



AGROMETEOROLOGICAL BULLETIN

*April 2022
3rd 10-day period*

- Temperature
- Relative Humidity
- Soil Temperature
- Sunshine Duration
- Precipitation
- Evaporation
- Growing Degrees
- Reference Evapotranspiration
- Accumulated Rainfall from the beginning of wet period
- Accumulated Reference Evapotranspiration
- Number of dry days



Hellenic National Meteorological Service
Division of Climatology-Applications
El. Venizelou Street 14, 16777
Helliniko, Athens

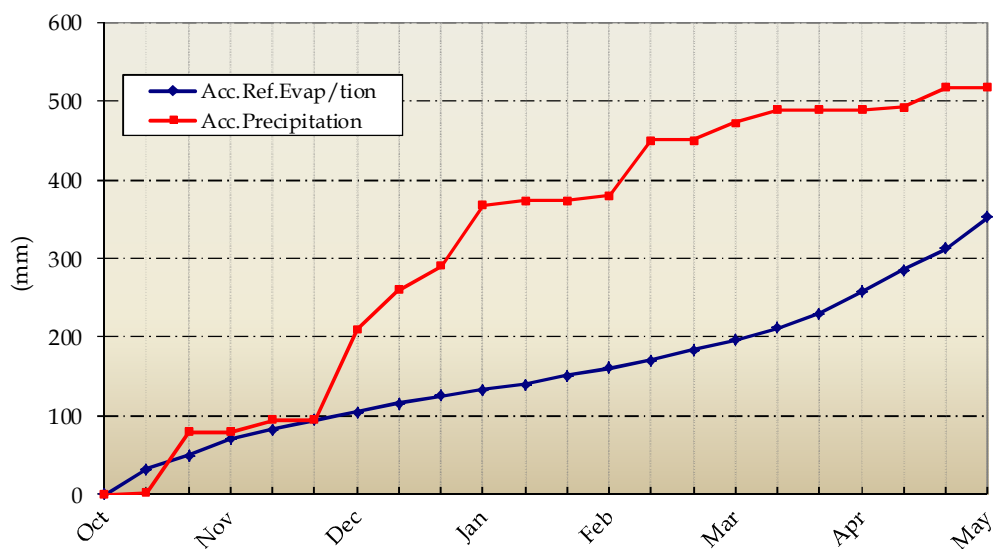
Web addresses of HNMS
www.hnms.gr
www.emy.gov.gr
www.meteo.gov.gr
www.meteohellas.gr

Alexandroupoli

3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	17.2	21.8	19.4	24.4	20.4	25.4	26.4	26.8	24.4	22.6	22.9	19.1	19.5
	Min	6.4	8.4	10.0	10.0	8.6	10.0	13.0	11.0	12.0	12.0	10.1	7.7	8.6
Relative Humidity	Max	92	95	95	90	92	97	91	85	78	83	90	91	86
	Min	43	40	55	38	61	44	35	32	38	39	42	48	45
Soil Temperature at 10 cm	06 UTC	11.4	12.2	13.6	13.4	15.0	15.0	16.8	16.4	16.6	17.0	14.7	13.5	14.3
	12 UTC	14.2	15.4	15.0	17.8	18.0	17.4	19.4	20.0	19.0	19.4	17.6	16.4	17.9
Sunshine Duration		8.5	7.4	10.1	11.8	10.7	11.3	11.6	12.4	9.3	6.5	10.0	7.4	8.6
Precipitation													0.5	4.7
Evaporation		4.7	4.0	2.1	6.6	5.7	4.3	7.2	4.8	7.2	7.5	54.1	44.1	45.5
Growing Degrees	5	6.8	10.1	9.7	12.2	9.5	12.7	14.7	13.9	13.2	12.3	115.1	84.1	79.6
	10	1.8	5.1	4.7	7.2	4.5	7.7	9.7	8.9	8.2	7.3	65.1	34.1	35.9

3rd 10-day period (21-30/04/2022)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	39.1	30.3
Precipitation - Reference Evapotranspiration	-39.1	-29.8
Number of Rainy Days	0.0	1.0
Number of Dry Days	12.0	5.0

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

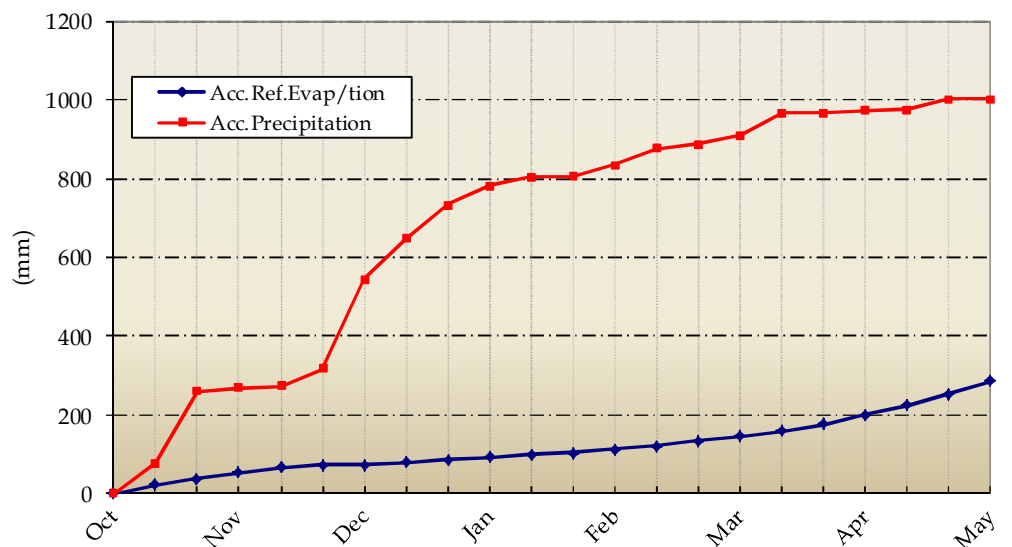


3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	20.6	25.0	20.7	21.5	23.9	22.6	22.4	24.6	22.4	23.6	22.7	23.8	21.3
	Min	7.4	12.5	12.2	9.6	10.9	7.9	9.2	9.0	11.8	13.2	10.4	10.0	10.6
Relative Humidity	Max	96	94	97	97	97	98	95	95	94	95	96	93	92
	Min	47	33	63	61	39	48	52	50	54	49	50	39	45
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	16.5	16.4
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	18.3	20.5
Sunshine Duration		10.8	8.7	12.5	11.6	9.8	9.8	12.3	9.4	0.0	7.5	9.2	8.1	8.8
Precipitation													5.5	6.5
Evaporation		-	-	-	-	-	-	-	-	-	-	-	51.0	50.8
Growing Degrees	5	9.0	13.8	11.5	10.6	12.4	10.3	10.8	11.8	12.1	13.4	115.5	119.0	91.1
	10	4.0	8.8	6.5	5.6	7.4	5.3	5.8	6.8	7.1	8.4	65.5	69.0	49.4

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	32.9	31.1	18.1
Precipitation - Reference Evapotranspiration	-32.9	-25.6	-11.6
Number of Rainy Days	0.0	2.0	1.4
Number of Dry Days	11.0	1.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

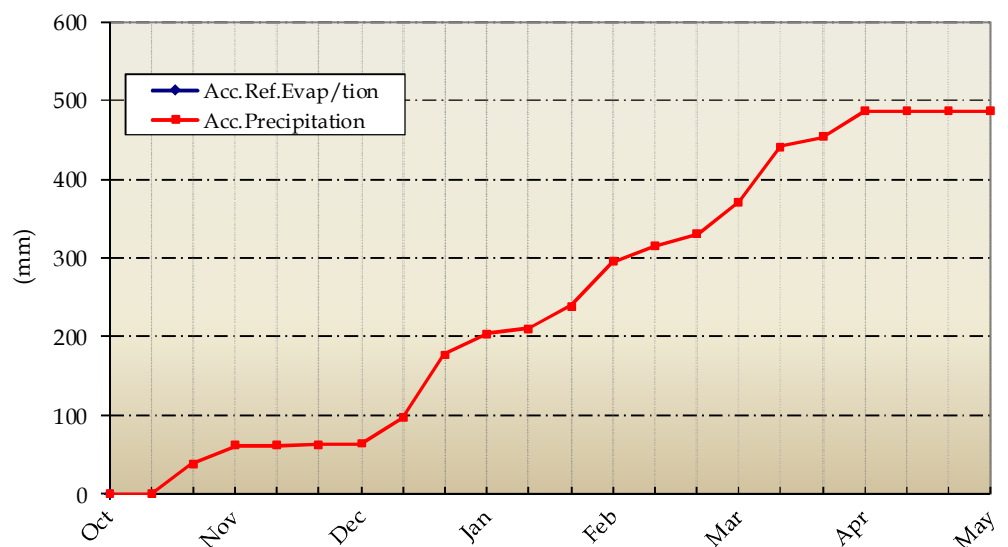


3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	18.6	26.0	21.4	20.6	22.6	24.0	22.6	22.2	20.0	20.4	21.8	22.6	20.7
	Min	9.2	12.8	15.6	11.6	11.8	14.4	11.2	13.0	13.6	16.6	13.0	14.4	12.7
Relative Humidity	Max	92	71	91	93	93	80	86	91	89	80	87	82	84
	Min	63	13	19	59	50	40	47	56	67	58	47	48	51
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		10.2	11.4	10.7	12.3	12.0	9.4	12.3	11.8	1.8	10.5	10.2	8.1	9.4
Precipitation														3.6
Evaporation		2.6	9.5	2.7	4.1	3.8	3.7	3.0	2.6	3.8	4.4	40.2	56.6	45.9
Growing Degrees	5	8.9	14.4	13.5	11.1	12.2	14.2	11.9	12.6	11.8	13.5	124.1	134.7	104.1
	10	3.9	9.4	8.5	6.1	7.2	9.2	6.9	7.6	6.8	8.5	74.1	84.7	59.6

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	
Precipitation - Reference Evapotranspiration	-	-	
Number of Rainy Days	0.0	0.0	1.0
Number of Dry Days	37.0	21.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

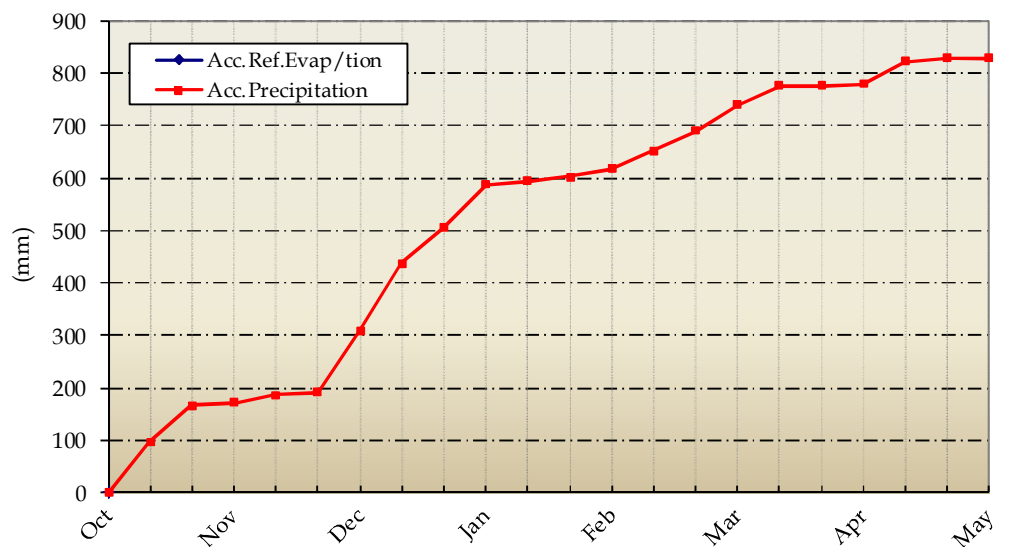


3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	20.1	22.3	21.3	24.5	23.9	23.3	26.4	27.3	22.0	23.5	23.5	20.6	19.7
	Min	1.1	11.6	10.1	4.5	7.1	3.1	3.2	5.1	10.3	7.9	6.4	6.5	7.2
Relative Humidity	Max	99	81	95	100	99	97	96	97	59	85	91	96	93
	Min	29	31	41	29	23	28	26	24	40	37	31	44	43
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	12.2
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	13.8
Sunshine Duration		3.8	5.6	10.6	9.2	11.7	12.1	12.1	10.7	0.6	4.4	8.1	7.4	6.7
Precipitation			0.0		0.0						0.0	0.0	18.7	11.7
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	
Growing Degrees	5	5.6	12.0	10.7	9.5	10.5	8.2	9.8	11.2	11.2	10.7	99.3	85.3	68.0
	10	0.6	7.0	5.7	4.5	5.5	3.2	4.8	6.2	6.2	5.7	49.3	38.3	28.2

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	40.6
Precipitation - Reference Evapotranspiration	-	-	-28.9
Number of Rainy Days	0.0	4.0	2.9
Number of Dry Days	11.0	1.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

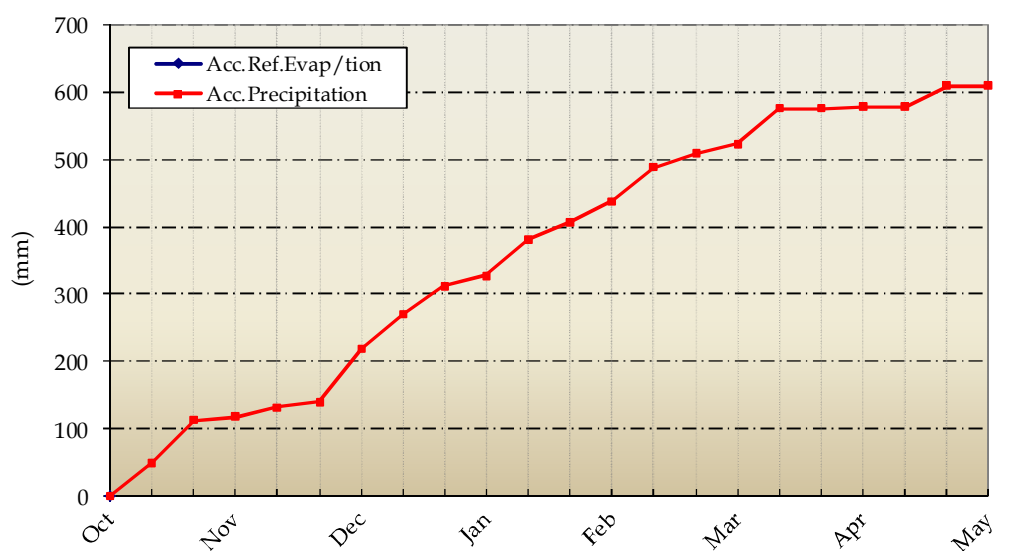


3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	18.8	22.0	21.5	23.2	23.7	28.2	24.7	26.4	23.8	22.8	23.5	23.2	21.7
	Min	6.8	10.8	7.1	10.4	11.5	10.0	10.5	9.2	12.7	11.7	10.1	10.2	9.7
Relative Humidity	Max	97	95	89	95	93	82	75	82	86	96	89	91	91
	Min	48	45	45	52	36	22	29	31	40	51	40	36	41
Soil Temperature at 10 cm	06 UTC	15.0	15.4	14.6	16.0	17.2	17.8	17.2	17.4	18.6	18.0	16.7	16.3	16.0
	12 UTC	17.0	18.2	17.8	19.0	19.6	19.8	20.0	20.0	20.6	20.4	19.2	19.7	18.6
Sunshine Duration		10.1	5.0	11.9	12.5	10.9	12.7	12.5	12.1	0.2	10.2	9.8	8.3	8.7
Precipitation				0.0								0.0	2.4	10.8
Evaporation		-	-	-	-	-	-	-	-	-	-	-	58.2	44.3
Growing Degrees	5	7.8	11.4	9.3	11.8	12.6	14.1	12.6	12.8	13.3	12.3	117.9	116.7	93.4
	10	2.8	6.4	4.3	6.8	7.6	9.1	7.6	7.8	8.3	7.3	67.9	66.7	49.7

3rd 10-day period (21-30/04/2022)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	31.7
Precipitation - Reference Evapotranspiration	-	-20.9
Number of Rainy Days	0.0	1.8
Number of Dry Days	11.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

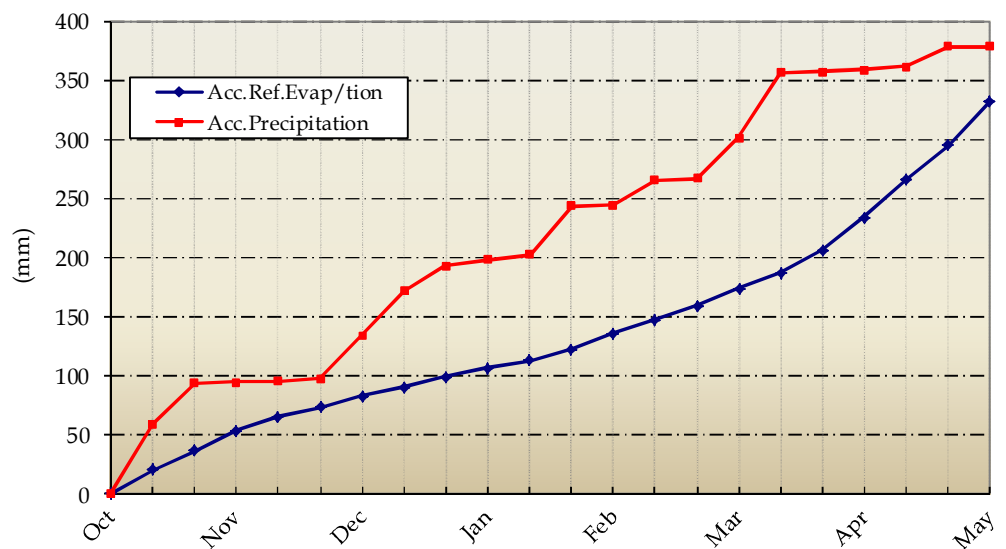


3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	18.8	20.8	24.8	26.0	28.8	26.9	26.6	26.6	21.6	22.2	24.3	21.4	22.0
	Min	4.8	9.8	6.2	7.8	8.4	7.8	8.2	8.6	13.6	13.8	8.9	7.9	8.5
Relative Humidity	Max	97	97	100	94	96	87	86	93	85	89	92	97	92
	Min	48	58	36	38	15	23	37	32	45	47	38	50	38
Soil Temperature at 10 cm	06 UTC	11.8	13.6	14.4	15.4	16.2	17.0	16.8	17.2	17.6	17.6	15.8	-	15.0
	12 UTC	15.0	14.8	16.2	17.0	17.6	22.4	18.4	18.6	18.8	18.2	17.7	-	16.5
Sunshine Duration		3.0	8.3	9.4	10.7	10.0	10.9	11.0	9.1	4.1	1.8	7.8	7.5	8.1
Precipitation													21.9	8.4
Evaporation		4.9	4.2	6.2	8.8	1.8	8.7	6.7	6.7	4.6	1.9	54.5	48.1	56.2
Growing Degrees	5	6.8	10.3	10.5	11.9	13.6	12.4	12.4	12.6	12.6	13.0	116.1	96.4	95.6
	10	1.8	5.3	5.5	6.9	8.6	7.4	7.4	7.6	7.6	8.0	66.1	46.4	48.9

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	37.3	32.2	54.6
Precipitation - Reference Evapotranspiration	-37.3	-10.3	-46.2
Number of Rainy Days	0.0	4.0	2.6
Number of Dry Days	11.0	4.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



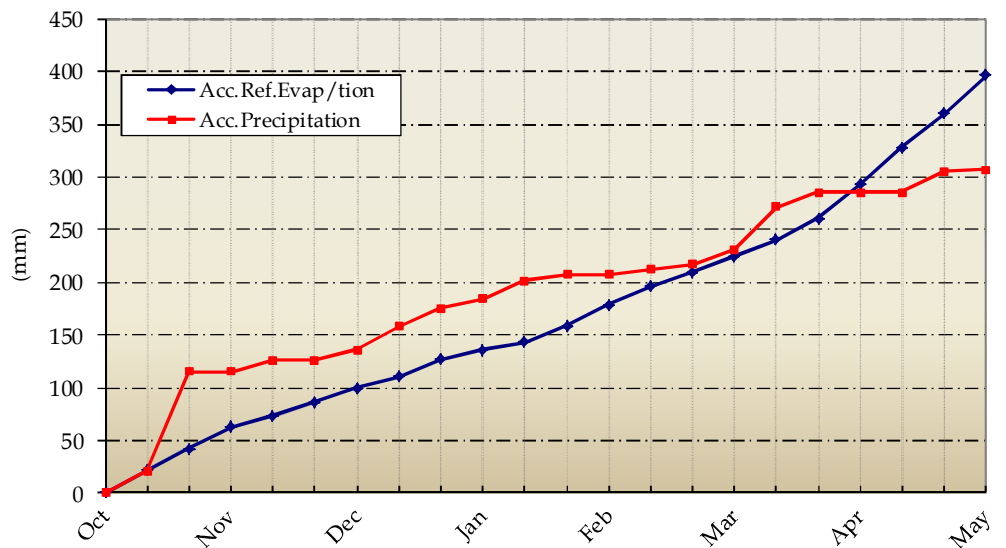
Mikra

3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	14.4	20.0	22.0	25.3	25.5	26.5	25.2	25.8	22.3	21.0	22.8	20.1	20.9
	Min	5.0	10.0	8.6	9.0	11.2	9.4	10.2	10.6	13.0	15.3	10.2	9.5	9.9
Relative Humidity	Max	99	100	100	97	100	100	98	94	96	100	98	93	85
	Min	66	50	45	40	47	29	42	30	46	55	45	55	40
Soil Temperature at 10 cm	06 UTC	12.8	13.2	14.0	15.0	15.6	15.2	16.4	17.0	17.2	17.2	15.4	14.7	15.4
	12 UTC	13.4	13.2	16.0	17.0	17.0	18.0	18.2	19.8	18.4	18.0	16.9	17.4	20.0
Sunshine Duration		0.4	7.9	10.6	11.6	10.1	12.3	12.1	11.4	3.6	2.9	8.3	8.4	8.3
Precipitation		0.0	0.1								2.1	2.2	19.1	8.1
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	50.1
Growing Degrees	5	4.7	10.0	10.3	12.2	13.4	13.0	12.7	13.2	12.7	13.2	115.2	97.9	91.9
	10	0.0	5.0	5.3	7.2	8.4	8.0	7.7	8.2	7.7	8.2	65.5	47.9	47.6

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	36.5	33.6	28.7
Precipitation - Reference Evapotranspiration	-34.3	-14.5	-20.6
Number of Rainy Days	2.0	4.0	2.5
Number of Dry Days	2.0	0.0	-

The missing info in the tables are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



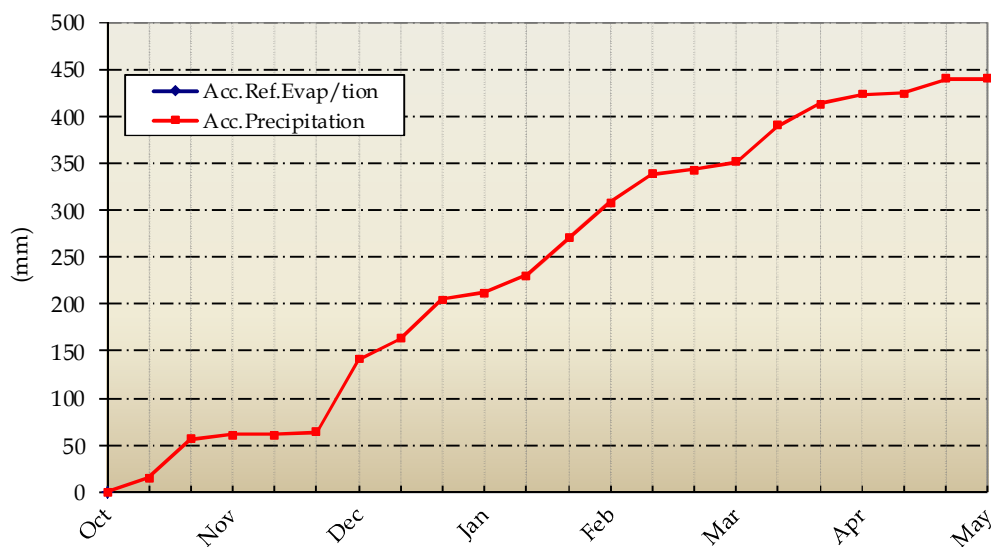
Tanagra

3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	19.7	23.2	23.8	25.2	28.8	26.9	26.0	26.0	20.6	20.5	24.1	21.7	20.8
	Min	7.5	9.4	9.4	10.3	11.6	10.1	9.8	9.8	11.7	11.0	10.1	8.8	8.8
Relative Humidity	Max	95	98	90	95	81	79	78	81	73	77	85	93	86
	Min	47	20	36	35	14	25	31	29	33	43	31	42	35
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		10.2	6.4	11.7	12.0	11.8	12.2	12.5	9.3	3.5	10.9	10.0	8.2	8.6
Precipitation													23.3	5.8
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	44.6
Growing Degrees	5	8.6	11.3	11.6	12.8	15.2	13.5	12.9	12.9	11.2	10.8	120.7	102.5	84.7
	10	3.6	6.3	6.6	7.8	10.2	8.5	7.9	7.9	6.2	5.8	70.7	52.5	41.4

3rd 10-day period (21-30/04/2022)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-
Precipitation - Reference Evapotranspiration	-	-
Number of Rainy Days	0.0	2.0
Number of Dry Days	11.0	15.0

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



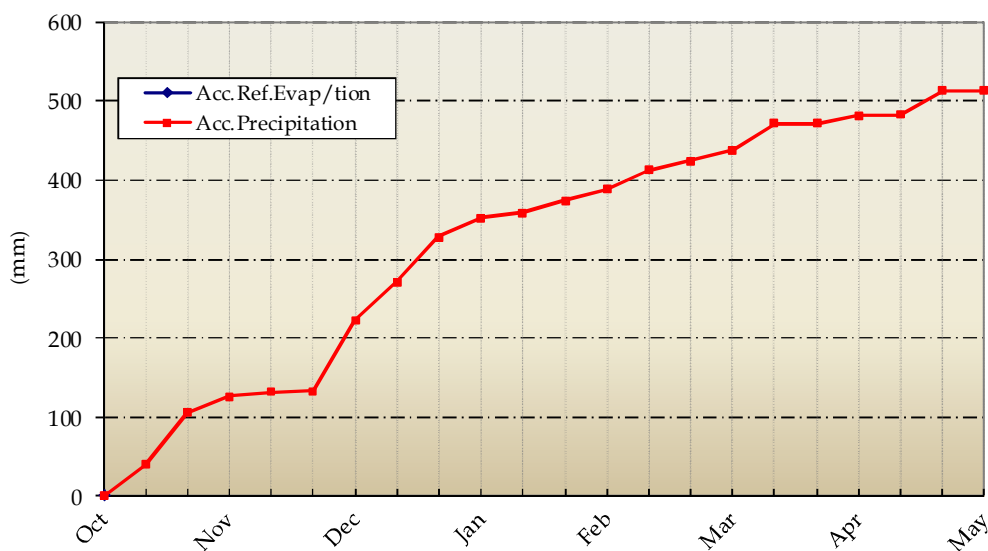
Tripoli

3rd 10-day period (21-30/04/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	20.4	21.0	22.7	23.6	24.5	24.1	24.7	24.1	21.3	19.9	22.6	20.0	19.5
	Min	2.7	5.9	6.0	4.6	5.8	3.0	3.0	4.2	8.2	7.5	5.1	5.4	5.5
Relative Humidity	Max	95	96	96	98	95	89	89	91	76	97	92	88	89
	Min	29	26	29	32	12	13	17	17	29	38	24	32	35
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	13.5
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	17.0
Sunshine Duration		11.1	6.3	11.4	11.3	11.3	12.0	12.1	11.9	1.6	5.6	9.5	7.9	8.3
Precipitation		0.0		0.0	0.0	0.0					0.5	0.5	14.0	10.3
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	43.5
Growing Degrees	5	6.6	8.5	9.4	9.1	10.2	8.6	8.9	9.2	9.8	8.7	88.6	-	64.6
	10	1.6	3.5	4.4	4.1	5.2	3.6	3.9	4.2	4.8	3.7	38.6	-	23.3

3rd 10-day period (21-30/04/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	35.6	-	27.6
Precipitation - Reference Evapotranspiration	-35.1	-	-17.3
Number of Rainy Days	1.0	2.0	2.5
Number of Dry Days	10.0	13.0	-

The missing info in the tables and the graph are due to the absence of data.

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration





◆ List of Symbols and Abbreviations

Reference Evapotranspiration E_{To} (mm):

Calculated by the FAO Penman-Montieth equation

$$E_{T_0} = \frac{0.408 * \Delta * (R_n - G) + \gamma * \frac{900}{T + 273} * u_2 * (e_s - e_a)}{\Delta + \gamma * (1 + 0.34 * u_2)}$$

using 10-day step.

R_n is estimated from sunshine measurements and G assumed to be zero.

Growing Degrees: Degrees with mean temperature exceeding the base of 5 or 10 °C.

Number of Rainy Days: Number of days with precipitation of at least 0.1 mm.

Number of Dry Days: Number of dry days recorded since the last rainy day.

Past Years Mean Values 1991-2020 (Evaporation, Reference Evapotranspiration, Max and Min Relative Humidity 2005-2020)

Mesurements Units

- ◆ Temperature : °C
- ◆ Relative Humidity : %
- ◆ Soil Temperature : °C
- ◆ Sunshine Duration : Hours
- ◆ Precipitation : mm
- ◆ Evaporation (Pan) : mm
- ◆ Growing Degrees : °C

UTC (Universal Time coordinates) in Greece

- ◆ Winter : Time(UTC) = Local time - 2
- ◆ Summer : Time(UTC) = Local time - 3

© HELLENIC NATIONAL METEOROLOGICAL SERVICE

Reproduction is prohibited without written permission

El. Venizelou street 14, Zip Code 16777

Helliniko, Athens



ΕΘΝΙΚΗ
ΜΕΤΕΩΡΟΛΟΓΙΚΗ
ΥΠΗΡΕΣΙΑ

HELLENIC NATIONAL METEOROLOGICAL SERVICE

Division of Climatology-Applications

Issue Editors :

Papakrivou Anastasia

anastasia.papakrivou@hnms.gr

The present bulletin was designed and implemented under the support of Water Resources Management Division of Agriculture University of Athens