



# AGROMETEOROLOGICAL BULLETIN

*May 2022*  
*1st 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



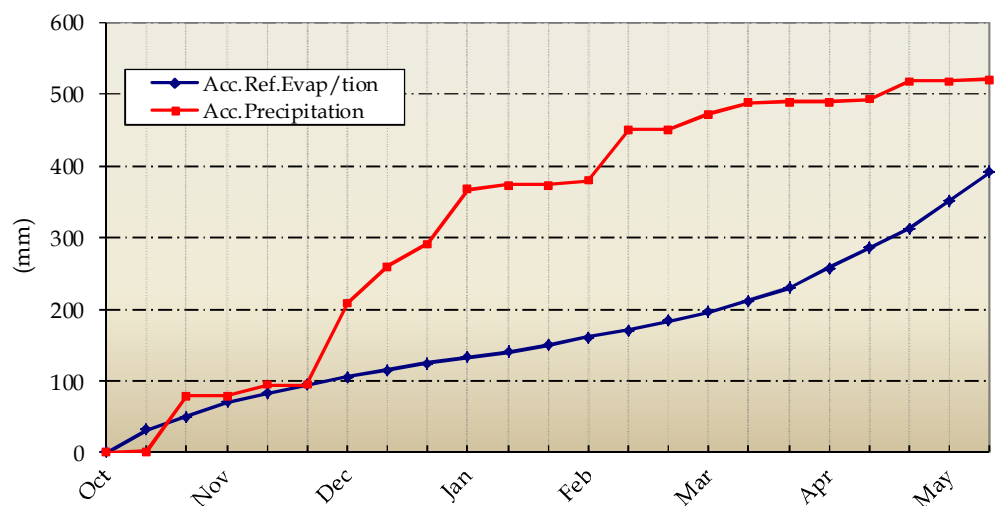
Hellenic National Meteorological Service  
Division of Climatology-Applications  
El. Venizelou Street 14, 16777  
Helliniko, Athens

*Web adresses of HNMS*  
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1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	21.4	20.8	16.0	18.2	18.4	22.0	21.2	23.8	23.6	23.8	20.9	24.2	21.8
	Min	10.6	11.6	11.0	4.0	5.6	9.4	9.0	9.0	10.2	7.6	8.8	12.5	10.7
Relative Humidity	Max	81	83	88	94	94	91	90	82	75	82	86	84	88
	Min	40	38	57	49	65	30	35	33	27	23	40	40	47
Soil Temperature at 10 cm	06 UTC	15.4	16.2	16.2	13.4	14.0	14.4	14.8	15.2	16.3	16.0	15.2	17.7	16.7
	12 UTC	18.8	17.8	16.4	16.4	17.4	17.2	18.2	17.6	19.5	19.6	17.9	21.0	20.5
Sunshine Duration		8.4	5.7	0.7	8.5	7.9	8.7	12.9	12.3	12.7	11.0	8.9	9.8	8.5
Precipitation				0.7		1.8						2.5	1.4	10.5
Evaporation		8.9	7.5	1.0	4.2	2.4	3.0	6.6	8.0	8.3	6.5	56.4	58.9	51.5
Growing Degrees	5	11.0	11.2	8.5	6.1	7.0	10.7	10.1	11.4	11.9	10.7	98.6	133.3	99.3
	10	6.0	6.2	3.5	1.1	2.0	5.7	5.1	6.4	6.9	5.7	48.6	83.3	55.3

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	38.9	42.3	35.4
Precipitation - Reference Evapotranspiration	-36.4	-40.9	-24.9
Number of Rainy Days	2.0	2.0	1.9
Number of Dry Days	14.0	8.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

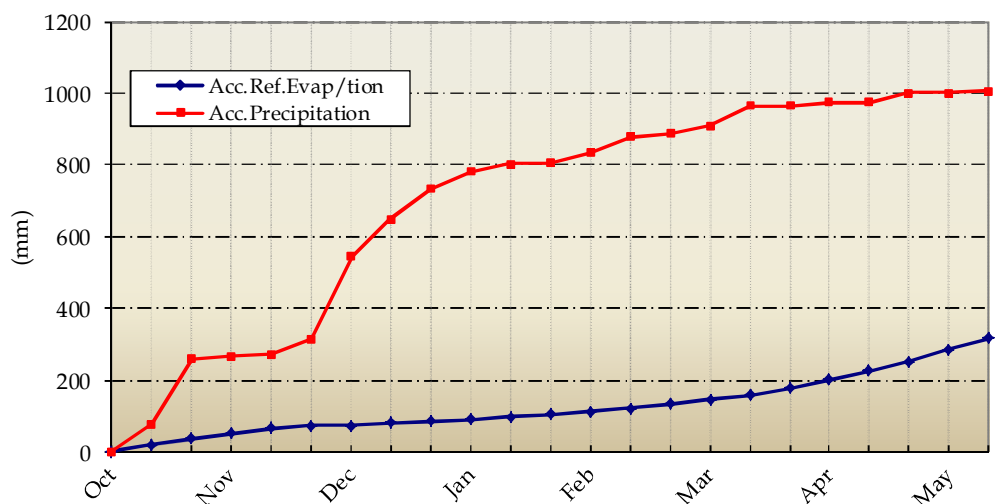


1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	21.2	18.2	19.8	20.5	21.9	23.2	25.0	24.4	23.0	23.7	22.1	26.6	23.0
	Min	13.3	13.7	8.4	10.0	9.3	9.8	9.6	12.5	12.1	9.0	10.8	12.8	12.2
Relative Humidity	Max	95	97	97	97	97	97	95	96	92	97	96	94	92
	Min	55	67	65	55	52	48	38	34	39	30	48	37	44
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	20.2	18.4
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	21.9	23.1
Sunshine Duration		2.2	1.3	12.2	11.2	12.1	1.0	10.6	7.5	4.7	10.9	7.4	10.0	9.5
Precipitation			4.6									4.6	0.0	4.3
Evaporation		-	-	-	-	-	-	-	-	-	-	-	62.5	51.2
Growing Degrees	5	12.3	11.0	9.1	10.3	10.6	11.5	12.3	13.5	12.6	11.4	114.3	146.9	102.1
	10	7.3	6.0	4.1	5.3	5.6	6.5	7.3	8.5	7.6	6.4	64.3	96.9	61.4

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	30.9	37.9	25.8
Precipitation - Reference Evapotranspiration	-26.3	-37.9	-21.5
Number of Rainy Days	1.0	0.0	1.1
Number of Dry Days	12.0	16.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

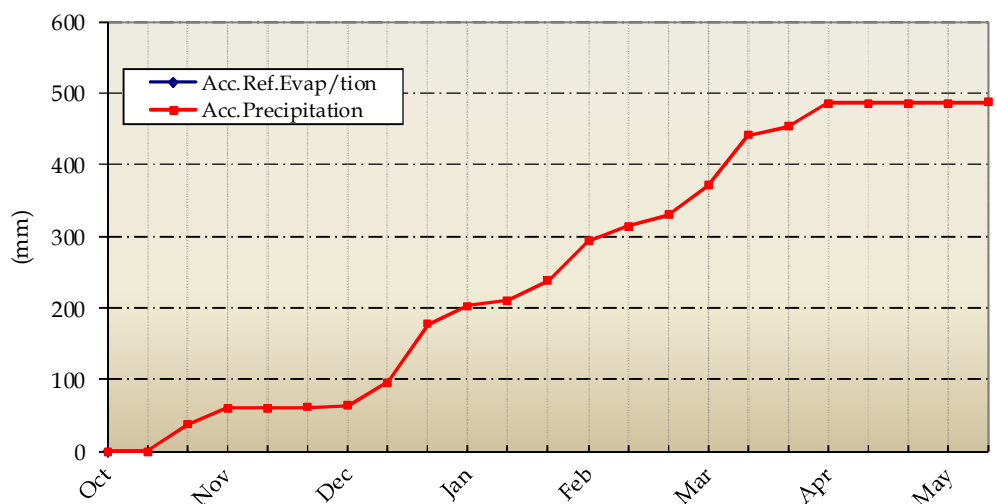


1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	19.8	20.0	19.6	19.4	20.6	20.6	20.4	20.4	20.8	20.8	20.2	25.7	22.6
	Min	14.0	14.2	16.4	12.0	15.6	12.4	13.6	13.0	14.4	12.4	13.8	18.2	14.4
Relative Humidity	Max	86	91	85	93	81	88	89	91	96	91	89	84	85
	Min	62	73	56	62	49	56	59	63	64	57	60	43	54
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		6.6	1.7	10.5	11.7	12.6	10.1	10.9	4.5	10.8	10.9	9.0	10.0	10.1
Precipitation			0.8									0.8		2.9
Evaporation		3.0	2.5	4.4	2.4	3.9	6.2	3.0	3.4	0.8	2.4	32.0	51.9	41.8
Growing Degrees	5	11.9	12.1	13.0	10.7	13.1	11.5	12.0	11.7	12.6	11.6	120.2	169.5	118.4
	10	6.9	7.1	8.0	5.7	8.1	6.5	7.0	6.7	7.6	6.6	70.2	119.5	74.4

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	1.0	0.0	1.1
Number of Dry Days	38.0	31.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

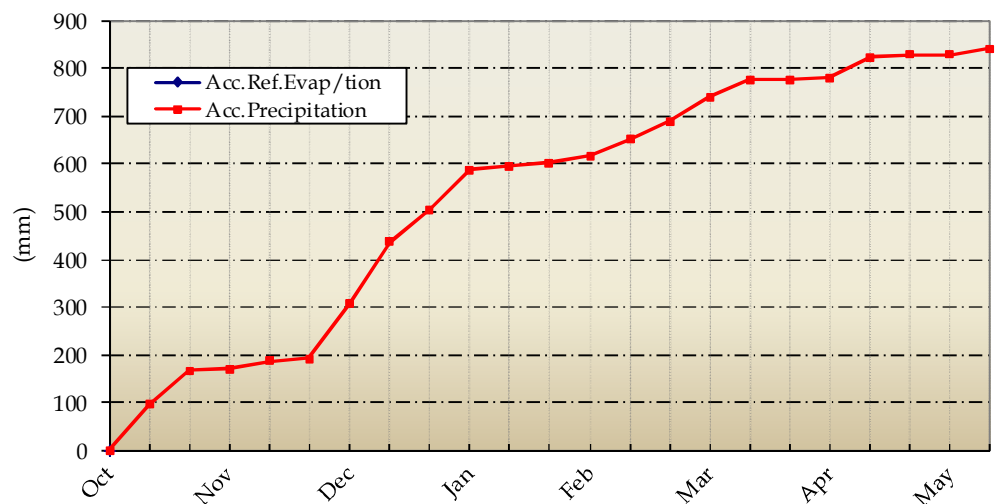


1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	20.0	13.5	14.2	20.8	22.8	20.6	23.6	21.5	25.4	25.6	20.8	26.9	21.9
	Min	9.6	10.9	8.0	10.1	8.4	5.6	9.1	8.6	6.4	5.5	8.2	9.9	9.1
Relative Humidity	Max	90	92	93	96	100	100	97	88	94	98	95	90	94
	Min	50	80	70	52	38	49	27	31	15	24	44	31	46
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	13.6
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	16.0
Sunshine Duration		2.6	0.0	0.8	7.7	5.5	0.0	9.3	3.0	11.2	10.0	5.0	8.6	7.2
Precipitation		0.8	3.6	1.3	4.9		1.5				0.0	12.1	2.6	18.0
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	-1.0
Growing Degrees	5	9.8	7.2	6.1	10.5	10.6	8.1	11.4	10.1	10.9	10.6	95.1	133.8	85.0
	10	4.8	2.2	1.1	5.5	5.6	3.1	6.4	5.1	5.9	5.6	45.1	83.8	44.7

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	29.1
Precipitation - Reference Evapotranspiration	-	-	-11.0
Number of Rainy Days	5.0	2.0	3.0
Number of Dry Days	11.0	9.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

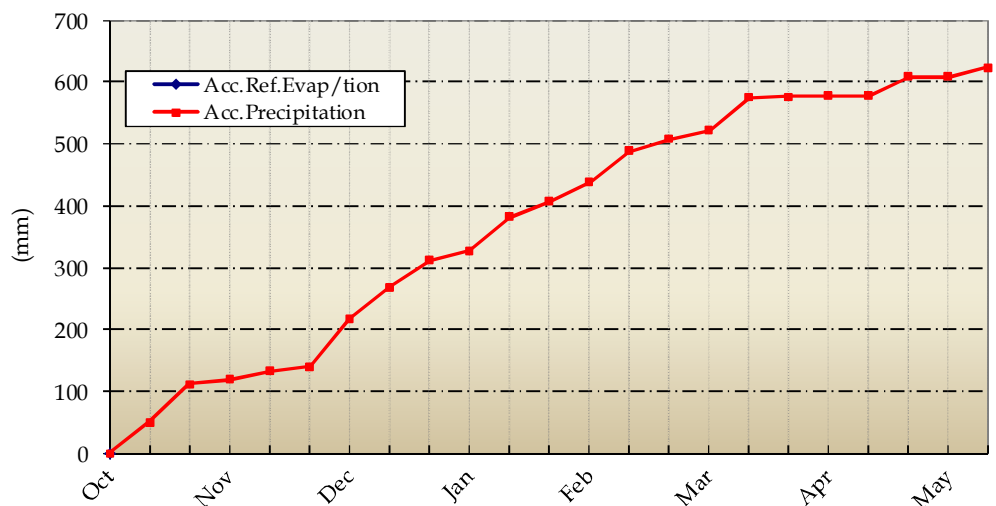


1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	25.4	18.9	22.8	24.1	21.6	24.4	25.8	24.2	23.5	22.6	23.3	29.4	23.5
	Min	11.5	12.8	10.6	9.7	10.0	9.8	12.3	11.1	16.0	8.9	11.3	13.7	11.3
Relative Humidity	Max	97	97	97	97	95	96	85	82	90	96	93	78	91
	Min	34	67	42	34	54	44	27	36	44	35	42	24	42
Soil Temperature at 10 cm	06 UTC	18.8	19.0	15.8	16.6	16.6	18.6	18.0	18.6	17.4	18.4	17.8	20.0	17.5
	12 UTC	20.8	18.0	19.0	19.0	20.2	20.2	20.6	20.8	20.6	23.8	20.3	23.3	20.2
Sunshine Duration		5.7	1.3	12.6	12.6	12.1	3.0	10.1	9.8	8.1	11.7	8.7	9.7	9.5
Precipitation		0.4	12.5							2.6		15.5	0.0	6.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	88.8	54.5
Growing Degrees	5	13.5	10.9	11.7	11.9	10.8	12.1	14.1	12.7	14.8	10.8	123.0	165.1	106.0
	10	8.5	5.9	6.7	6.9	5.8	7.1	9.1	7.7	9.8	5.8	73.0	115.1	63.0

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	41.0
Precipitation - Reference Evapotranspiration	-	-	-34.4
Number of Rainy Days	3.0	0.0	1.8
Number of Dry Days	11.0	12.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

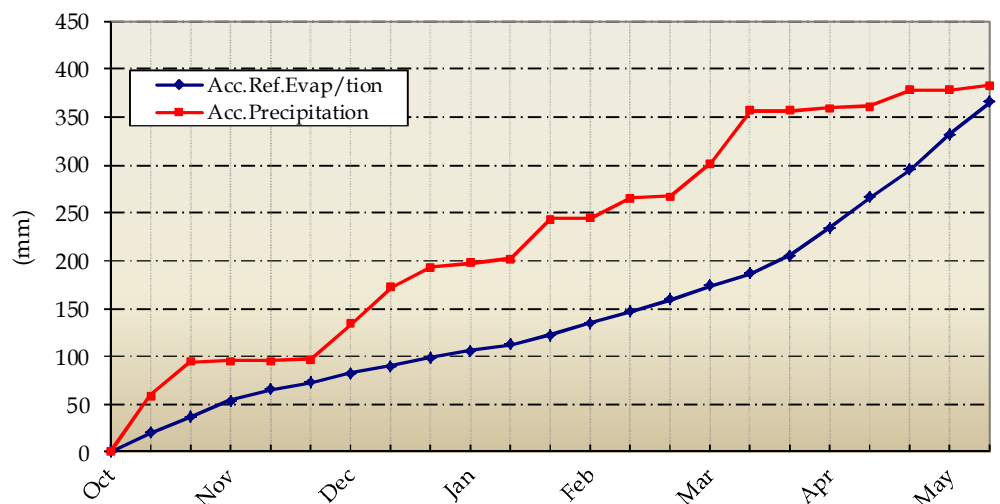


1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	19.6	18.0	19.4	21.0	24.9	20.8	21.4	20.0	24.8	24.4	21.4	27.7	24.5
	Min	13.0	13.2	10.4	12.2	6.8	8.5	9.6	7.8	7.8	6.6	9.6	12.6	10.3
Relative Humidity	Max	89	90	98	100	99	96	95	92	99	88	95	88	91
	Min	47	54	52	47	36	51	34	49	26	28	42	34	34
Soil Temperature at 10 cm	06 UTC	17.2	17.6	16.6	17.0	14.6	17.0	16.8	16.4	16.4	16.6	16.6	-	16.7
	12 UTC	18.4	17.8	17.6	17.8	20.4	17.8	17.8	17.2	17.6	17.8	18.0	-	18.3
Sunshine Duration		1.2	0.0	6.5	6.4	7.3	2.0	9.4	4.5	10.7	10.9	5.9	9.2	8.0
Precipitation				0.0	4.2				0.2			4.4	0.7	8.9
Evaporation		5.7	4.2	5.4	1.9	6.9	5.4	8.5	3.7	7.1	7.8	56.6	65.2	65.3
Growing Degrees	5	11.3	10.6	9.9	11.6	10.9	9.7	10.5	8.9	11.3	10.5	105.1	151.7	111.8
	10	6.3	5.6	4.9	6.6	5.9	4.7	5.5	3.9	6.3	5.5	55.1	101.7	66.6

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	33.9	46.6	42.1
Precipitation - Reference Evapotranspiration	-29.5	-45.9	-33.2
Number of Rainy Days	2.0	1.0	2.3
Number of Dry Days	14.0	10.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



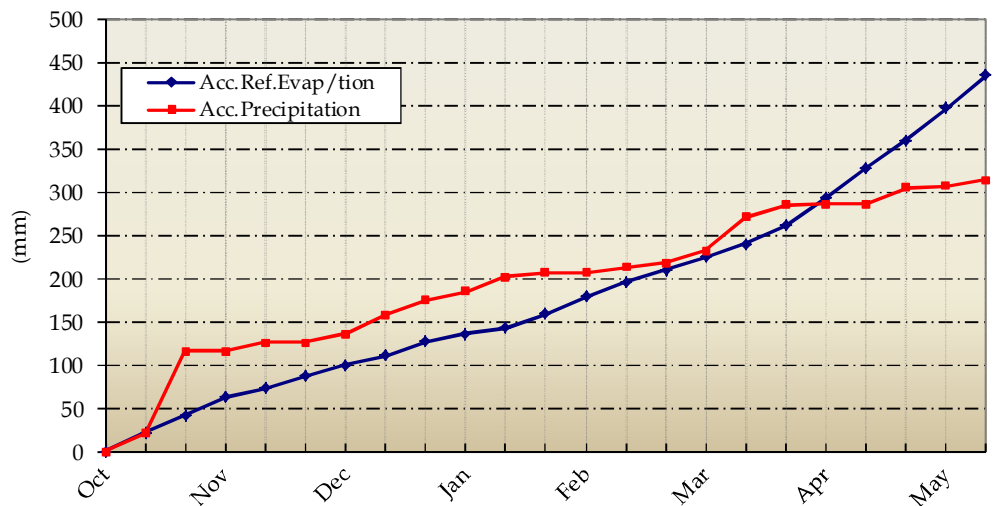
Mikra

1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	19.9	19.8	18.8	21.0	23.1	21.2	20.6	21.9	24.0	24.7	21.5	25.0	23.4
	Min	14.2	10.8	11.8	11.6	8.6	11.0	9.9	9.0	8.8	9.8	10.6	13.4	12.0
Relative Humidity	Max	100	96	100	100	97	100	98	97	89	86	96	89	83
	Min	49	44	52	41	42	48	45	36	36	36	43	42	39
Soil Temperature at 10 cm	06 UTC	17.4	16.2	15.8	16.2	16.2	17.0	16.2	16.4	16.4	17.0	16.5	18.8	17.9
	12 UTC	18.2	17.2	17.3	17.6	17.8	18.2	19.0	19.0	20.8	20.4	18.6	21.3	22.7
Sunshine Duration		0.8	0.3	5.9	12.0	11.7	3.5	11.7	10.4	12.9	10.9	8.0	8.6	8.5
Precipitation		0.0	0.2	2.5	3.7							6.4	0.1	12.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	59.5
Growing Degrees	5	12.1	10.3	10.3	11.3	10.9	11.1	10.3	10.5	11.4	12.3	110.3	142.5	114.1
	10	7.1	5.3	5.3	6.3	5.9	6.1	5.3	5.5	6.4	7.3	60.3	92.5	69.5

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	38.2	43.6	34.7
Precipitation - Reference Evapotranspiration	-31.8	-43.5	-21.8
Number of Rainy Days	3.0	1.0	2.2
Number of Dry Days	1.0	9.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration





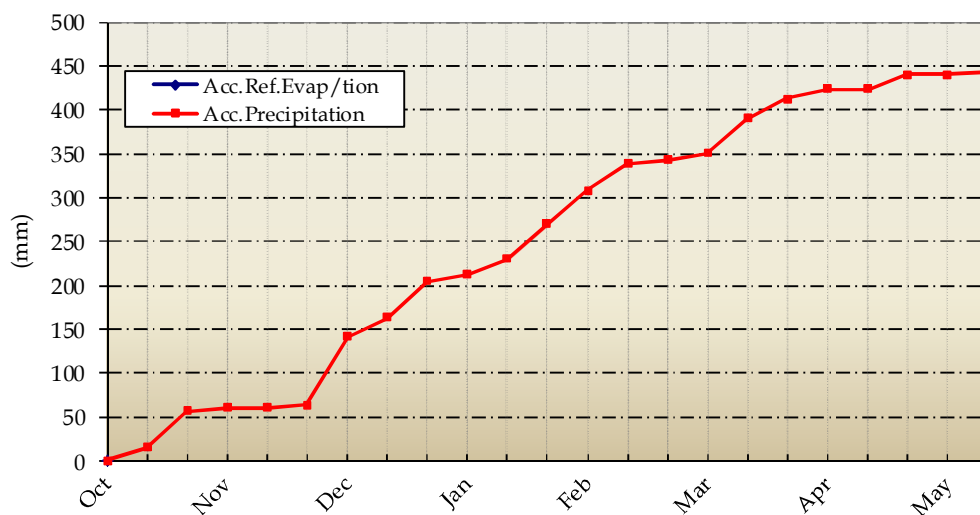
Tanagra

1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	21.4	15.2	19.6	18.8	23.9	21.2	21.4	20.3	22.1	22.1	20.6	26.9	23.4
	Min	9.8	12.2	8.3	11.6	7.8	7.2	11.6	9.0	11.2	7.2	9.6	13.6	10.9
Relative Humidity	Max	94	95	95	97	99	95	72	82	81	67	88	79	85
	Min	35	67	47	46	32	36	33	41	25	18	38	29	32
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		6.5	0.0	7.9	4.8	11.6	5.2	10.1	4.7	10.8	13.4	7.5	8.4	9.3
Precipitation			2.8		0.8							3.6		6.4
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	48.7
Growing Degrees	5	10.6	8.7	9.0	10.2	10.9	9.2	11.5	9.7	11.7	9.7	101.0	152.4	99.0
	10	5.6	3.7	4.0	5.2	5.9	4.2	6.5	4.7	6.7	4.7	51.0	102.4	57.8

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	2.0	0.0	1.5
Number of Dry Days	12.0	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



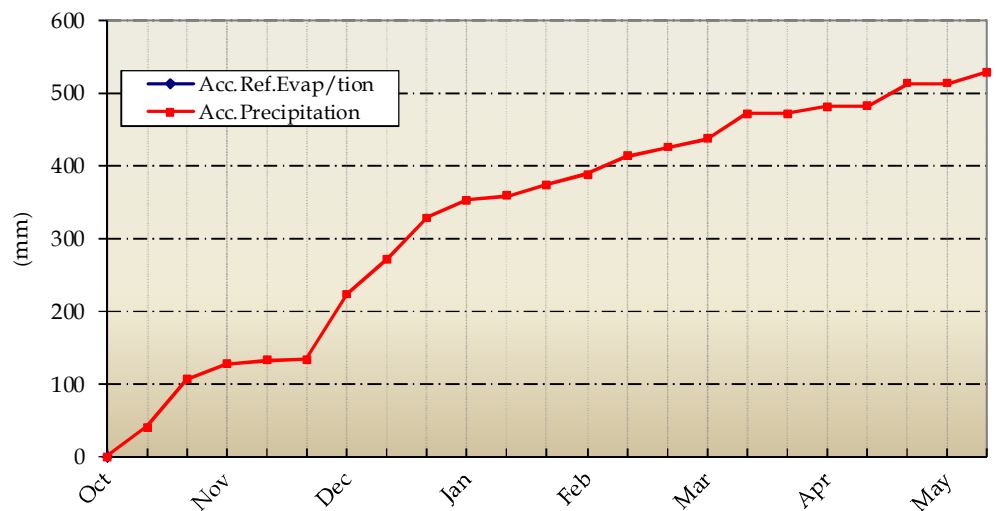
Tripoli

1st 10-day period (1-10/05/2022)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	19.6	13.1	19.4	17.4	21.5	18.1	19.2	19.4	21.4	21.9	19.1	27.2	21.8
	Min	6.4	9.6	4.0	3.1	6.9	4.4	6.5	6.1	9.2	3.0	5.9	10.5	7.2
Relative Humidity	Max	98	99	99	99	99	98	92	95	91	91	96	84	89
	Min	38	79	34	44	29	43	29	29	26	12	36	20	34
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	15.7
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	19.8
Sunshine Duration		4.8	1.0	7.6	5.6	7.4	3.3	11.5	6.8	8.1	12.2	6.8	9.4	9.0
Precipitation		0.2	10.8		3.4	0.1			0.0			14.5		10.1
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	35.1
Growing Degrees	5	8.0	6.4	6.7	5.3	9.2	6.3	7.9	7.8	10.3	7.5	75.1	-	77.5
	10	3.0	1.4	1.7	0.3	4.2	1.3	2.9	2.8	5.3	2.5	25.1	-	37.5

1st 10-day period (1-10/05/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	29.5	-	31.0
Precipitation - Reference Evapotranspiration	-15.0	-	-20.9
Number of Rainy Days	4.0	0.0	2.3
Number of Dry Days	0.0	16.0	-

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 ETo (mm):**

Calculated by the FAO Penman-Montieth equation

$$ET_0 = \frac{0.408 * \Delta * (R_n - G) + \gamma * \frac{900}{T + 273} * u_2 * (e_s - e_a)}{\Delta + \gamma * (1 + 0.34 * u_2)}$$

using 10-day step.

R<sub>n</sub> 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

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