68	46.13	76.95	92.59	122.2	141	150.1	137.2	1085.9
2002-2003	108.4	86.18	56.85	33.41	41.08	39.88	69.84	94.03	131.4	145.2	155.2	144.4	1105.9
2003-2004	113	90.33	56.11	39.56	37.5	43.52	77.01	95.29	123.2	142	152.9	139.1	1109.4
2004-2005	113.5	91	54.36	37.33	41.12	41.84	75.69	96.19	125.6	141.2	151.7	139.5	1109.1
2005-2006	114.3	84.15	51.48	40.66	37.09	43.48	74.35	97.19	126.7	142.5	151.9	142.1	1105.9
2006-2007	116.8	88.71	53.87	38.3	39.67	44.55	75.95	94.17	126.2	144.8	153.4	140.2	1116.6
2007-2008	113.1	89.8	55.45	38.18	35.34	40.87	80.79	98.17	125	143.8	152.5	142.1	1115.0
2008-2009	113.1	86.56	58.86	40.05	41.11	45.32	74.5	96.14	125	145.3	153	141	1120.0
2009-2010	112.3	91.12	55.17	42.73	42.87	47.03	78.78	97.42	125.9	140.9	149.2	144.2	1127.6
2010-2011	115.9	88.54	60.68	44.65	40.75	45.52	75.33	94.44	123.5	142	151.5	141.3	1124.1
2011-2012	115.3	85.36	50.01	38.31	36.93	42.04	72.94	96.17	124	144	154.8	143.4	1103.3
2012-2013	114.5	89.45	58.23	41.03	40.19	48.16	76.52	97.64	128.7	141.8	149.8	141.5	1127.5
2013-2014	113.1	84.73	58.46	36.83	43.98	47.6	78.58	97.23	123.8	142.4	149.8	140.9	1117.3
2014-2015	114.1	86.55	54.31	43.68	38.43	44.06	77.53	93.17	125.8	139.1	150.7	142.6	1110.0
AVERAGE	112.8	87.0	54.4	38.8	38.6	43.7	74.6	95.2	124.9	142.2	151.1	140.0	

**Table A. 36** Cayirova station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	100.7	71.1	35.0	28.3	28.1	33.6	49.6	68.2	103.9	149.6	171.8	139.8	979.6
1979-1980	99.7	69.1	42.5	28.2	24.9	29.2	44.7	63.8	94.7	139.9	155.8	143.1	935.5
1980-1981	95.3	63.1	39.8	28.5	26.8	30.1	50.5	69.8	93.4	146.4	177.3	153.6	974.8
1981-1982	107.4	73.7	35.6	31.1	28.8	27.5	43.0	69.8	106.1	147.1	167.6	155.9	993.5
1982-1983	113.1	71.5	36.3	26.8	24.3	28.8	45.2	66.9	107.1	134.7	172.1	148.6	975.5
1983-1984	102.7	63.0	41.7	30.7	30.1	35.1	51.6	68.9	117.1	151.6	167.5	149.3	1009.2
1984-1985	104.5	78.2	38.3	27.9	30.5	29.0	48.8	72.2	115.1	149.8	173.8	163.7	1031.8
1985-1986	110.3	66.3	43.8	29.8	29.9	33.7	51.5	81.8	103.7	146.1	169.2	150.7	1016.9
1986-1987	110.7	64.8	34.3	25.5	28.4	34.9	42.5	66.1	100.9	139.6	181.8	161.2	990.7
1987-1988	109.7	67.3	40.2	29.0	28.1	31.5	47.0	70.8	116.0	153.4	197.6	167.4	1058.2
1988-1989	111.8	69.8	36.3	29.6	25.9	31.9	51.8	84.5	120.8	143.6	179.2	151.0	1036.2
1989-1990	105.3	63.2	40.6	29.5	26.6	31.8	52.1	74.9	111.2	142.8	175.8	158.8	1012.7
1990-1991	105.8	73.9	45.3	32.1	29.1	32.7	55.0	79.3	117.2	154.4	170.5	149.5	1045.0
1991-1992	101.3	70.4	38.9	25.5	24.1	24.9	43.8	66.2	99.9	138.0	160.5	155.1	948.6
1992-1993	104.3	71.1	39.5	24.4	26.1	27.8	47.4	66.4	99.0	147.2	172.0	147.9	973.1
1993-1994	101.7	79.1	37.7	31.7	31.0	31.8	49.8	78.6	122.6	162.7	179.4	167.2	1073.5
1994-1995	119.5	83.5	40.6	27.2	30.2	35.6	54.5	68.0	110.9	151.9	170.2	151.9	1043.9
1995-1996	105.5	64.7	33.6	27.6	26.3	32.2	46.0	63.0	110.0	146.6	171.1	153.1	979.5
1996-1997	102.1	66.0	42.4	34.0	30.8	29.8	46.0	64.8	112.3	154.5	186.5	144.4	1013.5
1997-1998	100.5	66.5	41.5	29.4	27.3	32.4	46.2	77.1	108.7	153.6	187.0	170.4	1040.6
1998-1999	108.2	73.1	44.7	30.6	30.8	33.0	50.7	70.3	121.7	152.4	182.8	164.2	1062.5
1999-2000	111.6	73.3	40.7	31.8	24.5	31.0	46.8	72.6	111.3	166.2	196.7	166.6	1073.1
2000-2001	110.3	67.2	41.8	30.3	30.2	33.4	58.0	77.6	113.7	155.9	181.9	165.4	1065.7
2001-2002	111.0	73.3	39.7	29.0	25.9	34.1	52.5	69.9	108.9	154.9	188.7	157.4	1045.3
2002-2003	108.0	70.8	43.1	27.7	31.5	28.8	45.6	69.4	124.9	154.8	190.2	169.8	1064.7
2003-2004	108.0	71.1	42.0	30.5	27.5	31.2	53.4	75.7	112.4	154.3	187.1	158.4	1051.5
2004-2005	109.8	78.4	43.1	28.2	29.9	31.8	53.1	75.7	115.8	150.7	180.9	164.2	1061.6
2005-2006	114.0	67.4	38.8	31.9	28.8	34.6	54.3	79.3	120.4	164.4	193.9	169.9	1097.7
2006-2007	123.2	77.2	40.1	30.1	28.8	34.8	53.8	73.6	124.2	170.0	201.0	176.2	1133.1
2007-2008	117.0	82.4	45.2	31.5	28.7	33.1	59.0	77.4	110.2	160.5	181.2	162.2	1088.3
2008-2009	110.3	73.2	46.7	31.1	30.5	33.0	48.8	72.9	110.0	161.5	185.1	164.4	1067.5
2009-2010	107.2	79.0	42.6	33.2	32.3	35.5	56.1	78.4	113.8	149.4	172.9	176.0	1076.5
2010-2011	115.5	74.2	44.5	32.4	28.7	31.5	48.2	69.4	110.6	154.9	184.5	165.1	1059.6
2011-2012	113.4	68.1	34.3	27.3	26.0	28.2	44.6	71.3	110.5	157.8	197.4	176.1	1055.0
2012-2013	112.2	74.2	42.8	29.3	27.3	33.5	50.7	76.1	121.7	158.5	186.8	167.9	1080.9
2013-2014	108.0	66.4	45.2	27.0	30.2	32.9	54.6	78.3	112.0	158.8	181.1	164.1	1058.6
2014-2015	113.7	69.6	38.7	31.8	26.4	30.4	50.5	68.3	115.3	146.4	180.9	175.1	1047.2
AVERAGE	108.5	71.2	40.5	29.5	28.3	31.8	49.9	72.4	111.6	152.0	180.0	160.2	

**Table A. 37** Cayirova station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.0	77.5	33.0	23.7	20.5	28.4	36.8	57.3	87.5	167.2	193.3	156.8	999.2
1979-1980	127.8	82.0	53.7	26.1	15.8	20.9	31.0	55.1	82.7	169.2	189.3	179.4	1033.0
1980-1981	111.6	66.8	44.2	24.9	18.5	21.4	39.6	62.0	75.0	167.0	206.9	181.5	1019.5
1981-1982	125.1	80.3	33.6	29.3	21.5	15.1	24.4	59.1	89.0	160.4	183.9	176.5	998.1
1982-1983	141.6	81.5	37.3	21.4	13.8	18.8	30.2	57.5	95.9	150.4	202.7	177.1	1028.2
1983-1984	109.5	59.4	42.8	26.4	22.3	28.8	37.0	53.1	96.1	154.3	169.8	155.0	954.6
1984-1985	110.4	79.8	35.8	20.6	22.8	16.5	31.6	57.6	92.3	149.4	175.1	170.4	962.3
1985-1986	116.6	62.6	45.6	23.9	21.5	25.2	35.6	72.3	77.5	142.4	166.9	152.4	942.5
1986-1987	134.1	68.8	32.0	17.9	21.3	31.9	24.5	54.3	84.7	153.9	210.5	189.8	1023.8
1987-1988	114.1	63.0	38.4	22.1	18.0	20.6	27.9	53.7	90.8	149.7	198.4	169.9	966.7
1988-1989	119.1	67.7	31.9	23.5	14.4	21.7	36.3	76.9	98.2	139.4	180.1	153.3	962.6
1989-1990	115.6	61.0	41.7	24.4	16.3	22.7	38.5	64.5	90.9	145.3	184.6	170.8	976.4
1990-1991	103.7	68.6	45.2	26.5	18.8	21.8	38.7	63.6	87.7	143.2	157.3	140.9	916.1
1991-1992	132.5	85.6	46.3	19.9	14.4	11.7	29.8	60.8	92.1	168.9	200.3	201.5	1063.9
1992-1993	128.5	81.3	44.5	16.2	17.4	16.9	34.6	56.8	84.7	172.1	203.7	177.0	1033.6
1993-1994	96.9	74.0	31.6	25.4	21.7	19.8	30.2	61.4	92.2	150.9	164.7	158.3	926.9
1994-1995	122.4	81.7	37.8	17.9	21.0	27.5	38.6	47.6	81.9	142.3	159.5	146.0	924.2
1995-1996	129.3	70.2	31.3	23.0	17.7	26.2	31.5	49.9	99.5	169.4	200.2	182.9	1031.2
1996-1997	109.7	64.3	44.5	33.4	23.9	18.5	27.7	46.9	91.2	160.1	195.9	150.1	966.3
1997-1998	104.5	63.3	41.6	23.4	17.0	22.8	27.3	65.2	84.3	153.9	190.8	177.9	972.0
1998-1999	105.6	67.0	43.9	23.6	21.4	22.0	31.6	49.6	91.9	139.3	169.8	156.2	921.9
1999-2000	113.4	69.3	38.1	26.6	11.6	19.2	26.8	54.9	83.0	161.7	191.5	164.1	960.0
2000-2001	107.7	59.2	38.7	22.9	20.3	22.7	42.7	60.3	82.7	143.0	168.0	156.9	925.2
2001-2002	116.2	71.3	37.6	22.0	14.2	25.7	36.9	52.4	82.8	152.3	188.5	158.5	958.3
2002-2003	109.6	66.5	42.6	19.2	23.5	15.4	25.2	50.4	99.0	148.3	185.5	169.0	954.2
2003-2004	109.6	66.9	40.7	24.4	16.6	19.5	37.3	60.1	84.9	147.8	182.1	155.9	945.8
2004-2005	108.3	74.1	41.4	19.4	20.0	20.1	35.6	58.0	86.0	138.0	168.7	157.2	926.6
2005-2006	108.0	57.3	32.3	24.8	17.3	23.8	35.6	60.3	86.6	147.3	174.1	155.4	923.0
2006-2007	111.9	65.6	32.6	20.5	16.4	22.9	32.8	49.1	85.6	144.6	170.8	152.7	905.4
2007-2008	108.7	73.6	41.7	23.5	16.8	20.6	41.5	56.0	74.0	138.9	156.3	143.5	895.1
2008-2009	107.2	66.4	46.7	24.3	20.7	21.8	28.6	53.0	78.2	149.0	170.5	154.8	921.1
2009-2010	98.4	70.2	37.9	26.7	22.6	25.0	37.6	57.9	78.3	127.1	148.7	158.9	889.4
2010-2011	116.2	69.3	44.1	27.3	18.2	19.6	28.4	49.1	80.7	144.6	174.3	159.5	931.4
2011-2012	125.7	67.7	29.3	19.8	15.1	15.4	25.5	57.9	89.2	165.2	210.2	190.8	1011.7
2012-2013	109.1	67.5	40.1	20.9	15.4	22.6	31.3	57.5	90.6	144.8	171.9	158.1	929.7
2013-2014	107.5	59.4	45.4	17.4	20.8	22.4	38.5	62.8	82.8	150.3	171.3	159.2	938.0
2014-2015	120.3	66.7	36.0	27.5	15.2	18.7	33.8	50.3	90.8	141.7	180.2	180.6	961.8
AVERAGE	115.0	69.6	39.5	23.3	18.5	21.5	33.0	57.2	87.1	151.2	181.5	164.8	

**Table A. 38** Cayirova station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	177.5	172.3	136.1	132.3	128.2	120.1	136.7	142	163.1	179.4	195.1	190	1872.7
1979-1980	176.8	170.3	149.4	132.1	119.7	111.1	129.4	137.5	156.6	174.8	188.2	191.6	1837.5
1980-1981	173.7	163.9	145	132.8	124.9	113.1	138	143.7	155.6	177.9	197.3	196.6	1862.5
1981-1982	181.9	174.9	137.3	138.9	129.8	107.3	126.6	143.6	164.6	178.3	193.3	197.7	1874.0
1982-1983	185.4	172.8	138.7	128.4	118	110.2	130.2	140.8	165.3	172.2	195.2	194.3	1851.4
1983-1984	178.8	163.8	148.1	138.1	132.9	122.8	139.6	142.7	171.6	180.2	193.3	194.7	1906.5
1984-1985	180	179	142.3	131.3	133.9	110.7	135.5	145.9	170.3	179.5	195.9	201.1	1905.5
1985-1986	183.7	167.4	151.5	135.8	132.5	120.2	139.4	154.5	163	177.8	194	195.3	1915.1
1986-1987	183.9	165.8	134.7	124.8	128.8	122.5	125.9	139.9	161.1	174.7	199	200	1861.2
1987-1988	183.3	168.5	145.7	134	128.2	116	133	144.6	170.9	181.1	204.9	202.7	1912.8
1988-1989	184.6	171	138.8	135.3	122.4	116.7	139.8	156.7	173.7	176.6	198	195.4	1909.0
1989-1990	180.5	164.1	146.4	135	124.2	116.6	140.2	148.5	167.9	176.2	196.7	199	1895.3
1990-1991	180.9	175	153.8	141	130.7	118.4	144	152.3	171.6	181.5	194.5	194.8	1938.5
1991-1992	177.9	171.6	143.5	124.8	117.4	100.9	128	140	160.3	173.9	190.2	197.3	1825.9
1992-1993	179.9	172.3	144.5	121.7	123	108.1	133.6	140.2	159.7	178.3	195.2	193.9	1850.3
1993-1994	178.2	179.8	141.3	140.3	135.2	116.6	137.1	151.7	174.8	185.1	198.1	202.6	1940.6
1994-1995	189.2	183.6	146.3	129.4	133.3	123.7	143.4	141.9	167.7	180.4	194.4	195.8	1929.1
1995-1996	180.6	165.7	133.4	130.4	123.6	117.2	131.4	136.6	167.1	178	194.8	196.4	1855.2
1996-1997	178.4	167	149.2	145.2	134.6	112.4	131.4	138.6	168.6	181.6	200.8	192.3	1900.1
1997-1998	177.4	167.6	147.7	135	126.2	117.7	131.7	150.4	166.3	181.2	201	204	1906.2
1998-1999	182.4	174.3	153	137.8	134.6	118.8	138.2	144	174.3	180.6	199.4	201.4	1938.8
1999-2000	184.5	174.5	146.4	140.4	118.5	115	132.7	146.3	168	186.5	204.6	202.3	1919.8
2000-2001	183.7	168.3	148.3	137	133.2	119.7	147.7	150.9	169.5	182.2	199.1	201.9	1941.4
2001-2002	184.1	174.4	144.8	133.9	122.4	121	140.8	143.7	166.4	181.8	201.6	198.4	1913.3
2002-2003	182.3	172	150.3	130.8	136.2	110.4	130.9	143.2	176.1	181.7	202.2	203.7	1919.8
2003-2004	182.2	172.3	148.6	137.5	126.6	115.2	141.9	149.2	168.7	181.5	201.1	198.8	1923.6
2004-2005	183.4	179.2	150.4	132	132.4	116.6	141.6	149.1	170.8	179.8	198.7	201.3	1935.4
2005-2006	185.9	168.6	143.1	140.6	129.9	121.9	143.1	152.3	173.5	185.8	203.6	203.7	1952.1
2006-2007	191.2	178.1	145.4	136.6	129.8	122.3	142.4	147.2	175.7	188.1	206.1	206.3	1969.5
2007-2008	187.7	182.7	153.6	139.7	129.8	119	149	150.6	167.2	184.1	198.8	200.5	1962.7
2008-2009	183.7	174.3	155.9	138.9	133.9	118.8	135.7	146.6	167.2	184.6	200.3	201.4	1941.2
2009-2010	181.8	179.7	149.6	143.5	138	123.5	145.4	151.5	169.5	179.3	195.5	206.2	1963.7
2010-2011	186.8	175.3	152.6	141.8	129.7	115.9	134.8	143.2	167.5	181.8	200.1	201.7	1931.2
2011-2012	185.5	169.3	134.9	129.7	122.6	108.8	129.2	145.1	167.5	183	204.8	206.3	1886.7
2012-2013	184.8	175.3	150	134.6	126.1	119.8	138.3	149.5	174.2	183.3	201	202.9	1939.8
2013-2014	182.3	167.5	153.6	128.8	133.2	118.8	143.5	151.5	168.4	183.5	198.8	201.3	1931.1
2014-2015	185.7	170.8	143.1	140.4	123.7	113.6	138	142.2	170.5	177.9	198.7	205.9	1910.6
AVERAGE	182.4	172.2	145.9	134.9	128.3	116.3	137.0	145.9	168.0	180.4	198.2	199.5	

**Table A. 39** Cayirova station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	136.4	63.71	45.85	42.3	42.21	42.96	53.77	115.6	142.4	162.2	173.4	158.9	1179.7
1979-1980	135.9	62.97	50.34	42.24	39.4	39.74	50.88	111.9	136.7	158	167.3	160.3	1155.7
1980-1981	133.6	60.63	48.83	42.48	41.11	40.48	54.27	116.9	135.9	160.8	175.4	164.5	1174.8
1981-1982	139.8	64.66	46.24	44.42	42.75	38.39	49.8	116.9	143.7	161.1	171.9	165.4	1185.0
1982-1983	142.5	63.89	46.72	41.08	38.84	39.43	51.21	114.5	144.3	155.7	173.5	162.6	1174.2
1983-1984	137.5	60.56	49.88	44.16	43.76	43.93	54.9	116.1	149.7	163	171.8	162.8	1198.1
1984-1985	138.4	66.21	47.92	42	44.1	39.61	53.32	118.7	148.7	162.2	174.2	168.3	1203.6
1985-1986	141.2	61.92	51.05	43.44	43.64	43	54.82	125.7	142.3	160.7	172.4	163.4	1203.6
1986-1987	141.4	61.32	45.39	39.91	42.41	43.83	49.52	113.8	140.6	157.9	176.9	167.3	1180.4
1987-1988	140.9	62.31	49.09	42.87	42.22	41.49	52.31	117.7	149.2	163.7	182.2	169.6	1213.5
1988-1989	141.9	63.24	46.74	43.29	40.29	41.73	55	127.5	151.6	159.6	176.1	163.5	1210.5
1989-1990	138.8	60.67	49.3	43.19	40.9	41.72	55.12	120.8	146.6	159.3	174.9	166.5	1197.7
1990-1991	139	64.73	51.79	45.11	43.04	42.35	56.65	123.9	149.8	164.1	172.9	162.9	1216.4
1991-1992	136.7	63.47	48.33	39.91	38.64	36.09	50.33	113.9	140	157.2	169.1	165.1	1158.8
1992-1993	138.3	63.73	48.67	38.92	40.48	38.67	52.55	114.1	139.4	161.2	173.5	162.3	1171.7
1993-1994	137	66.5	47.58	44.87	44.51	41.7	53.92	123.4	152.6	167.3	176.1	169.5	1225.0
1994-1995	145.4	67.91	49.3	41.39	43.89	44.26	56.4	115.4	146.4	163.1	172.8	163.8	1210.1
1995-1996	138.9	61.29	44.94	41.7	40.68	41.94	51.67	111.2	145.9	160.9	173.1	164.3	1176.5
1996-1997	137.2	61.77	50.27	46.45	44.32	40.22	51.67	112.7	147.2	164.1	178.5	160.9	1195.3
1997-1998	136.3	61.97	49.77	43.18	41.56	42.1	51.81	122.4	145.2	163.8	178.7	170.6	1207.4
1998-1999	140.2	64.45	51.52	44.07	44.32	42.52	54.37	117.2	152.1	163.3	177.3	168.4	1219.8
1999-2000	141.8	64.52	49.33	44.91	39.03	41.14	52.2	119.1	146.7	168.6	181.9	169.3	1218.4
2000-2001	141.2	62.26	49.96	43.82	43.86	42.82	58.1	122.8	147.9	164.7	177	168.9	1223.3
2001-2002	141.5	64.5	48.79	42.83	40.31	43.27	55.38	116.9	145.3	164.3	179.3	165.9	1208.4
2002-2003	140.1	63.61	50.64	41.82	44.87	39.47	51.48	116.5	153.7	164.3	179.8	170.4	1216.7
2003-2004	140.1	63.73	50.04	43.99	41.7	41.22	55.81	121.4	147.2	164.1	178.8	166.3	1214.3
2004-2005	141	66.28	50.67	42.21	43.6	41.72	55.67	121.4	149.1	162.6	176.6	168.4	1219.2
2005-2006	142.9	62.34	48.22	44.98	42.77	43.59	56.31	124	151.5	168	181	170.4	1236.0
2006-2007	147	65.87	48.99	43.68	42.75	43.76	56.02	119.8	153.4	170	183.2	172.6	1247.2
2007-2008	144.3	67.57	51.73	44.69	42.72	42.58	58.59	122.6	146	166.5	176.8	167.7	1231.7
2008-2009	141.2	64.47	52.5	44.42	44.1	42.51	53.36	119.3	145.9	166.9	178.1	168.5	1221.2
2009-2010	139.7	66.47	50.4	45.92	45.43	44.2	57.2	123.3	148	162.1	173.8	172.5	1229.1
2010-2011	143.6	64.82	51.41	45.34	42.71	41.46	53.01	116.5	146.2	164.3	177.9	168.8	1216.1
2011-2012	142.7	62.61	45.43	41.47	40.36	38.94	50.81	118.1	146.2	165.4	182.1	172.6	1206.6
2012-2013	142.1	64.82	50.51	43.04	41.52	42.87	54.39	121.7	152.1	165.7	178.7	169.7	1227.1
2013-2014	140.1	61.93	51.73	41.19	43.86	42.49	56.45	123.3	147	165.8	176.7	168.4	1219.0
2014-2015	142.8	63.18	48.2	44.9	40.74	40.66	54.28	115.7	148.8	160.8	176.6	172.2	1208.9
AVERAGE	140.3	63.7	49.1	43.1	42.3	41.6	53.9	118.7	146.6	163.1	176.2	166.9	

**Table A. 40** Cayirova station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114.1	90.88	52.4	40.86	42.32	49.36	78.16	96.27	125.4	144.7	152.7	138.6	1125.7
1979-1980	113.7	89.77	59.87	40.76	37.56	44.3	74.05	93.74	121.7	142.1	148.8	139.5	1105.9
1980-1981	112	86.21	57.37	41.18	40.47	45.46	78.87	97.18	121.2	143.9	153.9	142.3	1120.0
1981-1982	116.6	92.34	53.04	44.58	43.25	42.19	72.51	97.14	126.2	144.1	151.7	142.9	1126.4
1982-1983	118.5	91.17	53.85	38.72	36.59	43.81	74.51	95.55	126.6	140.7	152.7	141	1113.7
1983-1984	114.8	86.12	59.12	44.11	44.97	50.87	79.78	96.65	130.1	145.2	151.7	141.2	1144.6
1984-1985	115.5	94.68	55.85	40.34	45.55	44.1	77.52	98.42	129.4	144.7	153.1	144.8	1144.1
1985-1986	117.6	88.17	61.05	42.85	44.77	49.42	79.67	103.2	125.3	143.8	152.1	141.6	1149.5
1986-1987	117.7	87.28	51.61	36.66	42.68	50.71	72.11	95.07	124.2	142	154.9	144.2	1119.3
1987-1988	117.4	88.76	57.8	41.85	42.34	47.04	76.09	97.69	129.7	145.6	158.2	145.7	1148.2
1988-1989	118.1	90.18	53.88	42.59	39.06	47.43	79.92	104.5	131.3	143.1	154.3	141.6	1146.0
1989-1990	115.8	86.29	58.14	42.43	40.1	47.4	80.1	99.88	128.1	142.9	153.6	143.6	1138.4
1990-1991	116	92.43	62.29	45.78	43.75	48.39	82.27	102	130.2	145.9	152.4	141.3	1162.6
1991-1992	114.3	90.52	56.53	36.67	36.26	38.58	73.27	95.15	123.8	141.6	150	142.7	1099.4
1992-1993	115.4	90.92	57.1	34.93	39.39	42.62	76.42	95.24	123.5	144.1	152.7	140.8	1113.1
1993-1994	114.5	95.12	55.28	45.37	46.24	47.38	78.4	101.7	131.9	147.9	154.4	145.7	1163.8
1994-1995	120.6	97.27	58.14	39.27	45.19	51.39	81.9	96.16	128	145.3	152.3	141.9	1157.3
1995-1996	115.9	87.21	50.88	39.8	39.74	47.75	75.18	93.21	127.6	143.9	152.5	142.2	1115.9
1996-1997	114.6	87.95	59.75	48.12	45.92	45.05	75.16	94.31	128.5	145.9	155.9	139.9	1141.1
1997-1998	114	88.26	58.92	42.39	41.22	48.01	75.37	100.9	127.2	145.7	156	146.4	1144.5
1998-1999	116.8	92.03	61.85	43.95	45.92	48.65	79.03	97.4	131.6	145.4	155.1	145	1162.8
1999-2000	118	92.12	58.18	45.43	36.91	46.51	75.94	98.66	128.1	148.7	158	145.5	1152.1
2000-2001	117.6	88.68	59.22	43.52	45.15	49.13	84.33	101.2	129	146.3	154.9	145.3	1164.2
2001-2002	117.8	92.08	57.29	41.78	39.09	49.84	80.47	97.2	127.3	146	156.4	143.3	1148.5
2002-2003	116.8	90.75	60.38	40.03	46.85	43.89	74.89	96.93	132.7	146	156.7	146.3	1152.1
2003-2004	116.8	90.92	59.37	43.82	41.46	46.64	81.08	100.3	128.5	145.9	156.1	143.5	1154.3
2004-2005	117.4	94.79	60.41	40.71	44.7	47.4	80.89	100.2	129.7	144.9	154.7	145	1160.9
2005-2006	118.8	88.82	56.33	45.55	43.29	50.35	81.78	102.1	131.2	148.3	157.5	146.3	1170.3
2006-2007	121.8	94.17	57.62	43.29	43.26	50.6	81.38	99.18	132.5	149.6	158.9	147.8	1180.0
2007-2008	119.8	96.75	62.2	45.04	43.21	48.74	85.05	101.1	127.7	147.4	154.8	144.5	1176.2
2008-2009	117.6	92.04	63.48	44.57	45.56	48.64	77.58	98.84	127.7	147.6	155.6	145	1164.2
2009-2010	116.5	95.08	59.96	47.19	47.81	51.29	83.07	101.6	129	144.7	152.9	147.7	1176.7
2010-2011	119.3	92.58	61.65	46.21	43.18	47	77.08	96.94	127.9	146	155.5	145.2	1158.5
2011-2012	118.6	89.22	51.69	39.42	39.19	43.04	73.95	97.97	127.8	146.7	158.2	147.7	1133.5
2012-2013	118.2	92.59	60.16	42.15	41.15	49.22	79.04	100.5	131.6	146.9	156	145.8	1163.3
2013-2014	116.8	88.21	62.19	38.92	45.13	48.62	81.99	101.6	128.4	147	154.8	144.9	1158.4
2014-2015	118.7	90.09	56.32	45.42	39.82	45.74	78.91	96.34	129.5	143.9	154.7	147.5	1146.9
AVERAGE	116.9	90.9	57.9	42.3	42.4	47.2	78.3	98.4	128.1	145.2	154.5	143.9	

**Table A. 41** Degirmenlik station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	96.7	70.1	34.0	28.6	25.1	31.6	47.9	68.7	110.7	156.6	182.6	152.9	1005.3
1979-1980	108.8	66.5	40.2	25.4	23.2	25.7	41.4	61.7	103.9	152.5	179.8	159.4	988.6
1980-1981	95.4	66.3	39.2	26.6	24.7	28.3	45.6	67.3	93.5	152.7	172.1	147.5	959.4
1981-1982	102.0	71.9	32.2	28.9	25.1	24.7	38.4	63.2	99.9	146.5	161.1	151.8	945.9
1982-1983	104.8	64.9	31.7	24.1	21.6	25.3	42.0	65.8	107.9	135.0	166.7	144.7	934.3
1983-1984	97.7	59.7	38.4	27.0	26.1	29.5	44.9	61.2	117.1	141.9	170.7	132.5	946.7
1984-1985	88.4	64.7	31.2	23.3	26.3	24.9	41.9	68.0	115.1	141.1	163.8	178.3	967.0
1985-1986	112.2	63.3	42.7	27.8	24.6	29.1	46.2	75.6	94.7	145.2	171.6	146.3	979.3
1986-1987	106.0	61.5	30.9	24.5	25.0	29.7	36.1	61.0	101.3	139.8	177.9	148.7	942.4
1987-1988	100.3	57.7	33.9	25.3	24.1	26.9	40.8	66.7	110.8	146.7	192.2	155.7	981.1
1988-1989	101.0	57.4	29.3	23.7	20.7	25.6	44.6	83.5	113.9	138.5	176.9	145.3	960.4
1989-1990	95.3	56.4	35.5	26.8	21.9	26.8	45.2	67.7	106.2	141.2	165.8	149.2	938.1
1990-1991	95.3	65.2	37.5	26.7	24.3	26.8	48.3	69.6	100.6	149.2	161.4	143.4	948.1
1991-1992	98.0	65.3	34.9	22.2	21.0	20.3	33.1	58.4	97.9	131.1	151.4	158.4	891.9
1992-1993	97.1	66.3	34.2	21.1	22.4	23.6	40.5	64.0	89.7	147.5	168.8	161.2	936.3
1993-1994	102.1	77.8	32.5	26.4	26.2	27.6	43.0	72.9	110.3	144.3	168.5	157.8	989.5
1994-1995	109.6	71.5	32.1	22.0	24.2	28.1	43.4	61.3	109.6	152.1	170.9	148.4	973.3
1995-1996	96.3	59.8	28.8	23.0	22.2	28.3	41.9	59.6	117.6	153.9	178.6	153.1	963.2
1996-1997	96.0	56.8	37.3	27.2	25.2	25.0	37.2	53.6	113.5	153.7	182.2	133.6	941.3
1997-1998	92.9	61.4	36.9	25.3	22.9	27.5	41.4	73.8	107.4	157.8	192.1	173.0	1012.3
1998-1999	102.3	67.6	38.9	26.5	24.7	25.6	42.7	62.0	109.7	138.5	173.8	145.3	957.6
1999-2000	94.4	62.3	34.4	25.7	22.1	26.9	41.0	67.7	106.9	155.9	190.3	156.5	984.2
2000-2001	105.0	62.2	38.5	25.8	25.2	28.7	53.9	70.2	114.3	154.5	183.8	158.1	1020.2
2001-2002	102.0	64.7	35.2	25.3	22.5	31.1	48.4	64.1	103.7	152.3	186.8	153.4	989.6
2002-2003	98.7	64.7	38.3	24.2	27.3	25.2	39.4	64.9	131.3	158.3	195.1	169.4	1036.8
2003-2004	102.4	69.6	37.8	25.9	24.1	27.6	49.6	70.2	107.6	155.9	194.2	153.8	1018.8
2004-2005	106.4	71.9	36.8	24.3	25.0	26.7	47.7	70.9	108.8	143.4	183.1	155.3	1000.2
2005-2006	105.1	60.6	33.1	26.3	23.5	28.0	44.9	70.7	111.3	155.9	177.4	161.3	998.0
2006-2007	104.7	62.2	32.4	24.0	23.6	28.5	45.1	64.4	113.2	161.4	195.0	158.9	1013.3
2007-2008	103.9	69.1	37.3	25.1	22.0	26.4	55.4	76.4	108.6	159.4	185.6	165.2	1034.4
2008-2009	99.1	62.5	38.7	25.8	25.7	28.7	42.9	68.0	107.3	165.8	186.1	156.5	1007.0
2009-2010	96.3	70.8	35.3	30.4	29.1	31.6	48.7	71.7	111.5	142.1	171.8	174.4	1013.8
2010-2011	108.1	66.9	41.6	29.5	25.2	28.3	44.4	63.2	100.3	146.7	181.5	160.0	995.8
2011-2012	106.6	60.4	31.2	24.5	22.9	25.2	40.8	69.5	101.8	157.4	195.8	165.4	1001.6
2012-2013	104.9	66.5	38.7	26.5	24.2	30.0	47.1	71.9	120.2	149.8	174.2	163.7	1017.6
2013-2014	99.5	60.0	39.9	23.7	27.4	29.9	48.9	70.6	103.5	149.4	171.5	156.6	981.2
2014-2015	98.3	61.1	34.3	28.3	23.6	27.0	46.3	62.5	109.9	133.9	175.6	162.3	963.1
AVERAGE	100.9	64.5	35.6	25.6	24.2	27.3	44.1	67.1	107.9	148.9	177.8	155.6	

**Table A. 42** Degirmenlik station Thorntwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	110.6	77.5	29.8	22.9	14.3	22.6	30.8	53.2	85.1	138.8	155.0	136.9	877.5
1979-1980	138.8	76.9	45.0	18.2	12.0	12.8	22.7	45.6	82.7	143.9	162.9	152.9	914.4
1980-1981	120.2	78.7	44.0	21.0	15.0	18.2	30.1	56.5	72.0	148.2	159.7	144.4	908.1
1981-1982	138.6	93.4	30.6	27.2	16.6	11.9	19.5	52.2	84.1	148.0	155.5	156.4	934.1
1982-1983	152.3	84.8	31.2	17.6	10.3	13.8	26.8	60.2	99.6	140.7	170.7	156.5	964.4
1983-1984	127.2	68.1	43.3	22.3	18.1	21.0	29.6	47.1	103.2	138.3	161.7	130.4	910.3
1984-1985	113.1	79.4	28.2	15.0	18.9	12.2	25.1	60.5	103.0	140.2	157.7	184.3	937.5
1985-1986	138.3	68.4	48.0	22.1	13.9	18.4	29.0	65.7	68.8	130.0	148.8	133.9	885.2
1986-1987	151.8	76.7	28.9	18.3	17.0	22.9	16.4	50.2	89.1	144.8	180.5	158.8	955.4
1987-1988	130.8	64.0	33.3	18.6	14.1	15.7	22.6	56.4	94.9	143.2	182.5	155.6	931.8
1988-1989	139.3	66.7	24.6	16.1	8.3	13.8	30.3	90.0	103.6	139.9	175.5	151.4	959.6
1989-1990	130.3	65.5	39.0	23.2	10.7	16.6	31.7	62.0	94.7	145.2	165.2	157.7	941.7
1990-1991	122.5	78.2	41.2	21.7	14.6	15.6	35.2	61.7	82.5	146.9	151.4	142.6	914.1
1991-1992	160.6	98.4	44.3	15.5	10.4	5.2	13.5	53.2	97.8	154.9	174.1	197.2	1025.3
1992-1993	141.0	89.7	37.8	11.5	12.1	10.6	24.7	58.1	76.0	161.3	177.1	180.1	979.9
1993-1994	123.7	93.1	28.0	19.5	16.8	15.8	24.4	62.0	87.7	130.0	147.1	146.7	894.8
1994-1995	146.2	89.2	29.2	12.0	14.3	17.9	26.8	46.9	93.2	149.3	160.4	147.2	932.6
1995-1996	132.6	72.6	23.9	14.8	11.3	19.7	26.1	47.2	109.8	162.1	179.9	162.7	962.7
1996-1997	133.9	67.4	44.0	24.5	17.4	13.0	18.4	36.7	105.9	164.0	186.3	141.1	952.7
1997-1998	109.8	66.3	37.2	17.5	11.1	15.7	22.2	64.2	85.1	146.7	171.1	163.0	909.8
1998-1999	133.9	82.2	44.0	21.0	15.2	13.1	25.7	48.0	93.3	132.6	163.4	143.8	916.3
1999-2000	119.9	72.3	34.2	19.4	10.4	15.7	22.8	57.8	89.7	153.6	179.8	155.7	931.4
2000-2001	120.4	63.0	37.8	17.3	14.3	16.8	38.8	54.3	87.0	133.3	152.5	138.6	873.9
2001-2002	126.7	73.1	34.2	17.7	10.6	22.9	33.5	49.1	81.9	142.5	168.4	145.5	906.1
2002-2003	113.2	68.5	38.1	14.6	18.1	11.1	18.2	47.2	106.6	140.0	165.5	151.9	892.9
2003-2004	118.4	76.0	37.0	17.6	12.6	15.2	33.1	55.0	80.9	136.7	164.0	136.5	882.9
2004-2005	128.7	82.3	36.2	15.2	14.4	13.9	31.2	58.1	84.9	127.3	159.1	142.4	893.8
2005-2006	131.1	65.7	29.8	19.6	12.2	16.8	27.9	59.7	90.5	146.0	158.8	153.1	911.1
2006-2007	129.7	68.0	28.1	15.0	12.4	17.8	27.9	49.2	92.2	151.3	174.4	149.8	915.8
2007-2008	117.5	73.4	35.1	15.7	8.8	12.7	40.7	62.8	80.1	137.0	152.7	143.9	880.6
2008-2009	117.5	66.7	40.0	18.0	15.7	17.6	23.9	53.6	83.3	152.3	162.2	143.9	894.7
2009-2010	104.6	74.9	30.9	25.2	20.4	21.5	30.5	55.1	82.1	117.3	138.4	150.0	850.9
2010-2011	129.6	73.1	45.1	25.0	14.7	16.7	25.8	45.2	74.2	129.4	155.7	145.2	879.7
2011-2012	139.3	67.9	27.0	16.7	11.7	12.3	22.3	60.3	82.5	153.7	183.2	163.4	940.4
2012-2013	120.3	70.0	38.0	18.6	12.5	19.1	28.9	56.7	93.2	128.4	143.9	143.9	873.6
2013-2014	120.8	63.9	43.3	14.5	19.2	20.4	33.8	59.0	80.6	137.1	151.4	146.9	891.0
2014-2015	127.7	70.5	34.2	24.9	13.1	16.0	31.8	49.2	94.0	127.6	166.1	163.0	918.3
AVERAGE	128.7	74.8	35.8	18.8	13.9	16.0	27.1	55.4	89.1	142.2	163.9	151.8	

**Table A. 43** Degirmenlik station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	174.6	171.1	134	132.8	120	116	134.2	142.4	167.5	182.3	199.2	196.1	1870.2
1979-1980	182.6	167.5	145.6	124.6	114.6	103	124	135.1	162.9	180.5	198.1	199.1	1837.6
1980-1981	173.7	167.3	143.8	127.7	119	109	130.8	141	155.6	180.6	195	193.6	1837.1
1981-1982	178.2	173	130.5	133.7	120.2	100.5	118.6	136.8	160.3	177.8	190.4	195.6	1815.4
1982-1983	180	165.7	129.4	120.8	109.4	101.9	124.8	139.5	165.6	172.2	192.7	192.3	1794.4
1983-1984	175.3	159.8	142.4	128.7	122.9	111.6	129.7	134.5	171.4	175.6	194.5	186.1	1832.5
1984-1985	168.5	165.6	128.2	118.5	123.4	100.9	124.7	141.8	170.2	175.2	191.5	207	1815.4
1985-1986	184.7	164	149.6	130.9	118.7	110.7	131.6	148.9	156.5	177.2	194.8	193	1860.7
1986-1987	180.8	162	127.6	122	119.9	112.1	114.3	134.4	161.2	174.6	197.3	194.2	1800.4
1987-1988	177.1	157.5	134	124.2	117.2	105.8	122.8	140.4	167.5	177.9	202.8	197.4	1824.6
1988-1989	177.5	157.1	124.1	119.6	106.6	102.6	129.1	155.7	169.5	174	196.9	192.6	1805.1
1989-1990	173.6	155.9	137	128.3	110.6	105.7	130.1	141.4	164.6	175.3	192.4	194.4	1809.2
1990-1991	173.5	166	140.7	128	117.9	105.6	134.8	143.3	160.7	179	190.5	191.6	1831.7
1991-1992	175.5	166.2	135.8	115.1	107.4	87.78	108.2	131.4	158.8	170.2	186	198.6	1741.0
1992-1993	174.9	167.2	134.4	111.5	112	97.41	122.3	137.6	152.7	178.3	193.7	199.8	1781.8
1993-1994	178.2	178.6	131.1	127.3	123	107.4	126.7	146.4	167.2	176.7	193.5	198.4	1854.5
1994-1995	183.1	172.6	130.2	114.5	117.6	108.5	127.2	134.7	166.8	180.3	194.5	194.1	1824.1
1995-1996	174.3	160	122.9	117.4	111.6	109.1	124.8	132.8	171.7	181.2	197.6	196.3	1799.5
1996-1997	174.1	156.4	140.5	129.4	120.4	101.1	116.4	125.5	169.2	181	199	186.6	1799.6
1997-1998	171.8	161.8	139.6	124.2	113.6	107.1	124	147.3	165.3	182.9	202.8	204.8	1845.2
1998-1999	178.4	168.6	143.4	127.4	119	102.6	126.2	135.4	166.8	174	195.7	192.6	1830.0
1999-2000	173	162.9	134.9	125.4	111.2	105.9	123.2	141.4	165	182	202.1	197.8	1824.8
2000-2001	180.1	162.7	142.6	125.7	120.5	109.9	142.4	143.9	169.7	181.4	199.6	198.5	1877.2
2001-2002	178.2	165.6	136.5	124.2	112.5	115	134.9	137.7	162.9	180.5	200.8	196.4	1845.0
2002-2003	176	165.6	142.3	121	125.9	101.8	120.5	138.5	179.5	183.1	203.8	203.3	1861.2
2003-2004	178.5	170.7	141.4	125.8	117.3	107.5	136.7	143.9	165.5	182	203.5	196.5	1869.3
2004-2005	181	173	139.5	121.5	119.7	105.2	133.9	144.6	166.2	176.3	199.4	197.2	1857.6
2005-2006	180.2	161	132.3	126.9	115.3	108.3	129.7	144.3	167.8	182	197.2	199.9	1845.0
2006-2007	180	162.7	130.8	120.5	115.7	109.6	129.9	138	169	184.4	203.8	198.9	1843.2
2007-2008	179.4	170.2	140.5	123.6	110.7	104.6	144.4	149.6	166.1	183.5	200.4	201.6	1874.6
2008-2009	176.2	163.1	142.9	125.5	121.7	109.8	126.4	141.7	165.2	186.2	200.5	197.8	1857.1
2009-2010	174.3	171.9	136.7	137.2	130.4	116	135.4	145.3	168	175.7	194.9	205.4	1891.2
2010-2011	182.1	167.9	147.9	135.2	120.4	109.1	128.8	136.7	160.5	177.9	198.8	199.3	1864.6
2011-2012	181.2	160.6	128.3	121.9	113.7	101.7	122.9	143.2	161.6	182.7	204.1	201.7	1823.6
2012-2013	180.1	167.4	142.9	127.6	117.5	112.7	133	145.5	173.2	179.3	195.8	201	1876.0
2013-2014	176.5	160.3	145.1	119.8	126.3	112.6	135.7	144.3	162.8	179.1	194.8	197.9	1855.0
2014-2015	175.7	161.5	134.7	132	115.7	106.1	131.8	136	167	171.7	196.4	200.3	1828.9
AVERAGE	177.4	165.2	136.9	124.9	117.3	106.5	128.0	140.6	165.5	178.8	197.2	197.2	

**Table A. 44** Degirmenlik station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	134.3	63.34	45.19	42.49	39.55	41.55	52.84	116	146.3	164.9	177.2	164.2	1187.9
1979-1980	140.5	61.98	49.09	39.89	37.78	36.86	48.8	110	142.4	163.3	176.2	166.7	1173.5
1980-1981	133.6	61.9	48.49	40.86	39.2	39.05	51.48	114.9	135.9	163.4	173.5	162.1	1164.5
1981-1982	137.1	64.03	43.98	42.8	39.6	35.97	46.69	111.4	140	160.9	169.4	163.8	1155.6
1982-1983	138.5	61.34	43.61	38.65	36.05	36.48	49.15	113.6	144.7	155.8	171.5	161	1150.4
1983-1984	134.9	59.16	48.02	41.19	40.49	39.97	51.04	109.6	149.7	158.9	173	155.8	1161.8
1984-1985	129.6	61.27	43.22	37.92	40.68	36.11	49.08	115.4	148.7	158.5	170.4	173.3	1164.3
1985-1986	142.1	60.71	50.44	41.92	39.13	39.64	51.81	121.3	136.7	160.3	173.3	161.6	1179.0
1986-1987	139.1	59.96	43.04	39.06	39.52	40.14	44.99	109.4	140.8	158	175.6	162.6	1152.2
1987-1988	136.2	58.28	45.17	39.75	38.61	37.89	48.36	114.4	146.3	160.9	180.4	165.3	1171.7
1988-1989	136.6	58.14	41.83	38.27	35.1	36.72	50.81	126.8	148.1	157.4	175.2	161.2	1166.2
1989-1990	133.6	57.69	46.18	41.08	36.42	37.84	51.19	115.2	143.8	158.6	171.2	162.8	1155.5
1990-1991	133.5	61.45	47.45	40.97	38.84	37.81	53.06	116.7	140.4	162	169.5	160.4	1162.1
1991-1992	135	61.51	45.8	36.85	35.39	31.43	42.57	107	138.7	154	165.5	166.3	1120.1
1992-1993	134.5	61.9	45.31	35.69	36.9	34.87	48.15	112	133.4	161.3	172.3	167.3	1143.7
1993-1994	137.2	66.08	44.19	40.76	40.54	38.46	49.85	119.3	146.1	159.9	172.2	166.1	1180.6
1994-1995	140.9	63.89	43.88	36.64	38.75	38.85	50.09	109.7	145.7	163.1	173.1	162.5	1167.1
1995-1996	134.1	59.22	41.43	37.58	36.77	39.05	49.11	108.1	150	163.9	175.9	164.3	1159.4
1996-1997	133.9	57.86	47.35	41.43	39.66	36.2	45.83	102.2	147.8	163.8	177.1	156.3	1149.5
1997-1998	132.2	59.9	47.08	39.75	37.43	38.34	48.8	120	144.4	165.4	180.4	171.5	1185.3
1998-1999	137.3	62.42	48.33	40.79	39.2	36.75	49.66	110.3	145.7	157.4	174.2	161.2	1163.2
1999-2000	133.1	60.29	45.5	40.13	36.65	37.91	48.48	115.2	144.2	164.7	179.8	165.6	1171.5
2000-2001	138.6	60.22	48.09	40.23	39.7	39.35	56.07	117.2	148.3	164.1	177.6	166.2	1195.7
2001-2002	137.1	61.27	46.01	39.74	37.06	41.18	53.11	112.1	142.3	163.3	178.7	164.4	1176.3
2002-2003	135.4	61.29	47.98	38.74	41.49	36.42	47.41	112.8	156.8	165.6	181.4	170.3	1195.6
2003-2004	137.3	63.16	47.66	40.27	38.65	38.5	53.8	117.2	144.6	164.7	181.1	164.6	1191.4
2004-2005	139.3	64.02	47.04	38.87	39.44	37.68	52.7	117.8	145.2	159.5	177.4	165.1	1184.1
2005-2006	138.7	59.58	44.6	40.62	38.01	38.77	51.05	117.5	146.6	164.7	175.4	167.4	1182.9
2006-2007	138.5	60.24	44.09	38.58	38.12	39.23	51.14	112.4	147.7	166.8	181.3	166.5	1184.6
2007-2008	138.1	63	47.35	39.55	36.47	37.47	56.86	121.8	145.1	166.1	178.3	168.8	1198.9
2008-2009	135.6	60.35	48.18	40.17	40.09	39.32	49.75	115.4	144.4	168.5	178.4	165.6	1185.8
2009-2010	134.1	63.61	46.1	43.92	42.97	41.53	53.29	118.4	146.8	159	173.4	172	1195.0
2010-2011	140.1	62.14	49.87	43.26	39.67	39.06	50.69	111.3	140.2	160.9	176.9	166.9	1181.1
2011-2012	139.4	59.46	43.25	39.01	37.46	36.42	48.37	116.7	141.2	165.3	181.6	168.9	1177.0
2012-2013	138.6	61.98	48.16	40.83	38.73	40.36	52.34	118.5	151.3	162.2	174.3	168.3	1195.6
2013-2014	135.8	59.32	48.9	38.33	41.62	40.32	53.41	117.5	142.2	162	173.3	165.7	1178.4
2014-2015	135.2	59.77	45.43	42.26	38.12	37.99	51.89	110.7	145.9	155.3	174.8	167.7	1165.1
AVERAGE	136.5	61.1	46.1	40.0	38.6	38.1	50.4	114.5	144.6	161.7	175.4	165.1	

**Table A. 45** Degirmenlik station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116	92.99	52.99	42.57	39.33	48.93	79.84	100.2	132.4	151.3	160	146.6	1163.2
1979-1980	120.5	90.94	59.49	38	36.32	41.6	74.07	96.05	129.9	150.3	159.4	148.2	1144.9
1980-1981	115.5	90.82	58.51	39.71	38.76	45.01	77.91	99.38	125.7	150.4	157.7	145.1	1144.6
1981-1982	118.1	94.03	51	43.11	39.42	40.21	71.07	96.99	128.4	148.8	155.1	146.3	1132.4
1982-1983	119.1	89.96	50.38	35.83	33.39	40.99	74.57	98.51	131.4	145.7	156.4	144.4	1120.6
1983-1984	116.4	86.65	57.72	40.29	40.96	46.47	77.27	95.73	134.6	147.6	157.4	140.9	1142.0
1984-1985	112.6	89.86	49.73	34.55	41.26	40.41	74.47	99.8	134	147.3	155.7	152.6	1132.4
1985-1986	121.7	89	61.74	41.55	38.62	45.96	78.38	103.8	126.2	148.5	157.6	144.8	1157.8
1986-1987	119.5	87.86	49.41	36.53	39.28	46.73	68.64	95.65	128.9	147	159	145.5	1124.0
1987-1988	117.4	85.33	52.97	37.77	37.75	43.2	73.44	99.05	132.4	148.8	162.1	147.3	1137.5
1988-1989	117.7	85.11	47.42	35.16	31.78	41.36	76.94	107.6	133.5	146.6	158.8	144.6	1126.6
1989-1990	115.5	84.41	54.67	40.08	34.03	43.11	77.49	99.61	130.8	147.4	156.2	145.6	1128.9
1990-1991	115.5	90.12	56.76	39.9	38.13	43.09	80.16	100.7	128.6	149.5	155.2	144	1141.6
1991-1992	116.5	90.23	54.02	32.67	32.26	33.07	65.19	93.98	127.5	144.5	152.6	148	1090.6
1992-1993	116.2	90.81	53.21	30.65	34.82	38.47	73.15	97.45	124.1	149	156.9	148.6	1113.5
1993-1994	118.1	97.16	51.34	39.52	41.02	44.1	75.58	102.4	132.3	148.2	156.9	147.8	1154.4
1994-1995	120.8	93.81	50.83	32.31	37.99	44.71	75.92	95.82	132	150.2	157.4	145.4	1137.3
1995-1996	115.9	86.74	46.76	33.94	34.62	45.02	74.52	94.74	134.8	150.7	159.2	146.6	1123.5
1996-1997	115.8	84.7	56.6	40.7	39.53	40.56	69.84	90.66	133.4	150.6	159.9	141.2	1123.5
1997-1998	114.5	87.76	56.15	37.76	35.73	43.92	74.08	102.9	131.2	151.6	162	151.4	1149.1
1998-1999	118.2	91.58	58.25	39.58	38.75	41.41	75.31	96.2	132	146.6	158.1	144.6	1140.6
1999-2000	115.1	88.37	53.51	38.42	34.42	43.22	73.62	99.61	131	151.2	161.7	147.5	1137.7
2000-2001	119.2	88.26	57.83	38.6	39.62	45.48	84.45	101	133.7	150.8	160.3	147.9	1167.1
2001-2002	118.1	89.86	54.37	37.75	35.11	48.36	80.24	97.5	129.8	150.3	160.9	146.7	1149.0
2002-2003	116.8	89.88	57.64	35.98	42.63	40.92	72.1	97.98	139.1	151.7	162.6	150.6	1158.1
2003-2004	118.2	92.73	57.12	38.67	37.82	44.16	81.21	101	131.3	151.2	162.5	146.8	1162.6
2004-2005	119.7	94.02	56.09	36.23	39.17	42.87	79.63	101.4	131.7	148	160.2	147.2	1156.1
2005-2006	119.2	87.29	52.03	39.3	36.71	44.58	77.29	101.2	132.6	151.2	158.9	148.7	1149.0
2006-2007	119.1	88.28	51.18	35.7	36.91	45.3	77.4	97.71	133.3	152.5	162.6	148.1	1148.0
2007-2008	118.8	92.48	56.61	37.41	34.09	42.54	85.57	104.2	131.7	152	160.7	149.6	1165.6
2008-2009	117	88.46	57.98	38.5	40.28	45.43	75.43	99.76	131.2	153.5	160.8	147.5	1155.8
2009-2010	115.9	93.41	54.51	45.06	45.16	48.92	80.48	101.8	132.7	147.6	157.6	151.8	1174.9
2010-2011	120.3	91.18	60.8	43.92	39.55	45.04	76.78	96.93	128.5	148.8	159.8	148.4	1160.0
2011-2012	119.8	87.1	49.78	36.46	35.8	40.9	73.47	100.6	129.1	151.5	162.8	149.7	1137.0
2012-2013	119.2	90.92	57.95	39.65	37.94	47.09	79.12	101.9	135.6	149.6	158.2	149.3	1166.4
2013-2014	117.1	86.89	59.2	35.28	42.86	47.01	80.64	101.2	129.8	149.5	157.6	147.5	1154.6
2014-2015	116.7	87.58	53.4	42.14	36.9	43.37	78.48	96.54	132.1	145.4	158.5	148.9	1140.0
AVERAGE	117.6	89.6	54.6	38.1	37.8	43.6	76.3	99.1	131.3	149.3	158.9	147.2	

**Table A. 46** Dorytol station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	101.5	71.3	35.7	29.5	27.2	33.9	51.5	72.7	113.0	162.0	188.4	150.1	1036.8
1979-1980	110.8	71.2	43.2	27.9	25.4	29.4	47.0	69.3	110.0	155.2	179.4	163.5	1032.2
1980-1981	102.2	70.8	43.2	29.1	26.9	30.6	51.5	73.4	101.6	159.4	185.6	163.2	1037.6
1981-1982	112.9	78.3	36.3	30.7	28.5	27.8	43.4	73.0	113.5	154.1	171.5	160.0	1029.9
1982-1983	115.3	72.5	36.5	26.8	24.6	28.5	45.4	71.1	115.6	145.6	178.3	154.6	1014.9
1983-1984	106.3	67.5	43.2	30.6	29.3	33.8	50.4	68.4	127.4	151.4	179.2	151.5	1038.9
1984-1985	99.9	67.3	37.4	26.2	29.4	27.8	48.9	72.3	120.2	153.0	178.2	191.1	1051.9
1985-1986	126.0	72.2	49.1	33.6	29.6	34.5	53.9	85.7	106.7	158.2	179.6	159.3	1088.5
1986-1987	113.0	66.7	35.0	27.7	29.0	34.3	40.9	66.5	106.5	150.3	186.9	161.0	1017.8
1987-1988	108.1	63.6	37.1	27.6	26.4	29.6	45.3	72.3	118.1	157.2	207.4	171.3	1063.9
1988-1989	111.2	66.6	34.6	27.1	23.7	29.0	50.0	88.3	124.2	150.5	189.0	155.9	1050.0
1989-1990	107.2	64.4	39.9	28.2	24.7	30.2	49.4	74.0	116.1	153.4	181.5	162.8	1031.7
1990-1991	106.4	73.2	43.5	30.3	26.8	29.7	52.3	74.9	114.2	154.9	180.8	159.4	1046.4
1991-1992	108.2	71.8	38.8	24.5	23.1	24.0	41.6	69.0	104.3	144.5	170.2	164.8	985.0
1992-1993	105.5	73.1	38.9	23.9	25.0	26.8	48.7	71.0	105.2	161.7	189.2	168.1	1037.1
1993-1994	110.1	84.6	38.3	31.0	31.1	32.4	50.6	77.1	119.6	164.5	185.4	172.6	1097.4
1994-1995	125.8	83.7	38.9	26.4	28.4	33.4	51.4	69.1	116.0	159.1	184.0	159.6	1075.9
1995-1996	109.1	66.2	32.7	26.6	26.3	31.7	45.8	64.4	117.4	157.3	183.0	160.5	1021.1
1996-1997	103.1	62.1	42.3	31.9	29.2	27.9	44.3	62.4	113.6	154.1	186.0	143.9	1000.6
1997-1998	99.6	66.3	40.9	29.0	26.8	32.0	45.5	76.1	111.0	157.6	188.4	173.4	1046.5
1998-1999	110.6	73.4	44.7	30.2	30.1	33.5	53.2	74.9	130.9	154.5	197.5	170.3	1104.0
1999-2000	114.7	73.9	40.6	31.3	25.1	30.8	46.7	74.8	117.6	174.4	199.5	167.2	1096.4
2000-2001	109.7	67.6	41.2	28.7	28.7	32.1	57.5	76.9	119.7	160.1	184.3	163.2	1069.6
2001-2002	107.8	71.5	39.2	28.6	25.3	34.0	52.7	71.1	113.8	164.4	197.6	164.3	1070.4
2002-2003	107.0	71.2	42.5	27.0	30.5	27.4	42.8	68.0	131.5	162.2	199.5	174.8	1084.5
2003-2004	109.9	73.6	41.7	29.8	26.6	30.2	51.2	73.0	110.3	154.8	190.4	162.3	1053.7
2004-2005	109.6	77.6	40.9	28.0	29.7	30.8	50.4	74.8	115.3	152.5	187.0	163.0	1059.6
2005-2006	111.9	65.4	36.4	29.3	26.5	31.4	49.9	76.8	119.8	164.7	191.0	171.8	1075.0
2006-2007	118.1	71.8	36.9	27.7	26.5	31.7	48.8	69.6	120.6	169.5	199.5	169.6	1090.2
2007-2008	111.9	75.8	41.5	27.8	25.3	29.4	57.8	81.1	116.4	170.0	195.4	173.6	1106.1
2008-2009	111.8	72.2	45.4	29.7	29.5	32.3	47.5	74.1	116.5	175.0	198.4	173.0	1105.3
2009-2010	109.0	80.2	41.5	31.8	30.7	34.1	54.9	80.1	121.5	156.0	182.0	183.6	1105.5
2010-2011	120.6	77.2	46.8	34.1	29.4	32.5	50.0	71.2	111.5	156.8	188.0	171.1	1089.0
2011-2012	116.0	69.1	36.0	28.5	26.8	29.6	46.0	75.3	113.8	163.9	205.0	178.4	1088.5
2012-2013	115.2	76.1	45.0	30.7	27.9	34.0	52.9	78.9	128.4	162.3	187.5	173.3	1112.2
2013-2014	111.6	66.6	46.1	27.7	31.5	34.0	55.4	78.7	113.8	160.6	184.2	167.0	1077.3
2014-2015	113.5	70.7	39.9	32.9	27.2	31.5	52.1	70.4	119.9	148.6	186.0	177.3	1070.1
AVERAGE	110.6	71.5	40.3	29.0	27.5	31.0	49.4	73.5	116.1	158.2	187.7	166.2	

**Table A. 47** Doryol station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.3	81.4	33.0	24.2	17.1	26.3	36.1	64.9	94.0	160.6	189.0	154.7	998.7
1979-1980	134.6	82.8	50.0	21.3	14.0	17.6	29.1	59.5	91.7	154.7	181.6	174.8	1011.8
1980-1981	117.5	79.9	48.7	23.1	16.4	19.5	35.7	65.7	78.4	155.9	184.2	169.8	994.8
1981-1982	137.3	94.9	34.8	27.1	19.8	14.5	23.2	66.5	96.0	152.5	171.0	169.6	1007.3
1982-1983	150.0	90.0	37.5	20.0	13.4	17.0	28.2	67.1	104.9	150.2	190.8	173.0	1042.1
1983-1984	120.3	71.9	47.3	25.6	20.2	25.1	32.9	54.2	108.4	141.4	171.4	150.8	969.5
1984-1985	115.6	74.9	36.9	17.6	21.4	14.5	32.1	64.8	104.2	150.2	178.2	206.3	1016.7
1985-1986	129.5	69.3	51.6	27.5	18.2	23.0	33.4	74.3	72.0	130.0	149.1	139.2	917.1
1986-1987	144.4	78.1	33.6	21.7	21.8	29.0	20.3	56.6	91.0	154.9	199.5	179.4	1030.4
1987-1988	128.3	67.9	36.1	20.3	15.6	17.8	26.0	64.4	101.0	155.0	211.9	181.7	1025.9
1988-1989	134.2	73.8	31.0	19.4	11.0	16.8	34.0	97.0	109.6	147.2	191.8	163.8	1029.5
1989-1990	130.3	71.3	43.2	22.1	13.0	19.5	33.6	69.7	101.0	154.1	186.4	175.9	1020.0
1990-1991	120.1	81.4	47.7	24.7	15.7	17.2	36.0	66.1	91.9	145.3	172.7	159.9	978.7
1991-1992	152.5	97.9	47.3	16.9	11.6	9.4	24.1	69.9	98.0	164.1	198.8	205.9	1096.4
1992-1993	130.8	89.3	42.0	13.7	13.7	13.2	33.1	65.4	88.5	169.3	200.8	187.2	1047.0
1993-1994	112.8	90.0	33.1	23.7	21.2	20.1	29.8	62.5	88.8	141.2	159.9	157.7	940.7
1994-1995	141.3	93.9	36.2	16.4	17.7	23.1	32.8	52.4	89.5	143.1	167.7	152.3	966.3
1995-1996	140.7	78.7	29.0	19.9	16.8	23.8	29.0	53.7	108.1	168.0	198.4	182.3	1048.4
1996-1997	130.1	70.5	51.2	31.7	22.5	15.7	26.4	49.5	102.7	163.2	202.1	159.2	1024.7
1997-1998	113.8	72.2	44.0	23.0	16.3	22.3	26.2	71.2	91.1	154.4	188.3	183.0	1005.7
1998-1999	111.8	72.4	44.5	21.9	19.2	21.6	33.1	57.8	99.7	128.1	169.7	153.1	933.0
1999-2000	124.8	77.8	39.4	25.2	12.0	18.2	25.4	61.7	90.6	159.5	182.7	159.5	976.8
2000-2001	119.7	68.8	41.1	20.7	18.2	20.8	42.4	66.6	94.6	145.3	169.1	157.4	964.7
2001-2002	120.3	77.2	38.2	21.1	12.9	25.2	36.0	58.0	90.0	154.7	188.9	163.1	985.5
2002-2003	118.6	76.6	44.7	18.0	22.0	12.8	20.7	52.3	111.0	151.4	190.3	174.7	993.0
2003-2004	125.4	82.0	44.0	23.8	15.3	18.1	34.2	62.5	87.0	145.2	183.8	163.4	984.6
2004-2005	122.1	86.8	41.5	19.8	20.4	18.8	32.1	64.3	91.3	139.2	175.9	160.6	972.8
2005-2006	127.2	67.5	32.8	22.7	15.0	20.2	31.8	69.0	97.9	156.0	182.6	172.9	995.4
2006-2007	133.4	76.6	33.0	19.1	14.6	20.3	29.5	54.4	96.9	158.4	188.1	166.9	991.3
2007-2008	117.6	78.7	40.0	18.2	12.1	15.1	41.0	70.8	86.9	150.3	173.7	162.1	966.4
2008-2009	115.9	72.1	46.7	21.4	18.6	19.9	25.6	57.9	85.9	153.9	174.4	159.3	951.8
2009-2010	107.7	80.8	37.8	24.2	19.9	22.3	34.8	65.1	87.9	127.3	151.2	163.5	922.4
2010-2011	126.1	78.7	48.8	29.1	18.2	20.0	28.8	52.4	79.3	131.9	161.7	155.4	930.6
2011-2012	132.6	73.3	31.8	20.9	15.5	16.8	25.7	65.9	90.2	154.3	197.3	179.7	1004.0
2012-2013	115.6	74.9	44.1	22.3	15.4	22.2	32.0	63.1	95.3	134.2	156.7	153.3	929.2
2013-2014	118.2	64.8	49.0	18.2	22.6	23.6	37.8	67.2	84.6	140.7	163.1	156.1	945.8
2014-2015	125.7	74.1	38.7	29.0	15.8	19.8	34.2	55.2	95.2	132.0	171.8	174.0	965.5
AVERAGE	126.1	78.2	40.8	22.0	16.9	19.5	31.0	63.2	93.9	149.1	180.4	167.6	

**Table A. 48** Doryol station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	178	172.6	137.6	135.2	126	120.5	139.5	146.5	169	184.9	201.6	195.1	1906.6
1979-1980	184.1	172.5	150.5	131.3	121	111.5	132.9	143.2	167.2	181.9	198.2	201.1	1895.4
1980-1981	178.6	172.1	150.5	134.2	125.2	114.1	139.4	147.1	161.6	183.8	200.6	200.9	1908.1
1981-1982	185.3	179.2	138.8	138	129.2	108.1	127.4	146.7	169.4	181.4	195	199.6	1898.1
1982-1983	186.8	173.7	139.2	128.3	118.9	109.7	130.6	145	170.7	177.6	197.7	197.2	1875.4
1983-1984	181.2	168.6	150.6	137.9	131.1	120.4	137.9	142.3	177.5	180.2	198.1	195.7	1921.5
1984-1985	177	168.5	140.8	126.9	131.4	108.1	135.9	146.1	173.5	180.9	197.7	212.1	1898.9
1985-1986	192.8	173.4	159.3	144.4	131.9	121.8	142.6	157.6	165.1	183.3	198.3	199.3	1969.8
1986-1987	185.4	168	136.2	130.6	130.5	121.3	123.2	140.3	164.9	179.8	201.1	200	1881.4
1987-1988	182.3	164.5	140.2	130.4	123.7	112	130.4	146.1	172.2	182.8	208.4	204.4	1897.4
1988-1989	184.3	167.8	135.5	129.2	116.2	110.8	137.4	159.7	175.8	179.8	201.8	197.7	1895.9
1989-1990	181.8	165.4	145.1	131.9	119.2	113.4	136.5	147.7	170.9	181.1	199	200.8	1892.8
1990-1991	181.3	174.4	151.1	137	124.9	112.4	140.6	148.4	169.8	181.8	198.7	199.4	1919.7
1991-1992	182.5	173.1	143.3	122.2	114.4	98.72	124.5	142.9	163.4	177.1	194.5	201.7	1838.2
1992-1993	180.7	174.3	143.3	120.4	119.8	105.7	135.4	144.9	164.1	184.8	201.9	203.1	1878.3
1993-1994	183.6	184.6	142.3	138.8	135.4	117.9	138.2	150.5	173.1	185.9	200.5	205	1955.8
1994-1995	192.7	183.9	143.4	127.5	129	119.7	139.4	143.1	170.9	183.6	200	199.4	1932.6
1995-1996	183	167.3	131.6	128	123.7	116.4	131.1	138.2	171.8	182.9	199.5	199.8	1873.3
1996-1997	179.1	162.8	149.1	140.7	130.9	108.2	128.8	136.1	169.5	181.4	200.7	192.1	1879.4
1997-1998	176.8	167.4	146.9	133.9	124.9	116.9	130.7	149.5	167.9	183	201.6	205.3	1904.7
1998-1999	183.9	174.6	153	136.9	133	119.9	141.7	148.5	179.5	181.6	204.9	204	1961.7
1999-2000	186.4	175.1	146.4	139.2	120.1	114.6	132.5	148.4	171.9	189.9	205.6	202.7	1932.9
2000-2001	183.4	168.8	147.4	133.2	129.6	117.2	147.2	150.3	173.2	184.1	200.1	200.9	1935.3
2001-2002	182.2	172.7	143.9	133	120.8	120.9	141.1	144.9	169.6	185.9	205	201.4	1921.5
2002-2003	181.6	172.5	149.4	129.1	134	107.2	126.4	141.9	179.8	184.9	205.6	205.8	1918.3
2003-2004	183.5	174.7	148.2	135.9	124.3	113.3	139	146.7	167.4	181.8	202.4	200.6	1917.8
2004-2005	183.3	178.6	146.9	131.6	132	114.5	137.8	148.3	170.6	180.8	201.2	200.9	1926.4
2005-2006	184.7	166.5	138.9	134.8	124	115.7	137.3	150.2	173.2	186	202.6	204.7	1918.7
2006-2007	188.4	173	139.7	130.8	124	116.4	135.7	143.5	173.7	187.9	205.6	203.7	1922.3
2007-2008	184.7	176.9	147.9	131.1	120.9	111.5	147.5	153.9	171.2	188.2	204.2	205.4	1943.3
2008-2009	184.6	173.4	154	135.7	131.6	117.5	133.7	147.8	171.2	190.1	205.3	205.1	1950.1
2009-2010	183	180.8	147.9	140.5	134.5	121.1	144	153.1	174.2	182.3	199.2	209.3	1969.8
2010-2011	189.8	178.2	156	145.3	131.4	117.9	137.4	145.1	168.2	182.6	201.4	204.3	1957.6
2011-2012	187.2	170.3	138.1	132.7	125	112.1	131.6	148.8	169.7	185.6	207.6	207.3	1916.0
2012-2013	186.7	177.2	153.4	138	127.6	120.9	141.3	152	178.1	185	201.3	205.2	1966.7
2013-2014	184.5	167.8	155	130.8	136.4	120.9	144.6	151.8	169.7	184.3	200	202.5	1948.3
2014-2015	185.7	171.9	145.2	142.9	125.9	116	140.3	144.2	173.3	179	200.7	206.8	1932.1
AVERAGE	183.8	172.6	145.6	133.7	126.6	114.7	136.3	147.1	170.9	183.2	201.3	202.2	

**Table A. 49** Doryol station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	136.8	63.81	46.34	43.23	41.46	43.11	54.85	119.1	147.6	167	179.2	163.1	1205.7
1979-1980	141.4	63.78	50.7	41.96	39.83	39.87	52.27	116.5	145.9	164.4	176.1	168.2	1200.9
1980-1981	137.2	63.63	50.71	42.9	41.2	40.8	54.82	119.7	141	166.1	178.3	168.1	1204.4
1981-1982	142.4	66.23	46.74	44.13	42.52	38.64	50.07	119.4	147.8	164	173.3	166.9	1202.1
1982-1983	143.5	64.23	46.85	41.03	39.13	39.23	51.35	117.9	149	160.5	175.7	164.9	1193.3
1983-1984	139.3	62.35	50.72	44.09	43.14	43.06	54.21	115.7	154.9	162.9	176.1	163.7	1210.1
1984-1985	136	62.29	47.41	40.57	43.26	38.65	53.41	118.9	151.4	163.5	175.7	177.4	1208.4
1985-1986	148.2	64.11	53.66	46.18	43.43	43.55	56.07	128.2	144.1	165.6	176.2	166.6	1235.9
1986-1987	142.5	62.08	45.88	41.77	42.95	43.38	48.44	114.1	143.9	162.4	178.7	167.3	1193.5
1987-1988	140.1	60.8	47.21	41.7	40.71	40.07	51.26	118.9	150.3	165.2	185.2	170.9	1212.4
1988-1989	141.6	62.01	45.61	41.29	38.27	39.6	54.03	129.9	153.4	162.5	179.4	165.4	1213.0
1989-1990	139.7	61.14	48.86	42.19	39.24	40.53	53.68	120.1	149.2	163.7	176.9	167.9	1203.1
1990-1991	139.3	64.49	50.87	43.79	41.1	40.16	55.28	120.7	148.2	164.3	176.6	166.7	1211.6
1991-1992	140.2	63.99	48.25	39.07	37.65	35.3	48.94	116.2	142.7	160	172.8	168.7	1173.8
1992-1993	138.9	64.44	48.28	38.48	39.44	37.81	53.25	117.8	143.2	166.9	179.5	169.8	1197.8
1993-1994	141.1	68.26	47.92	44.38	44.55	42.14	54.33	122.4	151.1	168	178.2	171.4	1233.7
1994-1995	148.1	67.99	48.28	40.76	42.48	42.82	54.78	116.3	149.2	165.9	177.7	166.8	1221.1
1995-1996	140.6	61.87	44.32	40.93	40.7	41.62	51.55	112.4	149.9	165.3	177.4	167.1	1193.6
1996-1997	137.6	60.19	50.21	44.97	43.08	38.7	50.66	110.7	147.9	164	178.4	160.7	1187.0
1997-1998	135.9	61.89	49.46	42.81	41.1	41.8	51.41	121.6	146.5	165.4	179.2	171.6	1208.6
1998-1999	141.4	64.57	51.52	43.78	43.77	42.87	55.74	120.8	156.6	164.1	182.1	170.6	1237.9
1999-2000	143.2	64.73	49.3	44.53	39.55	41	52.1	120.7	150	171.6	182.8	169.5	1229.0
2000-2001	140.9	62.42	49.63	42.59	42.65	41.9	57.89	122.2	151.1	166.3	177.8	168.1	1223.5
2001-2002	140	63.86	48.46	42.52	39.76	43.23	55.49	117.9	148	168	182.2	168.5	1217.9
2002-2003	139.6	63.78	50.31	41.26	44.09	38.33	49.68	115.4	156.9	167.1	182.8	172.1	1221.4
2003-2004	141	64.61	49.88	43.43	40.91	40.52	54.68	119.3	146.1	164.3	179.9	167.7	1212.3
2004-2005	140.9	66	49.47	42.06	43.44	40.94	54.21	120.7	148.8	163.3	178.7	168	1216.6
2005-2006	142	61.56	46.78	43.11	40.81	41.39	53.97	122.2	151.2	168.1	180.1	171.1	1222.1
2006-2007	144.8	63.97	47.07	41.84	40.8	41.6	53.36	116.7	151.6	169.8	182.8	170.3	1224.7
2007-2008	141.9	65.41	49.8	41.91	39.79	39.88	58.01	125.2	149.4	170	181.5	171.7	1234.5
2008-2009	141.9	64.11	51.85	43.4	43.31	42.03	52.58	120.2	149.4	171.8	182.4	171.5	1234.6
2009-2010	140.6	66.86	49.78	44.91	44.25	43.31	56.62	124.5	152	164.7	177	175	1239.6
2010-2011	145.9	65.87	52.56	46.47	43.23	42.17	54.03	118	146.7	165	179	170.8	1229.8
2011-2012	143.9	62.97	46.51	42.44	41.13	40.08	51.72	121.1	148	167.8	184.5	173.3	1223.4
2012-2013	143.5	65.49	51.65	44.11	42.03	43.24	55.57	123.7	155.4	167.2	178.9	171.6	1242.3
2013-2014	141.8	62.01	52.19	41.84	44.88	43.23	56.86	123.5	148	166.5	177.8	169.4	1228.1
2014-2015	142.7	63.57	48.89	45.71	41.46	41.49	55.16	117.3	151.2	161.7	178.4	173	1220.6
AVERAGE	141.3	63.8	49.0	42.8	41.7	41.0	53.6	119.6	149.1	165.5	178.9	169.1	

**Table A. 50** Doryol station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.7	92.06	53.86	43.02	41.67	50.28	80.9	100.2	130.4	149.6	158.2	143.2	1159.1
1979-1980	119.1	92.02	61.11	40.82	38.87	45.21	77.19	98.3	129.4	148	156.3	146.5	1152.8
1980-1981	116	91.77	61.13	42.46	41.22	46.69	80.84	100.5	126.3	149	157.7	146.4	1160.0
1981-1982	119.8	95.78	54.55	44.58	43.48	43.28	74.06	100.3	130.6	147.7	154.5	145.7	1154.4
1982-1983	120.6	92.69	54.75	39.17	37.69	44.21	75.88	99.29	131.4	145.5	156.1	144.3	1141.6
1983-1984	117.5	89.85	61.16	44.53	44.54	50.22	79.98	97.77	135.2	147	156.3	143.5	1167.5
1984-1985	115.1	89.77	55.64	38.35	44.72	43.31	78.83	99.94	132.9	147.4	156.1	152.7	1154.8
1985-1986	124	92.53	66.04	48.21	45.01	50.98	82.6	106.4	128.2	148.7	156.4	145.5	1194.6
1986-1987	119.8	89.47	53.1	40.45	44.21	50.72	71.75	96.68	128.1	146.8	158	145.9	1145.0
1987-1988	118.1	87.55	55.34	40.32	40.38	45.5	75.74	99.92	132.2	148.5	162	148.3	1154.0
1988-1989	119.2	89.37	52.67	39.63	36.19	44.81	79.69	107.5	134.2	146.8	158.4	144.6	1153.1
1989-1990	117.8	88.04	58.08	41.18	37.87	46.27	79.19	100.8	131.5	147.5	156.8	146.3	1151.4
1990-1991	117.6	93.1	61.42	44	41.04	45.69	81.47	101.2	130.9	147.9	156.6	145.5	1166.5
1991-1992	118.2	92.35	57.06	35.74	35.19	38.04	72.46	98.11	127.3	145.3	154.2	146.8	1120.8
1992-1993	117.2	93.04	57.05	34.71	38.2	41.95	78.59	99.24	127.6	149.6	158.4	147.6	1143.2
1993-1994	118.9	98.83	56.5	45.05	46.93	48.78	80.14	102.4	132.7	150.2	157.6	148.7	1186.7
1994-1995	124	98.41	57.09	38.7	43.38	49.83	80.8	98.24	131.5	148.9	157.3	145.6	1173.7
1995-1996	118.5	89.11	50.51	39	40.37	47.96	76.14	95.51	132	148.5	157.1	145.8	1140.4
1996-1997	116.3	86.6	60.32	46.08	44.42	43.36	74.9	94.29	130.7	147.7	157.7	141.5	1143.9
1997-1998	115	89.13	59.06	42.28	41.06	48.27	75.96	101.9	129.8	148.6	158.2	148.8	1158.1
1998-1999	119	93.19	62.52	43.97	45.6	49.95	82.13	101.3	136.3	147.8	160.1	148.1	1190.0
1999-2000	120.4	93.48	58.81	45.28	38.35	46.98	76.97	101.2	132	152.5	160.5	147.4	1173.9
2000-2001	118.7	89.96	59.36	41.9	43.68	48.38	85.21	102.3	132.7	149.2	157.4	146.4	1175.2
2001-2002	118.1	92.11	57.42	41.79	38.78	50.47	81.79	99.27	130.7	150.2	160.1	146.7	1167.5
2002-2003	117.8	92.02	60.5	39.6	46.14	42.81	73.5	97.57	136.5	149.7	160.5	149.1	1165.7
2003-2004	118.8	93.27	59.79	43.39	40.72	46.21	80.6	100.3	129.5	147.9	158.7	146.2	1165.4
2004-2005	118.7	95.42	59.1	40.98	45.02	46.91	79.94	101.2	131.3	147.3	158	146.4	1170.2
2005-2006	119.5	88.68	54.62	42.82	40.54	47.58	79.63	102.2	132.8	150.3	158.8	148.5	1165.9
2006-2007	121.5	92.3	55.06	40.55	40.53	47.94	78.72	98.47	133	151.4	160.5	147.9	1167.9
2007-2008	119.5	94.49	59.65	40.69	38.83	45.23	85.36	104.3	131.6	151.5	159.7	148.9	1179.7
2008-2009	119.4	92.54	63.04	43.32	44.83	48.59	77.64	100.9	131.6	152.6	160.3	148.7	1183.5
2009-2010	118.5	96.69	59.64	45.97	46.42	50.6	83.4	103.8	133.3	148.2	156.9	151.1	1194.6
2010-2011	122.3	95.22	64.21	48.7	44.68	48.8	79.71	99.35	129.9	148.4	158.2	148.3	1187.7
2011-2012	120.9	90.78	54.16	41.63	41.11	45.55	76.43	101.4	130.8	150.1	161.6	150	1164.4
2012-2013	120.6	94.63	62.72	44.59	42.6	50.49	81.89	103.2	135.5	149.7	158.1	148.8	1192.8
2013-2014	119.4	89.37	63.6	40.57	47.48	50.46	83.74	103.1	130.8	149.3	157.4	147.3	1182.5
2014-2015	120	91.71	58.12	47.36	41.65	47.74	81.31	98.87	132.8	146.3	157.8	149.7	1173.4
AVERAGE	119.0	92.1	58.3	42.2	42.0	47.0	79.1	100.5	131.5	148.7	158.1	147.1	

**Table A. 51** Ercan station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	102.7	75.5	35.9	32.7	26.7	34.1	53.8	76.0	126.1	183.7	213.7	172.0	1132.8
1979-1980	123.2	70.8	41.0	26.6	24.5	27.7	45.0	66.8	114.0	162.0	193.3	173.8	1068.6
1980-1981	105.3	71.9	42.3	28.5	26.6	30.0	51.5	73.4	104.5	170.0	194.1	167.5	1065.6
1981-1982	112.4	75.3	35.0	29.5	27.3	27.4	42.4	72.7	115.9	162.5	178.1	165.1	1043.6
1982-1983	114.0	70.5	34.2	25.8	23.3	27.2	45.4	72.8	118.7	150.8	169.5	149.1	1001.5
1983-1984	103.0	64.0	40.7	28.8	28.2	31.6	48.1	67.3	129.8	150.3	178.9	146.1	1016.7
1984-1985	99.5	63.3	33.3	24.1	28.0	26.6	45.5	74.4	123.6	150.3	171.8	284.2	1124.7
1985-1986	177.7	94.1	63.5	40.3	27.1	32.0	51.1	84.6	105.1	164.2	192.9	164.5	1197.2
1986-1987	116.7	67.3	33.9	26.5	27.6	32.8	39.9	67.4	110.0	159.5	201.6	169.5	1052.8
1987-1988	115.7	65.4	36.7	27.4	26.1	29.5	44.9	71.3	122.0	163.2	216.2	173.8	1092.2
1988-1989	110.6	62.9	32.5	25.0	22.0	26.8	47.2	88.2	125.1	151.7	195.3	156.2	1043.4
1989-1990	106.2	60.5	37.1	26.6	22.6	28.3	47.4	72.2	117.3	158.4	188.5	163.0	1028.2
1990-1991	105.8	71.0	39.4	27.5	25.3	28.2	51.0	74.7	112.9	164.5	184.2	164.3	1048.8
1991-1992	109.7	69.4	36.9	23.4	21.9	22.8	39.4	69.3	109.1	153.1	176.2	169.1	1000.2
1992-1993	105.7	71.9	37.6	23.7	24.4	26.3	43.9	69.8	103.4	164.8	193.3	171.3	1035.9
1993-1994	109.6	82.7	35.2	28.6	28.4	29.7	46.7	80.0	124.6	166.0	189.4	176.8	1097.6
1994-1995	124.3	78.5	35.6	24.2	26.4	30.3	46.7	68.4	118.9	171.5	195.3	172.4	1092.6
1995-1996	111.4	66.6	31.7	25.2	24.6	30.8	45.4	64.1	127.1	171.9	197.6	170.8	1067.5
1996-1997	106.2	61.7	39.9	29.1	26.6	26.4	41.6	59.8	123.6	167.1	203.4	151.2	1036.5
1997-1998	102.1	66.7	38.3	27.0	24.8	29.4	44.0	79.3	116.0	172.0	209.1	190.3	1099.1
1998-1999	113.7	73.7	41.6	28.3	27.0	29.6	48.2	73.5	133.4	167.6	203.4	173.3	1113.3
1999-2000	114.0	72.6	38.9	28.8	23.1	28.4	44.6	74.3	120.7	185.8	221.4	174.7	1127.1
2000-2001	113.5	65.6	39.8	26.9	26.2	29.9	56.3	75.6	123.7	170.6	201.9	172.9	1103.0
2001-2002	109.7	68.8	36.9	27.0	24.1	32.1	50.0	68.9	115.0	170.6	209.8	170.5	1083.4
2002-2003	108.4	68.6	39.5	25.2	27.6	26.3	40.9	65.8	134.7	169.2	208.7	181.0	1096.0
2003-2004	109.7	71.9	38.6	27.0	24.5	28.1	49.0	71.9	113.1	164.3	203.9	165.0	1067.1
2004-2005	110.1	74.1	38.2	25.7	26.3	27.7	49.7	75.1	117.4	157.5	195.6	168.5	1066.0
2005-2006	112.5	63.3	34.5	27.5	24.9	29.2	46.8	74.6	120.6	168.3	192.9	173.1	1068.2
2006-2007	113.9	67.4	34.3	25.3	24.5	30.0	46.8	68.7	122.2	175.7	208.9	173.2	1090.7
2007-2008	111.4	73.6	39.9	26.2	23.6	28.8	57.5	82.5	120.7	182.5	206.8	183.0	1136.5
2008-2009	110.7	68.5	41.9	27.5	27.6	31.4	45.6	73.7	119.3	184.5	209.8	175.8	1116.1
2009-2010	106.6	76.4	38.1	29.3	27.7	31.3	51.3	78.3	122.7	160.8	191.7	191.1	1105.4
2010-2011	120.4	74.9	43.7	31.4	27.1	30.3	47.1	68.6	111.3	163.7	198.4	177.3	1094.3
2011-2012	116.7	66.2	33.7	26.1	24.6	26.9	43.7	74.4	114.0	173.1	215.8	182.7	1098.0
2012-2013	114.9	72.5	42.5	28.7	25.6	31.6	50.5	77.7	131.7	167.2	195.2	178.5	1116.5
2013-2014	110.5	65.0	43.1	25.6	29.2	32.0	52.9	77.8	114.6	166.5	192.3	174.4	1083.7
2014-2015	110.1	67.7	37.2	30.2	25.3	29.0	49.3	68.9	121.5	152.2	194.8	182.1	1068.3
AVERAGE	112.7	70.3	38.5	27.5	25.7	29.2	47.3	73.0	119.0	165.9	197.1	174.3	

**Table A. 52** Ercan station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.8	76.9	28.6	26.1	13.6	22.2	34.1	69.0	96.7	166.2	173.8	146.2	971.2
1979-1980	180.4	81.6	44.7	18.0	12.0	13.9	25.3	60.3	96.7	165.8	180.7	171.7	1051.1
1980-1981	139.7	80.7	46.1	21.1	15.1	17.5	34.9	73.7	81.2	170.8	175.9	159.5	1016.3
1981-1982	164.3	92.4	32.6	24.5	17.5	13.8	21.8	77.7	102.2	171.7	169.2	166.8	1054.5
1982-1983	188.0	93.0	34.4	18.8	11.5	15.0	29.9	89.1	117.8	172.9	176.6	163.7	1110.8
1983-1984	148.5	73.1	46.5	23.6	19.4	22.2	32.0	65.8	123.9	158.2	174.0	147.7	1035.0
1984-1985	130.9	66.9	27.6	13.0	18.0	12.0	25.7	78.0	108.0	147.6	155.2	274.4	1057.2
1985-1986	185.8	83.4	63.7	32.1	11.6	15.0	24.1	66.5	58.1	114.5	124.8	111.9	891.5
1986-1987	175.3	78.3	30.5	18.6	18.1	24.4	18.2	64.9	95.1	169.3	197.1	173.5	1063.3
1987-1988	160.5	69.8	34.2	19.1	14.4	16.7	24.4	68.9	104.4	162.7	199.0	167.1	1041.2
1988-1989	170.1	73.0	28.5	16.2	8.7	13.4	31.4	128.4	120.9	165.1	198.2	164.5	1118.6
1989-1990	163.2	69.3	39.9	19.9	9.9	16.5	32.4	83.3	111.4	178.0	193.3	175.5	1092.7
1990-1991	147.9	83.1	41.9	20.1	13.6	15.1	35.7	81.4	96.5	171.6	173.2	163.2	1043.2
1991-1992	189.5	95.8	43.5	14.5	9.5	7.3	20.2	84.1	109.0	187.0	195.5	200.2	1156.1
1992-1993	161.7	92.0	41.0	13.7	13.0	12.7	25.9	76.3	90.5	187.2	198.4	185.3	1097.7
1993-1994	139.3	93.9	29.3	20.1	17.4	16.0	25.7	84.3	101.4	156.3	162.0	160.6	1006.3
1994-1995	173.9	91.1	31.5	12.8	14.7	17.8	26.9	60.8	98.8	170.7	175.2	163.0	1037.4
1995-1996	164.6	77.2	25.6	16.0	12.8	20.4	27.1	56.9	119.0	187.2	193.2	175.5	1075.8
1996-1997	160.4	70.6	46.0	24.9	17.0	12.6	21.7	48.9	118.9	188.0	207.4	158.3	1074.7
1997-1998	133.2	71.6	37.5	18.2	12.1	16.4	22.9	88.3	96.0	173.1	190.8	183.2	1043.4
1998-1999	143.2	77.5	41.1	19.2	14.7	15.6	27.3	67.1	109.5	154.7	171.7	153.7	995.3
1999-2000	147.6	77.7	36.7	20.5	9.0	14.0	22.6	71.1	96.9	180.7	192.8	158.8	1028.3
2000-2001	147.0	66.2	38.6	17.2	13.9	16.5	40.6	74.3	100.8	162.7	174.7	157.2	1009.7
2001-2002	149.9	76.1	34.8	18.4	11.1	21.5	32.8	63.7	95.8	173.4	193.6	164.4	1035.4
2002-2003	148.1	76.2	40.7	15.0	17.2	11.4	18.5	56.6	121.7	172.3	193.4	176.3	1047.3
2003-2004	153.9	83.6	39.5	18.9	12.1	14.6	32.0	73.0	95.6	169.2	192.1	162.1	1046.5
2004-2005	152.9	86.7	38.2	16.2	15.1	13.9	32.7	80.2	100.4	158.3	181.6	164.4	1040.3
2005-2006	161.9	69.0	31.0	20.1	12.9	16.8	28.6	81.3	107.1	177.2	183.1	173.4	1062.6
2006-2007	160.8	74.9	29.8	15.4	11.9	17.9	28.1	64.4	106.9	182.9	195.7	169.9	1058.5
2007-2008	135.8	75.7	37.0	15.1	9.4	14.0	40.5	85.3	92.6	168.6	171.3	159.8	1005.0
2008-2009	139.7	69.9	42.2	17.9	15.9	18.7	23.7	68.5	94.0	176.8	179.7	157.9	1004.8
2009-2010	130.6	81.9	34.3	21.0	15.9	18.5	31.9	78.1	97.1	146.6	160.9	171.0	987.6
2010-2011	157.2	80.6	46.0	25.1	15.1	17.0	26.1	57.4	84.4	152.1	169.2	159.7	989.9
2011-2012	167.1	72.9	28.6	17.1	12.3	12.5	23.2	79.0	96.3	180.1	203.4	180.7	1073.1
2012-2013	142.2	74.2	42.0	19.5	12.4	18.5	30.1	74.8	105.5	151.3	161.0	155.9	987.3
2013-2014	143.4	66.0	45.9	14.9	18.9	20.3	35.8	80.6	90.7	159.6	167.6	160.7	1004.4
2014-2015	152.6	75.0	35.8	25.1	13.2	16.1	32.0	64.5	105.5	150.5	180.4	178.6	1029.4
AVERAGE	154.8	78.3	37.7	19.1	13.8	16.2	28.3	73.7	101.3	167.1	180.7	168.0	

**Table A. 53** Ercan station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	178.9	176.6	138	142.4	124.7	121.2	142.6	149.6	176.8	193.4	210.5	204.7	1959.6
1979-1980	191.3	172	147.1	128.1	118.5	107.7	130.1	140.7	169.8	184.9	203.5	205.5	1899.3
1980-1981	180.7	173.2	149.3	132.8	124.3	112.9	139.5	147.1	163.7	188.3	203.8	202.9	1918.6
1981-1982	185.1	176.5	136.3	135.2	126.3	107.2	125.8	146.5	171	185.2	197.8	201.9	1894.8
1982-1983	186.1	171.9	134.8	125.9	115.2	106.8	130.7	146.7	172.5	179.9	194.3	194.7	1859.4
1983-1984	179.2	165.1	146.6	133.5	128.6	116.4	134.8	141.4	178.8	179.7	198	193.2	1895.1
1984-1985	176.7	164.2	133.1	121.1	128.2	105.5	130.9	148.1	175.4	179.7	195.1	240.2	1898.3
1985-1986	216.3	192.2	176.9	157.3	125.8	117	138.9	156.8	164.1	185.9	203.4	201.7	2036.4
1986-1987	187.7	168.6	134.2	127.8	126.9	118.7	121.6	141.3	167.3	183.9	206.5	203.7	1888.2
1987-1988	187.1	166.6	139.4	130.1	123.1	111.9	129.8	145.2	174.6	185.5	211.4	205.5	1910.3
1988-1989	184	163.9	131.2	123.6	111.1	105.7	133.3	159.7	176.4	180.5	204.3	198	1871.7
1989-1990	181.2	161.1	140.2	128.1	113.1	109.2	133.7	146.1	171.8	183.4	201.8	201	1870.7
1990-1991	181	172.4	144.5	130.4	120.8	109.1	138.8	148.3	169.1	186	200.1	201.5	1902.0
1991-1992	183.5	170.7	139.9	119	110.8	95.31	120.6	143.2	166.8	181.1	197	203.6	1831.4
1992-1993	180.9	173.2	141.2	119.8	118.2	104.6	128.2	143.8	162.9	186.1	203.5	204.5	1866.8
1993-1994	183.4	183.1	136.7	133	129.1	112.3	132.7	153.1	176.1	186.6	202.1	206.7	1934.7
1994-1995	192	179.4	137.5	121.3	123.9	113.5	132.7	142.4	172.7	188.9	204.3	204.9	1913.6
1995-1996	184.5	167.9	129.5	124.3	119	114.6	130.6	138	177.5	189	205.1	204.3	1884.3
1996-1997	181.2	162.5	145.2	134.2	124.5	104.7	124.4	133.2	175.5	187.1	207.1	195.7	1875.3
1997-1998	178.6	167.9	142.5	129	119.3	111.6	128.5	152.4	171	189.1	209.1	211.9	1910.9
1998-1999	185.9	174.9	148.1	132.3	125.4	112.1	134.9	147.2	180.9	187.3	207.1	205.3	1941.5
1999-2000	186.1	173.9	143.5	133.4	114.4	109.5	129.4	148	173.8	194.3	213.1	205.9	1925.2
2000-2001	185.8	166.8	145.1	128.9	123.4	112.7	145.8	149.2	175.6	188.5	206.6	205.2	1933.5
2001-2002	183.5	170.1	139.9	129	117.4	117.3	137.4	142.9	170.4	188.5	209.3	204.2	1909.8
2002-2003	182.7	170	144.6	124.1	127.1	104.6	123.2	139.7	181.6	187.9	208.9	208.4	1902.7
2003-2004	183.5	173.2	143	129.1	118.6	108.7	136.1	145.8	169.3	185.9	207.3	201.9	1902.4
2004-2005	183.7	175.3	142.3	125.7	123.7	108	136.9	148.7	171.9	183	204.3	203.3	1906.9
2005-2006	185.1	164.3	135.3	130.4	119.7	111.2	132.7	148.2	173.8	187.6	203.4	205.2	1897.0
2006-2007	186	168.7	134.9	124.4	118.5	112.9	132.8	142.6	174.7	190.5	209	205.3	1900.2
2007-2008	184.5	174.9	145.4	127	116.1	110.4	147.3	155.1	173.8	193.1	208.3	209.1	1944.9
2008-2009	184.1	169.8	148.6	130.3	127	115.8	130.9	147.4	173	193.8	209.3	206.3	1936.3
2009-2010	181.5	177.5	142.1	134.7	127.3	115.7	139.2	151.6	175	184.4	202.9	212.2	1944.3
2010-2011	189.8	176.1	151.5	139.6	125.8	113.6	133.3	142.6	168.1	185.7	205.4	206.9	1938.3
2011-2012	187.7	167.4	133.7	126.8	119	105.9	128	148.1	169.8	189.5	211.3	209	1896.1
2012-2013	186.6	173.8	149.5	133.3	121.8	116.2	138.1	151.1	180	187.1	204.2	207.4	1949.0
2013-2014	183.9	166.2	150.5	125.1	130.9	117	141.4	151.1	170.2	186.8	203.2	205.7	1932.1
2014-2015	183.7	169	140.4	137	120.8	110.8	136.5	142.8	174.3	180.7	204.1	208.8	1908.9
AVERAGE	185.0	171.4	142.2	129.9	121.8	111.0	133.3	146.6	172.7	186.5	204.8	205.3	

**Table A. 54** Ercan station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	137.5	65.28	46.45	45.52	40.98	43.26	56.02	121.6	154.3	174.8	187.1	171.2	1243.9
1979-1980	147	63.63	49.5	40.89	38.98	38.51	51.1	114.4	148.1	167	180.8	171.8	1211.8
1980-1981	138.8	64	50.24	42.45	40.88	40.35	54.83	119.6	142.8	170	181.1	169.6	1214.6
1981-1982	142.2	65.23	45.88	43.19	41.56	38.3	49.44	119.1	149.1	167.2	175.7	168.8	1205.7
1982-1983	142.9	63.52	45.36	40.22	37.88	38.16	51.36	119.2	150.6	162.7	172.6	162.7	1187.2
1983-1984	137.6	61	49.33	42.66	42.25	41.55	52.91	114.9	156.1	162.4	175.9	161.6	1198.2
1984-1985	135.8	60.69	44.76	38.67	42.13	37.67	51.38	120.4	153.1	162.4	173.4	200.8	1221.2
1985-1986	166.2	71.03	59.55	50.27	41.39	41.83	54.61	127.5	143.1	167.9	180.7	168.5	1272.6
1986-1987	144.2	62.29	45.16	40.84	41.75	42.42	47.79	114.9	145.9	166.1	183.4	170.3	1205.1
1987-1988	143.7	61.56	46.94	41.58	40.48	40	51	118	152.3	167.5	187.8	171.8	1222.7
1988-1989	141.4	60.54	44.15	39.5	36.55	37.79	52.39	129.8	153.8	163	181.5	165.5	1205.9
1989-1990	139.2	59.53	47.19	40.93	37.19	39.02	52.55	118.8	149.9	165.7	179.2	168	1197.1
1990-1991	139	63.69	48.62	41.67	39.75	38.98	54.54	120.6	147.5	168	177.8	168.5	1208.6
1991-1992	140.9	63.08	47.09	38.02	36.44	34.07	47.38	116.4	145.4	163.6	175	170.1	1177.6
1992-1993	139	64	47.51	38.27	38.88	37.37	50.38	116.9	142.1	168.1	180.8	170.9	1194.2
1993-1994	140.9	67.65	46.03	42.49	42.46	40.12	52.14	124.5	153.6	168.5	179.5	172.8	1230.6
1994-1995	147.5	66.29	46.3	38.78	40.77	40.59	52.14	115.8	150.7	170.6	181.5	171.3	1222.1
1995-1996	141.7	62.03	43.59	39.71	39.16	40.97	51.33	112.2	154.8	170.7	182.2	170.8	1209.2
1996-1997	139.2	60.03	48.86	42.88	40.95	37.41	48.89	108.3	153.1	169	184	163.6	1196.2
1997-1998	137.2	62.06	47.96	41.24	39.26	39.9	50.49	123.9	149.2	170.8	185.7	177.1	1224.8
1998-1999	142.8	64.65	49.84	42.3	41.24	40.08	53.01	119.7	157.8	169.1	184	171.6	1236.2
1999-2000	142.9	64.26	48.29	42.65	37.63	39.15	50.83	120.3	151.6	175.5	189.3	172.1	1234.5
2000-2001	142.7	61.63	48.84	41.18	40.6	40.29	57.29	121.3	153.1	170.3	183.5	171.5	1232.2
2001-2002	140.9	62.87	47.08	41.22	38.61	41.91	54.01	116.2	148.6	170.3	185.9	170.7	1218.3
2002-2003	140.3	62.81	48.67	39.66	41.82	37.38	48.41	113.6	158.4	169.7	185.6	174.2	1220.5
2003-2004	140.9	64	48.13	41.25	39.01	38.87	53.48	118.5	147.6	167.9	184.1	168.7	1212.6
2004-2005	141.1	64.79	47.89	40.16	40.7	38.58	53.82	120.9	149.9	165.3	181.5	170	1214.7
2005-2006	142.2	60.71	45.54	41.65	39.39	39.74	52.15	120.5	151.6	169.4	180.7	171.5	1215.1
2006-2007	142.9	62.34	45.39	39.77	38.97	40.35	52.19	116	152.4	172.1	185.6	171.6	1219.5
2007-2008	141.7	64.61	48.92	40.57	38.19	39.47	57.87	126.1	151.6	174.4	185	174.8	1243.3
2008-2009	141.4	62.74	50.01	41.63	41.77	41.39	51.45	119.9	150.9	175.1	185.9	172.5	1234.6
2009-2010	139.4	65.6	47.83	43.07	41.87	41.36	54.71	123.3	152.6	166.6	180.3	177.4	1234.0
2010-2011	145.8	65.08	50.99	44.6	41.37	40.62	52.38	115.9	146.6	167.7	182.4	173	1226.5
2011-2012	144.2	61.85	44.99	40.51	39.14	37.86	50.3	120.4	148.1	171.1	187.7	174.7	1220.9
2012-2013	143.3	64.23	50.31	42.59	40.06	41.55	54.27	122.8	157	169	181.4	173.4	1239.9
2013-2014	141.3	61.4	50.65	39.99	43.05	41.83	55.59	122.9	148.4	168.7	180.5	172	1226.3
2014-2015	141.1	62.43	47.25	43.78	39.75	39.61	53.63	116.1	152	163.2	181.3	174.5	1214.8
AVERAGE	142.1	63.3	47.9	41.5	40.1	39.7	52.4	119.2	150.6	168.4	181.9	171.6	

**Table A. 55** Ercan station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	118.1	95.75	54.99	47.78	41.76	51.58	84.23	103.8	137.2	157.1	165.9	150.9	1209.0
1979-1980	125	93.16	60.09	39.73	38.28	44.06	77.18	98.84	133.3	152.3	161.9	151.3	1175.2
1980-1981	119.1	93.82	61.3	42.4	41.53	46.93	82.48	102.4	129.8	154.2	162.1	149.9	1186.0
1981-1982	121.6	95.68	54.05	43.71	42.67	43.73	74.78	102.1	133.9	152.4	158.7	149.3	1172.6
1982-1983	122.1	93.09	53.17	38.49	36.4	43.51	77.54	102.2	134.8	149.5	156.8	145.3	1152.8
1983-1984	118.2	89.27	59.79	42.78	43.93	48.88	79.82	99.2	138.3	149.4	158.8	144.4	1172.8
1984-1985	116.8	88.78	52.26	35.83	43.72	42.8	77.63	103	136.4	149.4	157.3	170.8	1174.6
1985-1986	139.1	104.5	76.81	56.11	42.37	49.26	82.15	107.9	130.1	152.8	161.9	149.2	1252.0
1986-1987	123	91.21	52.85	39.58	43	50.18	72.44	99.17	131.9	151.7	163.6	150.3	1169.0
1987-1988	122.7	90.12	55.8	40.89	40.83	46.4	77.02	101.3	136	152.6	166.4	151.3	1181.3
1988-1989	121	88.58	51.15	37.24	34.13	42.94	79	109.5	136.9	149.8	162.4	147.1	1159.7
1989-1990	119.4	87.03	56.24	39.74	35.22	44.86	79.23	101.8	134.4	151.4	161	148.8	1159.1
1990-1991	119.2	93.35	58.6	41.04	39.58	44.79	82.07	103.1	132.9	152.9	160	149.1	1176.7
1991-1992	120.6	92.41	56.06	34.64	33.95	37.09	71.86	100.2	131.6	150.1	158.3	150.2	1137.1
1992-1993	119.2	93.8	56.76	35.07	38.11	42.28	76.15	100.5	129.4	153	162	150.8	1157.0
1993-1994	120.6	99.35	54.28	42.47	44.22	46.58	78.64	105.8	136.8	153.2	161.2	152	1195.1
1994-1995	125.4	97.29	54.73	35.96	41.33	47.31	78.64	99.76	134.9	154.5	162.4	151	1183.2
1995-1996	121.2	90.83	50.24	37.59	38.57	47.9	77.49	97.31	137.6	154.6	162.8	150.7	1166.8
1996-1997	119.4	87.8	59	43.17	41.64	42.33	74.02	94.64	136.5	153.5	164	145.8	1161.7
1997-1998	117.9	90.87	57.51	40.26	38.74	46.22	76.28	105.4	133.9	154.6	165.1	154.9	1181.7
1998-1999	122	94.78	60.64	42.13	42.12	46.52	79.89	102.5	139.5	153.6	164	151.2	1198.9
1999-2000	122.1	94.22	58.06	42.74	35.97	45.05	76.78	102.9	135.5	157.5	167.3	151.5	1189.7
2000-2001	121.9	90.23	58.99	40.17	41.01	46.85	85.98	103.6	136.5	154.3	163.7	151.1	1194.4
2001-2002	120.6	92.1	56.04	40.25	37.64	49.4	81.3	100.1	133.6	154.3	165.2	150.6	1181.1
2002-2003	120.2	92	58.7	37.5	43.11	42.29	73.33	98.27	139.9	154	165	152.9	1177.1
2003-2004	120.6	93.83	57.79	40.3	38.33	44.62	80.55	101.7	133	152.9	164.1	149.3	1176.9
2004-2005	120.8	95.01	57.38	38.4	41.2	44.18	81.02	103.3	134.5	151.2	162.4	150.1	1179.5
2005-2006	121.6	88.81	53.49	41.01	38.98	45.98	78.65	103.1	135.5	153.8	161.9	151.2	1173.9
2006-2007	122.1	91.29	53.22	37.69	38.25	46.95	78.7	99.9	136	155.4	165	151.2	1175.7
2007-2008	121.2	94.74	59.11	39.11	36.94	45.57	86.82	106.9	135.5	156.9	164.6	153.4	1200.8
2008-2009	121	91.92	60.92	40.97	43.04	48.58	77.66	102.6	135	157.3	165.2	151.8	1195.9
2009-2010	119.5	96.25	57.3	43.47	43.21	48.53	82.3	104.9	136.2	152	161.6	155.1	1200.4
2010-2011	124.2	95.45	62.55	46.19	42.35	47.35	78.98	99.88	132.3	152.7	163	152.1	1197.1
2011-2012	123	90.56	52.56	39	38.54	43.04	76.02	103	133.3	154.8	166.3	153.3	1173.4
2012-2013	122.4	94.17	61.42	42.65	40.13	48.81	81.66	104.6	139	153.5	162.3	152.4	1203.1
2013-2014	120.9	89.86	62	38.08	45.22	49.26	83.56	104.7	133.5	153.3	161.8	151.5	1193.6
2014-2015	120.8	91.44	56.32	44.73	39.58	45.79	80.76	100	135.8	149.9	162.3	153.2	1180.6
AVERAGE	121.5	92.8	57.4	40.8	40.2	45.9	79.0	102.2	134.9	153.1	162.7	151.2	

**Table A. 56** Esentepe station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	104.7	73.0	36.0	30.6	30.9	35.3	51.5	72.1	103.0	150.2	164.6	139.4	991.3
1979-1980	102.3	68.1	43.4	29.5	25.3	28.8	46.4	65.9	103.5	144.2	170.8	162.8	990.9
1980-1981	100.6	70.1	42.1	28.3	27.1	30.5	50.6	71.9	100.4	165.3	180.6	140.2	1007.8
1981-1982	106.8	77.0	37.0	31.7	29.1	28.1	44.5	72.3	110.7	148.4	166.2	161.2	1013.1
1982-1983	114.0	70.4	36.0	26.6	24.5	28.1	45.9	69.9	114.0	143.6	179.4	151.3	1003.7
1983-1984	106.5	66.1	44.8	32.8	32.6	37.1	50.1	67.1	107.4	151.7	173.4	155.7	1025.2
1984-1985	92.8	65.8	36.6	27.2	30.0	28.4	46.5	71.9	117.9	151.3	181.9	163.5	1013.8
1985-1986	106.1	62.8	41.1	29.1	28.9	33.2	50.6	79.8	106.7	161.6	176.4	148.9	1025.1
1986-1987	107.6	64.0	33.8	27.7	24.1	34.3	41.0	64.3	98.5	137.6	191.4	163.7	987.9
1987-1988	104.5	63.0	37.3	27.8	27.4	30.8	44.4	72.4	117.7	152.0	201.7	160.2	1039.2
1988-1989	108.2	66.2	37.5	29.9	27.2	33.0	53.0	89.9	124.4	143.4	180.9	154.1	1047.6
1989-1990	106.9	70.2	40.8	28.6	26.7	32.4	47.2	70.8	107.1	144.5	167.5	151.2	994.0
1990-1991	98.7	69.4	40.8	29.6	27.0	28.3	49.3	66.6	99.6	139.5	161.9	142.6	953.3
1991-1992	97.8	68.3	37.3	24.2	22.2	24.0	41.7	64.1	98.1	129.8	154.9	153.6	916.1
1992-1993	93.4	65.6	36.7	23.1	24.8	26.7	43.4	64.2	89.1	147.4	178.8	152.1	945.2
1993-1994	97.3	78.1	35.2	28.5	27.9	30.0	45.2	72.9	110.9	150.3	160.9	143.9	981.1
1994-1995	118.1	70.1	32.3	22.3	25.3	33.3	50.2	69.2	112.0	157.8	182.4	159.0	1032.1
1995-1996	105.7	68.5	34.2	27.1	25.0	29.4	42.8	59.1	108.9	146.3	176.6	152.1	975.7
1996-1997	96.4	64.8	38.5	30.2	27.8	27.1	40.8	55.2	104.6	141.7	178.4	133.3	938.8
1997-1998	93.2	62.5	37.9	27.9	25.8	30.4	45.7	73.7	102.8	152.6	188.4	170.4	1011.4
1998-1999	103.6	72.7	44.1	29.8	27.8	30.6	48.0	72.9	128.6	168.6	196.4	162.7	1085.8
1999-2000	115.2	76.1	43.5	33.6	25.8	32.2	47.9	76.0	115.4	174.9	205.6	166.7	1113.1
2000-2001	112.5	66.5	42.9	28.6	28.1	31.7	55.8	71.7	116.3	150.7	174.6	156.0	1035.3
2001-2002	104.7	68.1	37.6	26.6	23.0	30.2	46.0	62.0	98.5	148.9	182.3	156.7	984.7
2002-2003	107.0	70.8	44.9	26.1	29.5	27.7	43.7	68.9	130.6	157.7	191.7	172.0	1070.6
2003-2004	106.8	73.3	42.3	28.9	27.1	29.9	50.3	70.3	105.9	150.7	183.4	148.2	1017.3
2004-2005	107.8	73.6	39.9	26.0	27.3	28.9	47.6	69.4	115.4	147.6	188.8	159.6	1031.8
2005-2006	114.3	63.6	35.6	28.5	28.6	35.8	56.6	85.6	110.4	158.4	180.8	165.4	1063.8
2006-2007	111.7	69.1	36.0	25.1	26.6	31.0	48.4	66.9	115.6	171.2	198.3	167.0	1066.9
2007-2008	116.8	79.4	43.4	29.4	25.9	30.2	57.2	77.2	117.7	169.8	193.9	173.9	1114.6
2008-2009	108.0	65.6	43.4	29.9	26.8	32.5	48.2	72.5	110.0	162.7	184.4	157.8	1041.7
2009-2010	101.1	74.3	40.0	32.0	30.9	34.3	53.8	76.8	114.8	146.1	171.2	175.8	1051.0
2010-2011	113.7	73.1	46.2	34.2	29.2	32.8	50.2	69.6	105.8	148.3	179.3	162.7	1045.0
2011-2012	112.3	66.4	35.1	28.6	27.0	29.9	46.4	73.6	106.5	156.7	197.2	170.6	1050.3
2012-2013	109.3	73.7	43.9	31.3	28.7	35.2	52.8	78.8	124.0	151.2	174.5	166.8	1070.1
2013-2014	106.2	64.8	44.5	27.8	31.8	34.3	54.0	72.6	104.0	147.0	164.6	154.0	1005.7
2014-2015	103.0	66.1	38.0	32.1	27.2	31.0	50.6	65.3	109.8	133.5	170.7	160.0	987.3
AVERAGE	105.8	69.2	39.5	28.7	27.3	31.0	48.3	70.9	109.9	151.4	179.9	157.7	

**Table A. 57** Esentepe station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	122.8	82.6	34.2	27.4	25.0	30.8	36.7	59.6	79.3	147.3	176.9	141.7	964.3
1979-1980	125.6	78.5	52.5	26.6	14.9	18.0	29.9	52.1	84.2	147.1	196.6	180.5	1006.5
1980-1981	117.4	78.6	47.4	22.7	17.6	20.7	35.6	59.9	76.9	168.5	201.3	144.1	990.5
1981-1982	125.0	88.5	36.0	29.6	21.3	15.4	25.1	59.4	88.2	143.8	177.7	167.7	977.7
1982-1983	145.5	83.0	36.3	20.3	13.5	16.5	29.2	59.5	98.3	147.1	210.3	166.4	1025.9
1983-1984	115.0	65.2	48.4	29.5	26.0	31.7	31.5	46.9	78.1	136.7	172.8	148.9	930.6
1984-1985	107.1	72.7	36.6	20.9	23.9	16.7	29.5	61.2	100.6	153.6	207.7	177.4	1007.9
1985-1986	119.9	63.0	43.1	23.2	20.1	25.0	33.9	69.5	80.8	155.6	185.5	147.8	967.4
1986-1987	142.2	75.2	33.0	23.9	13.3	32.1	22.3	52.4	82.0	146.0	240.3	192.3	1055.0
1987-1988	121.3	65.3	36.6	21.4	18.0	20.9	25.0	59.6	96.6	148.3	225.6	166.5	1005.1
1988-1989	117.6	65.5	34.2	23.9	16.3	23.5	36.0	81.6	97.1	126.8	182.5	147.4	952.4
1989-1990	129.4	80.0	45.4	23.8	17.2	25.1	30.5	59.0	86.6	143.4	185.9	160.8	987.2
1990-1991	127.4	86.0	49.8	28.4	19.4	17.9	37.1	56.8	83.9	149.6	195.4	163.6	1015.3
1991-1992	149.3	99.1	49.3	18.8	11.6	11.0	27.9	62.2	96.3	160.1	220.3	212.3	1118.3
1992-1993	132.0	88.1	44.9	15.1	16.6	16.3	29.8	58.8	77.1	181.1	250.2	198.3	1108.2
1993-1994	118.6	97.0	34.8	24.6	20.3	20.7	28.3	65.2	95.0	157.5	183.9	157.5	1003.5
1994-1995	145.3	78.9	26.9	10.8	14.5	26.8	35.2	55.7	91.9	159.7	205.0	169.0	1019.7
1995-1996	142.2	85.8	34.8	23.0	15.6	21.0	26.0	43.8	98.7	162.9	223.1	180.4	1057.3
1996-1997	133.3	83.4	47.9	32.4	22.8	16.7	23.8	39.0	98.1	165.6	240.8	162.4	1066.3
1997-1998	109.9	68.4	40.3	22.9	15.8	21.3	28.7	65.6	83.1	158.5	221.5	189.7	1025.6
1998-1999	105.4	71.7	44.7	22.4	16.5	17.9	27.0	52.9	96.8	149.0	191.1	149.2	944.7
1999-2000	114.1	72.4	41.1	28.0	12.5	19.6	25.4	54.1	78.5	146.9	189.6	144.7	926.9
2000-2001	125.9	67.2	45.6	21.6	18.3	21.3	41.0	54.9	89.7	138.1	177.9	152.1	953.6
2001-2002	137.2	83.1	42.1	21.3	11.3	22.3	30.9	48.0	82.0	162.8	226.5	182.8	1050.3
2002-2003	115.8	72.6	48.6	16.4	20.3	13.5	22.2	49.7	103.9	144.1	196.0	167.4	970.5
2003-2004	123.6	81.7	46.7	23.4	17.3	18.8	34.2	55.5	81.5	145.3	199.2	150.3	977.5
2004-2005	125.5	82.4	41.7	17.5	17.7	16.9	29.8	54.2	93.3	141.7	207.0	164.6	992.3
2005-2006	122.9	60.0	29.9	20.5	18.4	28.4	40.5	73.2	79.7	141.2	177.5	156.0	948.2
2006-2007	127.2	72.5	32.7	15.2	15.9	20.4	30.2	48.4	90.6	166.0	212.0	167.8	998.8
2007-2008	115.4	76.4	40.8	20.3	12.5	16.0	37.7	55.3	80.4	140.9	176.0	151.1	922.8
2008-2009	120.3	66.2	46.9	24.4	16.0	23.2	29.5	56.6	83.1	153.9	191.9	155.4	967.4
2009-2010	103.6	75.3	37.8	27.0	22.0	25.1	35.8	59.5	83.6	125.4	163.9	165.4	924.4
2010-2011	121.6	73.8	49.5	31.4	19.3	22.3	30.7	49.2	74.1	128.8	174.8	152.3	928.0
2011-2012	130.5	69.5	31.4	22.5	16.9	18.5	27.5	60.1	81.4	151.1	214.7	175.2	999.4
2012-2013	110.5	71.5	43.3	24.6	17.6	25.8	33.1	59.9	90.0	126.3	161.2	149.9	913.7
2013-2014	120.9	66.7	50.4	20.8	25.8	27.5	39.5	58.4	78.1	138.2	170.8	155.0	952.1
2014-2015	125.4	74.2	40.1	32.0	18.6	22.4	36.8	50.6	91.5	130.5	194.2	175.1	991.4
AVERAGE	124.1	76.3	41.2	23.2	17.9	21.3	31.2	57.0	87.3	148.4	198.0	164.6	

**Table A. 58** Esentepe station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	180.1	174.1	138	137.5	134.8	123.1	139.4	145.8	162.4	179.5	192	189.8	1896.5
1979-1980	178.4	169.2	150.7	135.2	120.7	110.2	131.9	139.7	162.7	176.8	194.5	200.6	1870.7
1980-1981	177.3	171.3	148.7	132.1	125.4	113.9	138.1	145.6	160.6	186.1	198.5	190.1	1887.7
1981-1982	181.4	177.8	139.9	140.1	130.6	108.6	129	146	167.5	178.7	192.6	199.9	1892.2
1982-1983	185.8	171.5	138	127.9	118.4	108.6	131.2	143.7	169.6	176.5	198	195.5	1864.7
1983-1984	181.2	167.1	152.9	142.5	138.6	126.2	137.4	140.9	165.4	180.2	195.6	197.5	1925.4
1984-1985	171.8	166.7	139.1	129.4	132.7	109.3	132.2	145.6	171.9	180	199	201	1878.8
1985-1986	180.9	163.5	147	134.1	130	119.1	138.1	152.7	164.9	184.5	196.8	194.4	1906.0
1986-1987	181.9	164.8	133.7	130.7	117.2	121.3	123.3	138	159.3	173.6	202.5	201	1847.2
1987-1988	179.9	163.7	140.4	131	126.4	114.5	128.9	146.1	171.8	180.4	206.3	199.5	1888.8
1988-1989	182.3	167.2	140.8	136.1	125.7	118.9	141.3	160.8	175.7	176.4	198.6	196.8	1920.4
1989-1990	181.4	171.4	146.5	132.9	124.6	117.7	133.2	144.5	165.2	176.9	193.2	195.4	1883.0
1990-1991	176	170.6	146.6	135.2	125.2	109	136.2	140.4	160.1	174.5	190.8	191.3	1855.9
1991-1992	175.4	169.4	140.5	121.1	111.5	98.63	124.4	137.8	159	169.6	187.7	196.5	1791.7
1992-1993	172.3	166.6	139.4	117.7	119.3	105.3	127.3	137.9	152.2	178.3	197.7	195.8	1809.8
1993-1994	175	178.8	136.6	132.7	127.6	112.8	130.1	146.5	167.6	179.6	190.3	191.9	1869.7
1994-1995	188.2	171.2	130.7	115.4	120.8	119.4	137.6	143	168.4	182.9	199.2	199	1875.7
1995-1996	180.6	169.7	134.5	129.1	119.9	111.5	126.3	132.2	166.4	177.8	196.9	195.8	1840.8
1996-1997	174.4	165.7	142.6	136.8	127.3	106.3	122.9	127.5	163.6	175.6	197.6	186.6	1826.9
1997-1998	172.1	163.2	141.7	131.2	122	113.6	130.9	147.3	162.3	180.6	201.5	203.9	1870.1
1998-1999	179.3	173.7	151.9	135.8	127.3	114.1	134.4	146.5	178	187.5	204.4	200.6	1933.5
1999-2000	186.5	177	151	144.3	122.2	117.3	134.2	149.4	170.5	189.9	207.6	202.3	1952.2
2000-2001	185	167.5	150	132.9	128.2	116.2	145	145.4	171	179.7	196.1	197.6	1914.5
2001-2002	180	169.2	141.1	127.8	114	113.3	131.3	135.5	159.3	179	199.2	198	1847.6
2002-2003	181.5	171.9	153.1	126.3	131.4	107.7	127.8	142.6	179.2	182.9	202.7	204.5	1911.7
2003-2004	181.4	174.4	149.1	133.7	125.6	112.6	137.7	144	164.4	179.8	199.5	194	1896.3
2004-2005	182	174.7	145	126.2	126.2	110.5	133.7	143.1	170.4	178.4	201.6	199.2	1891.0
2005-2006	186	164.4	137.4	132.6	129.4	124	146	157.5	167.3	183.2	198.5	201.8	1928.2
2006-2007	184.4	170.2	138.1	123.7	124.3	114.9	135	140.6	170.6	188.5	205	202.4	1897.8
2007-2008	187.5	179.9	150.8	134.8	122.3	113.1	146.7	150.4	171.8	187.9	203.5	205.3	1954.0
2008-2009	182.1	166.5	150.8	136	124.7	117.9	134.7	146.1	167	185	199.9	198.4	1909.2
2009-2010	177.7	175.4	145.3	140.8	134.7	121.2	142.3	150.1	170.1	177.6	194.7	206	1935.9
2010-2011	185.7	174.2	155	145.4	130.8	118.4	137.4	143.4	164.3	178.7	198	200.6	1931.8
2011-2012	184.8	167.4	136.4	132.9	125.4	112.5	132	147.1	164.8	182.4	204.6	204	1894.3
2012-2013	183	174.7	151.6	139.2	129.5	122.9	141	151.8	175.5	180	196	202.3	1947.6
2013-2014	181	165.7	152.5	131	136.7	121.2	142.7	146.3	163.1	178.1	191.9	196.7	1907.0
2014-2015	178.9	167.1	141.7	140.9	125.9	114.8	138.1	139	166.9	171.5	194.5	199.4	1878.9
AVERAGE	180.6	170.2	144.0	132.8	125.9	114.6	134.6	144.3	166.8	180.0	198.0	198.3	

**Table A. 59** Esentepe station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	138.5	64.42	46.52	44.02	44.42	44.07	54.83	118.7	141.8	162.4	170.7	158.8	1189.2
1979-1980	137.3	62.6	50.8	43.25	39.75	39.46	51.91	113.7	142.2	159.9	173.1	167.9	1181.7
1980-1981	136.4	63.37	50.1	42.26	41.31	40.77	54.35	118.5	140.3	168.3	176.6	159.1	1191.4
1981-1982	139.5	65.81	47.16	44.84	43.03	38.85	50.76	118.8	146.3	161.7	171.4	167.3	1195.5
1982-1983	142.9	63.47	46.52	40.93	39	38.85	51.62	117	148.1	159.6	176.1	163.6	1187.8
1983-1984	139.4	61.82	51.55	45.59	45.66	45.18	54.06	114.7	144.4	163	174	165.3	1204.6
1984-1985	132.1	61.69	46.89	41.42	43.73	39.12	52.02	118.5	150.2	162.8	177	168.2	1193.7
1985-1986	139.2	60.5	49.54	42.9	42.82	42.65	54.35	124.3	144	166.9	175.1	162.7	1204.9
1986-1987	139.9	60.96	45.04	41.84	38.6	43.41	48.53	112.4	139.1	157	180.2	168.3	1175.1
1987-1988	138.4	60.58	47.32	41.91	41.62	41	50.71	118.9	150.1	163.1	183.5	167	1204.0
1988-1989	140.2	61.85	47.44	43.55	41.41	42.54	55.62	130.9	153.5	159.5	176.6	164.7	1217.8
1989-1990	139.6	63.4	49.37	42.52	41.03	42.13	52.43	117.7	144.3	160	171.8	163.6	1187.8
1990-1991	135.4	63.11	49.41	43.28	41.26	39.01	53.61	114.3	139.8	157.8	169.7	160.1	1166.8
1991-1992	134.9	62.69	47.36	38.74	36.71	35.3	48.96	112.2	138.9	153.4	166.9	164.5	1140.6
1992-1993	132.5	61.64	46.98	37.67	39.29	37.69	50.11	112.2	133	161.2	175.9	163.9	1152.1
1993-1994	134.6	66.17	46.03	42.46	42.03	40.36	51.21	119.3	146.4	162.4	169.3	160.7	1181.0
1994-1995	144.8	63.34	44.03	36.93	39.8	42.73	54.15	116.4	147	165.4	177.2	166.5	1198.4
1995-1996	138.9	62.77	45.34	41.32	39.5	39.92	49.7	107.6	145.3	160.8	175.1	163.9	1170.3
1996-1997	134.1	61.3	48.06	43.76	41.95	38.05	48.36	103.8	142.8	158.8	175.8	156.2	1153.0
1997-1998	132.4	60.38	47.73	41.98	40.19	40.66	51.52	119.9	141.7	163.4	179.2	170.6	1189.6
1998-1999	137.9	64.29	51.19	43.46	41.95	40.84	52.87	119.3	155.5	169.5	181.8	167.9	1226.5
1999-2000	143.5	65.5	50.88	46.18	40.24	42	52.81	121.6	148.9	171.8	184.7	169.3	1237.3
2000-2001	142.3	61.98	50.55	42.51	42.22	41.6	57.07	118.3	149.3	162.6	174.4	165.4	1208.3
2001-2002	138.5	62.61	47.55	40.91	37.56	40.55	51.67	110.3	139.1	161.9	177.1	165.7	1173.4
2002-2003	139.6	63.6	51.59	40.43	43.3	38.56	50.3	116.1	156.5	165.4	180.3	171.2	1216.9
2003-2004	139.5	64.53	50.25	42.79	41.37	40.31	54.2	117.2	143.6	162.6	177.5	162.4	1196.3
2004-2005	140	64.63	48.86	40.38	41.56	39.54	52.62	116.5	148.9	161.3	179.3	166.8	1200.4
2005-2006	143.1	60.84	46.3	42.42	42.62	44.4	57.46	128.2	146.2	165.7	176.6	168.9	1222.6
2006-2007	141.9	62.97	46.55	39.57	40.95	41.12	53.13	114.5	149	170.4	182.4	169.4	1211.9
2007-2008	144.2	66.59	50.82	43.15	40.28	40.49	57.72	122.4	150	169.9	181	171.8	1238.5
2008-2009	140.1	61.61	50.82	43.51	41.07	42.2	53.01	119	145.9	167.3	177.8	166.1	1208.4
2009-2010	136.6	64.89	48.97	45.06	44.36	43.4	56.02	122.2	148.6	160.7	173.2	172.5	1216.4
2010-2011	142.8	64.44	52.23	46.54	43.1	42.37	54.09	116.7	143.5	161.6	176.1	167.9	1211.4
2011-2012	142.2	61.95	45.97	42.53	41.3	40.26	51.93	119.8	143.9	165	182	170.7	1207.6
2012-2013	140.7	64.65	51.09	44.53	42.68	44	55.5	123.6	153.3	162.8	174.4	169.3	1226.6
2013-2014	139.2	61.32	51.39	41.91	45.04	43.4	56.16	119.1	142.5	161	170.7	164.7	1196.4
2014-2015	137.6	61.82	47.76	45.11	41.47	41.1	54.35	113.2	145.8	155.1	173	166.9	1183.3
AVERAGE	138.9	63.0	48.5	42.5	41.5	41.0	53.0	117.5	145.7	162.8	176.1	165.9	

**Table A. 60** Esentepe station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.5	89.66	52.03	42.67	44.75	49.54	77.09	95.28	121.1	140.6	146.7	134.7	1106.6
1979-1980	111.6	86.92	59.14	41.35	36.81	42.3	72.91	91.85	121.3	139	148.2	140.8	1092.2
1980-1981	111	88.08	58	39.61	39.48	44.36	76.41	95.17	120.1	144.3	150.4	134.9	1101.7
1981-1982	113.3	91.77	53.1	44.12	42.38	41.35	71.28	95.38	124	140.1	147.1	140.4	1104.2
1982-1983	115.8	88.22	52.03	37.26	35.52	41.35	72.5	94.1	125.1	138.9	150.1	137.9	1088.8
1983-1984	113.2	85.72	60.39	45.45	46.88	51.25	75.97	92.52	122.8	141	148.7	139	1122.9
1984-1985	107.9	85.52	52.64	38.12	43.58	41.78	73.07	95.19	126.5	140.9	150.6	141	1096.7
1985-1986	113	83.71	57.06	40.72	42.04	47.29	76.39	99.17	122.5	143.4	149.4	137.3	1112.0
1986-1987	113.5	84.42	49.57	38.86	34.85	48.48	68.1	90.92	119.4	137.2	152.6	141	1079.0
1987-1988	112.4	83.83	53.37	38.98	40	44.72	71.2	95.43	126.4	141	154.7	140.1	1102.3
1988-1989	113.8	85.77	53.56	41.88	39.65	47.13	78.21	103.7	128.6	138.8	150.4	138.6	1120.1
1989-1990	113.3	88.12	56.77	40.07	38.99	46.49	73.65	94.58	122.7	139.1	147.4	137.9	1099.0
1990-1991	110.3	87.67	56.85	41.39	39.37	41.59	75.33	92.25	119.8	137.8	146	135.5	1083.9
1991-1992	109.9	87.05	53.43	33.44	31.65	35.78	68.7	90.8	119.2	135	144.3	138.5	1047.8
1992-1993	108.2	85.45	52.79	31.56	36.02	39.53	70.34	90.83	115.4	139.9	149.9	138.1	1058.0
1993-1994	109.7	92.32	51.21	39.96	40.7	43.71	71.91	95.7	124.1	140.6	145.8	135.9	1091.6
1994-1995	117.1	88.03	47.9	30.27	36.89	47.43	76.09	93.71	124.5	142.5	150.8	139.8	1094.9
1995-1996	112.9	87.17	50.06	37.96	36.39	43.03	69.75	87.67	123.3	139.6	149.4	138.1	1075.4
1996-1997	109.3	84.95	54.59	42.24	40.54	40.09	67.85	85.04	121.8	138.4	149.9	132.9	1067.5
1997-1998	108	83.55	54.06	39.11	37.57	44.17	72.35	96.11	121.1	141.2	152	142.6	1091.8
1998-1999	112.1	89.46	59.82	41.7	40.55	44.47	74.29	95.68	129.9	145	153.7	140.7	1127.4
1999-2000	116.2	91.3	59.29	46.48	37.64	46.27	74.19	97.29	125.6	146.4	155.5	141.7	1137.9
2000-2001	115.3	85.96	58.75	40.05	41.02	45.66	80.27	95.04	125.9	140.7	149	139.1	1116.7
2001-2002	112.5	86.92	53.75	37.24	33.08	44.01	72.57	89.49	119.4	140.3	150.7	139.3	1079.2
2002-2003	113.3	88.42	60.47	36.39	42.85	40.89	70.62	93.51	130.5	142.5	152.7	142.9	1115.2
2003-2004	113.3	89.84	58.25	40.54	39.58	43.62	76.17	94.27	122.2	140.7	151	137.1	1106.5
2004-2005	113.6	89.97	55.93	36.31	39.89	42.43	73.93	93.8	125.6	139.9	152.1	140	1103.5
2005-2006	115.9	84.24	51.65	39.89	41.71	50.04	80.84	101.8	123.9	142.6	150.4	141.4	1124.4
2006-2007	115	87.45	52.08	34.91	38.86	44.91	74.65	92.39	125.7	145.6	154	141.8	1107.3
2007-2008	116.7	92.94	59.18	41.16	37.71	43.91	81.2	97.85	126.4	145.3	153.2	143.4	1138.9
2008-2009	113.7	85.41	59.18	41.8	39.06	46.59	74.5	95.46	123.7	143.6	151.2	139.6	1113.8
2009-2010	111.2	90.38	56.11	44.51	44.67	48.47	78.76	97.68	125.4	139.5	148.2	143.8	1128.7
2010-2011	115.7	89.7	61.54	47.11	42.52	46.86	76.02	93.93	122.2	140.1	150.1	140.7	1126.5
2011-2012	115.2	85.92	51.11	40.1	39.44	43.55	72.95	96.03	122.5	142.2	153.8	142.6	1105.4
2012-2013	114.2	90	59.63	43.6	41.79	49.42	78.03	98.63	128.5	140.8	149	141.7	1135.3
2013-2014	113.1	84.96	60.14	38.99	45.82	48.48	78.97	95.55	121.5	139.8	146.7	138.6	1112.5
2014-2015	111.9	85.71	54.09	44.59	39.74	44.88	76.4	91.5	123.7	136.1	148.1	140.1	1096.8
AVERAGE	112.9	87.5	55.4	40.0	39.7	44.8	74.4	94.5	123.6	140.8	150.1	139.4	

**Table A. 61** Gazimagusa station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	102.3	67.7	34.6	27.7	28.4	34.0	50.1	69.0	105.4	152.4	175.5	142.6	989.6
1979-1980	101.6	70.2	43.1	28.5	25.4	28.8	45.3	67.3	99.2	144.4	167.2	155.4	976.4
1980-1981	97.4	67.6	41.1	28.6	27.1	30.4	51.0	70.7	94.7	149.2	181.1	156.8	995.7
1981-1982	109.6	75.0	36.0	31.4	29.0	27.7	43.3	73.6	109.4	151.4	170.2	157.6	1014.2
1982-1983	115.0	72.3	37.0	27.4	25.4	29.8	47.1	67.7	108.8	137.0	179.2	155.3	1002.0
1983-1984	106.9	66.6	44.1	32.3	30.4	35.4	52.2	69.7	118.5	150.7	173.6	147.2	1027.8
1984-1985	106.6	72.2	38.9	28.1	30.8	28.7	49.9	73.8	116.6	150.4	176.8	164.6	1037.2
1985-1986	110.5	64.8	43.6	30.8	30.4	34.2	52.3	81.7	103.7	150.7	171.6	154.5	1028.8
1986-1987	112.3	67.8	36.1	28.0	30.4	36.2	42.5	67.7	105.4	147.8	183.5	159.6	1017.4
1987-1988	108.4	66.5	40.0	30.3	28.5	32.0	46.8	71.4	114.0	152.6	196.3	167.3	1054.2
1988-1989	109.0	68.8	36.4	28.6	25.1	30.8	50.7	83.2	122.4	147.8	181.8	153.3	1037.7
1989-1990	106.3	66.2	42.5	29.3	27.0	32.2	50.8	74.0	114.8	148.2	182.2	162.0	1035.5
1990-1991	108.1	77.1	47.8	33.3	29.2	32.3	55.1	77.9	119.3	157.0	182.2	165.2	1084.6
1991-1992	111.3	75.7	41.3	27.2	25.9	26.9	46.3	71.4	107.2	150.1	175.1	165.4	1023.9
1992-1993	111.6	77.4	42.5	25.6	27.1	29.5	51.5	70.6	106.9	162.2	186.8	168.3	1060.0
1993-1994	109.4	82.6	39.9	33.0	32.0	33.6	50.8	79.7	124.8	166.0	183.4	170.8	1105.9
1994-1995	126.6	85.4	41.9	28.2	30.2	35.9	55.4	72.4	121.5	165.3	193.5	166.7	1123.0
1995-1996	113.8	68.7	33.9	28.0	27.8	33.3	47.6	66.1	116.6	155.9	184.4	164.6	1040.7
1996-1997	108.6	65.5	45.3	34.3	31.2	29.2	46.8	65.9	116.1	159.5	193.5	151.3	1047.3
1997-1998	105.1	69.7	43.8	30.8	28.4	34.1	47.6	78.4	115.3	162.9	195.1	180.7	1092.0
1998-1999	114.5	76.5	46.1	32.6	31.7	33.1	50.5	72.8	123.4	160.0	190.5	168.8	1100.6
1999-2000	110.7	75.8	41.6	32.6	25.0	31.5	46.4	75.6	116.3	177.8	203.2	169.2	1105.8
2000-2001	106.7	67.8	40.9	29.8	29.8	31.7	55.2	75.6	115.7	155.0	178.9	161.8	1049.0
2001-2002	107.1	70.7	39.5	28.8	25.4	33.8	51.7	70.1	111.3	158.8	192.1	163.2	1052.5
2002-2003	107.0	71.0	42.5	28.6	31.4	28.7	44.6	69.5	123.6	155.1	191.6	166.7	1060.4
2003-2004	106.4	71.3	41.9	31.0	27.1	30.8	50.7	73.4	111.0	156.6	191.6	163.7	1055.3
2004-2005	108.6	77.4	42.9	29.1	30.2	31.5	52.0	75.2	115.1	153.1	190.8	167.6	1073.5
2005-2006	112.6	67.7	38.2	31.3	28.6	33.3	51.4	76.9	117.9	163.6	189.2	168.2	1078.9
2006-2007	118.4	73.9	37.7	29.1	27.6	33.5	50.5	70.3	120.1	167.8	195.2	171.0	1095.1
2007-2008	111.1	76.8	41.7	29.0	27.8	32.1	57.1	78.7	112.4	163.1	189.1	170.0	1089.0
2008-2009	113.1	74.7	49.8	32.7	32.0	33.7	49.4	74.0	112.3	167.4	192.4	172.3	1103.8
2009-2010	112.4	83.1	45.3	34.2	34.0	37.5	58.8	81.8	123.4	151.4	176.3	177.5	1115.8
2010-2011	120.0	77.9	48.3	36.8	32.2	35.3	52.0	72.9	110.3	152.2	182.4	165.8	1086.3
2011-2012	115.2	71.8	38.6	31.0	29.2	33.1	48.0	74.4	112.1	156.5	195.3	172.7	1077.8
2012-2013	113.7	77.6	48.2	33.3	30.8	36.9	55.3	78.1	124.9	156.2	180.4	167.2	1102.5
2013-2014	111.6	68.8	48.4	30.3	33.8	35.8	57.2	78.8	113.3	154.0	178.1	163.0	1073.1
2014-2015	115.3	72.8	43.0	36.2	29.9	34.8	55.5	71.3	115.8	145.6	179.3	171.7	1071.3
AVERAGE	110.4	72.5	41.7	30.5	29.1	32.5	50.5	73.6	114.0	155.6	184.6	164.0	

**Table A. 62** Gazimagusa station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	119.4	76.0	32.6	22.4	21.1	29.4	37.4	58.9	94.2	169.2	192.5	166.8	1019.7
1979-1980	121.8	82.6	52.3	24.9	15.7	18.4	29.6	57.5	87.5	161.9	186.8	192.0	1031.2
1980-1981	110.4	74.9	45.9	24.0	18.2	21.1	38.6	61.2	77.1	162.1	197.5	185.8	1016.9
1981-1982	123.9	83.9	33.6	29.2	21.3	14.8	23.9	63.7	94.9	158.7	175.6	179.4	1002.9
1982-1983	137.3	83.1	37.4	21.5	14.9	19.9	31.6	56.0	98.3	144.0	195.7	184.2	1024.0
1983-1984	110.5	64.9	46.3	28.6	22.0	28.4	35.9	52.1	98.9	144.4	165.1	150.9	948.1
1984-1985	113.6	75.5	37.7	20.9	23.6	15.8	33.2	60.6	99.6	148.9	174.5	179.2	983.2
1985-1986	115.5	62.4	45.5	25.7	22.1	26.1	36.1	71.4	80.1	144.7	163.1	160.9	953.5
1986-1987	127.1	72.0	33.8	21.8	24.0	32.6	22.5	53.1	88.9	152.6	191.6	181.2	1001.2
1987-1988	113.8	65.5	39.1	24.9	18.8	21.8	27.6	55.5	94.2	148.7	193.6	178.8	982.5
1988-1989	118.5	71.4	33.2	22.2	13.4	20.1	35.0	77.3	108.8	147.4	183.1	166.6	997.0
1989-1990	113.0	66.3	44.7	23.3	16.5	22.6	34.8	60.8	97.2	145.6	180.8	175.4	980.8
1990-1991	100.3	72.1	47.5	27.2	17.9	19.7	36.2	58.0	89.1	135.8	156.1	154.9	914.7
1991-1992	125.9	84.9	44.5	20.1	15.2	13.2	28.8	59.6	91.6	156.2	181.4	189.6	1010.9
1992-1993	117.1	81.2	43.5	15.6	16.2	16.8	35.0	53.7	84.4	160.1	181.3	178.7	983.7
1993-1994	99.5	77.3	33.5	26.1	21.9	21.4	29.2	59.0	93.1	142.4	153.4	157.2	914.0
1994-1995	116.1	79.0	36.1	17.4	18.6	24.8	34.9	47.8	87.5	138.5	159.8	149.2	909.6
1995-1996	126.3	71.9	28.6	21.2	18.4	25.6	30.3	49.2	102.2	160.3	188.3	183.7	1005.9
1996-1997	112.4	63.1	48.3	32.4	23.6	16.2	27.2	45.9	95.5	155.4	187.5	155.7	963.2
1997-1998	100.3	64.7	42.5	23.6	17.2	23.7	26.4	60.9	87.8	148.1	175.7	178.5	949.4
1998-1999	106.0	70.1	44.0	25.5	21.6	20.7	29.0	49.8	92.2	136.7	161.7	156.1	913.5
1999-2000	106.8	72.7	38.4	26.9	11.7	19.0	24.5	56.5	88.7	165.0	183.5	164.8	958.6
2000-2001	109.1	66.1	39.8	23.4	20.9	20.8	40.3	60.9	94.3	148.4	169.4	167.8	961.1
2001-2002	112.4	72.1	38.3	21.9	13.4	25.6	35.6	53.6	91.1	157.6	189.5	174.3	985.4
2002-2003	110.3	71.3	43.2	21.3	24.0	15.2	23.9	51.7	105.2	149.8	185.6	175.5	977.0
2003-2004	109.3	71.6	42.0	25.8	16.0	19.1	33.3	57.7	88.9	151.4	185.1	171.3	971.5
2004-2005	106.5	76.4	41.6	20.9	20.6	19.4	33.5	57.2	89.2	138.9	174.4	166.7	945.4
2005-2006	112.4	63.4	33.5	25.3	17.9	22.9	32.8	60.3	93.4	153.1	174.2	168.9	958.1
2006-2007	117.9	71.3	32.2	20.8	16.0	23.0	31.1	49.7	94.7	156.1	178.2	169.8	960.9
2007-2008	107.1	74.0	38.6	20.2	16.0	19.9	40.5	61.0	84.0	147.6	168.5	165.6	943.0
2008-2009	103.5	67.2	49.5	25.4	21.8	21.5	27.2	51.0	79.0	143.7	162.1	158.4	910.6
2009-2010	96.1	72.8	39.5	26.3	23.6	26.3	37.8	57.6	85.4	117.2	136.2	153.0	871.6
2010-2011	110.7	71.0	46.9	32.5	22.1	24.3	30.7	49.2	76.4	126.0	151.4	150.7	891.9
2011-2012	116.0	69.5	34.4	24.8	19.1	22.6	27.8	56.8	86.6	144.9	181.5	174.9	958.7
2012-2013	101.4	69.1	45.7	25.9	19.4	26.5	34.6	55.0	90.5	127.6	146.1	148.8	890.6
2013-2014	104.9	61.4	48.8	22.0	25.6	26.1	39.5	59.4	82.7	132.8	152.5	153.1	908.9
2014-2015	110.8	67.8	40.3	33.2	19.4	24.6	37.6	49.6	86.9	124.9	156.2	165.4	916.6
AVERAGE	112.5	71.9	40.6	24.2	19.2	21.9	32.3	56.7	90.8	147.2	174.0	168.5	

**Table A. 63** Gazimagusa station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	178.6	168.9	135.5	130.7	128.8	120.7	137.5	142.9	164.2	180.7	196.6	191.5	1876.6
1979-1980	178.1	171.5	150.4	132.8	121.2	110.3	130.4	141.1	159.9	177	193.2	197.5	1863.3
1980-1981	175.2	168.8	147.1	132.9	125.7	113.9	138.7	144.5	156.5	179.2	198.8	198.1	1879.4
1981-1982	183.2	176	138.1	139.7	130.5	107.9	127.4	147.3	166.8	180.2	194.4	198.5	1890.1
1982-1983	186.6	173.6	140.1	129.9	121	112.5	133.1	141.5	166.3	173.4	198.1	197.5	1873.4
1983-1984	181.6	167.7	152	141.7	133.8	123.6	140.3	143.5	172.4	180	195.9	193.7	1926.1
1984-1985	181.4	173.4	143.4	131.7	134.7	110	137.2	147.4	171.3	179.8	197.1	201.6	1909.0
1985-1986	183.8	165.8	151.2	138.3	133.7	121.2	140.5	154.4	163.1	179.9	195	197.1	1924.0
1986-1987	185	169	138.4	131.6	133.8	124.8	125.9	141.6	164.2	178.6	199.7	199.4	1891.8
1987-1988	182.6	167.6	145.4	137.2	129.2	116.9	132.7	145.2	169.7	180.8	204.5	202.7	1914.4
1988-1989	182.9	170.1	138.8	132.9	120.4	114.5	138.3	155.6	174.7	178.6	199.1	196.5	1902.2
1989-1990	181.2	167.3	149.5	134.6	125.4	117.3	138.5	147.6	170.2	178.7	199.3	200.4	1910.1
1990-1991	182.4	178.1	157.5	143.6	130.9	117.5	144.2	151.2	172.9	182.7	199.2	201.8	1962.0
1991-1992	184.3	176.8	147.6	129.4	122.4	105.9	131.9	145.2	165.4	179.6	196.5	201.9	1886.9
1992-1993	184.5	178.3	149.5	125.2	125.5	111.8	139.5	144.4	165.2	184.9	201	203.1	1913.0
1993-1994	183.1	182.9	145.1	143.1	137.3	120	138.5	152.7	176.1	186.5	199.7	204.2	1969.1
1994-1995	193.1	185.2	148.5	132	133.2	124.2	144.5	146.2	174.2	186.2	203.5	202.4	1973.5
1995-1996	185.8	169.9	134.1	131.4	127.5	119.5	133.9	139.9	171.3	182.2	200.1	201.6	1897.2
1996-1997	182.7	166.6	153.8	145.8	135.7	111.2	132.7	139.7	171	183.8	203.5	195.6	1922.0
1997-1998	180.4	171	151.6	138.2	129	120.9	133.9	151.6	170.5	185.2	204	208.1	1944.6
1998-1999	186.3	177.5	155.1	142.1	136.8	119.1	138	146.6	175.3	184	202.4	203.4	1966.5
1999-2000	184	176.8	148	142.3	120.1	116	132	149.1	171.1	191.2	206.9	203.5	1941.0
2000-2001	181.5	169.1	146.9	136	132.4	116.4	144.3	149.1	170.7	181.8	197.9	200.4	1926.4
2001-2002	181.7	172	144.5	133.4	121	120.5	139.7	144	168	183.5	203	201	1912.2
2002-2003	181.6	172.2	149.5	133.1	136.1	110	129.4	143.4	175.4	181.9	202.8	202.5	1917.9
2003-2004	181.3	172.5	148.5	138.7	125.5	114.6	138.3	147.1	167.8	182.5	202.8	201.2	1920.7
2004-2005	182.7	178.3	150.1	134.2	133.4	116	140	148.7	170.4	181	202.5	202.8	1940.1
2005-2006	185.1	168.8	142.2	139.4	129.4	119.5	139.2	150.2	172.1	185.5	201.9	203.1	1936.5
2006-2007	188.6	175.1	141.3	134.2	126.9	119.9	138	144.2	173.4	187.2	204.1	204.2	1937.1
2007-2008	184.2	177.8	148.3	133.9	127.4	117.1	146.7	151.8	168.7	185.3	201.9	203.9	1946.9
2008-2009	185.4	175.8	160.3	142.3	137.3	120.3	136.5	147.7	168.6	187.1	203.1	204.8	1969.2
2009-2010	185	183.3	153.8	145.6	141.7	127	148.8	154.5	175.3	180.2	196.9	206.9	1999.0
2010-2011	189.5	178.8	158.2	150.7	137.8	123.3	140.1	146.6	167.4	180.6	199.3	202.1	1974.5
2011-2012	186.7	173	143	138.6	130.9	119.1	134.4	148	168.5	182.5	204.1	204.9	1933.8
2012-2013	185.8	178.5	158	143.8	134.7	126.1	144.4	151.3	176.1	182.4	198.6	202.6	1982.1
2013-2014	184.5	170	158.4	137.1	141.3	124.1	146.8	151.9	169.3	181.4	197.6	200.9	1963.3
2014-2015	186.7	174.1	150.3	149.6	132.6	122.2	144.7	145.1	170.8	177.6	198.1	204.5	1956.5
AVERAGE	183.7	173.6	147.9	137.2	130.4	117.7	137.9	147.1	169.6	182.0	200.1	201.2	

**Table A. 64** Gazimagusa station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	137.3	62.45	45.63	41.81	42.41	43.18	54.06	116.2	143.3	163.3	174.7	160.1	1184.5
1979-1980	136.9	63.39	50.65	42.46	39.88	39.43	51.26	114.8	139.6	160	171.7	165.2	1175.2
1980-1981	134.7	62.4	49.56	42.51	41.31	40.67	54.56	117.6	136.7	162	176.7	165.7	1184.4
1981-1982	140.9	65.12	46.5	44.66	42.92	38.56	50.04	119.8	145.5	162.9	172.8	166	1195.8
1982-1983	143.4	64.16	47.18	41.54	39.82	40.24	52.32	115.2	145.2	156.7	176.1	165.1	1187.0
1983-1984	139.6	62.01	51.19	45.3	43.99	44.16	55.21	116.8	150.5	162.6	174.1	162	1207.5
1984-1985	139.4	64.11	48.3	42.13	44.33	39.35	53.94	120	149.5	162.5	175.2	168.6	1207.2
1985-1986	141.3	61.3	50.94	44.23	44	43.37	55.24	125.6	142.3	162.6	173.3	164.9	1209.0
1986-1987	142.2	62.48	46.6	42.07	44.05	44.64	49.52	115.2	143.3	161.4	177.5	166.8	1195.7
1987-1988	140.3	61.98	48.97	43.86	42.51	41.83	52.17	118.1	148.1	163.4	181.8	169.5	1212.5
1988-1989	140.6	62.89	46.75	42.49	39.62	40.94	54.37	126.6	152.5	161.4	176.9	164.4	1209.4
1989-1990	139.3	61.87	50.35	43.05	41.27	41.94	54.47	120.1	148.6	161.5	177.1	167.6	1207.2
1990-1991	140.1	65.84	53.03	45.93	43.1	42.04	56.71	123	150.9	165.1	177.1	168.8	1231.7
1991-1992	141.7	65.37	49.7	41.39	40.28	37.88	51.88	118.1	144.3	162.3	174.6	168.9	1196.4
1992-1993	141.8	65.94	50.35	40.03	41.31	39.97	54.85	117.5	144.2	167.1	178.7	169.9	1211.6
1993-1994	140.8	67.64	48.87	45.76	45.18	42.93	54.45	124.2	153.7	168.5	177.5	170.8	1240.3
1994-1995	148.4	68.49	50.03	42.21	43.86	44.43	56.84	118.9	152	168.3	180.9	169.3	1243.7
1995-1996	142.8	62.84	45.14	42.02	41.95	42.73	52.67	113.8	149.5	164.7	177.8	168.6	1204.6
1996-1997	140.4	61.59	51.79	46.61	44.65	39.77	52.19	113.7	149.2	166.1	180.9	163.6	1210.5
1997-1998	138.7	63.23	51.05	44.18	42.48	43.26	52.67	123.3	148.8	167.4	181.4	174.1	1230.5
1998-1999	143.2	65.62	52.22	45.45	45.02	42.61	54.28	119.2	153	166.3	179.9	170.1	1236.8
1999-2000	141.4	65.39	49.83	45.5	39.53	41.51	51.91	121.3	149.4	172.8	183.9	170.2	1232.6
2000-2001	139.5	62.5	49.46	43.48	43.59	41.63	56.74	121.3	149	164.3	175.9	167.6	1215.0
2001-2002	139.7	63.58	48.67	42.66	39.83	43.09	54.92	117.1	146.7	165.8	180.4	168.1	1210.5
2002-2003	139.6	63.68	50.35	42.56	44.81	39.33	50.86	116.7	153.1	164.4	180.2	169.3	1214.9
2003-2004	139.3	63.79	50.03	44.35	41.31	40.97	54.37	119.6	146.5	164.9	180.2	168.3	1213.7
2004-2005	140.4	65.92	50.55	42.91	43.9	41.51	55.07	121	148.7	163.6	180	169.6	1223.1
2005-2006	142.3	62.43	47.89	44.57	42.58	42.73	54.75	122.2	150.2	167.7	179.5	169.9	1226.7
2006-2007	144.9	64.74	47.59	42.9	41.76	42.9	54.28	117.3	151.3	169.2	181.4	170.8	1229.1
2007-2008	141.6	65.75	49.93	42.81	41.93	41.89	57.7	123.5	147.3	167.5	179.4	170.5	1229.7
2008-2009	142.5	65	53.97	45.52	45.2	43.02	53.68	120.1	147.2	169.1	180.5	171.3	1237.1
2009-2010	142.2	67.78	51.78	46.56	46.65	45.41	58.51	125.7	153	162.9	175	173	1248.5
2010-2011	145.6	66.12	53.26	48.19	45.37	44.09	55.09	119.3	146.1	163.2	177.2	169	1232.6
2011-2012	143.5	63.97	48.15	44.34	43.1	42.61	52.86	120.4	147.1	164.9	181.5	171.4	1223.7
2012-2013	142.8	65.99	53.22	45.97	44.33	45.09	56.81	123.1	153.7	164.8	176.5	169.5	1241.7
2013-2014	141.8	62.87	53.34	43.83	46.51	44.4	57.74	123.6	147.7	163.9	175.7	168	1229.4
2014-2015	143.5	64.36	50.61	47.86	43.66	43.72	56.91	118.1	149.1	160.5	176.1	171.1	1225.4
AVERAGE	141.2	64.2	49.8	43.9	42.9	42.1	54.2	119.7	148.0	164.5	177.8	168.3	

**Table A. 65** Gazimagusa station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	119.7	92.83	54.49	41.97	44.9	52.31	82.9	101.9	132.5	152.5	160.7	145.8	1182.5
1979-1980	119.5	94.25	62.86	43.12	40.59	46.43	78.92	101	130.1	150.4	158.7	149.2	1175.0
1980-1981	117.9	92.75	61.03	43.2	43.12	48.45	83.61	102.9	128.2	151.6	161.9	149.5	1184.1
1981-1982	122.4	96.81	55.95	46.97	45.84	45.11	77.28	104.4	133.9	152.2	159.5	149.7	1190.1
1982-1983	124.2	95.43	57.09	41.5	40.5	47.67	80.43	101.2	133.7	148.4	161.5	149.2	1180.7
1983-1984	121.4	92.15	63.77	48.11	47.67	53.9	84.51	102.3	137.1	152.1	160.3	147	1210.3
1984-1985	121.3	95.34	58.95	42.53	48.18	46.3	82.74	104.5	136.5	152	161	151.5	1200.7
1985-1986	122.7	91.08	63.33	46.21	47.61	52.58	84.6	108.4	131.9	152	159.8	149	1209.1
1986-1987	123.3	92.86	56.1	42.43	47.7	54.59	76.43	101.2	132.5	151.3	162.4	150.2	1191.1
1987-1988	122	92.11	60.07	45.57	45.08	50.18	80.21	103.3	135.6	152.5	165.1	152.1	1203.7
1988-1989	122.2	93.48	56.37	43.16	40.15	48.78	83.36	109.1	138.4	151.3	162.1	148.6	1196.9
1989-1990	121.2	91.93	62.37	44.16	42.96	50.36	83.5	104.6	135.9	151.4	162.2	150.8	1201.3
1990-1991	121.9	97.97	66.83	49.19	46.08	50.51	86.68	106.6	137.4	153.6	162.1	151.6	1230.4
1991-1992	123	97.25	61.28	41.24	41.26	44	79.81	103.2	133.1	151.9	160.6	151.6	1188.3
1992-1993	123.1	98.12	62.37	38.87	43.04	47.27	84.04	102.8	133.1	154.8	163.1	152.3	1202.9
1993-1994	122.3	100.7	59.89	48.91	49.63	51.9	83.46	107.4	139.1	155.7	162.4	152.9	1234.4
1994-1995	127.9	102	61.81	42.67	47.37	54.25	86.87	103.8	138.1	155.6	164.5	151.9	1236.9
1995-1996	123.8	93.4	53.69	42.34	44.12	51.59	80.92	100.3	136.5	153.3	162.6	151.4	1194.1
1996-1997	122.1	91.52	64.75	50.4	48.73	46.96	80.25	100.2	136.3	154.2	164.5	148.1	1208.0
1997-1998	120.8	93.99	63.53	46.15	45.02	52.42	80.93	106.8	136	155	164.8	155.1	1220.6
1998-1999	124.1	97.64	65.48	48.36	49.35	51.39	83.22	104	138.7	154.3	163.9	152.5	1233.0
1999-2000	122.8	97.27	61.5	48.44	40.01	49.66	79.84	105.4	136.4	158.3	166.5	152.5	1218.7
2000-2001	121.4	92.9	60.88	44.91	46.91	49.87	86.73	105.4	136.2	153.1	161.4	150.8	1210.5
2001-2002	121.5	94.53	59.56	43.47	40.51	52.16	84.14	102.5	134.6	154	164.2	151.1	1202.5
2002-2003	121.5	94.69	62.37	43.3	49	46.27	78.35	102.2	138.8	153.1	164.2	152	1205.7
2003-2004	121.3	94.86	61.82	46.44	43.03	48.83	83.35	104.3	134.5	153.5	164.1	151.2	1207.3
2004-2005	122	98.09	62.71	43.91	47.45	49.66	84.35	105.2	136	152.6	164	152.2	1218.2
2005-2006	123.4	92.79	58.27	46.83	45.2	51.61	83.88	106.1	136.9	155.2	163.6	152.3	1216.1
2006-2007	125.4	96.31	57.76	43.89	43.8	51.86	83.23	102.7	137.6	156.2	164.9	153	1216.5
2007-2008	122.9	97.82	61.66	43.73	44.08	50.26	88.1	107	135	155.1	163.6	152.7	1222.0
2008-2009	123.6	96.7	68.39	48.48	49.65	52.04	82.37	104.6	135	156.1	164.3	153.3	1234.5
2009-2010	123.4	100.9	64.74	50.31	52.13	55.79	89.25	108.5	138.7	152.2	160.9	154.4	1251.2
2010-2011	125.9	98.39	67.21	53.17	49.94	53.72	84.39	104	134.3	152.4	162.2	151.8	1237.4
2011-2012	124.3	95.13	58.69	46.4	46.08	51.4	81.19	104.8	134.9	153.5	164.9	153.3	1214.6
2012-2013	123.8	98.19	67.12	49.27	48.18	55.29	86.82	106.6	139.2	153.4	161.8	152.1	1241.7
2013-2014	123.1	93.46	67.34	45.53	51.89	54.2	88.16	107	135.3	152.9	161.3	151.1	1231.2
2014-2015	124.3	95.71	62.8	52.57	47.03	53.15	86.99	103.2	136.2	150.7	161.5	153.1	1227.3
AVERAGE	122.6	95.4	61.5	45.6	45.8	50.6	83.1	104.3	135.5	153.2	162.6	151.3	

**Table A. 66** Gaziveren station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	92.4	67.1	36.1	29.5	28.0	33.6	49.2	69.6	102.2	148.9	164.9	137.3	958.7
1979-1980	101.8	67.6	42.2	26.8	24.3	28.5	43.6	63.7	100.4	141.7	161.6	151.5	953.8
1980-1981	94.0	66.5	39.9	28.5	25.8	28.7	48.1	67.3	91.6	143.0	164.1	144.2	941.6
1981-1982	90.0	70.3	34.7	30.0	27.5	27.3	42.2	69.2	102.6	136.7	155.4	145.0	930.9
1982-1983	103.1	67.8	34.3	26.5	23.2	27.0	43.1	66.7	107.5	131.5	160.3	137.9	928.9
1983-1984	93.4	72.6	46.6	32.4	27.9	31.4	46.4	64.3	104.3	135.8	161.9	138.3	955.4
1984-1985	98.1	65.4	35.5	25.5	27.7	26.7	45.3	70.2	117.2	143.7	168.8	153.2	977.3
1985-1986	102.6	59.5	40.7	27.8	26.8	32.3	49.4	80.1	102.0	144.7	163.7	145.8	975.2
1986-1987	107.6	64.3	32.9	26.4	27.7	32.2	39.6	64.2	99.0	142.0	176.2	150.2	962.4
1987-1988	103.4	61.4	36.0	26.9	26.0	29.4	44.6	70.1	113.2	149.1	189.0	153.7	1003.0
1988-1989	105.5	63.1	32.4	26.0	21.9	27.4	47.0	78.3	112.9	139.4	172.2	148.4	974.6
1989-1990	97.0	58.9	38.1	27.7	23.4	28.7	45.7	68.6	102.1	138.4	166.8	144.2	939.7
1990-1991	96.6	65.6	39.7	28.4	25.5	29.0	49.8	72.1	99.2	140.3	156.2	142.1	944.5
1991-1992	96.1	66.7	37.1	24.8	23.2	24.1	40.4	63.5	100.1	134.1	154.8	151.5	916.5
1992-1993	92.2	64.4	37.3	22.8	24.2	26.5	43.0	64.7	95.2	145.5	165.2	144.2	925.2
1993-1994	90.1	69.8	34.4	27.9	28.5	29.9	44.9	73.9	109.1	141.9	163.8	154.9	969.4
1994-1995	109.3	72.6	35.4	25.2	27.2	30.1	48.1	66.2	105.8	157.0	172.9	148.3	998.2
1995-1996	98.5	61.4	31.6	25.0	24.1	30.4	44.5	63.4	117.9	150.5	172.8	138.2	958.2
1996-1997	98.5	59.0	39.3	29.7	27.4	27.5	42.9	62.2	109.8	151.3	184.4	142.4	974.3
1997-1998	96.0	63.5	38.1	27.9	25.6	29.4	43.8	73.5	105.1	145.2	186.1	169.8	1004.0
1998-1999	104.2	70.6	41.9	29.1	27.7	30.2	46.5	68.1	115.6	155.3	179.5	156.9	1025.5
1999-2000	102.4	68.5	37.9	29.7	22.5	27.7	43.4	71.2	106.5	157.2	187.6	152.6	1007.3
2000-2001	102.4	62.9	38.6	27.4	27.2	30.2	54.0	72.8	114.3	145.0	174.9	153.8	1003.3
2001-2002	101.1	65.8	36.3	27.0	23.5	32.0	49.7	66.4	103.1	146.4	179.2	149.0	979.5
2002-2003	97.8	66.4	40.1	25.7	28.7	27.5	41.6	66.5	125.2	154.8	185.1	162.1	1021.3
2003-2004	101.5	68.3	38.5	27.8	25.3	29.9	48.9	69.0	105.1	148.1	175.5	147.2	985.0
2004-2005	100.0	71.3	37.9	25.7	26.8	28.4	48.9	72.9	109.1	143.5	174.9	153.9	993.2
2005-2006	103.7	61.7	35.0	28.3	25.4	30.0	47.6	73.5	109.9	149.3	176.3	158.2	999.0
2006-2007	109.9	67.9	34.9	25.4	19.5	24.0	35.0	46.6	87.3	108.5	125.1	115.5	799.6
2007-2008	72.5	52.4	30.6	21.3	23.7	28.0	56.0	74.8	107.5	159.6	182.8	165.6	974.9
2008-2009	105.2	65.9	42.1	28.5	28.1	30.7	45.1	68.8	104.3	153.8	182.2	154.6	1009.1
2009-2010	100.3	71.9	37.9	29.9	28.8	32.5	49.8	71.5	108.8	144.2	166.7	169.4	1011.5
2010-2011	108.4	69.2	42.7	31.4	27.3	30.2	46.7	68.0	104.7	148.3	175.5	154.4	1006.8
2011-2012	106.7	62.7	32.8	26.4	25.0	27.6	43.1	68.2	106.3	152.1	189.2	163.3	1003.3
2012-2013	103.6	69.1	40.9	28.8	26.4	32.3	49.5	72.8	118.7	147.4	171.2	156.4	1017.1
2013-2014	101.4	59.2	41.2	25.7	29.2	32.3	51.6	72.9	109.4	146.7	170.6	159.2	999.3
2014-2015	105.3	65.2	37.1	30.7	25.9	29.3	49.6	64.7	109.1	136.5	170.2	161.9	985.5
AVERAGE	99.8	65.6	37.5	27.4	25.9	29.3	46.2	68.7	106.5	144.8	171.0	150.7	

**Table A. 67** Gaziveren station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	104.5	75.1	35.6	26.0	20.5	28.6	35.3	57.8	84.2	149.3	156.0	131.4	904.3
1979-1980	124.3	79.1	49.9	21.4	14.3	18.7	27.2	50.4	85.4	146.2	158.9	153.4	929.3
1980-1981	113.2	78.2	45.8	25.3	17.3	19.4	35.3	57.2	74.0	150.0	163.9	146.9	926.6
1981-1982	109.8	87.4	35.6	29.4	21.3	16.9	26.0	62.4	92.1	145.2	158.0	151.9	935.8
1982-1983	136.7	85.8	35.9	22.4	13.0	16.9	28.6	60.1	102.6	142.8	170.0	148.4	963.3
1983-1984	103.0	81.6	54.8	31.0	19.7	23.2	29.8	47.6	84.3	128.0	148.1	128.6	879.6
1984-1985	115.1	73.3	34.9	18.2	20.2	14.5	29.2	59.7	105.0	144.7	162.8	151.1	928.9
1985-1986	116.4	60.2	43.4	21.8	17.7	25.0	34.5	72.6	81.3	139.2	149.8	136.6	898.5
1986-1987	134.0	73.8	30.6	20.6	21.0	26.8	20.6	51.4	83.8	147.3	176.6	152.6	939.0
1987-1988	118.1	63.6	34.5	20.2	16.4	19.2	26.9	57.1	95.7	145.3	177.0	145.4	919.4
1988-1989	129.6	71.1	29.3	19.8	9.8	16.3	32.9	75.1	101.9	142.5	170.6	149.4	948.3
1989-1990	122.4	66.8	43.3	24.3	13.1	20.0	32.3	61.7	91.9	148.5	172.8	151.8	949.0
1990-1991	115.5	75.3	44.5	24.6	16.5	19.7	37.7	64.5	83.3	143.5	151.8	141.9	918.7
1991-1992	131.2	88.0	44.5	19.6	13.7	11.4	24.9	57.1	96.3	154.5	171.3	173.6	986.2
1992-1993	121.9	82.2	44.2	14.8	15.6	16.3	29.3	58.4	87.2	169.8	182.3	161.7	983.6
1993-1994	101.4	79.8	32.3	22.9	21.5	20.8	28.4	65.1	93.5	140.7	155.3	151.3	913.3
1994-1995	124.7	80.6	32.7	16.6	18.3	20.3	32.1	50.0	85.2	153.0	157.9	137.8	909.3
1995-1996	124.1	71.2	28.8	18.5	14.4	23.7	29.9	51.9	113.4	165.0	179.0	143.7	963.6
1996-1997	116.1	62.4	42.7	27.0	19.7	16.2	25.4	46.5	95.7	155.4	180.4	139.6	927.2
1997-1998	106.2	66.5	38.3	21.9	15.4	19.1	25.4	61.9	84.8	139.2	172.6	160.6	911.9
1998-1999	108.5	71.7	41.8	22.4	17.8	19.0	27.4	48.9	90.0	139.3	152.6	136.1	875.4
1999-2000	115.1	74.4	37.7	25.5	10.1	15.6	24.7	58.0	86.3	153.7	173.6	142.7	917.3
2000-2001	111.3	63.2	37.8	20.2	17.7	19.9	40.3	58.6	92.8	133.8	155.4	139.4	890.5
2001-2002	118.0	72.9	36.0	21.0	12.1	25.2	36.1	52.6	85.3	146.1	171.7	144.4	921.4
2002-2003	105.5	69.1	40.9	17.1	20.5	14.8	21.3	49.2	106.2	146.6	166.4	148.5	906.0
2003-2004	115.3	74.9	39.3	22.0	15.1	20.1	33.9	55.3	85.6	144.1	163.1	138.7	907.4
2004-2005	111.6	78.8	37.6	17.8	17.5	17.0	33.4	60.8	89.5	136.5	160.5	144.0	905.0
2005-2006	117.5	63.6	32.2	22.8	15.2	20.2	31.6	61.9	90.9	144.4	162.6	149.0	911.9
2006-2007	211.5	122.2	52.9	28.3	8.8	15.3	20.5	34.1	102.7	153.1	174.7	167.3	1091.4
2007-2008	80.3	55.3	27.1	11.0	13.9	18.8	51.9	73.8	100.9	181.3	194.4	179.2	987.9
2008-2009	114.0	67.2	43.8	22.0	19.2	20.5	26.2	51.8	80.0	142.9	161.0	138.8	887.4
2009-2010	104.4	74.3	35.1	24.1	19.9	23.3	32.5	54.4	83.2	127.8	141.5	149.1	869.6
2010-2011	116.5	71.1	44.3	27.1	17.5	19.2	28.2	49.8	79.2	134.1	151.8	136.4	875.2
2011-2012	126.3	67.6	28.8	19.8	15.0	16.0	25.2	55.6	89.5	153.4	182.3	159.7	939.1
2012-2013	108.2	69.9	40.3	22.0	15.6	22.9	31.9	56.0	94.0	130.9	145.2	136.2	873.2
2013-2014	110.2	57.6	42.7	17.1	21.4	23.9	36.7	58.9	87.2	136.3	151.4	145.2	888.5
2014-2015	120.3	69.6	36.4	27.6	16.1	18.9	34.8	48.2	90.2	128.6	156.8	153.3	900.8
AVERAGE	117.9	73.7	38.8	22.0	16.6	19.6	30.5	56.7	90.7	145.5	164.3	147.7	

**Table A. 68** Gaziveren station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	171.4	168.1	138.1	135	127.7	120	136	143.2	161.7	178.8	191.9	188.5	1860.4
1979-1980	178	168.5	148.8	128.2	117.9	109.4	127.6	137.2	160.5	175.5	190.5	195.4	1837.6
1980-1981	172.5	167.4	145.1	132.6	122	109.9	134.3	141	154	176.1	191.6	192	1838.4
1981-1982	169.6	171.3	135.4	136.2	126.6	106.7	125.3	142.8	162.1	173	187.7	192.3	1829.1
1982-1983	178.9	168.7	134.7	127.4	114.5	106	126.8	140.4	165.3	170.4	189.9	188.8	1811.9
1983-1984	172.1	173.6	155.5	141.6	127.4	115.7	131.9	137.9	163.2	172.6	190.6	189	1871.1
1984-1985	175.5	166.2	137	124.7	127	105.3	130.2	143.8	171.4	176.4	193.5	196.2	1847.2
1985-1986	178.5	159.5	146.3	130.7	124.6	117.5	136.2	152.8	161.6	176.9	191.4	192.7	1868.9
1986-1987	181.8	165	131.9	127.1	127.1	117.1	120.7	137.7	159.6	175.6	196.6	194.8	1835.1
1987-1988	179.1	161.8	138	128.5	122.6	111.5	129.1	143.7	169	178.9	201.5	196.4	1860.2
1988-1989	180.4	163.7	130.9	126.2	110.6	106.8	132.8	151.3	168.8	174.4	195	193.9	1834.7
1989-1990	174.7	158.8	141.8	130.5	115.2	109.8	130.8	142.3	161.7	173.8	192.7	192	1824.1
1990-1991	174.4	166.4	144.6	132.3	121.2	110.6	136.9	145.7	159.7	174.8	188.1	190.9	1845.6
1991-1992	174.2	167.5	140.1	122.8	114.5	98.83	122.3	137	160.3	171.7	187.5	195.4	1792.0
1992-1993	171.2	165.2	140.4	116.8	117.5	104.7	126.5	138.3	156.8	177.3	192.1	191.9	1798.6
1993-1994	169.7	170.8	135	131.2	128.9	112.5	129.6	147.3	166.4	175.6	191.5	197	1855.4
1994-1995	182.8	173.5	136.8	123.8	125.8	113	134.4	139.8	164.2	182.5	195.3	193.9	1865.9
1995-1996	175.7	161.8	129.1	123.4	117.3	113.5	128.9	136.9	171.8	179.5	195.2	189	1822.1
1996-1997	175.8	158.9	143.9	135.6	126.2	107.2	126.4	135.6	166.8	180	199.8	191.1	1847.0
1997-1998	174.1	164.2	141.9	130.9	121.3	111.5	127.9	146.9	163.7	177.1	200.4	203.5	1863.5
1998-1999	179.5	171.6	148.2	134	126.9	113.2	132	141.8	170.4	181.7	197.9	197.9	1895.2
1999-2000	178.3	169.5	141.4	135.6	112.5	107.6	127.1	144.8	164.6	182.5	201	196	1861.0
2000-2001	178.3	163.4	142.7	129.7	125.7	113.2	142.5	146.3	169.6	177	196.1	196.5	1881.1
2001-2002	177.5	166.7	138.6	128.8	115.3	116.8	136.7	140	162.4	177.6	197.8	194.3	1852.5
2002-2003	175.2	167.3	145.3	125.2	129.5	107.1	124.2	140.1	176	181.5	200.1	200.2	1871.6
2003-2004	177.8	169.2	142.5	130.8	120.7	112.4	135.5	142.6	163.8	178.4	196.3	193.4	1863.5
2004-2005	176.8	172.3	141.4	125.4	124.5	109.3	135.5	146.4	166.3	176.3	196.1	196.5	1866.8
2005-2006	179.2	162.1	136	132.2	121	112.7	133.7	146.9	166.9	179	196.6	198.5	1864.9
2006-2007	183.2	168.9	135.9	124.6	102.3	98.5	112.2	115.9	150.7	157.3	172.5	176.4	1698.2
2007-2008	154.9	150.7	126.9	112.1	116.2	108.2	145.1	148.1	165.3	183.6	199.2	201.7	1812.0
2008-2009	180.2	166.7	148.5	132.5	128	114.1	129.8	142.4	163.2	181	199	196.9	1882.4
2009-2010	177	172.9	141.4	135.9	129.8	117.7	136.9	145.1	166.1	176.7	192.7	203.3	1895.3
2010-2011	182.3	170.2	149.5	139.4	126	113.1	132.4	141.7	163.5	178.5	196.3	196.8	1889.5
2011-2012	181.2	163.2	131.6	127.3	119.8	107.4	126.6	141.9	164.5	180.3	201.6	200.7	1846.1
2012-2013	179.1	170.1	146.6	133.4	123.5	117.4	136.4	146.3	172.3	178.1	194.6	197.6	1895.4
2013-2014	177.7	159.2	147.1	125.2	130.7	117.3	139.4	146.4	166.6	177.8	194.3	198.9	1880.5
2014-2015	180.3	166	140	137.8	122.3	111.2	136.5	138.3	166.4	172.9	194.2	200	1865.8
AVERAGE	176.5	166.2	140.5	129.6	121.9	110.9	131.3	142.1	164.5	176.8	194.3	194.9	

**Table A. 69** Gaziveren station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	131.9	62.22	46.6	43.22	42.09	42.97	53.54	116.7	141.4	161.9	170.9	157.9	1171.2
1979-1980	137	62.4	50.17	41.07	38.87	39.2	50.23	111.8	140.3	158.8	169.6	163.7	1163.2
1980-1981	132.8	61.97	48.92	42.45	40.21	39.36	52.91	114.8	134.6	159.4	170.5	160.8	1158.8
1981-1982	130.5	63.44	45.68	43.62	41.73	38.2	49.34	116.4	141.7	156.6	167.1	161.1	1155.4
1982-1983	137.7	62.48	45.41	40.8	37.72	37.98	49.92	114.3	144.5	154.2	169.1	158.1	1152.3
1983-1984	132.5	64.28	52.46	45.36	41.99	41.42	51.95	112.3	142.6	156.2	169.7	158.3	1169.1
1984-1985	135.1	61.55	46.23	39.92	41.85	37.69	51.26	117.2	149.8	159.7	172.3	164.3	1176.9
1985-1986	137.4	59.08	49.33	41.86	41.07	42.06	53.65	124.5	141.3	160.1	170.4	161.4	1182.1
1986-1987	139.9	61.11	44.49	40.69	41.9	41.96	47.55	112.2	139.4	158.9	175	163.2	1166.4
1987-1988	137.8	59.9	46.55	41.15	40.42	39.94	50.85	117.1	147.7	161.9	179.4	164.5	1187.3
1988-1989	138.9	60.63	44.13	40.41	36.44	38.26	52.29	123.3	147.5	157.8	173.6	162.5	1175.6
1989-1990	134.5	58.82	47.83	41.78	37.96	39.33	51.53	115.9	141.4	157.3	171.6	160.8	1158.7
1990-1991	134.3	61.63	48.79	42.34	39.96	39.6	53.89	118.7	139.6	158.2	167.4	159.9	1164.3
1991-1992	134	62.05	47.24	39.32	37.73	35.39	48.13	111.7	140.1	155.4	166.9	163.7	1141.6
1992-1993	131.8	61.16	47.34	37.39	38.71	37.51	49.83	112.7	137	160.4	171	160.8	1145.6
1993-1994	130.6	63.26	45.51	42	42.49	40.29	51.05	120	145.4	158.9	170.4	165	1175.0
1994-1995	140.7	64.28	46.14	39.66	41.47	40.46	52.93	113.9	143.5	165.1	173.8	162.4	1184.5
1995-1996	135.3	59.92	43.53	39.53	38.65	40.64	50.78	111.5	150.2	162.5	173.8	158.3	1164.5
1996-1997	135.3	58.85	48.53	43.41	41.6	38.37	49.78	110.5	145.8	162.8	177.8	160	1172.8
1997-1998	133.9	60.77	47.85	41.95	39.99	39.94	50.35	119.7	143.1	160.3	178.4	170.4	1186.8
1998-1999	138.2	63.53	49.98	42.93	41.85	40.55	52.02	115.5	148.9	164.4	176.2	165.8	1199.9
1999-2000	137.3	62.77	47.71	43.41	37.07	38.54	50.07	118	143.9	165.2	178.9	164.1	1187.0
2000-2001	137.3	60.53	48.12	41.54	41.43	40.53	56.12	119.2	148.3	160.2	174.5	164.6	1192.4
2001-2002	136.6	61.72	46.74	41.24	38.01	41.84	53.82	114.1	141.9	160.8	176.1	162.7	1175.6
2002-2003	134.9	61.93	49.02	40.09	42.69	38.34	48.91	114.1	153.9	164.3	178.1	167.7	1193.9
2003-2004	136.9	62.66	48.06	41.89	39.79	40.26	53.39	116.2	143.1	161.5	174.7	162	1180.5
2004-2005	136.1	63.81	47.68	40.16	41.06	39.13	53.37	119.3	145.4	159.6	174.5	164.6	1184.7
2005-2006	138	60.01	45.88	42.33	39.89	40.38	52.67	119.7	145.9	162	175	166.2	1188.0
2006-2007	141	62.53	45.83	39.89	33.72	35.3	44.15	94.44	131.7	142.3	153.5	147.7	1072.1
2007-2008	119.2	55.78	42.81	35.89	38.28	38.78	57.15	120.7	144.5	166.1	177.3	168.9	1165.5
2008-2009	138.7	61.74	50.1	42.42	42.21	40.87	51.14	116	142.6	163.8	177.1	164.9	1191.7
2009-2010	136.2	64	47.69	43.54	42.8	42.15	53.9	118.2	145.2	159.9	171.5	170.3	1195.4
2010-2011	140.3	63.02	50.45	44.63	41.53	40.49	52.12	115.4	142.9	161.6	174.7	164.8	1192.0
2011-2012	139.5	60.45	44.37	40.76	39.5	38.44	49.87	115.6	143.8	163.1	179.5	168.1	1183.0
2012-2013	137.9	63	49.46	42.72	40.72	42.04	53.72	119.2	150.6	161.2	173.2	165.5	1199.3
2013-2014	136.8	58.96	49.61	40.09	43.1	42.01	54.9	119.3	145.5	160.9	173	166.6	1190.8
2014-2015	138.8	61.47	47.22	44.13	40.31	39.83	53.77	112.7	145.4	156.5	172.8	167.6	1180.5
AVERAGE	135.8	61.6	47.4	41.5	40.2	39.7	51.7	115.8	143.8	160.0	173.0	163.2	

**Table A. 70** Gaziveren station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	111.4	89.1	53.92	42.7	42.42	49.68	78.35	97.65	125.5	145.4	151.9	138.7	1126.6
1979-1980	115.1	89.38	59.89	38.94	36.91	43.76	73.64	94.29	124.8	143.4	151.1	142.5	1113.8
1980-1981	112	88.72	57.81	41.36	39.18	44.01	77.45	96.4	121.2	143.8	151.7	140.6	1114.3
1981-1982	110.4	90.91	52.4	43.42	41.78	42.22	72.36	97.42	125.7	142.1	149.5	140.8	1109.0
1982-1983	115.6	89.49	52	38.48	34.96	41.85	73.23	96.04	127.5	140.6	150.8	138.8	1099.3
1983-1984	111.8	92.21	63.69	46.46	42.22	47.27	76.1	94.64	126.3	141.8	151.2	138.9	1132.6
1984-1985	113.7	88.07	53.3	36.92	41.99	41.41	75.1	97.99	130.9	144	152.8	143	1119.2
1985-1986	115.4	84.32	58.48	40.34	40.66	48.27	78.49	103.1	125.4	144.3	151.6	141	1131.4
1986-1987	117.2	87.4	50.42	38.27	42.07	48.08	69.8	94.56	124.3	143.5	154.5	142.2	1112.4
1987-1988	115.7	85.57	53.85	39.09	39.56	44.94	74.51	97.95	129.6	145.4	157.3	143.1	1126.5
1988-1989	116.5	86.66	49.84	37.8	32.79	42.28	76.56	102.2	129.5	142.8	153.6	141.7	1112.2
1989-1990	113.3	83.93	55.98	40.18	35.36	43.99	75.48	97.14	125.5	142.5	152.3	140.6	1106.2
1990-1991	113.1	88.18	57.57	41.2	38.77	44.4	78.86	99.02	124.3	143.1	149.8	140	1118.3
1991-1992	112.9	88.81	55.01	35.86	34.96	37.8	70.66	94.19	124.7	141.3	149.4	142.5	1088.2
1992-1993	111.3	87.48	55.2	32.5	36.65	41.11	73.07	94.88	122.7	144.5	152	140.6	1091.9
1993-1994	110.4	90.65	52.13	40.58	43.09	45.48	74.81	99.96	128.1	143.5	151.6	143.4	1123.8
1994-1995	117.8	92.17	53.17	36.46	41.33	45.75	77.48	95.76	126.9	147.4	153.8	141.7	1129.7
1995-1996	113.8	85.59	48.83	36.22	36.55	46.02	74.42	94.09	131.2	145.7	153.7	138.9	1105.1
1996-1997	113.8	83.96	57.16	43.07	41.54	42.49	72.98	93.37	128.3	146	156.3	140.1	1119.1
1997-1998	112.9	86.92	56.05	40.45	38.82	44.93	73.83	99.73	126.6	144.4	156.7	147.1	1128.4
1998-1999	116	91.08	59.56	42.18	41.97	45.85	76.16	96.85	130.4	147	155.3	143.9	1146.2
1999-2000	115.3	89.93	55.76	43.06	33.88	42.75	73.39	98.52	127.1	147.4	157	142.8	1126.9
2000-2001	115.3	86.5	56.48	39.76	41.26	45.86	82.05	99.4	129.9	144.3	154.2	143.1	1138.2
2001-2002	114.8	88.33	54.17	39.23	35.44	47.91	78.75	95.85	125.9	144.7	155.2	141.9	1122.2
2002-2003	113.5	88.66	57.95	37.24	43.44	42.42	71.74	95.89	133.5	146.8	156.5	145.2	1132.9
2003-2004	115	89.75	56.36	40.38	38.47	45.43	78.1	97.33	126.6	145.1	154.3	141.4	1128.3
2004-2005	114.4	91.49	55.74	37.32	40.63	43.67	78.11	99.45	128.1	143.9	154.2	143.1	1130.2
2005-2006	115.8	85.74	52.74	41.15	38.64	45.61	77.09	99.73	128.4	145.4	154.5	144.3	1129.1
2006-2007	118	89.57	52.65	36.88	28.15	37.62	64.99	82.31	119.3	133.2	141	131.8	1035.5
2007-2008	102.1	79.34	47.63	29.85	35.93	43.09	83.51	100.4	127.5	148	156	146.1	1099.4
2008-2009	116.3	88.36	59.76	41.32	42.58	46.36	74.92	97.2	126.3	146.6	155.9	143.3	1138.9
2009-2010	114.5	91.79	55.76	43.26	43.59	48.4	78.86	98.69	128	144.1	152.3	146.9	1146.2
2010-2011	117.5	90.29	60.32	45.18	41.43	45.81	76.33	96.78	126.5	145.2	154.4	143.3	1143.0
2011-2012	116.9	86.4	50.23	38.42	37.97	42.61	73.11	96.9	127.1	146.2	157.3	145.5	1118.6
2012-2013	115.7	90.25	58.68	41.83	40.04	48.22	78.59	99.38	131.4	145	153.4	143.8	1146.3
2013-2014	114.9	84.15	58.96	37.2	44.08	48.18	80.3	99.42	128.2	144.8	153.2	144.5	1137.9
2014-2015	116.4	87.92	54.98	44.29	39.35	44.77	78.66	94.9	128.1	142	153.2	145.1	1129.7
AVERAGE	114.2	88.1	55.3	39.7	39.1	44.6	75.7	97.0	127.1	144.2	153.2	142.2	

**Table A. 71** Gecitkale station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	111.3	77.7	37.7	31.3	28.3	35.5	54.6	77.7	123.6	180.9	212.2	168.4	1139.4
1979-1980	123.3	77.2	45.8	29.1	26.2	30.3	49.0	73.2	119.0	171.1	200.2	182.8	1127.1
1980-1981	112.3	76.8	46.0	30.4	28.0	31.8	54.3	78.2	109.4	176.5	207.2	181.7	1132.4
1981-1982	124.3	84.9	38.3	32.2	29.6	28.8	45.1	77.7	122.9	170.2	190.4	178.2	1122.7
1982-1983	127.0	78.4	38.3	27.8	25.4	29.5	47.6	75.7	125.4	159.8	196.3	170.4	1101.7
1983-1984	116.3	72.4	45.9	32.1	28.5	33.7	52.5	72.4	141.3	164.6	187.8	141.9	1089.5
1984-1985	109.4	75.7	38.1	25.9	28.9	26.8	46.3	73.5	113.1	150.0	189.5	169.0	1046.1
1985-1986	113.7	71.2	45.1	31.0	30.5	33.8	53.4	86.4	103.2	158.8	183.6	162.3	1073.0
1986-1987	113.4	65.2	33.1	25.2	26.9	33.3	39.9	65.3	105.6	155.7	191.4	164.3	1019.3
1987-1988	113.2	64.3	35.6	27.3	25.7	29.3	43.8	69.1	115.1	158.6	205.6	171.9	1059.8
1988-1989	109.7	65.2	33.3	26.5	23.6	32.4	49.3	79.9	122.0	135.0	184.8	162.0	1023.6
1989-1990	105.6	62.1	40.1	28.4	25.5	31.5	50.2	73.1	113.7	156.9	174.5	160.1	1021.8
1990-1991	110.7	73.2	38.7	27.1	24.5	28.4	48.5	71.8	102.6	143.9	166.1	147.6	983.2
1991-1992	99.9	65.6	35.9	23.5	21.2	22.6	37.3	53.3	89.4	133.5	148.8	146.6	877.6
1992-1993	93.6	67.3	35.8	22.3	21.8	24.3	39.2	60.1	88.4	136.5	170.0	149.1	908.5
1993-1994	96.3	72.2	38.2	30.6	30.9	30.3	49.2	76.3	112.9	165.2	168.0	174.6	1044.6
1994-1995	125.7	86.9	39.7	25.7	27.8	32.8	49.1	71.1	122.5	175.5	207.0	164.3	1128.1
1995-1996	117.1	70.6	34.8	27.8	27.3	31.9	45.8	68.7	128.1	176.7	204.1	173.8	1106.7
1996-1997	111.2	63.2	44.9	29.9	27.4	26.7	42.0	59.0	119.3	162.3	193.0	145.9	1024.8
1997-1998	98.7	67.2	39.7	28.3	26.7	33.1	47.5	77.2	114.0	167.9	212.4	192.9	1105.7
1998-1999	120.3	79.0	45.3	30.6	29.5	31.3	50.4	73.5	130.5	162.6	198.7	173.2	1125.0
1999-2000	111.8	71.4	39.8	30.2	23.6	29.6	43.7	77.2	130.1	191.5	221.1	173.4	1143.5
2000-2001	110.5	66.5	39.3	27.3	26.0	29.8	52.4	70.9	115.8	162.9	191.7	170.5	1063.7
2001-2002	107.2	67.8	36.8	25.5	22.8	32.7	48.7	67.6	109.8	175.1	217.4	176.2	1087.7
2002-2003	104.8	69.1	39.4	24.8	31.8	29.0	45.3	68.0	148.5	183.9	225.4	203.5	1173.5
2003-2004	120.5	80.8	46.1	31.9	23.9	27.2	52.2	75.8	121.4	176.6	216.5	182.2	1155.1
2004-2005	116.4	82.3	43.9	28.8	29.0	29.4	51.8	83.6	129.8	171.4	217.4	181.3	1165.2
2005-2006	120.4	68.5	39.0	31.9	28.1	32.8	50.3	83.1	136.6	185.4	219.1	195.8	1190.9
2006-2007	126.4	76.7	38.9	29.1	28.9	35.1	48.8	70.8	125.3	176.3	209.9	180.4	1146.6
2007-2008	113.6	78.0	41.8	27.9	22.8	28.0	54.6	77.1	115.6	177.7	200.2	182.6	1119.9
2008-2009	107.0	65.1	39.6	25.6	27.2	30.3	45.2	72.3	116.6	181.3	207.3	173.1	1090.5
2009-2010	105.8	73.6	37.2	29.5	27.7	31.7	49.4	73.7	118.7	156.3	186.0	188.0	1077.5
2010-2011	115.7	72.6	40.6	30.9	27.2	29.7	45.2	67.6	110.4	160.5	195.4	171.4	1067.4
2011-2012	112.0	64.2	32.6	25.7	24.5	26.1	41.8	70.7	112.5	165.8	209.6	179.6	1065.2
2012-2013	111.6	70.6	41.9	28.3	25.7	31.3	49.6	76.3	127.8	162.6	193.9	175.1	1094.8
2013-2014	106.9	62.4	42.1	25.5	28.6	31.1	52.8	76.1	114.4	168.0	191.4	173.1	1072.4
2014-2015	110.2	65.7	35.8	29.7	24.4	28.4	48.9	66.6	116.6	149.1	189.2	178.8	1043.2
AVERAGE	112.3	71.7	39.6	28.3	26.7	30.3	48.0	72.7	118.2	165.0	196.9	172.1	

**Table A. 72** Gecitkale station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	132.4	88.7	33.0	24.3	16.1	25.0	33.7	58.0	86.2	148.0	168.0	144.1	957.5
1979-1980	158.8	91.0	52.4	20.6	13.0	16.2	27.0	53.2	84.3	143.0	163.0	163.5	986.1
1980-1981	135.0	87.6	51.1	22.7	15.6	18.3	33.5	59.1	72.2	144.5	164.7	157.9	962.1
1981-1982	160.1	105.1	35.4	27.0	19.0	13.5	21.7	60.1	88.3	141.8	153.6	158.6	984.1
1982-1983	177.5	100.1	38.3	19.5	12.4	15.9	26.7	61.2	96.8	139.8	169.7	161.0	1018.7
1983-1984	149.9	83.9	53.6	27.4	17.4	22.9	32.5	53.2	109.2	139.0	154.6	123.6	967.2
1984-1985	163.0	106.8	42.7	17.5	21.2	12.6	27.7	64.8	92.4	143.5	181.6	177.8	1051.5
1985-1986	148.2	83.1	53.0	25.7	21.5	23.6	34.5	76.9	70.0	135.2	153.3	148.3	973.3
1986-1987	190.2	91.6	33.0	17.6	18.8	28.9	19.5	54.8	90.6	165.3	201.0	188.5	1099.8
1987-1988	174.2	82.1	36.6	21.2	14.9	17.7	24.1	57.6	96.3	156.9	202.0	184.0	1067.7
1988-1989	173.9	87.7	32.3	20.0	11.2	25.5	34.5	81.3	109.1	130.8	186.1	178.7	1071.0
1989-1990	160.4	78.4	49.9	24.1	14.8	22.9	35.4	66.2	96.1	157.5	170.1	172.4	1048.1
1990-1991	187.6	114.1	50.0	23.0	13.9	17.5	35.0	69.2	88.0	151.3	172.8	168.6	1091.1
1991-1992	238.2	139.1	61.9	20.6	10.6	9.1	22.3	47.5	96.8	193.4	211.9	237.1	1288.5
1992-1993	197.3	133.7	56.5	15.3	11.4	12.3	24.5	61.2	88.0	184.9	232.9	224.3	1242.4
1993-1994	129.0	94.9	41.3	27.6	24.8	18.7	31.4	67.3	89.0	157.2	151.9	178.1	1011.0
1994-1995	164.0	109.7	38.9	14.1	15.8	20.9	27.3	50.3	88.5	148.4	170.0	145.6	993.5
1995-1996	162.1	85.9	30.7	19.9	16.2	20.8	24.6	50.6	101.5	161.5	180.4	167.6	1022.0
1996-1997	176.2	82.5	64.2	28.3	19.0	13.0	22.0	40.4	104.9	167.0	194.4	156.3	1068.4
1997-1998	125.1	78.4	42.1	20.7	15.0	23.2	26.9	64.4	85.1	150.7	187.3	186.9	1005.8
1998-1999	149.0	91.6	49.7	23.1	18.3	17.6	28.2	52.2	93.8	130.6	157.5	149.9	961.7
1999-2000	142.8	82.6	40.1	23.6	9.1	15.4	20.4	61.2	98.4	168.4	186.5	158.4	1007.1
2000-2001	159.5	82.8	44.2	19.9	14.7	17.9	36.7	57.9	92.8	154.9	178.3	174.0	1033.5
2001-2002	153.5	86.1	38.1	16.1	8.9	24.0	30.8	52.2	86.0	170.5	205.9	181.5	1053.7
2002-2003	125.1	75.3	37.7	12.3	23.0	13.8	21.8	44.9	113.7	155.3	184.2	182.3	989.5
2003-2004	147.2	93.7	50.7	25.3	8.9	10.5	30.2	54.8	83.7	142.9	170.8	156.7	975.4
2004-2005	135.4	93.0	44.4	18.5	16.5	13.5	28.8	64.2	89.2	133.5	166.3	151.0	954.4
2005-2006	139.1	67.5	33.5	23.9	14.7	18.9	26.3	62.2	94.0	144.2	164.6	161.1	949.9
2006-2007	158.7	87.1	35.7	20.0	17.0	24.3	25.9	48.0	88.2	144.0	166.6	156.4	972.1
2007-2008	148.3	96.8	45.3	19.1	7.9	12.9	36.4	61.9	83.9	156.0	169.6	169.9	1008.0
2008-2009	149.0	78.0	44.0	15.9	16.8	18.5	24.7	59.2	92.1	173.7	191.1	173.8	1036.7
2009-2010	142.5	93.8	37.1	23.9	17.2	20.9	30.3	60.0	92.4	140.5	165.0	185.7	1009.3
2010-2011	166.2	93.9	46.5	27.8	16.6	17.3	24.6	50.8	84.4	148.6	178.3	171.2	1026.3
2011-2012	178.2	84.9	30.3	18.0	12.9	11.8	21.7	62.7	96.1	171.9	213.4	200.0	1101.9
2012-2013	149.0	84.5	47.0	20.5	13.0	19.4	29.8	62.4	99.8	143.4	167.9	166.6	1003.1
2013-2014	147.6	71.6	50.0	15.5	19.4	20.0	36.3	65.4	88.9	157.0	173.5	172.5	1017.8
2014-2015	169.9	86.4	37.8	27.2	12.4	16.1	32.9	53.5	99.3	146.3	186.3	194.7	1062.7
AVERAGE	158.5	91.2	43.5	21.3	15.4	18.1	28.4	58.7	92.2	152.5	178.2	171.0	

**Table A. 73** Gecitkale station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	184.4	178.8	141.4	139.5	128.8	123.7	143.6	151.1	175.5	192.5	210.1	203.3	1972.7
1979-1980	191.4	178.2	154.7	134.2	123.4	113.5	135.9	147	172.8	188.7	206	209	1954.7
1980-1981	185	177.9	154.9	137.4	128	116.7	143.2	151.4	166.9	190.8	208.4	208.6	1969.1
1981-1982	191.9	184.9	142.4	141.4	132	110.3	130.2	151.1	175.1	188.3	202.4	207.3	1957.3
1982-1983	193.5	179.3	142.6	131.2	121	111.8	133.8	149.3	176.5	184	204.6	204.2	1931.7
1983-1984	187.4	173.8	154.8	141.1	129.3	120.3	140.8	146.2	184.9	186	201.5	191.2	1957.3
1984-1985	183.2	176.9	142.1	126.1	130.2	105.8	131.9	147.3	169.2	179.7	202.1	203.5	1897.9
1985-1986	185.9	172.5	153.7	138.8	134	120.5	142	158.3	162.7	183.6	199.9	200.6	1952.6
1986-1987	185.7	166.4	132.5	124.1	125.2	119.5	121.6	139.2	164.4	182.2	202.8	201.5	1865.1
1987-1988	185.6	165.4	137.4	129.9	122.1	111.4	128.1	143.1	170.5	183.5	207.9	204.7	1889.5
1988-1989	183.4	166.3	133	127.6	115.9	117.7	136.4	152.9	174.6	172.5	200.4	200.5	1881.2
1989-1990	180.8	162.9	145.7	132.5	121.5	115.9	137.8	146.8	169.6	182.8	196.3	199.7	1892.3
1990-1991	184.1	174.5	143.1	129.4	118.7	109.4	135.3	145.6	162.4	176.8	192.9	194	1866.1
1991-1992	177	166.8	138	119.3	108.4	94.87	116.8	125.4	152.7	171.7	185.1	193.5	1749.6
1992-1993	172.6	168.6	137.9	115.5	110.5	99.49	120.2	133.5	151.9	173.3	194.4	194.7	1772.7
1993-1994	174.6	173.5	142.3	137.7	135	113.5	136.3	149.8	169.1	186.3	193.6	205.8	1917.4
1994-1995	192.7	186.6	145	125.4	127.5	118.6	136.1	145	174.8	190.4	208.3	201.5	1952.0
1995-1996	187.9	171.9	135.9	131.2	126.2	116.8	131.3	142.7	178	190.8	207.3	205.5	1925.5
1996-1997	184.4	164.2	153.2	136.1	126.4	105.6	125.2	132.2	173	185.1	203.4	193.2	1882.0
1997-1998	176.3	168.5	144.9	132.3	124.7	119.2	133.8	150.6	169.8	187.4	210.2	212.9	1930.5
1998-1999	189.7	179.8	154	137.9	131.8	115.7	138	147.3	179.3	185.2	205.5	205.2	1969.3
1999-2000	184.7	172.8	145.1	136.9	115.9	112.1	128	150.6	179.1	196.4	213	205.3	1939.9
2000-2001	183.9	167.8	144.2	129.7	122.9	112.5	140.8	144.8	170.9	185.3	203	204.2	1909.8
2001-2002	181.9	169.1	139.7	125	113.5	118.3	135.5	141.5	167.2	190.3	211.8	206.5	1900.3
2002-2003	180.3	170.4	144.3	123	137.1	110.7	130.4	141.9	188.4	193.6	214.4	216.6	1951.1
2003-2004	189.8	181.5	155.1	140.7	116.9	106.6	140.4	149.4	174.3	190.8	211.5	208.8	1965.9
2004-2005	187.5	182.7	151.8	133.5	130.4	111.6	140	156	179	188.8	211.8	208.5	1981.5
2005-2006	189.8	169.8	143.6	140.7	128.2	118.7	137.8	155.6	182.5	194.1	212.3	213.9	1987.1
2006-2007	193.1	177.8	143.5	134.3	130.1	122.9	135.7	144.7	176.4	190.7	209.3	208.1	1966.8
2007-2008	185.8	179	148.4	131.2	113.5	108.6	143.7	150.5	170.7	191.2	206	209	1937.6
2008-2009	181.7	166.2	144.7	125.2	126	113.6	130.3	146.2	171.3	192.6	208.4	205.2	1911.5
2009-2010	180.9	174.8	140.5	135.3	127.2	116.5	136.5	147.5	172.7	182.5	200.8	211	1926.1
2010-2011	187.1	173.9	146.5	138.6	125.9	112.3	130.3	141.6	167.5	184.3	204.3	204.5	1916.8
2011-2012	184.8	165.2	131.5	125.6	118.5	104.1	124.8	144.5	168.9	186.5	209.2	207.8	1871.6
2012-2013	184.6	171.9	148.6	132.3	121.9	115.6	136.9	149.8	177.8	185.2	203.7	206	1934.4
2013-2014	181.7	163.3	148.9	124.9	129.4	115.3	141.2	149.6	170.1	187.4	202.8	205.2	1919.9
2014-2015	183.8	166.8	137.9	135.6	118.3	109.4	135.8	140.5	171.4	179.3	202	207.5	1888.3
AVERAGE	184.8	172.7	144.4	131.9	124.2	113.2	134.2	146.2	171.9	186.0	204.5	204.6	

**Table A. 74** Gecitkale station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	141.7	66.05	47.59	44.57	42.38	44.22	56.45	122.8	153.1	173.8	186.7	169.9	1249.3
1979-1980	147	65.86	52.08	42.88	40.6	40.59	53.42	119.5	150.7	170.4	183	174.8	1240.9
1980-1981	142.1	65.75	52.15	43.93	42.11	41.69	56.28	123.2	145.5	172.3	185.1	174.4	1244.6
1981-1982	147.5	68.35	47.92	45.19	43.43	39.42	51.17	122.8	152.8	170.1	179.9	173.3	1241.7
1982-1983	148.6	66.28	47.98	41.92	39.82	39.98	52.62	121.4	154	166.2	181.8	170.6	1231.2
1983-1984	144	64.21	52.09	45.11	42.55	42.99	55.35	118.9	161.3	168	179	159.8	1233.4
1984-1985	140.8	65.36	47.83	40.29	42.82	37.82	51.86	119.7	147.6	162.3	179.5	170.1	1206.1
1985-1986	142.8	63.76	51.72	44.36	44.09	43.07	55.83	128.7	142	165.8	177.6	167.7	1227.5
1986-1987	142.7	61.48	44.59	39.67	41.18	42.72	47.79	113.2	143.4	164.6	180.2	168.5	1189.9
1987-1988	142.6	61.13	46.24	41.51	40.16	39.81	50.35	116.3	148.7	165.7	184.7	171.1	1208.4
1988-1989	140.9	61.45	44.74	40.79	38.14	42.08	53.61	124.4	152.3	155.8	178	167.6	1199.8
1989-1990	138.9	60.21	49.03	42.35	39.98	41.45	54.15	119.4	147.9	165.1	174.4	166.9	1199.8
1990-1991	141.4	64.49	48.18	41.35	39.06	39.09	53.17	118.4	141.7	159.7	171.3	162.1	1180.0
1991-1992	136	61.64	46.47	38.12	35.65	33.91	45.92	101.9	133.2	155.1	164.4	161.7	1114.1
1992-1993	132.6	62.31	46.42	36.92	36.35	35.56	47.24	108.6	132.5	156.5	172.8	162.7	1130.4
1993-1994	134.1	64.11	47.89	44.03	44.41	40.56	53.56	121.8	147.5	168.3	172	172	1210.3
1994-1995	148	68.94	48.79	40.09	41.95	42.39	53.51	117.9	152.5	172	185.1	168.5	1239.7
1995-1996	144.3	63.53	45.73	41.92	41.52	41.76	51.6	116	155.3	172.4	184.2	171.8	1230.1
1996-1997	141.6	60.67	51.58	43.5	41.6	37.74	49.18	107.5	150.9	167.2	180.7	161.5	1193.7
1997-1998	135.4	62.26	48.77	42.27	41.03	42.62	52.6	122.4	148.1	169.3	186.7	177.9	1229.4
1998-1999	145.7	66.46	51.82	44.07	43.36	41.36	54.23	119.7	156.4	167.3	182.5	171.6	1244.6
1999-2000	141.9	63.84	48.84	43.76	38.15	40.07	50.3	122.5	156.2	177.4	189.2	171.6	1243.8
2000-2001	141.3	62	48.53	41.46	40.42	40.22	55.33	117.8	149.1	167.4	180.3	170.7	1214.4
2001-2002	139.7	62.48	47.02	39.95	37.34	42.3	53.27	115.1	145.8	171.9	188.2	172.6	1215.6
2002-2003	138.5	62.98	48.57	39.29	45.1	39.57	51.26	115.4	164.4	174.9	190.4	181.1	1251.4
2003-2004	145.8	67.07	52.22	44.98	38.47	38.1	55.19	121.4	152	172.4	187.9	174.6	1250.1
2004-2005	144	67.54	51.09	42.67	42.91	39.88	55	126.9	156.1	170.5	188.2	174.3	1259.1
2005-2006	145.8	62.74	48.35	44.97	42.18	42.42	54.16	126.5	159.2	175.4	188.6	178.8	1269.2
2006-2007	148.3	65.7	48.32	42.93	42.81	43.95	53.32	117.7	153.9	172.3	186	174	1249.2
2007-2008	142.7	66.15	49.96	41.95	37.34	38.81	56.46	122.4	148.9	172.7	183	174.7	1235.2
2008-2009	139.6	61.42	48.69	40.02	41.47	40.59	51.21	118.9	149.5	174	185.2	171.5	1222.0
2009-2010	139	64.61	47.31	43.22	41.83	41.65	53.65	119.9	150.6	164.8	178.4	176.4	1221.4
2010-2011	143.7	64.28	49.3	44.29	41.43	40.16	51.22	115.1	146.1	166.5	181.5	171	1214.6
2011-2012	142	61.06	44.27	40.13	39	37.2	49.06	117.5	147.3	168.5	185.9	173.7	1205.7
2012-2013	141.8	63.53	50.03	42.28	40.09	41.34	53.78	121.8	155.2	167.3	181	172.2	1230.4
2013-2014	139.6	60.34	50.13	39.91	42.59	41.21	55.5	121.7	148.3	169.3	180.2	171.5	1220.3
2014-2015	141.2	61.66	46.4	43.35	38.93	39.11	53.39	114.2	149.5	161.9	179.5	173.4	1202.5
AVERAGE	142.0	63.8	48.6	42.2	40.9	40.5	52.8	118.9	150.0	168.0	181.7	171.0	

**Table A. 75** Gecitkale station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	120	96.05	56.29	45.68	43.56	52.41	83.77	103.4	134.9	154.9	164	148.6	1203.6
1979-1980	123.9	95.73	63.8	42.68	40.49	46.7	79.43	101.1	133.4	152.7	161.7	151.8	1193.6
1980-1981	120.3	95.56	63.91	44.52	43.08	48.45	83.54	103.6	130.1	153.9	163	151.6	1201.6
1981-1982	124.2	99.5	56.85	46.73	45.34	44.89	76.27	103.4	134.7	152.5	159.7	150.8	1195.0
1982-1983	125.1	96.36	56.97	41	39.19	45.75	78.29	102.5	135.5	150.1	160.9	149.1	1180.7
1983-1984	121.7	93.25	63.82	46.59	43.84	50.47	82.19	100.7	140.2	151.3	159.2	141.8	1195.0
1984-1985	119.3	94.98	56.71	38.16	44.31	42.37	77.23	101.3	131.4	147.7	159.5	148.7	1161.7
1985-1986	120.8	92.56	63.19	45.29	46.45	50.6	82.89	107.5	127.8	149.9	158.3	147.1	1192.4
1986-1987	120.7	89.1	51.32	37.06	41.51	50.05	71.43	96.76	128.7	149.1	159.9	147.6	1143.3
1987-1988	120.7	88.57	54.06	40.29	39.76	45.49	75.08	98.96	132.1	149.8	162.7	149.4	1157.0
1988-1989	119.4	89.05	51.59	39.02	36.31	49.06	79.72	104.5	134.4	143.7	158.5	147.1	1152.3
1989-1990	118	87.17	58.71	41.77	39.45	48.06	80.5	101.1	131.6	149.4	156.2	146.6	1158.6
1990-1991	119.8	93.64	57.29	40.01	37.88	44.36	79.1	100.4	127.6	146.1	154.3	143.4	1143.9
1991-1992	115.9	89.35	54.44	34.36	32.07	36.24	68.76	89.01	122.2	143.2	149.9	143.1	1078.6
1992-1993	113.4	90.34	54.37	32.24	33.29	38.83	70.64	93.6	121.7	144.1	155.2	143.8	1091.5
1993-1994	114.5	93.08	56.82	44.7	46.99	46.67	79.67	102.7	131.4	151.4	154.7	150	1172.7
1994-1995	124.6	100.4	58.32	37.8	42.81	49.53	79.58	100	134.6	153.7	163	147.6	1192.0
1995-1996	121.9	92.21	53.21	41	42.08	48.55	76.88	98.71	136.4	154	162.4	149.8	1177.2
1996-1997	120	87.89	62.95	43.79	42.21	42.24	73.43	92.87	133.6	150.7	160.2	142.9	1152.8
1997-1998	115.4	90.28	58.28	41.63	41.25	49.9	78.28	103.2	131.7	152	164	154	1180.0
1998-1999	123	96.64	63.36	44.79	45.22	47.91	80.61	101.3	137.1	150.8	161.4	149.7	1201.8
1999-2000	120.2	92.69	58.4	44.24	36.33	45.9	75	103.2	137	157.1	165.6	149.7	1185.3
2000-2001	119.7	89.88	57.89	40.2	40.21	46.13	82.18	99.92	132.3	150.9	160	149.1	1168.4
2001-2002	118.6	90.61	55.37	37.56	34.96	49.39	79.23	98.08	130.3	153.6	164.9	150.4	1163.1
2002-2003	117.7	91.38	57.95	36.41	48.17	45.12	76.38	98.3	142.2	155.5	166.4	156.1	1191.6
2003-2004	123	97.57	64.01	46.37	36.89	42.82	81.97	102.5	134.3	154	164.8	151.7	1199.8
2004-2005	121.7	98.27	62.15	42.34	44.46	45.6	81.72	106.2	136.9	152.8	164.9	151.5	1208.6
2005-2006	123	91.02	57.57	46.34	43.21	49.57	80.53	106	138.9	155.8	165.2	154.6	1211.7
2006-2007	124.9	95.5	57.53	42.78	44.28	51.97	79.32	99.88	135.5	153.9	163.5	151.3	1200.3
2007-2008	120.8	96.17	60.24	41.05	34.96	43.92	83.8	103.1	132.3	154.2	161.7	151.8	1184.0
2008-2009	118.5	89.01	58.15	37.68	41.99	46.71	76.3	100.7	132.6	155	163.1	149.7	1169.3
2009-2010	118	93.85	55.84	43.3	42.62	48.36	79.77	101.4	133.4	149.3	158.8	152.9	1177.5
2010-2011	121.5	93.33	59.16	45.16	41.92	46.03	76.33	98.11	130.5	150.3	160.7	149.3	1172.3
2011-2012	120.2	88.45	50.8	37.87	37.78	41.39	73.24	99.77	131.2	151.5	163.5	151.2	1147.0
2012-2013	120.1	92.21	60.36	41.66	39.65	47.87	79.98	102.7	136.3	150.8	160.4	150.1	1182.2
2013-2014	118.5	87.36	60.54	37.49	43.9	47.68	82.42	102.6	131.9	152.1	159.9	149.7	1174.0
2014-2015	119.6	89.36	54.33	43.52	37.67	44.37	79.41	97.51	132.6	147.5	159.5	151	1156.3
AVERAGE	120.2	92.7	58.0	41.4	41.0	46.5	78.5	100.7	133.0	151.2	160.9	149.3	

**Table A. 76** Girne station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	97.7	70.7	38.6	30.5	29.2	33.5	51.2	67.4	103.8	142.0	167.2	143.1	974.7
1979-1980	106.8	76.5	46.7	29.3	25.8	30.0	47.1	65.8	98.5	147.3	174.4	189.1	1037.5
1980-1981	107.1	69.1	41.3	30.9	27.8	32.2	56.1	80.2	109.5	194.9	213.4	186.8	1149.2
1981-1982	127.8	84.2	38.4	32.9	30.2	29.8	45.7	71.3	105.1	145.4	164.8	153.2	1028.8
1982-1983	107.9	70.5	35.9	28.0	25.6	29.4	46.3	69.4	109.5	140.4	168.0	147.9	978.8
1983-1984	101.9	65.2	43.4	31.6	30.2	34.0	51.8	69.7	115.6	147.5	171.9	145.1	1008.0
1984-1985	103.0	70.7	37.2	27.3	30.5	29.3	47.3	71.7	113.1	146.2	175.8	159.2	1011.3
1985-1986	107.4	65.1	42.9	30.5	30.2	34.3	52.8	79.4	105.0	150.9	168.7	151.4	1018.6
1986-1987	109.0	67.3	35.8	28.3	30.1	34.7	42.2	68.0	100.3	145.1	181.8	157.0	999.6
1987-1988	107.7	65.6	38.2	29.6	28.6	31.6	48.7	71.8	113.4	150.9	200.7	163.6	1050.5
1988-1989	108.2	66.0	35.9	28.5	24.8	30.8	50.9	81.2	118.6	144.3	181.3	156.1	1026.8
1989-1990	108.0	69.4	42.3	31.9	28.3	33.7	53.2	75.0	113.5	150.8	180.1	160.4	1046.7
1990-1991	109.2	77.4	46.6	34.5	30.7	33.7	55.6	76.8	109.1	150.6	173.5	158.0	1055.8
1991-1992	109.5	77.6	43.8	29.0	27.9	28.0	48.0	70.9	106.1	144.7	168.9	164.6	1019.1
1992-1993	109.2	74.5	42.3	27.5	28.7	30.5	48.2	70.7	101.4	154.2	184.8	169.0	1041.0
1993-1994	110.7	84.2	42.5	35.5	34.6	36.8	54.6	82.0	120.8	159.2	179.8	171.2	1111.8
1994-1995	127.2	91.0	45.0	31.7	33.7	37.8	56.8	75.9	115.3	167.3	191.1	169.2	1142.0
1995-1996	116.2	74.8	39.5	31.6	30.7	37.2	54.5	72.7	125.4	168.6	199.2	181.0	1131.4
1996-1997	123.0	77.3	51.3	38.9	33.3	32.9	49.8	68.0	116.9	163.4	201.4	158.3	1114.3
1997-1998	111.2	76.9	46.7	33.9	31.4	36.4	51.1	78.3	109.1	159.2	195.6	181.7	1111.4
1998-1999	115.8	79.7	49.0	35.9	34.5	37.9	57.2	78.4	126.9	164.7	193.6	175.5	1149.2
1999-2000	117.7	84.1	47.1	36.5	29.6	35.1	51.8	78.9	122.9	181.9	207.4	174.5	1167.6
2000-2001	120.4	77.6	48.3	33.4	32.7	37.0	63.3	81.4	123.1	157.6	190.4	178.4	1143.8
2001-2002	124.2	84.9	45.8	34.0	29.1	38.8	59.6	78.1	120.3	166.7	207.6	173.5	1162.6
2002-2003	118.6	82.2	50.0	30.8	34.7	32.9	50.7	75.6	132.4	166.6	198.9	177.9	1151.1
2003-2004	116.8	76.6	44.4	31.9	29.1	33.2	55.5	76.3	114.6	159.2	196.1	173.3	1106.9
2004-2005	119.3	85.0	45.7	30.9	31.5	33.3	55.1	76.4	115.3	151.3	188.3	166.8	1098.8
2005-2006	119.2	72.8	41.1	33.3	29.9	35.1	55.2	80.8	119.0	159.0	195.1	178.9	1119.4
2006-2007	124.8	79.1	42.8	32.5	31.5	35.7	56.3	77.0	118.5	170.3	200.9	175.0	1144.5
2007-2008	116.5	82.8	46.5	32.8	29.9	33.7	60.0	82.3	121.5	173.4	200.7	183.7	1163.8
2008-2009	122.5	79.8	52.3	35.1	32.4	35.9	54.2	77.7	117.4	170.6	198.5	173.7	1150.3
2009-2010	114.3	81.2	45.5	35.1	33.8	37.0	58.1	82.0	120.2	158.0	185.9	187.8	1139.0
2010-2011	125.7	80.5	51.0	38.2	32.3	36.1	55.2	75.7	115.0	161.0	194.1	175.7	1140.5
2011-2012	123.1	75.3	40.0	31.9	29.6	33.0	51.0	77.5	116.1	164.7	210.4	187.0	1139.5
2012-2013	120.4	80.1	49.0	33.9	31.4	38.3	57.0	81.4	127.9	161.7	195.8	177.3	1154.3
2013-2014	117.1	71.8	48.7	30.5	34.5	37.6	58.2	79.9	114.8	157.6	186.1	173.9	1110.8
2014-2015	120.1	77.7	44.0	36.3	30.6	34.5	56.8	73.1	118.0	148.5	186.3	179.4	1105.3
AVERAGE	114.7	76.4	43.9	32.3	30.5	34.1	53.2	75.6	115.0	158.0	188.6	169.7	

**Table A. 77** Girne station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.1	89.8	48.3	29.2	22.4	27.6	38.2	54.8	88.6	150.1	174.9	176.1	1012.1
1979-1980	115.0	91.9	65.0	23.9	14.3	18.4	28.4	47.2	73.8	143.2	167.4	224.3	1012.8
1980-1981	96.2	65.1	40.9	22.7	15.0	18.6	35.4	58.2	73.3	169.2	175.5	182.0	952.1
1981-1982	139.6	102.8	41.7	31.0	21.8	17.5	25.6	54.7	80.4	137.2	152.3	169.6	974.0
1982-1983	133.3	93.5	42.4	24.4	16.1	19.8	31.1	61.0	100.7	154.1	183.6	192.2	1052.2
1983-1984	109.4	72.4	56.8	29.3	22.5	26.5	36.2	54.2	96.9	145.3	166.6	164.4	980.5
1984-1985	116.2	86.6	42.5	21.0	24.1	18.0	30.3	60.3	98.2	150.6	179.4	194.4	1021.5
1985-1986	114.4	70.5	53.9	26.2	22.0	26.4	36.9	68.4	81.2	146.3	158.8	169.3	974.1
1986-1987	128.1	82.1	39.7	23.9	23.9	30.0	22.6	55.4	82.6	152.8	191.5	196.2	1028.8
1987-1988	115.1	71.5	41.8	24.3	19.2	21.1	30.6	56.2	92.1	146.6	195.6	187.0	1001.1
1988-1989	121.3	75.8	38.0	23.2	13.2	20.7	35.6	74.9	103.3	144.7	182.3	185.4	1018.3
1989-1990	110.5	74.7	49.9	28.0	17.8	24.2	36.0	58.6	88.1	139.7	164.6	173.9	966.0
1990-1991	105.4	82.8	56.7	31.3	20.7	22.6	37.2	57.5	77.9	130.7	147.7	159.8	930.3
1991-1992	120.9	95.7	58.4	23.8	18.4	14.9	30.3	56.6	85.3	142.5	164.2	194.4	1005.2
1992-1993	117.4	87.8	52.6	20.0	19.4	19.1	29.8	54.6	77.1	151.4	178.3	195.1	1002.5
1993-1994	96.2	83.4	41.5	29.7	24.4	25.2	32.0	58.0	81.7	125.8	138.0	157.0	892.8
1994-1995	108.9	88.6	44.4	22.0	22.2	25.7	33.4	47.9	72.9	128.2	142.0	147.7	883.8
1995-1996	105.1	72.4	36.4	23.5	19.2	26.6	32.8	47.5	88.7	139.6	160.2	172.8	924.8
1996-1997	110.1	74.4	60.4	36.1	22.6	19.1	26.1	40.3	78.3	131.2	158.8	143.8	901.2
1997-1998	99.8	75.7	51.9	27.8	20.3	25.4	28.4	55.0	72.0	129.9	157.3	174.1	917.8
1998-1999	95.0	72.0	50.8	28.3	22.7	25.2	33.0	49.7	81.9	122.4	140.5	150.3	871.9
1999-2000	97.9	78.4	47.8	29.7	16.0	21.1	26.9	50.8	79.1	140.2	153.5	150.9	892.3
2000-2001	101.1	70.3	50.4	24.6	20.5	24.1	40.9	54.1	79.6	117.3	139.9	155.7	878.6
2001-2002	103.8	78.9	44.8	25.4	15.2	26.7	36.1	49.6	76.1	124.9	152.6	149.0	882.9
2002-2003	101.3	77.9	55.0	20.8	23.8	18.4	26.1	48.1	90.0	128.9	150.2	158.6	899.0
2003-2004	108.9	77.4	48.5	24.8	17.3	20.7	35.1	53.8	79.9	133.7	162.2	169.6	932.0
2004-2005	110.6	88.8	50.9	22.8	20.8	20.6	34.3	53.4	79.9	123.5	153.2	160.1	918.8
2005-2006	109.1	69.9	40.1	26.9	18.1	23.3	34.0	58.6	82.8	130.3	157.6	171.8	922.4
2006-2007	109.5	75.1	41.4	24.0	19.6	23.0	33.7	50.8	78.1	135.1	154.6	158.6	903.5
2007-2008	97.4	77.2	46.9	23.7	16.5	19.2	37.0	55.3	78.3	133.1	149.0	161.5	895.3
2008-2009	102.9	72.9	58.2	27.3	20.0	22.4	29.8	49.5	74.0	129.7	146.3	150.4	883.3
2009-2010	95.9	75.9	45.4	27.8	22.3	24.4	34.9	55.4	77.7	119.0	137.5	167.1	883.3
2010-2011	106.3	74.1	55.6	32.7	20.0	22.8	31.0	47.2	71.9	120.7	143.0	152.9	878.3
2011-2012	113.2	73.6	37.7	24.2	17.6	19.8	28.4	54.1	79.6	136.3	171.3	180.6	936.4
2012-2013	100.0	72.8	51.1	25.2	18.4	25.9	32.9	53.6	83.2	120.0	142.9	152.8	878.9
2013-2014	104.3	66.9	55.1	21.2	24.5	26.8	37.1	56.0	76.6	125.6	145.6	162.0	901.7
2014-2015	109.8	77.0	46.2	32.3	19.1	22.2	36.0	48.1	81.5	118.4	148.9	171.8	911.2
AVERAGE	109.2	78.8	48.3	26.0	19.8	22.5	32.5	54.3	82.2	135.6	159.1	169.8	

**Table A. 78** Girne station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	175.5	172	143	137.5	131	119.9	139	141.3	163.2	176	193.3	191.8	1883.6
1979-1980	181.6	177.6	156	134.7	122.1	113	133.3	139.8	159.5	178.5	196.3	211.4	1903.8
1980-1981	181.9	170.5	147.6	138.6	127.5	117.4	145.5	153.2	166.9	197.5	210.5	210.6	1967.7
1981-1982	193.9	184.3	142.7	142.8	133.4	112.6	131.1	145.2	164.1	177.6	192.3	196.6	1916.4
1982-1983	182.3	171.9	138	131.5	121.7	111.7	132	143.3	166.9	175.2	193.6	194.1	1862.5
1983-1984	178.4	166.3	151	140.1	133.2	120.9	139.9	143.7	170.8	178.6	195.3	192.8	1911.0
1984-1985	179.1	172	140.5	129.8	133.9	111.4	133.5	145.6	169.3	178	196.8	199.3	1889.2
1985-1986	182	166.2	150.2	137.5	133.3	121.4	141.3	152.6	164	180.1	194	195.8	1918.4
1986-1987	183.1	168.6	137.9	132.4	133.1	122.2	125.4	142	160.7	177.4	199.2	198.4	1880.3
1987-1988	182.2	166.8	142.3	135.4	129.6	116.2	135.7	145.6	169.4	180.1	206.2	201.2	1910.7
1988-1989	182.5	167.2	138.1	132.9	119.6	114.7	138.7	154.1	172.6	177.1	199	197.9	1894.3
1989-1990	182.4	170.7	149.2	140.8	128.7	120.4	141.9	148.6	169.5	180.1	198.5	199.8	1930.7
1990-1991	183.2	178.4	155.9	146.2	134.5	120.3	144.9	150.3	166.7	180	195.9	198.8	1955.0
1991-1992	183.3	178.6	151.6	134	127.7	108.5	134.5	144.8	164.7	177.3	194	201.7	1900.9
1992-1993	183.1	175.8	149.2	130.3	129.8	114	134.8	144.6	161.6	181.6	200.4	203.5	1908.6
1993-1994	184.1	184.3	149.6	148.3	142.8	125.9	143.6	154.7	173.9	183.8	198.4	204.4	1993.9
1994-1995	193.5	189.8	153.5	140.3	141.1	127.6	146.4	149.4	170.6	187.2	202.7	203.6	2005.8
1995-1996	187.4	176	144.5	140.1	134.5	126.5	143.4	146.5	176.5	187.7	205.6	208.3	1977.1
1996-1997	191.2	178.3	162.4	154.8	140.2	118.8	137.1	141.9	171.5	185.5	206.4	198.9	1987.1
1997-1998	184.4	178	155.9	145	136.1	125.2	138.9	151.6	166.7	183.7	204.4	208.6	1978.5
1998-1999	187.1	180.5	159.2	149.1	142.7	127.9	146.9	151.7	177.4	186.1	203.7	206.2	2018.4
1999-2000	188.2	184.3	156.6	150.3	131.9	122.8	139.9	152.1	175.1	192.8	208.5	205.8	2008.4
2000-2001	189.8	178.7	158.3	144.1	139	126.2	154	154.3	175.2	183.1	202.5	207.3	2012.4
2001-2002	191.9	185	154.6	145.3	130.6	129.3	149.8	151.4	173.6	186.9	208.5	205.4	2012.2
2002-2003	188.8	182.6	160.6	138.4	143.1	118.8	138.4	149.2	180.3	186.8	205.5	207.1	1999.7
2003-2004	187.7	177.7	152.5	140.7	130.8	119.4	144.7	149.8	170.1	183.7	204.5	205.3	1967.2
2004-2005	189.2	185	154.5	138.5	136.3	119.6	144.3	149.9	170.6	180.3	201.7	202.6	1972.4
2005-2006	189.1	174.1	147.2	143.9	132.6	122.9	144.4	153.8	172.9	183.7	204.2	207.5	1976.2
2006-2007	192.3	180	150.1	142	136.4	123.9	145.8	150.5	172.5	188.4	206.2	206	1994.0
2007-2008	187.6	183.2	155.7	142.8	132.5	120.3	150.3	155	174.3	189.6	206.2	209.4	2006.8
2008-2009	191	180.6	163.7	147.4	138.3	124.3	143.1	151.1	171.9	188.5	205.4	205.5	2010.7
2009-2010	186.3	181.8	154.2	147.6	141.2	126.2	148	154.7	173.5	183.3	200.8	211	2008.6
2010-2011	192.7	181.2	161.9	153.5	138.1	124.8	144.4	149.3	170.4	184.5	203.8	206.2	2010.9
2011-2012	191.3	176.5	145.4	140.7	131.9	119	138.8	150.9	171	186.1	209.5	210.7	1971.7
2012-2013	189.8	180.9	159.3	145.1	136	128.5	146.7	154.2	177.9	184.8	204.4	206.9	2014.5
2013-2014	187.9	173.1	158.8	137.6	142.6	127.3	148.2	152.9	170.3	183.1	200.8	205.6	1988.3
2014-2015	189.6	178.7	151.9	149.9	134.2	121.8	146.4	146.9	172.2	179	200.9	207.8	1979.3
AVERAGE	186.4	177.2	151.5	141.4	133.8	120.9	141.5	149.1	170.2	183.1	201.6	203.6	

**Table A. 79** Girne station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	134.8	63.57	48.13	43.95	43.1	42.86	54.64	114.9	142.3	158.9	171.7	160.3	1179.3
1979-1980	139.5	65.63	52.52	43.04	40.18	40.39	52.38	113.6	139.1	161.2	174.3	176.8	1198.7
1980-1981	139.7	63	49.67	44.29	41.93	41.94	57.19	124.6	145.6	178.4	187	176	1249.3
1981-1982	148.9	68.12	48.02	45.65	43.87	40.24	51.53	118.1	143.1	160.4	170.8	164.3	1203.1
1982-1983	140.1	63.52	46.45	42.03	40.05	39.92	51.89	116.5	145.6	158.2	172	162.3	1178.6
1983-1984	137	61.47	50.82	44.77	43.83	43.23	55	116.8	149	161.3	173.5	161.2	1197.8
1984-1985	137.6	63.58	47.29	41.47	44.06	39.81	52.44	118.4	147.6	160.7	174.9	166.6	1194.5
1985-1986	139.8	61.43	50.54	43.95	43.87	43.41	55.54	124	143	162.7	172.3	163.6	1204.2
1986-1987	140.6	62.29	46.4	42.31	43.77	43.69	49.28	115.4	140.2	160.2	176.9	165.8	1187.0
1987-1988	140	61.63	47.89	43.29	42.62	41.53	53.3	118.4	147.8	162.7	183.2	168.2	1210.5
1988-1989	140.2	61.79	46.48	42.46	39.33	41	54.49	125.3	150.5	159.9	176.8	165.4	1203.7
1989-1990	140.1	63.08	50.24	45.01	42.35	43.03	55.74	120.8	147.8	162.7	176.4	167	1214.3
1990-1991	140.7	65.94	52.48	46.73	44.25	43	56.96	122.2	145.4	162.5	174	166.2	1220.4
1991-1992	140.8	66	51.04	42.84	42.02	38.8	52.87	117.8	143.7	160.1	172.4	168.6	1196.9
1992-1993	140.7	64.95	50.21	41.65	42.69	40.73	52.98	117.5	140.9	164	178	170.1	1204.5
1993-1994	141.4	68.12	50.35	47.4	46.99	44.99	56.43	125.8	151.7	166	176.2	170.9	1246.3
1994-1995	148.7	70.15	51.65	44.84	46.42	45.63	57.55	121.5	148.8	169	180.1	170.2	1254.5
1995-1996	143.9	65.03	48.65	44.77	44.25	45.23	56.38	119.1	154	169.5	182.7	174.2	1247.8
1996-1997	146.9	65.89	54.67	49.46	46.12	42.47	53.89	115.4	149.6	167.6	183.4	166.3	1241.6
1997-1998	141.6	65.78	52.49	46.35	44.77	44.77	54.61	123.3	145.4	166	181.5	174.4	1240.9
1998-1999	143.8	66.71	53.6	47.65	46.95	45.71	57.74	123.3	154.7	168.1	180.9	172.3	1261.5
1999-2000	144.6	68.1	52.7	48.05	43.38	43.92	55	123.7	152.8	174.2	185.2	172	1263.6
2000-2001	145.8	66.02	53.29	46.04	45.71	45.12	60.54	125.4	152.8	165.4	179.9	173.3	1259.3
2001-2002	147.4	68.35	52.03	46.45	42.97	46.22	58.89	123.1	151.4	168.8	185.3	171.7	1262.6
2002-2003	145	67.49	54.07	44.21	47.08	42.48	54.39	121.3	157.3	168.8	182.6	173.1	1257.8
2003-2004	144.2	65.66	51.35	44.98	43.04	42.69	56.88	121.8	148.4	166	181.7	171.6	1238.3
2004-2005	145.3	68.36	52.02	44.27	44.85	42.75	56.71	121.8	148.8	162.8	179.2	169.3	1236.3
2005-2006	145.3	64.32	49.56	45.99	43.63	43.93	56.74	125	150.8	165.9	181.4	173.5	1246.0
2006-2007	147.7	66.5	50.52	45.4	44.87	44.3	57.31	122.3	150.5	170.1	183.2	172.2	1254.9
2007-2008	144.1	67.68	52.39	45.64	43.6	43.02	59.08	126	152	171.2	183.2	175	1263.0
2008-2009	146.7	66.73	55.12	47.12	45.5	44.43	56.26	122.8	149.9	170.3	182.5	171.8	1259.1
2009-2010	143.1	67.2	51.91	47.17	46.46	45.12	58.17	125.8	151.4	165.5	178.3	176.4	1256.5
2010-2011	148	66.97	54.51	49.06	45.44	44.6	56.74	121.4	148.6	166.7	181.1	172.4	1255.5
2011-2012	146.9	65.21	48.93	44.98	43.38	42.52	54.54	122.7	149.2	168.1	186.1	176.1	1248.7
2012-2013	145.8	66.84	53.6	46.38	44.75	45.94	57.63	125.4	155.2	166.9	181.6	173	1263.1
2013-2014	144.3	63.99	53.46	43.97	46.92	45.5	58.23	124.4	148.6	165.4	178.4	171.8	1244.9
2014-2015	145.7	66.04	51.14	47.91	44.16	43.52	57.53	119.4	150.2	161.7	178.5	173.7	1239.5
AVERAGE	143.2	65.5	51.0	45.2	44.0	43.2	55.6	121.2	148.5	165.4	179.1	170.2	

**Table A. 80** Girne station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	121.7	97.34	60.48	47.17	47.71	53.7	86.93	104.9	136.7	155	164	150.6	1226.2
1979-1980	125.1	100.5	67.79	45.59	42.74	49.84	83.7	104	134.6	156.4	165.7	161.6	1237.6
1980-1981	125.3	96.49	63.05	47.8	45.75	52.29	90.56	111.5	138.8	167.1	173.7	161.1	1273.4
1981-1982	132	104.2	60.29	50.14	49.03	49.59	82.48	107	137.2	155.9	163.5	153.3	1244.6
1982-1983	125.5	97.27	57.69	43.82	42.52	49.11	83	106	138.8	154.5	164.2	151.9	1214.4
1983-1984	123.3	94.15	64.97	48.63	48.96	54.29	87.44	106.2	140.9	156.4	165.1	151.2	1241.6
1984-1985	123.7	97.35	59.08	42.84	49.36	48.93	83.8	107.3	140.1	156.1	166	154.8	1229.3
1985-1986	125.3	94.1	64.49	47.18	49.03	54.58	88.19	111.2	137.1	157.3	164.4	152.8	1245.7
1986-1987	125.9	95.4	57.6	44.31	48.87	55	79.28	105.2	135.3	155.8	167.3	154.3	1224.3
1987-1988	125.4	94.41	60.08	46.01	46.91	51.63	85.03	107.3	140.2	157.3	171.2	155.9	1241.4
1988-1989	125.6	94.64	57.74	44.58	41.3	50.78	86.71	112	141.9	155.6	167.2	154.1	1232.2
1989-1990	125.6	96.6	63.99	49.03	46.45	53.98	88.5	109	140.2	157.3	167	155.1	1252.6
1990-1991	126	100.9	67.71	52.04	49.66	53.92	90.23	109.9	138.7	157.2	165.5	154.5	1266.2
1991-1992	126.1	101	65.31	45.23	45.88	47.33	84.39	106.8	137.5	155.7	164.4	156.2	1235.9
1992-1993	126	99.45	63.94	43.15	47.02	50.37	84.55	106.7	135.8	158.1	168	157.2	1240.2
1993-1994	126.5	104.2	64.19	53.23	54.35	57.06	89.47	112.4	142.7	159.3	166.9	157.7	1288.0
1994-1995	131.8	107.3	66.35	48.75	53.36	58.04	91.07	109.4	140.8	161.2	169.3	157.2	1294.7
1995-1996	128.4	99.57	61.34	48.61	49.66	57.43	89.4	107.8	144.1	161.5	170.9	159.9	1278.6
1996-1997	130.5	100.9	71.36	56.85	52.85	53.09	85.84	105.2	141.3	160.3	171.4	154.6	1284.2
1997-1998	126.7	100.7	67.73	51.38	50.57	56.69	86.87	110.6	138.6	159.3	170.2	160	1279.4
1998-1999	128.2	102.1	69.58	53.65	54.27	58.18	91.34	110.7	144.6	160.6	169.8	158.7	1301.8
1999-2000	128.8	104.2	68.09	54.37	48.2	55.36	87.44	110.9	143.4	164.4	172.5	158.4	1296.2
2000-2001	129.7	101.1	69.06	50.85	52.18	57.25	95.34	112.1	143.4	159	169.2	159.3	1298.4
2001-2002	130.9	104.6	66.97	51.55	47.49	58.97	92.97	110.5	142.5	161.1	172.6	158.2	1298.3
2002-2003	129.1	103.3	70.36	47.65	54.5	53.11	86.57	109.3	146.3	161.1	170.9	159.2	1291.3
2003-2004	128.6	100.5	65.83	48.98	47.63	53.44	90.1	109.6	140.6	159.3	170.3	158.2	1273.1
2004-2005	129.4	104.6	66.95	47.74	50.69	53.54	89.87	109.6	140.8	157.4	168.7	156.7	1276.0
2005-2006	129.3	98.5	62.86	50.74	48.61	55.39	89.92	111.8	142.1	159.3	170.1	159.4	1278.1
2006-2007	131.1	101.8	64.48	49.72	50.73	55.97	90.71	110	141.9	161.9	171.3	158.6	1288.1
2007-2008	128.5	103.6	67.58	50.14	48.57	53.96	93.25	112.5	142.9	162.6	171.2	160.5	1295.3
2008-2009	130.4	102.1	72.12	52.72	51.8	56.17	89.23	110.3	141.6	162	170.8	158.3	1297.5
2009-2010	127.7	102.8	66.76	52.83	53.45	57.25	91.94	112.4	142.5	159.1	168.2	161.4	1296.3
2010-2011	131.3	102.5	71.1	56.13	51.71	56.43	89.92	109.3	140.7	159.8	169.9	158.7	1297.6
2011-2012	130.6	99.83	61.82	48.98	48.2	53.18	86.78	110.2	141.1	160.6	173.1	161.2	1275.6
2012-2013	129.7	102.3	69.59	51.42	50.53	58.53	91.2	112.1	144.9	159.9	170.3	159.1	1299.6
2013-2014	128.7	97.97	69.36	47.23	54.22	57.85	92.05	111.4	140.7	159	168.3	158.3	1284.9
2014-2015	129.6	101.1	65.49	54.13	49.52	54.75	91.04	108	141.7	156.7	168.3	159.6	1279.9
AVERAGE	127.8	100.3	65.2	49.3	49.3	54.2	88.3	109.2	140.6	158.9	168.7	157.2	

**Table A. 81** Gonendere station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	98.2	69.8	34.2	29.1	26.9	32.5	48.2	68.6	104.9	149.2	169.9	144.0	975.5
1979-1980	103.6	66.3	41.3	26.7	23.8	26.5	42.8	62.4	102.2	147.2	173.8	159.2	975.8
1980-1981	95.4	67.0	40.0	26.9	25.4	28.9	46.4	67.9	94.2	154.3	170.5	140.6	957.8
1981-1982	101.3	72.7	33.7	29.8	26.2	25.5	39.8	64.7	101.1	144.8	159.3	152.3	951.2
1982-1983	106.0	65.6	32.9	24.8	22.4	26.1	42.9	66.0	108.1	135.3	167.8	144.5	942.4
1983-1984	99.6	61.4	40.3	28.7	28.1	31.8	46.3	62.2	110.9	144.0	170.1	138.4	961.7
1984-1985	88.0	65.4	32.8	24.6	27.4	25.9	42.9	68.3	114.6	143.1	168.9	174.9	976.7
1985-1986	111.2	64.0	42.7	28.9	25.8	30.1	46.9	75.7	96.9	147.9	169.4	144.1	983.7
1986-1987	104.7	61.4	31.5	25.4	24.2	31.1	37.4	61.5	99.2	136.2	180.0	151.4	943.9
1987-1988	99.9	58.6	35.0	25.9	25.1	27.9	41.4	67.7	111.1	145.5	192.6	154.1	984.9
1988-1989	101.8	59.8	31.6	25.4	22.6	27.7	46.7	84.7	115.4	137.7	175.0	145.5	974.0
1989-1990	97.3	60.6	37.1	27.3	23.4	28.3	45.2	67.5	104.4	139.3	162.1	147.1	939.6
1990-1991	94.3	65.4	38.0	27.5	24.9	26.8	47.7	66.9	97.7	142.5	157.7	139.2	928.6
1991-1992	95.6	65.6	35.2	22.6	21.0	21.0	34.5	58.4	95.5	126.2	148.0	154.3	877.8
1992-1993	94.0	64.6	34.5	21.4	22.9	24.2	40.8	62.7	86.7	144.2	168.1	155.0	919.1
1993-1994	98.8	77.4	33.0	26.7	26.3	28.0	42.9	71.3	107.8	143.0	161.3	149.0	965.5
1994-1995	110.3	69.4	31.5	21.7	24.1	29.4	44.9	62.5	108.8	150.6	171.5	148.9	973.6
1995-1996	97.4	61.9	30.1	24.0	22.8	28.1	41.4	58.1	112.0	148.1	174.7	149.5	948.1
1996-1997	94.2	58.6	37.2	27.9	25.8	25.3	37.3	52.4	107.4	145.9	176.7	130.1	918.6
1997-1998	91.0	60.5	36.8	25.7	23.3	27.9	42.1	72.2	103.5	153.2	187.8	168.7	992.7
1998-1999	101.0	68.2	40.1	27.2	26.7	28.2	46.5	68.5	122.4	155.6	190.3	156.8	1031.4
1999-2000	106.7	69.7	39.0	29.7	23.2	28.4	42.9	69.5	108.2	158.9	193.3	159.1	1028.5
2000-2001	107.4	63.5	40.2	26.8	26.2	29.6	54.3	70.2	113.5	150.6	177.8	154.8	1015.0
2001-2002	101.6	65.1	35.7	25.5	22.4	30.3	46.7	61.8	99.3	148.1	181.7	151.7	969.7
2002-2003	100.0	65.8	40.2	24.5	27.7	25.7	40.2	65.7	129.7	156.1	192.1	169.2	1036.8
2003-2004	103.2	70.7	39.3	26.8	25.0	28.2	49.4	69.3	105.4	152.1	187.9	149.3	1006.5
2004-2005	106.2	72.1	37.7	24.6	25.4	27.0	46.3	68.2	107.7	141.0	180.8	152.9	989.9
2005-2006	105.7	59.8	33.1	26.3	24.8	29.9	47.8	73.6	108.0	153.1	174.3	159.6	996.1
2006-2007	104.8	63.4	33.1	23.9	24.1	28.7	45.1	63.5	110.9	159.8	190.6	156.2	1004.0
2007-2008	105.3	71.3	38.8	26.2	23.3	27.2	55.9	75.8	110.2	160.1	185.8	165.8	1045.7
2008-2009	100.8	62.9	40.1	27.1	25.9	29.9	44.4	68.8	106.7	162.3	181.9	154.3	1005.2
2009-2010	96.5	71.4	36.7	31.3	30.1	32.7	50.2	72.6	111.2	140.6	168.2	172.1	1013.7
2010-2011	108.6	68.5	43.4	31.1	26.4	29.7	46.0	64.6	100.4	144.2	177.5	158.3	998.6
2011-2012	107.1	61.7	32.4	25.8	24.2	26.8	42.4	70.4	101.7	154.5	192.9	164.4	1004.5
2012-2013	105.0	68.3	40.2	28.1	25.7	31.8	48.8	73.6	119.9	147.7	171.3	162.5	1022.9
2013-2014	100.4	61.1	41.3	25.1	28.9	31.3	50.2	70.3	102.0	145.8	165.5	152.6	974.5
2014-2015	98.0	62.1	35.5	29.5	24.8	28.3	47.6	62.7	108.2	130.9	170.6	158.4	956.6
AVERAGE	101.1	65.5	36.7	26.5	25.1	28.3	45.0	67.3	106.7	147.0	175.3	153.7	

**Table A. 82** Gonendere station Thornthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	113.3	79.3	31.4	24.9	18.1	25.5	32.7	55.7	81.6	138.2	157.8	136.1	894.6
1979-1980	127.0	76.6	47.6	21.0	13.0	14.4	25.2	47.5	81.8	141.8	168.9	158.7	923.4
1980-1981	115.3	78.7	45.4	21.7	16.2	19.4	31.5	57.7	72.7	152.2	167.3	139.6	917.8
1981-1982	128.5	91.3	33.1	28.6	18.3	12.9	21.1	53.6	83.5	144.4	158.8	157.1	931.4
1982-1983	144.1	82.9	33.0	18.8	11.5	14.9	27.8	59.4	97.5	139.6	178.3	156.2	964.1
1983-1984	118.3	66.7	44.7	24.7	20.8	24.6	30.3	46.4	90.7	135.3	161.8	133.0	897.3
1984-1985	104.6	77.1	30.6	17.1	20.3	13.5	26.1	59.4	99.3	140.6	168.1	179.9	936.5
1985-1986	129.1	67.6	47.2	23.7	15.7	20.1	29.8	65.4	70.3	132.8	152.9	132.5	887.2
1986-1987	142.8	75.3	29.9	20.1	15.2	26.1	18.4	51.1	86.0	141.7	194.4	165.6	966.5
1987-1988	122.8	63.8	35.0	19.5	15.6	17.4	23.2	57.5	93.7	141.5	191.7	155.1	936.6
1988-1989	126.8	66.5	27.9	18.7	11.1	17.0	32.2	87.5	99.6	132.6	173.8	146.4	940.0
1989-1990	125.3	71.3	41.7	23.8	13.1	19.3	31.1	60.4	90.1	141.2	166.7	155.2	939.3
1990-1991	121.0	80.9	43.9	24.2	16.2	16.2	35.8	59.6	81.8	146.5	162.4	146.5	935.1
1991-1992	153.3	100.6	46.4	16.8	10.7	6.4	16.4	54.9	96.6	153.6	185.4	202.6	1043.9
1992-1993	134.8	88.6	40.1	12.6	13.6	12.0	26.3	58.1	74.3	165.9	195.2	184.2	1005.8
1993-1994	119.5	95.7	30.2	21.0	17.9	17.2	25.4	62.9	88.7	136.7	155.1	147.6	917.7
1994-1995	142.2	84.8	27.9	11.3	14.0	20.8	29.5	49.4	92.7	150.8	172.0	152.1	947.6
1995-1996	132.1	77.4	27.3	17.3	12.5	19.7	25.8	45.5	104.9	160.6	191.1	166.0	980.1
1996-1997	130.7	73.4	45.6	27.2	19.4	14.0	19.3	36.1	101.9	163.1	200.2	145.7	976.6
1997-1998	106.8	66.5	38.3	19.0	12.2	17.0	24.2	64.5	83.5	149.2	184.5	169.0	934.8
1998-1999	108.3	70.5	40.0	19.4	16.4	15.5	27.6	51.0	94.1	134.3	165.2	138.3	880.6
1999-2000	118.1	74.0	38.5	24.5	10.8	16.2	22.7	53.4	80.4	139.9	170.7	142.8	892.1
2000-2001	118.2	63.9	40.6	19.0	15.7	18.4	39.5	54.1	85.6	130.2	154.8	137.8	877.9
2001-2002	127.1	76.4	36.9	18.9	10.8	22.6	32.4	47.8	80.2	146.5	182.3	154.2	936.1
2002-2003	109.9	68.7	41.2	15.0	18.7	11.7	19.1	48.1	104.1	138.4	171.4	154.1	900.3
2003-2004	116.3	77.7	40.1	19.5	14.1	16.3	33.3	54.6	79.3	136.2	170.0	136.5	893.9
2004-2005	126.3	83.5	38.7	16.0	15.5	14.8	29.9	55.4	85.4	129.3	170.4	146.5	911.6
2005-2006	125.7	62.8	29.3	19.5	14.5	20.4	32.2	64.3	85.9	143.7	163.7	153.6	915.5
2006-2007	126.8	70.3	30.0	15.0	13.5	18.3	28.5	48.6	91.0	154.4	184.3	153.0	933.7
2007-2008	111.3	73.4	36.6	17.2	10.5	13.5	40.5	60.5	79.4	135.5	157.0	143.3	878.6
2008-2009	114.1	65.8	42.2	20.4	15.9	19.7	25.9	54.4	81.6	149.1	165.9	143.2	898.3
2009-2010	99.8	73.9	33.0	26.6	21.9	23.3	32.4	55.9	80.7	115.7	140.9	149.7	853.8
2010-2011	121.8	72.8	47.1	27.5	16.4	18.7	27.5	46.3	72.4	125.2	156.9	143.2	875.6
2011-2012	130.6	67.6	28.6	18.9	13.7	14.7	24.3	60.4	80.2	148.6	187.1	162.1	936.8
2012-2013	112.0	69.7	39.5	20.8	14.6	21.7	30.6	57.7	90.1	123.9	144.7	141.7	866.9
2013-2014	116.6	64.5	45.7	16.9	21.8	23.0	35.7	58.3	78.1	134.0	152.8	145.1	892.7
2014-2015	121.3	71.0	36.4	27.6	15.3	18.5	33.9	49.5	91.4	124.8	169.9	162.0	921.6
AVERAGE	122.8	74.9	37.6	20.4	15.3	17.7	28.3	55.5	86.8	141.0	170.1	152.3	

**Table A.83** Gonendere station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	175.6	170.9	134.4	134.1	124.9	117.8	134.6	142.3	163.6	179	194.1	191.9	1863.3
1979-1980	179.2	167.2	147.3	128.1	116.3	104.9	126.3	135.8	161.8	178.1	195.7	199	1839.6
1980-1981	173.6	167.9	145.1	128.6	120.9	110.4	132	141.6	156.1	181.3	194.3	190.3	1842.1
1981-1982	177.7	173.7	133.6	135.8	123.2	102.4	121	138.2	161	177	189.5	195.9	1829.0
1982-1983	180.8	166.5	131.9	122.9	112.1	103.8	126.3	139.7	165.8	172.3	193.2	192.1	1807.4
1983-1984	176.5	161.8	145.6	133.1	128	116.4	131.7	135.7	167.6	176.6	194.2	189.1	1856.3
1984-1985	168.1	166.3	131.6	122.3	126.2	103.3	126.5	142	169.8	176.2	193.7	205.5	1831.4
1985-1986	184.1	164.7	149.7	133.5	122	113	132.7	149	158.1	178.4	193.8	192	1871.0
1986-1987	180	161.8	128.8	124.4	117.4	115	116.8	134.8	159.8	172.8	198.1	195.4	1805.1
1987-1988	176.8	158.6	136.1	125.9	120	108.2	123.9	141.5	167.6	177.3	202.9	196.7	1835.4
1988-1989	178.1	160.1	129.2	124.6	112.7	107.6	132.3	156.7	170.3	173.5	196.2	192.7	1833.8
1989-1990	175	160.9	140.1	129.7	115	109.1	130.1	141.2	163.3	174.3	190.8	193.4	1822.7
1990-1991	172.8	166.3	141.7	130	119.5	105.7	133.9	140.6	158.6	175.9	188.9	189.5	1823.3
1991-1992	173.8	166.5	136.4	116.3	107.5	89.95	111.1	131.3	157	167.6	184.4	196.8	1738.6
1992-1993	172.7	165.5	135.1	112.5	113.6	98.99	122.9	136.1	150.2	176.7	193.3	197.1	1774.6
1993-1994	176	178.2	132	128	123.4	108.2	126.4	145	165.5	176.1	190.4	194.3	1843.5
1994-1995	183.5	170.5	128.9	113.3	117.1	111.4	129.6	136	166.2	179.6	194.8	194.3	1825.1
1995-1996	175	162.3	125.9	120.4	113.2	108.5	124	131	168.2	178.5	196.1	194.6	1797.7
1996-1997	172.7	158.6	140.3	131	121.9	101.8	116.6	124	165.3	177.5	196.8	184.7	1791.2
1997-1998	170.4	160.8	139.5	125.4	114.9	108	125.2	145.8	162.7	180.8	201.1	203.1	1837.7
1998-1999	177.5	169.2	145.4	129.2	124.3	108.7	132	142.2	174.5	181.9	202	197.8	1884.8
1999-2000	181.2	170.7	143.4	135.4	114.5	109.2	126.3	143.2	165.9	183.3	203.2	198.9	1875.2
2000-2001	181.6	164.2	145.5	128.4	123.1	111.9	143	143.9	169.2	179.6	197.3	197	1884.7
2001-2002	177.9	165.9	137.4	124.7	112	113.3	132.4	135.2	159.8	178.5	198.8	195.5	1831.4
2002-2003	176.8	166.6	145.4	121.9	127.1	103	121.9	139.3	178.5	182.1	202.7	203.3	1868.7
2003-2004	179	171.8	143.9	128.2	119.8	108.8	136.4	143	164	180.3	201.1	194.4	1870.6
2004-2005	180.9	173.1	141.1	122.2	120.9	106.1	131.9	141.9	165.5	175.1	198.5	196.1	1853.1
2005-2006	180.6	160	132.2	127	119.4	112.6	134	147.1	165.7	180.8	195.9	199.1	1854.2
2006-2007	180	164	132.3	120.2	117.4	109.8	129.9	137	167.5	183.7	202.2	197.6	1841.6
2007-2008	180.3	172.3	143.1	126.7	114.7	106.4	145	149.1	167.1	183.8	200.3	201.8	1890.8
2008-2009	177.4	163.5	145.3	129.1	122.4	112.5	128.8	142.5	164.8	184.8	198.9	196.8	1866.7
2009-2010	174.5	172.4	139.4	139.3	132.8	118.1	137.4	146.2	167.8	175	193.3	204.4	1900.6
2010-2011	182.4	169.5	150.7	138.8	123.7	112	131.3	138.2	160.6	176.7	197.2	198.6	1879.7
2011-2012	181.4	162.2	130.8	125.7	117.6	105.6	125.7	144.1	161.5	181.4	203	201.2	1840.1
2012-2013	180.1	169.3	145.5	131.7	121.8	116.3	135.5	147.1	173	178.3	194.6	200.4	1893.8
2013-2014	177.1	161.5	147.3	123.7	129.9	115.4	137.4	143.9	161.7	177.5	192.2	196	1863.6
2014-2015	175.4	162.5	137	135.1	119.3	109.1	133.6	136.2	165.8	170.1	194.4	198.6	1837.3
AVERAGE	177.5	166.2	138.9	127.2	119.7	108.7	129.4	140.8	164.6	177.9	196.2	196.4	

**Table A. 84** Gonendere station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.1	63.25	45.33	42.92	41.17	42.2	53	115.9	143	162	172.7	160.7	1177.3
1979-1980	137.9	61.89	49.66	41.01	38.31	37.55	49.72	110.6	141.4	161.2	174.1	166.6	1170.0
1980-1981	133.6	62.17	48.92	41.19	39.86	39.54	51.96	115.4	136.4	164.1	172.9	159.3	1165.3
1981-1982	136.7	64.32	45.04	43.47	40.6	36.66	47.65	112.6	140.7	160.1	168.7	164	1160.6
1982-1983	139.1	61.63	44.47	39.33	36.93	37.17	49.75	113.8	144.9	155.9	171.9	160.9	1155.8
1983-1984	135.9	59.91	49.1	42.61	42.18	41.7	51.85	110.5	146.4	159.8	172.8	158.4	1171.0
1984-1985	129.4	61.54	44.36	39.14	41.58	36.98	49.77	115.7	148.4	159.4	172.4	172.1	1170.8
1985-1986	141.6	61	50.47	42.73	40.22	40.45	52.26	121.4	138.1	161.4	172.6	160.7	1183.0
1986-1987	138.5	59.91	43.43	39.82	38.71	41.17	45.97	109.8	139.6	156.4	176.4	163.6	1153.2
1987-1988	136	58.7	45.9	40.29	39.53	38.74	48.78	115.2	146.5	160.4	180.6	164.7	1175.4
1988-1989	137	59.24	43.55	39.89	37.14	38.53	52.1	127.6	148.9	157	174.6	161.3	1176.8
1989-1990	134.6	59.57	47.24	41.51	37.9	39.07	51.21	115	142.7	157.7	169.8	161.9	1158.3
1990-1991	133	61.56	47.77	41.61	39.39	37.83	52.71	114.5	138.6	159.2	168.1	158.7	1152.9
1991-1992	133.7	61.64	46	37.22	35.45	32.2	43.73	107	137.2	151.7	164.1	164.8	1114.6
1992-1993	132.9	61.25	45.55	36.03	37.44	35.44	48.37	110.9	131.3	159.9	172	165	1136.0
1993-1994	135.4	65.95	44.5	40.97	40.7	38.76	49.78	118.1	144.7	159.3	169.5	162.7	1170.4
1994-1995	141.2	63.11	43.43	36.27	38.6	39.9	51.01	110.7	145.2	162.6	173.3	162.7	1168.1
1995-1996	134.7	60.1	42.43	38.54	37.3	38.88	48.79	106.7	147	161.5	174.5	162.9	1153.4
1996-1997	132.9	58.71	47.31	41.94	40.18	36.44	45.92	101	144.4	160.6	175.2	154.7	1139.3
1997-1998	131.1	59.53	47.02	40.14	37.87	38.68	49.27	118.8	142.2	163.6	179	170	1177.2
1998-1999	136.6	62.63	49.02	41.37	40.98	38.93	51.98	115.8	152.5	164.6	179.8	165.7	1199.9
1999-2000	139.5	63.2	48.36	43.37	37.74	39.11	49.74	116.6	144.9	165.9	180.8	166.6	1195.8
2000-2001	139.8	60.78	49.07	41.1	40.57	40.09	56.3	117.2	147.8	162.6	175.6	165	1195.8
2001-2002	136.9	61.42	46.33	39.91	36.93	40.59	52.12	110.1	139.6	161.5	176.9	163.7	1166.1
2002-2003	136.1	61.71	49.04	39.04	41.87	36.88	47.99	113.5	156	164.8	180.4	170.2	1197.5
2003-2004	137.7	63.59	48.52	41.03	39.47	38.96	53.69	116.5	143.3	163.2	179	162.8	1187.7
2004-2005	139.2	64.07	47.57	39.11	39.86	37.97	51.9	115.6	144.6	158.5	176.6	164.2	1179.3
2005-2006	139	59.23	44.58	40.65	39.34	40.31	52.75	119.8	144.8	163.6	174.3	166.8	1185.1
2006-2007	138.5	60.73	44.6	38.49	38.67	39.33	51.14	111.6	146.4	166.2	179.9	165.5	1181.1
2007-2008	138.8	63.78	48.25	40.55	37.8	38.11	57.11	121.5	146.1	166.3	178.3	169	1205.5
2008-2009	136.5	60.53	49.01	41.35	40.33	40.3	50.72	116	144	167.2	177	164.8	1187.7
2009-2010	134.2	63.83	46.99	44.59	43.78	42.31	54.12	119.1	146.6	158.3	172.1	171.2	1197.1
2010-2011	140.4	62.75	50.8	44.45	40.77	40.12	51.68	112.5	140.3	159.9	175.5	166.3	1185.4
2011-2012	139.6	60.04	44.11	40.24	38.75	37.8	49.47	117.4	141.1	164.1	180.7	168.5	1181.8
2012-2013	138.6	62.7	49.06	42.14	40.14	41.66	53.34	119.8	151.2	161.4	173.2	167.8	1201.0
2013-2014	136.3	59.78	49.69	39.6	42.83	41.32	54.09	117.2	141.3	160.6	171.1	164.1	1177.9
2014-2015	135	60.18	46.19	43.25	39.3	39.07	52.62	110.9	144.9	153.9	173	166.3	1164.6
AVERAGE	136.6	61.5	46.8	40.7	39.5	38.9	50.9	114.7	143.9	161.0	174.6	164.4	

**Table A. 85 Gonendere station Rs results**

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114.2	91.06	52.09	42.41	41.06	48.74	78.06	97.68	127.2	146.2	153.8	141.2	1133.8
1979-1980	116.3	88.98	59.3	39.02	36.2	41.45	73.38	94.03	126.2	145.7	154.7	145.2	1120.5
1980-1981	113.1	89.42	58.05	39.35	38.83	44.55	76.55	97.27	123	147.5	154	140.3	1121.9
1981-1982	115.4	92.67	51.61	43.39	40.1	40.05	70.4	95.39	125.8	145	151.3	143.4	1114.5
1982-1983	117.2	88.59	50.64	36.11	33.86	40.87	73.38	96.21	128.4	142.4	153.3	141.3	1102.4
1983-1984	114.8	85.97	58.36	41.86	42.78	47.94	76.4	93.95	129.4	144.8	153.9	139.6	1129.9
1984-1985	110.1	88.47	50.47	35.78	41.77	40.57	73.46	97.52	130.7	144.6	153.6	148.8	1115.9
1985-1986	119	87.63	60.64	42.05	39.45	46.01	76.98	101.4	124.1	145.8	153.7	141.3	1138.1
1986-1987	116.7	85.99	48.92	36.95	36.87	47.13	68.01	93.48	125.1	142.7	156.1	143.2	1101.1
1987-1988	114.9	84.15	53.02	37.78	38.28	43.31	72.05	97.19	129.5	145.2	158.8	143.9	1118.1
1988-1989	115.6	85	49.13	37.07	34.2	43	76.75	105.7	131	143.1	155	141.6	1117.2
1989-1990	113.9	85.48	55.26	39.92	35.5	43.85	75.5	97.04	127	143.5	152	142	1111.0
1990-1991	112.7	88.49	56.15	40.1	38.04	41.91	77.62	96.72	124.4	144.4	150.9	139.8	1111.4
1991-1992	113.2	88.61	53.19	32.4	31.3	33.08	64.83	91.51	123.5	139.8	148.4	143.9	1063.8
1992-1993	112.6	88.03	52.45	30.31	34.7	38.16	71.45	94.21	119.7	144.9	153.4	144.1	1084.0
1993-1994	114.5	95.16	50.72	38.97	40.23	43.34	73.44	99.17	128.3	144.5	151.8	142.5	1122.7
1994-1995	118.7	90.83	48.95	30.75	36.68	45.12	75.2	94.11	128.7	146.5	154.2	142.5	1112.3
1995-1996	114	86.27	47.27	34.73	34.49	43.52	72.06	91.31	129.8	145.9	155	142.7	1097.0
1996-1997	112.6	84.17	55.37	40.68	39.37	39.71	67.95	87.39	128.2	145.3	155.4	137.2	1093.3
1997-1998	111.3	85.43	54.91	37.53	35.45	43.24	72.73	99.63	126.7	147.2	157.8	147.5	1119.4
1998-1999	115.3	90.11	58.24	39.66	40.72	43.61	76.6	97.61	133.4	147.8	158.3	144.5	1145.9
1999-2000	117.4	90.98	57.13	43.16	35.21	43.88	73.39	98.18	128.5	148.6	158.9	145.1	1140.5
2000-2001	117.7	87.31	58.32	39.19	40.05	45.42	82.74	98.55	130.3	146.5	155.6	144.1	1145.8
2001-2002	115.5	88.29	53.75	37.11	33.83	46.21	76.77	93.7	125.1	145.9	156.5	143.2	1115.9
2002-2003	114.9	88.68	58.27	35.59	42.26	40.42	70.9	96.01	135.6	147.9	158.7	147.6	1136.9
2003-2004	116.2	91.58	57.4	39.08	38.17	43.65	79.04	98.08	127.4	146.9	157.8	142.6	1137.9
2004-2005	117.2	92.31	55.81	35.71	38.83	42.13	76.49	97.45	128.3	144	156.3	143.6	1128.1
2005-2006	117.1	84.94	50.83	38.42	37.94	45.8	77.68	100.3	128.4	147.2	154.9	145.3	1128.7
2006-2007	116.7	87.22	50.87	34.61	36.83	44.25	75.37	94.69	129.4	148.8	158.4	144.4	1121.6
2007-2008	116.9	91.88	56.94	38.23	35.33	42.34	83.9	101.5	129.2	148.9	157.4	146.8	1149.2
2008-2009	115.3	86.93	58.21	39.62	39.63	45.76	74.77	97.75	127.9	149.4	156.5	143.9	1135.7
2009-2010	113.6	91.95	54.86	45.31	45.52	48.92	79.62	99.83	129.6	143.9	153.4	148.2	1154.7
2010-2011	118.1	90.32	61.22	45.07	40.37	45.48	76.16	95.35	125.5	144.9	155.6	145	1143.0
2011-2012	117.5	86.18	50.04	37.71	36.94	41.85	73.03	98.65	126	147.5	158.9	146.4	1120.8
2012-2013	116.8	90.21	58.29	41.06	39.31	47.88	78.56	100.4	132.5	145.8	154.2	146	1150.9
2013-2014	115.1	85.79	59.33	36.57	43.89	47.36	79.62	98.58	126.1	145.3	152.8	143.5	1133.9
2014-2015	114.2	86.39	53.53	42.98	37.91	43.86	77.49	94.25	128.4	141.2	154	145	1119.2
AVERAGE	115.3	88.4	54.6	38.5	38.2	43.6	75.1	96.8	127.8	145.5	155.0	143.7	

**Table A. 86** Guzelyurt station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	93.9	68.2	35.9	29.3	27.7	33.9	49.4	69.4	103.1	149.4	165.0	136.3	961.5
1979-1980	102.0	67.1	42.3	26.9	24.5	28.5	43.9	64.1	99.9	139.0	158.8	150.6	947.6
1980-1981	93.9	66.5	39.9	28.7	25.8	28.3	47.2	66.0	90.1	136.9	160.4	141.2	924.9
1981-1982	84.7	69.8	34.7	30.1	27.7	27.8	42.3	69.2	102.3	135.2	153.6	143.1	920.6
1982-1983	101.9	67.5	34.3	26.8	23.3	27.2	43.2	67.0	107.5	129.8	157.8	134.7	921.1
1983-1984	91.2	76.9	48.6	33.5	27.7	31.3	46.4	64.3	101.4	136.7	169.1	137.9	964.9
1984-1985	102.4	67.0	36.3	26.0	28.2	27.2	46.1	72.5	119.6	143.6	163.1	151.5	983.4
1985-1986	101.6	58.6	40.6	27.6	26.7	31.9	49.1	80.8	102.3	143.3	162.9	145.6	970.8
1986-1987	107.4	64.0	32.6	26.1	27.6	31.9	39.8	64.1	98.2	140.0	176.1	147.7	955.5
1987-1988	100.5	60.9	35.9	26.9	25.8	29.5	45.0	70.0	112.4	147.7	186.5	152.1	993.1
1988-1989	103.2	62.4	32.2	25.8	21.6	27.0	46.6	76.2	111.2	141.5	170.0	149.0	966.7
1989-1990	96.3	59.0	38.2	27.8	23.5	28.9	45.2	69.0	101.6	138.7	169.6	143.3	940.9
1990-1991	97.9	65.6	40.1	28.9	25.8	29.6	50.8	74.8	101.5	141.4	158.1	144.8	959.3
1991-1992	96.9	67.5	37.4	25.6	23.2	24.6	40.5	64.3	102.3	135.9	155.4	150.8	924.4
1992-1993	91.7	64.5	38.1	23.3	24.0	26.1	43.1	66.0	98.0	147.6	169.5	152.3	944.2
1993-1994	95.3	68.7	34.6	27.9	28.6	30.0	44.9	74.8	110.4	145.1	165.7	159.5	985.4
1994-1995	113.5	75.7	36.2	25.7	27.9	30.1	48.7	67.4	106.5	159.1	174.9	148.2	1014.0
1995-1996	98.8	61.3	31.9	24.8	24.0	30.2	44.3	63.7	118.7	149.5	173.5	145.1	965.9
1996-1997	99.1	59.0	39.6	30.5	27.4	27.5	43.4	63.2	109.6	153.4	188.9	145.4	986.7
1997-1998	98.0	64.6	38.6	28.2	25.6	29.5	44.4	73.7	107.2	150.2	185.8	168.4	1014.0
1998-1999	102.6	68.9	41.0	28.7	27.5	29.6	45.4	66.0	110.4	150.8	178.4	158.0	1007.4
1999-2000	102.0	68.4	37.9	29.4	23.4	28.6	43.2	73.0	107.4	157.2	187.6	154.5	1012.6
2000-2001	103.1	63.7	39.1	27.9	27.3	30.3	53.8	74.1	115.8	145.4	179.0	155.6	1015.0
2001-2002	102.6	67.1	36.8	27.4	23.7	32.3	49.9	67.4	104.7	148.5	183.9	152.7	997.1
2002-2003	101.2	67.2	40.3	26.4	29.2	28.0	41.8	66.6	125.3	153.9	183.5	160.4	1023.5
2003-2004	102.0	67.2	38.3	27.9	25.4	30.2	48.8	69.3	106.5	149.4	174.2	147.7	986.7
2004-2005	99.3	70.9	38.1	25.6	26.5	28.7	49.4	74.1	109.6	144.1	175.5	156.3	997.8
2005-2006	103.7	61.9	35.2	28.3	25.6	30.4	48.3	74.1	109.6	150.3	176.9	158.6	1002.8
2006-2007	109.5	67.7	34.3	25.0	17.4	22.2	31.2	40.9	80.4	95.0	109.1	104.8	737.5
2007-2008	64.2	47.0	28.2	19.6	23.7	28.4	56.7	75.3	108.0	162.7	185.0	168.6	967.4
2008-2009	106.9	66.3	42.1	28.6	28.3	30.8	44.7	68.4	103.6	152.3	183.2	155.1	1010.4
2009-2010	100.9	71.5	37.8	29.9	28.9	32.7	49.2	71.2	108.9	145.6	168.1	170.6	1015.3
2010-2011	108.4	69.5	42.2	31.4	27.3	30.0	46.5	68.5	105.7	149.7	176.6	154.4	1010.3
2011-2012	106.7	62.6	32.6	26.3	25.1	27.5	42.6	67.6	107.3	152.0	189.8	163.4	1003.5
2012-2013	103.3	68.9	40.8	28.9	26.2	32.0	49.8	72.8	119.6	148.8	173.3	156.7	1021.1
2013-2014	101.6	58.3	41.1	25.6	29.1	32.2	51.8	73.2	111.8	147.0	172.5	161.6	1005.8
2014-2015	106.0	65.3	37.1	30.7	26.0	29.3	49.4	64.8	109.4	137.4	170.6	162.7	988.8
AVERAGE	99.8	65.6	37.6	27.5	25.9	29.3	46.1	68.9	106.7	144.7	171.1	151.1	

**Table A. 87** Guzelyurt station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	106.8	75.8	34.5	25.3	19.9	29.3	35.8	56.9	83.8	146.2	151.7	129.7	895.5
1979-1980	126.6	78.5	49.6	21.6	14.6	19.0	28.2	51.2	84.4	141.1	153.5	153.9	922.2
1980-1981	117.6	80.2	46.3	26.5	17.8	19.3	35.3	56.5	73.6	143.7	161.1	148.4	926.4
1981-1982	103.3	87.7	35.9	29.9	22.0	18.5	26.8	63.3	92.5	143.6	155.3	153.0	931.7
1982-1983	137.1	85.8	35.9	23.2	13.4	17.7	29.3	61.0	102.5	139.4	164.9	146.4	956.5
1983-1984	97.5	85.4	55.8	32.0	18.9	22.4	29.2	46.1	77.8	123.6	148.5	125.3	862.7
1984-1985	118.7	73.2	34.8	18.7	20.6	15.2	30.0	61.1	103.4	137.6	148.2	145.2	906.6
1985-1986	117.0	59.1	42.9	21.7	17.7	24.5	34.8	74.0	81.7	136.6	147.4	138.2	895.7
1986-1987	136.7	73.9	30.0	20.3	21.0	26.9	21.4	51.8	83.0	144.3	175.1	152.4	936.9
1987-1988	116.7	63.6	34.3	20.5	16.2	19.9	28.4	57.5	95.3	143.7	173.5	146.8	916.4
1988-1989	129.9	71.1	29.1	19.6	9.6	16.0	33.3	72.7	100.7	146.2	168.0	153.8	950.1
1989-1990	121.7	66.6	42.5	24.3	13.2	20.6	31.6	61.7	89.8	146.0	171.7	150.6	940.2
1990-1991	113.7	72.0	42.8	24.6	16.4	20.2	38.5	65.9	82.3	137.0	145.1	140.0	898.4
1991-1992	129.9	86.9	43.3	20.9	13.3	12.0	24.6	56.7	96.0	150.5	163.9	168.9	967.0
1992-1993	116.8	78.7	43.4	15.4	14.7	14.9	28.6	58.0	87.0	162.8	176.1	165.8	962.2
1993-1994	106.7	75.1	31.2	22.1	21.0	20.4	27.7	64.0	91.1	137.8	149.3	151.9	898.5
1994-1995	125.8	81.3	32.4	16.9	18.7	19.5	32.1	49.4	81.7	146.2	150.1	132.5	886.8
1995-1996	123.7	69.6	28.7	17.7	14.1	23.1	29.4	51.4	111.6	158.4	173.3	150.5	951.7
1996-1997	114.6	60.5	41.5	27.6	19.2	15.7	25.6	46.8	91.9	151.1	176.2	139.7	910.4
1997-1998	106.9	66.2	37.5	21.9	15.1	18.7	26.0	60.2	84.4	139.3	164.1	155.8	896.1
1998-1999	111.9	71.9	41.3	22.5	18.3	18.6	27.1	47.8	87.0	138.0	154.8	143.4	882.6
1999-2000	113.5	72.7	36.5	24.2	11.4	17.1	24.2	59.5	85.1	148.5	167.0	142.9	902.5
2000-2001	110.1	62.5	37.2	20.5	17.5	19.6	39.6	58.5	91.1	128.7	152.0	138.0	875.4
2001-2002	116.3	71.8	35.0	20.8	12.1	25.0	35.5	51.9	83.2	140.5	166.1	143.3	901.7
2002-2003	109.2	68.8	39.8	18.2	21.0	15.4	21.4	48.4	103.3	140.5	158.6	144.8	889.4
2003-2004	116.3	72.4	38.2	21.9	15.2	20.8	33.9	55.2	86.0	142.6	157.5	139.0	899.1
2004-2005	110.4	77.0	37.1	17.3	16.8	17.5	34.3	61.6	88.3	133.7	156.1	145.6	895.6
2005-2006	116.9	62.9	31.7	22.4	15.4	20.9	32.5	61.8	88.4	141.4	157.7	148.1	900.2
2006-2007	263.1	148.6	61.1	32.7	5.2	12.9	15.1	26.1	106.6	148.5	171.6	180.2	1171.9
2007-2008	68.9	47.0	22.8	8.3	14.6	20.9	57.2	78.3	105.7	192.1	202.4	192.8	1011.0
2008-2009	116.6	67.1	42.9	22.2	19.4	20.7	25.7	50.7	78.0	138.1	157.6	139.0	878.0
2009-2010	105.3	72.9	34.3	23.8	19.8	23.7	31.8	53.4	81.9	126.7	139.2	149.9	862.9
2010-2011	116.7	70.9	42.5	26.7	17.4	18.9	28.0	50.1	79.2	132.8	148.8	136.1	868.1
2011-2012	127.4	67.2	28.3	19.5	15.1	16.0	24.6	54.4	89.9	150.8	178.9	160.5	932.5
2012-2013	107.9	68.8	39.3	21.9	15.2	22.4	32.6	55.5	93.4	129.6	143.5	136.2	866.3
2013-2014	110.3	55.3	41.4	16.8	20.9	23.7	37.1	58.5	88.4	133.1	148.7	146.6	880.8
2014-2015	121.3	68.9	35.6	27.2	16.1	18.8	34.8	47.7	89.0	126.9	152.8	153.6	892.7
AVERAGE	119.2	73.5	38.3	22.1	16.4	19.6	30.6	56.4	89.7	142.4	160.3	148.4	

**Table A. 88** Guzelyurt station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	172.5	169.1	137.9	134.5	127.1	120.4	136.2	143.1	162.4	179	192	188	1862.2
1979-1980	178.2	168	149	128.4	118.2	109.5	128	137.7	160.2	174.1	189.3	195	1835.5
1980-1981	172.4	167.3	145	133.1	122	109.1	133	139.6	152.9	173.1	190	190.5	1828.1
1981-1982	165.5	170.8	135.5	136.4	126.9	107.9	125.4	142.8	161.9	172.3	186.9	191.4	1823.8
1982-1983	178	168.5	134.7	128.2	114.7	106.6	126.9	140.7	165.3	169.5	188.8	187.2	1809.0
1983-1984	170.5	177.6	158.3	143.9	127	115.3	131.9	137.9	161.2	173	193.7	188.9	1879.1
1984-1985	178.3	167.9	138.4	126.2	128.3	106.5	131.4	146	172.8	176.4	191.2	195.4	1859.0
1985-1986	177.9	158.5	146.1	130.4	124.4	116.5	135.9	153.4	161.8	176.2	191.1	192.7	1864.8
1986-1987	181.6	164.7	131.2	126.4	126.8	116.7	121.1	137.6	158.9	174.7	196.5	193.6	1829.8
1987-1988	177.1	161.2	137.7	128.5	121.9	111.7	129.8	143.6	168.4	178.3	200.6	195.7	1854.6
1988-1989	178.9	163	130.4	125.5	109.6	106.1	132.1	149.4	167.7	175.4	194.1	194.3	1826.4
1989-1990	174.2	159	141.9	130.7	115.3	110.3	130	142.6	161.3	174	193.9	191.5	1824.9
1990-1991	175.3	166.5	145.2	133.5	122	111.9	138.3	148.1	161.3	175.3	189	192.3	1858.6
1991-1992	174.6	168.5	140.6	125.1	114.4	99.95	122.4	137.9	161.8	172.6	187.7	195.1	1800.8
1992-1993	170.9	165.3	141.7	118.5	117.1	103.9	126.8	139.6	158.8	178.2	193.9	195.8	1810.4
1993-1994	173.5	169.7	135.2	131.1	129.2	112.6	129.6	148.1	167.2	177.1	192.3	199	1864.7
1994-1995	185.4	176.5	138.3	125.4	127.5	113	135.4	141.1	164.7	183.4	196.1	193.9	1880.4
1995-1996	176	161.7	129.8	122.8	117	113.1	128.6	137.2	172.3	179.1	195.5	192.4	1825.4
1996-1997	176.1	159	144.3	137.3	126.2	107.1	127.1	136.7	166.6	180.9	201.5	192.6	1855.3
1997-1998	175.4	165.3	142.6	131.8	121.4	111.6	128.9	147.1	165.1	179.4	200.3	202.9	1871.8
1998-1999	178.5	169.9	146.7	133.1	126.6	111.8	130.4	139.7	167.2	179.7	197.5	198.4	1879.4
1999-2000	178.1	169.4	141.4	134.6	115.1	109.6	126.9	146.5	165.3	182.5	201	196.8	1867.2
2000-2001	178.8	164.4	143.6	131	126.1	113.3	142.3	147.5	170.5	177.2	197.7	197.3	1889.8
2001-2002	178.5	168.1	139.4	129.8	116	117.5	137	141.1	163.5	178.6	199.6	196	1865.0
2002-2003	177.6	168.1	145.6	127.3	130.6	108.2	124.5	140.3	176.1	181.1	199.5	199.4	1878.1
2003-2004	178.1	168.1	142.2	131	120.9	113.2	135.4	142.9	164.7	179	195.8	193.6	1864.9
2004-2005	176.3	171.9	141.7	125	123.8	109.9	136.2	147.5	166.6	176.6	196.3	197.6	1869.5
2005-2006	179.2	162.3	136.4	132.1	121.6	113.6	134.6	147.5	166.6	179.5	196.9	198.6	1869.0
2006-2007	182.9	168.7	134.6	123.3	94.33	93.5	104.1	107.1	144.9	148.3	162.9	169.5	1634.0
2007-2008	146.7	143	121.3	106.3	116	109.2	146	148.6	165.7	184.9	200	203	1790.7
2008-2009	181.3	167.1	148.6	132.9	128.6	114.3	129.3	142	162.7	180.4	199.3	197.1	1883.7
2009-2010	177.4	172.5	141.3	135.9	129.8	118.1	136.1	144.8	166.2	177.3	193.3	203.8	1896.5
2010-2011	182.3	170.5	148.8	139.3	126	112.7	132.1	142.2	164.1	179.2	196.7	196.8	1890.8
2011-2012	181.2	163.2	131.2	127	120.1	107.2	125.9	141.3	165.2	180.2	201.8	200.8	1844.9
2012-2013	179	169.9	146.4	133.5	123	116.9	136.9	146.4	172.8	178.8	195.4	197.8	1896.7
2013-2014	177.9	158.1	146.9	125	130.3	117.2	139.6	146.7	168.1	177.9	195.1	200	1882.9
2014-2015	180.8	166.1	140	137.8	122.4	111.1	136.4	138.4	166.6	173.4	194.4	200.5	1867.7
AVERAGE	176.4	166.2	140.5	129.8	121.8	111.0	131.1	142.2	164.6	176.7	194.3	195.0	

**Table A. 89** Guzelyurt station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	132.7	62.63	46.48	43.08	41.89	43.14	53.65	116.6	141.9	162	170.9	157.5	1172.5
1979-1980	137.1	62.22	50.25	41.11	38.97	39.2	50.4	112.2	140	157.6	168.5	163.3	1160.9
1980-1981	132.7	61.97	48.9	42.63	40.21	39.06	52.39	113.8	133.7	156.7	169.1	159.6	1150.7
1981-1982	127.3	63.26	45.71	43.69	41.83	38.64	49.37	116.4	141.5	155.9	166.4	160.3	1150.3
1982-1983	137	62.39	45.44	41.04	37.81	38.16	49.95	114.6	144.5	153.4	168.1	156.8	1149.2
1983-1984	131.2	65.76	53.4	46.1	41.87	41.29	51.93	112.3	140.9	156.6	172.4	158.2	1172.0
1984-1985	137.3	62.16	46.69	40.41	42.29	38.16	51.76	119	151	159.6	170.2	163.7	1182.2
1985-1986	136.9	58.67	49.27	41.75	41.03	41.73	53.49	125	141.4	159.5	170.1	161.3	1180.2
1986-1987	139.8	60.98	44.26	40.47	41.79	41.79	47.69	112.1	138.9	158.1	175	162.2	1163.0
1987-1988	136.3	59.67	46.45	41.15	40.19	40	51.1	117	147.2	161.4	178.5	163.9	1183.0
1988-1989	137.7	60.34	43.98	40.19	36.14	37.99	52.03	121.7	146.6	158.7	172.8	162.7	1170.9
1989-1990	134.1	58.88	47.86	41.86	38.01	39.52	51.19	116.2	141	157.5	172.6	160.4	1159.1
1990-1991	135	61.63	48.99	42.74	40.21	40.07	54.45	120.7	141	158.7	168.2	161	1172.6
1991-1992	134.4	62.39	47.41	40.06	37.72	35.8	48.18	112.3	141.4	156.2	167.1	163.4	1146.5
1992-1993	131.5	61.19	47.81	37.95	38.58	37.2	49.92	113.7	138.8	161.3	172.6	164	1154.6
1993-1994	133.6	62.84	45.6	41.99	42.58	40.35	51.04	120.7	146.1	160.2	171.2	166.7	1182.9
1994-1995	142.7	65.34	46.64	40.15	42.03	40.46	53.3	114.9	143.9	165.9	174.5	162.4	1192.4
1995-1996	135.4	59.87	43.76	39.32	38.55	40.52	50.62	111.8	150.6	162.1	174	161.2	1167.8
1996-1997	135.6	58.87	48.69	43.96	41.59	38.34	50.06	111.4	145.7	163.7	179.4	161.3	1178.4
1997-1998	135	61.22	48.1	42.2	40.02	39.97	50.74	119.9	144.3	162.4	178.3	169.9	1192.0
1998-1999	137.4	62.92	49.49	42.6	41.73	40.04	51.35	113.8	146.2	162.7	175.8	166.2	1190.0
1999-2000	137.1	62.73	47.71	43.12	37.92	39.26	49.95	119.3	144.4	165.2	178.9	164.9	1190.6
2000-2001	137.6	60.85	48.42	41.95	41.56	40.6	56.05	120.2	149.1	160.4	176	165.3	1197.9
2001-2002	137.4	62.22	47.02	41.56	38.24	42.07	53.94	115	142.9	161.7	177.7	164.2	1183.8
2002-2003	136.7	62.24	49.1	40.76	43.05	38.75	49.04	114.3	153.9	163.9	177.5	167	1196.3
2003-2004	137.1	62.24	47.95	41.95	39.86	40.53	53.32	116.4	143.9	162	174.3	162.2	1181.8
2004-2005	135.7	63.65	47.81	40.02	40.8	39.37	53.65	120.2	145.7	159.8	174.7	165.5	1186.9
2005-2006	138	60.11	46	42.28	40.08	40.69	53.03	120.2	145.7	162.4	175.2	166.4	1190.1
2006-2007	140.8	62.45	45.39	39.48	31.09	33.49	40.97	87.25	126.6	134.2	145	142	1028.7
2007-2008	112.9	52.95	40.91	34.03	38.25	39.12	57.5	121.1	144.8	167.3	178	170	1156.8
2008-2009	139.6	61.89	50.13	42.56	42.38	40.94	50.92	115.7	142.2	163.3	177.5	165.1	1192.1
2009-2010	136.5	63.87	47.65	43.53	42.81	42.3	53.58	118	145.3	160.5	172.1	170.7	1196.8
2010-2011	140.3	63.15	50.2	44.62	41.53	40.35	52.02	115.8	143.5	162.2	175.1	164.8	1193.6
2011-2012	139.5	60.42	44.26	40.65	39.57	38.39	49.56	115.1	144.4	163.1	179.7	168.1	1182.7
2012-2013	137.7	62.9	49.39	42.76	40.54	41.86	53.9	119.2	151.1	161.8	174	165.7	1200.9
2013-2014	136.9	58.54	49.56	40.03	42.97	41.97	54.99	119.5	146.9	161	173.7	167.5	1193.6
2014-2015	139.1	61.51	47.21	44.13	40.35	39.8	53.7	112.7	145.6	156.9	173	167.9	1181.9
AVERAGE	135.8	61.5	47.4	41.6	40.2	39.8	51.6	115.8	143.9	159.9	172.9	163.3	

**Table A. 90** Guzelyurt station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.4	89.99	53.98	42.6	42.22	50.15	78.84	97.98	126.4	146	152.5	138.9	1131.9
1979-1980	115.6	89.38	60.21	39.17	37.25	43.98	74.21	94.94	125.1	143.3	151	142.8	1116.8
1980-1981	112.4	88.99	57.95	41.82	39.36	43.75	77.04	96.03	121	142.7	151.4	140.3	1112.7
1981-1982	108.5	90.95	52.65	43.69	42.13	43.1	72.74	97.84	126.1	142.2	149.7	140.8	1110.3
1982-1983	115.5	89.63	52.19	39.05	35.28	42.35	73.58	96.63	128	140.6	150.7	138.4	1102.0
1983-1984	111.3	94.75	65.44	47.9	42.2	47.23	76.4	95.06	125.7	142.6	153.4	139.3	1141.4
1984-1985	115.7	89.3	54.28	37.95	42.92	42.33	76.13	99.62	132.2	144.5	152	143	1130.0
1985-1986	115.4	84.02	58.58	40.29	40.75	47.94	78.63	103.8	126.1	144.4	152	141.5	1133.3
1986-1987	117.5	87.5	50.23	38.04	42.06	48.03	70.34	94.9	124.4	143.5	155.1	142	1113.7
1987-1988	115	85.53	53.88	39.25	39.33	45.22	75.23	98.27	129.8	145.6	157.3	143.2	1127.6
1988-1989	116	86.54	49.75	37.54	32.43	42.07	76.54	101.5	129.4	143.9	153.7	142.4	1111.8
1989-1990	113.4	84.33	56.24	40.49	35.61	44.47	75.34	97.72	125.8	143.2	153.6	140.8	1110.9
1990-1991	114	88.5	58.1	42.02	39.35	45.32	80	100.8	125.8	143.9	150.8	141.2	1129.8
1991-1992	113.6	89.65	55.47	37.33	35.12	38.63	71.06	95.05	126	142.4	150.1	142.9	1097.3
1992-1993	111.5	87.83	56.14	33.63	36.61	40.83	73.53	96.02	124.3	145.5	153.5	143.3	1102.8
1993-1994	113	90.31	52.46	40.71	43.41	45.76	75.12	100.8	129.1	144.9	152.7	145.1	1133.2
1994-1995	119.6	94.11	54.19	37.47	42.46	45.94	78.36	96.85	127.7	148.4	154.8	142.2	1142.1
1995-1996	114.4	85.81	49.41	36.04	36.54	46.02	74.53	94.66	132	146.1	154.5	141.3	1111.2
1996-1997	114.4	84.3	57.6	44.16	41.71	42.62	73.73	94.41	128.8	147	157.8	141.4	1128.0
1997-1998	114	87.86	56.64	41.07	39.05	45.17	74.7	100.2	127.9	146.2	157.2	147.2	1137.2
1998-1999	115.8	90.46	58.93	41.79	41.96	45.28	75.56	96.05	129.1	146.4	155.6	144.7	1141.5
1999-2000	115.5	90.15	55.96	42.68	35.48	44.07	73.58	99.88	128	148	157.5	143.8	1134.7
2000-2001	116	87.32	57.16	40.64	41.66	46.16	82.26	100.4	130.9	145	155.7	144.1	1147.3
2001-2002	115.8	89.4	54.82	39.95	36	48.47	79.26	96.87	127	145.8	156.8	143.3	1133.4
2002-2003	115.3	89.42	58.29	38.55	44.21	43.26	72.27	96.39	134	147.1	156.7	145.3	1140.8
2003-2004	115.6	89.42	56.38	40.62	38.76	46.05	78.38	97.9	127.6	146	154.6	142	1133.4
2004-2005	114.5	91.55	56.14	37.26	40.37	44.24	78.83	100.4	128.8	144.6	154.9	144.3	1135.9
2005-2006	116.2	86.19	53.13	41.23	39.13	46.31	77.95	100.5	128.8	146.2	155.2	144.8	1135.7
2006-2007	118.3	89.74	52.1	36.29	23.83	35.01	60.78	77.78	116.5	128.7	136.2	128.5	1003.7
2007-2008	97.88	75.34	44.67	26.74	36.02	43.83	84.33	101.1	128.2	149.3	157	147.3	1091.7
2008-2009	117.4	88.88	59.99	41.7	43.07	46.68	74.94	97.38	126.6	146.8	156.6	144	1143.9
2009-2010	115.2	91.89	55.88	43.39	43.79	48.81	78.74	98.95	128.5	145	153.2	147.7	1151.1
2010-2011	117.9	90.8	60.13	45.32	41.62	45.78	76.52	97.46	127.3	146.1	155.2	143.8	1147.9
2011-2012	117.3	86.65	50.23	38.36	38.29	42.7	73.02	96.97	127.9	146.7	158	146	1122.1
2012-2013	116	90.43	58.76	42.05	39.93	48.13	79.21	99.82	132.2	145.9	154.4	144.4	1151.3
2013-2014	115.4	83.8	59.06	37.28	44.06	48.3	80.75	100	129.6	145.4	154.2	145.6	1143.5
2014-2015	117	88.31	55.14	44.44	39.62	44.91	78.92	95.33	128.7	142.8	153.8	145.9	1134.9
AVERAGE	114.6	88.4	55.5	40.0	39.3	44.8	76.0	97.5	127.6	144.7	153.8	142.8	

**Table A. 91 Iskele station Hamon results**

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	98.9	69.9	34.6	28.1	27.9	33.3	49.1	67.4	102.4	147.0	168.5	137.2	964.3
1979-1980	98.0	68.0	42.0	28.0	24.7	29.0	44.3	63.2	93.5	137.4	153.0	140.4	921.4
1980-1981	93.7	62.2	39.3	28.3	26.6	29.9	50.0	69.0	92.2	143.8	173.8	150.6	959.5
1981-1982	105.5	72.5	35.2	30.8	28.5	27.3	42.6	69.0	104.5	144.6	164.4	152.8	977.8
1982-1983	111.0	70.4	35.9	26.6	24.1	28.6	44.8	66.2	105.6	132.4	168.7	145.8	960.1
1983-1984	100.9	62.1	41.2	30.4	29.8	34.7	51.1	68.1	115.3	148.8	164.3	146.5	993.1
1984-1985	102.7	76.9	37.8	27.7	30.2	28.8	48.3	71.3	113.3	147.1	170.4	160.4	1014.9
1985-1986	108.2	65.4	43.3	29.5	29.6	33.4	51.0	80.7	102.3	143.6	165.9	147.9	1000.8
1986-1987	108.7	63.9	33.9	25.3	28.1	34.6	42.2	65.3	99.6	137.3	178.2	157.9	975.0
1987-1988	107.7	66.3	39.8	28.8	27.9	31.3	46.6	69.9	114.2	150.6	193.5	164.0	1040.5
1988-1989	109.7	68.7	36.0	29.3	25.7	31.6	51.3	83.3	118.8	141.2	175.7	148.1	1019.3
1989-1990	103.4	62.3	40.1	29.2	26.4	31.6	51.5	74.0	109.5	140.4	172.3	155.7	996.4
1990-1991	104.0	72.7	44.7	31.7	28.9	32.4	54.4	78.3	115.4	151.6	167.3	146.7	1028.0
1991-1992	99.5	69.3	38.5	25.3	24.0	24.7	43.4	65.5	98.5	135.7	157.4	152.1	933.9
1992-1993	102.4	70.0	39.1	24.2	25.9	27.7	47.0	65.6	97.6	144.6	168.7	145.0	957.8
1993-1994	99.9	77.7	37.3	31.4	30.7	31.5	49.4	77.5	120.7	159.6	175.9	163.7	1055.4
1994-1995	117.2	82.1	40.1	27.0	29.9	35.2	53.9	67.2	109.2	149.1	167.0	148.9	1026.8
1995-1996	103.6	63.8	33.3	27.3	26.1	31.9	45.6	62.3	108.3	144.0	167.8	150.1	964.0
1996-1997	100.3	65.0	41.8	33.7	30.5	29.6	45.5	64.1	110.6	151.8	182.7	141.7	997.2
1997-1998	98.7	65.5	41.0	29.1	27.1	32.1	45.8	76.1	107.1	150.8	183.2	167.0	1023.6
1998-1999	106.2	71.9	44.2	30.3	30.5	32.7	50.2	69.4	119.8	149.6	179.1	160.9	1044.8
1999-2000	109.6	72.1	40.2	31.5	24.3	30.8	46.4	71.7	109.7	163.0	192.6	163.2	1055.0
2000-2001	108.2	66.2	41.3	30.0	29.9	31.4	54.6	73.2	114.7	154.8	180.6	161.4	1046.3
2001-2002	105.1	70.2	38.6	27.3	24.0	32.1	49.8	67.6	109.6	162.7	199.9	171.4	1058.4
2002-2003	94.6	63.3	37.5	26.0	28.9	24.7	38.8	65.9	80.4	160.1	194.8	172.0	987.0
2003-2004	111.0	72.9	42.4	30.4	27.6	30.7	51.9	74.0	118.5	163.5	198.9	166.5	1088.2
2004-2005	111.6	80.9	44.0	27.1	28.1	28.9	50.1	74.0	111.7	147.5	184.6	164.4	1052.9
2005-2006	114.5	65.9	37.7	30.2	27.1	31.4	47.9	76.2	115.8	161.7	186.2	163.9	1058.5
2006-2007	115.3	72.1	37.6	27.8	26.0	31.4	48.1	67.3	116.1	157.8	187.1	159.0	1045.6
2007-2008	104.5	72.8	40.8	27.6	24.3	27.2	56.3	76.5	110.0	158.1	184.8	164.6	1047.6
2008-2009	104.9	69.0	42.1	28.9	28.7	31.1	45.4	70.0	115.6	164.0	186.9	161.3	1047.8
2009-2010	101.4	73.3	38.0	29.9	27.6	30.7	47.8	70.8	116.6	144.2	168.5	172.4	1021.2
2010-2011	111.1	71.3	43.5	32.8	28.9	31.0	47.4	69.1	110.2	153.1	184.6	165.7	1048.7
2011-2012	112.1	67.3	34.7	27.7	25.7	28.9	43.8	70.6	110.4	156.1	197.4	176.2	1050.9
2012-2013	111.0	74.1	43.6	29.7	27.6	33.4	51.9	77.4	122.5	155.3	187.4	169.8	1083.6
2013-2014	107.7	67.1	45.6	27.5	30.6	33.2	54.5	77.2	113.8	159.9	181.2	164.9	1063.2
2014-2015	112.3	69.9	39.5	32.5	26.6	30.7	50.8	67.7	114.3	145.5	181.5	174.7	1046.3
AVERAGE	105.8	69.6	39.6	28.9	27.5	30.8	48.5	70.9	109.4	150.2	178.2	158.2	

**Table A. 92** Iskele station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114.6	76.4	32.9	23.8	20.6	28.5	36.8	56.9	86.4	163.1	188.1	153.0	980.9
1979-1980	125.0	80.7	53.1	26.0	16.0	21.0	31.1	54.7	81.7	164.9	184.3	174.6	1013.2
1980-1981	109.5	66.0	43.8	24.9	18.6	21.5	39.5	61.5	74.2	162.8	201.1	176.7	1000.1
1981-1982	122.4	79.1	33.5	29.3	21.6	15.3	24.6	58.6	87.7	156.6	179.0	171.9	979.4
1982-1983	138.3	80.4	37.1	21.5	13.9	19.0	30.2	57.1	94.5	147.0	197.0	172.5	1008.4
1983-1984	107.4	58.8	42.5	26.4	22.4	28.8	36.9	52.8	94.8	150.6	165.5	151.4	938.3
1984-1985	108.3	78.6	35.7	20.6	22.9	16.7	31.6	57.1	91.0	146.0	170.6	166.1	945.3
1985-1986	114.3	61.9	45.2	23.9	21.5	25.3	35.6	71.4	76.6	139.3	162.8	148.8	926.6
1986-1987	131.1	67.9	31.9	18.0	21.4	31.8	24.6	53.9	83.7	150.4	204.5	184.6	1003.9
1987-1988	111.9	62.3	38.2	22.1	18.1	20.8	28.0	53.3	89.6	146.3	193.0	165.7	949.2
1988-1989	116.7	66.8	31.9	23.6	14.6	21.8	36.3	75.9	96.7	136.5	175.5	149.6	945.8
1989-1990	113.3	60.4	41.4	24.4	16.4	22.8	38.5	63.9	89.6	142.0	179.7	166.5	958.9
1990-1991	101.8	67.7	44.8	26.5	18.9	21.9	38.6	63.0	86.6	140.0	153.6	137.8	901.3
1991-1992	129.6	84.2	45.9	20.0	14.6	11.9	29.9	60.3	90.8	164.8	194.6	195.9	1042.3
1992-1993	125.7	80.1	44.2	16.3	17.5	17.1	34.6	56.4	83.6	167.7	198.0	172.3	1013.4
1993-1994	95.2	72.9	31.6	25.5	21.7	19.9	30.2	60.9	90.9	147.4	160.7	154.4	911.3
1994-1995	119.9	80.5	37.6	18.0	21.0	27.6	38.4	47.4	81.0	139.1	155.8	142.6	908.8
1995-1996	126.4	69.3	31.3	23.0	17.8	26.3	31.5	49.7	98.1	165.1	194.8	178.1	1011.3
1996-1997	107.6	63.6	44.2	33.3	23.9	18.6	27.8	46.7	89.9	156.3	190.6	146.6	949.2
1997-1998	102.5	62.6	41.3	23.4	17.2	22.9	27.4	64.6	83.2	150.4	185.6	173.3	954.4
1998-1999	103.7	66.2	43.6	23.6	21.5	22.1	31.7	49.3	90.6	136.2	165.5	152.5	906.6
1999-2000	111.2	68.4	37.9	26.5	11.7	19.3	26.9	54.5	82.0	157.7	186.3	160.1	942.6
2000-2001	107.4	59.4	39.1	23.3	20.7	20.0	39.0	55.7	86.0	144.4	169.3	154.9	919.1
2001-2002	107.6	67.1	35.8	19.1	11.4	22.3	32.9	49.3	83.6	160.7	198.5	172.7	961.0
2002-2003	113.0	69.1	40.7	20.3	23.8	11.0	19.3	56.9	58.4	192.2	235.2	210.5	1050.4
2003-2004	104.3	64.4	38.7	22.7	15.9	17.7	32.6	53.4	85.0	145.6	178.0	151.0	909.3
2004-2005	111.0	77.8	43.6	17.9	17.5	15.6	31.9	56.5	82.4	134.6	173.0	157.5	919.3
2005-2006	116.2	59.6	33.3	23.9	16.2	20.2	28.9	60.7	88.1	154.5	177.4	159.3	938.0
2006-2007	121.0	69.9	34.1	20.1	14.8	20.9	30.3	48.9	91.4	155.0	184.7	159.0	950.2
2007-2008	106.4	70.2	39.6	19.7	11.9	13.1	43.1	62.8	83.6	154.0	180.4	164.1	948.9
2008-2009	105.8	64.6	41.5	21.9	19.0	19.9	25.4	52.1	89.1	159.9	180.9	158.7	939.0
2009-2010	105.6	73.0	35.7	24.7	18.0	20.1	30.5	55.8	94.1	140.6	166.7	178.8	943.7
2010-2011	110.2	65.7	42.7	28.4	18.8	19.2	27.7	49.1	80.6	141.4	172.7	158.7	915.2
2011-2012	120.5	65.3	29.8	20.6	14.8	16.9	24.3	55.8	87.3	157.8	202.9	184.5	980.5
2012-2013	103.2	65.1	40.2	21.3	15.6	22.0	32.2	57.4	88.2	134.5	164.1	152.6	896.5
2013-2014	102.6	58.4	44.6	18.1	21.0	22.4	37.2	59.1	81.7	144.4	162.9	152.4	904.8
2014-2015	114.2	65.2	36.6	28.5	15.4	19.1	33.6	48.3	87.0	135.0	173.2	172.3	928.3
AVERAGE	113.1	68.9	39.1	23.0	18.1	20.6	31.9	56.5	86.2	150.9	181.3	164.4	

**Table A. 93** Iskele station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	176.2	171.1	135.3	131.6	127.5	119.4	136	141.2	162.1	178.1	193.6	188.6	1860.8
1979-1980	175.5	169.1	148.5	131.4	119.2	110.6	128.7	136.8	155.7	173.5	186.8	190.2	1826.0
1980-1981	172.5	162.8	144.1	132.1	124.3	112.6	137.2	142.8	154.7	176.6	195.8	195.1	1850.6
1981-1982	180.5	173.7	136.5	138.1	129.2	106.8	126	142.7	163.5	177	191.9	196.2	1862.1
1982-1983	184	171.6	137.9	127.8	117.4	109.7	129.5	140	164.2	171	193.7	192.9	1839.8
1983-1984	177.5	162.7	147.2	137.3	132.2	122.1	138.8	141.9	170.4	179	191.9	193.2	1894.2
1984-1985	178.7	177.8	141.4	130.7	133.2	110.2	134.8	144.9	169.2	178.1	194.4	199.6	1893.1
1985-1986	182.3	166.3	150.6	135.1	131.9	119.6	138.6	153.5	161.9	176.5	192.5	193.9	1902.7
1986-1987	182.6	164.8	134	124.2	128.2	121.9	125.3	139.1	160.1	173.4	197.6	198.6	1849.6
1987-1988	182	167.4	144.9	133.3	127.5	115.4	132.3	143.7	169.7	179.8	203.4	201.2	1900.5
1988-1989	183.2	169.9	137.9	134.6	121.8	116.1	139.1	155.7	172.5	175.4	196.5	193.9	1896.6
1989-1990	179.2	163	145.5	134.3	123.6	116	139.4	147.6	166.8	175	195.2	197.5	1883.1
1990-1991	179.6	173.8	152.8	140.2	130	117.8	143.2	151.4	170.4	180.2	193.1	193.3	1925.8
1991-1992	176.7	170.5	142.6	124.2	116.9	100.5	127.3	139.2	159.3	172.7	188.9	195.8	1814.6
1992-1993	178.5	171.2	143.6	121.1	122.4	107.6	132.9	139.4	158.7	177	193.7	192.5	1838.6
1993-1994	176.9	178.6	140.4	139.5	134.4	116	136.4	150.7	173.6	183.7	196.7	201	1927.9
1994-1995	187.8	182.3	145.5	128.8	132.6	123	142.6	141	166.6	179.1	193	194.4	1916.7
1995-1996	179.3	164.6	132.7	129.7	123	116.6	130.7	135.8	166.1	176.7	193.3	194.9	1843.5
1996-1997	177.1	165.9	148.3	144.4	133.9	111.9	130.7	137.8	167.5	180.3	199.3	190.9	1888.0
1997-1998	176.1	166.4	146.8	134.2	125.6	117.1	131.1	149.4	165.2	179.9	199.5	202.4	1893.9
1998-1999	181.1	173.1	152	137	133.9	118.2	137.5	143.2	173.1	179.3	197.9	199.8	1926.2
1999-2000	183.2	173.3	145.5	139.6	118.1	114.4	132	145.4	166.9	185.2	203	200.8	1907.5
2000-2001	182.3	167.2	147.4	136.3	132.5	115.6	143.4	146.9	170	181.6	198.5	200.1	1921.8
2001-2002	180.3	171.4	142.8	129.6	117	117.2	137	141.4	166.8	185	205.6	204.3	1898.5
2002-2003	173.1	164.1	140.8	126.3	130.1	100.4	119.3	139.7	145	183.9	203.8	204.6	1831.3
2003-2004	184	174	149.3	137.2	126.9	114.3	139.8	147.6	172.3	185.3	205.3	202.2	1938.2
2004-2005	184.4	181.3	151.7	129	128	110.5	137.4	147.5	168.2	178.4	200.1	201.4	1917.9
2005-2006	186.2	166.9	141.3	136.6	125.6	115.6	134.3	149.5	170.7	184.6	200.7	201.2	1913.1
2006-2007	186.6	173.2	141	130.9	122.6	115.6	134.6	141.1	170.9	182.9	201	199	1899.5
2007-2008	179.9	173.9	146.6	130.4	118	106.5	145.5	149.8	167.1	183.1	200.1	201.4	1902.6
2008-2009	180.2	170.2	148.8	133.7	129.5	115	130.4	143.7	170.6	185.6	200.9	200	1908.5
2009-2010	177.9	174.4	141.8	136	127	114.2	134.1	144.5	171.1	176.8	193.6	204.7	1896.2
2010-2011	184.1	172.4	151	142.6	130	114.9	133.5	142.9	167.2	180.9	200.1	201.9	1921.5
2011-2012	184.7	168.4	135.6	130.6	121.9	110.5	128	144.3	167.3	182.2	204.7	206.2	1884.6
2012-2013	184	175.2	151.1	135.7	126.8	119.6	139.8	150.6	174.6	181.9	201.1	203.6	1944.0
2013-2014	182	168.2	154.1	130.3	134.1	119.2	143.3	150.4	169.5	183.8	198.7	201.6	1935.3
2014-2015	184.9	171	144.4	142	124.3	114.3	138.4	141.5	169.8	177.4	198.9	205.6	1912.6
AVERAGE	180.7	170.6	144.4	133.4	126.5	114.2	134.8	144.4	166.5	179.5	197.4	198.5	

**Table A. 94** Iskele station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.5	63.29	45.61	42.1	42	42.76	53.49	114.9	141.5	161	172.2	157.8	1172.3
1979-1980	135	62.56	50.05	42.03	39.24	39.57	50.64	111.3	135.9	156.9	166.2	159.2	1148.6
1980-1981	132.7	60.25	48.56	42.27	40.93	40.29	53.99	116.2	135.1	159.7	174.2	163.3	1167.5
1981-1982	138.9	64.24	46	44.2	42.55	38.23	49.58	116.2	142.8	160.1	170.7	164.2	1177.6
1982-1983	141.5	63.48	46.47	40.89	38.68	39.26	50.97	113.9	143.4	154.6	172.3	161.4	1166.9
1983-1984	136.5	60.19	49.6	43.93	43.54	43.71	54.63	115.5	148.8	161.8	170.6	161.7	1190.5
1984-1985	137.5	65.76	47.66	41.81	43.89	39.44	53.05	118	147.7	161.1	172.9	167	1195.9
1985-1986	140.2	61.53	50.75	43.22	43.43	42.79	54.54	124.9	141.4	159.6	171.2	162.3	1196.0
1986-1987	140.4	60.95	45.14	39.73	42.22	43.61	49.3	113.2	139.8	156.8	175.7	166.1	1173.1
1987-1988	140	61.9	48.82	42.65	42.02	41.29	52.07	117	148.2	162.5	180.9	168.4	1205.6
1988-1989	140.9	62.84	46.5	43.07	40.12	41.53	54.71	126.7	150.7	158.6	174.8	162.3	1202.8
1989-1990	137.8	60.3	49.02	42.98	40.71	41.52	54.85	120.1	145.6	158.2	173.6	165.3	1190.1
1990-1991	138.1	64.31	51.48	44.87	42.84	42.14	56.34	123.2	148.9	163	171.7	161.8	1208.7
1991-1992	135.8	63.06	48.06	39.74	38.5	35.96	50.11	113.3	139.1	156.2	167.9	163.9	1151.7
1992-1993	137.3	63.32	48.4	38.75	40.31	38.51	52.29	113.5	138.6	160.1	172.3	161.1	1164.4
1993-1994	136	66.05	47.32	44.64	44.28	41.51	53.65	122.7	151.6	166.1	174.9	168.3	1217.1
1994-1995	144.4	67.46	49.02	41.19	43.67	44.03	56.09	114.8	145.5	161.9	171.6	162.7	1202.3
1995-1996	137.9	60.9	44.72	41.5	40.51	41.75	51.43	110.6	145	159.8	171.9	163.1	1169.1
1996-1997	136.2	61.38	49.97	46.19	44.09	40.04	51.41	112.1	146.2	163	177.3	159.7	1187.7
1997-1998	135.4	61.58	49.49	42.95	41.37	41.9	51.57	121.6	144.3	162.7	177.5	169.4	1199.7
1998-1999	139.2	64.03	51.22	43.83	44.09	42.31	54.09	116.5	151.2	162.2	176	167.2	1211.9
1999-2000	140.9	64.1	49.04	44.67	38.87	40.96	51.95	118.4	145.7	167.4	180.6	168.1	1210.6
2000-2001	140.2	61.85	49.66	43.6	43.64	41.38	56.43	119.5	148.5	164.3	176.6	167.4	1213.0
2001-2002	138.7	63.4	48.12	41.47	38.54	41.93	53.9	115.1	145.7	167.3	182.9	171	1208.0
2002-2003	133.1	60.71	47.45	40.41	42.87	35.93	46.95	113.7	126.6	166.3	181.3	171.2	1166.6
2003-2004	141.5	64.39	50.3	43.89	41.77	40.9	55.02	120.1	150.5	167.6	182.6	169.2	1227.8
2004-2005	141.8	67.09	51.12	41.28	42.16	39.54	54.08	120.1	146.9	161.3	177.9	168.5	1211.8
2005-2006	143.2	61.76	47.61	43.72	41.37	41.38	52.82	121.7	149.1	166.9	178.5	168.3	1216.3
2006-2007	143.5	64.1	47.52	41.86	40.39	41.38	52.94	114.8	149.2	165.4	178.8	166.5	1206.5
2007-2008	138.4	64.34	49.41	41.74	38.87	38.1	57.27	121.9	145.9	165.6	178	168.6	1208.1
2008-2009	138.6	62.95	50.13	42.79	42.65	41.15	51.31	117	148.9	167.8	178.7	167.4	1209.4
2009-2010	136.8	64.5	47.78	43.53	41.82	40.87	52.77	117.7	149.5	159.9	172.2	171.3	1198.6
2010-2011	141.6	63.79	50.88	45.62	42.81	41.12	52.53	116.3	146	163.6	177.9	169	1211.1
2011-2012	142	62.31	45.68	41.79	40.16	39.53	50.37	117.5	146.1	164.8	182.1	172.6	1204.9
2012-2013	141.5	64.81	50.92	43.41	41.75	42.8	55.02	122.6	152.5	164.4	178.8	170.4	1229.0
2013-2014	140	62.22	51.93	41.68	44.16	42.68	56.38	122.5	148	166.2	176.8	168.7	1221.2
2014-2015	142.2	63.27	48.67	45.44	40.94	40.9	54.44	115.2	148.3	160.4	176.9	172.1	1208.7
AVERAGE	139.0	63.1	48.7	42.7	41.7	40.9	53.1	117.6	145.4	162.3	175.6	166.1	

**Table A. 95** Iskele station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.8	92.06	53.14	41.43	43.03	50.23	79.81	98.27	127.9	147.3	155.3	140.9	1145.1
1979-1980	115.4	90.96	60.55	41.35	38.34	45.25	75.73	95.78	124.3	144.7	151.4	141.7	1125.5
1980-1981	113.7	87.43	58.07	41.73	41.19	46.4	80.5	99.16	123.7	146.5	156.5	144.5	1139.4
1981-1982	118.2	93.5	53.79	45.08	43.95	43.15	74.23	99.13	128.7	146.7	154.3	145.1	1145.8
1982-1983	120.2	92.36	54.6	39.31	37.36	44.78	76.2	97.58	129.1	143.3	155.3	143.2	1133.3
1983-1984	116.5	87.35	59.8	44.64	45.65	51.73	81.41	98.65	132.6	147.8	154.3	143.4	1163.8
1984-1985	117.2	95.82	56.56	40.93	46.23	45.06	79.17	100.4	131.9	147.3	155.7	147	1163.2
1985-1986	119.2	89.39	61.7	43.39	45.47	50.31	81.27	105.2	127.8	146.4	154.7	143.8	1168.6
1986-1987	119.4	88.52	52.38	37.28	43.38	51.6	73.81	97.09	126.8	144.7	157.5	146.4	1138.8
1987-1988	119	89.97	58.48	42.41	43.03	47.98	77.76	99.67	132.2	148.3	160.7	147.9	1167.4
1988-1989	119.7	91.38	54.61	43.11	39.82	48.34	81.54	106.4	133.7	145.8	156.9	143.8	1165.2
1989-1990	117.5	87.51	58.83	42.98	40.83	48.31	81.74	101.8	130.5	145.6	156.2	145.8	1157.6
1990-1991	117.7	93.59	62.94	46.28	44.43	49.29	83.84	104	132.6	148.5	155	143.5	1181.6
1991-1992	116	91.72	57.21	37.31	37.06	39.6	74.95	97.14	126.3	144.3	152.6	144.9	1119.2
1992-1993	117.1	92.11	57.78	35.56	40.14	43.61	78.07	97.26	126	146.7	155.3	143	1132.6
1993-1994	116.2	96.25	56	45.91	46.91	48.29	80.02	103.6	134.3	150.5	157	147.8	1182.8
1994-1995	122.3	98.37	58.82	39.85	45.88	52.25	83.52	98.18	130.4	147.9	154.9	144.1	1176.5
1995-1996	117.5	88.44	51.67	40.38	40.47	48.65	76.86	95.27	130.1	146.5	155.1	144.4	1135.4
1996-1997	116.3	89.16	60.44	48.61	46.58	45.99	76.83	96.35	130.9	148.6	158.5	142.1	1160.3
1997-1998	115.7	89.46	59.58	42.93	41.96	48.9	77.05	102.9	129.7	148.3	158.6	148.6	1163.7
1998-1999	118.5	93.17	62.5	44.48	46.61	49.56	80.64	99.39	134.1	148	157.7	147.1	1181.8
1999-2000	119.7	93.3	58.86	45.94	37.72	47.43	77.61	100.6	130.6	151.3	160.5	147.7	1171.3
2000-2001	119.2	89.87	59.9	44.07	45.84	48.08	83.98	101.4	132.3	149.3	158	147.3	1179.3
2001-2002	118.1	92.24	57.34	40.33	37.13	48.96	80.39	98.39	130.6	151.2	162	149.6	1166.3
2002-2003	114.1	88.14	56.22	38.48	44.49	39.55	70.47	97.42	118.3	150.6	161	149.8	1128.5
2003-2004	120.2	93.72	60.97	44.57	42.65	47.35	81.98	101.8	133.6	151.4	161.8	148.5	1188.6
2004-2005	120.4	97.81	62.33	39.99	43.3	45.21	80.62	101.8	131.3	147.5	158.9	148	1177.1
2005-2006	121.4	89.72	56.49	44.27	41.94	48.08	78.85	102.9	132.7	151	159.2	147.9	1174.5
2006-2007	121.6	93.27	56.34	41.02	40.29	48.1	79.01	98.2	132.8	150	159.4	146.7	1166.8
2007-2008	117.9	93.65	59.48	40.79	37.7	42.95	85.18	103.1	130.7	150.1	158.9	148	1168.5
2008-2009	118	91.54	60.68	42.64	44.13	47.73	76.68	99.69	132.6	151.5	159.3	147.2	1171.9
2009-2010	116.7	93.9	56.76	43.94	42.71	47.3	78.77	100.1	133	146.6	155.3	149.9	1165.0
2010-2011	120.2	92.81	61.92	47.62	44.41	47.69	78.43	99.2	130.8	148.9	158.9	148.3	1179.2
2011-2012	120.5	90.57	53.29	40.91	39.89	45.19	75.34	100	130.8	149.6	161.5	150.7	1158.4
2012-2013	120.2	94.35	62.01	43.74	42.6	50.32	81.97	103.5	134.9	149.4	159.5	149.3	1191.8
2013-2014	119	90.44	63.68	40.71	46.71	50.12	83.92	103.5	132	150.5	158.1	148.1	1186.9
2014-2015	120.6	92.04	58.26	47.29	41.22	47.33	81.15	98.47	132.2	146.9	158.2	150.4	1174.2
AVERAGE	118.3	91.8	58.2	42.5	42.5	47.3	79.2	100.1	130.4	148.1	157.4	146.4	

**Table A. 96** Kantara station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	99.4	71.4	34.6	28.7	27.6	32.9	48.0	67.7	101.4	144.7	164.5	138.8	959.7
1979-1980	99.7	66.9	42.1	27.5	24.1	27.6	43.3	61.6	97.1	142.4	162.6	149.2	944.0
1980-1981	94.4	64.2	39.5	27.4	25.8	29.3	47.2	68.1	92.9	150.5	170.5	141.3	951.3
1981-1982	102.4	73.3	34.4	30.6	27.1	26.0	40.6	64.7	100.6	143.3	160.6	153.5	957.0
1982-1983	108.2	67.5	34.0	25.4	22.7	26.7	43.0	65.6	106.8	133.7	169.8	145.4	948.7
1983-1984	100.4	61.2	40.5	29.3	29.0	33.3	48.1	64.0	110.4	148.1	168.3	144.2	976.7
1984-1985	92.1	72.8	34.7	26.1	28.5	27.1	44.5	68.8	114.1	146.2	172.3	157.7	985.0
1985-1986	102.6	61.3	40.4	27.3	27.1	31.1	48.0	77.2	99.2	145.5	167.3	144.0	970.9
1986-1987	105.7	61.4	31.7	24.6	24.5	32.0	39.0	62.1	97.5	132.6	179.6	154.9	945.6
1987-1988	102.4	61.3	36.9	26.5	26.0	29.0	43.1	68.8	113.0	147.5	194.1	157.8	1006.5
1988-1989	106.2	63.8	33.5	27.6	24.3	30.0	49.3	85.7	116.7	138.0	175.0	147.3	997.5
1989-1990	99.9	61.7	38.3	28.5	24.7	29.8	47.8	70.2	104.5	137.5	162.8	149.6	955.3
1990-1991	96.9	67.2	39.9	28.9	26.4	28.8	49.9	70.5	101.8	143.6	156.4	135.8	946.3
1991-1992	93.4	65.8	35.8	23.1	21.5	21.5	36.3	58.2	93.4	123.7	145.2	151.0	869.0
1992-1993	94.4	64.4	35.1	21.8	23.6	24.7	41.6	62.0	86.5	139.1	163.4	145.4	901.9
1993-1994	96.8	77.0	33.8	27.9	27.4	28.6	44.6	72.6	110.4	146.7	163.7	151.1	980.7
1994-1995	110.7	72.7	33.5	22.8	25.8	31.5	47.9	62.7	105.8	145.5	162.8	143.9	965.7
1995-1996	96.8	61.7	31.3	25.1	23.4	28.8	42.0	58.2	107.7	142.4	167.9	145.8	931.0
1996-1997	94.0	61.6	38.0	29.9	27.4	26.9	39.4	55.2	106.1	145.4	176.0	131.0	930.9
1997-1998	92.1	61.2	37.7	26.6	24.3	28.8	43.1	72.9	102.1	149.2	184.2	165.1	987.2
1998-1999	100.8	68.8	41.6	27.8	27.9	29.7	48.0	68.2	121.4	152.6	186.1	157.6	1030.6
1999-2000	109.3	70.8	39.9	30.7	23.7	29.5	44.6	69.7	107.1	156.1	191.1	160.9	1033.2
2000-2001	110.3	65.0	41.7	28.4	27.9	31.7	56.7	73.1	112.6	151.3	178.6	158.9	1036.1
2001-2002	106.2	68.8	37.3	26.6	23.5	31.5	48.6	63.6	100.1	147.3	181.0	151.0	985.6
2002-2003	103.3	68.0	42.1	25.4	29.3	26.9	42.6	67.6	129.3	155.5	191.1	171.3	1052.3
2003-2004	105.8	71.6	40.9	28.1	26.3	29.6	52.2	72.5	108.1	152.1	186.1	150.2	1023.4
2004-2005	108.8	75.2	39.9	25.5	26.8	28.8	48.7	70.3	110.5	142.7	178.2	155.6	1011.1
2005-2006	109.7	62.5	35.2	28.3	26.5	32.5	51.9	77.4	112.0	156.9	182.1	164.1	1039.4
2006-2007	112.5	69.1	36.3	26.1	26.2	31.1	49.1	67.6	116.2	164.0	196.3	164.5	1059.2
2007-2008	112.2	77.6	42.4	29.1	25.5	29.4	57.9	75.6	109.2	158.2	181.2	162.0	1060.2
2008-2009	103.1	65.6	41.6	28.2	26.9	30.7	46.0	69.7	106.2	158.6	178.8	153.9	1009.5
2009-2010	98.3	72.8	38.1	32.4	31.0	33.6	51.7	73.3	110.5	140.4	166.7	170.8	1019.7
2010-2011	110.3	70.1	45.3	32.5	27.5	30.9	47.8	66.2	101.2	143.5	176.1	157.9	1009.4
2011-2012	108.6	63.9	33.5	27.0	25.2	28.1	43.7	70.8	102.4	152.5	190.5	164.7	1011.0
2012-2013	106.7	70.0	41.3	29.1	26.9	33.2	50.1	74.2	118.8	146.2	170.8	161.3	1028.7
2013-2014	102.1	62.8	42.7	26.1	26.6	30.0	46.4	65.3	94.0	130.5	148.0	139.2	913.8
2014-2015	89.4	59.2	34.1	28.4	23.6	26.9	45.4	58.7	100.3	117.4	152.7	143.9	880.0
AVERAGE	102.3	67.0	37.8	27.4	26.0	29.4	46.4	68.1	106.2	145.2	173.0	152.5	

**Table A. 97** Kantara station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.3	80.7	32.8	24.8	20.0	27.1	33.7	54.4	79.7	144.1	169.6	140.7	922.9
1979-1980	123.8	78.4	51.2	23.8	14.1	17.2	27.5	47.7	79.2	151.0	178.9	163.8	956.7
1980-1981	112.8	72.2	44.7	23.1	17.3	20.6	33.9	57.7	72.1	158.8	185.5	150.3	948.9
1981-1982	124.5	86.8	33.6	29.8	19.7	13.5	22.3	51.4	81.5	147.8	171.1	164.4	946.4
1982-1983	141.1	81.4	34.5	19.6	11.9	15.8	27.8	56.0	94.1	142.2	193.8	163.0	981.1
1983-1984	112.2	61.7	43.0	24.9	21.8	26.9	32.4	46.5	87.1	142.5	167.3	141.6	907.9
1984-1985	103.3	82.3	32.7	19.1	21.5	15.1	27.5	55.8	94.1	144.9	177.9	162.0	936.3
1985-1986	118.0	63.2	43.8	21.4	18.6	23.0	33.0	68.5	75.6	142.5	169.8	144.3	921.7
1986-1987	140.1	72.1	30.0	18.3	15.6	28.4	21.1	50.9	83.5	143.8	211.9	179.2	995.1
1987-1988	116.4	62.5	36.4	19.6	16.4	18.3	24.7	54.5	90.9	143.3	199.5	158.6	941.1
1988-1989	120.0	65.4	29.2	21.5	13.2	20.1	34.2	79.5	93.6	128.9	174.2	144.3	924.2
1989-1990	119.6	66.9	41.4	25.1	14.9	21.2	34.4	60.3	85.8	138.8	172.6	158.4	939.6
1990-1991	114.2	75.7	44.5	25.8	18.1	19.1	37.8	60.4	81.9	146.2	163.2	140.3	927.4
1991-1992	146.2	97.8	48.1	18.2	11.8	7.5	20.2	54.0	94.3	160.1	200.4	212.9	1071.6
1992-1993	135.6	86.8	42.2	13.6	15.5	13.5	28.9	56.9	75.8	172.5	212.6	186.5	1040.3
1993-1994	109.0	87.5	30.5	22.6	19.2	17.8	27.3	61.0	88.6	143.5	164.8	152.2	924.4
1994-1995	136.0	85.0	31.3	13.2	16.9	25.0	34.5	47.7	87.1	149.3	172.2	151.0	949.4
1995-1996	130.2	75.5	30.3	20.2	13.9	21.8	27.6	45.6	101.1	165.2	203.8	173.9	1009.3
1996-1997	120.0	72.3	44.3	30.5	21.7	16.6	21.8	38.4	94.9	162.7	206.5	146.5	976.3
1997-1998	105.3	64.8	39.6	20.6	13.8	18.9	25.8	63.6	81.4	151.8	196.2	173.8	955.7
1998-1999	103.8	67.9	41.5	20.3	18.3	18.0	29.8	48.7	91.8	136.1	172.8	144.3	893.3
1999-2000	116.1	71.3	38.8	26.0	11.3	17.7	24.8	51.3	77.6	141.5	179.9	149.1	905.5
2000-2001	112.0	60.2	40.2	20.6	17.6	20.9	41.3	53.7	79.8	129.7	158.7	140.4	875.0
2001-2002	123.7	75.5	37.7	20.2	12.1	23.8	34.2	47.1	76.9	145.3	187.1	153.1	936.8
2002-2003	106.1	66.1	42.1	15.7	20.4	13.0	21.6	47.5	98.9	138.1	176.4	156.6	902.5
2003-2004	110.8	72.1	40.4	20.9	15.6	17.8	36.2	55.0	78.2	136.0	173.4	137.1	893.4
2004-2005	118.6	79.6	40.0	16.7	17.0	16.9	31.9	53.7	83.3	129.5	170.6	147.4	905.2
2005-2006	114.4	58.2	29.8	21.1	15.8	22.9	35.3	61.3	81.4	139.7	166.9	149.5	896.6
2006-2007	116.5	66.9	31.4	16.9	15.0	20.1	30.7	46.8	84.7	145.6	179.3	148.1	902.0
2007-2008	109.3	74.0	39.7	20.9	13.1	16.0	41.2	54.5	73.2	131.1	154.1	137.2	864.3
2008-2009	111.3	65.9	43.3	22.0	17.1	20.7	27.8	53.1	78.9	149.0	172.0	146.3	907.4
2009-2010	97.2	71.3	34.3	27.9	22.9	24.5	34.3	54.3	78.1	118.1	146.9	152.8	862.7
2010-2011	116.2	69.6	48.2	29.1	17.6	20.2	29.4	45.9	70.5	125.5	162.0	144.6	878.8
2011-2012	125.5	66.7	29.6	20.6	14.9	16.6	25.7	57.8	78.6	149.8	195.6	166.4	947.6
2012-2013	108.6	67.7	40.0	22.1	16.1	23.9	32.0	55.7	86.9	125.3	152.0	144.1	874.4
2013-2014	131.9	73.4	54.3	21.4	19.8	23.4	34.2	55.8	77.4	138.3	163.9	155.7	949.5
2014-2015	126.6	76.4	40.0	30.4	15.6	18.9	37.2	50.6	97.8	136.0	196.6	185.4	1011.5
AVERAGE	118.7	73.0	38.8	21.9	16.7	19.5	30.4	54.2	84.2	143.1	178.4	155.8	

**Table A. 98** Kantara station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	176.4	172.4	135.3	133	126.8	118.5	134.4	141.3	161.3	176.9	191.8	189.3	1857.4
1979-1980	176.6	167.8	148.6	130	117.1	107.4	127	135	158.2	175.8	191	194.4	1829.0
1980-1981	172.9	165	144.4	130	122.1	111.2	133.1	141.8	155.1	179.6	194.3	190.6	1840.1
1981-1982	178.4	174.3	134.9	137.5	125.5	103.6	122.7	138.3	160.7	176.2	190.1	196.4	1838.5
1982-1983	182.2	168.5	134	124.4	113.1	105.2	126.6	139.3	164.9	171.5	194	192.6	1816.3
1983-1984	177.1	161.6	146	134.4	130.3	119.3	134.4	137.6	167.3	178.5	193.4	192	1871.9
1984-1985	171.2	173.9	135.4	126.3	129	106.3	129	142.5	169.6	177.7	195.1	198.3	1854.1
1985-1986	178.6	161.8	145.8	129.5	125.4	115.1	134.3	150.3	159.7	177.3	193	191.9	1862.7
1986-1987	180.6	161.9	129.4	122.3	118.3	116.8	119.7	135.5	158.5	171	198	197.1	1809.0
1987-1988	178.5	161.8	139.7	127.5	122.6	110.5	126.7	142.5	168.9	178.3	203.5	198.4	1858.8
1988-1989	181	164.5	133.1	130.3	117.9	112.7	136.2	157.4	171.2	173.8	196.2	193.5	1867.8
1989-1990	176.7	162.2	142.1	132.6	119	112.3	134.1	143.9	163.4	173.5	191	194.7	1845.4
1990-1991	174.6	168.2	144.9	133.6	123.8	110.2	137	144.2	161.5	176.4	188.3	187.8	1850.6
1991-1992	172.2	166.7	137.6	117.8	109.2	91.58	114.6	131.2	155.5	166.2	183	195.3	1740.9
1992-1993	172.9	165.3	136.3	113.7	115.7	100.4	124.2	135.4	150	174.3	191.4	192.6	1772.1
1993-1994	174.6	177.7	133.7	131.1	126.4	109.7	129.1	146.2	167.3	177.8	191.4	195.3	1860.4
1994-1995	183.8	173.7	133.1	116.9	122	115.9	134.2	136.2	164.2	177.3	191.1	191.8	1840.2
1995-1996	174.6	162.2	128.5	123.6	115	110.1	125	131.1	165.5	175.9	193.3	192.8	1797.5
1996-1997	172.6	162	141.6	135.9	126.1	105.9	120.5	127.5	164.4	177.2	196.6	185.3	1815.7
1997-1998	171.2	161.6	141.2	127.6	117.7	110.2	126.8	146.5	161.8	179	199.8	201.5	1844.8
1998-1999	177.4	169.8	147.8	130.9	127.6	112.1	134.3	141.9	173.9	180.5	200.5	198.3	1895.0
1999-2000	182.9	171.8	144.9	137.9	116.1	111.6	129.1	143.4	165.1	182.1	202.4	199.7	1886.9
2000-2001	183.4	165.9	147.9	132.3	127.5	116.2	146	146.6	168.6	180	197.6	198.9	1911.0
2001-2002	180.9	169.9	140.4	127.8	115.6	115.8	135.2	137.2	160.3	178.2	198.5	195.3	1855.0
2002-2003	179	168.9	148.6	124.4	130.9	105.9	126	141.3	178.3	181.8	202.4	204.1	1891.6
2003-2004	180.7	172.6	146.6	131.5	123.4	111.8	140.2	146.1	165.7	180.3	200.5	194.8	1894.3
2004-2005	182.6	176.1	145	124.8	124.7	110.1	135.4	144	167.3	176	197.4	197.4	1880.8
2005-2006	183.1	163.1	136.5	132.2	124	117.8	139.8	150.5	168.3	182.4	198.9	201.1	1897.8
2006-2007	184.9	170.2	138.6	126.5	123.2	115	135.9	141.3	170.8	185.5	204.2	201.3	1897.3
2007-2008	184.7	178.3	149.1	133.9	121.2	111.3	147.5	148.9	166.5	183	198.6	200.2	1923.2
2008-2009	178.9	166.6	147.8	131.9	124.9	114.2	131.3	143.4	164.5	183.2	197.6	196.6	1881.0
2009-2010	175.6	173.8	141.9	141.6	135	119.9	139.6	146.8	167.3	174.9	192.8	203.9	1913.1
2010-2011	183.5	171.1	153.6	141.9	126.6	114.6	134	139.9	161.1	176.3	196.6	198.4	1897.7
2011-2012	182.5	164.6	133	128.8	120.3	108.5	127.8	144.5	161.9	180.5	202.1	201.4	1856.0
2012-2013	181.2	171	147.4	134.1	124.9	119.2	137.3	147.6	172.4	177.7	194.5	199.9	1907.3
2013-2014	178.2	163.4	149.7	126.4	124.2	112.8	131.9	139	155.9	169.9	184.4	189.5	1825.4
2014-2015	169.2	159.2	134.3	132.2	115.8	105.8	130.5	131.7	160.5	162.7	186.6	191.9	1780.5
AVERAGE	178.3	167.8	141.1	129.7	122.4	111.2	131.7	141.6	164.3	177.0	195.2	195.8	

**Table A. 99** Kantara station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.7	63.82	45.63	42.6	41.79	42.44	52.89	115.1	140.9	160.1	170.7	158.5	1170.3
1979-1980	135.9	62.14	50.11	41.64	38.6	38.43	50.01	109.9	138.3	159.1	170	162.8	1156.9
1980-1981	133.1	61.06	48.67	41.58	40.24	39.84	52.43	115.5	135.5	162.5	172.9	159.6	1163.0
1981-1982	137.3	64.52	45.48	44.02	41.36	37.09	48.27	112.6	140.4	159.5	169.2	164.5	1164.2
1982-1983	140.2	62.35	45.2	39.82	37.27	37.68	49.83	113.4	144.1	155.2	172.7	161.3	1159.1
1983-1984	136.3	59.82	49.21	43.04	42.94	42.73	52.91	112	146.2	161.5	172.1	160.8	1179.5
1984-1985	131.7	64.36	45.68	40.43	42.52	38.06	50.76	116.1	148.2	160.7	173.6	166.1	1178.2
1985-1986	137.4	59.88	49.17	41.45	41.31	41.19	52.86	122.5	139.6	160.4	171.7	160.7	1178.2
1986-1987	139	59.9	43.61	39.14	38.98	41.83	47.12	110.4	138.5	154.7	176.2	165	1154.3
1987-1988	137.3	59.88	47.11	40.82	40.41	39.56	49.88	116	147.6	161.3	181.1	166.1	1187.0
1988-1989	139.2	60.9	44.89	41.72	38.87	40.36	53.61	128.2	149.6	157.2	174.6	162	1191.2
1989-1990	136	60.03	47.92	42.45	39.21	40.19	52.79	117.2	142.8	157	170	163	1168.5
1990-1991	134.4	62.26	48.87	42.77	40.78	39.46	53.96	117.4	141.2	159.6	167.6	157.3	1165.5
1991-1992	132.5	61.72	46.4	37.69	35.96	32.78	45.16	106.8	135.8	150.4	162.9	163.5	1111.7
1992-1993	133.1	61.16	45.94	36.4	38.14	35.94	48.91	110.3	131.1	157.6	170.3	161.3	1130.1
1993-1994	134.4	65.79	45.1	41.95	41.64	39.3	50.85	119.1	146.2	160.9	170.4	163.5	1179.1
1994-1995	141.4	64.31	44.87	37.44	40.21	41.49	52.84	110.9	143.5	160.4	170	160.7	1168.1
1995-1996	134.4	60.03	43.31	39.56	37.91	39.44	49.18	106.7	144.6	159.1	172	161.4	1147.7
1996-1997	132.8	59.98	47.76	43.51	41.57	37.89	47.41	103.9	143.7	160.4	174.9	155.1	1149.0
1997-1998	131.7	59.8	47.61	40.87	38.8	39.46	49.92	119.3	141.4	162	177.8	168.8	1177.3
1998-1999	136.5	62.89	49.83	41.91	42.05	40.14	52.89	115.6	152	163.4	178.4	166	1201.5
1999-2000	140.7	63.6	48.86	44.14	38.27	39.95	50.81	116.8	144.3	164.8	180.1	167.2	1199.4
2000-2001	141.2	61.4	49.88	42.35	42.02	41.62	57.48	119.4	147.3	162.8	175.9	166.5	1207.9
2001-2002	139.2	62.89	47.34	40.91	38.08	41.48	53.23	111.7	140.1	161.2	176.7	163.5	1176.3
2002-2003	137.7	62.55	50.11	39.84	43.15	37.92	49.59	115.1	155.8	164.5	180.1	170.9	1207.4
2003-2004	139	63.92	49.43	42.12	40.68	40.04	55.21	119	144.8	163.1	178.4	163.2	1199.0
2004-2005	140.5	65.2	48.89	39.94	41.11	39.42	53.29	117.3	146.2	159.3	175.7	165.3	1192.0
2005-2006	140.9	60.37	46.03	42.33	40.87	42.17	55.06	122.6	147	165.1	177.1	168.4	1208.0
2006-2007	142.3	63	46.72	40.5	40.6	41.18	53.51	115.1	149.3	167.8	181.8	168.5	1210.2
2007-2008	142.1	66.02	50.28	42.88	39.93	39.87	58.06	121.3	145.5	165.6	176.8	167.6	1215.9
2008-2009	137.7	61.64	49.84	42.24	41.17	40.91	51.69	116.8	143.8	165.7	175.9	164.6	1192.0
2009-2010	135.1	64.36	47.83	45.33	44.49	42.95	54.95	119.6	146.2	158.2	171.5	170.8	1201.4
2010-2011	141.2	63.34	51.82	45.44	41.73	41.05	52.75	114	140.8	159.6	175	166.1	1192.8
2011-2012	140.4	60.95	44.86	41.22	39.65	38.84	50.28	117.7	141.5	163.3	179.9	168.6	1187.2
2012-2013	139.5	63.31	49.68	42.94	41.18	42.68	54.06	120.3	150.7	160.7	173.1	167.4	1205.4
2013-2014	137.2	60.48	50.47	40.48	40.93	40.39	51.93	113.2	136.2	153.8	164.1	158.7	1147.8
2014-2015	130.2	58.95	45.3	42.34	38.15	37.91	51.36	107.3	140.2	147.2	166	160.7	1125.6
AVERAGE	137.2	62.1	47.6	41.5	40.3	39.8	51.8	115.3	143.5	160.2	173.7	163.9	

**Table A. 100** Kantara station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	111.9	89.81	51.21	40.74	40.89	47.67	75.51	94.24	122.3	141.1	148.7	136.2	1100.3
1979-1980	112.1	87.25	58.67	39.05	35.44	41.42	71.38	90.71	120.6	140.5	148.2	139.1	1084.3
1980-1981	110	85.63	56.29	39	38.26	43.58	74.81	94.54	118.8	142.6	150	137	1090.6
1981-1982	113	90.87	50.98	43.22	40.16	39.31	68.95	92.53	122	140.7	147.7	140.2	1089.7
1982-1983	115.2	87.6	50.5	35.89	33.22	40.23	71.13	93.09	124.4	138.1	149.9	138.1	1077.2
1983-1984	112.3	83.74	57.21	41.51	42.85	48.14	75.52	92.16	125.7	142	149.5	137.7	1108.4
1984-1985	109	90.63	51.29	36.92	42.12	40.82	72.49	94.89	127	141.5	150.5	141.3	1098.4
1985-1986	113.2	83.86	57.11	38.73	40.09	45.75	75.47	99.3	121.5	141.3	149.3	137.7	1103.2
1986-1987	114.3	83.9	47.87	34.68	36.12	46.73	67.29	90.99	120.8	137.8	152.1	140.6	1073.1
1987-1988	113.1	83.85	53.7	37.62	38.52	43.17	71.24	94.89	126.6	141.9	155.2	141.3	1101.0
1988-1989	114.5	85.39	49.98	39.18	35.92	44.43	76.56	103.3	127.9	139.3	151.1	138.6	1106.1
1989-1990	112.1	84.05	55.01	40.49	36.49	44.18	75.37	95.69	123.5	139.2	148.2	139.2	1093.5
1990-1991	110.9	87.43	56.62	41.07	39.18	43.01	77.02	95.86	122.5	140.8	146.7	135.4	1096.4
1991-1992	109.6	86.63	52.5	32.16	30.98	32.56	64.44	88.55	119.1	135.1	143.7	139.6	1034.9
1992-1993	110	85.81	51.74	29.87	34.66	37.49	69.83	90.91	116	139.6	148.4	138.1	1052.4
1993-1994	110.9	92.8	50.32	39.63	40.65	42.76	72.57	96.98	125.7	141.6	148.4	139.6	1101.9
1994-1995	116.1	90.56	49.97	31.68	38.19	46.21	75.43	91.36	124	141.3	148.2	137.7	1090.6
1995-1996	110.9	84.08	47.37	35.41	34.26	42.99	70.24	88.49	124.7	140.5	149.5	138.2	1066.6
1996-1997	109.8	83.99	54.77	42.34	40.5	40.58	67.71	86.51	124.1	141.3	151.3	134	1076.8
1997-1998	109	83.73	54.5	37.7	35.79	43.02	71.27	97.14	122.6	142.3	153.1	143.1	1093.2
1998-1999	112.5	88.37	58.21	39.52	41.33	44.09	75.49	94.57	129.4	143.1	153.5	141.3	1121.4
1999-2000	115.6	89.47	56.63	43.45	34.91	43.79	72.54	95.41	124.4	144	154.6	142.1	1116.9
2000-2001	115.9	86.13	58.3	40.33	41.28	46.4	82.06	97.23	126.4	142.8	151.9	141.6	1130.4
2001-2002	114.4	88.38	54.09	37.78	34.58	46.19	75.99	91.93	121.8	141.8	152.4	139.6	1098.9
2002-2003	113.4	87.85	58.68	35.9	43.19	40.59	70.81	94.24	131.9	143.9	154.6	144.6	1119.5
2003-2004	114.3	89.95	57.55	39.89	39	43.94	78.78	96.91	124.8	143	153.5	139.3	1121.0
2004-2005	115.4	91.87	56.65	36.11	39.74	42.97	76.09	95.74	125.7	140.6	151.8	140.8	1113.4
2005-2006	115.7	84.58	51.89	40.25	39.32	47.27	78.59	99.43	126.3	144.2	152.6	142.8	1123.0
2006-2007	116.7	88.56	53.04	37.05	38.86	45.72	76.4	94.23	127.7	145.9	155.6	142.9	1122.7
2007-2008	116.6	93.15	58.97	41.23	37.73	43.65	82.87	98.51	125.3	144.5	152.4	142.4	1137.2
2008-2009	113.3	86.53	58.25	40.1	39.85	45.28	73.78	95.42	124.1	144.6	151.9	140.3	1113.5
2009-2010	111.5	90.61	54.89	45.52	45.5	48.47	78.44	97.34	125.7	140	149.2	144.4	1131.6
2010-2011	115.9	89.07	61.51	45.7	40.81	45.5	75.29	93.45	122.2	140.8	151.3	141.3	1122.9
2011-2012	115.3	85.45	49.93	38.35	37.24	42.06	71.82	96.03	122.7	143.1	154.4	143	1099.5
2012-2013	114.6	89.05	57.98	41.34	39.85	48.06	77.16	97.79	128.6	141.5	150.1	142.2	1128.3
2013-2014	112.9	84.76	59.27	37.01	39.43	44.48	74.15	92.92	119.3	137.2	144.5	136.4	1082.3
2014-2015	107.9	82.42	50.67	40.28	34.71	40.57	73.33	88.84	121.9	133.1	145.7	137.7	1057.1
AVERAGE	113.0	87.2	54.4	38.8	38.4	43.6	74.0	94.4	124.0	141.2	150.5	139.9	

**Table A. 101** Karpaz station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	101.0	71.3	35.0	28.4	28.1	33.7	49.7	68.3	104.1	150.1	172.4	140.3	982.5
1979-1980	100.0	69.3	42.6	28.3	25.0	29.2	44.7	63.9	95.0	140.3	156.3	143.6	938.3
1980-1981	95.6	63.3	39.9	28.6	26.9	30.2	50.6	70.0	93.6	146.9	178.0	154.1	977.7
1981-1982	107.8	73.9	35.6	31.2	28.8	27.6	43.0	69.9	106.3	147.7	168.2	156.5	996.6
1982-1983	113.5	71.8	36.4	26.9	24.3	28.8	45.3	67.1	107.4	135.1	172.8	149.2	978.5
1983-1984	103.1	63.2	41.8	30.8	30.1	35.2	51.8	69.1	117.5	152.1	168.2	149.9	1012.6
1984-1985	104.9	78.5	38.3	28.0	30.6	29.1	48.9	72.3	115.4	150.3	174.5	164.4	1035.2
1985-1986	110.7	66.5	44.0	29.8	30.0	33.7	51.6	82.1	104.0	146.7	169.8	151.4	1020.3
1986-1987	111.2	65.0	34.3	25.5	28.4	35.0	42.6	66.2	101.2	140.1	182.6	161.8	993.9
1987-1988	110.1	67.5	40.3	29.1	28.2	31.6	47.1	70.9	116.3	153.9	198.5	168.1	1061.7
1988-1989	112.3	70.0	36.4	29.6	25.9	31.9	51.9	84.8	121.1	144.2	179.9	151.6	1039.6
1989-1990	105.7	63.4	40.7	29.5	26.6	31.9	52.2	75.1	111.5	143.4	176.6	159.5	1016.0
1990-1991	106.2	74.1	45.4	32.1	29.2	32.8	55.1	79.5	117.6	155.0	171.3	150.2	1048.5
1991-1992	101.7	70.6	39.0	25.5	24.1	24.9	43.9	66.4	100.1	138.6	161.1	155.7	951.5
1992-1993	104.7	71.3	39.6	24.4	26.1	27.9	47.5	66.5	99.2	147.7	172.7	148.4	976.1
1993-1994	102.1	79.4	37.8	31.8	31.1	31.9	50.0	78.8	123.0	163.3	180.2	167.8	1077.1
1994-1995	120.0	83.8	40.7	27.2	30.3	35.7	54.6	68.2	111.2	152.3	170.8	152.4	1047.3
1995-1996	105.8	64.9	33.7	27.6	26.4	32.2	46.0	63.1	110.3	147.1	171.8	153.7	982.6
1996-1997	102.4	66.2	42.5	34.1	30.9	29.8	46.0	64.9	112.6	155.1	187.3	145.0	1016.7
1997-1998	100.9	66.7	41.6	29.5	27.4	32.4	46.3	77.3	109.1	154.1	187.8	171.2	1044.2
1998-1999	108.6	73.4	44.9	30.7	30.9	33.0	50.8	70.4	122.1	152.9	183.5	164.9	1066.0
1999-2000	112.1	73.5	40.8	31.8	24.5	31.1	46.9	72.8	111.7	166.8	197.5	167.3	1076.8
2000-2001	110.7	67.4	41.9	30.3	30.2	33.5	58.1	77.8	114.1	156.5	182.6	166.1	1069.2
2001-2002	111.4	73.5	39.8	29.0	25.9	34.1	52.7	70.0	109.2	155.5	189.5	158.0	1048.8
2002-2003	108.4	71.0	43.2	27.8	31.6	28.9	45.7	69.5	125.3	155.4	191.0	170.5	1068.3
2003-2004	108.4	71.3	42.1	30.6	27.5	31.2	53.5	75.9	112.7	154.9	188.0	159.1	1055.1
2004-2005	110.2	78.7	43.2	28.3	29.9	31.9	53.2	75.9	116.2	151.1	181.7	164.8	1065.1
2005-2006	114.5	67.6	38.8	31.9	28.9	34.6	54.4	79.5	120.8	165.0	194.7	170.6	1101.5
2006-2007	123.7	77.5	40.2	30.2	28.8	34.9	53.9	73.8	124.7	170.8	201.9	177.0	1137.3
2007-2008	117.5	82.7	45.3	31.5	28.8	33.1	59.1	77.6	110.4	161.1	181.9	162.9	1092.0
2008-2009	110.7	73.4	46.9	31.2	30.2	33.1	48.6	71.5	110.0	160.6	173.3	155.4	1044.8
2009-2010	103.5	78.2	42.0	33.2	31.4	34.7	54.5	74.1	108.3	139.7	164.2	167.4	1031.2
2010-2011	113.7	74.4	50.6	35.2	29.8	33.2	50.7	68.9	102.8	141.6	169.8	155.7	1026.5
2011-2012	110.7	68.5	36.0	30.3	27.1	30.3	46.6	70.3	105.0	158.3	184.5	174.7	1042.3
2012-2013	115.3	75.0	44.4	31.1	28.7	35.6	52.3	75.7	121.5	147.6	182.7	167.1	1077.2
2013-2014	105.5	66.7	46.4	27.9	31.9	34.9	53.8	74.7	105.6	141.9	164.6	152.7	1006.6
2014-2015	106.2	70.1	41.2	33.6	28.6	32.0	52.3	67.0	110.9	132.4	167.2	159.9	1001.3
AVERAGE	108.4	71.5	40.9	29.8	28.5	32.0	50.2	72.2	111.0	150.7	178.4	159.2	

**Table A. 102** Karpaz station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.5	77.8	33.0	23.7	20.5	28.4	36.9	57.4	87.7	168.0	194.4	157.7	1003.0
1979-1980	128.2	82.2	53.8	26.1	15.8	20.9	31.0	55.1	83.0	170.0	190.4	180.4	1037.0
1980-1981	112.0	66.9	44.3	24.9	18.5	21.4	39.7	62.2	75.2	167.8	208.2	182.5	1023.5
1981-1982	125.6	80.5	33.6	29.3	21.5	15.1	24.4	59.2	89.2	161.2	184.9	177.4	1002.0
1982-1983	142.2	81.9	37.3	21.4	13.8	18.8	30.2	57.7	96.1	151.0	203.8	178.0	1032.3
1983-1984	109.9	59.5	42.8	26.4	22.3	28.8	37.0	53.2	96.5	154.9	170.7	155.7	957.8
1984-1985	110.8	80.0	35.8	20.5	22.8	16.5	31.6	57.7	92.5	150.0	176.0	171.4	965.8
1985-1986	117.0	62.7	45.7	23.8	21.4	25.2	35.7	72.5	77.6	143.0	167.7	153.2	945.6
1986-1987	134.7	69.0	32.0	17.9	21.3	31.9	24.5	54.5	84.9	154.7	211.9	190.8	1027.9
1987-1988	114.6	63.2	38.5	22.0	18.0	20.6	27.9	53.7	91.1	150.3	199.7	170.9	970.4
1988-1989	119.6	67.8	32.0	23.5	14.4	21.7	36.3	77.1	98.5	140.1	181.0	154.0	966.0
1989-1990	116.0	61.1	41.8	24.4	16.3	22.7	38.6	64.7	91.0	145.9	185.7	171.7	979.9
1990-1991	104.0	68.7	45.3	26.5	18.8	21.8	38.7	63.7	88.0	143.8	158.1	141.6	919.0
1991-1992	133.1	85.8	46.4	19.8	14.4	11.7	29.8	61.0	92.3	169.8	201.5	202.6	1068.2
1992-1993	129.1	81.5	44.6	16.1	17.4	16.9	34.6	57.0	84.9	172.9	204.8	178.0	1037.7
1993-1994	97.2	74.1	31.6	25.5	21.7	19.7	30.2	61.6	92.4	151.5	165.5	159.0	930.0
1994-1995	122.9	82.0	37.8	17.9	21.0	27.5	38.5	47.6	82.1	142.9	160.3	146.6	927.2
1995-1996	129.7	70.4	31.4	23.0	17.7	26.2	31.5	50.0	99.9	170.1	201.6	184.0	1035.3
1996-1997	110.1	64.5	44.6	33.4	23.9	18.4	27.7	47.0	91.4	160.9	197.1	150.9	969.9
1997-1998	104.7	63.4	41.7	23.4	17.0	22.8	27.2	65.4	84.5	154.6	191.9	178.8	975.5
1998-1999	106.0	67.2	44.0	23.6	21.4	22.0	31.7	49.7	92.1	139.8	170.6	157.0	925.0
1999-2000	113.8	69.4	38.2	26.6	11.5	19.1	26.8	55.0	83.2	162.4	192.6	165.0	963.6
2000-2001	108.1	59.3	38.8	22.9	20.3	22.7	42.8	60.4	82.9	143.6	168.8	157.7	928.3
2001-2002	116.6	71.5	37.6	22.0	14.2	25.6	36.9	52.5	82.9	153.0	189.6	159.3	961.8
2002-2003	110.0	66.6	42.7	19.1	23.5	15.4	25.1	50.4	99.3	149.0	186.6	169.9	957.6
2003-2004	110.0	67.1	40.7	24.4	16.6	19.5	37.3	60.2	85.1	148.4	183.2	156.7	949.2
2004-2005	108.6	74.3	41.4	19.4	19.9	20.1	35.7	58.1	86.2	138.4	169.6	157.9	929.7
2005-2006	108.5	57.4	32.3	24.8	17.3	23.8	35.6	60.4	86.9	147.9	175.1	156.3	926.2
2006-2007	112.3	65.7	32.6	20.5	16.3	22.8	32.8	49.1	85.9	145.3	171.7	153.4	908.4
2007-2008	109.1	73.8	41.8	23.5	16.8	20.6	41.5	56.1	74.1	139.4	157.0	144.2	897.9
2008-2009	112.0	69.2	48.7	25.2	20.9	22.7	29.3	52.9	81.2	154.3	164.1	150.9	931.5
2009-2010	102.8	75.5	40.3	29.1	23.1	25.8	38.7	56.9	79.3	127.1	153.3	165.0	916.9
2010-2011	115.9	70.6	55.2	32.9	20.3	23.1	32.6	49.1	72.9	129.7	160.2	151.5	914.0
2011-2012	121.1	67.7	32.0	25.5	16.9	19.2	28.5	55.6	81.6	164.7	192.8	187.9	993.4
2012-2013	110.7	67.3	41.9	23.7	17.4	25.8	32.9	55.7	88.7	128.8	164.2	154.4	911.6
2013-2014	111.8	64.0	51.0	20.3	25.3	28.0	39.9	61.7	80.9	138.7	163.9	157.4	942.9
2014-2015	116.1	70.6	42.4	32.5	19.8	22.9	38.5	50.7	89.7	129.0	172.2	171.2	955.4
AVERAGE	115.5	70.3	40.4	23.9	18.9	22.1	33.5	57.1	86.8	150.3	180.8	164.9	

**Table A. 103** Karpaz station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	177.7	172.4	136.3	132.4	128.3	120.3	136.9	142.2	163.3	179.6	195.2	190.1	1874.7
1979-1980	177.1	170.5	149.5	132.3	119.8	111.2	129.5	137.6	156.8	175	188.4	191.9	1839.6
1980-1981	173.9	164.1	145.1	132.9	125	113.2	138.1	143.8	155.8	178.1	197.5	196.8	1864.4
1981-1982	182.1	175.1	137.4	139	129.9	107.4	126.7	143.8	164.7	178.4	193.6	198	1876.1
1982-1983	185.6	173	138.8	128.5	118	110.3	130.3	140.9	165.4	172.4	195.4	194.5	1853.3
1983-1984	179	164	148.3	138.1	132.9	122.8	139.7	142.9	171.8	180.5	193.5	194.9	1908.5
1984-1985	180.2	179.3	142.4	131.4	134.1	110.8	135.7	146	170.5	179.7	196.2	201.4	1907.8
1985-1986	183.9	167.6	151.7	135.9	132.6	120.3	139.4	154.6	163.2	178	194.2	195.6	1917.2
1986-1987	184.1	166.1	134.8	124.8	128.9	122.6	126	140.1	161.3	174.9	199.3	200.3	1863.3
1987-1988	183.5	168.7	145.9	134.2	128.3	116	133.1	144.7	171	181.2	205.2	203	1915.0
1988-1989	184.8	171.2	138.9	135.5	122.4	116.8	140	156.9	173.9	176.8	198.3	195.7	1911.1
1989-1990	180.7	164.2	146.5	135.2	124.3	116.7	140.3	148.6	168.1	176.5	196.9	199.3	1897.3
1990-1991	181.1	175.2	153.9	141.1	130.8	118.5	144.1	152.5	171.8	181.7	194.8	195	1940.6
1991-1992	178.1	171.8	143.7	124.9	117.4	101	128.1	140.2	160.5	174.1	190.5	197.6	1827.8
1992-1993	180.1	172.6	144.6	121.8	123.1	108.1	133.7	140.4	159.9	178.5	195.3	194.1	1852.2
1993-1994	178.4	180	141.4	140.4	135.3	116.7	137.3	151.8	175	185.2	198.3	202.8	1942.5
1994-1995	189.4	183.8	146.5	129.6	133.4	123.8	143.5	142	167.9	180.6	194.7	196.1	1931.3
1995-1996	180.8	165.9	133.6	130.5	123.7	117.3	131.5	136.7	167.3	178.3	195	196.6	1857.3
1996-1997	178.6	167.2	149.4	145.4	134.7	112.5	131.5	138.7	168.8	181.8	201.1	192.5	1902.1
1997-1998	177.6	167.7	147.9	135.1	126.3	117.8	131.9	150.5	166.5	181.4	201.3	204.3	1908.4
1998-1999	182.6	174.5	153.1	137.9	134.7	118.9	138.4	144.2	174.5	180.9	199.7	201.7	1941.1
1999-2000	184.7	174.7	146.6	140.5	118.7	115.1	132.9	146.4	168.2	186.8	204.8	202.6	1922.0
2000-2001	183.9	168.5	148.5	137.1	133.3	119.8	147.9	151	169.7	182.4	199.3	202.2	1943.6
2001-2002	184.3	174.6	145	134	122.6	121.1	141	143.9	166.7	182	201.9	198.6	1915.6
2002-2003	182.5	172.2	150.5	130.9	136.4	110.4	131	143.4	176.3	181.9	202.5	204	1921.9
2003-2004	182.5	172.5	148.7	137.7	126.7	115.3	142	149.3	168.9	181.7	201.4	199.1	1925.8
2004-2005	183.6	179.5	150.5	132.1	132.5	116.7	141.7	149.3	171	180.1	199	201.7	1937.7
2005-2006	186.2	168.8	143.3	140.8	130	122	143.4	152.5	173.7	186.1	203.8	204	1954.5
2006-2007	191.5	178.3	145.6	136.7	129.9	122.4	142.6	147.3	175.9	188.4	206.4	206.6	1971.7
2007-2008	187.9	182.9	153.8	139.8	129.9	119.1	149.1	150.8	167.5	184.4	199.1	200.8	1965.2
2008-2009	184	174.5	156.1	139	133.2	119	135.3	145.2	167.1	184.2	195.7	197.4	1930.7
2009-2010	179.3	179	148.6	143.4	136	122	143.4	147.7	166.1	174.7	191.9	202.7	1934.8
2010-2011	185.7	175.5	161.3	147.5	132.3	119.4	138.2	142.8	162.3	175.6	194.2	197.6	1932.5
2011-2012	183.9	169.7	138	137	125.5	113.5	132.3	144.1	163.9	183.2	200.1	205.7	1896.8
2012-2013	186.7	176.1	152.5	139	129.7	123.7	140.4	149.2	174.1	178.5	199.4	202.6	1951.8
2013-2014	180.6	167.9	155.5	131.1	137.1	122.5	142.4	148.2	164.2	175.7	192	196.2	1913.5
2014-2015	181.1	171.3	147.3	144.2	129.4	117	140.4	140.8	167.7	171	193.1	199.4	1902.7
AVERAGE	182.4	172.5	146.5	135.6	128.8	116.8	137.3	145.7	167.6	179.7	197.5	199.0	

**Table A. 104** Karpaz station Blaney-Criddle station

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	136.6	63.79	45.9	42.34	42.23	43	53.82	115.7	142.5	162.3	173.6	159.2	1181.1
1979-1980	136.1	63.05	50.4	42.28	39.44	39.77	50.93	112	136.9	158.2	167.5	160.5	1157.1
1980-1981	133.7	60.69	48.89	42.52	41.16	40.52	54.32	117	136	161	175.6	164.7	1176.2
1981-1982	140	64.74	46.28	44.46	42.78	38.43	49.85	117	143.8	161.4	172.1	165.6	1186.4
1982-1983	142.7	63.99	46.77	41.12	38.87	39.46	51.26	114.7	144.4	155.9	173.8	162.8	1175.7
1983-1984	137.6	60.64	49.94	44.2	43.8	43.98	54.97	116.3	150	163.1	172.1	163.1	1199.7
1984-1985	138.6	66.29	47.98	42.05	44.15	39.64	53.37	118.9	148.9	162.4	174.4	168.5	1205.1
1985-1986	141.4	62	51.11	43.48	43.69	43.04	54.88	125.9	142.5	160.9	172.7	163.6	1205.2
1986-1987	141.6	61.4	45.43	39.94	42.45	43.88	49.56	114	140.8	158.1	177.2	167.6	1181.9
1987-1988	141.1	62.39	49.14	42.91	42.25	41.52	52.36	117.8	149.4	163.9	182.5	169.8	1215.0
1988-1989	142.1	63.32	46.79	43.33	40.32	41.77	55.06	127.7	151.8	159.9	176.3	163.7	1212.1
1989-1990	139	60.74	49.36	43.23	40.93	41.76	55.19	121	146.7	159.5	175.1	166.7	1199.2
1990-1991	139.2	64.81	51.86	45.15	43.08	42.39	56.71	124.1	150	164.3	173.2	163.2	1218.1
1991-1992	136.9	63.55	48.39	39.95	38.67	36.11	50.38	114.1	140.1	157.4	169.4	165.3	1160.3
1992-1993	138.5	63.81	48.73	38.94	40.52	38.7	52.6	114.2	139.6	161.4	173.7	162.5	1173.1
1993-1994	137.2	66.59	47.63	44.92	44.55	41.75	53.99	123.6	152.8	167.5	176.4	169.7	1226.6
1994-1995	145.6	68.01	49.36	41.43	43.93	44.3	56.45	115.6	146.6	163.3	173.1	164	1211.6
1995-1996	139	61.35	44.99	41.74	40.72	41.99	51.72	111.3	146.1	161.1	173.4	164.5	1177.9
1996-1997	137.3	61.85	50.33	46.49	44.36	40.25	51.71	112.9	147.3	164.4	178.8	161.1	1196.8
1997-1998	136.5	62.05	49.83	43.22	41.6	42.14	51.86	122.5	145.4	164	179	170.9	1209.0
1998-1999	140.4	64.55	51.59	44.11	44.36	42.55	54.44	117.3	152.3	163.5	177.5	168.7	1221.4
1999-2000	142	64.6	49.39	44.95	39.06	41.18	52.26	119.2	146.8	168.8	182.1	169.5	1220.0
2000-2001	141.4	62.34	50.01	43.86	43.9	42.86	58.17	122.9	148.1	164.9	177.2	169.1	1224.8
2001-2002	141.7	64.58	48.84	42.87	40.34	43.31	55.45	117.1	145.5	164.5	179.5	166.2	1209.9
2002-2003	140.3	63.69	50.71	41.86	44.91	39.52	51.52	116.7	153.9	164.5	180.1	170.7	1218.3
2003-2004	140.3	63.81	50.1	44.03	41.73	41.27	55.86	121.5	147.4	164.3	179	166.6	1215.9
2004-2005	141.2	66.38	50.72	42.26	43.64	41.76	55.74	121.5	149.3	162.8	176.9	168.7	1220.8
2005-2006	143.2	62.42	48.26	45.02	42.81	43.64	56.36	124.1	151.6	168.2	181.3	170.7	1237.6
2006-2007	147.2	65.96	49.04	43.72	42.8	43.81	56.09	120	153.6	170.3	183.5	172.9	1248.9
2007-2008	144.5	67.67	51.81	44.73	42.77	42.62	58.66	122.7	146.2	166.7	177	168	1233.3
2008-2009	141.4	64.55	52.57	44.46	43.86	42.58	53.22	118.2	145.9	166.5	174	165.2	1212.4
2009-2010	137.9	66.21	50.07	45.89	44.79	43.65	56.41	120.2	145	157.9	170.6	169.6	1208.1
2010-2011	142.8	64.92	54.34	47.2	43.59	42.71	54.37	116.2	141.7	158.8	172.7	165.3	1204.6
2011-2012	141.4	62.77	46.5	43.81	41.34	40.6	52.05	117.3	143.1	165.6	177.9	172.1	1204.4
2012-2013	143.5	65.13	51.36	44.45	42.72	44.26	55.24	121.4	152	161.3	177.3	169.5	1228.2
2013-2014	138.8	62.08	52.38	41.93	45.14	43.83	56.02	120.6	143.4	158.9	170.7	164.2	1198.0
2014-2015	139.2	63.36	49.61	46.14	42.61	41.86	55.24	114.6	146.4	154.6	171.7	166.9	1192.2
AVERAGE	140.2	63.8	49.4	43.4	42.4	41.8	54.0	118.6	146.3	162.5	175.6	166.5	

**Table A. 105** Karpaz station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	111.6	89.06	51.23	39.94	41.27	48.15	76.08	93.73	122.2	141.3	149.2	135.4	1099.2
1979-1980	111.3	87.98	58.68	39.87	36.48	43.04	71.95	91.17	118.5	138.7	145.3	136.4	1079.5
1980-1981	109.5	84.39	56.21	40.21	39.43	44.2	76.75	94.63	118	140.4	150.4	139.2	1093.4
1981-1982	114.1	90.54	51.85	43.64	42.17	40.94	70.37	94.61	123	140.6	148.2	139.8	1099.9
1982-1983	116.1	89.35	52.68	37.79	35.51	42.55	72.39	93.02	123.4	137.2	149.3	137.9	1087.2
1983-1984	112.4	84.32	57.97	43.18	43.86	49.58	77.66	94.13	126.9	141.7	148.2	138.1	1118.1
1984-1985	113.1	92.9	54.69	39.42	44.52	42.85	75.41	95.88	126.2	141.3	149.7	141.8	1117.8
1985-1986	115.1	86.33	59.89	41.94	43.71	48.17	77.52	100.7	122.1	140.4	148.6	138.5	1123.0
1986-1987	115.2	85.49	50.44	35.71	41.58	49.48	69.98	92.53	121.1	138.6	151.5	141.2	1092.8
1987-1988	114.9	86.93	56.65	40.93	41.28	45.78	73.97	95.13	126.5	142.2	154.8	142.7	1121.8
1988-1989	115.7	88.35	52.72	41.67	37.97	46.19	77.81	102	128.2	139.7	150.9	138.6	1119.6
1989-1990	113.4	84.44	56.99	41.49	39.04	46.15	77.98	97.33	124.9	139.5	150.1	140.6	1111.9
1990-1991	113.5	90.62	61.15	44.86	42.7	47.14	80.16	99.5	127	142.4	148.9	138.2	1136.2
1991-1992	111.9	88.71	55.39	35.72	35.18	37.31	71.15	92.59	120.6	138.2	146.5	139.6	1072.9
1992-1993	113	89.12	55.93	33.98	38.34	41.34	74.31	92.71	120.3	140.6	149.2	137.7	1086.6
1993-1994	112	93.32	54.11	44.46	45.2	46.12	76.3	99.12	128.7	144.4	150.9	142.6	1137.2
1994-1995	118.2	95.46	56.99	38.36	44.14	50.15	79.8	93.62	124.8	141.8	148.8	138.8	1130.9
1995-1996	113.4	85.4	49.73	38.86	38.68	46.49	73.08	90.64	124.5	140.5	149	139.1	1089.4
1996-1997	112.2	86.12	58.59	47.23	44.85	43.77	73.04	91.75	125.3	142.5	152.5	136.8	1114.6
1997-1998	111.6	86.42	57.76	41.49	40.16	46.77	73.28	98.4	124	142.2	152.6	143.4	1118.1
1998-1999	114.4	90.23	60.71	43.03	44.88	47.4	76.91	94.87	128.5	142	151.7	141.9	1136.4
1999-2000	115.6	90.32	57.03	44.5	35.86	45.25	73.83	96.1	125	145.3	154.6	142.5	1125.7
2000-2001	115.1	86.86	58.08	42.61	44.07	47.87	82.27	98.69	125.8	142.8	151.5	142.2	1137.9
2001-2002	115.4	90.25	56.12	40.85	38.04	48.6	78.38	94.67	124.1	142.6	152.9	140.2	1122.1
2002-2003	114.4	88.93	59.21	39.1	45.8	42.62	72.79	94.39	129.5	142.5	153.2	143.2	1125.7
2003-2004	114.3	89.1	58.24	42.91	40.39	45.37	78.95	97.73	125.3	142.4	152.6	140.5	1127.9
2004-2005	115	92.99	59.24	39.78	43.65	46.15	78.79	97.72	126.5	141.5	151.3	141.9	1134.5
2005-2006	116.4	87.01	55.18	44.65	42.22	49.09	79.72	99.51	128	144.9	154	143.2	1144.0
2006-2007	119.4	92.34	56.48	42.38	42.19	49.35	79.29	96.61	129.3	146.2	155.4	144.7	1153.6
2007-2008	117.4	94.95	61.09	44.11	42.15	47.49	82.95	98.54	124.6	143.9	151.3	141.4	1149.9
2008-2009	115.2	90.23	62.34	43.67	44.02	47.44	75.19	95.41	124.4	143.8	149.4	139.5	1130.6
2009-2010	112.6	92.75	58.16	46.15	45.6	49.12	79.76	96.8	123.7	138.5	147.3	142.5	1132.9
2010-2011	116.2	90.79	65.29	48.45	43.54	47.64	76.83	94.04	121.7	139	148.6	139.6	1131.6
2011-2012	115.1	87.52	52.21	42.51	39.73	44.34	73.52	94.8	122.5	143.3	151.9	144.2	1111.6
2012-2013	116.7	91.12	60.33	43.63	42.07	50.07	78.07	97.64	128.3	140.6	151.5	142.4	1142.4
2013-2014	113.3	86.49	62.01	39.22	46.2	49.39	79.19	97.11	122.7	139.1	147.4	138.9	1120.9
2014-2015	113.6	88.41	57.42	46.58	41.88	46.31	78.07	92.94	124.6	136.4	148	140.7	1114.9
AVERAGE	114.3	89.1	57.0	41.8	41.6	46.2	76.3	95.7	124.6	141.3	150.5	140.4	

**Table A. 106** Lapta station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	99.7	71.8	39.8	32.3	32.1	36.6	53.5	75.5	108.6	160.7	176.8	149.5	1037.0
1979-1980	109.9	72.1	45.5	30.6	28.3	31.8	50.5	72.1	105.2	149.0	172.2	158.7	1026.0
1980-1981	99.4	70.6	44.4	32.4	29.0	32.8	55.9	75.7	101.2	155.6	180.8	157.7	1035.6
1981-1982	105.9	74.6	39.5	34.2	30.9	29.8	47.4	75.0	108.7	146.6	164.4	152.9	1009.9
1982-1983	111.0	72.6	34.8	28.5	25.3	28.7	46.4	65.2	105.4	133.4	168.1	144.2	963.5
1983-1984	105.4	65.6	46.4	31.4	31.2	36.6	53.9	72.9	121.9	147.8	152.7	137.6	1003.4
1984-1985	102.0	68.1	43.8	33.4	32.4	29.9	52.6	80.1	117.1	144.0	171.5	151.4	1026.4
1985-1986	111.8	66.5	44.7	32.3	31.9	35.7	53.5	80.5	104.8	152.0	171.6	154.0	1039.3
1986-1987	112.7	70.1	38.8	30.9	32.8	34.0	43.8	69.7	103.4	151.3	186.8	155.0	1029.3
1987-1988	107.7	67.7	41.5	33.7	31.5	33.8	51.8	74.8	113.7	147.1	181.5	155.9	1040.6
1988-1989	117.1	64.8	34.3	28.0	27.7	30.8	53.8	81.4	127.7	149.8	184.8	148.9	1049.0
1989-1990	103.7	64.0	39.5	28.1	26.2	32.7	52.5	76.5	110.0	145.8	162.5	141.1	982.4
1990-1991	85.3	74.6	38.4	27.6	24.1	30.1	57.7	76.5	111.7	144.3	171.4	144.9	986.7
1991-1992	96.6	72.7	38.7	25.4	24.8	25.4	45.0	67.3	96.9	122.5	154.0	162.4	931.8
1992-1993	92.7	67.6	39.5	25.4	27.3	30.1	46.7	67.7	96.1	150.6	186.7	158.0	988.3
1993-1994	99.2	72.3	39.2	32.6	31.7	33.1	46.4	73.1	109.6	152.1	181.4	164.0	1034.8
1994-1995	114.0	77.5	37.4	30.9	30.0	33.1	46.2	70.0	113.4	164.5	195.3	157.7	1070.2
1995-1996	108.4	71.3	37.5	30.0	29.0	36.2	51.6	70.5	122.0	167.7	188.0	165.0	1077.2
1996-1997	110.4	67.8	45.6	35.1	33.4	31.6	46.7	67.8	122.0	175.9	211.6	156.1	1104.0
1997-1998	105.2	71.8	43.3	32.6	30.8	36.4	51.3	83.9	114.6	164.0	205.1	179.4	1118.5
1998-1999	112.9	77.1	47.4	34.6	34.0	38.3	54.1	74.0	124.0	169.1	194.0	163.1	1122.5
1999-2000	112.8	77.2	42.5	33.3	25.8	31.5	47.3	72.1	112.0	173.4	211.5	167.5	1106.8
2000-2001	117.1	75.7	47.0	31.2	30.9	35.7	59.9	80.9	123.3	160.8	194.8	172.1	1129.3
2001-2002	110.1	72.8	41.1	30.1	26.4	35.4	54.3	73.5	119.2	164.0	202.2	162.2	1091.4
2002-2003	107.8	69.7	44.1	27.7	31.5	28.5	44.9	72.6	137.1	171.1	207.0	181.3	1123.4
2003-2004	112.6	74.6	40.7	28.5	27.7	31.9	54.6	72.0	114.2	159.7	207.4	164.8	1088.8
2004-2005	110.3	76.7	40.8	27.8	29.3	31.0	53.1	78.0	119.6	154.4	197.9	177.1	1096.1
2005-2006	124.8	72.0	42.2	35.3	29.5	35.6	57.8	83.6	172.8	177.4	206.5	183.8	1221.4
2006-2007	122.4	77.2	40.6	30.4	29.6	33.6	55.6	73.3	123.6	179.1	201.9	177.1	1144.2
2007-2008	114.0	84.4	45.4	31.5	28.7	32.5	60.7	81.5	124.9	184.9	215.0	182.3	1185.8
2008-2009	120.6	73.6	50.7	30.8	30.9	35.8	53.3	75.1	112.6	163.2	188.7	165.1	1100.4
2009-2010	110.1	79.4	45.4	35.1	33.8	36.9	56.8	78.5	115.1	149.9	174.8	177.1	1092.8
2010-2011	120.0	78.3	49.6	37.2	32.6	36.2	53.9	73.6	110.6	152.9	181.8	167.3	1094.1
2011-2012	117.7	73.3	39.9	31.9	29.8	33.3	49.3	73.5	109.4	151.7	192.6	171.6	1073.9
2012-2013	111.4	77.0	47.7	33.8	31.4	37.9	55.0	77.9	121.5	152.0	179.9	167.4	1092.9
2013-2014	110.3	69.3	47.8	30.6	34.5	36.9	57.0	76.4	109.2	150.2	174.1	162.6	1058.9
2014-2015	114.0	73.6	43.2	36.3	30.7	35.2	55.7	70.8	112.7	140.7	175.7	169.4	1057.9
AVERAGE	109.4	72.6	42.4	31.4	29.9	33.4	52.2	74.7	115.6	156.2	185.8	162.3	

**Table A. 107** Lapta station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	113.8	80.0	40.0	28.5	24.1	30.1	37.9	61.7	87.6	159.6	169.3	136.5	969.1
1979-1980	135.9	83.8	54.4	26.0	18.4	21.6	34.3	58.5	86.4	149.8	170.5	152.2	991.9
1980-1981	114.9	78.9	50.6	29.0	19.1	22.9	42.4	62.8	78.6	154.9	176.4	147.3	978.0
1981-1982	132.8	90.7	42.2	34.6	23.5	18.1	29.9	65.3	93.8	150.5	165.1	149.5	995.8
1982-1983	168.1	103.0	37.6	26.2	15.8	19.0	33.5	57.3	105.4	155.6	201.0	163.4	1085.9
1983-1984	128.6	72.2	56.5	27.7	23.6	31.3	40.2	60.0	110.0	148.5	146.0	128.3	973.0
1984-1985	119.8	74.9	49.5	31.3	25.2	17.4	37.0	70.6	100.9	139.6	166.0	141.1	973.4
1985-1986	130.8	69.3	49.5	27.9	23.5	27.7	37.1	68.4	80.8	144.9	159.8	138.8	958.4
1986-1987	142.1	81.1	40.0	26.9	26.6	26.2	23.5	55.0	84.8	154.8	190.5	149.6	1000.9
1987-1988	126.7	72.6	43.7	31.1	23.1	24.5	34.9	60.4	94.3	140.9	174.6	143.2	970.0
1988-1989	148.7	70.8	30.1	20.7	17.4	19.6	40.1	74.8	118.3	151.8	187.1	141.8	1021.4
1989-1990	141.4	77.6	46.2	23.4	16.4	26.2	42.4	74.5	104.7	163.8	177.9	147.6	1041.9
1990-1991	105.9	99.9	43.9	22.5	12.7	20.6	53.0	75.1	108.2	162.5	191.8	153.5	1049.6
1991-1992	151.6	112.8	52.7	20.6	16.2	13.2	33.5	67.6	99.2	149.2	196.0	204.9	1117.5
1992-1993	125.3	88.7	48.2	18.3	19.3	21.4	32.8	60.3	86.2	179.1	221.0	176.3	1076.8
1993-1994	116.9	83.7	40.2	30.1	24.2	23.9	27.2	59.8	92.0	153.1	180.7	157.1	988.9
1994-1995	135.0	88.5	34.5	25.3	20.4	22.8	25.7	51.9	92.8	162.3	188.3	143.5	991.1
1995-1996	124.1	76.6	34.2	23.1	18.4	28.2	33.6	51.8	102.4	163.8	176.9	148.9	982.1
1996-1997	119.2	66.4	47.6	31.2	24.3	18.4	24.3	44.5	96.1	163.2	190.5	131.4	957.2
1997-1998	107.2	69.9	41.5	25.4	19.5	26.0	29.8	65.8	83.8	143.1	176.9	148.2	937.0
1998-1999	111.6	73.7	46.5	27.5	23.1	27.6	32.0	48.7	89.7	140.9	157.0	126.5	904.8
1999-2000	125.6	83.2	42.6	28.4	12.8	18.7	25.8	52.1	86.0	164.2	194.9	145.7	979.9
2000-2001	117.9	72.3	46.0	22.0	18.7	23.5	40.3	58.5	89.4	132.7	158.8	135.2	915.1
2001-2002	123.0	77.1	40.3	22.6	13.9	26.0	36.9	55.0	96.0	154.4	187.4	142.0	974.7
2002-2003	117.2	70.5	45.4	17.8	21.6	13.6	22.1	52.5	115.8	159.9	188.7	157.8	982.9
2003-2004	129.3	81.4	40.3	20.0	16.2	19.9	38.1	53.7	91.3	151.8	196.5	147.2	985.7
2004-2005	123.0	83.2	39.6	18.4	18.3	18.0	35.0	61.8	96.3	142.0	182.3	156.4	974.3
2005-2006	113.1	59.3	33.3	25.6	15.0	20.7	33.1	54.9	125.6	133.5	150.6	129.6	894.4
2006-2007	127.9	76.2	35.6	21.1	17.2	20.5	35.2	49.4	92.0	156.6	169.6	142.8	944.1
2007-2008	106.9	79.5	40.6	21.0	14.7	17.2	39.0	55.7	85.9	149.3	167.2	135.9	913.1
2008-2009	129.2	72.9	55.4	22.3	19.7	25.0	32.9	53.4	81.7	142.8	161.1	135.7	932.2
2009-2010	112.3	80.1	44.7	29.4	23.7	26.4	37.2	57.1	83.1	124.7	143.9	144.1	906.9
2010-2011	125.1	78.0	52.1	33.0	21.8	25.0	32.9	49.9	77.5	127.3	150.1	134.4	907.2
2011-2012	137.5	79.5	38.7	26.6	19.7	22.6	29.8	56.1	85.5	142.0	180.9	154.6	973.5
2012-2013	115.2	77.3	49.2	27.4	20.3	28.3	35.0	56.8	91.2	128.1	150.3	136.4	915.5
2013-2014	121.7	70.2	53.0	23.2	26.6	28.4	40.6	58.6	82.3	135.0	154.4	140.6	934.6
2014-2015	128.6	78.1	44.5	34.5	20.7	25.5	39.0	50.7	87.6	124.4	158.0	148.9	940.4
AVERAGE	125.8	79.3	44.1	25.7	19.9	22.9	34.5	58.7	93.6	148.7	174.6	146.4	

**Table A. 108** Lapta station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	176.8	173	144.9	141.6	137.4	125.6	142.1	149	166.3	184.3	197.1	194.8	1932.9
1979-1980	183.5	173.3	154.1	137.8	128.6	116.6	138	145.8	164	179.1	195.3	198.9	1915.1
1980-1981	176.6	171.9	152.5	141.7	130.3	118.6	145.2	149.2	161.3	182.1	198.7	198.5	1926.5
1981-1982	180.9	175.7	144.4	145.6	134.7	112.4	133.6	148.6	166.3	178	192	196.3	1908.6
1982-1983	184.1	173.8	135.8	132.6	120.6	110.1	132.1	139	164.2	171.6	193.6	192.2	1849.6
1983-1984	180.6	166.7	155.4	139.4	135.6	125.5	142.7	146.6	174.4	178.6	186.8	188.9	1921.1
1984-1985	178.4	169.3	151.5	144	138.2	112.6	140.9	153.1	171.6	176.8	194.9	195.6	1926.8
1985-1986	184.6	167.7	152.9	141.5	137.2	124	142.1	153.3	163.7	180.4	195	196.9	1939.3
1986-1987	185.1	171.4	143.2	138.4	139	120.8	128	143.5	162.8	180.2	201	197.3	1910.6
1987-1988	182.1	168.8	147.9	144.4	136.2	120.5	139.8	148.3	169.5	178.2	199	197.7	1932.4
1988-1989	187.8	165.8	134.9	131.4	127.1	114.5	142.5	154.1	177.6	179.5	200.2	194.5	1909.9
1989-1990	179.5	164.9	144.4	131.7	123.1	118.3	140.8	149.9	167.1	177.6	191.1	190.7	1879.1
1990-1991	166.2	175.7	142.6	130.5	117.4	113.1	147.4	149.9	168.3	177	194.9	192.6	1875.4
1991-1992	174.7	173.9	143.1	124.6	119.3	102.4	129.8	141.2	158.3	165.8	187.4	200.6	1821.0
1992-1993	171.8	168.8	144.4	124.7	126.1	113	132.5	141.6	157.6	179.8	200.9	198.6	1859.9
1993-1994	176.4	173.6	144	142.3	136.6	119.1	132.1	146.8	166.9	180.5	198.9	201.3	1918.4
1994-1995	185.9	178.4	140.7	138.5	132.8	119.1	131.8	143.8	169.3	185.9	204.1	198.5	1928.9
1995-1996	182.5	172.5	141	136.4	130.4	124.7	139.5	144.3	174.5	187.2	201.4	201.7	1936.1
1996-1997	183.7	169	154.3	147.5	140.4	116.1	132.5	141.6	174.5	190.4	209.8	197.8	1957.5
1997-1998	180.4	173	150.7	142.2	134.7	125.2	139.1	156.2	170.1	185.6	207.6	207.6	1972.4
1998-1999	185.3	178	156.9	146.3	141.5	128.4	142.8	147.6	175.6	187.7	203.6	200.9	1994.8
1999-2000	185.2	178.1	149.4	143.7	122.2	115.9	133.4	145.8	168.4	189.5	209.7	202.7	1944.0
2000-2001	187.8	176.7	156.3	139.2	134.8	123.9	150	153.7	175.2	184.3	203.9	204.7	1990.4
2001-2002	183.6	174	147.1	136.6	123.9	123.4	143.2	147.2	172.8	185.7	206.6	200.5	1944.4
2002-2003	182.2	170.9	152	130.7	136.2	109.6	129.7	146.3	182.7	188.5	208.2	208.4	1945.4
2003-2004	185.1	175.7	146.6	132.7	127.2	116.7	143.6	145.8	169.8	183.9	208.4	201.6	1937.0
2004-2005	183.7	177.7	146.6	131	131	114.9	141.6	151.2	173.1	181.6	205	206.7	1944.2
2005-2006	192.1	173.2	149	147.8	131.6	123.7	147.5	155.9	199	191	208	209.3	2028.2
2006-2007	190.8	178.1	146.3	137.3	131.8	120	144.8	146.9	175.4	191.7	206.4	206.7	1976.1
2007-2008	186	184.4	153.9	139.7	129.6	117.9	150.9	154.2	176.1	193.8	210.9	208.7	2006.3
2008-2009	189.8	174.7	161.5	138.2	134.9	124.1	141.8	148.7	168.8	185.3	201.6	201.7	1971.2
2009-2010	183.5	180	154	147.3	141.3	126.1	146.3	151.6	170.3	179.5	196.3	206.7	1982.9
2010-2011	189.4	179.1	160	151.5	138.7	124.8	142.7	147.3	167.6	180.9	199	202.6	1983.5
2011-2012	188.1	174.5	145	140.7	132.4	119.4	136.3	147.1	166.8	180.3	203.1	204.5	1938.2
2012-2013	184.4	178	157.3	144.7	136.1	127.7	144	151.2	174.2	180.5	198.3	202.7	1978.9
2013-2014	183.7	170.5	157.5	137.6	142.7	126	146.6	149.8	166.6	179.6	196	200.7	1957.3
2014-2015	185.9	174.8	150.6	149.8	134.4	123	144.9	144.6	168.9	175.2	196.7	203.5	1952.3
AVERAGE	182.9	173.7	149.0	139.2	132.3	119.4	140.1	148.1	170.3	182.1	200.3	200.4	

**Table A. 109** Lapta station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	135.9	63.99	48.82	45.29	45.25	44.92	55.9	121.2	145.1	166.5	175.2	162.9	1211.1
1979-1980	141	64.1	51.92	44.06	42.34	41.72	54.28	118.7	143.2	161.9	173.6	166.4	1203.2
1980-1981	135.8	63.55	51.36	45.33	42.9	42.42	57.12	121.4	140.8	164.6	176.6	166.1	1207.8
1981-1982	139.1	64.99	48.65	46.57	44.36	40.21	52.53	120.9	145.2	160.9	170.7	164.2	1198.2
1982-1983	141.5	64.28	45.73	42.41	39.72	39.36	51.95	113.1	143.3	155.1	172.1	160.8	1169.3
1983-1984	138.8	61.64	52.36	44.6	44.65	44.89	56.1	119.3	152.2	161.4	166	158	1200.0
1984-1985	137.1	62.61	51.04	46.06	45.5	40.28	55.4	124.5	149.8	159.8	173.3	163.6	1209.0
1985-1986	141.9	62	51.51	45.27	45.15	44.34	55.88	124.8	142.9	163.1	173.3	164.7	1214.9
1986-1987	142.3	63.37	48.23	44.25	45.76	43.23	50.35	116.8	142.1	162.8	178.7	165	1203.0
1987-1988	140	62.43	49.81	46.19	44.82	43.1	54.97	120.7	147.9	161.1	176.9	165.4	1213.3
1988-1989	144.3	61.3	45.44	42.02	41.85	40.94	56.04	125.4	155.1	162.2	178	162.7	1215.3
1989-1990	138	60.98	48.63	42.1	40.54	42.32	55.37	121.9	145.9	160.6	169.9	159.5	1185.7
1990-1991	127.7	64.97	48.02	41.72	38.64	40.45	57.99	122	146.9	159.9	173.3	161.1	1182.6
1991-1992	134.3	64.29	48.2	39.84	39.29	36.61	51.07	114.9	138.1	149.9	166.6	167.8	1150.8
1992-1993	132.1	62.4	48.63	39.88	41.5	40.43	52.1	115.2	137.6	162.5	178.6	166.2	1177.2
1993-1994	135.6	64.18	48.49	45.5	44.98	42.61	51.93	119.4	145.7	163.1	176.8	168.4	1206.8
1994-1995	142.9	65.97	47.38	44.29	43.73	42.62	51.84	117	147.8	168	181.5	166.1	1219.1
1995-1996	140.3	63.79	47.48	43.62	42.91	44.62	54.88	117.4	152.3	169.2	179	168.7	1224.3
1996-1997	141.3	62.48	51.96	47.17	46.2	41.53	52.1	115.2	152.3	172.1	186.5	165.4	1234.3
1997-1998	138.7	63.97	50.77	45.47	44.33	44.79	54.7	127.1	148.4	167.8	184.5	173.7	1244.2
1998-1999	142.4	65.83	52.86	46.81	46.61	45.92	56.17	120.1	153.3	169.7	181	168	1248.7
1999-2000	142.4	65.87	50.34	45.94	40.22	41.45	52.44	118.6	147	171.2	186.4	169.6	1231.6
2000-2001	144.3	65.36	52.63	44.52	44.36	44.31	59.01	125	152.9	166.6	181.3	171.2	1251.6
2001-2002	141.1	64.36	49.56	43.68	40.78	44.13	56.31	119.7	150.8	167.8	183.6	167.7	1229.6
2002-2003	140	63.21	51.19	41.79	44.85	39.22	51	119.1	159.5	170.4	185.1	174.3	1239.6
2003-2004	142.3	64.99	49.36	42.45	41.87	41.73	56.46	118.6	148.2	166.2	185.2	168.7	1226.0
2004-2005	141.2	65.71	49.39	41.91	43.14	41.1	55.69	123.1	151.1	164.1	182.3	172.9	1231.5
2005-2006	147.7	64.05	50.2	47.27	43.31	44.27	58.01	126.9	173.7	172.7	184.9	175.1	1288.0
2006-2007	146.6	65.86	49.29	43.92	43.38	42.93	56.93	119.6	153.1	173.2	183.5	172.9	1251.2
2007-2008	142.9	68.18	51.85	44.69	42.68	42.18	59.37	125.5	153.7	175.2	187.5	174.6	1268.4
2008-2009	145.9	64.61	54.4	44.18	44.42	44.41	55.78	121	147.3	167.5	179.3	168.8	1237.5
2009-2010	141.1	66.59	51.86	47.12	46.51	45.1	57.53	123.4	148.7	162.3	174.5	172.9	1237.5
2010-2011	145.6	66.23	53.9	48.46	45.66	44.64	56.1	119.8	146.3	163.5	176.9	169.5	1236.7
2011-2012	144.6	64.52	48.86	44.99	43.59	42.72	53.61	119.7	145.6	163	180.6	171	1222.8
2012-2013	141.7	65.81	52.97	46.28	44.79	45.68	56.65	123	152	163.1	176.3	169.6	1237.9
2013-2014	141.2	63.05	53.04	44.02	46.98	45.08	57.65	121.9	145.5	162.4	174.2	167.8	1222.9
2014-2015	142.9	64.63	50.72	47.91	44.26	43.99	57	117.7	147.4	158.4	174.8	170.3	1219.9
AVERAGE	140.6	64.2	50.2	44.5	43.6	42.7	55.1	120.5	148.6	164.6	178.1	167.6	

**Table A. 110** Lapta station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116.9	93.76	58.91	47.36	48.94	54.08	83.98	103.5	131.3	151.9	158.4	145.4	1194.5
1979-1980	120.7	93.9	64.08	45.21	43.97	49.07	81.68	101.7	130.1	149.1	157.4	147.7	1184.6
1980-1981	116.8	93.11	63.16	47.43	44.93	50.17	85.71	103.6	128.5	150.7	159.3	147.5	1190.9
1981-1982	119.3	95.28	58.64	49.61	47.42	46.71	79.16	103.3	131.4	148.4	155.5	146.2	1180.9
1982-1983	121	94.2	53.78	42.33	39.51	45.38	78.34	97.88	130.1	144.8	156.4	143.9	1147.8
1983-1984	119.1	90.22	64.81	46.16	47.92	54.05	84.28	102.2	135.9	148.8	152.6	142.1	1187.9
1984-1985	117.8	91.69	62.62	48.7	49.37	46.81	83.27	105.8	134.3	147.8	157.2	145.8	1191.1
1985-1986	121.3	90.76	63.4	47.33	48.78	53.19	83.96	105.9	129.9	149.8	157.2	146.5	1198.1
1986-1987	121.6	92.84	57.95	45.54	49.79	51.43	76.05	100.4	129.4	149.6	160.6	146.8	1182.0
1987-1988	119.9	91.41	60.58	48.95	48.22	51.25	82.66	103.1	133.1	148.6	159.4	147	1194.2
1988-1989	123.1	89.71	53.31	41.64	43.13	47.86	84.17	106.4	137.7	149.3	160.2	145.2	1181.6
1989-1990	118.5	89.22	58.6	41.79	40.91	50.02	83.21	104	131.8	148.2	155	143.1	1164.3
1990-1991	111	95.25	57.59	41.12	37.68	47.08	86.95	104	132.4	147.9	157.2	144.1	1162.2
1991-1992	115.7	94.24	57.91	37.82	38.79	41.06	77.08	99.11	126.8	141.6	153	148.6	1131.7
1992-1993	114.2	91.37	58.62	37.89	42.56	47.05	78.55	99.36	126.5	149.5	160.5	147.5	1153.5
1993-1994	116.7	94.07	58.38	47.73	48.47	50.46	78.33	102.3	131.7	149.8	159.4	149	1186.4
1994-1995	122.1	96.78	56.52	45.62	46.35	50.48	78.19	100.6	133	152.8	162.3	147.5	1192.3
1995-1996	120.2	93.48	56.7	44.44	44.97	53.62	82.52	100.9	135.9	153.6	160.8	149.2	1196.3
1996-1997	120.8	91.5	64.16	50.67	50.57	48.78	78.57	99.38	135.9	155.4	165.5	147	1208.3
1997-1998	119	93.76	62.17	47.68	47.38	53.88	82.26	107.5	133.5	152.7	164.3	152.6	1216.7
1998-1999	121.7	96.57	65.65	50.02	51.24	55.67	84.36	102.7	136.6	153.9	162.1	148.8	1229.2
1999-2000	121.7	96.63	61.45	48.51	40.37	48.65	79.06	101.7	132.5	154.9	165.5	149.8	1200.7
2000-2001	123.1	95.84	65.28	46.02	47.43	53.14	88.42	106.1	136.3	152	162.2	150.9	1226.8
2001-2002	120.7	94.33	60.15	44.54	41.33	52.86	84.55	102.5	135	152.7	163.7	148.6	1201.0
2002-2003	120	92.6	62.88	41.24	48.27	45.15	76.98	102	140.5	154.3	164.6	153	1201.5
2003-2004	121.6	95.29	59.83	42.39	43.19	49.09	84.77	101.7	133.3	151.7	164.7	149.2	1196.8
2004-2005	120.8	96.39	59.87	41.44	45.35	48.09	83.68	104.8	135.1	150.4	162.8	152.1	1200.8
2005-2006	125.5	93.88	61.22	50.85	45.64	53.06	86.98	107.4	149.7	155.7	164.5	153.5	1248.0
2006-2007	124.8	96.6	59.69	44.96	45.76	50.98	85.45	102.4	136.4	156.1	163.6	152	1218.8
2007-2008	122.1	100.1	63.97	46.32	44.56	49.8	88.91	106.4	136.9	157.3	166.1	153.2	1235.7
2008-2009	124.2	94.72	68.22	45.44	47.52	53.28	83.79	103.3	132.7	152.5	160.9	149.3	1216.0
2009-2010	120.7	97.7	63.99	50.56	51.09	54.38	86.31	105	133.6	149.3	157.9	152	1222.6
2010-2011	124	97.16	67.37	52.91	49.63	53.64	84.28	102.5	132.1	150.1	159.5	149.8	1222.9
2011-2012	123.3	94.59	58.98	46.85	46.1	50.64	80.71	102.5	131.6	149.7	161.8	150.8	1197.5
2012-2013	121.2	96.55	65.85	49.09	48.17	55.27	85.04	104.7	135.8	149.8	159.1	149.8	1220.3
2013-2014	120.8	92.35	65.95	45.12	51.88	54.33	86.47	104	131.5	149.4	157.8	148.7	1208.2
2014-2015	122.1	94.75	62.1	51.96	47.26	52.64	85.54	101	132.8	146.9	158.1	150.3	1205.4
AVERAGE	120.4	94.1	61.2	46.0	46.1	50.6	82.8	103.0	133.6	150.7	160.2	148.5	

**Table A. 111 Lefke station Hamon results**

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	101.5	73.1	39.0	31.6	29.8	35.5	52.3	75.4	111.3	167.1	187.0	156.2	1059.9
1979-1980	114.2	75.2	45.7	28.3	25.4	29.9	45.8	68.0	110.7	161.8	186.1	173.5	1064.7
1980-1981	105.3	73.4	43.3	30.1	27.1	30.5	52.1	73.9	101.2	167.2	190.2	167.0	1061.2
1981-1982	106.1	78.5	37.1	31.9	29.0	28.0	44.5	74.7	113.1	154.3	177.4	166.8	1041.5
1982-1983	117.4	75.3	36.7	27.7	24.0	28.0	45.5	71.5	118.5	148.5	184.2	159.3	1036.6
1983-1984	106.8	76.6	49.2	33.8	29.6	33.4	49.3	69.1	117.6	150.9	176.2	156.7	1049.3
1984-1985	105.9	70.6	37.4	26.3	28.7	27.4	47.2	73.7	127.8	161.4	198.3	176.6	1081.2
1985-1986	116.5	66.1	44.2	29.6	28.3	34.7	52.9	86.9	111.7	164.1	186.5	165.7	1087.1
1986-1987	121.8	71.1	35.5	28.1	29.4	34.3	41.3	69.1	109.3	161.5	201.2	173.6	1076.4
1987-1988	119.7	67.9	38.9	28.5	27.6	30.9	46.8	76.0	126.1	169.3	219.6	176.9	1128.2
1988-1989	121.5	70.1	34.8	27.8	23.0	28.9	50.4	87.7	126.6	154.1	198.6	168.2	1091.6
1989-1990	109.6	64.3	41.1	29.2	24.4	29.9	49.0	73.7	112.7	154.6	186.5	164.6	1039.6
1990-1991	106.9	72.3	42.7	29.7	26.5	29.9	52.2	75.6	106.3	156.0	174.4	158.4	1030.8
1991-1992	107.0	72.8	39.7	25.3	24.2	24.6	42.4	67.4	107.5	147.8	174.2	173.2	1006.0
1992-1993	103.4	70.9	39.4	23.2	25.4	28.0	45.3	68.3	101.2	161.4	183.1	155.6	1005.2
1993-1994	95.4	78.6	36.7	29.7	30.0	31.4	47.7	79.3	119.1	156.0	183.7	172.1	1059.7
1994-1995	119.5	77.7	37.2	26.0	28.1	31.8	50.5	70.1	115.8	175.4	194.8	168.7	1095.6
1995-1996	110.2	67.6	33.3	26.6	25.3	32.2	47.4	67.7	129.9	170.5	196.1	149.3	1056.0
1996-1997	109.9	64.4	42.2	31.0	28.9	28.8	44.9	65.6	121.4	168.4	206.4	158.3	1070.3
1997-1998	105.6	68.8	40.8	29.3	26.8	31.0	45.7	79.6	113.6	158.3	213.4	196.8	1109.6
1998-1999	119.1	80.0	46.4	31.4	29.4	32.5	50.5	75.6	133.6	180.3	206.3	178.2	1163.3
1999-2000	115.7	76.1	40.9	32.1	22.6	28.2	46.0	75.3	116.3	177.9	215.0	172.0	1118.1
2000-2001	114.4	68.3	41.2	28.5	28.5	31.8	58.1	77.8	124.9	162.4	195.1	173.5	1104.6
2001-2002	112.1	71.4	38.6	28.2	24.2	33.6	52.8	70.4	111.7	162.5	199.7	165.6	1070.9
2002-2003	106.2	72.5	43.4	26.3	30.0	28.2	43.6	71.4	139.4	175.8	213.7	187.5	1138.0
2003-2004	113.7	76.7	41.8	29.4	26.5	31.1	52.2	74.3	114.3	165.2	201.5	166.9	1093.6
2004-2005	113.0	79.7	40.6	27.3	28.5	29.5	51.6	78.0	119.9	160.3	198.9	173.1	1100.2
2005-2006	116.9	67.5	37.4	30.1	26.5	31.2	50.1	79.1	121.7	167.0	200.5	180.5	1108.4
2006-2007	124.8	75.4	38.1	27.3	22.3	26.8	40.5	55.0	102.2	134.7	157.7	140.9	945.6
2007-2008	88.9	62.9	35.1	23.9	25.2	28.5	58.6	78.6	111.9	166.8	189.1	165.4	1034.9
2008-2009	104.5	67.0	44.9	30.2	29.6	32.3	48.4	74.5	111.1	166.5	193.2	160.4	1062.4
2009-2010	103.1	76.5	40.4	31.9	33.1	35.3	54.0	76.5	115.7	151.5	171.7	175.0	1064.8
2010-2011	114.9	71.7	48.3	34.1	28.9	32.2	49.3	71.5	107.1	153.2	182.3	164.9	1058.2
2011-2012	111.6	65.2	35.2	28.7	26.2	29.3	46.7	74.1	111.3	157.6	195.4	172.4	1053.7
2012-2013	109.0	72.4	42.9	30.3	27.9	34.4	53.2	77.9	125.4	156.7	177.2	167.0	1074.3
2013-2014	106.1	65.6	44.3	26.7	31.1	34.2	53.8	75.4	108.7	156.2	176.1	160.8	1038.9
2014-2015	107.3	67.2	39.7	32.9	27.3	30.9	52.6	69.4	115.4	141.6	177.9	168.4	1030.5
AVERAGE	110.4	71.7	40.4	29.0	27.3	30.8	49.1	73.7	116.0	160.7	191.1	167.8	

**Table A. 112** Lefke station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116.7	82.4	37.9	26.8	20.5	28.0	35.1	62.2	92.3	178.0	187.8	152.7	1020.4
1979-1980	142.1	89.1	53.7	20.9	13.1	17.5	25.8	51.6	94.5	176.3	193.0	178.7	1056.3
1980-1981	125.8	85.0	48.0	24.2	16.0	18.5	35.7	61.2	80.0	182.6	196.3	169.3	1042.5
1981-1982	132.9	98.2	36.4	29.3	20.3	14.5	24.5	65.5	101.2	170.9	188.1	176.3	1058.2
1982-1983	160.3	96.8	37.1	21.3	11.8	15.2	27.5	62.9	114.7	170.1	207.1	175.1	1099.9
1983-1984	123.4	87.1	58.3	30.6	19.8	23.4	29.9	50.7	99.3	151.8	171.5	151.1	996.9
1984-1985	128.9	81.1	36.0	17.0	19.3	12.9	28.2	61.8	119.4	176.8	209.6	183.3	1074.1
1985-1986	133.7	66.4	46.3	21.6	16.8	25.0	34.3	77.5	88.0	164.4	177.3	155.8	1007.1
1986-1987	154.3	81.5	31.6	20.4	20.5	26.4	18.9	53.2	92.2	175.4	211.6	178.4	1064.4
1987-1988	138.0	69.3	35.6	19.4	15.8	17.8	25.1	59.8	106.5	171.0	214.5	167.5	1040.2
1988-1989	151.1	78.3	29.7	19.4	9.1	15.4	32.6	84.6	114.9	161.4	205.0	169.3	1070.6
1989-1990	143.1	73.4	46.5	24.1	12.1	18.7	33.0	65.7	103.6	176.5	206.0	178.5	1081.2
1990-1991	135.2	87.3	49.0	24.5	15.7	18.3	37.6	67.5	91.8	174.6	185.1	166.8	1053.5
1991-1992	155.1	100.7	48.5	17.8	13.1	9.8	24.5	60.7	107.1	185.9	211.7	211.2	1146.0
1992-1993	147.4	96.2	47.6	13.3	15.6	16.5	29.6	62.1	95.9	209.9	224.6	185.3	1144.0
1993-1994	109.5	94.6	34.2	23.5	21.5	20.4	28.6	71.1	105.9	166.6	188.9	176.1	1040.8
1994-1995	143.8	89.3	33.8	15.6	17.3	20.2	31.9	52.5	97.1	187.4	194.7	165.3	1048.8
1995-1996	144.8	80.2	28.9	18.6	13.9	23.6	30.2	54.6	130.0	203.0	219.8	159.2	1106.9
1996-1997	135.7	69.7	46.5	26.6	19.6	15.6	24.5	47.7	110.3	187.5	219.9	161.3	1064.8
1997-1998	120.4	73.1	40.5	21.5	14.8	18.5	24.2	67.8	93.1	161.1	214.5	194.4	1043.9
1998-1999	120.6	78.7	44.6	22.0	16.6	18.3	27.0	51.8	102.2	163.0	175.8	149.4	969.9
1999-2000	134.5	84.5	40.3	26.8	8.1	13.3	24.4	59.8	95.5	186.3	213.4	165.2	1052.0
2000-2001	129.3	69.5	39.8	19.4	17.1	19.3	42.0	62.2	104.3	160.4	185.7	162.9	1011.9
2001-2002	138.3	81.9	38.3	20.6	11.2	24.9	37.1	55.6	95.7	177.0	209.8	168.9	1059.4
2002-2003	116.3	76.2	44.0	15.4	19.6	13.0	20.2	51.8	122.2	178.0	205.9	177.1	1039.8
2003-2004	132.0	85.8	42.2	21.7	14.2	18.6	33.9	58.2	93.1	169.3	198.5	160.0	1027.5
2004-2005	129.7	90.0	39.5	17.5	17.4	15.6	32.7	63.8	99.7	160.9	193.8	165.6	1026.1
2005-2006	136.6	69.9	33.3	23.0	14.1	18.8	30.5	66.1	102.8	171.4	197.0	174.8	1038.3
2006-2007	214.1	119.4	49.8	25.0	10.6	15.8	23.6	40.5	110.0	182.0	208.5	183.7	1183.0
2007-2008	111.0	74.5	34.7	13.9	14.4	16.8	52.8	79.1	108.0	207.5	221.3	189.2	1123.3
2008-2009	123.2	72.5	50.8	24.1	20.4	21.9	29.3	61.6	93.1	179.5	197.9	159.7	1034.0
2009-2010	114.5	84.8	39.3	26.3	25.6	26.5	36.4	61.6	94.4	148.7	161.8	168.0	987.7
2010-2011	136.1	78.6	56.4	31.3	18.5	20.9	29.9	54.6	84.9	154.9	178.8	160.4	1005.1
2011-2012	146.5	75.2	32.9	23.0	15.5	17.4	28.9	66.2	101.3	181.2	217.8	188.2	1094.2
2012-2013	124.6	78.5	44.6	23.4	16.6	24.9	35.4	64.3	107.9	157.2	169.7	160.1	1007.0
2013-2014	129.5	72.0	51.1	17.7	23.9	26.4	39.2	64.9	92.3	169.2	181.5	164.7	1032.5
2014-2015	136.1	77.6	42.4	31.5	17.2	20.4	38.4	56.2	105.5	151.7	190.1	179.7	1046.9
AVERAGE	135.5	82.4	41.9	22.1	16.4	19.2	30.9	61.1	101.4	173.8	198.2	171.2	

**Table A. 113 Lefke station Hargreaves results**

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	178.1	174.3	143.6	140.1	132.3	123.6	140.5	148.9	168	186.9	201.1	197.9	1935.4
1979-1980	186.2	176.3	154.5	132.3	120.9	112.7	131.3	141.9	167.7	184.8	200.8	205.3	1914.6
1980-1981	180.5	174.6	150.8	136.5	125.6	113.9	140.3	147.6	161.3	187	202.2	202.6	1923.0
1981-1982	181.1	179.3	140.3	140.9	130.3	108.5	129.1	148.3	169.1	181.6	197.4	202.5	1908.5
1982-1983	188	176.4	139.4	130.8	117.2	108.5	130.8	145.3	172.4	178.9	200	199.3	1887.1
1983-1984	181.5	177.6	159.4	144.7	131.8	119.8	136.4	143	171.9	180.1	196.9	198.1	1941.3
1984-1985	180.9	171.8	140.8	127.1	129.8	107	133.4	147.4	177.7	184.6	205.2	206.5	1912.2
1985-1986	187.5	167.2	152.2	135.4	128.6	122.2	141.3	158.5	168.3	185.7	200.9	202	1949.8
1986-1987	190.6	172.4	137.3	131.7	131.5	121.4	124	142.9	166.8	184.6	206.3	205.3	1914.8
1987-1988	189.3	169.2	143.4	132.7	127	114.8	132.7	149.5	176.8	187.8	212.4	206.7	1942.3
1988-1989	190.3	171.4	135.9	130.9	114.2	110.5	137.9	159.2	177.1	181.4	205.4	203.1	1917.2
1989-1990	183.3	165.3	147.2	134.5	118.1	112.7	136	147.4	168.9	181.7	200.9	201.6	1897.7
1990-1991	181.6	173.6	149.7	135.5	124.2	112.7	140.3	149.1	164.8	182.3	196.2	198.9	1909.0
1991-1992	181.7	174	144.8	124.3	117.6	100.2	125.8	141.4	165.6	178.6	196.1	205.2	1855.2
1992-1993	179.4	172.1	144.4	118.4	121.1	108.4	130.4	142.2	161.3	184.6	199.6	197.6	1859.5
1993-1994	173.8	179.4	139.6	135.6	132.8	115.8	134	152.5	172.8	182.3	199.8	204.8	1923.1
1994-1995	189.2	178.6	140.5	126.2	128.2	116.5	138.1	144	170.8	190.3	204	203.4	1929.7
1995-1996	183.7	168.8	132.9	127.8	120.9	117.3	133.5	141.6	178.9	188.4	204.4	194.7	1892.9
1996-1997	183.5	165.4	149.1	138.7	130.2	110.3	129.8	139.4	174.1	187.5	208.1	198.8	1914.9
1997-1998	180.8	170.1	146.6	134.6	124.8	114.8	131.1	152.7	169.5	183.3	210.5	214.1	1932.8
1998-1999	188.9	180.6	155.5	139.6	131.3	118	138.1	149.1	180.9	192.1	208	207.2	1989.5
1999-2000	187	177.1	146.9	141.2	113	108.8	131.5	148.9	171.1	191.2	210.9	204.7	1932.3
2000-2001	186.2	169.6	147.3	132.8	129.2	116.6	148	151.1	176.2	185.1	204.1	205.3	1951.4
2001-2002	184.9	172.6	143	132	117.7	120.1	141.3	144.3	168.3	185.1	205.8	202	1916.9
2002-2003	181.2	173.7	150.9	127.2	132.7	109	127.7	145.3	183.9	190.4	210.5	210.8	1943.2
2003-2004	185.8	177.8	148.3	135	124.1	115.2	140.4	147.9	169.9	186.2	206.3	202.5	1939.5
2004-2005	185.4	180.4	146.4	129.7	129.1	111.9	139.6	151.2	173.3	184.2	205.4	205.1	1941.7
2005-2006	187.7	168.7	140.7	136.7	124.1	115.4	137.5	152.2	174.3	187	206	208.1	1938.3
2006-2007	192.1	176.5	142.1	129.7	111.8	105.6	122.5	127.5	162	172.3	189.1	190.6	1821.9
2007-2008	169	163.7	136.4	120.4	120.6	109.7	148.6	151.7	168.4	186.8	201.9	201.9	1879.2
2008-2009	180.1	168.2	153.2	136.8	131.8	117.6	135.1	148.1	167.9	186.7	203.4	199.7	1928.5
2009-2010	179.1	177.5	146.1	140.7	139.7	123.2	142.7	149.9	170.8	180.3	195.1	205.9	1951.1
2010-2011	186.5	172.9	158.2	145.4	130.1	117.3	136.4	145.3	165.3	181.1	199.3	201.7	1939.4
2011-2012	184.5	166.3	136.6	133.3	123.4	111.4	132.5	147.7	168	183	204.2	204.8	1895.7
2012-2013	182.9	173.7	150.2	137.2	127.7	121.6	141.7	151.2	176.5	182.6	197.3	202.6	1945.1
2013-2014	181.1	166.7	152.4	128.1	135.4	121.2	142.5	148.9	166.3	182.4	196.9	199.9	1921.8
2014-2015	181.8	168.5	144.8	142.8	126.1	114.8	140.9	143.3	170.6	175.7	197.6	203.2	1910.0
AVERAGE	183.7	172.8	145.7	133.7	125.8	114.3	135.8	147.2	170.7	184.2	202.4	202.8	

**Table A. 114 Lefke station Blaney-Criddle results**

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	136.9	64.45	48.36	44.8	43.56	44.22	55.24	121.1	146.7	169	178.7	165.5	1218.4
1979-1980	143	65.2	52.01	42.3	39.82	40.29	51.6	115.4	146.3	167	178.4	171.7	1213.1
1980-1981	138.8	64.57	50.77	43.65	41.33	40.73	55.14	120.1	140.8	169	179.8	169.4	1214.0
1981-1982	139.2	66.31	47.24	45.02	42.9	38.82	50.78	120.6	147.6	164.1	175.4	169.3	1207.3
1982-1983	144.5	65.21	46.95	41.81	38.57	38.8	51.41	118.2	150.5	161.7	177.8	166.6	1202.0
1983-1984	139.5	65.66	53.7	46.26	43.38	42.83	53.63	116.3	150	162.7	175	165.7	1214.7
1984-1985	139.1	63.53	47.42	40.65	42.71	38.26	52.43	119.9	155.1	166.8	182.4	172.7	1220.9
1985-1986	144.1	61.82	51.25	43.3	42.32	43.68	55.57	129	146.8	167.8	178.5	169	1233.2
1986-1987	146.4	63.74	46.21	42.12	43.28	43.42	48.73	116.3	145.5	166.9	183.3	171.7	1217.6
1987-1988	145.5	62.53	48.29	42.41	41.8	41.04	52.19	121.6	154.3	169.8	188.8	172.8	1241.0
1988-1989	146.3	63.37	45.76	41.85	37.57	39.53	54.21	129.5	154.5	164	182.5	169.9	1228.9
1989-1990	140.9	61.09	49.56	43.01	38.88	40.28	53.48	119.9	147.4	164.2	178.5	168.6	1205.8
1990-1991	139.6	64.18	50.43	43.35	40.85	40.31	55.18	121.3	143.8	164.7	174.3	166.3	1204.3
1991-1992	139.6	64.32	48.77	39.75	38.71	35.82	49.46	115	144.5	161.4	174.3	171.6	1183.2
1992-1993	137.8	63.65	48.62	37.85	39.86	38.75	51.26	115.7	140.8	166.8	177.4	165.3	1183.8
1993-1994	133.6	66.33	46.99	43.35	43.72	41.42	52.69	124	150.8	164.7	177.6	171.2	1216.4
1994-1995	145.4	66.04	47.31	40.36	42.21	41.66	54.3	117.1	149.1	171.9	181.3	170	1226.7
1995-1996	141.2	62.4	44.73	40.86	39.78	41.97	52.51	115.1	156.1	170.2	181.7	162.8	1209.4
1996-1997	141	61.16	50.2	44.36	42.85	39.44	51.02	113.4	152	169.5	184.9	166.3	1216.1
1997-1998	138.9	62.87	49.37	43.04	41.08	41.08	51.52	124.2	147.9	165.6	187	179.1	1231.7
1998-1999	145.2	66.8	52.38	44.62	43.21	42.21	54.3	121.3	157.9	173.7	184.9	173.3	1259.7
1999-2000	143.7	65.49	49.46	45.15	37.19	38.92	51.71	121.1	149.3	172.8	187.5	171.2	1233.5
2000-2001	143.1	62.69	49.6	42.46	42.54	41.69	58.18	122.9	153.7	167.2	181.4	171.7	1237.2
2001-2002	142.1	63.82	48.15	42.2	38.75	42.95	55.52	117.4	146.8	167.2	182.8	168.9	1216.7
2002-2003	139.2	64.23	50.8	40.65	43.7	38.99	50.19	118.1	160.5	172.1	187.1	176.3	1241.8
2003-2004	142.8	65.71	49.94	43.18	40.84	41.21	55.21	120.3	148.3	168.3	183.4	169.4	1228.5
2004-2005	142.5	66.7	49.29	41.46	42.49	40.01	54.88	123	151.2	166.4	182.6	171.5	1232.0
2005-2006	144.2	62.35	47.39	43.71	40.83	41.28	54.04	123.8	152.1	168.9	183.1	174	1235.8
2006-2007	147.7	65.24	47.83	41.46	36.81	37.77	48.17	103.7	141.4	155.7	168.1	159.4	1153.2
2007-2008	129.9	60.51	45.94	38.5	39.69	39.22	58.42	123.4	147	168.8	179.4	168.9	1199.7
2008-2009	138.4	62.16	51.58	43.72	43.38	42.06	53.1	120.5	146.5	168.7	180.8	167	1217.9
2009-2010	137.7	65.62	49.2	44.99	45.99	44.07	56.12	122	149	162.9	173.4	172.2	1223.2
2010-2011	143.3	63.94	53.27	46.49	42.81	41.94	53.61	118.2	144.3	163.6	177.1	168.7	1217.3
2011-2012	141.8	61.48	45.98	42.6	40.6	39.83	52.1	120.2	146.6	165.4	181.5	171.3	1209.3
2012-2013	140.6	64.2	50.57	43.86	42.03	43.48	55.71	123	154	165	175.4	169.4	1227.1
2013-2014	139.2	61.63	51.31	40.94	44.58	43.34	56.04	121.1	145.2	164.8	175	167.2	1210.2
2014-2015	139.8	62.27	48.77	45.65	41.5	41.07	55.4	116.5	148.9	158.8	175.6	169.9	1204.1
AVERAGE	141.1	63.9	49.1	42.7	41.4	40.9	53.4	119.7	149.0	166.4	179.9	169.6	

**Table A. 115 Lefke station Rs results**

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114.6	92.17	56.68	45.31	44.71	51.39	80.42	100.3	128.4	149.2	156.3	143.2	1162.7
1979-1980	119.1	93.3	62.76	40.94	38.33	45.27	75.26	96.39	128.2	148	156.1	147.4	1151.1
1980-1981	116	92.35	60.69	43.32	40.92	45.96	80.3	99.58	124.6	149.2	157	145.9	1155.8
1981-1982	116.3	94.98	54.83	45.74	43.57	42.95	74.07	99.96	129	146.2	154.2	145.8	1147.6
1982-1983	120.1	93.33	54.33	40.1	36.24	42.92	74.98	98.3	130.8	144.7	155.7	144	1135.6
1983-1984	116.5	94.01	65.54	47.88	44.43	49.25	78.16	96.98	130.6	145.3	154	143.4	1166.0
1984-1985	116.2	90.77	55.11	38.04	43.27	42.09	76.47	99.44	133.8	147.9	158.6	148.1	1149.7
1985-1986	119.9	88.17	61.48	42.7	42.62	50.59	80.88	105.7	128.5	148.5	156.2	145.5	1170.8
1986-1987	121.6	91.08	53.11	40.61	44.26	50.18	71.17	96.95	127.7	147.9	159.2	147.4	1151.2
1987-1988	120.9	89.27	56.56	41.14	41.73	46.45	76.09	100.6	133.3	149.7	162.7	148.2	1166.6
1988-1989	121.4	90.54	52.35	40.13	34.54	44.06	78.98	106.1	133.4	146.1	158.7	146.2	1152.5
1989-1990	117.5	87.12	58.66	42.19	36.76	45.27	77.93	99.48	128.9	146.3	156.2	145.3	1141.6
1990-1991	116.6	91.79	60.11	42.76	40.13	45.29	80.35	100.4	126.6	146.6	153.5	143.8	1147.9
1991-1992	116.6	91.98	57.36	36.44	36.46	38.26	72.19	96.08	127	144.5	153.5	147.3	1117.7
1992-1993	115.3	90.93	57.11	33.15	38.41	42.86	74.77	96.54	124.6	147.9	155.5	143.1	1120.1
1993-1994	112.2	95.01	54.41	42.79	44.96	47.02	76.79	102.3	131.1	146.6	155.6	147.1	1155.8
1994-1995	120.8	94.59	54.91	37.53	42.42	47.42	79.07	97.53	129.9	151	157.9	146.3	1159.5
1995-1996	117.8	89.05	50.64	38.41	38.28	47.89	76.54	96.19	134.5	150	158.2	141.5	1138.9
1996-1997	117.6	87.18	59.73	44.53	43.51	43.96	74.42	94.99	131.8	149.5	160.2	143.8	1151.2
1997-1998	116.1	89.77	58.35	42.21	40.5	46.49	75.15	102.4	129.2	147.1	161.6	152.3	1161.2
1998-1999	120.7	95.71	63.34	45.02	44.14	48.28	79.1	100.4	135.6	152.1	160.2	148.5	1193.1
1999-2000	119.6	93.75	58.49	45.91	33.87	43.13	75.38	100.3	130.1	151.6	161.8	147.1	1161.0
2000-2001	119.2	89.5	58.75	41.21	42.97	47.46	84.65	101.5	133	148.1	158	147.4	1171.7
2001-2002	118.4	91.18	56.31	40.78	36.54	49.42	80.87	97.71	128.5	148.1	158.9	145.6	1152.4
2002-2003	116.3	91.82	60.74	38.06	44.95	43.22	73.24	98.26	137.3	151.1	161.6	150.5	1167.1
2003-2004	118.9	94.1	59.31	42.48	40.09	46.7	80.39	99.74	129.4	148.8	159.2	145.9	1165.0
2004-2005	118.7	95.59	58.22	39.51	42.91	44.85	79.93	101.6	131.3	147.6	158.7	147.3	1166.3
2005-2006	120	88.99	55.06	43.4	40.07	46.82	78.77	102.1	131.9	149.2	159.1	149	1164.4
2006-2007	122.5	93.39	55.82	39.48	33.21	41.31	70.34	88.29	125	141	149.6	139.2	1099.0
2007-2008	109.5	86.22	52.65	34.25	38.14	43.59	84.98	101.9	128.6	149.1	156.8	145.5	1131.2
2008-2009	115.7	88.71	62.04	43.44	44.42	48.04	77.39	99.87	128.3	149.1	157.6	144.3	1158.8
2009-2010	115.2	93.94	58.08	45.65	48.85	51.19	81.69	100.9	129.9	145.5	152.9	147.7	1171.5
2010-2011	119.3	91.39	64.85	48.29	43.44	47.86	78.12	98.26	126.8	145.9	155.3	145.4	1165.0
2011-2012	118.2	87.67	52.73	41.48	39.69	44.55	75.97	99.63	128.4	147	158.1	147.1	1140.4
2012-2013	117.3	91.79	60.36	43.69	42.11	50.26	81.12	101.6	133.1	146.7	154.2	145.9	1168.1
2013-2014	116.3	87.9	61.57	38.57	46.45	50.05	81.58	100.3	127.4	146.6	153.9	144.4	1155.1
2014-2015	116.7	88.87	57.36	46.81	41.21	46.49	80.66	97.13	129.8	142.9	154.3	146.2	1148.5
AVERAGE	117.7	91.3	57.8	41.7	41.1	46.2	77.8	99.3	129.9	147.6	157.1	146.0	

**Table A. 116** Lefkosa station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	105.2	77.5	37.0	29.6	26.7	34.1	53.9	76.3	126.7	184.6	214.9	172.9	1139.4
1979-1980	123.8	71.1	41.1	26.6	24.5	27.7	43.7	66.8	111.8	163.5	193.4	167.2	1061.3
1980-1981	106.3	70.5	41.0	27.9	25.7	29.5	51.5	73.5	103.9	169.8	199.4	170.4	1069.5
1981-1982	116.3	78.0	33.6	29.8	27.1	27.4	43.2	74.0	116.1	160.1	182.1	168.4	1056.3
1982-1983	117.5	72.4	33.8	25.3	22.9	26.7	44.9	73.1	119.3	151.5	187.4	159.8	1034.5
1983-1984	105.5	63.2	41.2	29.0	28.2	31.7	48.2	67.5	130.3	150.9	179.8	146.8	1022.2
1984-1985	99.9	63.5	33.4	24.1	28.1	26.7	45.6	74.7	124.1	150.9	172.7	163.4	1007.1
1985-1986	103.6	58.1	38.7	24.9	26.6	31.6	51.2	83.5	106.9	164.5	193.6	164.0	1047.4
1986-1987	116.2	67.1	33.8	26.4	27.6	31.4	38.9	65.6	106.1	154.9	193.8	164.5	1026.4
1987-1988	111.2	63.5	34.8	27.2	25.5	29.3	44.7	73.0	123.7	164.4	210.2	173.4	1080.9
1988-1989	111.4	61.6	32.7	26.3	22.9	28.5	49.9	90.1	127.5	153.3	195.3	163.2	1062.8
1989-1990	108.4	60.5	37.1	27.7	23.6	29.7	49.4	75.5	118.5	159.4	190.7	165.1	1045.5
1990-1991	108.0	72.5	41.5	28.4	26.6	29.7	53.9	78.5	114.8	164.9	182.8	165.3	1066.9
1991-1992	110.9	69.9	38.3	24.2	23.2	24.0	42.6	71.1	111.9	156.9	178.8	170.4	1022.3
1992-1993	106.0	74.1	37.5	23.3	24.4	26.7	44.8	71.9	105.8	165.8	194.1	175.2	1049.8
1993-1994	109.6	80.6	35.7	29.4	28.8	30.6	48.2	81.5	125.9	164.1	192.4	176.0	1102.7
1994-1995	123.1	80.0	36.0	24.7	27.5	31.3	49.2	71.2	119.3	172.3	191.6	167.6	1093.9
1995-1996	109.5	66.3	32.5	25.8	25.1	31.8	46.4	67.0	129.4	169.6	195.6	170.7	1069.8
1996-1997	107.2	62.9	40.1	29.9	27.4	28.0	44.1	63.7	128.6	170.6	204.9	152.8	1060.3
1997-1998	103.8	68.6	39.6	28.3	26.5	31.3	46.3	82.7	119.0	172.2	207.9	191.3	1117.6
1998-1999	112.0	75.0	43.0	29.5	21.0	22.3	34.8	50.7	84.9	111.9	138.0	122.5	845.5
1999-2000	74.4	52.1	28.9	20.9	23.8	29.5	44.4	74.9	117.2	178.5	205.3	163.1	1012.8
2000-2001	107.6	63.8	38.3	26.0	26.0	29.6	55.5	73.3	122.6	167.7	196.7	171.5	1078.5
2001-2002	110.0	69.9	37.5	27.0	24.2	33.6	52.6	72.3	117.0	168.6	205.3	169.9	1088.0
2002-2003	108.7	71.4	41.5	26.3	29.4	27.6	43.8	68.9	138.9	169.3	204.0	175.7	1105.5
2003-2004	107.2	71.1	39.2	27.3	25.5	29.3	52.2	74.9	116.1	165.7	205.6	166.3	1080.5
2004-2005	110.0	74.6	38.4	26.5	27.4	29.5	55.2	83.0	129.8	166.3	208.6	178.2	1127.3
2005-2006	121.0	72.0	38.8	30.8	26.1	32.7	52.5	85.0	128.2	177.3	202.2	179.4	1146.0
2006-2007	118.9	69.8	36.0	26.8	26.8	33.1	52.3	75.4	131.8	191.7	226.9	192.8	1182.3
2007-2008	123.1	78.4	41.5	27.6	22.7	29.9	56.3	80.7	118.2	177.1	201.9	180.4	1137.8
2008-2009	107.8	66.5	40.5	26.6	26.6	29.5	45.4	72.9	116.1	177.9	205.1	171.7	1086.6
2009-2010	105.1	74.9	37.2	28.9	27.4	31.3	51.0	77.4	120.0	158.5	190.3	189.7	1091.6
2010-2011	117.0	70.9	41.6	30.2	26.6	29.9	47.4	68.6	111.3	163.6	199.0	174.9	1081.2
2011-2012	115.9	65.3	32.7	25.3	24.0	26.0	43.1	72.9	112.1	171.7	214.1	181.7	1084.9
2012-2013	113.8	70.9	40.9	27.4	24.9	30.9	49.2	76.6	129.4	164.1	190.4	176.7	1095.1
2013-2014	108.4	64.1	41.7	24.5	28.2	31.4	52.6	76.7	113.1	163.8	190.0	173.3	1067.7
2014-2015	110.0	66.0	35.5	29.0	24.2	27.9	48.4	67.1	119.0	149.7	192.7	178.5	1048.2
AVERAGE	110.1	69.2	37.6	27.0	25.8	29.5	48.0	73.8	118.8	164.5	195.6	170.1	

**Table A. 117** Lefkosa station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	122.1	78.7	30.3	20.6	13.7	22.2	32.4	53.0	93.0	161.0	183.8	153.7	964.5
1979-1980	185.7	82.3	45.4	18.4	12.2	14.2	22.9	48.2	91.3	164.8	194.2	175.7	1055.3
1980-1981	144.0	78.3	43.4	20.3	13.8	16.8	33.4	56.5	78.3	166.7	193.8	173.2	1018.5
1981-1982	169.0	93.9	28.7	24.8	16.8	13.5	22.1	59.0	96.1	159.0	179.4	175.8	1038.1
1982-1983	187.6	91.1	31.6	16.8	10.2	13.3	26.5	62.4	108.2	160.4	201.3	179.1	1088.6
1983-1984	152.8	69.9	46.8	23.9	19.5	22.1	30.3	50.7	117.6	152.3	182.9	154.3	1023.1
1984-1985	156.5	77.5	32.3	15.3	21.1	14.0	28.8	68.4	120.3	167.8	191.5	193.2	1086.7
1985-1986	147.4	59.7	40.8	15.3	16.3	21.8	34.7	75.8	86.5	169.2	198.0	174.9	1040.3
1986-1987	186.2	81.5	31.8	19.5	19.4	22.8	17.4	50.2	90.9	166.6	211.0	186.8	1083.9
1987-1988	158.4	67.8	31.2	19.3	13.8	16.8	24.2	57.3	105.3	164.3	211.2	181.4	1050.9
1988-1989	163.2	66.0	27.4	18.0	9.6	15.8	32.6	85.9	112.7	153.5	199.3	173.3	1057.1
1989-1990	159.9	65.1	37.6	21.3	11.0	18.4	32.4	63.8	103.0	164.8	197.3	178.9	1053.6
1990-1991	143.1	79.6	43.3	20.7	15.0	16.7	35.9	62.5	89.4	156.3	170.4	162.8	995.6
1991-1992	179.5	89.4	43.7	15.1	11.2	8.9	23.7	61.2	101.5	174.2	196.9	199.9	1105.0
1992-1993	158.0	92.4	39.5	12.6	12.6	12.9	25.8	59.1	87.9	176.8	205.2	195.1	1077.9
1993-1994	137.4	87.9	29.5	21.3	17.8	17.2	26.4	63.3	97.1	146.7	171.2	165.4	981.1
1994-1995	168.6	90.5	31.3	13.3	16.3	19.2	28.8	50.8	93.2	162.4	177.0	162.5	1014.0
1995-1996	158.2	74.2	26.9	16.8	13.4	22.0	27.2	49.0	114.3	174.3	198.5	181.6	1056.5
1996-1997	152.3	67.6	43.3	25.3	17.5	14.6	23.6	43.5	112.6	174.5	207.9	158.2	1040.9
1997-1998	128.0	69.4	37.5	19.5	14.1	18.6	24.1	65.4	90.1	157.2	188.4	182.7	994.9
1998-1999	272.6	144.1	80.8	39.5	10.3	8.7	16.9	38.4	89.0	152.0	202.1	189.2	1243.5
1999-2000	105.9	59.4	23.9	9.7	13.7	21.8	29.7	76.1	122.1	231.4	260.3	213.3	1167.3
2000-2001	146.1	66.3	37.6	16.4	14.2	16.9	39.2	56.2	101.0	163.6	190.3	173.9	1021.7
2001-2002	146.9	75.1	35.0	18.0	11.0	23.8	34.0	53.3	92.0	160.7	194.9	167.9	1012.7
2002-2003	141.0	76.0	42.4	16.2	19.4	12.8	21.3	47.3	115.0	158.0	189.4	170.8	1009.5
2003-2004	143.4	78.2	39.0	18.7	13.3	16.1	33.9	57.8	92.1	159.2	197.7	165.8	1015.2
2004-2005	134.1	76.4	33.8	15.5	15.1	15.0	34.9	63.5	98.8	145.2	182.7	163.4	978.5
2005-2006	144.9	68.7	32.8	22.3	12.4	19.3	29.9	63.0	92.3	149.6	167.7	156.5	959.3
2006-2007	140.4	65.1	27.6	15.3	13.3	19.8	29.4	50.2	95.4	163.2	189.0	168.1	976.8
2007-2008	153.2	80.5	38.8	17.2	7.8	15.3	35.7	59.1	84.5	153.9	172.3	162.2	980.5
2008-2009	145.9	70.8	42.1	17.4	15.2	16.7	24.4	55.3	92.8	175.5	198.8	173.5	1028.4
2009-2010	133.4	81.3	33.4	21.1	15.9	18.9	30.9	59.1	93.1	144.2	173.8	184.9	990.0
2010-2011	159.4	76.5	43.2	24.2	15.0	17.0	26.6	47.7	84.8	153.8	187.2	172.8	1008.1
2011-2012	174.1	73.4	27.6	16.1	11.6	11.4	22.6	59.1	93.7	179.5	222.8	197.4	1089.4
2012-2013	149.9	74.8	40.9	18.2	11.8	18.4	28.5	58.1	103.9	151.2	174.3	171.2	1001.1
2013-2014	147.7	66.7	44.7	13.5	18.1	20.1	34.9	61.2	89.3	158.6	182.5	175.9	1013.3
2014-2015	163.6	75.7	34.1	24.1	12.1	15.0	30.9	50.4	103.9	151.6	200.0	195.8	1057.3
AVERAGE	155.7	77.6	37.3	19.0	14.2	17.0	28.6	57.9	98.2	162.8	193.1	176.0	

**Table A. 118** Lefkosa station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	180.6	178.5	140.1	135.5	124.7	121.1	142.7	149.7	177.2	193.8	210.9	205.1	1960.0
1979-1980	191.7	172.5	147.3	128.1	118.5	107.9	127.9	140.7	168.4	185.6	203.5	202.8	1894.7
1980-1981	181.3	171.9	147.1	131.4	121.9	111.8	139.5	147.2	163.3	188.1	205.7	204.1	1913.3
1981-1982	187.4	179	133.5	136	125.7	107.1	127.2	147.7	171.1	184.1	199.3	203.3	1901.3
1982-1983	188.1	173.7	133.9	124.3	113.8	105.5	129.8	146.9	172.9	180.3	201.3	199.6	1870.2
1983-1984	180.7	164.2	147.4	134	128.6	116.3	134.8	141.4	179.2	180.1	198.4	193.6	1898.6
1984-1985	177.1	164.5	133.1	121.1	128.2	105.5	130.9	148.3	175.8	180.1	195.5	201.1	1861.1
1985-1986	179.6	158.2	143.1	123.4	124.4	116.2	139.1	156	165.2	186	203.6	201.4	1896.2
1986-1987	187.4	168.4	133.9	127.5	127.1	115.8	119.7	139.5	164.7	181.9	203.6	201.6	1871.1
1987-1988	184.4	164.5	135.9	129.4	121.4	111.3	129.5	146.8	175.5	185.9	209.4	205.3	1899.4
1988-1989	184.5	162.4	131.7	127.1	113.8	109.7	137.2	161.1	177.7	181.2	204.2	201	1891.7
1989-1990	182.6	161.1	140.2	130.8	116	112.3	136.5	149	172.5	183.8	202.5	201.9	1889.4
1990-1991	182.3	173.8	147.9	132.6	124.4	112.3	142.7	151.7	170.2	186.1	199.5	202	1925.7
1991-1992	184.2	171.3	142.4	121.3	114.9	98.78	126.2	145	168.5	182.8	198	204.1	1857.2
1992-1993	181.1	175.4	141.1	118.8	118.3	105.4	129.7	145.7	164.5	186.5	203.8	206.1	1876.3
1993-1994	183.4	181.3	137.6	134.9	129.9	114.1	134.8	154.3	176.7	185.8	203.2	206.4	1942.4
1994-1995	191.3	180.8	138.2	122.7	126.7	115.6	136.3	145	173	189.1	202.9	202.9	1924.5
1995-1996	183.3	167.4	131.3	125.7	120.3	116.7	132.2	141	178.7	188	204.3	204.3	1893.3
1996-1997	181.9	163.8	145.7	136.2	126.5	108.4	128.6	137.5	178.2	188.5	207.6	196.4	1899.3
1997-1998	179.7	169.9	144.8	132.3	124	115.6	132	155.3	172.8	189.1	208.7	212.2	1936.4
1998-1999	184.8	176.2	150.4	135.3	107.7	93.95	111.9	121.9	149	159.7	179.8	180.8	1751.4
1999-2000	156.9	150.4	123.1	111	116.5	111.9	129	148.5	171.7	191.6	207.7	201	1819.4
2000-2001	182.1	164.8	142.5	126.3	122.6	112.1	144.8	147.1	174.9	187.3	204.7	204.5	1913.6
2001-2002	183.6	171.2	141	129.1	117.8	120.2	140.9	146.1	171.6	187.7	207.7	203.9	1921.0
2002-2003	182.8	172.7	148	127.1	131.3	107.6	128.1	142.8	183.7	187.9	207.3	206.2	1925.6
2003-2004	181.8	172.5	144.1	129.8	121.5	111.3	140.5	148.5	171.1	186.5	207.9	202.4	1917.7
2004-2005	183.6	175.8	142.6	127.6	126.5	111.8	144.4	155.5	178.9	186.7	208.9	207.2	1949.5
2005-2006	190.1	173.3	143.3	138.3	123.1	118.3	140.8	157.2	178	191.1	206.7	207.7	1967.9
2006-2007	188.9	171.2	138.2	128.6	124.8	119.1	140.5	148.9	180	196.4	214.8	212.8	1964.3
2007-2008	191.3	179.3	147.9	130.5	113.2	112.7	145.8	153.6	172.4	191	206.6	208.1	1952.4
2008-2009	182.2	167.7	146.3	127.9	124.3	111.9	130.6	146.7	171.1	191.3	207.7	204.6	1912.3
2009-2010	180.5	176.1	140.4	133.8	126.4	115.6	138.8	150.7	173.4	183.5	202.4	211.6	1933.2
2010-2011	187.8	172.3	148	137	124.5	112.7	133.6	142.6	168.1	185.6	205.5	206	1923.7
2011-2012	187.2	166.4	131.7	124.4	117.2	103.7	127	146.7	168.6	188.9	210.7	208.6	1881.2
2012-2013	185.9	172.2	146.9	130	119.7	114.8	136.2	150	178.7	185.8	202.5	206.6	1929.4
2013-2014	182.6	165.1	148.2	122.1	128.4	115.8	141	150.2	169.2	185.7	202.3	205.3	1915.8
2014-2015	183.6	167.2	137.2	134	117.9	108.4	135.1	141.1	172.8	179.6	203.3	207.4	1887.5
AVERAGE	183.5	170.2	141.0	128.8	122.0	111.6	134.2	147.2	172.4	185.8	204.1	203.8	

**Table A. 119** Lefkosa station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	138.7	65.97	47.15	43.3	41.03	43.31	56.09	121.8	154.6	175.1	187.4	171.5	1245.9
1979-1980	147.3	63.73	49.57	40.93	39	38.58	50.28	114.4	146.9	167.6	180.8	169.5	1208.6
1980-1981	139.3	63.52	49.51	42	40.09	39.98	54.85	119.7	142.4	169.9	182.7	170.6	1214.7
1981-1982	144	66.15	44.94	43.47	41.37	38.3	49.99	120.1	149.2	166.3	177.1	169.9	1210.9
1982-1983	144.5	64.2	45.09	39.73	37.45	37.71	51.02	119.4	150.9	162.9	178.8	166.8	1198.6
1983-1984	138.8	60.67	49.61	42.81	42.31	41.59	52.98	115	156.3	162.7	176.2	161.8	1200.9
1984-1985	136	60.79	44.82	38.71	42.18	37.71	51.43	120.6	153.3	162.7	173.7	168.1	1190.1
1985-1986	137.9	58.48	48.19	39.43	40.94	41.55	54.68	126.8	144.1	168	180.9	168.4	1209.4
1986-1987	143.9	62.22	45.06	40.73	41.82	41.41	47.05	113.4	143.7	164.3	180.9	168.5	1193.2
1987-1988	141.6	60.79	45.76	41.36	39.95	39.8	50.92	119.3	153.1	168	186	171.6	1218.3
1988-1989	141.7	60	44.33	40.63	37.43	39.22	53.94	131	155	163.6	181.5	168.1	1216.5
1989-1990	140.3	59.53	47.19	41.81	38.16	40.16	53.66	121.2	150.5	166.1	179.9	168.8	1207.2
1990-1991	140.1	64.24	49.8	42.37	40.93	40.15	56.07	123.4	148.5	168.2	177.3	168.8	1219.8
1991-1992	141.5	63.29	47.95	38.76	37.79	35.31	49.58	117.9	147	165.1	175.9	170.6	1190.6
1992-1993	139.1	64.81	47.49	37.95	38.91	37.68	50.98	118.5	143.5	168.5	181.1	172.3	1200.8
1993-1994	140.9	66.99	46.31	43.12	42.74	40.8	52.99	125.5	154.2	167.8	180.5	172.5	1234.4
1994-1995	147	66.81	46.52	39.2	41.7	41.32	53.56	118	150.9	170.9	180.2	169.6	1225.7
1995-1996	140.8	61.89	44.2	40.17	39.59	41.72	51.96	114.6	155.9	169.9	181.5	170.7	1213.0
1996-1997	139.7	60.54	49.03	43.53	41.63	38.75	50.55	111.8	155.5	170.3	184.4	164.2	1210.0
1997-1998	138	62.79	48.73	42.28	40.8	41.34	51.89	126.3	150.8	170.8	185.4	177.4	1236.5
1998-1999	142	65.12	50.62	43.25	35.42	33.57	43.98	99.11	130	144.2	159.7	151.2	1098.1
1999-2000	120.6	55.6	41.44	35.48	38.32	40	50.71	120.7	149.8	173	184.6	168	1178.3
2000-2001	139.9	60.9	47.96	40.37	40.35	40.07	56.91	119.6	152.6	169.2	181.9	171	1220.7
2001-2002	141.1	63.29	47.48	41.26	38.75	42.97	55.4	118.8	149.7	169.5	184.6	170.4	1223.3
2002-2003	140.4	63.84	49.8	40.62	43.21	38.44	50.35	116.2	160.3	169.8	184.2	172.4	1229.5
2003-2004	139.7	63.74	48.49	41.47	39.98	39.8	55.21	120.7	149.2	168.5	184.7	169.2	1220.7
2004-2005	141.1	64.97	48	40.77	41.6	39.97	56.74	126.5	156.1	168.7	185.6	173.3	1243.2
2005-2006	146.1	64.05	48.22	44.21	40.49	42.3	55.35	127.8	155.3	172.6	183.6	173.7	1253.7
2006-2007	145.2	63.26	46.51	41.1	41.06	42.59	55.23	121.1	157	177.4	190.8	177.9	1259.2
2007-2008	147	66.28	49.77	41.71	37.24	40.28	57.31	124.9	150.4	172.5	183.5	174	1244.9
2008-2009	140	62	49.24	40.86	40.88	40	51.35	119.3	149.2	172.8	184.5	171.1	1221.2
2009-2010	138.7	65.08	47.26	42.77	41.6	41.31	54.54	122.6	151.3	165.7	179.8	176.9	1227.6
2010-2011	144.3	63.66	49.83	43.78	40.95	40.31	52.51	115.9	146.7	167.7	182.6	172.2	1220.4
2011-2012	143.8	61.5	44.32	39.77	38.57	37.07	49.92	119.3	147.1	170.6	187.2	174.4	1213.6
2012-2013	142.8	63.65	49.44	41.53	39.4	41.05	53.54	122	155.9	167.8	179.9	172.7	1229.8
2013-2014	140.3	61.01	49.88	39.01	42.25	41.39	55.42	122.1	147.6	167.7	179.7	171.6	1218.1
2014-2015	141.1	61.8	46.18	42.84	38.77	38.74	53.11	114.7	150.8	162.2	180.6	173.4	1204.1
AVERAGE	141.0	62.9	47.5	41.2	40.1	39.9	52.8	119.7	150.4	167.8	181.3	170.4	

**Table A. 120** Lefkosa station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	122.8	99.65	57.98	45.36	43.4	53.5	87.47	107.8	142.2	162.5	171.4	155.8	1249.9
1979-1980	129	96.25	62.01	41.19	39.92	46.06	79.19	102.7	137.3	157.9	167.3	154.5	1213.3
1980-1981	123.2	95.91	61.93	43.08	41.81	48.28	85.7	106.3	134.4	159.3	168.5	155.3	1223.7
1981-1982	126.6	99.91	54.3	45.65	43.99	45.65	78.76	106.6	138.8	157.1	164.9	154.8	1217.0
1982-1983	127	96.95	54.55	39.08	37.31	44.73	80.23	106.1	139.9	155	166	152.7	1199.6
1983-1984	122.9	91.6	62.08	44.51	45.57	50.8	83.03	103.1	143.4	154.8	164.4	149.4	1215.5
1984-1985	120.8	91.77	54.09	37.29	45.37	44.72	80.83	106.9	141.4	154.8	162.8	153.6	1194.5
1985-1986	122.2	88.28	59.71	38.56	43.27	50.75	85.44	111.2	135.5	158.1	167.3	153.8	1214.2
1986-1987	126.6	93.95	54.51	40.86	44.75	50.51	74.58	102	135.3	155.8	167.3	153.9	1200.1
1987-1988	124.9	91.77	55.67	41.94	41.56	47.99	80.1	106.1	141.3	158.1	170.5	156	1215.9
1988-1989	125	90.59	53.29	40.68	37.29	47.08	84.41	114.1	142.5	155.4	167.6	153.6	1211.6
1989-1990	123.9	89.88	58.06	42.75	38.54	48.56	84.01	107.4	139.6	156.9	166.7	154	1210.3
1990-1991	123.8	97.03	62.39	43.73	43.23	48.55	87.44	108.9	138.3	158.2	165	154.1	1230.7
1991-1992	124.8	95.57	59.3	37.41	37.89	40.96	78.19	105.1	137.4	156.3	164.1	155.3	1192.3
1992-1993	123.1	97.88	58.56	35.98	39.81	44.67	80.19	105.5	135.2	158.4	167.4	156.4	1203.0
1993-1994	124.3	101.2	56.59	45.03	46.32	49.56	83.07	110.3	142	158	167.1	156.6	1240.1
1994-1995	128.8	100.9	56.93	38.16	44.55	50.38	83.86	105.1	139.9	159.9	166.9	154.6	1230.0
1995-1996	124.3	93.43	53.08	39.88	40.96	51	81.6	102.8	143.1	159.3	167.7	155.4	1212.5
1996-1997	123.5	91.4	61.12	45.76	44.44	46.35	79.57	100.9	142.8	159.5	169.5	151	1215.9
1997-1998	122.3	94.81	60.61	43.57	43.02	50.41	81.49	110.9	139.8	159.9	170.1	159.8	1236.7
1998-1999	125.2	98.34	63.78	45.26	33.86	38.25	70.19	92.15	126.4	143.4	154	142.2	1132.9
1999-2000	109.5	83.91	48.48	31.64	38.8	48.32	79.8	107	139.2	161.2	169.6	153.5	1171.1
2000-2001	123.6	91.95	59.34	40.2	42.25	48.41	88.65	106.3	140.9	158.8	167.9	155.5	1223.9
2001-2002	124.5	95.57	58.53	41.78	39.54	52.98	86.48	105.7	139.1	159.1	169.6	155.2	1228.0
2002-2003	124	96.4	62.4	40.65	47.12	45.88	79.29	103.9	145.9	159.2	169.4	156.5	1230.6
2003-2004	123.5	96.26	60.22	42.15	41.62	47.99	86.22	107.1	138.8	158.4	169.7	154.3	1226.2
2004-2005	124.5	98.13	59.41	40.91	44.39	48.27	88.4	111	143.2	158.5	170.3	157	1244.0
2005-2006	128.1	96.73	59.77	46.95	42.51	51.9	86.42	111.9	142.7	161	169	157.3	1254.4
2006-2007	127.5	95.53	56.93	41.49	43.46	52.38	86.24	107.3	143.8	164	173.6	160.2	1252.3
2007-2008	128.8	100.1	62.35	42.57	36.96	48.76	89.2	109.9	139.5	160.9	169	157.5	1245.6
2008-2009	123.7	93.61	61.47	41.08	43.16	48.32	80.71	106	138.8	161.1	169.6	155.6	1223.2
2009-2010	122.7	98.28	58.17	44.41	44.37	50.37	85.26	108.3	140.1	156.7	166.6	159.5	1234.9
2010-2011	126.8	96.14	62.45	46.2	43.27	48.79	82.37	103.7	137.1	157.9	168.4	156.3	1229.6
2011-2012	126.5	92.86	53.28	39.15	39.21	43.73	78.67	106.1	137.4	159.8	171.3	157.8	1205.7
2012-2013	125.8	96.11	61.8	42.26	40.63	49.96	83.84	107.9	143.1	158	166.7	156.7	1232.8
2013-2014	123.9	92.12	62.53	37.85	45.48	50.5	86.51	108	137.8	158	166.6	156	1225.1
2014-2015	124.5	93.32	56.38	44.54	39.57	46.33	83.22	102.9	139.8	154.5	167.1	157.1	1209.3
AVERAGE	124.4	95.0	58.5	41.6	41.9	48.2	82.7	106.4	139.6	158.0	167.6	155.1	

**Table A. 121** Mehmetcik station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	108.0	75.6	36.4	29.3	29.1	34.9	51.5	71.4	109.9	160.6	185.6	150.6	1042.8
1979-1980	106.8	73.4	44.7	29.3	25.6	30.1	46.2	66.6	99.8	149.6	167.6	154.1	993.8
1980-1981	101.9	66.8	41.7	29.6	27.7	31.1	52.5	73.2	98.3	156.9	191.7	166.0	1037.5
1981-1982	115.5	78.6	37.1	32.4	29.8	28.3	44.4	73.1	112.3	157.8	180.8	168.6	1058.6
1982-1983	121.8	76.2	37.9	27.7	25.0	29.6	46.8	70.0	113.4	143.8	185.9	160.5	1038.6
1983-1984	110.2	66.6	43.8	32.0	31.2	36.4	53.8	72.1	124.6	162.8	180.8	161.3	1075.5
1984-1985	112.3	83.6	40.0	28.9	31.6	29.9	50.7	75.7	122.3	160.8	187.8	177.5	1101.2
1985-1986	118.7	70.4	46.2	30.9	31.0	34.9	53.6	86.4	109.7	156.8	182.6	162.9	1084.0
1986-1987	119.2	68.7	35.7	26.3	29.3	36.3	43.9	69.1	106.6	149.4	196.9	174.7	1056.0
1987-1988	118.1	71.5	42.2	30.1	29.1	32.6	48.8	74.2	123.3	164.8	214.9	181.8	1131.2
1988-1989	120.4	74.2	37.9	30.7	26.7	33.0	54.0	89.3	128.6	153.9	194.0	163.2	1105.8
1989-1990	113.2	66.9	42.6	30.6	27.4	32.9	54.3	78.8	117.9	153.0	190.1	172.0	1079.7
1990-1991	113.7	78.8	47.8	33.4	30.2	33.9	57.5	83.5	124.7	166.0	184.2	161.6	1115.1
1991-1992	108.6	74.9	40.8	26.3	24.7	25.4	45.3	69.2	105.4	147.7	172.8	167.8	1008.9
1992-1993	112.0	75.7	41.4	25.1	26.9	28.6	49.2	69.4	104.4	157.9	185.9	159.6	1036.2
1993-1994	109.1	84.6	39.4	33.1	32.2	32.9	51.8	82.8	130.7	175.3	194.2	181.4	1147.6
1994-1995	129.2	89.5	42.6	28.1	31.4	37.0	56.9	71.1	117.7	163.1	183.8	164.1	1114.5
1995-1996	113.3	68.6	35.0	28.5	27.1	33.3	47.6	65.6	116.6	157.1	184.7	165.5	1043.1
1996-1997	109.5	70.0	44.6	35.6	32.0	30.7	47.6	67.7	119.2	166.2	202.2	155.8	1080.9
1997-1998	107.8	70.5	43.5	30.6	28.2	33.5	47.9	81.1	115.3	165.0	202.9	185.2	1111.4
1998-1999	116.4	77.9	47.2	31.8	32.0	34.2	52.7	73.6	129.7	163.7	198.0	178.1	1135.3
1999-2000	120.3	78.1	42.7	33.1	25.2	32.1	48.6	76.2	118.2	179.2	213.7	180.8	1148.1
2000-2001	118.7	71.3	43.9	31.5	31.3	34.6	60.7	81.7	120.8	167.7	197.0	179.5	1138.9
2001-2002	119.5	78.0	41.6	30.1	26.7	35.4	54.8	73.2	115.5	166.6	204.7	170.4	1116.5
2002-2003	116.2	75.3	45.3	28.7	32.8	29.7	47.3	72.7	133.2	166.4	206.4	184.5	1138.5
2003-2004	116.2	75.7	44.1	31.7	28.4	32.2	55.7	79.6	119.3	166.0	203.0	171.5	1123.3
2004-2005	118.2	83.9	45.4	29.2	30.9	32.9	55.4	79.6	123.2	161.7	195.9	178.1	1134.4
2005-2006	123.0	71.6	40.6	33.2	29.8	35.9	56.7	83.6	128.2	177.2	210.5	184.6	1175.0
2006-2007	133.4	82.5	42.0	31.3	29.8	36.2	56.1	77.3	132.5	183.6	218.7	191.9	1215.2
2007-2008	126.4	88.3	47.6	32.8	26.0	32.1	59.2	81.1	115.5	167.0	189.7	171.4	1137.0
2008-2009	113.1	74.5	46.0	31.0	30.9	33.8	50.6	75.6	118.3	171.3	192.9	169.1	1107.1
2009-2010	109.2	80.9	42.2	33.4	31.7	35.6	56.8	80.2	114.9	152.4	179.1	180.7	1097.2
2010-2011	121.5	78.3	50.3	35.4	30.7	34.2	53.0	73.3	112.9	156.9	186.5	170.6	1103.6
2011-2012	118.6	71.9	37.1	29.7	27.8	30.4	47.9	76.2	114.6	163.6	202.6	179.4	1100.0
2012-2013	118.4	78.7	46.4	31.8	29.8	36.8	53.0	80.3	127.8	160.6	188.2	172.1	1124.1
2013-2014	114.3	70.9	48.6	29.1	33.0	36.1	57.5	80.7	114.1	158.7	180.8	165.0	1088.9
2014-2015	114.8	73.6	41.9	34.8	29.0	33.5	55.7	73.1	122.3	149.0	187.5	180.5	1095.7
AVERAGE	115.9	75.6	42.6	30.7	29.2	33.0	52.0	75.9	117.9	161.6	192.6	171.4	

**Table A. 122** Mehmetcik station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	127.4	82.4	33.4	23.6	20.2	28.4	37.1	59.3	92.4	185.6	217.0	173.8	1080.6
1979-1980	140.0	87.4	56.2	26.1	15.3	20.4	30.9	56.7	87.1	188.0	212.3	200.5	1121.0
1980-1981	121.2	70.3	45.7	24.8	18.0	20.9	40.2	64.5	78.4	185.4	233.3	203.2	1106.1
1981-1982	136.9	85.5	34.1	29.6	21.2	14.4	23.9	61.3	94.1	177.5	205.5	197.1	1081.2
1982-1983	156.2	87.0	38.1	21.2	13.2	18.2	30.0	59.6	101.9	165.7	228.2	198.0	1117.3
1983-1984	118.7	62.0	44.1	26.5	22.1	28.8	37.3	54.6	102.3	170.3	188.8	171.6	1027.0
1984-1985	119.8	85.0	36.5	20.3	22.6	15.8	31.5	59.5	97.8	164.5	195.1	190.0	1038.5
1985-1986	127.0	65.6	47.2	23.7	21.2	25.0	35.9	76.1	81.2	156.3	185.3	168.5	1012.9
1986-1987	147.4	72.6	32.3	17.5	21.1	32.1	24.0	56.0	89.2	169.8	237.8	213.2	1112.9
1987-1988	124.1	66.1	39.4	21.8	17.5	20.1	27.6	55.3	96.1	164.9	223.2	189.4	1045.5
1988-1989	129.8	71.3	32.3	23.4	13.9	21.3	36.6	81.2	104.5	152.7	201.2	169.5	1037.7
1989-1990	125.9	63.8	42.9	24.3	15.8	22.3	39.0	67.3	96.2	159.6	206.5	190.4	1054.1
1990-1991	112.0	72.3	46.8	26.6	18.4	21.3	39.2	66.3	92.8	157.1	173.9	155.0	981.6
1991-1992	145.6	91.6	48.0	19.5	13.8	11.0	29.6	63.3	97.6	187.8	225.3	227.3	1160.2
1992-1993	140.9	86.7	46.0	15.7	16.9	16.3	34.7	58.8	89.2	191.4	229.5	197.6	1123.6
1993-1994	104.1	78.3	32.0	25.5	21.4	19.2	30.0	63.9	97.7	166.1	182.7	175.4	996.3
1994-1995	133.7	87.2	38.6	17.5	20.7	27.4	39.0	48.5	86.2	156.1	176.6	160.8	992.2
1995-1996	141.7	74.2	31.7	22.8	17.2	26.0	31.4	51.1	106.1	188.1	225.3	205.0	1120.7
1996-1997	119.0	67.6	46.0	34.0	23.7	17.8	27.4	47.8	96.5	177.2	220.1	165.8	1043.1
1997-1998	112.9	66.4	42.8	23.2	16.5	22.5	26.9	68.1	88.8	169.8	213.9	198.8	1050.7
1998-1999	114.2	70.6	45.4	23.5	21.1	21.6	31.6	50.8	97.3	152.5	188.7	172.9	990.1
1999-2000	123.2	73.1	39.0	26.6	10.9	18.6	26.4	56.6	87.4	179.0	214.7	182.3	1038.0
2000-2001	116.7	61.8	39.6	22.7	20.0	22.3	43.5	62.6	87.1	156.9	186.6	173.8	993.6
2001-2002	126.4	75.4	38.4	21.8	13.7	25.4	37.2	53.9	87.1	167.9	211.2	175.8	1034.2
2002-2003	118.9	69.9	44.0	18.8	23.3	14.7	24.7	51.6	105.4	163.1	207.6	188.3	1030.2
2003-2004	118.9	70.5	41.8	24.3	16.1	19.0	37.7	62.4	89.5	162.6	203.5	172.6	1018.7
2004-2005	117.3	78.5	42.5	19.0	19.6	19.6	35.9	60.1	90.7	150.9	187.5	174.1	995.6
2005-2006	117.0	59.7	32.6	24.8	16.9	23.5	35.8	62.5	91.5	161.9	193.8	172.1	992.2
2006-2007	121.5	68.9	32.9	20.2	15.8	22.5	32.8	50.2	90.3	158.9	189.9	168.9	972.8
2007-2008	125.4	82.7	45.6	24.9	11.6	17.8	41.0	61.3	80.6	155.0	176.8	163.3	985.9
2008-2009	117.3	70.3	46.1	23.5	20.5	22.3	30.4	57.5	90.1	173.8	195.3	173.3	1020.4
2009-2010	110.1	77.7	38.7	27.6	21.7	25.4	39.7	63.7	84.7	144.7	174.3	184.7	993.0
2010-2011	124.0	72.9	52.0	30.7	19.5	22.3	33.0	51.9	80.7	147.9	180.1	169.0	984.0
2011-2012	134.6	71.7	32.5	22.8	16.6	17.6	28.5	63.3	92.4	176.9	225.1	201.6	1083.5
2012-2013	117.6	72.0	44.4	23.6	17.8	26.4	32.3	61.2	96.0	149.5	178.2	167.1	986.1
2013-2014	118.6	65.2	50.7	19.8	24.2	26.7	41.5	65.4	84.9	155.8	179.1	167.8	999.7
2014-2015	121.3	69.9	39.3	31.1	17.6	22.2	39.2	54.3	96.3	144.5	191.2	190.4	1017.1
AVERAGE	125.1	73.9	41.1	23.6	18.3	21.5	33.6	59.7	92.1	165.8	201.8	182.4	

**Table A. 123** Mehmetcik station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	182.4	176.8	139.1	134.9	130.6	122.6	139.6	145.3	167.2	184.4	200.7	195.4	1919.1
1979-1980	181.7	174.7	153	134.7	121.8	113.1	131.9	140.5	160.5	179.5	193.5	197.1	1882.1
1980-1981	178.5	168.1	148.3	135.5	127.1	115.2	140.9	147	159.4	182.9	203	202.3	1908.3
1981-1982	187.1	179.5	140.3	141.8	132.4	109.2	129.1	147	168.8	183.3	198.8	203.4	1920.6
1982-1983	190.7	177.4	141.8	130.9	119.9	112.2	132.7	143.9	169.5	176.9	200.8	199.9	1896.8
1983-1984	183.8	168	151.6	141	135.6	125.4	142.6	146	176.1	185.3	198.8	200.3	1954.6
1984-1985	185	183.9	145.5	134	136.7	112.7	138.4	149.3	174.8	184.5	201.6	207	1953.4
1985-1986	188.9	171.8	155.2	138.7	135.2	122.7	142.4	158.3	167.1	182.7	199.6	201	1963.5
1986-1987	189.2	170.1	137.6	127.1	131.3	125	128.3	143	165.1	179.5	204.8	205.9	1906.9
1987-1988	188.5	172.9	149.2	136.8	130.7	118.2	135.7	147.9	175.4	186.2	211.1	208.7	1961.2
1988-1989	189.9	175.5	141.9	138.1	124.6	118.9	142.8	160.6	178.3	181.5	203.8	201.1	1957.1
1989-1990	185.6	168.2	149.8	137.8	126.5	118.9	143.2	152	172.3	181.1	202.4	204.9	1942.8
1990-1991	186	179.7	157.6	144.2	133.4	120.8	147.3	156	176.2	186.6	200.1	200.4	1988.2
1991-1992	182.9	176.2	146.9	127.1	119.3	102.4	130.4	143.2	164.3	178.7	195.7	203.1	1870.2
1992-1993	184.9	176.9	147.9	123.9	125.2	110	136.3	143.4	163.7	183.3	200.8	199.5	1895.7
1993-1994	183.1	184.8	144.5	143.3	138	118.8	140	155.4	179.5	190.4	203.9	208.7	1990.4
1994-1995	194.6	188.8	149.8	132	136	126.3	146.5	145	172.1	185.5	200	201.6	1978.2
1995-1996	185.7	170	136.3	133	125.9	119.5	134	139.6	171.5	182.9	200.4	202.1	1900.9
1996-1997	183.4	171.4	152.8	148.5	137.4	114.5	134	141.6	173	186.7	206.8	197.9	1947.8
1997-1998	182.3	171.9	151.3	137.8	128.6	120	134.4	154	170.6	186.3	207	210	1954.2
1998-1999	187.6	178.9	156.8	140.7	137.4	121.2	141.2	147.4	179	185.7	205.3	207.3	1988.4
1999-2000	189.8	179.1	149.9	143.4	120.6	117.2	135.4	149.7	172.4	191.9	210.7	208.3	1968.5
2000-2001	188.9	172.7	151.8	139.9	135.9	122.1	151.1	154.5	173.9	187.4	204.9	207.8	1991.0
2001-2002	189.3	179.1	148.2	136.7	124.6	123.5	143.9	147	170.7	186.9	207.6	204.1	1961.8
2002-2003	187.4	176.6	154	133.4	139.1	112.4	133.5	146.5	180.9	186.8	208.2	209.8	1968.5
2003-2004	187.4	176.9	152.1	140.5	129	117.4	145	152.8	173	186.6	207	204.7	1972.5
2004-2005	188.6	184.1	154	134.6	135.1	118.9	144.7	152.7	175.3	184.9	204.5	207.3	1984.7
2005-2006	191.2	173	146.4	143.7	132.5	124.4	146.3	156.1	178.2	191.1	209.6	209.8	2002.3
2006-2007	196.8	183	148.9	139.4	132.4	124.9	145.6	150.8	180.5	193.5	212.3	212.5	2020.5
2007-2008	193.1	187.8	157.4	142.7	122.8	117.2	149.4	154	170.8	187.1	202.2	204.6	1989.0
2008-2009	185.6	175.8	155	138.8	134.9	120.5	138.3	149.2	172.5	188.8	203.5	203.6	1966.4
2009-2010	183.2	181.6	149.2	144.1	136.8	123.9	146.5	153.3	170.4	180.9	198.2	208.3	1976.3
2010-2011	190.4	179.3	161.1	148.1	134.5	121.3	141.6	147.1	169.1	182.9	201	204.3	1980.7
2011-2012	188.8	173.3	140.3	135.9	127.5	113.8	134.5	149.8	170.2	185.7	206.9	207.8	1934.5
2012-2013	188.7	179.6	155.7	140.6	132.4	125.9	141.6	153.4	177.9	184.4	201.7	204.9	1986.9
2013-2014	186.3	172.3	158.8	134.2	139.7	124.8	147.3	153.6	169.9	183.6	198.9	201.9	1971.3
2014-2015	186.6	174.9	148.6	147	130.4	120	145.1	146.9	174.8	179.3	201.4	208.3	1963.4
AVERAGE	187.1	176.6	149.4	138.0	130.9	118.8	140.0	149.3	172.0	184.7	203.2	204.5	

**Table A. 124** Mehmetcik station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	140.1	65.33	46.81	43.11	42.97	43.79	54.83	118.1	145.9	166.5	178.3	163.3	1209.0
1979-1980	139.5	64.55	51.51	43.05	40.05	40.42	51.83	114.2	139.9	162.2	171.9	164.7	1183.8
1980-1981	137.1	62.1	49.93	43.3	41.83	41.18	55.37	119.5	139	165.1	180.3	169.1	1203.7
1981-1982	143.6	66.33	47.21	45.33	43.54	39.01	50.69	119.4	147.2	165.4	176.6	170	1214.4
1982-1983	146.4	65.52	47.72	41.84	39.44	40.09	52.15	117	147.8	159.7	178.3	167.1	1203.1
1983-1984	141.2	62.03	51.02	45.05	44.59	44.79	56.04	118.7	153.6	167.4	176.6	167.4	1228.2
1984-1985	142.1	67.94	48.97	42.8	44.95	40.28	54.37	121.4	152.4	166.6	179	173	1233.8
1985-1986	145.1	63.45	52.23	44.29	44.48	43.83	55.95	128.7	145.7	165	177.2	168	1233.9
1986-1987	145.3	62.84	46.31	40.61	43.2	44.7	50.4	116.3	144	162	182	172.1	1209.7
1987-1988	144.8	63.86	50.2	43.69	42.98	42.24	53.32	120.3	152.9	168.1	187.4	174.4	1244.2
1988-1989	145.8	64.84	47.73	44.14	40.97	42.51	56.14	130.5	155.5	163.9	181	168.1	1241.1
1989-1990	142.6	62.14	50.41	44.04	41.6	42.48	56.28	123.6	150.2	163.5	179.7	171.2	1227.7
1990-1991	142.8	66.39	53.02	46.04	43.85	43.14	57.86	126.8	153.6	168.5	177.8	167.5	1247.4
1991-1992	140.4	65.08	49.4	40.61	39.24	36.59	51.24	116.4	143.3	161.4	173.8	169.7	1187.1
1992-1993	142	65.36	49.76	39.57	41.17	39.3	53.56	116.5	142.7	165.5	178.3	166.8	1200.6
1993-1994	140.6	68.25	48.62	45.8	45.38	42.47	55	126.3	156.5	171.9	181.1	174.3	1256.3
1994-1995	149.5	69.73	50.41	42.16	44.74	45.15	57.58	117.9	150	167.5	177.6	168.4	1240.7
1995-1996	142.6	62.79	45.85	42.48	41.39	42.72	52.65	113.5	149.5	165.2	178	168.9	1205.5
1996-1997	140.8	63.31	51.42	47.44	45.18	40.91	52.65	115.1	150.8	168.6	183.6	165.3	1225.3
1997-1998	140	63.52	50.89	44.02	42.29	42.89	52.81	125.2	148.8	168.2	183.8	175.5	1237.9
1998-1999	144	66.12	52.75	44.95	45.18	43.33	55.49	119.8	156	167.7	182.3	173.2	1250.9
1999-2000	145.7	66.18	50.44	45.83	39.65	41.89	53.22	121.7	150.3	173.3	187.1	174.1	1249.4
2000-2001	145.1	63.81	51.09	44.7	44.71	43.64	59.37	125.6	151.7	169.2	182	173.7	1254.6
2001-2002	145.4	66.15	49.87	43.65	40.98	44.12	56.53	119.5	148.9	168.8	184.4	170.6	1238.9
2002-2003	143.9	65.23	51.82	42.62	45.76	40.15	52.44	119.1	157.7	168.7	184.9	175.3	1247.6
2003-2004	143.9	65.36	51.18	44.87	42.44	41.97	56.98	124.2	150.9	168.5	183.9	171	1245.2
2004-2005	144.8	68.02	51.83	43.02	44.43	42.49	56.84	124.2	152.9	166.9	181.6	173.2	1250.3
2005-2006	146.9	63.9	49.27	45.92	43.57	44.46	57.5	126.9	155.3	172.6	186.1	175.3	1267.8
2006-2007	151.2	67.59	50.08	44.56	43.54	44.62	57.2	122.5	157.4	174.8	188.5	177.6	1279.5
2007-2008	148.3	69.36	52.96	45.61	40.36	41.89	58.68	125.2	148.9	168.9	179.6	171	1250.8
2008-2009	142.5	64.95	52.15	44.36	44.36	43.06	54.33	121.3	150.4	170.5	180.7	170.1	1238.8
2009-2010	140.7	67.09	50.2	46.06	45	44.29	57.55	124.6	148.6	163.3	176	174.1	1237.4
2010-2011	146.3	66.23	54.23	47.33	44.22	43.37	55.62	119.6	147.5	165.1	178.5	170.7	1238.7
2011-2012	145	64.02	47.22	43.41	41.93	40.69	52.84	121.7	148.4	167.7	183.7	173.7	1230.4
2012-2013	144.9	66.36	52.38	44.94	43.56	45.01	55.64	124.7	155.2	166.5	179.1	171.2	1249.5
2013-2014	143.1	63.66	53.43	42.88	45.93	44.6	57.89	124.9	148.2	165.8	176.6	168.7	1235.7
2014-2015	143.3	64.61	50.01	46.96	42.9	42.9	57	119.4	152.4	161.9	178.9	174	1234.3
AVERAGE	143.7	65.2	50.3	44.1	43.0	42.5	55.0	121.4	150.0	166.8	180.4	170.9	

**Table A. 125** Mehmetcik station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	116.6	93.21	53.9	42.22	43.54	50.58	79.54	97.82	127.4	147.1	155.5	141.3	1148.6
1979-1980	116.2	92.03	61.7	42.11	38.59	45.25	75.25	95.16	123.6	144.4	151.4	142.2	1127.9
1980-1981	114.4	88.3	59.08	42.53	41.59	46.46	80.28	98.78	123	146.3	156.8	145.2	1142.6
1981-1982	119.2	94.73	54.58	46.09	44.53	43.07	73.64	98.76	128.2	146.5	154.4	145.8	1149.5
1982-1983	121.2	93.53	55.42	39.97	37.54	44.76	75.71	97.07	128.7	142.9	155.5	143.8	1136.2
1983-1984	117.3	88.24	60.93	45.62	46.34	52.15	81.24	98.23	132.3	147.7	154.4	144	1168.5
1984-1985	118	97.17	57.51	41.67	46.95	45.06	78.86	100.1	131.6	147.2	156	147.8	1167.9
1985-1986	120.2	90.37	62.94	44.3	46.09	50.64	81.1	105.1	127.3	146.2	154.8	144.4	1173.5
1986-1987	120.4	89.42	53.06	37.81	43.91	51.95	73.2	96.57	126.2	144.4	157.8	147.2	1141.8
1987-1988	120	90.99	59.54	43.24	43.58	48.14	77.38	99.3	131.9	148.1	161.3	148.7	1172.2
1988-1989	120.7	92.48	55.45	44.01	40.14	48.54	81.38	106.4	133.6	145.5	157.2	144.5	1170.0
1989-1990	118.3	88.38	59.89	43.84	41.25	48.53	81.56	101.6	130.2	145.3	156.4	146.6	1161.9
1990-1991	118.6	94.81	64.25	47.38	45.06	49.57	83.87	103.8	132.4	148.4	155.2	144.1	1187.4
1991-1992	116.8	92.85	58.26	37.83	37.2	39.29	74.42	96.66	125.7	143.9	152.7	145.6	1121.3
1992-1993	118	93.23	58.82	36	40.51	43.54	77.72	96.76	125.4	146.5	155.5	143.6	1135.5
1993-1994	117	97.65	56.9	46.91	47.66	48.49	79.8	103.5	134.2	150.5	157.3	148.7	1188.6
1994-1995	123.4	99.9	59.89	40.55	46.57	52.69	83.43	97.69	130.1	147.7	155.1	144.7	1181.8
1995-1996	118.4	89.36	52.32	41.1	40.86	48.86	76.41	94.62	129.7	146.3	155.3	145	1138.4
1996-1997	117.1	90.15	61.58	49.81	47.32	46.04	76.39	95.78	130.6	148.4	158.9	142.7	1164.7
1997-1998	116.5	90.46	60.72	43.81	42.42	49.17	76.66	102.7	129.3	148.2	159	149.5	1168.3
1998-1999	119.4	94.38	63.81	45.46	47.31	49.81	80.44	99.02	133.9	147.9	158	148	1187.5
1999-2000	120.7	94.49	59.94	46.98	37.92	47.59	77.22	100.3	130.2	151.3	161.1	148.5	1176.3
2000-2001	120.2	90.9	61.03	45.01	46.5	50.3	86.01	103	131.1	148.8	157.8	148.2	1188.9
2001-2002	120.5	94.47	58.99	43.2	40.18	51.08	81.98	98.79	129.3	148.6	159.3	146.2	1172.6
2002-2003	119.4	93.08	62.26	41.33	48.3	44.87	76.12	98.49	135	148.5	159.7	149.3	1176.3
2003-2004	119.4	93.24	61.2	45.31	42.63	47.7	82.58	102	130.6	148.4	159	146.5	1178.6
2004-2005	120	97.31	62.26	42.04	46.07	48.53	82.39	102	131.9	147.4	157.6	147.9	1185.4
2005-2006	121.5	91.05	58.01	47.14	44.58	51.59	83.31	103.9	133.5	150.9	160.5	149.3	1195.3
2006-2007	124.6	96.65	59.37	44.74	44.56	51.87	82.89	100.9	134.8	152.3	162	150.9	1205.5
2007-2008	122.6	99.35	64.15	46.55	39.12	47.58	85.03	102.7	129.3	148.6	156.3	146.4	1187.8
2008-2009	118.3	92.64	62.79	44.41	45.92	49.41	78.82	100	130.3	149.6	157	145.9	1175.2
2009-2010	117	95.88	59.55	47.38	47	51.33	83.4	102.3	129.1	145.2	154.1	148.5	1180.7
2010-2011	121.1	94.57	66.25	49.61	45.69	49.89	80.65	98.87	128.4	146.3	155.7	146.2	1183.2
2011-2012	120.2	91.22	54.59	42.75	41.79	45.69	76.69	100.3	129	147.9	158.9	148.2	1157.3
2012-2013	120.1	94.77	63.18	45.41	44.55	52.47	80.68	102.4	133.4	147.1	156	146.6	1186.6
2013-2014	118.7	90.68	64.93	41.82	48.6	51.82	83.88	102.5	128.9	146.7	154.4	144.9	1177.9
2014-2015	118.9	92.14	59.25	48.96	43.44	49.17	82.62	98.72	131.6	144.3	155.9	148.5	1173.5
AVERAGE	119.2	93.1	59.7	43.9	43.7	48.5	79.8	100.1	130.0	147.3	156.9	146.4	

**Table A. 126** Salamis station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	105.9	74.3	36.0	29.1	28.8	34.5	51.0	70.4	108.1	157.4	181.7	147.4	1024.7
1979-1980	104.8	72.2	44.1	29.0	25.4	29.8	45.8	65.8	98.4	146.8	164.2	151.0	977.2
1980-1981	100.0	65.8	41.2	29.3	27.4	30.8	51.9	72.2	96.9	154.0	187.6	162.5	1019.6
1981-1982	113.2	77.2	36.7	32.0	29.5	28.1	44.0	72.2	110.5	154.8	177.0	165.0	1040.1
1982-1983	119.4	74.9	37.5	27.5	24.8	29.4	46.3	69.1	111.6	141.2	182.0	157.0	1020.6
1983-1984	108.0	65.6	43.2	31.6	30.9	36.1	53.2	71.2	122.4	159.5	177.0	157.9	1056.6
1984-1985	110.1	82.1	39.5	28.7	31.3	29.6	50.1	74.7	120.2	157.6	183.8	173.6	1081.4
1985-1986	116.3	69.2	45.5	30.6	30.7	34.6	53.0	85.1	108.0	153.7	178.8	159.4	1064.8
1986-1987	116.8	67.6	35.3	26.0	29.1	35.9	43.5	68.2	105.0	146.6	192.6	170.7	1037.4
1987-1988	115.7	70.3	41.7	29.8	28.8	32.3	48.3	73.2	121.2	161.5	209.9	177.7	1110.2
1988-1989	118.0	72.9	37.5	30.4	26.4	32.6	53.4	87.9	126.3	150.9	189.7	159.7	1085.9
1989-1990	110.9	65.9	42.1	30.3	27.2	32.6	53.6	77.7	116.1	150.1	186.0	168.2	1060.6
1990-1991	111.5	77.4	47.1	33.0	29.9	33.6	56.7	82.4	122.6	162.7	180.3	158.1	1095.2
1991-1992	106.6	73.6	40.3	26.0	24.6	25.3	44.9	68.4	103.9	144.9	169.3	164.2	991.8
1992-1993	109.8	74.4	40.9	24.9	26.7	28.4	48.7	68.5	102.8	154.8	181.9	156.3	1018.1
1993-1994	107.0	83.0	38.9	32.7	31.9	32.6	51.3	81.6	128.4	171.6	190.0	177.3	1126.3
1994-1995	126.4	87.8	42.1	27.9	31.0	36.6	56.2	70.3	115.7	159.9	179.9	160.6	1094.2
1995-1996	111.1	67.5	34.6	28.3	26.9	33.0	47.1	64.9	114.8	154.1	180.9	162.0	1025.1
1996-1997	107.4	68.8	43.9	35.1	31.6	30.5	47.1	66.8	117.2	162.9	197.8	152.5	1061.7
1997-1998	105.7	69.4	43.0	30.2	28.0	33.2	47.4	79.9	113.4	161.8	198.3	181.0	1091.2
1998-1999	114.0	76.5	46.5	31.5	31.6	33.8	52.2	72.7	127.4	160.5	193.6	174.2	1114.5
1999-2000	117.8	76.7	42.1	32.7	25.0	31.8	48.1	75.2	116.2	175.5	208.9	176.7	1126.7
2000-2001	116.3	70.1	43.3	31.1	31.0	34.3	59.9	80.6	118.8	164.3	192.7	175.5	1117.9
2001-2002	117.1	76.7	41.1	29.8	26.5	35.0	54.2	72.3	113.6	163.3	200.1	166.7	1096.2
2002-2003	113.9	74.0	44.7	28.4	32.4	29.5	46.8	71.7	130.8	163.1	201.7	180.2	1117.2
2003-2004	113.8	74.4	43.5	31.4	28.1	31.9	55.0	78.5	117.4	162.6	198.4	167.8	1102.8
2004-2005	115.8	82.3	44.7	28.9	30.6	32.6	54.7	78.5	121.1	158.5	191.6	174.1	1113.5
2005-2006	120.4	70.4	40.0	32.9	29.5	35.5	56.0	82.4	126.0	173.5	205.8	180.3	1152.8
2006-2007	130.4	81.0	41.5	31.0	29.5	35.8	55.5	76.3	130.2	179.8	213.6	187.4	1191.8
2007-2008	123.7	86.6	46.9	32.4	29.5	33.9	61.0	80.3	114.9	169.3	191.8	171.9	1142.3
2008-2009	116.4	76.6	48.6	32.0	29.6	31.2	46.2	70.8	111.0	164.4	192.3	165.1	1084.2
2009-2010	105.2	73.8	39.3	31.5	33.7	36.7	56.3	77.7	116.6	152.2	179.4	177.7	1080.0
2010-2011	116.7	72.8	43.1	32.8	29.3	31.6	47.7	68.6	109.1	155.0	188.9	167.2	1062.7
2011-2012	112.4	65.8	34.7	27.4	25.7	29.6	44.3	71.2	111.0	161.7	202.2	176.2	1062.2
2012-2013	113.7	74.1	44.4	29.7	28.0	33.5	52.1	74.7	121.9	158.6	185.2	167.7	1083.4
2013-2014	107.6	62.7	44.6	28.1	30.9	33.1	53.8	75.9	112.2	156.8	184.6	166.1	1056.3
2014-2015	112.8	68.1	38.9	32.3	26.6	31.3	51.1	67.4	113.3	147.7	183.5	173.1	1045.9
AVERAGE	113.3	73.6	41.6	30.2	28.9	32.4	51.0	74.2	115.5	158.7	189.3	167.8	

**Table A. 127** Salamis station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	124.4	81.0	33.3	23.6	20.3	28.4	37.1	58.7	90.9	180.1	209.8	168.7	1056.2
1979-1980	136.3	85.9	55.5	26.1	15.4	20.6	31.0	56.2	85.8	182.2	205.3	194.2	1094.5
1980-1981	118.4	69.3	45.2	24.8	18.2	21.1	40.0	63.8	77.4	179.9	225.3	196.7	1080.1
1981-1982	133.4	84.0	34.0	29.5	21.3	14.6	24.0	60.6	92.5	172.4	198.9	190.9	1056.2
1982-1983	151.9	85.4	37.9	21.2	13.3	18.4	30.1	59.0	100.1	161.0	220.6	191.7	1090.6
1983-1984	115.9	61.3	43.8	26.5	22.1	28.8	37.2	54.2	100.4	165.3	183.1	166.7	1005.3
1984-1985	117.0	83.5	36.3	20.3	22.7	16.0	31.5	58.9	96.2	159.9	189.0	184.2	1015.6
1985-1986	123.9	64.7	46.8	23.8	21.3	25.0	35.8	75.0	80.1	152.0	179.8	163.7	991.8
1986-1987	143.5	71.5	32.2	17.6	21.1	32.0	24.2	55.5	87.9	165.1	229.5	206.1	1086.1
1987-1988	121.1	65.2	39.1	21.9	17.7	20.3	27.7	54.8	94.6	160.3	215.7	183.6	1021.9
1988-1989	126.7	70.2	32.2	23.5	14.0	21.4	36.5	79.9	102.7	148.8	194.8	164.7	1015.3
1989-1990	122.7	63.0	42.6	24.3	16.0	22.4	38.9	66.5	94.6	155.3	199.8	184.5	1030.7
1990-1991	109.6	71.2	46.3	26.5	18.5	21.4	39.0	65.5	91.3	153.0	169.0	150.8	962.1
1991-1992	141.7	89.8	47.5	19.6	14.0	11.2	29.7	62.5	96.0	181.9	217.7	219.6	1131.1
1992-1993	137.2	85.1	45.6	15.8	17.1	16.4	34.7	58.2	87.8	185.5	221.6	191.5	1096.6
1993-1994	101.9	77.1	31.9	25.4	21.5	19.4	30.1	63.2	96.1	161.5	177.2	170.3	975.6
1994-1995	130.3	85.6	38.4	17.6	20.7	27.4	38.9	48.3	84.9	152.0	171.4	156.4	971.9
1995-1996	138.0	73.0	31.6	22.8	17.4	26.1	31.4	50.7	104.2	182.5	217.8	198.4	1093.8
1996-1997	116.2	66.6	45.6	33.9	23.8	18.0	27.5	47.5	95.0	172.1	212.9	161.2	1020.2
1997-1998	110.3	65.5	42.5	23.2	16.7	22.6	27.0	67.2	87.5	165.1	206.8	192.6	1027.1
1998-1999	111.7	69.5	44.9	23.5	21.2	21.7	31.6	50.4	95.7	148.5	183.0	168.0	969.8
1999-2000	120.3	72.0	38.7	26.6	11.1	18.8	26.5	56.1	86.1	173.8	207.7	176.8	1014.6
2000-2001	114.0	61.0	39.3	22.8	20.1	22.4	43.3	61.9	85.9	152.7	181.0	168.7	973.2
2001-2002	123.3	74.2	38.2	21.9	13.8	25.5	37.2	53.4	85.8	163.2	204.2	170.5	1011.3
2002-2003	116.1	68.9	43.6	18.9	23.4	14.9	24.8	51.2	103.6	158.7	200.9	182.5	1007.6
2003-2004	116.1	69.4	41.5	24.3	16.2	19.1	37.6	61.8	88.1	158.1	196.9	167.7	996.7
2004-2005	114.6	77.2	42.2	19.1	19.7	19.7	35.8	59.5	89.3	147.0	181.9	169.0	975.1
2005-2006	114.4	59.0	32.5	24.8	17.0	23.6	35.8	61.9	90.0	157.5	187.9	167.1	971.5
2006-2007	118.6	67.9	32.8	20.3	16.0	22.6	32.8	49.8	88.9	154.6	184.1	164.0	952.5
2007-2008	115.1	76.7	42.6	23.4	16.5	20.3	42.0	57.3	76.3	148.1	167.7	153.7	939.6
2008-2009	122.8	74.3	51.9	26.2	19.1	18.4	24.7	51.3	83.0	165.4	195.3	169.3	1001.7
2009-2010	105.8	69.3	34.5	24.8	25.9	28.5	40.1	61.2	88.1	145.6	175.6	181.5	980.8
2010-2011	129.6	72.4	44.0	29.2	19.6	20.1	28.4	50.5	84.7	160.6	201.2	180.9	1021.1
2011-2012	135.8	68.2	30.8	20.3	14.6	18.0	25.3	60.6	95.8	188.8	242.2	212.7	1113.2
2012-2013	119.9	71.3	44.5	21.8	16.4	22.8	34.2	57.8	96.5	158.3	187.3	173.5	1004.4
2013-2014	118.2	58.3	47.5	20.0	22.7	23.4	39.3	63.5	89.9	165.6	198.3	182.1	1028.9
2014-2015	131.1	69.2	38.0	29.8	15.7	20.7	36.1	51.4	95.2	159.0	205.8	199.8	1051.7
AVERAGE	122.9	72.4	40.4	23.4	18.4	21.4	33.2	58.5	91.1	163.3	198.6	179.0	

**Table A. 128** Salamis station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	181	175.6	138.2	134.2	129.9	121.8	138.8	144.4	166.1	183	199.2	193.9	1906.0
1979-1980	180.3	173.5	152.1	134	121.1	112.6	131.2	139.7	159.4	178.2	192	195.6	1869.7
1980-1981	177.2	166.9	147.5	134.8	126.6	114.7	140.1	146	158.3	181.4	201.4	200.8	1895.7
1981-1982	185.5	178.3	139.4	141	131.7	108.7	128.4	146	167.5	181.8	197.3	201.8	1907.4
1982-1983	189.2	176.1	140.9	130.3	119.4	111.6	132	143.1	168.2	175.6	199.3	198.4	1884.1
1983-1984	182.4	166.8	150.6	140.2	134.8	124.5	141.7	145.1	174.8	183.9	197.3	198.7	1940.9
1984-1985	183.6	182.5	144.6	133.2	135.9	112.2	137.6	148.4	173.5	183	200	205.5	1939.9
1985-1986	187.4	170.5	154.2	137.9	134.5	122	141.6	157.2	166	181.4	198	199.4	1950.0
1986-1987	187.7	168.9	136.8	126.4	130.6	124.4	127.7	142.1	164	178.1	203.2	204.2	1894.2
1987-1988	187.1	171.7	148.2	136	130	117.6	134.9	147	174.1	184.7	209.3	207	1947.6
1988-1989	188.4	174.3	141	137.4	123.9	118.3	142	159.5	177.1	180.1	202.2	199.5	1943.7
1989-1990	184.2	167	148.8	137.1	125.9	118.2	142.3	151	171.1	179.7	200.8	203.2	1929.4
1990-1991	184.6	178.4	156.5	143.2	132.6	120.1	146.4	154.9	174.9	185.2	198.6	198.8	1974.2
1991-1992	181.5	174.9	145.9	126.4	118.8	102	129.7	142.3	163.2	177.3	194.1	201.5	1857.7
1992-1993	183.5	175.6	146.9	123.2	124.6	109.5	135.6	142.5	162.5	181.8	199.3	198	1883.0
1993-1994	181.7	183.4	143.6	142.4	137.2	118.2	139.2	154.4	178.1	188.8	202.3	206.9	1976.3
1994-1995	193.1	187.3	148.8	131.2	135.2	125.6	145.6	144.2	170.8	184.1	198.4	199.9	1964.3
1995-1996	184.3	168.8	135.4	132.2	125.2	118.9	133.3	138.7	170.2	181.5	198.8	200.5	1887.8
1996-1997	182	170.1	151.8	147.6	136.6	113.9	133.2	140.8	171.7	185.3	205.1	196.2	1934.4
1997-1998	180.9	170.7	150.3	137	128	119.4	133.6	153	169.4	184.8	205.3	208.3	1940.8
1998-1999	186.1	177.6	155.7	139.9	136.5	120.6	140.4	146.5	177.7	184.3	203.6	205.6	1974.4
1999-2000	188.3	177.9	148.9	142.6	120	116.6	134.6	148.8	171.2	190.4	209	206.6	1954.9
2000-2001	187.4	171.5	150.8	139.1	135.2	121.5	150.1	153.5	172.7	185.9	203.2	206.1	1977.1
2001-2002	187.9	177.8	147.3	135.9	124	122.7	143.1	146.1	169.5	185.5	206	202.6	1948.2
2002-2003	186	175.3	153	132.6	138.3	111.8	132.7	145.6	179.5	185.4	206.5	208.1	1954.8
2003-2004	185.9	175.6	151.1	139.6	128.4	116.8	144.2	151.7	171.8	185.2	205.3	203	1958.8
2004-2005	187.1	182.8	153.1	133.9	134.4	118.3	143.8	151.7	174.1	183.5	202.9	205.6	1971.0
2005-2006	189.8	171.7	145.5	142.9	131.7	123.7	145.4	155	176.8	189.6	207.9	208.1	1988.3
2006-2007	195.2	181.6	147.9	138.6	131.7	124.2	144.7	149.8	179.2	192	210.5	210.8	2006.1
2007-2008	191.6	186.4	156.3	141.9	131.6	120.8	151.5	153.3	170.4	187.9	203	204.7	1999.3
2008-2009	187.5	177.7	158.7	141	131.9	115.4	131.9	144.7	167.9	186	203.1	201.9	1947.6
2009-2010	180.6	175.1	144.3	139.9	141.1	125.8	145.8	151	171.3	180.7	198.2	207	1960.7
2010-2011	187.7	174.1	150.4	142.8	131.2	116.2	134.1	142.5	166.7	181.9	201.9	202.8	1932.2
2011-2012	185.1	167	135.7	130	121.9	112	128.9	145.1	167.9	184.8	206.7	206.5	1891.5
2012-2013	185.8	175.4	152.5	135.6	127.9	119.9	140.3	148.3	174.5	183.5	200.5	203	1947.2
2013-2014	182.2	163.5	152.8	131.7	134.9	119.2	142.6	149.4	168.7	182.7	200.2	202.3	1930.2
2014-2015	185.3	169.4	143.4	141.7	124.5	115.6	139	141.3	169.3	178.6	199.8	205.2	1913.1
AVERAGE	185.5	174.6	147.8	136.6	129.9	117.7	138.6	147.7	170.5	183.5	201.9	202.9	

**Table A. 129** Salamis station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	139.1	64.87	46.54	42.88	42.75	43.57	54.54	117.4	144.9	165.3	176.9	162.1	1200.7
1979-1980	138.5	64.11	51.18	42.83	39.86	40.24	51.57	113.6	139	161	170.6	163.5	1176.0
1980-1981	136.1	61.69	49.61	43.07	41.63	40.98	55.06	118.8	138.1	163.9	178.9	167.8	1195.6
1981-1982	142.6	65.87	46.94	45.08	43.31	38.84	50.43	118.7	146.2	164.3	175.3	168.7	1206.2
1982-1983	145.3	65.07	47.44	41.63	39.27	39.9	51.89	116.3	146.8	158.6	177	165.8	1195.0
1983-1984	140.1	61.63	50.71	44.8	44.36	44.55	55.73	118	152.5	166.1	175.3	166.1	1219.8
1984-1985	141.1	67.46	48.67	42.58	44.72	40.09	54.08	120.6	151.4	165.4	177.6	171.7	1225.4
1985-1986	144	63.02	51.91	44.06	44.25	43.59	55.62	127.9	144.8	163.8	175.9	166.7	1225.5
1986-1987	144.2	62.42	46.05	40.41	42.97	44.46	50.16	115.6	143.1	160.9	180.6	170.7	1201.5
1987-1988	143.7	63.42	49.88	43.47	42.77	42.03	53.05	119.5	151.9	166.9	186	173.1	1235.6
1988-1989	144.7	64.39	47.45	43.9	40.78	42.28	55.81	129.7	154.4	162.7	179.6	166.8	1232.6
1989-1990	141.5	61.74	50.1	43.81	41.41	42.27	55.95	122.8	149.2	162.3	178.4	169.9	1219.4
1990-1991	141.8	65.92	52.67	45.78	43.62	42.92	57.51	126	152.6	167.3	176.4	166.2	1238.8
1991-1992	139.4	64.63	49.1	40.41	39.07	36.45	51	115.7	142.4	160.2	172.5	168.4	1179.3
1992-1993	141	64.91	49.46	39.38	40.98	39.12	53.29	115.9	141.8	164.3	177	165.5	1192.5
1993-1994	139.6	67.76	48.32	45.54	45.14	42.25	54.71	125.5	155.4	170.6	179.7	173	1247.5
1994-1995	148.3	69.22	50.1	41.95	44.49	44.89	57.25	117.2	149	166.2	176.3	167.1	1232.1
1995-1996	141.6	62.37	45.6	42.26	41.18	42.51	52.38	112.8	148.5	164	176.6	167.6	1197.4
1996-1997	139.8	62.87	51.09	47.16	44.94	40.72	52.38	114.5	149.8	167.4	182.2	164.1	1216.9
1997-1998	138.9	63.08	50.58	43.78	42.09	42.68	52.53	124.4	147.8	167	182.4	174.2	1229.4
1998-1999	142.9	65.65	52.4	44.7	44.94	43.1	55.18	119.1	154.9	166.5	180.9	171.9	1242.2
1999-2000	144.7	65.71	50.13	45.58	39.47	41.67	52.93	121	149.3	172	185.6	172.7	1240.8
2000-2001	144	63.37	50.77	44.45	44.48	43.41	59.01	124.8	150.7	167.9	180.6	172.3	1245.8
2001-2002	144.3	65.7	49.57	43.43	40.8	43.88	56.22	118.8	147.9	167.5	183	169.3	1230.4
2002-2003	142.9	64.78	51.49	42.4	45.5	39.95	52.17	118.4	156.6	167.5	183.5	173.9	1238.9
2003-2004	142.8	64.91	50.87	44.63	42.23	41.76	56.65	123.4	149.9	167.3	182.4	169.7	1236.6
2004-2005	143.8	67.54	51.51	42.79	44.2	42.27	56.52	123.4	151.8	165.7	180.2	171.9	1241.6
2005-2006	145.8	63.47	48.97	45.65	43.34	44.22	57.17	126.1	154.2	171.3	184.7	173.9	1258.9
2006-2007	150	67.12	49.78	44.31	43.33	44.38	56.88	121.8	156.3	173.5	187	176.2	1270.6
2007-2008	147.2	68.86	52.62	45.34	43.3	43.16	59.54	124.6	148.6	169.8	180.3	171.1	1254.5
2008-2009	144	65.66	53.41	45.06	43.38	41.25	51.84	117.7	146.5	168	180.5	168.8	1226.0
2009-2010	138.7	64.7	48.56	44.7	46.42	44.98	57.29	122.8	149.5	163.2	176.1	173.1	1230.0
2010-2011	144.2	64.32	50.64	45.62	43.18	41.53	52.7	115.9	145.4	164.3	179.4	169.5	1216.7
2011-2012	142.2	61.72	45.67	41.54	40.12	40.02	50.64	118	146.5	166.9	183.6	172.6	1209.5
2012-2013	142.8	64.81	51.32	43.35	42.08	42.87	55.16	120.6	152.2	165.7	178.1	169.7	1228.7
2013-2014	139.9	60.43	51.44	42.1	44.38	42.59	56.05	121.5	147.1	165	177.9	169.1	1217.6
2014-2015	142.4	62.6	48.28	45.3	40.95	41.31	54.61	114.9	147.7	161.4	177.5	171.5	1208.4
AVERAGE	142.5	64.5	49.8	43.7	42.7	42.1	54.5	120.1	148.8	165.7	179.4	169.6	

**Table A. 130** Salamis station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.1	93.54	54.09	42.33	43.76	50.87	80.25	98.71	128.5	148.2	156.5	142.1	1156.0
1979-1980	116.8	92.37	61.84	42.25	38.83	45.68	76	96.09	124.7	145.6	152.5	143.1	1135.7
1980-1981	115	88.69	59.26	42.68	41.89	46.85	80.98	99.64	124.1	147.4	157.8	146	1150.3
1981-1982	119.7	95.07	54.75	46.16	44.73	43.5	74.42	99.61	129.3	147.6	155.5	146.6	1156.9
1982-1983	121.7	93.84	55.61	40.14	37.84	45.15	76.45	97.98	129.7	144.1	156.6	144.7	1143.8
1983-1984	117.9	88.6	61.05	45.69	46.48	52.39	81.91	99.12	133.4	148.8	155.5	144.9	1175.6
1984-1985	118.6	97.45	57.66	41.79	47.1	45.46	79.6	100.9	132.6	148.3	157	148.6	1175.1
1985-1986	120.7	90.71	63.02	44.39	46.3	50.95	81.82	105.9	128.4	147.3	155.9	145.2	1180.7
1986-1987	120.9	89.81	53.28	37.98	44.16	52.29	74.02	97.45	127.3	145.5	158.8	147.9	1149.5
1987-1988	120.5	91.35	59.68	43.35	43.8	48.49	78.1	100.2	133	149.2	162.2	149.5	1179.4
1988-1989	121.3	92.81	55.64	44.12	40.4	48.88	82.08	107.2	134.6	146.6	158.2	145.3	1177.2
1989-1990	118.9	88.77	60.04	43.95	41.49	48.86	82.25	102.4	131.2	146.4	157.4	147.4	1169.2
1990-1991	119.1	95.12	64.34	47.4	45.23	49.89	84.5	104.6	133.4	149.5	156.2	144.9	1194.3
1991-1992	117.4	93.15	58.39	37.99	37.53	39.76	75.17	97.57	126.8	145.1	153.7	146.4	1129.0
1992-1993	118.5	93.58	58.96	36.19	40.76	43.94	78.46	97.65	126.5	147.6	156.6	144.5	1143.2
1993-1994	117.5	97.91	57.1	46.97	47.81	48.84	80.49	104.3	135.2	151.5	158.3	149.5	1195.5
1994-1995	123.9	100.1	60.01	40.69	46.72	52.98	84.1	98.58	131.1	148.8	156.1	145.5	1188.8
1995-1996	119	89.74	52.52	41.23	41.09	49.22	77.16	95.53	130.8	147.4	156.3	145.9	1145.9
1996-1997	117.7	90.5	61.7	49.84	47.51	46.43	77.15	96.71	131.6	149.5	159.8	143.5	1172.0
1997-1998	117.1	90.8	60.84	43.94	42.66	49.5	77.38	103.5	130.3	149.3	160	150.2	1175.6
1998-1999	120	94.7	63.86	45.52	47.46	50.16	81.15	99.89	135	149	159	148.7	1194.4
1999-2000	121.2	94.83	60.08	47.07	38.19	47.92	77.93	101.2	131.3	152.4	162	149.3	1183.5
2000-2001	120.7	91.26	61.16	45.07	46.7	50.66	86.63	103.8	132.2	149.9	158.8	149	1195.9
2001-2002	121	94.78	59.14	43.28	40.45	51.37	82.65	99.68	130.4	149.6	160.3	147	1179.7
2002-2003	119.9	93.39	62.34	41.47	48.45	45.24	76.86	99.39	136	149.6	160.7	150.1	1183.4
2003-2004	119.9	93.57	61.3	45.4	42.9	48.08	83.29	102.8	131.7	149.5	160	147.2	1185.6
2004-2005	120.6	97.58	62.4	42.19	46.25	48.87	83.06	102.8	132.9	148.5	158.6	148.7	1192.5
2005-2006	122.1	91.4	58.15	47.2	44.77	51.91	83.96	104.7	134.5	151.9	161.4	150.1	1202.2
2006-2007	125.1	96.93	59.52	44.82	44.73	52.18	83.55	101.7	135.8	153.3	162.9	151.6	1212.2
2007-2008	123.1	99.61	64.22	46.65	44.71	50.27	87.38	103.7	130.9	151	158.7	148.2	1208.4
2008-2009	120.8	94.72	65.56	46.16	44.84	47.27	76.4	98.89	129.5	149.9	158.8	146.6	1179.4
2009-2010	116.9	93.27	57.48	45.52	50.01	53.09	84.17	102.4	131.4	146.9	156	149.5	1186.8
2010-2011	120.9	92.7	60.93	47.14	44.5	47.7	77.62	97.67	128.8	147.7	158.1	147.1	1170.8
2011-2012	119.4	88.76	52.65	39.99	39.27	45.34	74.7	99.09	129.5	149.3	160.7	149.2	1147.9
2012-2013	119.9	93.43	62.06	43.15	42.62	49.8	81.12	100.9	133.2	148.5	157.3	147.3	1179.2
2013-2014	117.8	86.79	62.25	40.97	46.53	49.37	82.41	101.5	129.9	148.1	157.1	146.9	1169.6
2014-2015	119.6	90.09	57	46.56	40.7	47.35	80.35	96.98	130.3	145.8	156.9	148.5	1160.1
AVERAGE	119.7	93.0	59.5	43.7	43.8	48.6	80.1	100.6	131.0	148.5	158.1	147.2	

**Table A. 131** Serdarli station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	92.1	63.1	34.2	26.0	24.9	29.7	45.4	65.1	100.7	141.8	164.1	143.2	930.2
1979-1980	97.3	61.4	37.2	25.5	22.5	25.1	41.4	58.7	100.0	137.2	168.4	151.7	926.4
1980-1981	94.2	66.3	39.6	26.7	25.1	28.7	45.6	67.1	92.9	152.1	168.0	139.4	945.6
1981-1982	100.0	72.0	33.2	29.6	25.8	25.0	39.0	63.2	99.1	143.4	157.4	150.5	938.1
1982-1983	104.5	64.7	32.4	24.5	22.1	25.7	42.3	65.1	106.8	133.3	166.0	143.3	930.8
1983-1984	98.4	60.6	39.6	28.2	27.5	31.1	45.6	61.3	110.5	142.6	169.2	135.7	950.3
1984-1985	86.8	65.4	32.2	24.3	27.0	25.5	42.3	67.5	113.6	141.6	167.0	172.3	965.5
1985-1986	109.3	63.0	42.1	28.3	25.3	29.6	46.2	74.7	95.2	145.2	167.4	142.5	968.8
1986-1987	103.7	60.8	31.0	25.0	24.0	30.6	36.8	60.8	98.8	134.9	177.4	148.8	932.6
1987-1988	98.6	57.7	34.6	25.6	24.7	27.5	40.8	66.9	109.6	143.7	190.2	152.3	972.2
1988-1989	100.5	58.8	30.8	24.9	22.0	27.0	45.8	83.8	113.6	136.2	173.3	143.7	960.4
1989-1990	95.5	59.3	36.7	27.2	22.9	27.8	44.8	66.8	103.4	137.6	160.1	145.7	927.8
1990-1991	93.2	64.6	37.5	27.2	24.6	26.6	47.3	66.5	96.7	141.9	156.0	137.5	919.6
1991-1992	94.7	65.1	34.8	22.3	20.8	20.5	33.3	57.1	94.5	124.5	145.7	153.7	866.8
1992-1993	93.6	64.1	34.0	21.1	22.6	23.7	40.3	62.1	85.6	142.7	165.4	154.6	909.9
1993-1994	98.5	77.1	32.5	26.3	26.0	27.6	42.4	70.7	106.5	140.8	160.1	148.4	957.0
1994-1995	108.6	68.9	31.2	21.4	23.8	28.8	44.1	61.3	107.9	148.6	168.8	146.4	959.8
1995-1996	95.6	60.7	29.5	23.5	22.3	27.8	41.0	57.7	111.7	147.2	173.4	148.1	938.6
1996-1997	93.3	57.6	36.9	27.5	25.4	24.9	36.7	51.7	107.0	145.5	175.1	128.6	910.3
1997-1998	90.1	60.0	36.5	25.4	22.9	27.4	41.6	71.7	103.0	152.3	186.7	167.4	985.0
1998-1999	100.0	67.3	39.5	26.7	26.5	27.8	46.2	67.7	121.0	153.2	188.9	155.1	1019.8
1999-2000	105.1	68.6	38.4	29.2	22.8	27.9	42.1	68.4	106.7	155.4	190.3	157.2	1012.1
2000-2001	106.3	63.0	39.9	26.6	25.9	29.3	54.0	69.7	112.7	149.6	177.1	153.8	1007.9
2001-2002	100.7	64.5	35.4	25.2	22.2	30.2	46.6	61.5	98.7	146.9	180.3	150.0	962.2
2002-2003	98.6	65.0	39.6	24.2	27.5	25.4	39.7	65.2	129.3	155.2	191.4	168.2	1029.3
2003-2004	102.4	70.3	38.9	26.4	24.7	28.0	49.3	69.1	105.0	151.7	187.7	148.7	1002.2
2004-2005	105.8	71.7	37.3	24.3	25.1	26.7	46.0	67.7	106.1	139.2	179.0	151.2	980.3
2005-2006	104.2	59.1	32.6	26.0	24.3	29.2	46.7	71.9	107.1	151.6	172.5	158.1	983.3
2006-2007	103.4	62.4	32.6	23.7	23.8	28.3	44.5	62.7	109.7	157.4	188.7	153.9	991.0
2007-2008	103.4	70.1	38.1	25.7	22.9	26.7	55.7	75.3	108.7	157.6	183.7	163.8	1031.7
2008-2009	99.4	62.2	39.6	26.7	25.7	29.5	43.8	68.0	105.6	161.3	180.3	152.7	994.8
2009-2010	95.4	70.7	36.2	31.3	30.1	32.5	49.6	71.7	110.2	138.9	166.7	170.7	1004.1
2010-2011	107.3	67.5	43.0	30.7	26.0	29.2	45.3	63.7	99.1	142.7	176.2	156.7	987.6
2011-2012	105.8	60.9	32.0	25.4	23.8	26.4	41.9	69.8	100.5	153.3	191.3	188.9	1019.9
2012-2013	120.2	78.2	46.0	30.7	28.2	34.8	54.2	82.6	134.2	168.9	200.2	185.8	1163.9
2013-2014	114.0	71.4	47.4	28.5	31.6	35.4	56.5	81.0	115.8	170.2	191.5	174.5	1117.7
2014-2015	112.8	71.9	41.3	33.2	27.4	31.4	53.6	72.4	125.3	152.4	199.0	184.6	1105.3
AVERAGE	100.9	65.3	36.6	26.4	24.9	28.1	44.8	67.2	106.8	147.0	175.8	154.8	

**Table A. 132** Serdarli station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	105.8	70.5	35.5	21.1	16.5	22.7	32.0	56.2	85.7	143.9	166.7	149.5	906.0
1979-1980	118.4	70.5	44.0	21.0	12.3	13.4	26.1	46.7	88.4	144.0	179.3	166.4	930.5
1980-1981	103.6	72.1	45.1	21.6	16.1	19.3	30.8	56.9	71.8	149.3	162.9	138.1	887.6
1981-1982	115.3	83.4	32.7	28.7	17.9	12.5	20.5	51.9	82.1	143.4	156.0	155.4	899.8
1982-1983	127.9	75.4	32.5	18.6	11.2	14.7	27.5	58.3	96.6	137.2	174.6	154.5	929.1
1983-1984	106.7	61.6	44.1	24.1	20.1	23.8	30.0	45.6	91.2	134.1	159.8	130.3	871.6
1984-1985	94.2	71.7	29.9	16.8	20.0	13.1	25.6	58.4	98.7	138.5	164.0	176.2	907.1
1985-1986	115.6	62.3	47.0	23.4	15.3	19.8	29.6	64.7	69.5	130.9	150.7	131.7	860.5
1986-1987	127.3	69.0	29.4	19.7	15.3	25.5	17.9	50.4	86.2	140.0	188.9	161.9	931.4
1987-1988	110.1	58.7	34.8	19.3	15.3	16.9	22.9	56.7	92.8	139.6	187.3	153.0	907.6
1988-1989	114.3	61.3	27.0	18.1	10.5	16.3	31.6	86.9	99.0	132.1	171.7	145.4	914.3
1989-1990	111.6	64.6	41.3	24.0	12.7	18.6	31.2	59.9	89.7	139.4	163.1	153.6	909.6
1990-1991	107.9	73.3	43.3	23.9	15.9	16.0	35.6	59.3	80.8	145.0	158.0	143.6	902.7
1991-1992	136.5	91.4	46.1	16.7	10.6	5.8	14.8	52.8	96.1	151.3	180.6	201.4	1004.2
1992-1993	120.9	80.7	39.4	12.1	13.2	11.5	25.9	57.4	73.2	162.9	188.8	182.3	968.3
1993-1994	107.7	86.8	29.6	20.5	17.5	16.8	25.0	61.9	87.3	133.2	151.3	145.6	883.2
1994-1995	126.4	78.0	27.9	11.2	13.8	20.1	28.9	48.1	92.6	148.8	167.9	149.6	913.4
1995-1996	116.9	70.0	26.3	16.6	12.0	19.5	25.7	45.3	105.1	159.2	187.1	163.7	947.3
1996-1997	116.7	66.4	45.3	26.6	19.0	13.7	18.5	35.2	101.7	161.7	195.1	143.0	942.9
1997-1998	96.1	61.1	38.0	18.5	11.7	16.5	23.6	63.5	83.0	147.0	179.8	165.7	904.7
1998-1999	97.8	64.6	39.3	19.0	16.5	15.2	27.7	50.2	93.0	131.5	161.9	136.2	852.9
1999-2000	106.6	68.1	38.2	24.2	10.6	15.8	22.3	52.7	80.0	137.3	167.5	141.8	865.3
2000-2001	105.4	58.8	40.0	18.7	15.5	18.1	39.3	53.3	84.4	127.8	151.0	135.0	847.4
2001-2002	113.0	69.4	36.3	18.6	10.7	22.6	32.6	47.3	79.2	143.3	176.6	150.3	899.9
2002-2003	98.0	62.7	40.2	14.7	18.5	11.4	18.8	47.5	103.4	136.3	167.4	151.4	870.3
2003-2004	103.4	70.6	39.2	19.0	13.8	16.0	33.3	53.9	78.3	133.6	165.4	133.7	860.1
2004-2005	113.4	76.2	38.3	15.8	15.2	14.5	29.8	54.7	83.7	126.5	165.5	143.4	877.1
2005-2006	112.8	58.4	29.1	19.3	14.0	19.6	31.2	62.3	85.9	142.6	161.0	152.4	888.7
2006-2007	113.5	64.4	29.6	15.0	13.2	18.1	28.2	48.0	90.4	151.7	180.4	150.4	902.9
2007-2008	100.0	67.0	36.0	16.8	10.2	13.1	40.9	60.3	78.7	133.4	154.0	141.6	852.1
2008-2009	102.1	60.7	41.5	20.0	15.9	19.3	25.5	53.5	80.9	147.3	162.2	140.9	869.9
2009-2010	89.7	67.4	32.3	26.8	22.1	23.3	31.9	54.7	79.7	113.2	137.2	146.8	825.3
2010-2011	109.2	66.6	46.8	27.1	16.0	18.3	27.2	45.4	71.6	123.5	154.0	141.3	847.0
2011-2012	112.3	59.7	27.1	17.8	12.8	13.8	23.0	57.5	76.4	141.3	176.0	178.7	896.4
2012-2013	89.4	58.5	37.5	19.4	14.4	20.6	29.0	52.4	78.8	108.1	126.4	121.1	755.6
2013-2014	89.4	55.2	41.8	17.4	19.9	22.7	33.5	54.0	69.0	115.9	128.2	120.8	767.8
2014-2015	93.1	58.5	34.9	25.6	14.9	17.9	31.7	46.7	80.6	107.3	140.6	134.5	786.4
AVERAGE	108.9	68.0	37.0	19.9	14.9	17.2	27.8	54.3	85.6	137.9	165.1	149.5	

**Table A. 133** Serdarli station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	171.2	163.8	134.5	126	119.5	112.2	130.3	138.7	160.8	175.5	191.7	191.6	1815.9
1979-1980	175	161.8	140.2	124.8	112.6	101.4	123.9	131.7	160.3	173.3	193.5	195.6	1793.9
1980-1981	172.8	167.2	144.4	127.9	120.2	109.8	130.7	140.8	155.1	180.3	193.3	189.7	1832.3
1981-1982	176.8	173.1	132.6	135.2	122	101.3	119.7	136.8	159.7	176.3	188.7	195	1817.1
1982-1983	179.8	165.5	130.9	122	111.1	103	125.5	138.8	164.9	171.4	192.5	191.6	1797.0
1983-1984	175.8	161	144.5	131.7	126.4	115.1	130.7	134.7	167.4	175.9	193.8	187.7	1844.7
1984-1985	167.2	166.3	130.4	121.3	125.1	102.3	125.4	141.2	169.3	175.5	192.9	204.5	1821.3
1985-1986	182.9	163.6	148.7	132.2	120.7	111.9	131.7	148.1	156.8	177.1	193.1	191.2	1858.1
1986-1987	179.3	161.1	127.9	123.3	117.1	113.9	115.6	134	159.4	172.2	197.1	194.3	1795.2
1987-1988	175.8	157.5	135.3	125	118.9	107.1	122.9	140.6	166.7	176.4	202	195.9	1824.1
1988-1989	177.2	158.8	127.4	123	110.9	106.1	131	156	169.3	172.8	195.5	191.8	1819.8
1989-1990	173.7	159.4	139.2	129.3	113.7	107.9	129.4	140.5	162.6	173.5	189.9	192.8	1812.0
1990-1991	172	165.4	140.8	129.2	118.7	105	133.3	140.3	157.8	175.6	188.1	188.7	1814.9
1991-1992	173.1	165.9	135.7	115.4	106.9	88.41	108.7	129.8	156.2	166.7	183.3	196.6	1726.7
1992-1993	172.3	164.9	134.1	111.5	112.6	97.83	122	135.6	149.4	176	192.2	196.9	1765.4
1993-1994	175.8	177.9	131.1	127.1	122.6	107.4	125.6	144.4	164.8	175.1	189.9	194.1	1835.8
1994-1995	182.4	170	128.1	112.6	116.3	110.2	128.3	134.7	165.6	178.8	193.7	193.1	1813.7
1995-1996	173.8	161	124.4	118.9	111.9	107.8	123.3	130.5	168.1	178.1	195.5	194	1787.5
1996-1997	172.1	157.4	139.7	130	121	101	115.3	123.1	165.1	177.3	196.3	184	1782.2
1997-1998	169.8	160.2	139	124.3	113.7	107.1	124.2	145.2	162.4	180.4	200.7	202.5	1829.5
1998-1999	176.9	168.2	144.3	128.1	123.8	107.8	131.6	141.4	173.7	180.9	201.5	197.1	1875.3
1999-2000	180.2	169.7	142.4	134.3	113.4	108	125	142.1	164.9	181.8	202.1	198.2	1862.1
2000-2001	181	163.6	145	127.7	122.4	111.3	142.6	143.4	168.7	179.3	197	196.6	1878.5
2001-2002	177.3	165.3	136.7	124	111.6	113.2	132.3	134.8	159.4	178	198.3	194.8	1825.6
2002-2003	175.9	165.8	144.4	121.2	126.4	102.3	121	138.9	178.3	181.7	202.4	202.8	1861.2
2003-2004	178.4	171.4	143.2	127.3	119	108.3	136.2	142.8	163.7	180.1	201.1	194.2	1865.7
2004-2005	180.7	172.8	140.5	121.4	120.1	105.3	131.3	141.5	164.5	174.3	197.7	195.4	1845.5
2005-2006	179.6	159.1	131.4	126.1	117.9	111	132.3	145.5	165.1	180.1	195.2	198.6	1841.9
2006-2007	179.1	162.9	131.3	119.6	116.3	109	129	136.3	166.8	182.7	201.4	196.6	1830.9
2007-2008	179.1	171.1	141.9	125.5	113.6	105.3	144.7	148.7	166.1	182.8	199.5	201	1879.2
2008-2009	176.4	162.8	144.4	128.1	121.8	111.6	127.9	141.7	164.1	184.3	198.3	196.1	1857.6
2009-2010	173.6	171.8	138.4	139.3	132.9	117.9	136.7	145.3	167.1	174.2	192.7	203.9	1893.7
2010-2011	181.6	168.5	150	137.8	122.5	111	130.3	137.2	159.7	176	196.7	197.9	1869.3
2011-2012	180.7	161.2	129.9	124.6	116.4	104.6	124.7	143.5	160.6	180.9	202.4	211	1840.4
2012-2013	189.4	178.8	154.7	137.8	128.3	122.1	142.8	154.9	181	187.5	205.7	209.8	1992.8
2013-2014	185.7	172.5	156.8	132.5	136.2	123.2	145.7	153.6	170.6	188	202.5	205.4	1972.8
2014-2015	185	172.9	147.3	143.4	126.3	115.7	142	146	176.1	180.5	205.2	209.4	1949.8
AVERAGE	177.3	166.0	138.7	126.7	119.2	108.2	129.0	140.6	164.6	177.9	196.3	196.8	

**Table A. 134** Serdarli station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	131.8	60.63	45.34	40.34	39.39	40.16	51.33	113	140.5	158.8	170.5	160.4	1152.1
1979-1980	134.7	59.9	47.26	39.95	37.09	36.3	48.77	107.2	140.1	156.8	172.2	163.8	1143.9
1980-1981	132.9	61.9	48.69	40.97	39.59	39.32	51.47	114.7	135.5	163.1	172	158.8	1159.0
1981-1982	136.1	64.05	44.69	43.29	40.19	36.26	47.1	111.4	139.5	159.5	167.9	163.3	1153.3
1982-1983	138.4	61.26	44.12	39.06	36.58	36.88	49.4	113	144.1	155.1	171.3	160.4	1149.5
1983-1984	135.2	59.58	48.73	42.17	41.66	41.19	51.48	109.7	146.2	159.2	172.4	157.2	1164.7
1984-1985	128.6	61.56	43.96	38.83	41.24	36.64	49.37	115	147.9	158.8	171.6	171.3	1164.9
1985-1986	140.7	60.56	50.14	42.33	39.78	40.07	51.84	120.6	137	160.3	171.8	160.1	1175.2
1986-1987	138	59.64	43.11	39.48	38.57	40.79	45.5	109.2	139.3	155.8	175.4	162.6	1147.4
1987-1988	135.3	58.28	45.64	39.99	39.19	38.34	48.39	114.5	145.7	159.7	179.8	164	1168.8
1988-1989	136.3	58.78	42.95	39.38	36.54	37.98	51.57	127	147.9	156.3	174	160.6	1169.3
1989-1990	133.7	59.01	46.94	41.39	37.49	38.63	50.97	114.5	142.1	157	169	161.4	1152.0
1990-1991	132.4	61.22	47.49	41.36	39.1	37.61	52.48	114.2	138	158.9	167.4	158	1148.0
1991-1992	133.2	61.42	45.74	36.96	35.22	31.65	42.77	105.7	136.6	150.8	163.1	164.5	1107.6
1992-1993	132.6	61.05	45.24	35.68	37.1	35.01	48.01	110.4	130.5	159.3	171	164.9	1130.7
1993-1994	135.3	65.83	44.2	40.68	40.41	38.46	49.46	117.6	143.9	158.4	169	162.5	1165.7
1994-1995	140.4	62.92	43.21	36.04	38.31	39.44	50.5	109.7	144.7	161.7	172.3	161.7	1160.9
1995-1996	133.7	59.61	41.95	38.08	36.88	38.61	48.53	106.3	146.9	161.2	174	162.4	1148.1
1996-1997	132.4	58.25	47.12	41.63	39.88	36.16	45.42	100.2	144.2	160.4	174.6	154	1134.4
1997-1998	130.6	59.29	46.87	39.81	37.46	38.33	48.89	118.3	141.8	163.3	178.6	169.6	1172.9
1998-1999	136.1	62.29	48.66	41.01	40.83	38.6	51.79	115.1	151.8	163.6	179.4	165.1	1194.2
1999-2000	138.7	62.81	47.99	43	37.39	38.68	49.23	115.7	144	164.5	179.8	165.9	1187.7
2000-2001	139.3	60.56	48.87	40.89	40.32	39.85	56.14	116.8	147.4	162.2	175.3	164.6	1192.1
2001-2002	136.4	61.17	46.11	39.7	36.76	40.53	52.08	109.8	139.2	161	176.4	163.1	1162.4
2002-2003	135.3	61.38	48.69	38.8	41.66	36.61	47.63	113.1	155.8	164.4	180.2	169.9	1193.5
2003-2004	137.3	63.44	48.29	40.76	39.21	38.77	53.63	116.3	143	163	179	162.6	1185.3
2004-2005	139	63.95	47.36	38.87	39.57	37.71	51.71	115.2	143.7	157.7	176	163.6	1174.4
2005-2006	138.2	58.91	44.27	40.34	38.85	39.74	52.1	118.5	144.3	163	173.7	166.2	1178.1
2006-2007	137.8	60.32	44.27	38.27	38.32	39.02	50.8	110.9	145.7	165.3	179.3	164.6	1174.7
2007-2008	137.8	63.34	47.83	40.16	37.42	37.69	56.98	121.1	145.2	165.4	177.6	168.3	1198.8
2008-2009	135.7	60.25	48.69	41.01	40.15	39.97	50.35	115.4	143.4	166.8	176.4	164.2	1182.4
2009-2010	133.6	63.58	46.67	44.59	43.79	42.2	53.8	118.4	146	157.6	171.5	170.7	1192.4
2010-2011	139.8	62.39	50.58	44.13	40.39	39.76	51.29	111.8	139.5	159.3	175	165.7	1179.5
2011-2012	139	59.67	43.79	39.89	38.37	37.43	49.08	116.9	140.4	163.6	180.1	176.7	1185.0
2012-2013	145.7	66.2	52.18	44.11	42.29	43.72	56.22	126.2	158.1	169.6	183	175.7	1263.1
2013-2014	142.9	63.84	52.86	42.42	44.89	44.1	57.38	125.1	149.1	170.1	180.2	172	1244.9
2014-2015	142.4	64	49.66	45.9	41.63	41.42	55.91	118.9	153.9	163.3	182.6	175.3	1235.0
AVERAGE	136.4	61.4	46.8	40.6	39.3	38.7	50.8	114.5	143.9	160.9	174.7	164.7	

**Table A. 135** Serdarli station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.5	87.59	52.44	38.11	38.33	45.89	76.2	96.35	126.5	145.1	153.4	141.8	1114.3
1979-1980	114.6	86.48	55.63	37.42	34.43	39.83	72.57	92.38	126.2	143.9	154.4	144.1	1101.9
1980-1981	113.4	89.52	57.99	39.21	38.68	44.57	76.43	97.51	123.3	147.8	154.3	140.8	1123.5
1981-1982	115.6	92.81	51.37	43.29	39.71	39.79	70.2	95.24	125.8	145.6	151.8	143.8	1115.0
1982-1983	117.3	88.56	50.4	35.9	33.57	40.74	73.47	96.4	128.8	142.8	153.9	141.8	1103.7
1983-1984	115	85.99	58.06	41.35	42.19	47.52	76.43	94.07	130.2	145.4	154.6	139.7	1130.5
1984-1985	110.2	88.99	50.13	35.47	41.45	40.35	73.41	97.73	131.3	145.1	154.1	149.1	1117.4
1985-1986	119	87.49	60.43	41.6	38.99	45.74	76.96	101.6	124.3	146	154.2	141.6	1138.0
1986-1987	117	86.08	48.71	36.62	36.94	46.86	67.91	93.71	125.7	143.2	156.5	143.4	1102.7
1987-1988	115.1	84.03	52.91	37.53	37.95	43.06	72.03	97.38	129.8	145.6	159.2	144.3	1118.9
1988-1989	115.8	84.79	48.46	36.42	33.48	42.46	76.58	106	131.3	143.6	155.6	142	1116.5
1989-1990	113.8	85.13	55.07	39.97	35.06	43.49	75.7	97.35	127.5	144	152.4	142.5	1112.1
1990-1991	112.9	88.5	55.99	39.93	37.83	41.88	77.87	97.2	124.8	145.2	151.4	140.2	1113.8
1991-1992	113.5	88.8	53.12	32.19	31.23	32.55	64.03	91.34	123.9	140.2	148.7	144.6	1064.2
1992-1993	113.1	88.23	52.23	29.95	34.42	37.84	71.5	94.56	120.1	145.4	153.7	144.9	1085.9
1993-1994	115.1	95.5	50.52	38.71	40.07	43.21	73.55	99.54	128.7	144.9	152.4	143.3	1125.5
1994-1995	118.8	91.06	48.85	30.57	36.5	44.76	75.07	94.06	129.2	147	154.5	142.7	1113.1
1995-1996	113.9	86.05	46.78	34.16	34.05	43.47	72.23	91.71	130.6	146.6	155.6	143.2	1098.3
1996-1997	113	83.98	55.37	40.37	39.16	39.61	67.78	87.54	128.9	146.1	156	137.6	1095.4
1997-1998	111.7	85.56	54.97	37.19	35.03	43.03	72.75	100	127.4	147.9	158.5	148	1121.9
1998-1999	115.6	90.07	57.95	39.3	40.75	43.44	76.89	97.83	133.7	148.1	159	145	1147.7
1999-2000	117.5	90.88	56.86	42.79	34.91	43.56	73.21	98.22	128.8	148.7	159.3	145.6	1140.2
2000-2001	118	87.48	58.33	39.08	39.92	45.41	83.08	98.97	130.9	147.2	156.4	144.6	1149.5
2001-2002	115.9	88.41	53.69	37	33.85	46.46	77.31	94.14	125.7	146.5	157.1	143.7	1119.7
2002-2003	115.1	88.73	58	35.45	42.19	40.34	70.95	96.41	136.3	148.6	159.5	148.2	1139.8
2003-2004	116.5	91.85	57.34	38.85	38.01	43.71	79.5	98.64	128.1	147.7	158.7	143.3	1142.3
2004-2005	117.8	92.64	55.81	35.55	38.66	42.05	76.76	97.87	128.5	144.5	156.8	144	1130.9
2005-2006	117.2	84.97	50.68	38.16	37.43	45.24	77.31	100.1	128.9	147.7	155.4	145.8	1128.9
2006-2007	116.9	87.11	50.65	34.5	36.52	44.1	75.46	94.95	129.8	149.2	158.9	144.7	1122.7
2007-2008	116.9	91.66	56.6	37.82	34.97	42.01	84.29	101.9	129.5	149.2	157.8	147.1	1149.9
2008-2009	115.4	87.02	57.99	39.32	39.62	45.6	74.84	98.01	128.3	150.1	157.1	144.4	1137.7
2009-2010	113.8	92.07	54.64	45.6	45.81	49.11	79.77	100	130	144.4	154	148.8	1158.0
2010-2011	118.3	90.24	61.16	44.77	40.02	45.25	76.18	95.47	125.9	145.4	156.2	145.4	1144.3
2011-2012	117.8	86.13	49.85	37.33	36.58	41.63	73.01	99	126.4	148.1	159.5	152.8	1128.1
2012-2013	122.6	96.03	63.81	44.74	43.27	51.47	83.2	105.4	137.8	151.8	161.3	152.1	1213.6
2013-2014	120.6	92.46	64.95	41.77	47.7	52.06	84.85	104.7	132	152.1	159.5	149.6	1202.4
2014-2015	120.2	92.7	59.62	47.87	42.14	47.86	82.77	100.4	135.1	147.9	161	151.9	1189.5
AVERAGE	115.9	88.8	54.8	38.5	38.1	43.7	75.5	97.4	128.7	146.5	156.0	144.8	

**Table A. 136 Tatlisu station Hamon results**

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.2	79.6	37.2	30.6	28.9	34.8	50.8	74.3	114.1	166.6	192.1	165.4	1089.5
1979-1980	117.5	75.5	47.0	29.0	25.0	27.7	45.4	67.5	113.7	171.9	206.3	190.7	1117.2
1980-1981	109.5	76.2	44.2	28.7	26.8	30.7	48.7	74.1	103.4	179.4	198.4	160.7	1080.8
1981-1982	116.8	84.6	36.7	33.0	27.7	26.1	41.4	68.6	109.1	166.6	185.3	181.1	1077.0
1982-1983	124.1	74.1	35.6	26.3	23.2	27.2	45.4	71.1	121.3	154.1	203.7	174.2	1080.4
1983-1984	117.6	69.6	45.1	31.2	30.2	34.3	49.8	66.9	122.9	169.7	204.9	163.1	1105.3
1984-1985	99.1	77.5	35.6	26.6	29.2	27.0	45.4	74.3	130.6	168.1	204.6	183.6	1101.6
1985-1986	114.1	64.6	42.3	28.0	27.1	31.7	49.7	82.7	107.3	170.0	197.4	167.2	1081.9
1986-1987	121.4	68.6	33.5	26.8	24.7	32.9	38.7	65.9	110.5	153.2	212.2	177.2	1065.6
1987-1988	113.3	64.4	38.3	27.4	26.3	29.2	43.2	74.5	124.9	167.2	228.9	181.2	1118.8
1988-1989	118.3	67.2	33.9	27.3	23.8	29.6	50.5	96.3	130.8	158.2	206.5	172.6	1115.1
1989-1990	111.8	69.2	41.5	30.1	24.9	30.2	48.4	73.9	115.9	158.4	186.3	173.2	1063.8
1990-1991	107.4	73.8	42.0	29.9	26.4	28.1	51.2	72.3	106.5	162.8	180.6	158.9	1039.9
1991-1992	108.5	75.0	38.4	23.7	21.7	20.8	34.1	60.0	104.1	138.5	166.5	184.3	975.4
1992-1993	107.7	72.4	37.0	21.8	23.6	24.5	42.7	67.1	91.9	164.7	194.4	185.0	1032.8
1993-1994	114.5	90.2	35.4	28.2	27.6	29.2	45.1	77.4	118.8	161.7	185.5	172.3	1086.1
1994-1995	127.7	78.1	33.0	22.0	24.8	31.1	47.8	66.7	122.7	172.8	199.6	171.9	1098.3
1995-1996	110.1	69.1	32.0	25.0	23.3	29.1	43.2	61.9	125.8	169.4	205.5	174.6	1069.0
1996-1997	107.3	65.7	40.8	29.9	27.3	26.2	38.0	54.2	119.3	167.7	206.7	148.1	1031.2
1997-1998	103.4	67.4	40.6	27.2	24.1	29.1	44.7	79.1	115.3	178.0	224.4	201.2	1134.7
1998-1999	116.2	77.3	44.6	29.0	28.7	29.5	50.3	74.9	140.0	182.4	230.8	186.1	1189.7
1999-2000	125.4	80.1	43.7	32.9	24.5	30.2	45.5	76.0	120.6	180.6	227.8	189.5	1176.7
2000-2001	127.1	72.8	45.6	29.1	28.2	31.8	60.0	77.3	129.0	174.0	210.0	183.4	1168.1
2001-2002	118.7	74.2	39.3	26.9	23.1	32.3	50.2	66.2	108.7	169.5	213.3	178.2	1100.7
2002-2003	116.0	75.3	45.4	26.1	30.1	27.0	42.9	73.5	152.7	184.1	232.5	205.8	1211.3
2003-2004	121.5	82.8	44.5	28.9	26.9	30.3	54.9	77.4	119.6	179.3	227.4	177.0	1170.5
2004-2005	127.1	84.3	42.1	26.0	26.9	28.5	49.5	74.3	120.8	161.6	216.5	181.0	1138.4
2005-2006	124.3	67.3	35.8	28.0	26.3	32.2	52.3	82.1	120.8	178.5	206.2	191.3	1145.1
2006-2007	122.2	71.5	35.9	25.1	25.5	30.2	48.4	68.6	124.9	186.7	228.6	184.5	1152.1
2007-2008	123.7	82.3	42.9	28.2	24.4	28.2	62.2	84.0	123.9	184.6	220.8	198.0	1203.3
2008-2009	116.5	70.6	44.5	29.3	27.3	31.6	47.7	75.4	118.9	189.0	213.4	180.9	1145.1
2009-2010	111.0	82.0	40.4	35.8	34.2	36.3	54.9	79.8	116.9	149.4	175.5	179.0	1095.1
2010-2011	117.3	74.6	48.2	34.7	29.5	33.5	51.1	71.0	109.3	153.2	184.8	166.4	1073.6
2011-2012	114.7	68.4	35.8	29.4	27.4	30.4	47.0	75.0	110.6	162.4	199.7	174.6	1075.4
2012-2013	113.1	73.9	43.7	31.4	28.9	35.4	53.0	78.3	124.6	153.6	180.9	167.8	1084.5
2013-2014	108.6	66.3	45.6	27.9	32.3	35.2	55.6	77.1	111.3	154.3	176.9	164.7	1056.0
2014-2015	110.0	70.2	40.2	33.7	28.5	32.6	53.5	69.7	115.6	142.7	182.6	170.8	1050.1
AVERAGE	115.7	74.0	40.2	28.5	26.7	30.1	48.2	73.2	118.3	167.2	203.2	177.4	

**Table A. 137 Tatlisu station Thronthwaite results**

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	139.0	95.7	33.0	24.0	18.2	25.8	31.6	55.8	87.1	159.9	193.2	166.3	1029.8
1979-1980	143.4	88.6	53.4	20.9	11.6	12.4	23.5	45.7	87.0	167.4	211.5	197.0	1062.4
1980-1981	135.3	93.4	49.4	21.2	15.2	18.6	29.6	58.0	77.2	183.8	209.7	167.3	1058.7
1981-1982	151.9	112.5	34.2	30.8	17.2	10.5	18.8	50.6	86.6	171.3	197.9	197.9	1080.2
1982-1983	171.8	95.9	33.4	17.5	9.7	12.9	26.1	57.1	106.4	160.7	232.0	197.1	1120.7
1983-1984	138.4	74.9	47.8	24.4	19.9	24.1	29.1	43.3	94.9	158.8	202.4	158.4	1016.4
1984-1985	118.6	97.2	31.6	17.1	19.9	11.8	24.7	59.2	112.7	171.2	220.7	198.5	1083.5
1985-1986	143.9	71.3	45.5	19.9	15.7	20.5	31.4	72.1	82.4	172.2	209.4	176.3	1060.5
1986-1987	174.0	88.0	29.8	19.4	12.8	25.7	16.2	50.2	95.7	166.0	253.8	209.4	1141.0
1987-1988	142.2	70.7	36.8	18.5	14.4	15.6	21.2	58.7	104.5	168.0	248.4	193.4	1092.4
1988-1989	147.4	74.5	27.1	18.1	9.9	16.0	31.9	91.7	109.4	152.6	215.7	178.7	1073.0
1989-1990	145.2	83.3	45.4	25.0	12.3	18.3	30.4	60.1	96.7	162.4	202.3	190.6	1071.9
1990-1991	142.2	95.7	48.2	25.3	15.6	14.7	36.3	59.5	87.1	174.3	201.2	177.5	1077.6
1991-1992	189.2	128.9	52.1	16.3	9.4	4.1	12.1	50.4	108.0	180.8	236.6	275.0	1263.1
1992-1993	164.3	107.0	42.2	10.3	12.0	9.5	25.1	58.0	76.4	203.4	253.6	243.5	1205.3
1993-1994	143.5	119.7	30.7	20.2	16.5	15.7	23.8	63.2	96.4	159.9	192.5	181.5	1063.5
1994-1995	173.1	101.0	26.8	9.1	12.1	20.1	29.4	48.2	105.4	182.1	219.9	188.7	1116.1
1995-1996	156.4	91.3	27.1	15.9	10.5	17.8	24.1	44.3	119.6	195.0	250.5	210.8	1163.3
1996-1997	156.2	86.7	49.8	27.8	18.9	12.4	16.1	32.3	114.2	199.3	261.2	178.2	1153.2
1997-1998	122.1	74.7	40.9	17.9	10.3	15.2	22.8	64.7	90.5	178.1	237.2	212.5	1086.8
1998-1999	122.1	79.6	42.0	18.2	15.7	13.5	26.9	49.6	103.3	156.7	208.6	166.8	1002.9
1999-2000	138.4	86.1	41.4	25.5	9.7	15.0	21.0	52.3	85.3	158.5	210.6	174.2	1017.9
2000-2001	137.3	72.1	43.8	18.4	14.8	17.2	40.4	52.6	91.9	147.3	186.9	163.7	986.4
2001-2002	152.3	90.2	39.3	17.8	9.0	21.9	32.4	45.9	84.6	172.1	230.5	190.8	1086.7
2002-2003	122.4	76.6	43.7	13.4	17.9	9.8	17.3	47.8	116.5	159.2	211.2	187.1	1022.7
2003-2004	131.7	89.6	42.4	18.3	13.1	14.9	33.8	53.7	83.4	155.7	208.2	159.7	1004.6
2004-2005	151.1	99.6	41.1	14.5	14.0	13.1	28.4	53.4	91.2	146.8	212.9	176.9	1042.9
2005-2006	147.2	69.9	29.0	18.1	13.2	19.7	32.5	65.1	91.5	167.8	201.6	188.8	1044.5
2006-2007	149.3	80.1	30.3	13.5	12.3	16.7	27.7	46.9	99.4	183.8	235.5	187.7	1083.1
2007-2008	129.2	85.2	38.0	16.4	9.0	11.1	42.5	60.1	84.7	155.0	193.2	174.1	998.5
2008-2009	132.7	74.3	45.1	20.2	14.6	18.3	25.3	54.2	87.7	177.0	206.2	174.1	1029.7
2009-2010	121.3	92.0	36.4	31.8	25.8	26.6	35.2	59.3	83.7	126.9	158.4	168.3	965.7
2010-2011	140.2	85.2	54.8	31.8	19.1	22.7	31.7	50.1	80.1	140.5	181.2	164.9	1002.3
2011-2012	150.3	81.5	32.8	23.4	16.9	18.8	28.0	61.9	89.6	167.8	220.1	192.2	1083.4
2012-2013	132.3	83.2	45.2	25.0	17.8	26.4	34.4	60.6	97.6	139.8	174.9	165.3	1002.4
2013-2014	132.4	73.4	52.0	19.4	25.3	27.5	40.5	62.2	86.4	148.8	179.7	170.6	1018.2
2014-2015	139.1	83.7	41.7	32.1	18.7	22.8	38.3	52.1	94.6	137.2	193.2	183.9	1037.4
AVERAGE	144.0	87.9	40.1	20.5	14.8	17.2	28.1	55.4	94.3	165.1	212.5	186.2	

**Table A. 138 Tatlisu station Hargreaves results**

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	186.9	180.5	140.5	138	130.2	122.4	138.6	148	169.9	186.9	203.2	202.1	1947.1
1979-1980	188.3	176.7	156.4	134.1	120.1	107.8	130.7	141.5	169.7	189.1	208.1	212.1	1934.7
1980-1981	183.4	177.4	152.3	133.5	124.9	114.5	135.6	147.8	163	192	205.4	200	1929.9
1981-1982	187.8	184.8	139.5	143.2	127.3	104.1	124.1	142.6	166.8	186.9	200.6	208.5	1916.3
1982-1983	192	175.5	137.6	127.2	114.9	106.7	130.6	145.1	174.3	181.6	207.3	205.7	1898.4
1983-1984	188.3	171	153.7	139.2	133.3	121.6	137.1	141	175.2	188.2	207.7	201.1	1957.4
1984-1985	176.6	178.6	137.6	127.9	131.2	106.3	130.6	148.1	179.5	187.6	207.6	209.5	1921.0
1985-1986	186.2	165.8	149.3	131.7	125.6	116.4	137.1	155.3	165.6	188.3	205.1	202.9	1929.2
1986-1987	190.4	170	133.3	128.6	119.2	118.8	119.5	139.9	167.7	181.2	210.1	207	1885.7
1987-1988	185.7	165.5	142.4	130	123.7	111.1	127.3	148.2	176.3	187.1	215.5	208.5	1921.5
1988-1989	188.7	168.5	134.2	129.9	116.5	112.1	138.1	165.7	179.6	183.4	208.3	205.1	1930.2
1989-1990	184.8	170.7	147.9	136.8	119.7	113.4	135.3	147.7	171	183.5	201.1	205.4	1917.2
1990-1991	182.1	175.1	148.8	136.1	124	108.8	139.2	146.3	165	185.3	198.8	199.3	1908.9
1991-1992	182.8	176.2	142.7	119.8	110	89.63	110.5	133.5	163.5	174.3	193.1	209.7	1805.7
1992-1993	182.2	173.9	140.2	113.9	116.1	100	126.3	141.1	154.7	186.1	204	210	1848.6
1993-1994	186.5	189.4	137.2	132.2	127	111.3	130.2	150.9	172.8	184.8	200.7	205	1927.8
1994-1995	193.9	179.1	132.4	114.8	119.3	115.3	134.4	140.8	175.1	189.4	205.9	204.8	1905.2
1995-1996	183.8	170.5	130.2	123.7	115	111.1	127.2	135.6	176.8	188	207.9	205.9	1875.8
1996-1997	182	167	146.8	136.2	126.2	104.5	118.1	126.6	173	187.4	208.3	194.3	1870.3
1997-1998	179.5	168.7	146.5	129.7	117.4	111.1	129.6	152.4	170.7	191.4	214.1	215.9	1927.0
1998-1999	187.5	178.4	152.8	134.1	129.9	111.9	137.8	148.7	184.3	193.1	216.1	210.4	1985.0
1999-2000	192.6	181	151.5	142.9	118.7	113.4	130.8	149.7	173.8	192.4	215.2	211.6	1973.6
2000-2001	193.6	174.2	154.5	134.4	128.5	116.7	150.3	150.7	178.6	189.9	209.4	209.3	1990.0
2001-2002	188.9	175.5	144.3	128.9	114.5	117.6	137.8	140.2	166.5	188.1	210.6	207.3	1920.2
2002-2003	187.3	176.6	154.2	126.5	133.1	106.3	126.6	147.3	190.5	193.7	216.6	217.5	1976.0
2003-2004	190.5	183.2	152.7	133.9	125.2	113.6	144.1	150.8	173.2	191.9	215.1	206.9	1981.1
2004-2005	193.6	184.5	148.9	126.3	125.1	109.6	136.9	148	173.9	184.9	211.6	208.4	1951.8
2005-2006	192	168.7	138	131.6	123.7	117.4	140.6	154.9	173.9	191.7	208.1	212.4	1953.1
2006-2007	190.9	172.9	138.2	124	121.5	113.4	135.1	142.6	176.3	194.7	215.5	209.8	1934.7
2007-2008	191.7	182.8	150.3	132.1	118.3	109	152.9	156.4	175.8	193.9	213	214.8	1991.1
2008-2009	187.7	172	152.7	134.8	126.3	116.3	134.2	149.1	172.9	195.6	210.6	208.4	1960.5
2009-2010	184.3	182.5	146.1	149	142.1	125.1	144.2	153	171.7	179.5	196.8	207.6	1981.9
2010-2011	188.1	175.9	158.2	146.8	131.8	119.9	139	145	166.9	181.2	200.5	202.5	1955.7
2011-2012	186.6	169.7	137.8	135	126.6	113.9	133.1	148.7	167.7	185.2	205.9	205.9	1916.2
2012-2013	185.6	175.2	151.4	139.7	130.2	123.5	141.6	151.6	176.2	181.4	198.9	203.1	1958.5
2013-2014	182.9	167.6	154.5	131.5	138.2	123.1	145	150.6	168.2	181.7	197.3	201.8	1942.3
2014-2015	183.7	171.6	145.8	144.7	129.4	118.2	142.3	143.7	170.9	176.3	199.6	204.4	1930.6
AVERAGE	187.0	175.1	145.5	132.5	124.4	112.9	134.4	146.7	172.2	187.0	206.9	206.9	

**Table A. 139 Tatlisu station Blaney-Criddle results**

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	143.5	66.67	47.28	44.07	42.82	43.72	54.44	120.3	148.1	168.8	180.4	168.9	1229.0
1979-1980	144.5	65.29	52.65	42.83	39.49	38.53	51.35	115	147.9	170.7	184.9	177.2	1230.4
1980-1981	140.8	65.52	51.24	42.63	41.08	40.9	53.27	120.2	142.1	173.3	182.4	167.2	1220.7
1981-1982	144.2	68.26	46.95	45.76	41.83	37.23	48.77	115.9	145.4	168.8	178.2	174.2	1215.5
1982-1983	147.4	64.81	46.28	40.62	37.76	38.1	51.33	117.9	151.9	164	184.1	171.9	1216.1
1983-1984	144.6	63.18	51.71	44.48	43.83	43.44	53.87	114.6	152.8	169.9	184.4	168	1234.8
1984-1985	135.6	65.96	46.3	40.86	43.13	37.96	51.31	120.4	156.5	169.3	184.4	175	1226.6
1985-1986	143	61.24	50.23	42.06	41.31	41.59	53.84	126.2	144.4	170	182.1	169.5	1225.5
1986-1987	146.2	62.79	44.84	41.07	39.2	42.45	46.91	113.7	146.2	163.6	186.7	172.9	1206.5
1987-1988	142.6	61.14	47.92	41.54	40.68	39.71	49.99	120.5	153.7	169	191.4	174.2	1232.4
1988-1989	144.9	62.26	45.16	41.51	38.34	40.04	54.28	134.7	156.6	165.6	184.9	171.4	1239.6
1989-1990	141.9	63.02	49.77	43.69	39.37	40.5	53.13	120	149.1	165.7	178.5	171.6	1216.3
1990-1991	139.8	64.68	50.07	43.5	40.77	38.85	54.68	118.9	143.9	167.4	176.6	166.5	1205.5
1991-1992	140.3	65.1	48.02	38.29	36.17	32.02	43.39	108.5	142.5	157.4	171.4	175.2	1158.4
1992-1993	140	64.21	47.16	36.39	38.16	35.73	49.63	114.7	134.9	168.1	181.1	175.4	1185.5
1993-1994	143.2	69.93	46.15	42.24	41.76	39.77	51.12	122.6	150.7	166.9	178.2	171.3	1223.9
1994-1995	148.9	66.17	44.53	36.65	39.26	41.17	52.79	114.4	152.6	171	182.8	171.1	1221.4
1995-1996	141.1	62.98	43.8	39.49	37.81	39.68	49.99	110.2	154.2	169.8	184.6	172	1205.7
1996-1997	139.8	61.66	49.39	43.51	41.5	37.31	46.43	102.9	150.9	169.2	185	162.4	1189.8
1997-1998	137.8	62.32	49.3	41.43	38.62	39.7	50.9	123.8	148.8	172.9	190.1	180.4	1236.2
1998-1999	143.9	65.91	51.44	42.84	42.71	40.01	54.16	120.8	160.7	174.3	191.9	175.8	1264.6
1999-2000	147.9	66.84	50.98	45.65	39.03	40.52	51.38	121.6	151.6	173.7	191.1	176.9	1257.2
2000-2001	148.6	64.32	51.96	42.94	42.25	41.72	59.06	122.5	155.7	171.4	186	174.9	1261.4
2001-2002	145.1	64.82	48.55	41.18	37.65	42.03	54.15	113.9	145.2	169.8	187	173.3	1222.6
2002-2003	143.9	65.21	51.86	40.43	43.76	37.98	49.75	119.7	166.1	174.9	192.4	181.7	1267.7
2003-2004	146.3	67.7	51.38	42.77	41.17	40.57	56.62	122.6	151	173.3	191	172.9	1257.3
2004-2005	148.6	68.17	50.1	40.34	41.14	39.18	53.75	120.3	151.6	166.9	187.9	174.2	1242.2
2005-2006	147.5	62.31	46.42	42.05	40.67	41.97	55.23	125.9	151.7	173	184.8	177.4	1248.9
2006-2007	146.6	63.86	46.48	39.59	39.95	40.52	53.1	115.9	153.7	175.8	191.3	175.3	1242.1
2007-2008	147.2	67.54	50.57	42.21	38.91	38.95	60.07	127.1	153.2	175.1	189.1	179.5	1269.6
2008-2009	144.1	63.53	51.38	43.07	41.53	41.58	52.7	121.1	150.7	176.6	187	174.1	1247.4
2009-2010	141.5	67.43	49.16	47.59	46.72	44.71	56.62	124.3	149.7	162.1	174.7	173.5	1238.1
2010-2011	144.4	64.99	53.22	46.89	43.33	42.85	54.63	117.8	145.5	163.6	178	169.2	1224.5
2011-2012	143.3	62.71	46.38	43.12	41.62	40.69	52.29	120.9	146.2	167.2	182.8	172	1219.3
2012-2013	142.5	64.73	50.95	44.63	42.81	44.13	55.64	123.2	153.6	163.8	176.6	169.7	1232.3
2013-2014	140.4	61.9	51.98	42	45.44	43.99	56.95	122.4	146.7	164.1	175.2	168.6	1219.6
2014-2015	141.1	63.4	49.06	46.22	42.55	42.23	55.9	116.8	149	159.2	177.2	170.8	1213.4
AVERAGE	143.6	64.7	48.9	42.3	40.9	40.3	52.8	119.2	150.1	168.8	183.7	172.9	

**Table A. 140 Tatlisu station Rs results**

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	117.6	94.14	53.97	43.33	42.64	49.71	77.72	97.83	126.9	146.5	154.8	143.2	1148.3
1979-1980	118.4	92.03	62.89	41.15	36.99	41.55	73.29	94.2	126.8	147.7	157.6	148.8	1141.4
1980-1981	115.6	92.42	60.58	40.8	39.7	45.29	76.08	97.72	123.1	149.3	156	142	1138.7
1981-1982	118.1	96.56	53.42	46.28	41	39.49	69.62	94.78	125.2	146.5	153.4	146.8	1131.1
1982-1983	120.4	91.33	52.33	37.29	34.06	40.91	73.27	96.2	129.4	143.5	157.1	145.2	1121.1
1983-1984	118.4	88.85	61.34	44.04	44.39	49.29	76.9	93.87	129.9	147.2	157.3	142.6	1154.1
1984-1985	111.8	93.06	52.35	37.69	43.19	40.68	73.27	97.87	132.3	146.9	157.3	147.3	1133.7
1985-1986	117.2	85.88	58.9	39.81	40.08	46.37	76.87	101.9	124.5	147.3	155.8	143.6	1138.3
1986-1987	119.6	88.24	49.93	38.07	36.49	47.72	67	93.26	125.7	143.3	158.7	145.9	1113.9
1987-1988	116.9	85.74	55.05	38.88	39	43.4	71.4	97.93	130.6	146.6	161.7	146.7	1134.0
1988-1989	118.6	87.42	50.45	38.83	35	43.93	77.47	107.7	132.4	144.5	157.6	144.9	1138.9
1989-1990	116.4	88.62	58.11	42.7	36.79	44.66	75.87	97.65	127.6	144.6	153.6	145	1131.6
1990-1991	114.9	91.13	58.63	42.31	39.17	42.09	78.05	96.85	124.2	145.6	152.3	141.6	1126.9
1991-1992	115.3	91.76	55.21	33.18	31.3	31.36	61.96	89.69	123.4	139.4	149.1	147.4	1069.1
1992-1993	115	90.43	53.78	29.87	34.74	37.19	70.87	93.96	118.4	146.1	155.2	147.6	1093.1
1993-1994	117.4	99.11	52.09	40.1	40.83	43.49	73.01	99.44	128.6	145.3	153.4	144.8	1137.5
1994-1995	121.5	93.38	49.42	30.35	36.56	45.72	75.38	93.76	129.9	147.9	156.3	144.7	1124.8
1995-1996	115.9	88.55	48.18	35.31	34.13	43.37	71.37	90.87	130.8	147.1	157.4	145.3	1108.4
1996-1997	114.8	86.55	57.47	42.34	40.42	39.68	66.27	85.82	128.7	146.8	157.7	138.8	1105.3
1997-1998	113.4	87.56	57.35	38.68	35.49	43.39	72.68	100.3	127.4	149	160.9	150.9	1137.1
1998-1999	117.9	92.98	60.88	41.17	42.46	43.85	77.31	98.2	135	149.9	162	147.8	1169.6
1999-2000	120.8	94.41	60.14	46.07	36.19	44.68	73.34	98.76	129.2	149.6	161.5	148.5	1163.2
2000-2001	121.3	90.59	61.78	41.35	41.67	46.54	84.3	99.34	131.8	148.2	158.3	147.2	1172.4
2001-2002	118.7	91.33	56.08	38.26	33.85	47.03	77.29	93.43	125.1	147.2	158.9	146.1	1133.3
2002-2003	117.8	91.93	61.62	36.91	44.25	40.69	71.01	97.41	138.5	150.3	162.3	151.8	1164.5
2003-2004	119.6	95.67	60.8	41.06	39.84	44.79	80.81	99.4	128.8	149.3	161.4	145.8	1167.4
2004-2005	121.3	96.39	58.67	36.8	39.81	42.56	76.77	97.82	129.2	145.3	159.5	146.7	1151.0
2005-2006	120.5	87.53	52.55	39.77	39.01	46.94	78.85	101.7	129.2	149.2	157.6	148.9	1151.7
2006-2007	119.8	89.9	52.66	35.48	37.76	44.7	75.78	94.77	130.5	150.8	161.7	147.5	1141.4
2007-2008	120.3	95.45	59.46	40.06	35.99	42.21	85.75	102.5	130.2	150.4	160.3	150.3	1173.0
2008-2009	118	89.4	60.78	41.56	40.47	46.33	75.27	98.42	128.6	151.4	158.9	146.7	1155.9
2009-2010	116.1	95.28	57.09	49.52	49.29	51.26	80.86	100.6	128	142.4	151.2	146.3	1167.9
2010-2011	118.3	91.59	63.86	48.27	43.53	48.33	77.98	96.13	125.3	143.3	153.2	143.4	1153.2
2011-2012	117.4	88.12	52.47	41.66	40.61	44.95	74.65	98.23	125.7	145.5	156.3	145.3	1131.0
2012-2013	116.9	91.19	60.09	44.32	42.63	50.35	79.44	99.85	130.5	143.4	152.4	143.7	1154.7
2013-2014	115.3	86.92	61.8	39.71	47.11	50.12	81.3	99.28	126	143.6	151.5	143	1145.7
2014-2015	115.8	89.18	56.94	47.1	42.18	47.35	79.8	95.41	127.5	140.6	152.8	144.4	1139.1
AVERAGE	117.7	91.1	56.7	40.3	39.4	44.4	75.4	97.1	128.2	146.5	156.8	145.9	

**Table A. 141** Vadili station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	111.2	77.7	37.7	31.3	28.3	35.5	54.5	77.7	123.3	180.4	211.7	167.9	1137.4
1979-1980	123.1	77.2	45.9	29.1	26.2	30.4	49.0	73.3	119.0	171.1	200.0	182.6	1126.8
1980-1981	112.3	76.8	46.0	30.5	28.0	31.8	54.3	78.2	109.4	176.3	206.9	181.7	1132.2
1981-1982	124.4	85.1	38.3	32.2	29.7	28.8	45.2	77.7	122.9	169.9	190.2	178.1	1122.4
1982-1983	127.1	78.5	38.4	27.9	25.4	29.5	47.5	75.7	125.4	159.8	196.7	170.6	1102.5
1983-1984	116.4	72.6	45.9	32.1	30.5	35.2	52.8	72.4	138.8	166.0	198.5	167.0	1128.3
1984-1985	109.2	72.3	39.2	27.1	30.7	28.7	51.1	77.2	130.8	167.7	196.8	222.1	1153.1
1985-1986	144.0	80.1	54.1	36.2	30.8	36.0	56.6	92.0	114.8	174.6	200.4	177.2	1196.8
1986-1987	124.9	72.2	36.8	28.8	30.2	35.8	42.5	70.5	115.1	165.6	209.1	179.4	1111.0
1987-1988	119.5	68.7	39.3	28.8	27.4	30.8	47.3	76.9	128.4	173.4	232.6	191.0	1164.2
1988-1989	122.4	71.5	36.3	28.1	24.4	29.9	52.3	95.1	135.1	165.1	210.7	172.7	1143.6
1989-1990	117.6	69.0	42.1	29.4	25.4	31.3	51.8	78.7	125.8	168.9	202.1	180.8	1122.9
1990-1991	116.8	79.3	46.1	31.6	27.8	30.8	55.1	79.8	123.5	171.2	200.9	177.4	1140.3
1991-1992	119.2	77.7	41.0	25.4	23.7	24.6	43.2	73.3	112.7	159.0	188.8	183.6	1072.1
1992-1993	115.9	79.3	41.2	24.8	25.8	27.7	50.7	75.4	113.1	178.4	210.8	187.4	1130.4
1993-1994	121.2	92.5	40.3	32.5	32.4	33.7	52.9	82.7	130.3	181.6	206.3	192.8	1199.0
1994-1995	139.4	91.2	41.0	27.4	29.5	34.7	53.8	73.4	126.0	176.3	205.5	178.4	1176.6
1995-1996	120.3	71.5	34.3	27.7	27.2	33.0	47.9	68.1	128.1	174.4	204.5	179.2	1116.2
1996-1997	113.3	66.7	44.9	33.4	30.3	28.8	46.0	65.6	123.8	170.5	208.3	159.5	1091.2
1997-1998	109.2	71.6	43.3	30.2	27.7	33.2	47.5	81.5	120.4	174.8	211.6	195.1	1146.2
1998-1999	122.1	79.8	47.6	31.6	31.2	34.7	55.7	79.7	142.9	171.1	220.7	190.0	1207.1
1999-2000	126.4	80.1	43.1	32.7	25.8	31.9	48.7	79.7	127.8	194.1	224.7	186.8	1201.9
2000-2001	121.1	72.9	43.8	29.9	29.7	33.3	60.9	82.0	130.2	177.2	206.2	182.2	1169.5
2001-2002	118.7	77.2	41.4	29.8	26.1	35.5	55.4	75.4	123.2	181.8	221.4	183.2	1169.1
2002-2003	117.7	77.0	45.0	28.1	31.7	28.3	44.4	71.9	143.7	179.3	223.3	195.5	1186.0
2003-2004	120.9	79.7	44.1	31.0	27.5	31.3	53.7	77.6	119.3	171.1	213.2	180.5	1150.0
2004-2005	120.6	84.2	43.4	29.1	30.7	31.8	53.0	79.8	125.0	167.9	208.7	181.7	1155.8
2005-2006	123.4	70.4	38.3	30.6	27.4	32.6	52.3	81.8	130.0	182.0	212.8	191.6	1173.2
2006-2007	130.1	77.4	38.8	28.8	27.3	32.9	51.1	73.9	131.1	187.7	223.3	189.3	1191.7
2007-2008	123.1	82.3	44.1	29.0	26.1	30.5	61.3	87.0	126.5	189.0	218.8	194.5	1212.3
2008-2009	123.0	78.0	48.4	31.0	30.7	33.7	49.7	79.0	126.4	194.6	222.2	193.2	1209.8
2009-2010	119.7	87.2	43.9	33.3	32.0	35.6	57.8	85.6	132.1	160.9	190.2	190.1	1168.4
2010-2011	120.3	73.5	44.0	31.8	27.4	30.2	47.1	69.0	112.2	163.5	198.3	176.0	1093.2
2011-2012	115.7	65.2	33.7	26.5	25.0	26.9	44.0	75.8	115.7	173.0	216.5	185.0	1102.9
2012-2013	115.9	73.1	42.9	28.9	26.2	32.0	51.6	78.8	132.8	170.1	198.7	182.5	1133.5
2013-2014	112.2	65.9	44.3	26.3	30.4	32.5	53.4	79.3	116.6	169.6	194.4	176.3	1101.2
2014-2015	113.8	68.5	37.8	31.1	25.7	29.6	50.0	69.5	122.4	154.6	196.3	184.3	1083.9
AVERAGE	120.3	76.3	42.1	29.8	28.2	31.7	51.1	77.6	125.0	173.3	207.6	183.4	

**Table A. 142** Vadili station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	132.3	88.9	33.2	24.3	16.1	25.6	36.3	69.4	102.3	184.0	217.4	176.1	1105.7
1979-1980	157.8	91.0	52.5	20.6	13.0	16.4	28.5	62.9	99.8	177.2	209.7	202.1	1131.4
1980-1981	134.6	87.6	51.2	22.7	15.6	18.5	36.0	70.7	83.9	179.0	212.1	194.8	1106.7
1981-1982	159.6	105.4	35.5	27.0	19.0	13.5	22.3	71.9	104.9	175.0	196.2	195.5	1125.9
1982-1983	176.7	100.0	38.4	19.5	12.4	15.9	27.9	73.3	116.2	172.4	219.9	198.9	1171.6
1983-1984	138.4	78.1	49.8	25.5	19.7	24.5	32.9	57.4	120.5	161.0	197.0	171.6	1076.5
1984-1985	131.7	80.8	37.1	16.6	20.7	13.3	31.4	70.0	114.6	170.1	202.8	249.9	1138.9
1985-1986	152.6	76.4	56.1	28.2	16.9	21.6	32.5	79.4	74.7	143.8	166.3	154.5	1003.2
1986-1987	168.9	85.5	34.0	21.1	21.1	28.5	19.3	60.1	98.9	177.6	232.3	207.3	1154.4
1987-1988	148.7	73.5	36.9	19.8	14.8	16.9	25.2	68.9	110.6	177.0	246.7	209.2	1148.1
1988-1989	156.4	80.3	31.2	18.6	10.0	15.6	33.8	110.2	121.7	168.4	223.3	188.4	1157.8
1989-1990	151.2	77.1	44.9	21.6	11.9	18.5	33.6	75.8	111.2	177.4	216.6	203.5	1143.3
1990-1991	138.1	89.4	49.9	24.2	14.8	16.2	36.3	71.6	99.9	166.7	198.4	183.7	1089.2
1991-1992	179.6	109.1	49.4	16.1	10.6	8.2	23.1	76.0	107.7	189.8	231.2	240.9	1241.9
1992-1993	151.7	99.2	43.7	13.0	12.9	12.2	32.5	70.5	95.5	195.9	233.6	217.6	1178.3
1993-1994	129.1	100.1	33.4	23.2	20.4	19.0	29.1	67.9	97.1	160.6	182.6	181.0	1043.4
1994-1995	165.0	104.1	36.8	15.4	16.8	22.1	32.2	55.2	97.5	164.1	192.9	175.0	1077.1
1995-1996	163.6	85.9	28.9	19.1	15.7	23.0	28.5	56.2	119.9	194.5	230.4	211.0	1176.7
1996-1997	150.8	76.3	53.8	31.7	21.7	14.5	25.5	51.1	113.8	189.0	236.2	182.5	1146.9
1997-1998	129.7	78.2	45.4	22.3	15.2	21.1	25.3	77.8	98.9	177.4	218.5	212.6	1122.5
1998-1999	128.3	79.1	46.4	21.3	18.3	20.4	32.5	61.5	109.7	145.8	194.9	175.0	1033.1
1999-2000	143.5	84.9	40.6	24.8	10.8	17.0	24.6	66.1	98.6	184.0	212.3	182.8	1090.1
2000-2001	137.7	74.1	42.5	19.9	17.2	19.7	43.3	71.7	103.3	166.0	194.6	180.4	1070.5
2001-2002	138.7	84.2	39.1	20.5	11.9	24.5	36.0	61.4	97.8	177.7	219.4	187.8	1099.0
2002-2003	136.6	83.5	46.5	17.2	21.2	11.7	19.6	54.7	123.3	174.0	221.0	202.1	1111.5
2003-2004	144.9	90.1	45.6	23.1	14.3	17.0	34.1	67.2	94.5	166.6	213.5	187.7	1098.6
2004-2005	140.9	95.8	42.9	19.0	19.4	17.5	32.1	69.6	99.6	158.6	203.3	184.8	1083.5
2005-2006	147.5	72.9	33.2	22.2	14.0	19.1	31.4	74.9	107.4	179.6	211.1	199.8	1113.1
2006-2007	154.9	83.4	33.3	18.3	13.6	19.4	29.1	57.7	106.4	182.9	218.7	192.6	1110.2
2007-2008	134.2	85.7	41.2	17.4	11.0	14.1	41.8	77.1	94.2	172.3	199.4	185.9	1074.4
2008-2009	132.6	78.0	48.9	20.8	17.8	19.1	24.8	61.7	93.1	177.0	201.0	182.5	1057.5
2009-2010	129.0	93.3	40.8	25.1	20.0	22.6	36.7	74.4	100.6	138.1	167.4	180.7	1028.6
2010-2011	162.7	89.4	51.2	27.9	15.9	17.2	26.9	57.8	96.0	176.8	220.4	205.2	1147.4
2011-2012	169.1	79.5	30.1	18.1	12.8	12.1	24.1	80.8	110.5	209.7	269.1	238.6	1254.5
2012-2013	143.7	82.3	45.2	20.1	12.8	19.2	32.2	73.5	117.4	173.8	205.7	199.6	1125.5
2013-2014	144.6	72.5	51.0	15.9	21.3	21.3	37.2	79.0	100.4	182.3	210.7	201.6	1137.7
2014-2015	158.6	83.5	38.7	27.8	13.6	16.9	33.7	62.4	116.6	171.7	229.0	228.2	1180.6
AVERAGE	147.7	85.9	42.2	21.3	15.8	18.2	30.6	68.9	104.3	174.0	212.3	196.5	

**Table A. 143** Vadili station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	184.6	178.9	141.5	139.5	128.9	123.8	143.7	151.2	175.5	192.5	210.1	203.3	1973.5
1979-1980	191.4	178.4	155	134.4	123.5	113.8	136.2	147.2	173	188.9	206.2	209.2	1957.1
1980-1981	185.2	178.1	155.2	137.6	128.1	116.8	143.3	151.6	167	190.9	208.5	208.8	1971.4
1981-1982	192.2	185.2	142.6	141.6	132.2	110.4	130.4	151.2	175.3	188.4	202.6	207.4	1959.6
1982-1983	193.7	179.6	142.8	131.3	121.2	112	134	149.4	176.7	184.2	204.9	204.4	1934.2
1983-1984	187.7	174.1	155	141.4	134.2	123.2	141.5	146.4	183.9	186.7	205.6	202.9	1982.5
1984-1985	183.4	173.8	144.2	129.5	134.6	110.3	139	150.8	179.6	187.5	205	223	1960.7
1985-1986	202.2	181.1	166.1	149.8	134.8	124.6	146.3	162.7	170.4	190.2	206.3	207	2041.6
1986-1987	192.5	173.7	140	133.8	133.5	124.3	126	144.6	170.7	186.6	209.3	208	1942.9
1987-1988	189.5	170.2	144.3	133.8	126.6	114.7	133.7	150.5	178.3	189.8	216.8	212.4	1960.6
1988-1989	191.1	173.1	138.9	132	118.3	112.9	140.8	165	181.9	186.4	209.8	205.3	1955.5
1989-1990	188.4	170.5	149.1	135.1	121.4	115.8	140.1	152	176.9	188	206.9	208.5	1952.6
1990-1991	187.9	180.3	155.3	140.2	127.5	114.8	144.5	153.1	175.6	188.9	206.4	207.2	1981.5
1991-1992	189.3	178.8	147.3	124.9	116.5	100.3	127.2	147.2	169.2	183.9	202.1	209.6	1896.2
1992-1993	187.4	180.3	147.5	123.1	122.5	107.9	138.5	149.2	169.4	191.7	209.8	211	1938.4
1993-1994	190.4	191.1	146.1	142.2	138.4	120.3	141.5	155.4	179.4	192.9	208.3	213.1	2019.2
1994-1995	200	190.2	147.2	130.1	131.9	122.3	142.7	147.3	177	191	208	207.6	1995.2
1995-1996	189.9	173.1	135.1	130.9	126.2	119.2	134.5	142.2	178.2	190.1	207.7	207.9	1935.1
1996-1997	185.8	168.2	153.4	144	133.7	110.3	131.7	139.7	175.8	188.6	209	199.7	1940.0
1997-1998	183.3	173.1	151	137.1	127.4	119.5	134	154.5	173.8	190.3	210.1	213.9	1968.0
1998-1999	191	180.8	157.5	140.3	135.9	122.3	145.2	153	185.9	188.8	213.1	211.9	2025.6
1999-2000	193.3	181	150.7	142.7	122.3	117	135.7	152.9	178	197.5	214.4	210.8	1996.3
2000-2001	190.3	174.3	151.7	136.4	132.4	119.7	151.5	154.9	179.4	191.2	208.3	209.1	1999.2
2001-2002	189	178.4	147.9	136.2	123.3	123.8	144.7	149.2	175.4	193	213.3	209.5	1983.7
2002-2003	188.4	178.2	153.7	131.9	136.9	109.4	129.2	145.9	186.3	192.1	213.9	214	1979.9
2003-2004	190.3	180.7	152.3	138.9	126.7	115.7	142.7	151.2	173.2	188.9	210.6	208.3	1979.6
2004-2005	190.1	184.5	151	134.5	134.7	116.7	141.6	153	176.5	187.6	209.1	208.8	1988.2
2005-2006	191.7	171.9	142.7	138.1	126.6	118.2	140.7	154.7	179.2	193.1	210.5	212.6	1980.0
2006-2007	195.3	178.6	143.4	133.7	126.5	119	139.1	147.8	179.8	195.2	213.9	211.7	1984.1
2007-2008	191.5	182.9	152.2	134.1	123.3	114.1	151.9	159	177.3	195.6	212.5	213.7	2008.2
2008-2009	191.4	179.1	158.5	139	134.6	120.4	137.1	152.3	177.3	197.7	213.5	213.2	2014.1
2009-2010	189.6	187	152	144	137.4	123.9	147.9	157.8	180.4	184.7	202.6	212	2019.1
2010-2011	189.9	175	152	140.7	126.6	113.5	133.3	143.1	168.9	185.7	205.5	206.6	1940.8
2011-2012	187.2	166.5	133.9	127.7	120.3	106.1	128.6	149.6	171	189.6	211.7	210.1	1902.2
2012-2013	187.4	174.5	150.3	134	123.4	117.1	139.8	152.2	180.7	188.5	205.7	209.1	1962.8
2013-2014	185.2	167.2	152.6	127.3	134	118.1	142.2	152.6	171.6	188.2	204.1	206.7	1949.8
2014-2015	186.1	170	141.7	139.2	122.2	112.3	137.6	143.6	175	181.9	204.8	209.8	1924.4
AVERAGE	189.8	177.4	148.7	136.0	128.4	116.3	138.9	150.9	176.3	189.6	208.7	209.4	

**Table A. 144** Vadili station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	141.6	66.04	47.61	44.53	42.38	44.22	56.41	122.8	152.9	173.7	186.5	169.7	1248.6
1979-1980	146.9	65.86	52.11	42.9	40.61	40.63	53.48	119.6	150.7	170.4	182.9	174.7	1240.9
1980-1981	142.1	65.75	52.18	43.95	42.12	41.7	56.28	123.2	145.5	172.3	185.1	174.4	1244.6
1981-1982	147.5	68.39	47.95	45.2	43.46	39.43	51.19	122.8	152.8	170	179.8	173.2	1241.7
1982-1983	148.6	66.29	48.02	41.93	39.83	40	52.6	121.4	154	166.2	181.9	170.7	1231.5
1983-1984	144	64.26	52.12	45.13	44.13	44.02	55.54	118.9	160.2	168.5	182.5	169.4	1248.8
1984-1985	140.7	64.18	48.5	41.35	44.23	39.39	54.61	122.5	156.6	169.2	181.9	186.2	1249.3
1985-1986	155.2	66.84	55.88	47.82	44.32	44.5	57.46	132.2	148.5	171.7	183	172.9	1280.3
1986-1987	147.7	64.11	47.05	42.7	43.9	44.4	49.47	117.4	148.7	168.4	185.7	173.7	1233.3
1987-1988	145.4	62.82	48.52	42.72	41.62	40.97	52.48	122.3	155.4	171.2	192.4	177.3	1253.2
1988-1989	146.6	63.89	46.71	42.13	38.88	40.32	55.28	134	158.5	168.2	186.2	171.4	1252.2
1989-1990	144.6	62.95	50.14	43.12	39.89	41.34	54.99	123.5	154.2	169.6	183.6	174.1	1242.0
1990-1991	144.2	66.57	52.22	44.76	41.92	40.98	56.72	124.3	153	170.4	183.2	173	1251.4
1991-1992	145.2	66.04	49.53	39.85	38.29	35.82	49.94	119.6	147.4	165.9	179.3	175	1211.9
1992-1993	143.8	66.57	49.6	39.31	40.25	38.54	54.37	121.2	147.6	173	186.2	176.2	1236.6
1993-1994	146.1	70.57	49.12	45.4	45.5	42.99	55.55	126.3	156.3	174.1	184.9	177.9	1274.7
1994-1995	153.5	70.2	49.5	41.56	43.36	43.69	56.02	119.6	154.2	172.3	184.6	173.3	1261.9
1995-1996	145.7	63.89	45.4	41.79	41.47	42.56	52.81	115.5	155.3	171.6	184.3	173.6	1233.9
1996-1997	142.6	62.08	51.59	46	43.96	39.4	51.72	113.5	153.2	170.2	185.5	166.7	1226.4
1997-1998	140.7	63.9	50.78	43.76	41.87	42.65	52.6	125.5	151.5	171.7	186.5	178.6	1250.0
1998-1999	146.5	66.73	52.95	44.8	44.65	43.69	56.98	124.3	162	170.4	189.1	177	1279.1
1999-2000	148.3	66.84	50.67	45.55	40.21	41.79	53.29	124.3	155.1	178.2	190.2	176	1270.5
2000-2001	146.1	64.37	51.01	43.54	43.5	42.76	59.47	125.8	156.3	172.6	184.8	174.6	1264.8
2001-2002	145.1	65.87	49.73	43.47	40.52	44.2	56.84	121.1	152.9	174.2	189.3	174.9	1258.0
2002-2003	144.6	65.79	51.66	42.12	45	39.05	50.73	118.5	162.4	173.3	189.8	178.7	1261.7
2003-2004	146	66.7	51.21	44.35	41.66	41.29	56	122.8	150.9	170.4	186.9	174	1252.3
2004-2005	145.9	68.14	50.8	42.93	44.26	41.69	55.61	124.3	153.8	169.3	185.6	174.4	1256.6
2005-2006	147.1	63.47	47.98	44.09	41.6	42.23	55.23	125.7	156.2	174.2	186.8	177.5	1262.1
2006-2007	149.9	65.94	48.22	42.67	41.56	42.49	54.63	120	156.7	176.1	189.8	176.8	1264.8
2007-2008	147	67.54	51.19	42.81	40.52	40.76	59.64	129.1	154.5	176.6	188.6	178.4	1276.6
2008-2009	146.9	66.13	53.3	44.38	44.25	43	53.82	123.7	154.5	178.4	189.5	178	1275.8
2009-2010	145.5	69.04	51.09	45.97	45.18	44.24	58.03	128.2	157.2	166.6	179.8	177.1	1267.9
2010-2011	145.7	64.6	51.12	44.91	41.6	40.53	52.32	116.2	147.1	167.6	182.4	172.5	1226.7
2011-2012	143.7	61.45	45.01	40.77	39.52	37.86	50.49	121.5	149	171.1	187.9	175.4	1223.7
2012-2013	143.8	64.44	50.55	42.79	40.57	41.82	54.87	123.6	157.5	170.1	182.5	174.6	1247.2
2013-2014	142.1	61.74	51.29	40.65	44.03	42.17	55.85	123.9	149.5	169.9	181.1	172.6	1234.9
2014-2015	142.8	62.77	47.66	44.45	40.16	40.09	54.03	116.7	152.5	164.2	181.8	175.2	1222.3
AVERAGE	145.7	65.5	50.0	43.4	42.2	41.5	54.5	122.6	153.6	171.1	185.2	174.9	

**Table A. 145** Vadili station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	120.1	96.14	56.4	45.64	43.62	52.47	83.89	103.6	135.1	155	164.1	148.7	1204.8
1979-1980	124	95.86	63.91	42.8	40.59	46.87	79.68	101.4	133.7	153	161.9	152	1195.6
1980-1981	120.5	95.71	64.05	44.63	43.16	48.55	83.67	103.8	130.3	154.1	163.2	151.8	1203.6
1981-1982	124.4	99.69	56.99	46.83	45.45	44.97	76.44	103.6	135	152.7	159.9	151	1197.0
1982-1983	125.3	96.52	57.13	41.07	39.28	45.86	78.43	102.6	135.7	150.4	161.2	149.3	1182.7
1983-1984	121.9	93.45	63.95	46.72	46.59	52.16	82.62	100.9	139.7	151.8	161.6	148.5	1209.8
1984-1985	119.5	93.29	57.89	40.07	46.79	44.92	81.26	103.4	137.4	152.2	161.2	159.7	1197.6
1985-1986	130	97.37	70.16	51.41	46.91	52.94	85.33	110	132.2	153.8	162	150.8	1242.9
1986-1987	124.6	93.22	55.51	42.46	46.19	52.77	73.96	99.87	132.4	151.7	163.6	151.3	1187.6
1987-1988	122.9	91.26	57.96	42.46	42.33	47.4	78.27	103.2	136.7	153.5	167.8	153.8	1197.6
1988-1989	123.8	92.89	54.92	41.45	37.67	46.38	82.24	111.3	138.7	151.6	163.9	149.8	1194.7
1989-1990	122.3	91.45	60.63	43.21	39.38	47.98	81.84	104.1	135.9	152.5	162.3	151.6	1193.1
1990-1991	122	96.93	64.09	46.04	42.83	47.41	84.3	104.6	135.1	153	162	150.9	1209.2
1991-1992	122.8	96.11	59.64	37.46	36.63	39.32	74.63	101.4	131.5	150.2	159.6	152.2	1161.4
1992-1993	121.7	96.95	59.75	36.49	40	43.59	80.96	102.4	131.7	154.6	163.9	153	1185.1
1993-1994	123.4	103	58.94	47.16	48.93	50.53	82.65	106	137.3	155.2	163.1	154.2	1230.4
1994-1995	128.8	102.5	59.55	40.43	45.28	51.65	83.33	101.4	135.9	154.1	162.9	151.1	1216.9
1995-1996	123.1	92.87	52.77	40.85	42.08	49.9	78.74	98.56	136.6	153.7	162.8	151.3	1183.2
1996-1997	120.8	90.15	63.04	48.21	46.3	44.93	77.18	97.13	135.2	152.8	163.5	146.7	1186.0
1997-1998	119.5	92.89	61.72	44.32	42.77	50.05	78.42	105.4	134.1	153.8	164.1	154.6	1201.7
1998-1999	123.7	97.2	65.31	46.14	47.5	51.65	84.69	104.6	140.9	153	165.8	153.5	1233.9
1999-2000	125	97.35	61.5	47.43	39.9	48.66	79.41	104.6	136.5	157.8	166.5	152.9	1217.5
2000-2001	123.4	93.6	62.09	43.92	45.54	50.2	88.23	105.7	137.2	154.3	163.1	151.9	1219.2
2001-2002	122.6	95.87	59.96	43.81	40.44	52.46	84.46	102.4	135	155.3	165.9	152.2	1210.5
2002-2003	122.3	95.77	63.19	41.43	48.08	44.38	75.76	100.6	141.1	154.8	166.2	154.7	1208.4
2003-2004	123.4	97.16	62.41	45.36	42.38	47.92	83.3	103.6	133.8	153	164.4	151.5	1208.1
2004-2005	123.2	99.29	61.7	42.84	46.85	48.52	82.72	104.6	135.6	152.2	163.6	151.8	1213.0
2005-2006	124.1	92.25	57.04	44.87	42.29	49.36	82.18	105.6	137.2	155.3	164.3	153.9	1208.4
2006-2007	126.2	96	57.43	42.42	42.23	49.8	81.33	101.7	137.5	156.5	166.2	153.4	1210.7
2007-2008	124	98.41	62.4	42.65	40.48	47.06	88.45	107.9	136.1	156.8	165.4	154.5	1224.2
2008-2009	124	96.28	65.9	45.37	46.81	50.56	80.17	104.2	136.1	157.9	166	154.2	1227.5
2009-2010	122.9	100.7	62.24	48.16	48.37	52.52	86.21	107.3	137.8	150.6	159.9	153.6	1230.3
2010-2011	123.1	93.96	62.29	46.32	42.29	46.71	78.04	99.06	131.4	151.2	161.5	150.5	1186.5
2011-2012	121.6	89.17	52.12	39.08	38.75	42.53	75.41	102.7	132.6	153.4	165	152.5	1164.8
2012-2013	121.7	93.7	61.32	42.6	40.54	48.72	81.67	104.1	138	152.8	161.6	152	1198.8
2013-2014	120.5	89.62	62.57	38.85	46.42	49.28	83.06	104.4	132.9	152.6	160.7	150.6	1191.5
2014-2015	121	91.18	56.51	45.51	39.84	46.02	80.47	99.35	134.8	149.1	161.1	152.4	1177.3
AVERAGE	123.1	95.3	60.4	43.7	43.3	48.3	81.2	103.4	135.5	153.4	163.3	152.1	

**Table A. 146** Yeni Erenkoy station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	103.5	77.5	36.2	29.6	28.4	34.1	50.2	69.3	105.9	153.3	176.4	143.4	1007.9
1979-1980	102.1	70.5	43.2	28.6	24.8	30.1	45.0	62.1	93.4	141.2	151.9	137.9	930.8
1980-1981	97.2	61.0	39.7	29.1	27.1	30.5	51.2	71.0	95.1	150.0	182.2	157.8	991.9
1981-1982	110.2	75.4	36.1	31.6	29.2	27.8	43.4	68.0	106.5	149.4	172.9	161.8	1012.1
1982-1983	116.5	73.6	36.5	26.8	23.7	28.3	44.3	68.0	109.3	137.8	173.3	149.1	987.1
1983-1984	103.0	61.7	40.6	29.9	30.4	35.6	52.4	70.0	120.2	159.2	169.4	158.9	1031.3
1984-1985	107.2	88.3	38.7	28.4	30.9	29.9	48.8	72.7	117.9	155.8	179.3	171.2	1069.0
1985-1986	115.2	70.4	45.5	29.4	30.1	33.9	52.0	84.8	107.3	148.0	174.8	154.2	1045.7
1986-1987	114.3	64.3	33.3	23.6	27.0	34.5	43.4	66.3	99.9	137.5	189.2	171.1	1004.4
1987-1988	116.2	70.7	41.7	28.4	28.3	31.7	48.4	72.2	122.6	161.0	209.5	176.2	1106.8
1988-1989	120.1	73.5	37.3	31.4	27.1	33.7	54.4	88.9	123.8	145.7	185.5	156.1	1077.4
1989-1990	109.1	62.5	40.0	30.3	26.6	32.2	54.7	78.3	111.6	143.7	178.0	163.6	1030.7
1990-1991	108.3	73.6	44.3	31.7	29.7	33.9	56.4	83.3	119.7	158.7	167.4	141.9	1049.0
1991-1992	96.3	68.0	37.8	24.3	22.8	23.3	42.3	63.1	96.2	132.3	153.8	152.6	912.7
1992-1993	101.9	67.9	37.8	23.6	25.6	26.7	44.6	64.2	94.6	139.5	166.1	136.0	928.6
1993-1994	98.7	78.9	36.6	31.3	30.9	30.8	50.1	80.0	125.4	166.9	184.4	172.0	1085.9
1994-1995	118.3	85.3	40.5	26.8	30.9	36.2	55.0	65.6	104.9	145.6	156.8	145.1	1011.3
1995-1996	102.2	63.2	34.1	27.8	25.4	31.7	45.3	61.5	107.5	143.8	166.3	149.3	958.3
1996-1997	100.2	68.8	40.9	34.7	31.0	31.0	46.1	65.4	112.6	156.7	188.9	144.4	1020.7
1997-1998	100.3	65.7	40.4	28.8	26.8	31.4	45.8	78.1	106.3	151.4	188.5	169.3	1032.9
1998-1999	106.9	72.7	44.9	29.5	30.6	33.6	52.1	69.7	124.8	151.7	184.2	167.9	1068.5
1999-2000	117.8	73.7	41.0	31.8	24.4	31.2	48.4	71.9	110.5	162.8	200.2	172.6	1086.2
2000-2001	119.3	69.0	44.0	31.5	31.3	36.0	62.6	82.3	116.1	164.0	194.2	177.9	1128.2
2001-2002	120.5	78.9	41.1	29.9	26.9	35.2	54.8	71.7	110.5	158.1	194.8	159.4	1081.8
2002-2003	114.2	73.4	45.0	27.4	32.3	29.6	47.7	71.2	131.3	161.5	198.5	182.0	1114.1
2003-2004	114.7	73.7	43.3	30.8	28.5	32.2	57.7	80.6	118.1	159.1	192.2	161.0	1091.8
2004-2005	116.2	82.9	44.7	27.9	30.1	32.8	55.7	78.6	121.1	154.8	180.2	169.1	1094.0
2005-2006	121.0	69.7	40.4	33.3	29.7	36.7	59.0	84.6	127.8	173.0	209.0	180.5	1164.7
2006-2007	134.6	84.0	43.9	31.9	30.7	37.0	58.8	79.4	133.8	180.7	218.1	191.5	1224.4
2007-2008	129.3	92.3	50.5	35.1	30.4	34.8	62.8	78.6	111.9	165.2	182.2	162.6	1135.7
2008-2009	112.7	74.5	45.3	30.3	29.8	32.9	49.4	74.1	111.8	163.0	187.0	164.8	1075.7
2009-2010	107.0	78.3	41.4	33.2	31.4	34.5	55.0	77.5	114.9	150.4	175.9	178.2	1077.6
2010-2011	120.1	76.4	49.2	35.2	29.9	33.5	51.7	71.4	108.1	151.9	184.4	167.0	1078.9
2011-2012	116.7	70.5	36.1	29.2	27.0	30.3	46.6	73.4	110.0	158.3	197.6	174.7	1070.5
2012-2013	115.3	75.0	44.4	31.1	28.9	35.7	53.2	77.2	122.6	153.5	182.7	167.1	1086.8
2013-2014	110.5	68.0	46.3	28.1	31.9	35.1	55.5	77.2	110.9	150.8	175.8	163.4	1053.6
2014-2015	111.9	71.4	40.3	33.5	27.9	32.2	53.5	69.1	115.1	141.4	177.8	169.7	1043.8
AVERAGE	111.6	73.1	41.2	29.9	28.6	32.4	51.3	73.5	113.0	153.4	182.4	162.7	

**Table A. 147** Yeni Erenkoy station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	120.8	81.5	33.6	25.0	19.8	27.6	36.5	56.9	84.1	175.8	208.3	156.9	1026.6
1979-1980	141.8	84.5	56.6	27.3	15.7	23.3	32.6	53.5	80.7	188.9	205.6	178.7	1089.0
1980-1981	118.6	61.4	43.4	25.7	18.5	21.5	41.0	64.4	75.0	183.5	233.8	189.7	1076.5
1981-1982	133.5	79.8	33.9	29.6	21.5	15.0	24.7	55.7	86.3	172.5	206.6	185.5	1044.6
1982-1983	155.1	83.2	37.6	21.2	12.3	17.4	28.6	60.4	97.1	166.8	225.9	182.0	1087.7
1983-1984	113.8	55.8	40.2	24.3	22.4	29.1	38.2	55.0	97.1	175.2	186.4	169.0	1006.7
1984-1985	112.6	86.5	34.5	20.0	21.9	16.8	29.9	55.7	88.8	158.7	187.7	173.1	986.2
1985-1986	124.1	64.5	46.6	22.0	20.6	24.3	35.3	75.5	77.2	147.9	182.3	153.3	973.5
1986-1987	150.0	67.7	30.3	14.0	18.6	31.2	26.4	56.5	83.2	164.5	250.3	212.8	1105.5
1987-1988	120.3	62.4	38.4	19.3	17.0	19.3	28.0	52.9	90.6	159.6	218.7	172.4	998.9
1988-1989	126.0	66.2	31.0	24.7	15.1	23.0	37.8	79.0	92.4	139.1	189.4	150.0	973.6
1989-1990	124.5	57.8	39.5	25.5	15.9	22.6	43.0	70.2	88.0	153.3	201.9	177.4	1019.7
1990-1991	112.3	67.3	43.7	25.8	19.5	23.7	41.8	71.6	89.4	160.0	168.4	135.2	958.7
1991-1992	148.3	90.0	49.3	19.3	13.1	9.6	30.7	63.5	96.1	196.0	239.8	231.7	1187.3
1992-1993	150.5	84.7	46.5	16.4	18.4	16.5	34.0	61.8	87.8	198.6	249.4	187.1	1151.4
1993-1994	98.2	73.2	30.0	24.8	21.3	17.9	31.2	65.6	94.6	169.7	189.2	169.5	985.1
1994-1995	136.4	88.0	40.2	18.2	23.4	30.5	43.1	47.8	78.9	154.4	168.1	151.2	980.3
1995-1996	139.9	70.9	34.6	24.9	16.6	26.8	32.8	51.4	101.0	191.3	229.9	195.3	1115.3
1996-1997	112.2	67.4	41.8	34.8	24.1	20.5	28.0	48.5	90.1	175.7	220.4	153.7	1017.2
1997-1998	114.1	63.8	41.4	22.9	16.6	21.7	27.9	71.8	83.6	170.2	223.5	189.7	1047.4
1998-1999	110.3	66.1	44.6	21.7	21.0	23.1	34.7	50.1	94.7	149.9	190.6	166.2	972.9
1999-2000	126.6	68.2	38.4	26.2	11.1	19.0	29.2	54.2	80.2	168.0	214.7	174.1	1009.9
2000-2001	111.6	54.6	38.1	22.3	19.6	24.3	45.6	61.0	75.4	145.7	177.6	156.0	931.9
2001-2002	126.1	72.6	37.4	21.9	14.7	25.6	38.4	52.2	77.8	156.0	200.7	153.4	977.0
2002-2003	114.4	64.0	42.8	17.0	22.9	15.1	26.2	49.8	97.1	155.4	198.7	173.6	977.0
2003-2004	115.3	64.6	40.1	22.9	16.8	19.6	41.8	64.0	83.7	152.6	191.5	150.9	963.9
2004-2005	115.5	74.3	41.8	17.7	19.1	20.4	38.1	60.0	85.6	144.6	173.7	157.5	948.3
2005-2006	109.1	53.3	31.3	24.3	16.6	24.5	38.6	61.5	83.3	149.9	185.8	152.3	930.5
2006-2007	111.7	62.2	33.0	20.0	16.3	22.4	34.3	49.0	80.4	142.0	174.9	146.4	892.8
2007-2008	115.5	75.2	45.2	26.6	17.3	20.9	42.9	52.3	67.2	137.5	153.2	131.7	885.4
2008-2009	116.7	67.6	44.9	23.0	19.5	21.7	29.9	56.2	79.7	163.8	192.0	160.7	975.6
2009-2010	105.8	70.2	37.0	27.3	21.5	23.7	37.8	59.6	80.7	141.4	171.6	170.6	947.1
2010-2011	121.0	67.2	49.4	30.6	18.9	21.8	32.1	49.7	72.6	141.5	179.9	156.1	940.9
2011-2012	131.5	67.1	31.1	22.5	16.1	18.4	27.6	59.7	83.4	170.5	222.8	185.7	1036.3
2012-2013	115.6	65.9	41.8	23.5	17.4	25.7	34.5	58.6	88.1	144.3	178.7	157.0	950.9
2013-2014	116.0	60.5	47.5	19.2	23.5	26.2	40.5	62.3	80.2	149.9	181.0	162.2	969.0
2014-2015	123.0	67.4	38.5	30.6	17.4	21.6	38.9	51.7	88.2	142.6	192.0	177.0	989.1
AVERAGE	122.7	69.7	39.9	23.3	18.4	22.0	34.7	58.6	85.4	161.0	199.1	168.8	

**Table A. 148** Yeni Erenkoy station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	179.4	178.4	138.6	135.4	128.9	120.9	137.7	143.2	164.7	181.2	197	191.9	1897.3
1979-1980	178.6	171.9	150.8	132.9	119.5	113.1	129.9	135.8	155.7	175.5	186.4	189.1	1839.2
1980-1981	175.1	161.7	144.9	134.4	125.7	113.9	139	144.8	156.9	179.6	199.3	198.6	1873.8
1981-1982	183.7	176.5	138.3	139.9	130.8	108	127.5	141.9	164.9	179.3	195.6	200.4	1886.8
1982-1983	187.4	174.8	139.2	128.5	116.1	109.1	128.9	141.9	166.7	173.8	195.7	194.6	1856.9
1983-1984	179.1	162.4	146.3	136.2	133.8	123.7	140.6	143.9	173.5	183.7	194.1	199.1	1916.3
1984-1985	181.8	187.7	143.1	132.5	134.9	112.7	135.7	146.4	172.1	182.2	198.1	204.3	1931.6
1985-1986	186.7	171.7	154.1	135	133.1	120.7	140.1	156.9	165.5	178.7	196.4	197	1936.0
1986-1987	186.2	165.3	132.9	119.4	125.3	121.8	127.3	140.2	160.5	173.7	201.9	204.3	1858.7
1987-1988	187.3	172	148.2	132.6	128.8	116.4	135	146	174.8	184.5	209.1	206.4	1940.9
1988-1989	189.6	174.7	140.6	139.5	125.7	120.3	143.2	160.2	175.5	177.6	200.5	197.8	1945.3
1989-1990	183	163.4	145.3	137.2	124.5	117.3	143.7	151.5	168.2	176.7	197.6	201.2	1909.5
1990-1991	182.5	174.8	152.4	140.3	132.1	120.7	145.8	155.8	173.2	183.5	193.3	191.1	1945.4
1991-1992	174.5	169.2	141.4	121.6	113.6	96.75	125.5	136.8	157.8	171.1	187.3	196.3	1791.8
1992-1993	178.3	169.1	141.5	119.5	121.7	105.6	129.4	137.9	156.6	174.7	192.8	188.2	1815.2
1993-1994	176.2	179.7	139.4	139.3	134.8	114.5	137.5	153.1	176.5	186.9	200.1	204.7	1942.8
1994-1995	188.5	185.2	146.3	128.4	135	124.8	144.1	139.5	163.8	177.6	188.7	192.7	1914.7
1995-1996	178.5	164.1	134.6	130.9	121.1	116.4	130.5	135.1	165.6	176.8	192.9	194.7	1841.1
1996-1997	177.2	170.1	146.9	146.6	135.2	114.9	131.6	139.3	168.8	182.6	201.8	192.4	1907.4
1997-1998	177.3	166.8	146	133.5	124.9	115.9	131.1	151.4	164.8	180.2	201.7	203.6	1897.2
1998-1999	181.6	174	153.2	135.2	134.1	120	140.3	143.6	176.1	180.4	200	203	1941.4
1999-2000	188.3	174.9	147	140.4	118.2	115.3	135.1	145.6	167.5	185.2	205.9	204.9	1928.4
2000-2001	189.1	170.3	151.9	139.8	135.7	124.5	153.2	154.9	171	185.7	203.8	207	1986.9
2001-2002	189.8	179.7	147.2	136	125.2	123	143.8	145.5	167.5	183.2	204	199.3	1944.3
2002-2003	186.1	174.6	153.4	130	138.1	111.9	134	145.1	179.7	184.7	205.3	208.7	1951.6
2003-2004	186.4	174.9	150.8	138.1	129.3	117.3	147.5	153.5	172.2	183.6	203	200	1956.5
2004-2005	187.3	183.2	152.9	131.4	133.1	118.6	145	151.7	174	181.8	198.5	203.5	1960.9
2005-2006	190	171	146.1	143.7	132	125.8	149	156.8	177.8	189.4	208.9	208.1	1998.6
2006-2007	197.3	184.1	151.7	140.8	134.4	126.3	148.8	152.5	181	192.3	211.9	212.2	2033.3
2007-2008	194.6	190.7	161.3	147.4	133.7	122.4	153.4	151.7	168.4	186.2	199.3	200.7	2009.8
2008-2009	185.2	175.7	153.9	137.2	132.3	118.8	136.5	147.7	168.4	185.3	201.1	201.7	1943.7
2009-2010	181.7	179.2	147.7	143.4	136	121.7	144.1	150.8	170.3	179.8	196.8	207.2	1958.6
2010-2011	189.5	177.4	159.5	147.6	132.7	120	139.8	145.2	166	180.5	200.1	202.6	1960.9
2011-2012	187.6	171.8	138.3	134.5	125.5	113.5	132.4	147.1	167.2	183.3	205	205.8	1912.0
2012-2013	186.8	176.2	152.5	139	130.2	123.9	141.7	150.5	174.8	181.2	199.5	202.7	1959.0
2013-2014	183.8	169.3	155.4	131.7	137.2	122.9	144.7	150.6	167.8	180	196.8	201.1	1941.2
2014-2015	184.8	172.7	145.9	144.2	127.8	117.3	142.1	143	170.4	175.6	197.5	203.7	1925.1
AVERAGE	184.3	174.0	147.0	135.8	129.2	117.6	138.8	147.0	168.8	181.0	199.1	200.6	

**Table A. 149** Yeni Erenkoy station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	137.9	65.96	46.67	43.3	42.46	43.26	54.15	116.4	143.6	163.6	175.1	160.5	1192.9
1979-1980	137.2	63.52	50.74	42.52	39.33	40.46	51.09	110.4	135.8	158.6	165.7	158.1	1153.5
1980-1981	134.6	59.75	48.79	42.95	41.36	40.73	54.64	117.8	136.9	162.3	177.1	166.1	1183.0
1981-1982	141.2	65.24	46.57	44.74	43.05	38.61	50.11	115.4	143.9	162	173.8	167.6	1192.2
1982-1983	144	64.63	46.87	41.08	38.22	39.04	50.68	115.4	145.5	157.1	174	162.7	1179.2
1983-1984	137.6	60.03	49.27	43.55	44.05	44.23	55.3	117	151.4	166	172.5	166.5	1207.4
1984-1985	139.7	69.38	48.19	42.37	44.39	40.28	53.34	119.1	150.2	164.6	176.1	170.9	1218.5
1985-1986	143.5	63.48	51.89	43.18	43.79	43.16	55.09	127.7	144.4	161.5	174.5	164.7	1216.9
1986-1987	143.1	61.09	44.74	38.16	41.24	43.55	50.06	114	140	157	179.5	170.8	1183.2
1987-1988	143.9	63.58	49.9	42.38	42.39	41.6	53.08	118.8	152.6	166.7	185.8	172.6	1233.3
1988-1989	145.7	64.58	47.34	44.6	41.37	43.02	56.33	130.3	153.2	160.5	178.2	165.4	1230.5
1989-1990	140.6	60.38	48.93	43.86	40.95	41.96	56.5	123.3	146.8	159.7	175.6	168.2	1206.8
1990-1991	140.2	64.63	51.31	44.87	43.47	43.14	57.34	126.7	151.1	165.8	171.8	159.8	1220.2
1991-1992	134.1	62.55	47.62	38.86	37.37	34.59	49.35	111.3	137.7	154.6	166.5	164.1	1138.5
1992-1993	137	62.52	47.65	38.19	40.06	37.75	50.86	112.2	136.6	157.8	171.3	157.3	1149.4
1993-1994	135.4	66.42	46.92	44.55	44.36	40.94	54.08	124.4	154	168.9	177.8	171.2	1229.0
1994-1995	144.9	68.46	49.26	41.05	44.43	44.64	56.67	113.5	143	160.5	167.7	161.2	1195.2
1995-1996	137.2	60.66	45.3	41.85	39.85	41.63	51.29	109.9	144.5	159.7	171.4	162.8	1166.1
1996-1997	136.2	62.89	49.46	46.88	44.51	41.1	51.74	113.3	147.3	165	179.4	160.9	1198.5
1997-1998	136.2	61.68	49.17	42.67	41.1	41.43	51.57	123.1	143.8	162.9	179.2	170.2	1203.1
1998-1999	139.6	64.31	51.58	43.22	44.15	42.93	55.16	116.8	153.7	163	177.8	169.7	1221.9
1999-2000	144.7	64.66	49.5	44.88	38.9	41.25	53.13	118.5	146.2	167.4	183	171.4	1223.4
2000-2001	145.3	62.95	51.15	44.7	44.66	44.53	60.24	126	149.2	167.8	181.1	173.1	1250.8
2001-2002	145.8	66.44	49.57	43.5	41.2	43.98	56.57	118.3	146.2	165.6	181.3	166.7	1225.2
2002-2003	143	64.55	51.66	41.57	45.46	40.04	52.69	118	156.8	166.9	182.5	174.5	1237.6
2003-2004	143.2	64.66	50.77	44.17	42.54	41.94	57.98	124.8	150.3	165.9	180.4	167.3	1234.0
2004-2005	143.9	67.72	51.49	42	43.82	42.41	57.01	123.4	151.8	164.3	176.4	170.1	1234.4
2005-2006	146.1	63.21	49.19	45.96	43.46	44.98	58.61	127.5	155.1	171.1	185.7	174	1264.9
2006-2007	151.6	68.05	51.07	45.01	44.23	45.15	58.49	124	158	173.8	188.4	177.5	1285.3
2007-2008	149.5	70.51	54.31	47.13	44.02	43.76	60.31	123.4	147	168.3	177.1	167.8	1253.2
2008-2009	142.3	64.94	51.81	43.86	43.54	42.49	53.68	120.2	146.9	167.4	178.7	168.7	1224.5
2009-2010	139.6	66.23	49.71	45.86	44.77	43.52	56.67	122.7	148.6	162.5	174.9	173.3	1228.3
2010-2011	145.7	65.6	53.71	47.2	43.66	42.9	54.95	118.1	144.9	163.1	177.8	169.4	1227.0
2011-2012	144.2	63.5	46.57	43.01	41.3	40.6	52.05	119.7	145.9	165.6	182.2	172.1	1216.7
2012-2013	143.5	65.13	51.36	44.45	42.87	44.3	55.71	122.5	152.6	163.7	177.3	169.5	1232.9
2013-2014	141.3	62.56	52.32	42.12	45.17	43.95	56.89	122.5	146.4	162.7	174.9	168.1	1218.8
2014-2015	142	63.84	49.14	46.11	42.06	41.96	55.88	116.3	148.7	158.7	175.5	170.4	1210.5
AVERAGE	141.7	64.3	49.5	43.4	42.5	42.0	54.6	119.5	147.3	163.6	177.0	167.7	

**Table A. 150** Yeni Erenkoy station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.3	94.4	53.81	42.64	42.77	49.84	78.81	97.06	126.4	145.8	153.9	139.8	1140.6
1979-1980	114.8	90.77	60.68	41.24	37.49	45.51	74.45	92.87	121.4	142.7	148	138.2	1108.1
1980-1981	112.9	85.01	57.35	42.07	40.96	45.92	79.53	97.95	122.1	145	155.2	143.6	1127.5
1981-1982	117.7	93.33	53.67	45.19	43.85	42.6	73.07	96.34	126.6	144.8	153.1	144.6	1134.8
1982-1983	119.8	92.39	54.17	38.78	35.61	43.26	73.88	96.29	127.6	141.7	153.2	141.3	1118.0
1983-1984	115.1	85.41	58.16	43.11	45.53	51.42	80.47	97.41	131.3	147.3	152.3	143.8	1151.3
1984-1985	116.6	99.6	56.36	41.04	46.12	45.23	77.68	98.85	130.6	146.4	154.6	146.8	1159.9
1985-1986	119.4	90.65	62.53	42.45	45.1	49.72	80.17	104.7	126.9	144.5	153.6	142.7	1162.3
1986-1987	119.1	87.05	50.62	33.66	40.76	50.34	73.01	95.34	124.1	141.7	156.7	146.8	1119.0
1987-1988	119.7	90.81	59.2	41.06	42.7	47.31	77.31	98.6	132.1	147.7	160.7	147.9	1165.1
1988-1989	121	92.32	54.95	44.97	40.98	49.5	81.93	106.6	132.5	143.9	155.9	143.1	1167.6
1989-1990	117.3	85.96	57.59	43.65	40.27	47.86	82.17	101.7	128.4	143.3	154.3	145	1147.5
1990-1991	117	92.4	61.55	45.41	44.55	49.72	83.37	104.1	131.2	147.1	151.9	139.4	1167.6
1991-1992	112.5	89.25	55.41	34.89	34.17	36.31	71.98	93.46	122.5	140.2	148.5	142.3	1081.5
1992-1993	114.7	89.18	55.47	33.71	38.75	41.26	74.15	94.09	121.9	142.2	151.6	137.7	1094.6
1993-1994	113.5	95.13	54.25	44.86	46.06	46.26	78.73	102.6	133	149.1	155.7	147	1166.2
1994-1995	120.4	98.2	58.12	38.71	46.19	52.06	82.43	94.95	125.9	143.9	149.3	140.3	1150.4
1995-1996	114.8	86.38	51.56	40.15	38.37	47.34	74.75	92.48	126.9	143.4	151.6	141.4	1109.1
1996-1997	114	89.76	58.46	48.96	46.3	46.49	75.39	94.84	128.7	146.6	156.6	140.1	1146.3
1997-1998	114.1	87.91	58.01	41.58	40.5	47.03	75.14	101.6	126.5	145.3	156.5	146.3	1140.6
1998-1999	116.5	91.91	62	42.53	45.69	49.37	80.26	97.26	132.8	145.4	155.6	146	1165.4
1999-2000	120.2	92.46	58.54	45.46	36.76	46.74	77.38	98.41	128	148.1	158.9	147.1	1158.1
2000-2001	120.7	89.86	61.28	45.12	46.57	51.87	87.52	103.6	129.9	148.4	157.7	148.3	1190.9
2001-2002	121.1	95.14	58.67	43.01	40.69	51.02	82.27	98.32	128	147	157.8	144	1167.0
2002-2003	119	92.28	62.14	39.64	47.93	44.83	76.74	98.08	134.8	147.8	158.6	149.2	1171.1
2003-2004	119.2	92.46	60.64	44.18	42.96	47.84	84.3	102.8	130.6	147.2	157.3	144.3	1173.9
2004-2005	119.7	97.07	61.86	40.41	45.13	48.56	82.91	101.8	131.6	146.2	154.8	146.3	1176.3
2005-2006	121.2	90.25	58.01	47.32	44.51	52.59	85.18	104.7	133.8	150.4	160.6	148.9	1197.5
2006-2007	125.3	97.6	61.16	45.66	45.85	52.86	85.03	102.2	135.6	152.1	162.3	151.2	1216.9
2007-2008	123.8	101.3	66.55	49.38	45.47	50.69	87.61	101.8	128.5	148.7	155.2	144.7	1203.8
2008-2009	118.5	92.87	62.39	43.66	44.66	48.68	78.17	99.57	128.5	148.2	156.2	145.3	1166.7
2009-2010	116.5	94.83	58.91	47.15	46.74	50.31	82.42	101.3	129.6	145.1	153.8	148.4	1175.0
2010-2011	121	93.86	65.57	49.5	44.87	49.33	79.98	98.17	127.1	145.5	155.7	145.8	1176.3
2011-2012	119.9	90.69	53.67	42.17	40.85	45.73	75.83	99.25	127.8	147	158.4	147.6	1148.9
2012-2013	119.4	93.17	61.65	44.68	43.52	51.53	81.04	101.2	132.1	145.9	155.3	145.8	1175.3
2013-2014	117.8	89.27	63.24	40.6	47.43	50.98	82.73	101.2	128.1	145.2	153.8	144.9	1165.3
2014-2015	118.3	91.19	57.94	47.59	42.14	47.84	81.31	96.92	129.6	142.7	154.2	146.4	1156.2
AVERAGE	118.0	91.9	58.5	42.9	42.9	48.0	79.4	99.1	128.7	145.8	155.1	144.7	

**Table A. 151** Yesilirmak station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	105.7	75.8	40.0	32.4	30.4	36.3	53.5	77.5	115.2	174.5	195.9	163.4	1100.7
1979-1980	119.3	78.1	47.1	28.9	25.8	30.4	46.8	69.8	114.5	168.9	194.8	182.0	1106.4
1980-1981	109.7	76.2	44.6	30.7	27.6	31.1	53.3	76.0	104.4	174.5	199.2	175.0	1102.3
1981-1982	110.5	81.5	38.1	32.7	29.5	28.5	45.4	76.9	117.0	160.9	185.5	174.7	1081.3
1982-1983	122.6	78.1	37.6	28.3	24.4	28.4	46.4	73.5	122.8	154.6	192.8	166.7	1076.3
1983-1984	111.3	79.5	50.8	34.6	30.2	34.1	50.4	70.9	121.8	157.2	184.3	164.0	1089.2
1984-1985	110.3	73.1	38.4	26.8	29.3	27.8	48.2	75.7	132.6	168.3	207.9	185.3	1123.9
1985-1986	121.7	68.3	45.6	30.3	28.8	35.5	54.2	89.7	115.6	171.3	195.3	173.6	1129.8
1986-1987	127.4	73.7	36.4	28.7	30.0	35.0	42.1	70.9	113.0	168.4	211.2	182.1	1118.9
1987-1988	125.1	70.3	39.9	29.0	28.1	31.5	47.8	78.2	130.9	176.9	231.1	185.6	1174.4
1988-1989	127.0	72.7	35.6	28.3	23.3	29.4	51.5	90.5	131.4	160.5	208.3	176.2	1134.9
1989-1990	114.2	66.4	42.2	29.8	24.7	30.4	50.2	75.9	116.6	161.2	195.3	172.4	1079.5
1990-1991	111.4	75.0	43.9	30.3	27.0	30.4	53.4	77.8	109.9	162.6	182.3	165.7	1069.8
1991-1992	111.5	75.4	40.8	25.7	24.5	24.9	43.2	69.2	111.1	153.9	182.1	181.7	1044.0
1992-1993	107.7	73.4	40.5	23.6	25.8	28.4	46.2	70.1	104.4	168.3	191.7	162.8	1043.0
1993-1994	99.1	81.6	37.7	30.3	30.6	32.0	48.7	81.8	123.5	162.6	192.3	180.5	1100.8
1994-1995	124.8	80.7	38.2	26.4	28.6	32.4	51.7	72.0	119.9	183.4	204.2	176.9	1139.2
1995-1996	114.9	69.9	34.0	27.1	25.7	32.8	48.4	69.4	134.9	178.2	205.6	156.1	1097.2
1996-1997	114.7	66.6	43.5	31.7	29.5	29.3	45.8	67.2	125.8	175.9	216.8	165.6	1112.4
1997-1998	110.0	71.2	41.9	29.9	27.3	31.5	46.6	82.0	117.5	165.0	224.4	207.2	1154.6
1998-1999	124.4	83.1	47.9	32.1	29.9	33.2	51.7	77.8	138.9	188.7	216.6	187.2	1211.6
1999-2000	120.8	79.0	42.0	32.9	22.9	28.6	46.9	77.5	120.5	186.0	226.0	180.4	1163.5
2000-2001	119.5	70.7	42.3	29.1	29.1	32.4	59.7	80.1	129.7	169.5	204.6	182.0	1148.7
2001-2002	117.0	73.9	39.7	28.8	24.6	34.3	54.1	72.3	115.5	169.5	209.5	173.6	1112.8
2002-2003	110.6	75.1	44.6	26.8	30.6	28.7	44.4	73.4	145.2	183.8	224.6	197.0	1184.9
2003-2004	118.7	79.6	43.0	30.1	27.0	31.7	53.5	76.4	118.2	172.5	211.3	174.8	1136.8
2004-2005	117.9	82.8	41.7	27.8	29.0	30.1	52.8	80.3	124.2	167.2	208.6	181.6	1144.0
2005-2006	122.1	69.8	38.3	30.8	27.0	31.8	51.2	81.5	126.2	174.4	210.3	189.6	1153.0
2006-2007	130.6	78.2	39.1	27.8	22.6	27.2	41.2	56.2	105.5	139.9	164.4	147.0	979.5
2007-2008	92.1	64.9	35.9	24.3	27.0	30.4	58.5	77.3	112.0	167.1	187.8	167.5	1044.8
2008-2009	109.0	70.0	47.3	32.3	31.4	34.4	50.9	74.9	111.3	165.7	190.2	164.0	1081.5
2009-2010	106.7	77.6	42.9	33.9	32.8	36.0	56.0	77.8	116.2	151.6	174.9	176.4	1082.8
2010-2011	118.1	75.4	49.4	35.8	30.9	34.4	52.0	73.4	109.4	153.3	183.0	166.3	1081.2
2011-2012	114.5	69.1	37.4	30.9	28.4	31.3	49.2	74.5	110.3	148.4	196.5	175.0	1065.5
2012-2013	112.3	76.0	45.8	32.5	30.2	36.6	54.7	78.5	125.3	155.6	179.5	167.4	1094.4
2013-2014	110.0	68.0	46.9	29.3	33.5	36.0	56.4	77.3	112.5	155.7	177.1	164.7	1067.2
2014-2015	112.1	70.9	42.2	34.4	29.3	33.0	54.8	70.4	114.6	142.7	178.6	170.1	1053.2
AVERAGE	115.0	74.4	41.7	29.9	28.0	31.6	50.3	75.5	119.4	165.9	198.5	174.7	

**Table A. 152 Yesilirmak station Thronthwaite results**

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	122.9	85.9	38.4	26.8	20.4	28.0	35.2	63.7	95.6	189.8	200.3	161.7	1068.8
1979-1980	151.2	93.2	55.3	20.7	12.8	17.1	25.6	52.3	98.0	188.0	206.1	190.4	1110.6
1980-1981	133.0	88.7	49.2	24.1	15.7	18.2	35.8	62.6	82.4	194.8	209.7	180.0	1094.3
1981-1982	140.9	103.2	36.8	29.4	20.1	14.1	24.3	67.3	105.3	182.0	200.6	187.7	1111.7
1982-1983	171.2	101.7	37.6	21.2	11.4	14.8	27.3	64.4	120.0	181.1	221.8	186.3	1158.8
1983-1984	130.3	91.0	60.2	30.8	19.6	23.2	29.9	51.5	103.2	160.8	182.3	159.9	1042.7
1984-1985	136.4	84.5	36.4	16.8	19.0	12.4	28.1	63.2	125.0	188.4	224.7	195.5	1130.4
1985-1986	141.7	68.6	47.4	21.4	16.6	24.8	34.3	80.1	91.0	174.7	188.8	165.0	1054.5
1986-1987	164.6	84.9	31.9	20.2	20.3	26.3	18.4	54.1	95.6	186.9	227.0	190.1	1120.2
1987-1988	146.5	71.7	36.0	19.2	15.4	17.4	24.8	61.1	111.0	182.1	230.3	178.1	1093.5
1988-1989	161.1	81.5	29.8	19.2	8.7	15.0	32.5	87.8	120.2	171.3	219.5	179.9	1126.5
1989-1990	152.0	76.2	47.5	24.1	11.7	18.3	33.0	67.5	107.9	188.2	220.6	190.2	1137.2
1990-1991	143.4	91.2	50.3	24.5	15.4	17.9	37.8	69.4	95.2	186.0	197.4	177.2	1105.6
1991-1992	165.6	105.8	49.6	17.5	12.8	9.3	24.2	62.1	111.7	198.6	227.0	226.6	1210.8
1992-1993	156.9	101.0	48.8	12.9	15.2	16.1	29.5	63.6	99.4	225.4	241.5	197.8	1208.1
1993-1994	115.1	99.2	34.5	23.4	21.3	20.1	28.4	73.2	110.4	177.1	201.5	187.5	1091.7
1994-1995	152.9	93.4	34.1	15.2	17.0	19.9	31.9	53.4	100.8	200.3	208.1	175.7	1102.6
1995-1996	154.0	83.5	29.0	18.3	13.5	23.4	30.1	55.6	136.7	217.8	236.1	168.8	1166.9
1996-1997	144.0	72.2	47.5	26.6	19.4	15.2	24.2	48.2	115.1	200.4	236.1	171.1	1120.1
1997-1998	127.1	75.8	41.3	21.4	14.4	18.1	23.9	69.7	96.5	171.0	230.2	207.9	1097.2
1998-1999	127.3	81.9	45.5	21.8	16.2	17.9	26.7	52.6	106.5	173.1	187.0	158.2	1014.8
1999-2000	142.7	88.2	41.0	26.8	7.7	12.8	24.0	61.1	99.2	199.0	228.9	175.6	1107.0
2000-2001	136.8	71.9	40.5	19.2	16.9	19.0	42.5	63.7	108.7	170.4	198.0	172.8	1060.3
2001-2002	146.9	85.3	38.8	20.4	10.8	24.7	37.4	56.7	99.3	188.6	224.8	179.7	1113.5
2002-2003	122.6	79.2	44.9	15.1	19.4	12.6	19.8	52.7	128.2	189.9	220.5	188.6	1093.4
2003-2004	139.9	89.6	43.0	21.5	13.8	18.3	34.0	59.5	96.5	180.1	212.3	169.7	1078.3
2004-2005	137.3	94.2	40.2	17.2	17.1	15.2	32.6	65.4	103.7	170.8	207.0	175.9	1076.5
2005-2006	145.0	72.4	33.6	22.9	13.8	18.4	30.4	67.8	107.0	182.5	210.5	186.1	1090.5
2006-2007	231.6	126.4	51.1	25.0	10.2	15.4	23.3	40.7	114.8	194.3	223.4	195.9	1252.2
2007-2008	122.0	80.8	36.6	14.2	17.4	20.1	52.9	77.8	111.2	220.0	232.2	202.3	1187.6
2008-2009	131.8	77.3	55.0	27.3	22.7	24.6	31.9	60.7	92.4	181.1	197.8	166.3	1069.0
2009-2010	123.6	88.3	44.0	29.6	24.4	27.2	38.9	63.5	96.2	153.5	171.5	176.0	1036.8
2010-2011	142.6	84.5	57.6	33.5	21.1	23.9	32.5	56.1	86.7	156.1	182.1	163.9	1040.6
2011-2012	155.3	83.0	36.9	26.8	18.7	20.4	31.9	66.1	99.8	169.4	226.3	196.8	1131.4
2012-2013	130.9	84.3	49.2	26.5	19.5	27.9	36.3	63.7	107.1	157.0	174.7	162.7	1039.8
2013-2014	134.9	74.3	54.6	21.4	26.8	28.2	41.2	65.6	95.1	167.0	182.1	168.8	1060.0
2014-2015	145.3	83.7	46.6	33.6	19.8	23.2	40.5	56.1	102.9	153.5	193.2	183.8	1082.2
AVERAGE	144.0	86.4	43.3	22.6	16.7	19.4	31.2	62.2	104.8	183.0	210.3	181.1	

**Table A. 153** Yesilirmak station Hargreaves station

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	180.9	177	145.5	141.8	133.8	125.1	142.3	150.9	170.6	190	204.5	201.2	1963.7
1979-1980	189.2	179.1	156.7	133.8	122.2	113.9	132.8	143.8	170.1	187.8	204.1	208.8	1942.2
1980-1981	183.4	177.3	152.9	138.2	126.9	115.1	142	149.6	163.6	190.1	205.7	206	1950.8
1981-1982	184	182.2	142.1	142.5	131.8	109.6	130.6	150.4	171.7	184.5	200.7	205.9	1936.0
1982-1983	191.1	179.1	141.2	132.3	118.3	109.6	132.3	147.3	175.1	181.8	203.4	202.6	1913.9
1983-1984	184.5	180.4	161.8	146.5	133.3	121.2	138.1	144.9	174.5	182.9	200.2	201.5	1969.7
1984-1985	183.8	174.5	142.6	128.5	131.2	108	134.9	149.3	180.5	187.6	208.7	210.1	1939.8
1985-1986	190.6	169.7	154.3	137.1	130	123.6	143.1	160.9	170.8	188.8	204.3	205.5	1978.6
1986-1987	193.7	175	139	133.2	133	122.9	125.2	144.8	169.2	187.6	209.8	208.8	1942.2
1987-1988	192.5	171.7	145.3	134.2	128.4	116	134.3	151.5	179.6	191	216.1	210.2	1970.8
1988-1989	193.4	174	137.6	132.3	115.2	111.7	139.5	161.5	179.8	184.3	208.9	206.5	1944.8
1989-1990	186.3	167.7	149.1	136.1	119.3	113.9	137.7	149.4	171.4	184.6	204.3	205	1924.9
1990-1991	184.5	176.3	151.8	137.2	125.4	113.9	142	151.1	167.3	185.2	199.5	202.2	1936.4
1991-1992	184.6	176.6	146.8	125.6	118.7	101	127.2	143.2	168	181.5	199.3	208.7	1881.2
1992-1993	182.2	174.7	146.3	119.6	122.3	109.5	131.8	144	163.6	187.6	203	200.9	1885.7
1993-1994	176.6	182.2	141.4	137.2	134.3	117.1	135.6	154.6	175.5	185.2	203.2	208.2	1951.0
1994-1995	192.3	181.4	142.3	127.6	129.6	117.8	139.8	145.9	173.4	193.4	207.4	206.8	1957.7
1995-1996	186.7	171.3	134.4	129.2	122.1	118.7	135.1	143.4	181.7	191.5	207.9	197.9	1919.9
1996-1997	186.5	167.9	151.1	140.4	131.7	111.5	131.2	141.2	176.7	190.6	211.7	202.1	1942.6
1997-1998	183.7	172.6	148.6	136.2	126.1	116.1	132.6	154.8	171.9	186.3	214.1	217.9	1960.9
1998-1999	192.1	183.5	157.7	141.2	132.8	119.4	139.8	151.2	183.8	195.4	211.6	210.7	2019.1
1999-2000	190	179.9	148.9	142.9	114	110	133	150.9	173.7	194.4	214.6	208.2	1960.5
2000-2001	189.3	172.1	149.3	134.3	130.7	117.9	149.9	153.2	178.9	188.1	207.5	208.8	1980.0
2001-2002	187.9	175.2	144.9	133.5	118.9	121.4	143	146.2	170.8	188.1	209.2	205.5	1944.6
2002-2003	184	176.4	152.9	128.5	134.3	110.1	129.1	147.2	186.8	193.6	214.2	214.4	1971.4
2003-2004	188.9	180.5	150.3	136.7	125.4	116.5	142.2	149.9	172.4	189.3	209.9	206	1967.9
2004-2005	188.4	183.2	148.4	131.2	130.6	113	141.3	153.3	175.9	187.2	208.9	208.6	1970.0
2005-2006	190.8	171.2	142.5	138.3	125.4	116.7	139.1	154.3	177	190	209.5	211.7	1966.6
2006-2007	195.3	179.2	143.9	131.1	112.8	106.6	123.8	129	164.4	174.9	192.1	193.7	1846.9
2007-2008	171.6	166.1	138.1	121.6	125.5	113.7	148.5	150.7	168.5	187.1	201.5	202.9	1896.0
2008-2009	183	171.4	156.8	141.7	136.2	121.6	138.7	148.6	168.2	186.5	202.4	201.4	1956.6
2009-2010	181.6	178.6	150.2	145	139.1	124.6	145.4	151.2	171.2	180.5	196.5	206.6	1970.6
2010-2011	188.5	176.7	159.8	148.9	135	121.6	140.2	147.2	166.9	181.2	199.7	202.4	1968.1
2011-2012	186.4	170.5	140.8	138.5	129	115.6	136.3	148.3	167.5	179	204.7	206.1	1922.7
2012-2013	185.1	177.2	154.6	142.2	133.4	125.6	143.8	151.8	176.5	182.2	198.4	202.9	1973.7
2013-2014	183.7	169.3	156.2	134.7	140.6	124.5	145.9	150.7	168.9	182.3	197.4	201.8	1956.1
2014-2015	184.9	172.3	149.1	146.2	131.3	119	144	144.3	170.2	176.3	198	204	1939.7
AVERAGE	186.5	175.5	148.0	135.8	127.8	116.0	137.6	148.9	172.9	186.4	205.2	205.8	

**Table A. 154** Yesilirmak station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	138.9	65.39	48.97	45.31	44.05	44.72	55.9	122.7	148.7	171.6	181.6	168.1	1236.2
1979-1980	145.3	66.17	52.72	42.76	40.19	40.69	52.15	116.9	148.4	169.6	181.3	174.5	1230.6
1980-1981	140.9	65.52	51.45	44.14	41.75	41.15	55.79	121.6	142.7	171.6	182.7	172.2	1231.5
1981-1982	141.3	67.3	47.82	45.55	43.36	39.18	51.31	122.2	149.7	166.6	178.2	172.1	1224.7
1982-1983	146.7	66.18	47.52	42.26	38.91	39.15	51.96	119.7	152.7	164.2	180.6	169.3	1219.3
1983-1984	141.7	66.63	54.44	46.82	43.85	43.3	54.25	117.8	152.2	165.2	177.8	168.4	1232.3
1984-1985	141.2	64.45	48	41.07	43.15	38.6	53.01	121.4	157.4	169.4	185.4	175.6	1238.7
1985-1986	146.4	62.69	51.95	43.79	42.77	44.17	56.22	130.8	148.9	170.5	181.5	171.7	1251.3
1986-1987	148.8	64.66	46.77	42.58	43.74	43.9	49.21	117.7	147.6	169.5	186.3	174.5	1235.2
1987-1988	147.8	63.42	48.89	42.87	42.22	41.46	52.75	123.2	156.6	172.5	192	175.7	1259.3
1988-1989	148.6	64.29	46.3	42.3	37.89	39.91	54.83	131.3	156.8	166.5	185.5	172.6	1246.8
1989-1990	143	61.95	50.2	43.48	39.23	40.69	54.09	121.5	149.5	166.7	181.5	171.3	1223.2
1990-1991	141.7	65.12	51.09	43.83	41.26	40.7	55.83	122.9	145.9	167.3	177.1	169	1221.7
1991-1992	141.8	65.26	49.39	40.15	39.06	36.1	49.95	116.4	146.5	163.9	177.1	174.4	1200.0
1992-1993	140	64.57	49.24	38.19	40.24	39.12	51.81	117.1	142.7	169.4	180.3	167.9	1200.5
1993-1994	135.6	67.33	47.56	43.83	44.19	41.86	53.27	125.7	153	167.3	180.5	174	1234.1
1994-1995	147.7	67.02	47.89	40.76	42.64	42.1	54.92	118.6	151.2	174.7	184.2	172.8	1244.5
1995-1996	143.4	63.29	45.24	41.28	40.15	42.42	53.08	116.6	158.5	172.9	184.7	165.4	1226.9
1996-1997	143.2	62.03	50.85	44.87	43.31	39.83	51.57	114.8	154.2	172.1	188	168.9	1233.7
1997-1998	141.1	63.78	50.01	43.51	41.49	41.51	52.08	125.8	150	168.2	190.1	182.1	1249.7
1998-1999	147.5	67.8	53.09	45.13	43.67	42.66	54.92	122.9	160.3	176.4	187.9	176.1	1278.5
1999-2000	146	66.46	50.08	45.68	37.49	39.29	52.26	122.7	151.5	175.6	190.6	174	1251.5
2000-2001	145.4	63.58	50.24	42.93	42.98	42.13	58.92	124.5	156	169.8	184.4	174.5	1255.4
2001-2002	144.3	64.74	48.75	42.66	39.11	43.41	56.19	118.9	148.9	169.8	185.8	171.7	1234.3
2002-2003	141.4	65.16	51.46	41.07	44.18	39.36	50.71	119.6	163	174.8	190.2	179.2	1260.1
2003-2004	145.1	66.68	50.58	43.67	41.24	41.63	55.86	121.9	150.4	170.9	186.4	172.1	1246.4
2004-2005	144.7	67.7	49.93	41.91	42.94	40.4	55.52	124.6	153.4	169	185.6	174.4	1250.0
2005-2006	146.5	63.24	47.96	44.21	41.23	41.7	54.66	125.5	154.4	171.6	186.1	176.9	1253.9
2006-2007	150.1	66.21	48.42	41.91	37.1	38.1	48.63	104.8	143.3	158	170.7	161.9	1169.1
2007-2008	131.8	61.35	46.48	38.85	41.29	40.63	58.37	122.5	147	169	179	169.6	1205.8
2008-2009	140.6	63.32	52.77	45.27	44.81	43.45	54.51	120.8	146.7	168.5	179.8	168.4	1228.8
2009-2010	139.5	65.99	50.54	46.35	45.76	44.54	57.15	122.9	149.3	163	174.5	172.7	1232.1
2010-2011	144.8	65.26	53.77	47.59	44.42	43.48	55.07	119.6	145.5	163.6	177.4	169.2	1229.7
2011-2012	143.2	62.98	47.38	44.27	42.42	41.31	53.54	120.5	146.1	161.7	181.8	172.2	1217.4
2012-2013	142.1	65.47	52.03	45.44	43.86	44.91	56.52	123.4	153.9	164.6	176.2	169.6	1237.9
2013-2014	141.1	62.55	52.57	43.05	46.26	44.48	57.34	122.5	147.3	164.6	175.3	168.6	1225.7
2014-2015	142	63.66	50.18	46.71	43.17	42.52	56.57	117.3	148.4	159.2	175.9	170.5	1216.2
AVERAGE	143.3	64.8	49.8	43.4	42.0	41.5	54.1	121.1	150.8	168.4	182.3	171.9	

**Table A. 155** Yesilirmak station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	115.1	92.85	57.2	45.85	45.08	51.71	80.54	100.4	128.5	149.5	156.8	143.8	1167.2
1979-1980	119.8	94.02	63.45	41.36	38.54	45.39	75.21	96.35	128.2	148.2	156.6	148	1155.1
1980-1981	116.5	93.04	61.35	43.79	41.2	46.09	80.37	99.6	124.6	149.5	157.4	146.5	1159.9
1981-1982	116.9	95.75	55.29	46.24	43.94	43.02	73.99	100.1	129.1	146.4	154.6	146.4	1151.7
1982-1983	120.8	94.02	54.78	40.48	36.39	42.98	74.93	98.34	131	144.8	156.1	144.6	1139.3
1983-1984	117.1	94.74	66.32	48.49	44.77	49.49	78.19	96.97	130.7	145.5	154.3	143.9	1170.5
1984-1985	116.8	91.43	55.58	38.4	43.59	42.11	76.4	99.48	134	148.1	159.1	148.7	1153.8
1985-1986	120.6	88.76	62.15	43.18	42.93	50.85	80.99	105.9	128.6	148.8	156.6	146.2	1175.5
1986-1987	122.3	91.75	53.54	41.02	44.6	50.43	70.99	96.92	127.7	148.1	159.7	148.1	1155.1
1987-1988	121.6	89.88	57.09	41.56	42.03	46.6	76.05	100.7	133.5	150	163.3	148.8	1171.1
1988-1989	122.1	91.18	52.76	40.53	34.63	44.17	78.99	106.3	133.6	146.3	159.2	146.8	1156.6
1989-1990	118.1	87.64	59.23	42.63	36.94	45.39	77.98	99.54	128.9	146.4	156.6	145.9	1145.4
1990-1991	117.2	92.44	60.74	43.24	40.37	45.41	80.4	100.5	126.6	146.8	153.9	144.3	1151.9
1991-1992	117.2	92.65	57.9	36.78	36.61	38.19	72.09	96.02	127	144.7	153.9	148	1120.9
1992-1993	115.9	91.57	57.66	33.37	38.63	42.92	74.67	96.51	124.6	148.1	155.9	143.6	1123.4
1993-1994	112.7	95.79	54.88	43.26	45.36	47.2	76.77	102.4	131.2	146.8	156	147.7	1160.1
1994-1995	121.5	95.34	55.4	37.86	42.73	47.58	79.15	97.54	130	151.4	158.4	146.9	1163.8
1995-1996	118.4	89.68	50.99	38.77	38.48	48.1	76.52	96.13	134.7	150.3	158.7	142	1142.6
1996-1997	118.3	87.74	60.33	45.06	43.87	44.04	74.33	94.93	131.9	149.8	160.8	144.3	1155.4
1997-1998	116.7	90.39	58.94	42.71	40.75	46.66	75.1	102.5	129.2	147.4	162.1	153.1	1165.6
1998-1999	121.4	96.48	64.06	45.52	44.48	48.49	79.15	100.5	135.9	152.5	160.7	149.1	1198.3
1999-2000	120.2	94.47	59.08	46.46	33.96	43.21	75.32	100.4	130.2	151.9	162.4	147.7	1165.4
2000-2001	119.8	90.11	59.34	41.64	43.31	47.64	84.83	101.6	133.1	148.4	158.5	148	1176.3
2001-2002	119	91.86	56.85	41.17	36.72	49.63	80.95	97.71	128.6	148.4	159.4	146.2	1156.5
2002-2003	116.9	92.49	61.35	38.38	45.35	43.31	73.15	98.27	137.6	151.5	162.2	151.2	1171.5
2003-2004	119.6	94.8	59.88	42.96	40.37	46.88	80.48	99.8	129.5	149.1	159.8	146.5	1169.5
2004-2005	119.3	96.34	58.81	39.87	43.26	44.94	80.01	101.7	131.4	147.9	159.2	147.9	1170.7
2005-2006	120.7	89.6	55.51	43.89	40.35	46.97	78.79	102.3	132.1	149.5	159.6	149.7	1168.8
2006-2007	123.2	94.1	56.3	39.84	33.28	41.33	70.17	88.05	125	141	149.8	139.6	1101.7
2007-2008	109.9	86.73	53.07	34.52	40.41	45.31	84.06	100.2	127.3	147.8	155.1	144.8	1129.2
2008-2009	116.3	89.71	63.53	45.77	46.43	49.72	78.55	99.07	127.1	147.5	155.6	143.9	1163.2
2009-2010	115.5	93.76	59.83	47.65	48.02	51.43	82.31	100.5	128.8	144.1	152.3	146.8	1171.0
2010-2011	119.4	92.66	65.2	49.83	45.75	49.76	79.37	98.27	126.4	144.5	154.1	144.5	1169.6
2011-2012	118.2	89.2	54.57	44	42.34	46.36	77.19	98.87	126.7	143.3	156.9	146.5	1144.2
2012-2013	117.5	92.97	62.3	46.05	44.81	51.99	81.42	100.9	131.8	145.1	153.3	144.7	1172.8
2013-2014	116.7	88.53	63.22	41.86	48.89	51.34	82.59	100.3	127.5	145.1	152.8	144.1	1162.9
2014-2015	117.4	90.22	59.22	48.29	43.63	48.27	81.49	96.68	128.3	141.8	153.1	145.4	1153.7
AVERAGE	118.3	92.0	58.6	42.5	41.7	46.6	77.9	99.2	129.8	147.5	157.2	146.3	

**Table A. 156** Ziyamet station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	103.3	75.7	36.0	29.3	28.4	34.0	50.2	69.2	105.8	153.2	176.3	143.3	1004.8
1979-1980	102.0	70.5	43.2	28.6	24.9	29.9	45.0	63.0	94.3	141.7	154.3	140.6	938.1
1980-1981	97.2	62.1	39.9	29.1	27.1	30.5	51.1	70.9	95.0	149.8	182.0	157.6	992.4
1981-1982	110.1	75.3	36.0	31.5	29.1	27.8	43.4	68.9	107.0	149.7	172.4	161.1	1012.4
1982-1983	116.2	73.4	36.6	26.9	24.0	28.5	44.8	67.9	109.2	137.6	174.3	150.1	989.5
1983-1984	103.6	62.5	41.2	30.3	30.4	35.5	52.3	70.0	119.9	157.7	170.0	156.9	1030.4
1984-1985	107.0	85.4	38.7	28.3	30.9	29.7	49.0	72.8	117.7	154.9	178.9	170.1	1063.5
1985-1986	114.4	69.4	45.2	29.7	30.2	34.0	52.0	84.3	106.7	148.4	174.3	154.3	1042.9
1986-1987	114.0	64.9	33.8	24.2	27.5	34.8	43.2	66.5	100.9	139.2	188.3	169.1	1006.3
1987-1988	114.8	70.0	41.4	28.7	28.4	31.7	48.1	72.1	121.1	159.6	207.3	174.7	1097.9
1988-1989	118.2	72.7	37.1	30.9	26.8	33.2	53.7	87.9	123.6	146.0	184.8	155.6	1070.4
1989-1990	108.6	63.1	40.4	30.2	26.7	32.2	54.0	77.5	112.1	144.4	178.6	163.3	1031.2
1990-1991	108.3	74.2	44.9	32.0	29.6	33.6	56.2	82.4	119.6	158.4	169.8	145.5	1054.5
1991-1992	98.6	69.2	38.3	24.8	23.3	23.8	42.9	64.4	97.9	135.2	157.1	154.7	930.3
1992-1993	103.4	69.4	38.6	23.9	25.9	27.2	45.7	65.2	96.5	143.0	169.4	141.0	949.1
1993-1994	100.5	79.5	37.2	31.6	31.0	31.2	50.2	79.9	125.3	166.8	184.3	171.8	1089.2
1994-1995	119.7	85.3	40.8	27.0	30.8	36.2	55.1	66.7	107.5	148.7	162.5	148.5	1028.7
1995-1996	104.0	64.1	34.1	27.8	25.8	32.0	45.7	62.3	108.9	145.8	169.3	151.8	971.4
1996-1997	101.5	68.3	41.6	34.6	31.1	30.7	46.2	65.5	113.2	157.1	189.7	145.6	1025.2
1997-1998	101.1	66.4	41.0	29.1	27.1	31.9	46.1	78.2	107.7	153.2	189.6	171.2	1042.4
1998-1999	108.2	73.3	45.1	30.0	30.8	33.5	51.8	70.2	124.6	153.0	185.2	168.0	1073.6
1999-2000	116.7	74.1	41.1	31.9	24.5	31.3	48.1	72.4	111.5	165.1	200.7	172.0	1089.3
2000-2001	117.1	68.8	43.5	31.2	31.0	35.3	61.3	81.1	116.0	162.5	191.6	175.1	1114.6
2001-2002	118.1	77.5	40.9	29.7	26.7	34.9	54.3	71.4	110.6	158.2	194.4	160.0	1076.6
2002-2003	113.0	73.0	44.6	27.6	32.2	29.4	47.1	71.0	129.9	160.4	197.4	179.3	1104.9
2003-2004	113.2	73.3	43.1	30.8	28.3	31.9	56.5	79.3	116.9	158.7	192.1	161.4	1085.4
2004-2005	114.9	81.9	44.4	28.1	30.2	32.6	55.1	78.0	120.1	154.5	181.9	168.8	1090.4
2005-2006	119.5	69.4	40.0	33.0	29.5	36.2	57.7	83.3	126.1	171.4	205.6	178.4	1150.0
2006-2007	131.8	82.2	42.8	31.4	30.1	36.4	57.3	77.8	131.5	178.4	214.1	187.8	1201.8
2007-2008	126.1	89.5	49.0	34.0	29.9	34.4	61.8	78.6	112.0	164.9	183.4	163.8	1127.1
2008-2009	112.8	74.5	46.0	30.7	30.1	33.1	49.4	74.1	111.9	163.7	188.0	166.0	1080.3
2009-2010	107.9	79.1	42.0	33.3	31.8	34.9	55.7	78.2	116.3	150.6	175.9	178.1	1083.7
2010-2011	120.1	76.6	49.1	35.5	30.3	33.8	51.8	71.6	108.5	152.0	184.0	166.8	1080.1
2011-2012	116.5	70.7	36.5	29.5	27.4	30.8	46.8	73.6	110.3	158.0	197.2	174.3	1071.5
2012-2013	115.0	75.5	45.1	31.5	29.2	35.9	53.5	77.4	122.9	154.0	182.3	167.1	1089.3
2013-2014	110.7	68.2	46.7	28.5	32.2	35.2	55.8	77.4	111.3	151.4	176.2	163.3	1056.9
2014-2015	112.5	71.6	40.8	33.9	28.3	32.6	53.8	69.4	115.2	142.1	178.1	170.0	1048.3
AVERAGE	111.4	73.0	41.3	30.0	28.7	32.4	51.2	73.5	113.1	153.8	182.7	162.9	

**Table A. 157** Ziyamet station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	120.5	80.7	33.4	24.5	20.0	27.8	36.6	57.2	85.7	174.7	205.5	158.3	1025.0
1979-1980	138.2	84.2	55.9	26.9	15.7	22.4	32.0	54.2	81.9	183.9	202.3	180.8	1078.2
1980-1981	117.2	63.5	43.8	25.4	18.5	21.5	40.6	63.9	75.3	179.5	227.0	188.9	1065.1
1981-1982	131.7	80.5	33.8	29.5	21.5	15.0	24.5	57.0	87.7	170.1	200.8	184.4	1036.5
1982-1983	151.9	83.2	37.6	21.2	12.7	17.8	29.1	59.7	97.3	162.6	220.4	182.3	1075.9
1983-1984	113.3	57.2	41.2	25.0	22.4	29.0	37.8	54.6	97.4	169.5	182.4	165.9	995.8
1984-1985	112.7	84.9	34.9	20.1	22.2	16.6	30.4	56.5	90.5	157.0	185.3	174.1	985.3
1985-1986	122.6	64.1	46.5	22.6	20.9	24.5	35.4	74.8	77.6	147.4	178.8	154.5	969.7
1986-1987	145.8	68.5	30.9	15.2	19.5	31.4	25.7	56.0	84.2	162.4	239.0	207.2	1085.7
1987-1988	119.2	62.9	38.5	20.1	17.2	19.7	28.0	53.3	91.2	157.7	214.2	173.4	995.4
1988-1989	124.8	67.0	31.3	24.3	14.8	22.5	37.3	78.7	94.8	140.4	188.2	152.5	976.9
1989-1990	122.5	59.1	40.4	25.1	16.0	22.6	41.5	68.5	89.4	152.0	198.1	177.1	1012.3
1990-1991	110.2	68.1	44.4	26.0	19.3	23.0	40.8	69.1	89.3	155.5	166.2	138.3	950.3
1991-1992	144.2	89.1	48.4	19.4	13.5	10.2	30.4	62.8	95.2	188.4	228.1	223.7	1153.4
1992-1993	144.0	84.0	46.0	16.2	18.0	16.6	34.3	60.2	87.1	191.1	235.3	185.7	1118.6
1993-1994	98.5	73.8	30.6	25.0	21.4	18.4	30.8	64.4	94.3	164.7	182.4	167.3	971.6
1994-1995	132.7	86.4	39.5	18.1	22.6	29.5	41.6	47.8	80.3	151.6	167.0	150.9	967.8
1995-1996	137.5	71.0	33.5	24.2	16.9	26.6	32.3	51.0	101.1	185.6	222.1	193.2	1095.0
1996-1997	112.3	66.7	42.8	34.4	24.0	19.7	27.8	48.1	91.0	172.0	214.2	154.0	1007.0
1997-1998	111.7	64.0	41.6	23.1	16.7	22.1	27.6	69.9	84.2	166.1	214.2	187.8	1028.8
1998-1999	109.6	66.8	44.5	22.3	21.1	22.7	33.6	50.0	94.3	147.5	185.1	164.4	961.9
1999-2000	123.1	68.9	38.4	26.3	11.2	19.0	28.3	54.6	81.5	167.5	208.8	172.4	1000.1
2000-2001	111.2	56.3	38.4	22.5	19.8	23.8	44.7	61.0	78.1	146.1	176.1	157.9	935.8
2001-2002	123.8	72.6	37.6	21.9	14.5	25.6	38.0	52.4	79.8	156.3	198.7	156.6	977.7
2002-2003	113.7	65.1	42.9	17.7	23.1	15.1	25.8	50.2	98.2	154.4	196.4	173.9	976.4
2003-2004	114.3	65.7	40.4	23.4	16.7	19.5	40.3	62.9	84.5	152.5	190.3	154.0	964.5
2004-2005	113.9	74.7	41.8	18.2	19.4	20.2	37.3	59.5	86.2	143.6	173.8	159.0	947.6
2005-2006	109.5	54.8	31.7	24.5	16.8	24.2	37.6	61.3	84.9	150.3	183.7	154.8	934.2
2006-2007	112.7	63.6	32.9	20.1	16.3	22.5	33.9	49.1	82.5	144.1	175.3	149.8	902.8
2007-2008	114.1	75.1	44.2	25.5	17.1	20.8	42.5	53.6	69.6	139.3	155.8	136.8	894.5
2008-2009	114.3	67.5	45.7	23.4	19.8	21.6	29.4	55.3	79.6	160.1	186.4	160.2	963.4
2009-2010	104.1	70.7	37.4	27.1	21.8	24.1	37.8	59.3	81.4	136.9	164.7	167.4	932.8
2010-2011	119.3	67.8	49.0	30.9	19.4	22.2	31.9	49.6	73.1	138.7	174.5	155.1	931.6
2011-2012	128.7	67.5	31.7	22.9	16.6	19.1	27.6	59.3	83.9	165.8	214.9	183.7	1021.6
2012-2013	113.0	66.4	42.5	23.9	17.7	25.8	34.5	58.0	88.4	141.4	172.5	155.5	939.5
2013-2014	114.0	60.7	47.7	19.7	23.8	26.2	40.3	61.8	80.5	146.8	175.6	160.5	957.7
2014-2015	120.8	67.5	38.8	31.0	17.7	22.1	38.7	51.3	88.0	139.4	185.3	174.9	975.7
AVERAGE	120.9	70.0	40.0	23.5	18.6	21.9	34.2	58.3	86.2	158.5	194.3	168.6	

**Table A. 158** Ziyamet station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	179.3	176.8	138.1	134.6	128.9	120.8	137.5	143	164.6	181.2	197	191.9	1893.8
1979-1980	178.5	171.9	150.7	132.8	119.8	112.6	130	136.6	156.4	175.7	187.5	190.5	1843.2
1980-1981	175.1	162.8	145.2	134.1	125.7	113.9	139	144.8	156.9	179.6	199.3	198.6	1875.0
1981-1982	183.7	176.5	138.3	139.9	130.8	108	127.5	142.8	165.3	179.5	195.4	200.1	1887.6
1982-1983	187.2	174.6	139.4	128.7	116.9	109.7	129.5	141.9	166.7	173.8	196.1	195.1	1859.6
1983-1984	179.5	163.3	147.3	137.1	133.8	123.7	140.6	143.9	173.3	183.1	194.4	198.2	1918.0
1984-1985	181.8	185.3	143.2	132.4	134.8	112.2	135.9	146.6	172	181.9	198	203.9	1928.0
1985-1986	186.2	170.7	153.6	135.5	133.2	120.7	140.1	156.5	165.1	178.9	196.2	197	1933.8
1986-1987	186	165.9	133.8	121.4	126.7	122.2	127.1	140.4	161.1	174.5	201.6	203.5	1864.1
1987-1988	186.5	171.3	147.7	133.3	128.9	116.5	134.7	145.9	173.9	183.9	208.3	205.8	1936.7
1988-1989	188.5	174	140.3	138.5	124.9	119.3	142.4	159.5	175.4	177.8	200.4	197.6	1938.5
1989-1990	182.7	164	146	136.8	124.6	117.4	142.8	150.8	168.5	177	197.9	201	1909.6
1990-1991	182.5	175.4	153.2	140.8	131.9	120.2	145.5	155	173.1	183.4	194.3	192.9	1948.1
1991-1992	176.1	170.5	142.4	122.8	115	98.24	126.6	138.2	159	172.5	188.8	197.2	1807.2
1992-1993	179.3	170.6	142.8	120.4	122.4	106.6	131	139	158	176.4	194.1	190.5	1831.1
1993-1994	177.4	180.2	140.2	140	135.1	115.4	137.7	153	176.5	186.9	200.1	204.7	1947.2
1994-1995	189.2	185.1	146.7	129	134.7	124.7	144.2	140.5	165.5	179	191.2	194.3	1924.2
1995-1996	179.7	165.1	134.4	131	122.1	116.9	131	135.9	166.5	177.6	194	195.8	1850.0
1996-1997	178.1	169.5	148	146.5	135.3	114.3	131.8	139.4	169.2	182.8	202.1	192.9	1910.0
1997-1998	177.8	167.5	146.9	134.2	125.5	116.7	131.6	151.4	165.8	181	202	204.3	1904.7
1998-1999	182.4	174.5	153.4	136.3	134.5	119.9	139.9	144.1	175.9	181	200.4	203	1945.4
1999-2000	187.5	175.3	147.2	140.7	118.5	115.5	134.6	146.2	168.1	186.2	206.1	204.7	1930.5
2000-2001	187.9	170.1	151	139.1	135.1	123.2	151.8	154	171	185.1	202.8	205.9	1977.0
2001-2002	188.5	178.4	146.8	135.6	124.5	122.6	143.2	145.2	167.6	183.2	203.8	199.6	1939.0
2002-2003	185.4	174.2	152.8	130.5	137.8	111.6	133.3	144.8	179	184.2	204.9	207.6	1946.2
2003-2004	185.5	174.5	150.4	138.2	128.6	116.8	145.9	152.4	171.5	183.5	203	200.2	1950.7
2004-2005	186.6	182.4	152.5	131.9	133.1	118.2	144.2	151.3	173.4	181.7	199.1	203.4	1957.7
2005-2006	189.2	170.7	145.4	143	131.6	124.8	147.4	155.7	176.8	188.7	207.8	207.3	1988.4
2006-2007	195.9	182.6	150	139.7	133.2	125.2	147.1	151.1	179.8	191.5	210.7	210.9	2017.7
2007-2008	192.9	188.6	159.2	145.2	132.7	121.5	152.3	151.7	168.4	186.1	199.7	201.2	1999.4
2008-2009	185.3	175.6	154.9	138	133.1	119.1	136.5	147.7	168.4	185.6	201.4	202.1	1947.8
2009-2010	182.2	179.9	148.7	143.8	136.9	122.5	144.9	151.4	171.1	179.9	196.8	207.2	1965.1
2010-2011	189.5	177.6	159.3	148.1	133.5	120.5	139.8	145.4	166.2	180.5	200	202.5	1963.1
2011-2012	187.5	172	139.1	135.2	126.3	114.4	132.7	147.3	167.4	183.1	204.8	205.7	1915.5
2012-2013	186.6	176.5	153.4	139.8	131	124.2	142.1	150.7	175.1	181.4	199.3	202.7	1962.8
2013-2014	183.9	169.4	155.9	132.6	137.9	123.1	145.1	150.8	168	180.3	196.9	201	1944.9
2014-2015	185.1	172.9	146.6	145.1	128.6	118.1	142.6	143.4	170.5	175.9	197.7	203.9	1930.1
AVERAGE	184.2	174.0	147.2	136.0	129.4	117.6	138.6	147.0	168.9	181.2	199.3	200.7	

**Table A. 159** Ziyamet station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	137.8	65.37	46.5	43.05	42.45	43.24	54.13	116.4	143.5	163.6	175	160.4	1191.5
1979-1980	137.1	63.5	50.72	42.51	39.42	40.29	51.1	111.2	136.5	158.8	166.7	159.3	1157.1
1980-1981	134.6	60.19	48.92	42.88	41.36	40.72	54.63	117.8	136.9	162.2	177	166	1183.2
1981-1982	141.1	65.23	46.55	44.73	43.04	38.6	50.09	116.2	144.2	162.2	173.6	167.3	1192.9
1982-1983	143.9	64.55	46.92	41.15	38.5	39.23	50.95	115.3	145.5	157	174.3	163.1	1180.5
1983-1984	137.9	60.35	49.6	43.83	44.03	44.22	55.28	117	151.2	165.4	172.8	165.8	1207.4
1984-1985	139.6	68.51	48.2	42.33	44.39	40.12	53.44	119.2	150.1	164.3	175.9	170.5	1216.7
1985-1986	143.1	63.11	51.73	43.35	43.83	43.18	55.11	127.3	144.1	161.7	174.3	164.8	1215.6
1986-1987	142.9	61.34	45.04	38.8	41.72	43.72	49.97	114.2	140.6	157.7	179.2	170.1	1185.3
1987-1988	143.3	63.32	49.74	42.62	42.41	41.65	52.93	118.6	151.8	166.1	185.2	172.1	1229.8
1988-1989	144.8	64.29	47.24	44.25	41.08	42.66	56	129.7	153.1	160.6	178	165.3	1226.9
1989-1990	140.4	60.63	49.17	43.72	41.01	41.96	56.16	122.7	147.1	160	175.9	168.1	1206.8
1990-1991	140.2	64.84	51.59	45.04	43.41	42.96	57.24	126.1	151.1	165.7	172.7	161.3	1222.1
1991-1992	135.3	63.02	47.96	39.28	37.86	35.14	49.76	112.4	138.8	155.9	167.8	164.9	1148.2
1992-1993	137.8	63.08	48.1	38.5	40.28	38.12	51.53	113.1	137.9	159.4	172.5	159.4	1159.8
1993-1994	136.3	66.63	47.25	44.76	44.49	41.28	54.15	124.4	153.9	168.8	177.8	171.1	1230.9
1994-1995	145.5	68.46	49.39	41.25	44.35	44.61	56.71	114.3	144.5	161.8	169.9	162.5	1203.3
1995-1996	138.1	61.01	45.27	41.88	40.19	41.82	51.52	110.5	145.3	160.6	172.5	163.8	1172.5
1996-1997	136.9	62.68	49.84	46.84	44.54	40.87	51.81	113.4	147.7	165.2	179.6	161.3	1200.6
1997-1998	136.6	61.93	49.49	42.93	41.33	41.73	51.74	123.2	144.6	163.6	179.6	170.9	1207.6
1998-1999	140.2	64.53	51.69	43.6	44.29	42.87	55	117.2	153.6	163.5	178.1	169.8	1224.4
1999-2000	144.1	64.79	49.56	44.99	39	41.29	52.93	118.9	146.7	168.2	183.2	171.2	1224.9
2000-2001	144.3	62.89	50.87	44.49	44.48	44.05	59.66	125.2	149.2	167.2	180.2	172.2	1244.9
2001-2002	144.8	65.96	49.43	43.36	40.97	43.83	56.29	118.1	146.3	165.6	181.1	166.9	1222.7
2002-2003	142.5	64.4	51.44	41.74	45.36	39.91	52.38	117.8	156.1	166.4	182.1	173.6	1233.8
2003-2004	142.6	64.52	50.64	44.2	42.34	41.79	57.38	124	149.6	165.8	180.4	167.4	1230.6
2004-2005	143.3	67.41	51.34	42.16	43.83	42.25	56.69	123	151.3	164.1	177	170.1	1232.5
2005-2006	145.4	63.08	48.97	45.72	43.31	44.61	57.96	126.7	154.3	170.5	184.7	173.3	1258.6
2006-2007	150.5	67.51	50.5	44.66	43.82	44.78	57.8	122.9	156.9	173	187.2	176.4	1275.9
2007-2008	148.2	69.72	53.59	46.4	43.66	43.45	59.87	123.4	147	168.2	177.5	168.3	1249.2
2008-2009	142.4	64.95	52.18	44.14	43.82	42.58	53.68	120.2	147	167.7	179	169.1	1226.7
2009-2010	140.1	66.49	50.05	45.97	45.07	43.83	56.98	123.2	149.3	162.5	174.9	173.2	1231.6
2010-2011	145.7	65.68	53.64	47.37	43.95	43.1	54.97	118.3	145.1	163.1	177.7	169.3	1227.9
2011-2012	144	63.58	46.84	43.23	41.6	40.94	52.17	119.8	146.1	165.5	182	171.9	1217.8
2012-2013	143.4	65.28	51.68	44.7	43.11	44.43	55.88	122.6	152.8	163.9	177.1	169.5	1234.3
2013-2014	141.4	62.63	52.49	42.41	45.38	44.03	57.03	122.6	146.6	162.9	175	168.1	1220.6
2014-2015	142.2	63.92	49.39	46.39	42.32	42.24	56.05	116.6	148.7	159	175.7	170.5	1213.0
AVERAGE	141.6	64.3	49.6	43.5	42.6	42.1	54.5	119.6	147.4	163.7	177.1	167.8	

**Table A. 160** Ziyamet station Rs results

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	114	92.61	52.95	41.74	42.23	49.16	77.69	95.7	124.8	144.2	152.2	138.3	1125.6
1979-1980	113.6	89.85	60.04	40.74	37.12	44.61	73.47	92.12	120.2	141.1	146.9	137.5	1097.3
1980-1981	111.7	84.75	56.94	41.46	40.43	45.3	78.5	96.71	120.5	143.3	153.5	142	1115.1
1981-1982	116.5	92.41	53.08	44.72	43.29	41.98	72.04	95.58	125.2	143.2	151.3	142.9	1122.2
1982-1983	118.5	91.37	53.66	38.44	35.51	42.94	73.2	95.05	126	140	151.7	140.1	1106.5
1983-1984	114.1	85	58.1	43.12	45	50.8	79.43	96.17	129.7	145.3	150.8	141.8	1139.2
1984-1985	115.4	97.36	55.82	40.49	45.57	44.37	76.78	97.73	128.9	144.6	152.8	145	1144.8
1985-1986	117.9	89.2	61.67	42.27	44.62	49.15	79.15	103.3	125.1	142.9	151.8	141.1	1148.1
1986-1987	117.8	86.47	50.54	34.33	41.02	49.98	71.84	94.22	122.8	140.4	154.8	144.8	1109.0
1987-1988	118	89.51	58.36	41	42.21	46.77	76.09	97.29	130	145.7	158.6	146.1	1149.7
1988-1989	119.2	91	54.22	43.9	39.98	48.35	80.43	104.9	130.9	142.3	154.1	141.5	1150.7
1989-1990	115.9	85.42	57.39	42.96	39.83	47.25	80.67	100.1	127	141.9	152.7	143.4	1134.5
1990-1991	115.8	91.79	61.42	45.23	43.93	48.82	82.18	102.4	129.6	145.4	150.7	138.8	1156.1
1991-1992	112.2	89.03	55.38	35.11	34.42	36.53	71.54	92.99	121.7	139.3	147.6	141.3	1077.1
1992-1993	114	89.12	55.62	33.77	38.57	41.21	74.05	93.42	121.1	141.5	150.6	137.5	1090.5
1993-1994	112.9	94.51	54.16	44.74	45.73	46.16	77.78	101.3	131.5	147.4	154	145.4	1155.6
1994-1995	119.6	97.27	57.76	38.6	45.5	51.38	81.44	94.31	125.3	143	148.9	139.6	1142.7
1995-1996	114.2	86.01	50.91	39.71	38.4	47.02	74.02	91.68	125.9	142.2	150.6	140.5	1101.1
1996-1997	113.3	88.52	58.52	48.44	45.83	45.53	74.48	93.65	127.4	145.1	155.1	138.9	1134.7
1997-1998	113.2	87.38	57.92	41.52	40.34	46.88	74.38	100.4	125.5	144.1	155	145.2	1131.8
1998-1999	115.7	91.32	61.56	42.69	45.39	48.69	79.02	96.32	131.2	144.1	154.1	144.5	1154.6
1999-2000	118.6	91.75	58.04	45.14	36.43	46.18	76.07	97.49	126.8	147	157.3	145.5	1146.3
2000-2001	118.8	88.83	60.21	44.28	45.72	50.52	85.69	101.8	128.4	146.4	155.5	146.2	1172.3
2001-2002	119.2	93.49	57.85	42.32	39.77	50.19	80.85	96.93	126.5	145.3	156.1	142.6	1151.0
2002-2003	117.4	91.16	61.21	39.46	47.21	44.05	75.3	96.69	132.9	145.9	156.6	147.1	1155.0
2003-2004	117.5	91.32	59.84	43.77	42.09	46.96	82.41	101	128.7	145.5	155.6	143	1157.6
2004-2005	118.1	95.73	61.01	40.21	44.61	47.72	81.44	100.3	129.7	144.5	153.4	144.7	1161.5
2005-2006	119.6	89.16	57.05	46.45	43.74	51.41	83.22	102.8	131.7	148.4	158.3	146.9	1178.7
2006-2007	123.3	95.87	59.62	44.58	44.64	51.66	83.04	100.2	133.3	150	159.9	149	1195.1
2007-2008	121.6	99.19	64.78	47.68	44.35	49.6	85.96	100.6	127	146.9	153.7	143.5	1184.9
2008-2009	117.3	91.94	62.39	43.66	44.6	48.21	77.14	98.32	127	146.6	154.7	144	1155.9
2009-2010	115.6	94.31	58.89	46.89	46.75	50.16	81.8	100.4	128.5	143.4	152.1	146.8	1165.7
2010-2011	119.7	93.07	64.87	49.32	44.83	49.02	78.98	97.04	125.7	143.8	153.9	144.2	1164.5
2011-2012	118.6	89.88	53.51	42.08	40.8	45.61	74.97	98.1	126.4	145.3	156.6	146	1137.8
2012-2013	118.1	92.45	61.56	44.65	43.4	51.1	80.27	99.99	130.7	144.3	153.5	144.3	1164.4
2013-2014	116.6	88.45	62.95	40.63	47.27	50.48	81.92	100	126.7	143.7	152.2	143.4	1154.3
2014-2015	117.2	90.38	57.75	47.62	42.05	47.68	80.54	95.89	128.1	141.2	152.6	145	1146.0
AVERAGE	116.8	91.0	58.0	42.5	42.5	47.4	78.3	97.9	127.3	144.2	153.5	143.2	

**Table A. 161** Zumrutkoy station Hamon results

HM	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	92.2	67.0	36.1	29.5	28.0	33.6	49.1	69.6	102.1	148.8	164.9	137.4	958.4
1979-1980	101.8	67.6	42.2	26.8	24.3	28.5	43.6	63.7	100.5	141.9	161.9	151.5	954.3
1980-1981	94.0	66.5	39.9	28.5	25.8	28.7	48.1	67.4	91.7	143.5	164.4	144.6	943.2
1981-1982	90.5	70.4	34.7	30.0	27.5	27.2	42.2	69.2	102.7	136.8	155.5	145.1	931.9
1982-1983	103.2	67.8	34.3	26.5	23.2	27.0	43.1	66.7	107.5	131.7	160.5	138.1	929.5
1983-1984	93.6	72.3	46.4	32.3	27.9	31.4	46.4	64.3	104.5	135.7	161.3	138.3	954.5
1984-1985	97.8	65.3	35.5	25.4	27.6	26.6	45.2	70.0	117.1	143.7	169.4	153.4	976.9
1985-1986	102.7	59.5	40.7	27.8	26.8	32.4	49.4	80.0	102.0	144.9	163.7	145.8	975.6
1986-1987	107.6	64.3	33.0	26.4	27.8	32.2	39.6	64.2	99.1	142.2	176.2	150.4	962.9
1987-1988	103.7	61.4	36.0	26.9	26.1	29.4	44.6	70.1	113.3	149.2	189.2	153.9	1003.9
1988-1989	105.7	63.2	32.5	26.1	22.0	27.4	47.0	78.5	113.0	139.2	172.4	148.3	975.3
1989-1990	97.1	58.9	38.1	27.7	23.4	28.7	45.8	68.6	102.2	138.4	166.5	144.2	939.5
1990-1991	96.5	65.6	39.7	28.3	25.5	29.0	49.7	71.9	99.0	140.2	156.0	141.9	943.3
1991-1992	96.1	66.6	37.1	24.7	23.2	24.1	40.4	63.5	99.9	133.9	154.7	151.5	915.7
1992-1993	92.2	64.4	37.2	22.7	24.2	26.5	43.0	64.6	94.9	145.3	164.8	143.5	923.4
1993-1994	89.7	69.9	34.4	27.9	28.4	29.9	45.0	73.8	109.0	141.6	163.6	154.5	967.8
1994-1995	109.0	72.3	35.3	25.1	27.2	30.1	48.0	66.1	105.8	156.8	172.7	148.3	996.8
1995-1996	98.5	61.4	31.6	25.1	24.1	30.4	44.5	63.3	117.8	150.6	172.8	137.6	957.6
1996-1997	98.4	58.9	39.3	29.7	27.4	27.5	42.9	62.1	109.8	151.1	184.0	142.1	973.2
1997-1998	95.9	63.4	38.1	27.8	25.6	29.4	43.8	73.5	104.9	144.9	186.1	170.0	1003.3
1998-1999	104.3	70.7	41.9	29.1	27.7	30.3	46.6	68.2	116.1	155.7	179.6	156.8	1027.1
1999-2000	102.4	68.6	37.9	29.8	22.5	27.6	43.4	71.0	106.4	157.2	187.6	152.5	1007.0
2000-2001	102.3	62.8	38.5	27.3	27.2	30.2	54.0	72.7	114.1	144.9	174.5	153.7	1002.2
2001-2002	101.0	65.7	36.3	27.0	23.4	32.0	49.6	66.3	103.0	146.2	178.8	148.6	977.9
2002-2003	97.5	66.3	40.1	25.6	28.7	27.4	41.6	66.5	125.2	154.8	185.3	162.3	1021.2
2003-2004	101.5	68.4	38.5	27.8	25.3	29.8	48.9	69.0	105.0	147.9	175.6	147.1	984.8
2004-2005	100.0	71.4	37.8	25.7	26.8	28.4	48.8	72.8	109.0	143.4	174.9	153.7	992.7
2005-2006	103.8	61.7	35.0	28.3	25.4	30.0	47.6	73.4	109.9	149.2	176.2	158.2	998.6
2006-2007	109.9	68.0	35.0	25.5	19.7	24.2	35.4	47.1	88.0	109.7	126.6	116.5	805.6
2007-2008	73.3	52.9	30.8	21.5	23.7	28.0	55.9	74.8	107.5	159.3	182.7	165.3	975.7
2008-2009	105.1	65.8	42.1	28.5	28.1	30.7	45.1	68.8	104.3	153.9	182.1	154.6	1009.0
2009-2010	100.2	71.9	37.9	29.9	28.8	32.4	49.8	71.5	108.8	144.1	166.6	169.3	1011.2
2010-2011	108.4	69.1	42.7	31.4	27.3	30.2	46.7	68.0	104.6	148.2	175.4	154.4	1006.5
2011-2012	106.7	62.7	32.8	26.5	25.0	27.6	43.1	68.2	106.2	152.1	189.1	163.3	1003.3
2012-2013	103.6	69.1	40.9	28.8	26.4	32.3	49.4	72.7	118.7	147.2	170.9	156.4	1016.6
2013-2014	101.4	59.3	41.2	25.7	29.2	32.3	51.6	72.8	109.1	146.7	170.4	159.0	998.7
2014-2015	105.3	65.2	37.1	30.7	25.9	29.3	49.6	64.7	109.1	136.4	170.2	161.9	985.3
AVERAGE	99.8	65.6	37.5	27.4	25.9	29.3	46.2	68.6	106.5	144.8	171.0	150.6	

**Table A. 162** Zumrutkoy station Thronthwaite results

TH	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	104.3	75.0	35.7	26.1	20.5	28.6	35.2	57.9	84.2	149.6	156.5	131.5	905.1
1979-1980	124.1	79.2	49.9	21.4	14.3	18.7	27.2	50.3	85.5	146.7	159.5	153.2	930.0
1980-1981	112.9	78.0	45.7	25.2	17.2	19.4	35.4	57.3	74.0	150.5	164.2	146.8	926.5
1981-1982	110.3	87.3	35.6	29.3	21.3	16.8	25.9	62.3	92.1	145.4	158.1	151.8	936.1
1982-1983	136.6	85.9	36.0	22.3	13.0	16.8	28.5	60.0	102.7	143.2	170.5	148.5	964.0
1983-1984	103.4	81.3	54.8	30.9	19.8	23.3	29.8	47.8	84.9	128.4	148.1	128.9	881.1
1984-1985	114.8	73.3	34.9	18.1	20.2	14.5	29.2	59.5	105.2	145.4	164.1	151.6	930.8
1985-1986	116.3	60.3	43.5	21.8	17.7	25.0	34.4	72.5	81.3	139.5	150.0	136.4	898.7
1986-1987	133.7	73.7	30.7	20.6	21.0	26.8	20.5	51.4	83.9	147.6	176.8	152.6	939.3
1987-1988	118.1	63.6	34.5	20.2	16.4	19.2	26.8	57.0	95.7	145.4	177.3	145.3	919.6
1988-1989	129.6	71.1	29.3	19.8	9.9	16.3	32.9	75.4	101.9	142.2	170.9	148.9	948.0
1989-1990	122.4	66.9	43.4	24.3	13.1	20.0	32.4	61.7	92.1	148.8	172.9	151.8	949.8
1990-1991	115.6	75.6	44.7	24.6	16.5	19.6	37.6	64.4	83.4	144.1	152.3	142.1	920.5
1991-1992	131.3	88.1	44.7	19.5	13.7	11.4	25.0	57.1	96.3	154.9	172.0	174.0	988.0
1992-1993	122.3	82.5	44.3	14.7	15.7	16.4	29.4	58.4	87.2	170.5	182.8	161.3	985.6
1993-1994	100.9	80.3	32.4	23.0	21.5	20.9	28.5	65.2	93.7	140.9	155.9	151.3	914.6
1994-1995	124.6	80.5	32.8	16.6	18.3	20.4	32.1	50.1	85.5	153.6	158.6	138.3	911.3
1995-1996	124.2	71.3	28.7	18.6	14.5	23.7	30.0	51.9	113.5	165.6	179.6	143.0	964.6
1996-1997	116.2	62.5	42.9	26.9	19.8	16.3	25.4	46.5	96.0	155.8	180.9	139.5	928.7
1997-1998	106.1	66.5	38.3	21.9	15.4	19.1	25.4	62.0	84.8	139.3	173.3	161.1	913.2
1998-1999	108.2	71.6	41.9	22.4	17.7	19.0	27.4	49.0	90.3	139.4	152.5	135.5	874.8
1999-2000	115.2	74.6	37.8	25.6	10.0	15.5	24.7	57.9	86.3	154.1	174.1	142.7	918.5
2000-2001	111.4	63.3	37.8	20.2	17.7	19.9	40.3	58.7	93.0	134.3	155.6	139.6	891.8
2001-2002	118.1	73.0	36.1	21.0	12.1	25.2	36.2	52.6	85.5	146.7	172.2	144.4	923.2
2002-2003	105.1	69.1	41.0	17.1	20.5	14.7	21.3	49.3	106.4	147.0	167.2	148.8	907.4
2003-2004	115.2	75.1	39.4	22.0	15.1	20.1	33.9	55.3	85.5	144.2	163.6	138.6	908.1
2004-2005	111.8	79.0	37.6	17.8	17.6	17.0	33.3	60.7	89.6	136.7	161.0	143.9	905.9
2005-2006	117.6	63.6	32.3	22.9	15.2	20.2	31.5	61.8	91.0	144.6	163.0	149.1	912.8
2006-2007	207.5	120.1	52.2	28.0	9.0	15.5	21.0	34.8	102.3	153.3	174.9	166.1	1084.7
2007-2008	81.4	56.0	27.5	11.3	13.9	18.6	51.4	73.5	100.4	180.2	193.7	177.8	985.6
2008-2009	113.8	67.2	43.9	22.0	19.1	20.5	26.3	51.9	80.1	143.3	161.3	138.8	888.2
2009-2010	104.2	74.4	35.2	24.1	19.9	23.3	32.6	54.5	83.2	127.9	141.8	149.0	870.1
2010-2011	116.5	71.1	44.4	27.1	17.5	19.2	28.2	49.8	79.2	134.3	152.1	136.4	875.9
2011-2012	126.2	67.6	28.9	19.9	14.9	16.1	25.2	55.7	89.4	153.6	182.5	159.6	939.7
2012-2013	108.2	70.0	40.4	22.1	15.7	22.9	31.8	56.0	94.1	131.0	145.4	136.2	873.8
2013-2014	110.2	57.8	42.9	17.1	21.4	23.9	36.7	58.9	87.1	136.6	151.6	145.0	889.1
2014-2015	120.2	69.6	36.5	27.6	16.1	18.9	34.8	48.2	90.3	128.8	157.2	153.3	901.4
AVERAGE	117.8	73.7	38.9	22.0	16.6	19.6	30.5	56.7	90.7	145.8	164.7	147.6	

**Table A. 163** Zumrutkoy station Hargreaves results

HG	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	171.3	167.9	138.2	135	127.7	119.9	136	143.2	161.7	178.8	191.9	188.5	1860.2
1979-1980	178	168.6	148.7	128.3	117.9	109.4	127.5	137.2	160.6	175.6	190.6	195.5	1837.8
1980-1981	172.6	167.3	145	132.5	121.9	109.9	134.5	141.1	154.2	176.4	191.7	192.1	1839.3
1981-1982	169.9	171.3	135.4	136.2	126.5	106.6	125.3	142.8	162.1	173.1	187.8	192.4	1829.4
1982-1983	178.9	168.8	134.7	127.3	114.4	106	126.8	140.3	165.3	170.4	190.1	188.9	1811.9
1983-1984	172.3	173.3	155.2	141.4	127.4	115.7	131.9	137.8	163.3	172.5	190.4	189	1870.4
1984-1985	175.2	166.1	136.9	124.5	126.8	105.2	130.1	143.6	171.3	176.4	193.8	196.3	1846.3
1985-1986	178.5	159.7	146.3	130.8	124.6	117.5	136.2	152.7	161.6	176.9	191.4	192.7	1869.1
1986-1987	181.8	165.1	132	127.1	127.1	117.2	120.7	137.8	159.6	175.7	196.6	194.9	1835.6
1987-1988	179.3	161.9	138.1	128.5	122.7	111.5	129	143.8	169	179	201.6	196.5	1860.8
1988-1989	180.5	163.8	130.9	126.3	110.7	106.9	132.8	151.4	168.8	174.2	195.1	193.9	1835.4
1989-1990	174.8	158.9	141.8	130.4	115.1	109.8	130.9	142.3	161.7	173.8	192.6	192	1824.3
1990-1991	174.3	166.4	144.6	132.1	121.2	110.4	136.7	145.5	159.5	174.7	188	190.8	1844.2
1991-1992	174	167.5	140	122.6	114.5	98.7	122.2	137	160.2	171.6	187.4	195.5	1791.2
1992-1993	171.2	165.1	140.2	116.7	117.5	104.8	126.6	138.2	156.6	177.2	191.9	191.6	1797.5
1993-1994	169.4	170.9	134.9	131.1	128.8	112.5	129.7	147.2	166.3	175.5	191.4	196.8	1854.5
1994-1995	182.6	173.3	136.7	123.7	125.7	113	134.3	139.7	164.2	182.4	195.2	193.9	1864.7
1995-1996	175.7	161.8	129	123.5	117.3	113.5	129	136.8	171.7	179.6	195.2	188.6	1821.8
1996-1997	175.7	158.9	143.9	135.4	126.2	107.2	126.4	135.5	166.8	179.8	199.6	191	1846.3
1997-1998	173.9	164	141.8	130.9	121.4	111.5	127.8	146.9	163.6	177	200.4	203.5	1862.7
1998-1999	179.6	171.7	148.4	134.1	127	113.3	132.3	141.9	170.7	181.8	197.9	197.9	1896.5
1999-2000	178.4	169.6	141.5	135.6	112.2	107.4	127.2	144.6	164.6	182.5	201	195.9	1860.5
2000-2001	178.3	163.3	142.6	129.6	125.6	113.1	142.5	146.2	169.5	177	195.9	196.4	1880.2
2001-2002	177.4	166.5	138.5	128.7	115.2	116.8	136.6	139.9	162.3	177.5	197.6	194.1	1851.2
2002-2003	175	167.2	145.3	125	129.4	106.9	124.2	140.1	176	181.5	200.1	200.3	1871.0
2003-2004	177.8	169.4	142.5	130.8	120.7	112.3	135.6	142.6	163.7	178.4	196.3	193.4	1863.5
2004-2005	176.8	172.4	141.4	125.4	124.6	109.2	135.4	146.3	166.3	176.3	196.1	196.5	1866.6
2005-2006	179.3	162.1	136	132.2	120.9	112.6	133.7	146.9	166.9	178.9	196.6	198.5	1864.5
2006-2007	183.2	168.9	136	124.7	103	99	112.9	116.7	151.3	158.1	173.3	176.9	1704.1
2007-2008	155.6	151.3	127.5	112.6	116.2	108.2	145	148.1	165.3	183.4	199.1	201.6	1813.9
2008-2009	180.1	166.7	148.5	132.4	128	114.1	129.9	142.4	163.2	181	198.9	196.9	1882.2
2009-2010	177	172.9	141.4	135.9	129.8	117.7	136.9	145.1	166.2	176.6	192.6	203.2	1895.3
2010-2011	182.3	170.1	149.6	139.4	126	113.1	132.4	141.6	163.4	178.5	196.3	196.8	1889.5
2011-2012	181.2	163.3	131.6	127.3	119.8	107.4	126.7	142	164.5	180.3	201.6	200.7	1846.3
2012-2013	179.2	170.1	146.6	133.4	123.5	117.4	136.3	146.3	172.3	178.1	194.5	197.6	1895.2
2013-2014	177.7	159.3	147.1	125.2	130.8	117.3	139.4	146.3	166.4	177.8	194.2	198.8	1880.4
2014-2015	180.2	166	140	137.8	122.3	111.2	136.5	138.3	166.3	172.9	194.2	200	1865.7
AVERAGE	176.5	166.3	140.5	129.6	121.9	110.9	131.3	142.1	164.5	176.8	194.3	194.9	

**Table A. 164** Zumrutkoy station Blaney-Criddle results

BC	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	131.8	62.18	46.61	43.23	42.11	42.96	53.53	116.7	141.4	161.8	170.9	157.9	1171.1
1979-1980	137	62.42	50.15	41.07	38.85	39.19	50.21	111.8	140.4	158.9	169.7	163.7	1163.3
1980-1981	132.8	61.97	48.92	42.44	40.21	39.37	52.96	114.9	134.7	159.6	170.7	160.9	1159.6
1981-1982	130.8	63.45	45.68	43.61	41.72	38.17	49.34	116.4	141.7	156.7	167.2	161.2	1155.9
1982-1983	137.7	62.5	45.41	40.77	37.7	37.95	49.92	114.3	144.5	154.3	169.1	158.2	1152.5
1983-1984	132.6	64.15	52.38	45.29	42	41.43	51.95	112.3	142.8	156.2	169.5	158.3	1168.8
1984-1985	134.9	61.5	46.18	39.88	41.8	37.65	51.22	117	149.7	159.7	172.5	164.4	1176.5
1985-1986	137.5	59.11	49.34	41.88	41.08	42.08	53.65	124.5	141.3	160.2	170.4	161.4	1182.3
1986-1987	139.9	61.11	44.52	40.7	41.92	41.97	47.53	112.2	139.5	159	175	163.2	1166.7
1987-1988	138	59.92	46.55	41.15	40.45	39.94	50.83	117.1	147.7	162	179.5	164.6	1187.7
1988-1989	139	60.66	44.15	40.44	36.47	38.29	52.31	123.4	147.6	157.7	173.6	162.4	1176.1
1989-1990	134.5	58.82	47.83	41.77	37.95	39.32	51.57	115.9	141.4	157.3	171.4	160.8	1158.6
1990-1991	134.2	61.63	48.77	42.31	39.93	39.56	53.84	118.5	139.4	158.1	167.4	159.8	1163.6
1991-1992	134	62.01	47.22	39.25	37.73	35.35	48.13	111.6	140	155.3	166.9	163.7	1141.1
1992-1993	131.8	61.14	47.29	37.34	38.73	37.53	49.83	112.6	136.9	160.4	170.8	160.5	1144.8
1993-1994	130.4	63.29	45.5	42	42.48	40.29	51.07	120	145.4	158.8	170.3	164.9	1174.3
1994-1995	140.6	64.18	46.1	39.62	41.43	40.46	52.89	113.8	143.5	165.1	173.7	162.4	1183.8
1995-1996	135.3	59.92	43.51	39.55	38.67	40.66	50.8	111.5	150.1	162.5	173.8	158	1164.3
1996-1997	135.2	58.83	48.52	43.37	41.6	38.39	49.75	110.4	145.8	162.8	177.7	159.9	1172.2
1997-1998	133.8	60.74	47.83	41.92	39.99	39.94	50.31	119.7	143	160.2	178.4	170.5	1186.4
1998-1999	138.3	63.58	50.03	42.95	41.85	40.59	52.07	115.6	149.2	164.6	176.2	165.7	1200.7
1999-2000	137.3	62.79	47.71	43.44	37	38.49	50.09	117.8	143.9	165.2	178.9	164.1	1186.8
2000-2001	137.3	60.5	48.09	41.5	41.41	40.53	56.12	119.2	148.2	160.2	174.4	164.5	1191.8
2001-2002	136.6	61.68	46.71	41.19	37.99	41.83	53.8	114	141.8	160.7	175.9	162.6	1174.8
2002-2003	134.7	61.9	49.02	40.03	42.67	38.3	48.89	114.1	153.9	164.3	178.2	167.7	1193.7
2003-2004	136.8	62.71	48.08	41.89	39.79	40.25	53.39	116.2	143	161.4	174.8	162	1180.3
2004-2005	136.1	63.82	47.66	40.16	41.07	39.12	53.34	119.2	145.4	159.5	174.5	164.5	1184.4
2005-2006	138	60.01	45.88	42.33	39.88	40.35	52.63	119.6	145.9	162	175	166.2	1187.8
2006-2007	141	62.55	45.85	39.94	33.95	35.45	44.44	95.09	132.2	143.1	154.3	148.2	1076.0
2007-2008	119.8	56.04	42.98	36.07	38.28	38.75	57.12	120.7	144.5	166	177.3	168.8	1166.3
2008-2009	138.7	61.72	50.1	42.41	42.19	40.87	51.17	116	142.7	163.9	177.1	164.9	1191.6
2009-2010	136.2	64.02	47.69	43.54	42.8	42.14	53.92	118.2	145.2	159.8	171.5	170.2	1195.3
2010-2011	140.3	63	50.47	44.64	41.53	40.49	52.12	115.4	142.8	161.6	174.7	164.8	1191.9
2011-2012	139.5	60.45	44.39	40.77	39.49	38.46	49.88	115.6	143.8	163.1	179.4	168.1	1183.0
2012-2013	137.9	63	49.46	42.72	40.74	42.06	53.7	119.2	150.6	161.2	173.1	165.5	1199.1
2013-2014	136.8	59.01	49.63	40.09	43.1	42.03	54.88	119.2	145.4	160.9	172.9	166.5	1190.5
2014-2015	138.8	61.45	47.24	44.13	40.31	39.83	53.77	112.7	145.4	156.5	172.8	167.6	1180.4
AVERAGE	135.8	61.6	47.4	41.5	40.2	39.7	51.7	115.7	143.8	160.0	173.0	163.2	

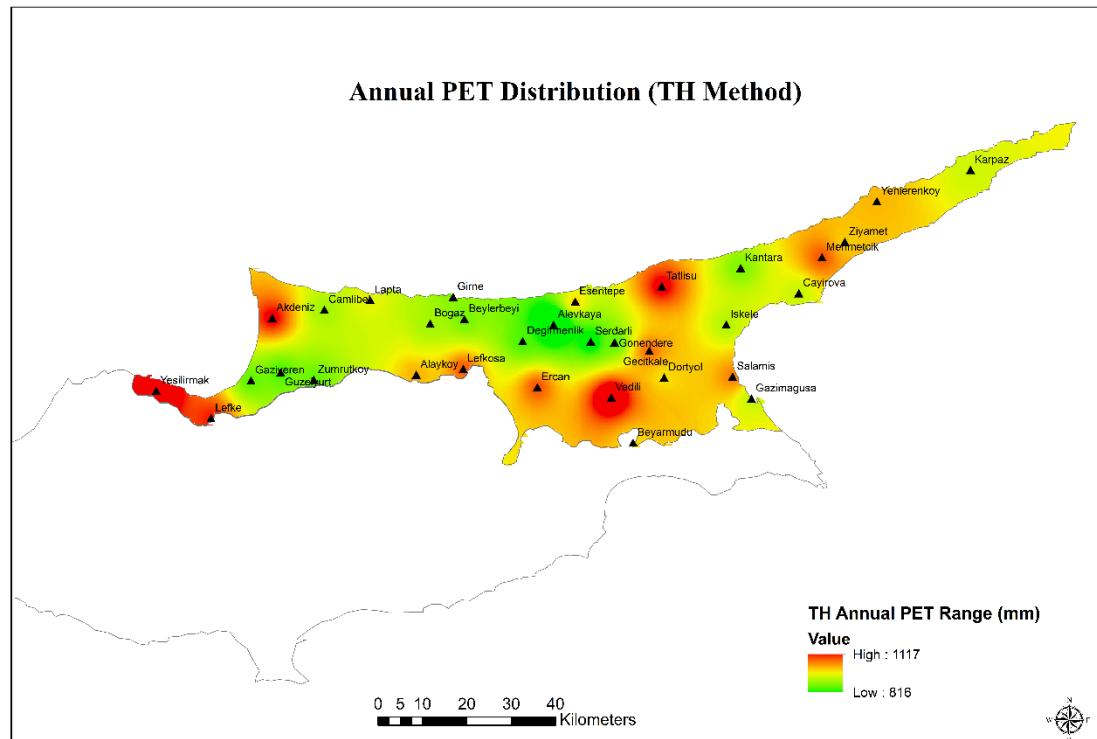
**Table A. 165 Zumrutkoy station Rs results**

Rs	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	TOTAL
1978-1979	112.3	89.77	54.4	43.1	42.84	50.16	79.18	98.67	126.7	146.7	153.3	139.9	1137.0
1979-1980	116.1	90.13	60.32	39.34	37.32	44.24	74.43	95.26	126.1	144.9	152.5	143.8	1124.4
1980-1981	113	89.43	58.28	41.72	39.6	44.54	78.34	97.47	122.5	145.3	153.2	141.9	1125.3
1981-1982	111.5	91.67	52.88	43.76	42.18	42.65	73.2	98.43	126.9	143.5	150.9	142.1	1119.7
1982-1983	116.6	90.24	52.45	38.78	35.35	42.32	74.02	97.02	128.8	142	152.2	140.1	1109.9
1983-1984	112.9	92.76	63.99	46.72	42.67	47.79	76.93	95.63	127.6	143.2	152.4	140.2	1142.7
1984-1985	114.5	88.73	53.7	37.24	42.35	41.86	75.87	98.87	132.1	145.3	154.3	144.3	1129.2
1985-1986	116.4	85.14	58.97	40.74	41.11	48.79	79.33	104	126.7	145.6	153	142.2	1142.0
1986-1987	118.2	88.15	50.94	38.67	42.52	48.61	70.63	95.59	125.6	144.9	155.9	143.5	1123.2
1987-1988	116.8	86.35	54.35	39.45	40.02	45.42	75.3	98.97	130.8	146.8	158.7	144.4	1137.3
1988-1989	117.5	87.45	50.34	38.21	33.26	42.83	77.41	103.3	130.7	144.1	155.1	142.9	1123.1
1989-1990	114.3	84.67	56.46	40.55	35.77	44.49	76.37	98.11	126.7	143.9	153.7	141.8	1116.8
1990-1991	114	88.91	58.01	41.47	39.16	44.82	79.6	99.92	125.5	144.4	151.1	141.2	1128.0
1991-1992	113.9	89.52	55.44	36.15	35.41	38.23	71.48	95.15	125.9	142.6	150.8	143.8	1098.3
1992-1993	112.3	88.19	55.57	32.8	37.08	41.63	73.9	95.81	123.9	145.8	153.3	141.6	1101.8
1993-1994	111.3	91.45	52.58	40.94	43.48	45.96	75.65	100.9	129.3	144.8	153	144.6	1133.8
1994-1995	118.6	92.8	53.61	36.78	41.69	46.26	78.25	96.69	128.1	148.7	155.1	142.9	1139.6
1995-1996	114.8	86.34	49.28	36.66	36.97	46.56	75.26	95.04	132.4	147.1	155.1	139.9	1115.5
1996-1997	114.8	84.69	57.6	43.33	41.99	43	73.79	94.32	129.6	147.3	157.6	141.3	1129.2
1997-1998	113.8	87.57	56.45	40.8	39.27	45.44	74.58	100.7	127.8	145.7	158.1	148.3	1138.4
1998-1999	117	91.87	60.13	42.61	42.42	46.43	77.1	97.92	131.8	148.4	156.7	145.1	1157.4
1999-2000	116.3	90.69	56.26	43.47	34.15	43.14	74.24	99.45	128.3	148.8	158.4	144	1137.2
2000-2001	116.3	87.19	56.89	40.09	41.66	46.33	82.87	100.4	131.1	145.7	155.5	144.3	1148.3
2001-2002	115.7	88.99	54.59	39.55	35.81	48.4	79.55	96.8	127.1	146	156.5	143	1132.0
2002-2003	114.4	89.36	58.43	37.48	43.79	42.86	72.57	96.89	134.8	148.2	157.9	146.5	1143.1
2003-2004	116	90.57	56.86	40.76	38.91	45.89	78.98	98.32	127.8	146.5	155.7	142.6	1138.9
2004-2005	115.4	92.26	56.2	37.73	41.09	44.14	78.88	100.4	129.3	145.3	155.6	144.3	1140.6
2005-2006	116.8	86.49	53.2	41.51	39.02	46.07	77.92	100.7	129.7	146.8	155.9	145.5	1139.5
2006-2007	119	90.33	53.18	37.35	28.96	38.4	66.23	83.76	120.9	135	142.8	133.4	1049.3
2007-2008	103.5	80.45	48.4	30.55	36.35	43.55	84.29	101.4	128.7	149.3	157.3	147.2	1111.0
2008-2009	117.3	89.09	60.24	41.65	43	46.87	75.78	98.2	127.6	147.9	157.2	144.6	1149.4
2009-2010	115.5	92.54	56.25	43.63	44.02	48.89	79.73	99.7	129.3	145.5	153.7	148.1	1156.7
2010-2011	118.5	91.01	60.85	45.57	41.85	46.32	77.17	97.76	127.7	146.5	155.7	144.5	1153.5
2011-2012	117.9	87.16	50.73	38.8	38.39	43.1	73.99	97.94	128.3	147.5	158.7	146.7	1129.2
2012-2013	116.7	91.01	59.17	42.19	40.49	48.72	79.39	100.4	132.7	146.3	154.7	145	1156.7
2013-2014	115.9	84.95	59.45	37.6	44.56	48.7	81.13	100.4	129.4	146.1	154.6	145.7	1148.3
2014-2015	117.3	88.66	55.46	44.69	39.78	45.26	79.5	95.87	129.3	143.4	154.5	146.3	1140.1
AVERAGE	115.2	88.8	55.7	40.1	39.6	45.1	76.6	98.0	128.3	145.6	154.6	143.4	

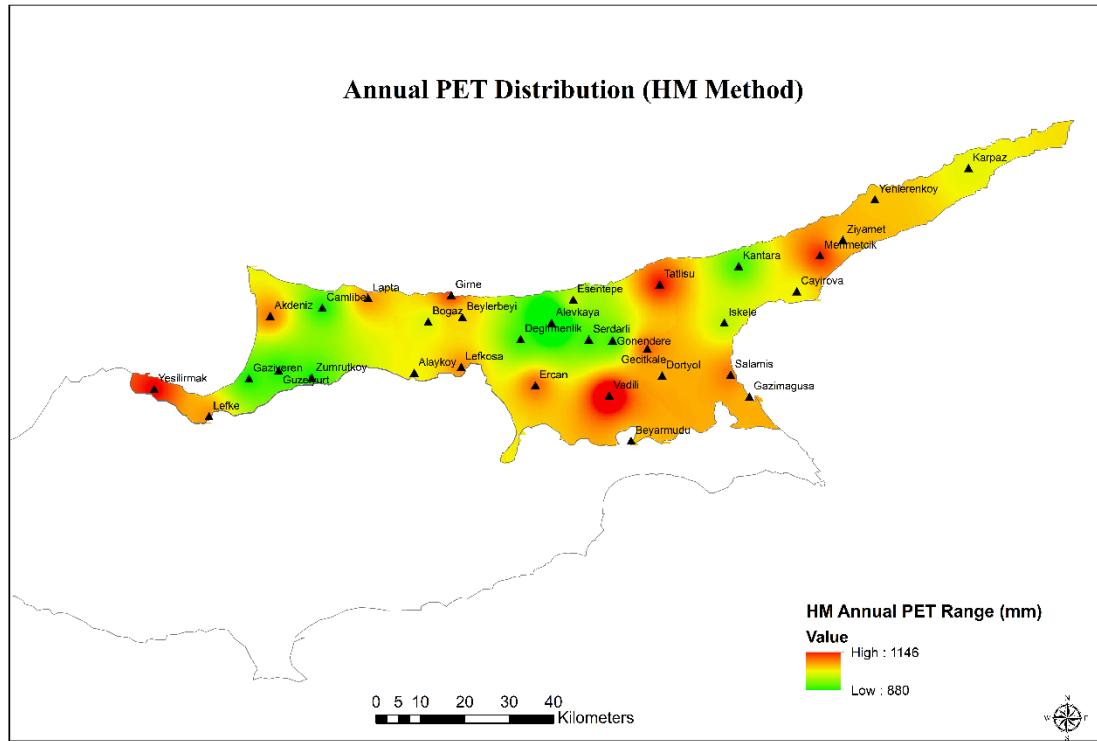
## APPENDIX B

### ANNUAL PET MAPS

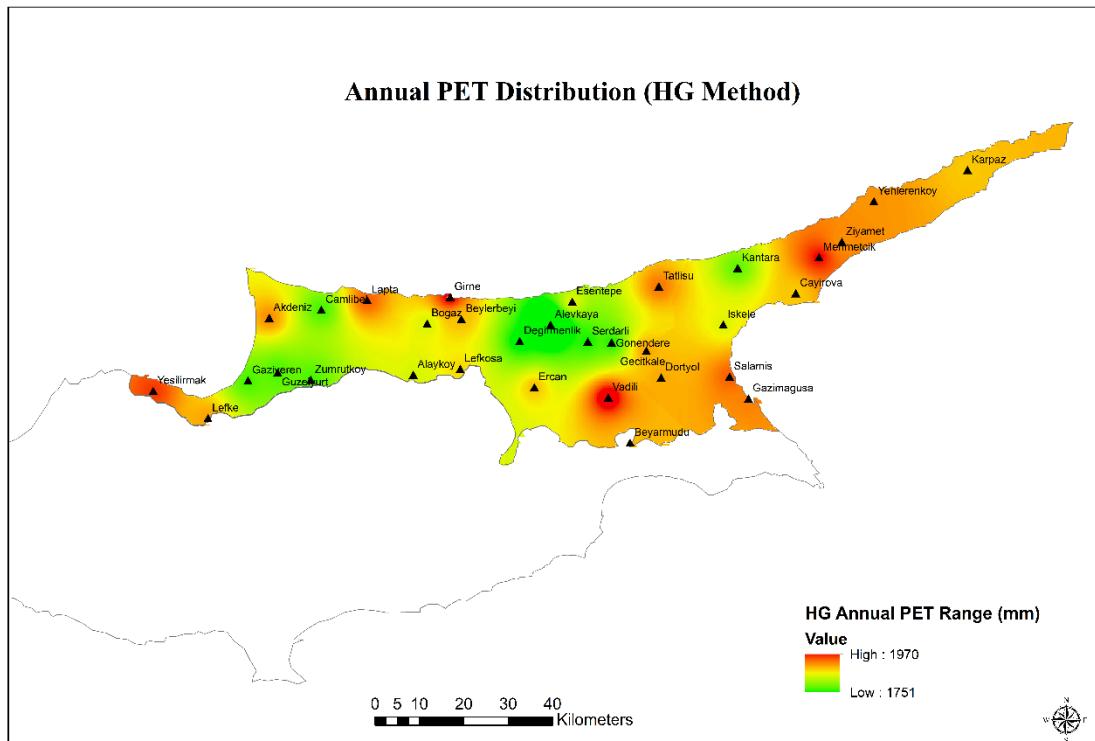
In this Appendix, annual PET distributions will be shared. Five maps were provided from five methods. In these maps, stations monthly averages were calculated, and summed in order to find average annual total.



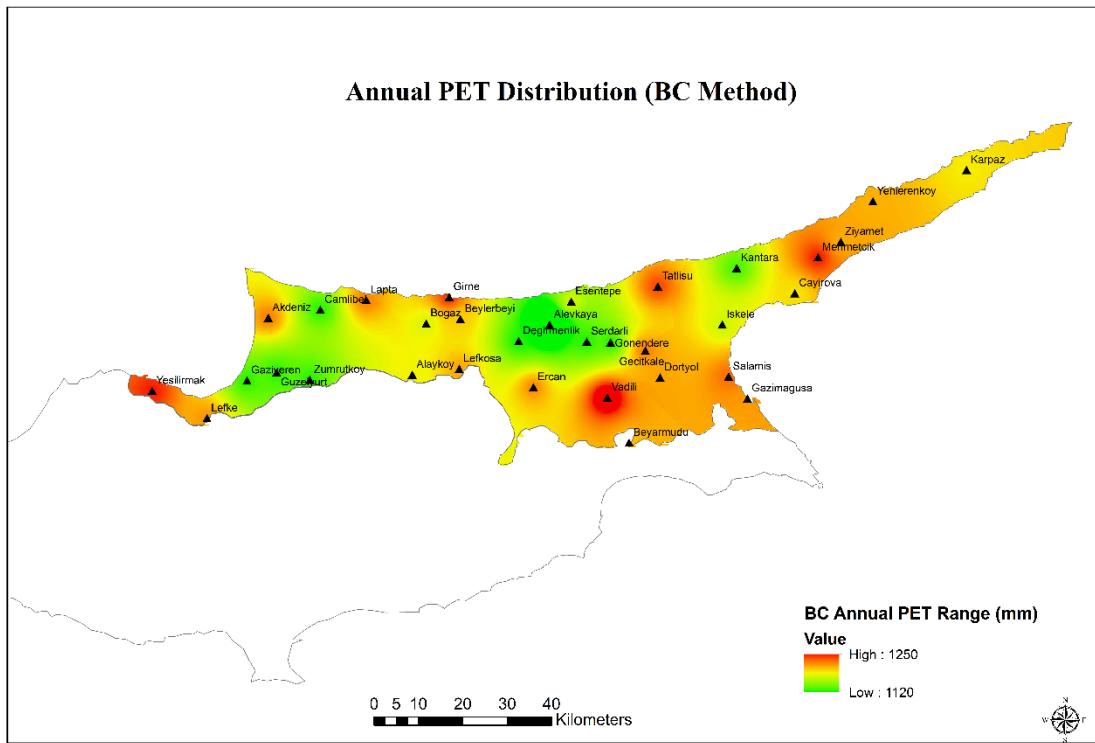
**Figure B.1** Annual PET distribution of Thornthwaite method



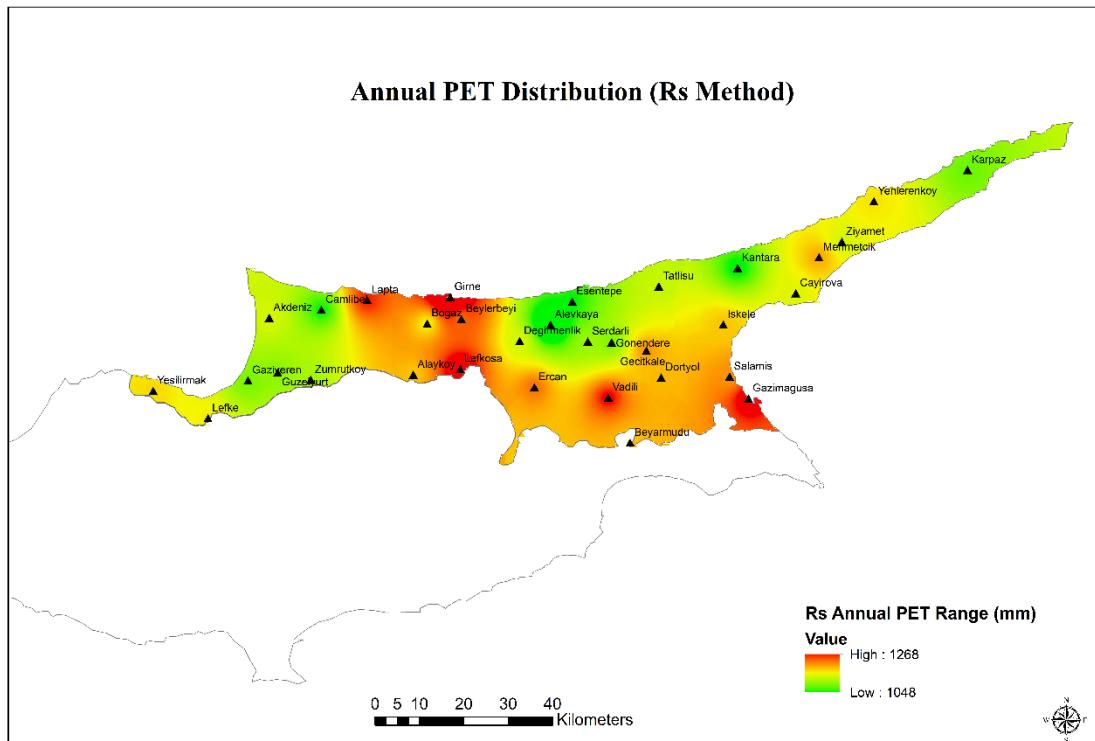
**Figure B.2** Annual PET distribution of Hamon method



**Figure B.3** Annual PET distribution of Thornthwaite method



**Figure B.4** Annual PET distribution of Thornthwaite method



**Figure B.5** Annual PET distribution of Thornthwaite method