



AGROMETEOROLOGICAL BULLETIN

March 2022
2nd 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



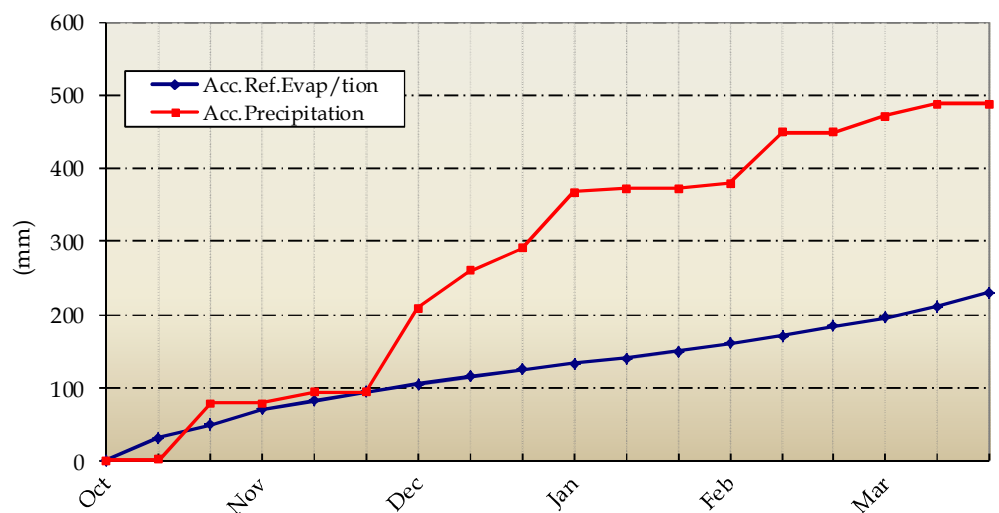
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2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	4.6	4.0	6.8	9.4	10.0	11.4	9.8	8.4	6.8	10.0	8.1	11.4	12.9
	Min	-3.4	-3.8	-4.4	-0.8	-4.0	1.6	5.4	-1.0	-5.0	0.8	-1.5	3.9	3.5
Relative Humidity	Max	72	80	82	85	92	93	88	76	86	75	83	91	90
	Min	32	41	29	34	41	58	60	21	28	27	37	64	55
Soil Temperature at 10 cm	06 UTC	2.4	2.0	2.0	4.1	3.4	5.2	6.6	4.4	3.6	4.2	3.8	8.2	8.0
	12 UTC	6.0	4.6	6.0	7.6	7.8	6.6	7.8	8.0	7.4	8.4	7.0	9.7	10.3
Sunshine Duration		9.9	9.9	8.3	6.0	9.6	0.0	4.0	9.2	10.1	9.8	7.7	2.8	5.7
Precipitation								0.2				0.2	25.8	11.0
Evaporation		0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	2.4	10.5	28.9
Growing Degrees	5	0.0	0.0	0.0	0.0	0.0	1.5	2.6	0.0	0.0	0.4	4.5	28.8	31.1
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	5.1

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	18.8	14.7	12.0
Precipitation - Reference Evapotranspiration	-18.6	11.1	-1.0
Number of Rainy Days	1.0	5.0	1.8
Number of Dry Days	9.0	0.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

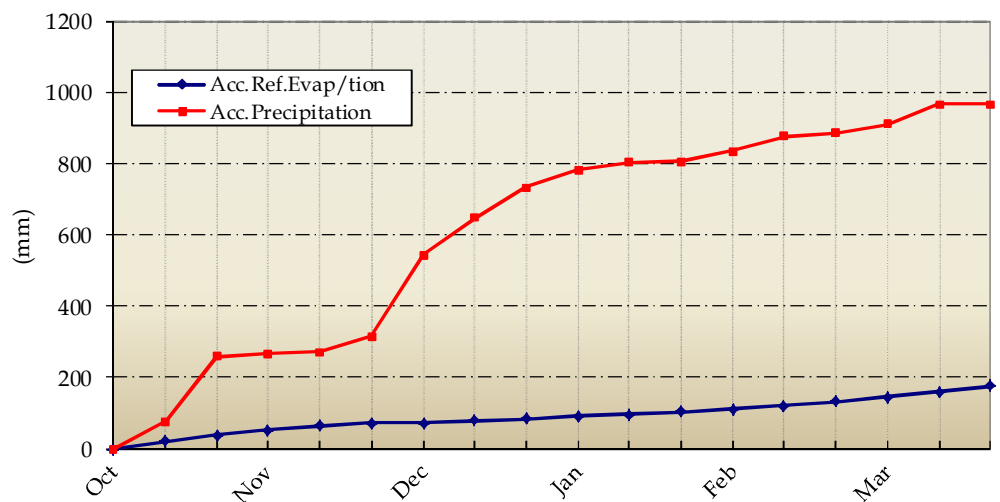


2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	10.4	10.8	11.1	14.6	14.1	15.4	16.0	13.2	12.4	11.4	12.9	16.1	16.3
	Min	-1.0	-1.2	-1.8	5.7	0.4	4.4	7.6	11.0	0.6	0.0	2.6	7.3	6.8
Relative Humidity	Max	89	93	92	84	91	91	95	91	87	77	89	92	91
	Min	21	37	25	35	41	52	62	46	35	32	39	48	49
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	12.9	11.5
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	13.8	14.4
Sunshine Duration		10.3	9.9	8.7	9.6	10.5	9.7	8.7	0.0	9.3	7.2	8.4	6.6	6.9
Precipitation													14.1	15.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	24.5	35.0
Growing Degrees	5	0.0	0.0	0.0	5.2	2.3	4.9	6.8	7.1	1.5	0.7	28.4	66.8	54.2
	10	0.0	0.0	0.0	0.2	0.0	0.0	1.8	2.1	0.0	0.0	4.1	17.7	15.3

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	17.4	18.3	17.5
Precipitation - Reference Evapotranspiration	-17.4	-4.2	-1.9
Number of Rainy Days	0.0	6.0	2.2
Number of Dry Days	11.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



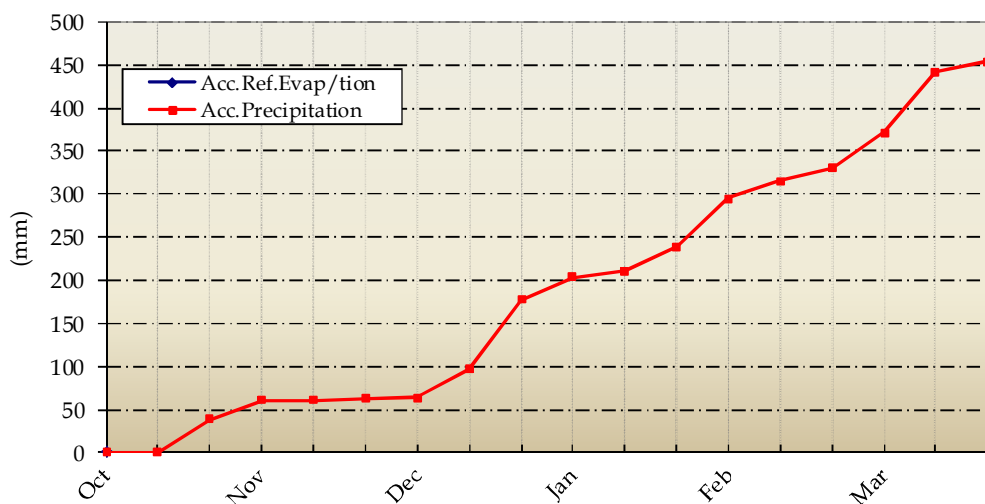
Iraklio

2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	7.2	6.4	10.2	10.6	12.0	14.4	16.4	13.0	8.0	9.4	10.8	17.6	16.8
	Min	4.6	4.0	4.8	3.8	9.4	6.8	7.4	11.4	7.0	7.8	6.7	10.5	9.8
Relative Humidity	Max	87	90	80	77	70	81	85	73	56	71	77	89	84
	Min	53	51	38	39	46	55	63	48	40	38	47	55	53
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		1.0	0.0	6.2	2.3	7.5	10.1	8.1	4.3	4.8	2.1	4.6	7.7	6.4
Precipitation		6.5	4.2	1.0	0.0				0.1		0.0	11.8	12.5	16.4
Evaporation		1.6	0.5	2.1	12.5	4.0	1.0	2.5	3.4	3.7	2.6	33.9	32.2	32.0
Growing Degrees	5	0.9	0.2	2.5	2.2	5.7	5.6	6.9	7.2	2.5	3.6	37.3	90.2	75.5
	10	0.0	0.0	0.0	0.0	0.7	0.6	1.9	2.2	0.0	0.0	5.4	40.2	30.5

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	
Precipitation - Reference Evapotranspiration	-	-	
Number of Rainy Days	4.0	6.0	2.7
Number of Dry Days	0.0	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

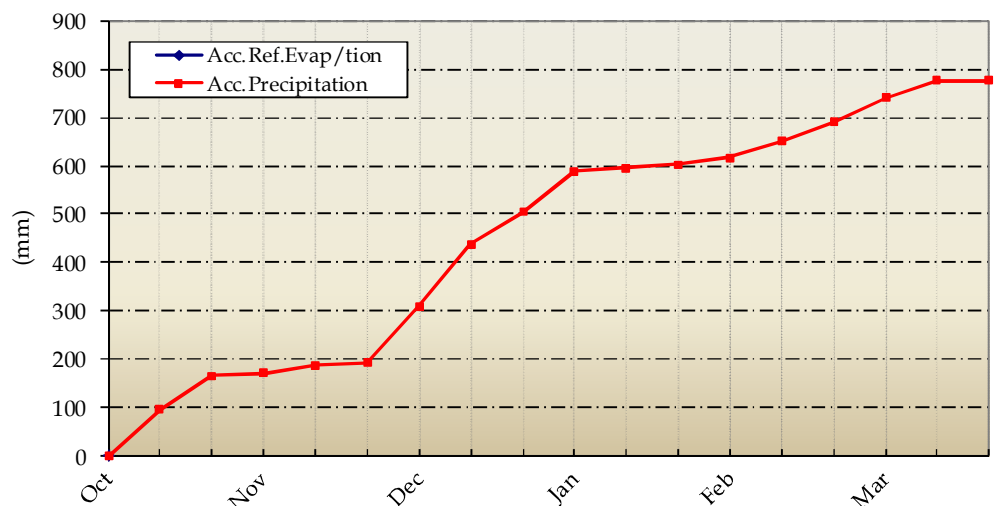


2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	6.8	6.0	10.4	12.3	15.5	14.3	17.0	13.4	7.4	5.8	10.9	12.1	14.3
	Min	-2.7	-5.8	-8.1	-5.7	-5.2	-1.5	-0.6	6.0	2.4	1.0	-2.0	0.2	2.4
Relative Humidity	Max	73	84	89	95	96	96	100	71	45	50	80	97	94
	Min	19	26	13	28	30	50	41	36	34	30	31	45	47
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	7.4
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	8.1
Sunshine Duration		9.0	9.0	10.1	9.8	9.3	9.6	7.8	6.2	9.1	10.1	9.0	5.2	5.2
Precipitation													17.1	14.1
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	
Growing Degrees	5	0.0	0.0	0.0	0.0	0.2	1.4	3.2	4.7	0.0	0.0	9.5	14.7	27.2
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	15.9
Precipitation - Reference Evapotranspiration	-	-	-1.8
Number of Rainy Days	0.0	5.0	2.1
Number of Dry Days	11.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

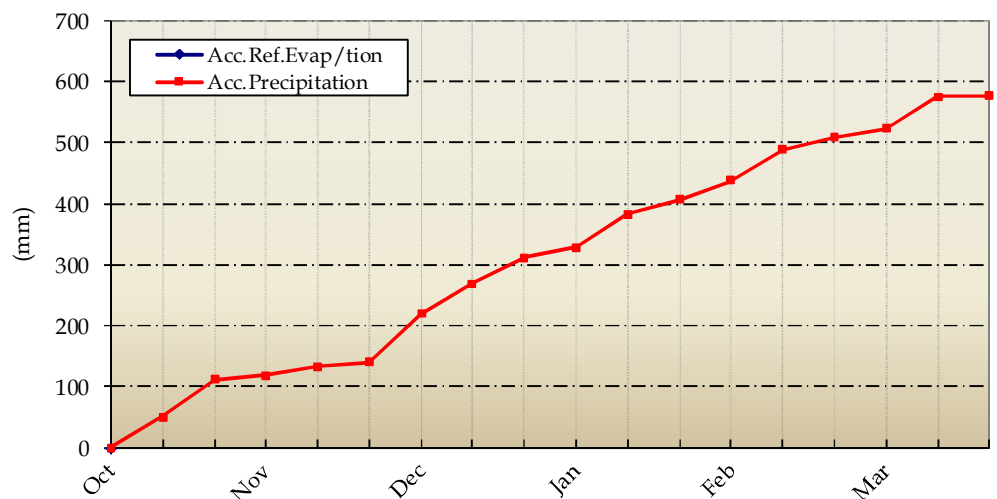


2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	12.1	9.7	12.1	11.6	14.3	16.6	17.5	14.1	12.2	11.4	13.2	16.7	17.2
	Min	-0.5	3.6	0.7	5.4	-0.3	1.9	6.5	9.6	4.7	2.1	3.4	5.6	6.3
Relative Humidity	Max	82	78	88	89	91	94	91	71	42	52	78	94	92
	Min	28	48	35	52	35	46	51	38	27	34	39	44	46
Soil Temperature at 10 cm	06 UTC	9.4	9.6	8.4	9.8	9.4	9.2	10.4	12.0	9.8	9.6	9.8	11.5	11.6
	12 UTC	11.2	9.8	9.6	10.6	10.6	11.0	12.0	12.2	11.0	10.0	10.8	13.2	13.3
Sunshine Duration		6.7	1.9	9.0	4.6	11.0	10.5	9.6	0.6	9.6	7.7	7.1	5.7	7.2
Precipitation					0.2							0.2	45.3	14.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	17.9	27.2
Growing Degrees	5	0.8	1.7	1.4	3.5	2.0	4.3	7.0	6.9	3.5	1.8	32.7	61.7	61.1
	10	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.9	0.0	0.0	3.9	15.0	18.1

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	19.6
Precipitation - Reference Evapotranspiration	-	-	-5.0
Number of Rainy Days	1.0	7.0	2.8
Number of Dry Days	3.0	8.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



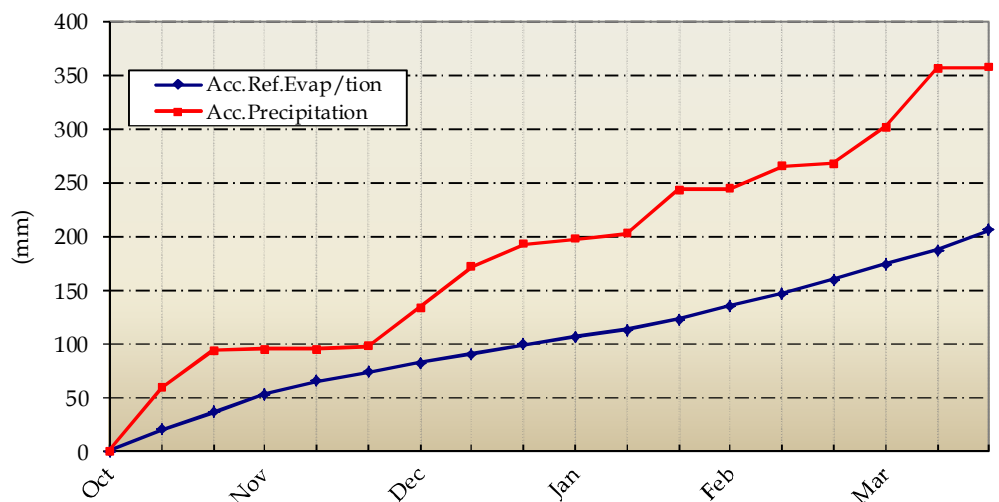
Larisa

2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	6.4	5.8	9.0	10.8	14.6	14.8	15.4	9.4	8.0	8.0	10.2	14.8	15.8
	Min	-3.6	-2.8	-6.4	-2.4	-3.8	-0.8	1.6	4.4	2.2	1.0	-1.1	2.6	3.4
Relative Humidity	Max	97	88	94	92	93	95	97	84	90	81	91	88	94
	Min	37	33	29	39	26	43	46	61	46	32	39	42	43
Soil Temperature at 10 cm	06 UTC	7.0	6.0	5.2	6.4	6.5	7.4	7.2	9.0	7.6	7.6	7.0	-	9.2
	12 UTC	6.5	6.2	5.6	7.0	7.2	7.8	8.4	8.4	8.2	7.8	7.3	-	10.4
Sunshine Duration		6.1	7.0	6.3	7.4	8.5	2.7	5.1	0.0	4.9	8.6	5.7	7.5	5.6
Precipitation									0.6			0.6	32.0	12.2
Evaporation		0.0	0.0	0.0	0.0	0.0	2.6	4.4	1.4	3.6	0.0	12.0	25.0	29.7
Growing Degrees	5	0.0	0.0	0.0	0.0	0.4	2.0	3.5	1.9	0.1	0.0	7.9	37.0	41.8
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	9.3

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	18.9	22.4	23.9
Precipitation - Reference Evapotranspiration	-18.3	9.6	-11.7
Number of Rainy Days	1.0	2.0	2.7
Number of Dry Days	8.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



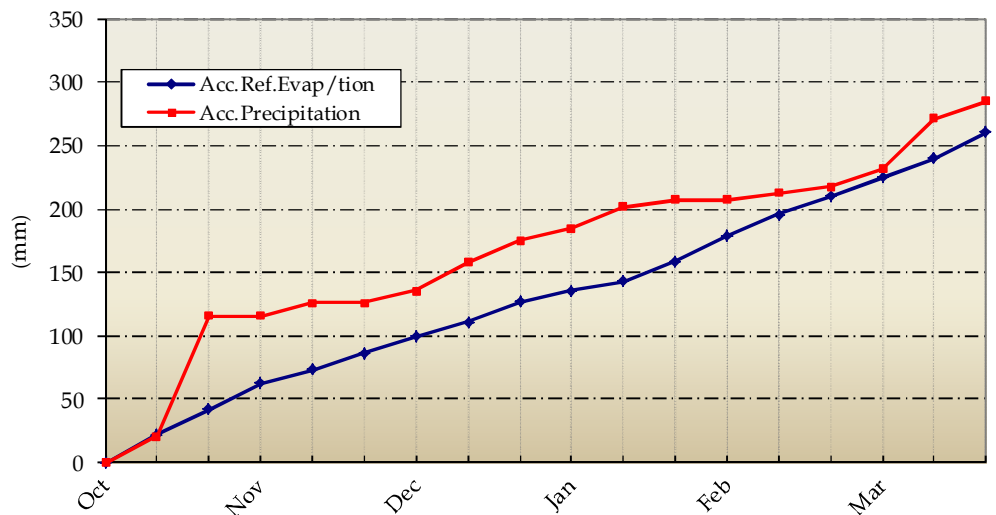
Mikra

2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	6.9	7.8	8.8	11.5	13.6	12.0	14.6	7.5	8.2	9.8	10.1	13.5	14.7
	Min	-3.0	-3.4	-3.1	-1.0	0.1	2.8	4.6	4.0	-1.2	-2.5	-0.3	6.1	5.0
Relative Humidity	Max	73	89	89	80	87	92	100	100	99	82	89	82	86
	Min	31	26	26	32	43	48	10	69	39	30	35	49	45
Soil Temperature at 10 cm	06 UTC	5.0	5.0	5.0	5.6	6.2	7.2	8.2	8.2	6.2	5.2	6.2	9.7	9.1
	12 UTC	6.4	5.6	6.3	7.4	8.0	8.8	9.0	8.2	7.2	7.0	7.4	11.4	11.8
Sunshine Duration		9.1	9.0	12.0	10.1	10.0	0.1	3.6	0.0	4.0	10.7	6.9	6.4	6.3
Precipitation								11.2	2.8			14.0	11.0	9.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	29.8
Growing Degrees	5	0.0	0.0	0.0	0.3	1.9	2.4	4.6	0.8	0.0	0.0	9.9	47.9	41.8
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	9.5

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	20.5	25.2	17.0
Precipitation - Reference Evapotranspiration	-6.5	-14.2	-7.4
Number of Rainy Days	2.0	3.0	2.2
Number of Dry Days	7.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



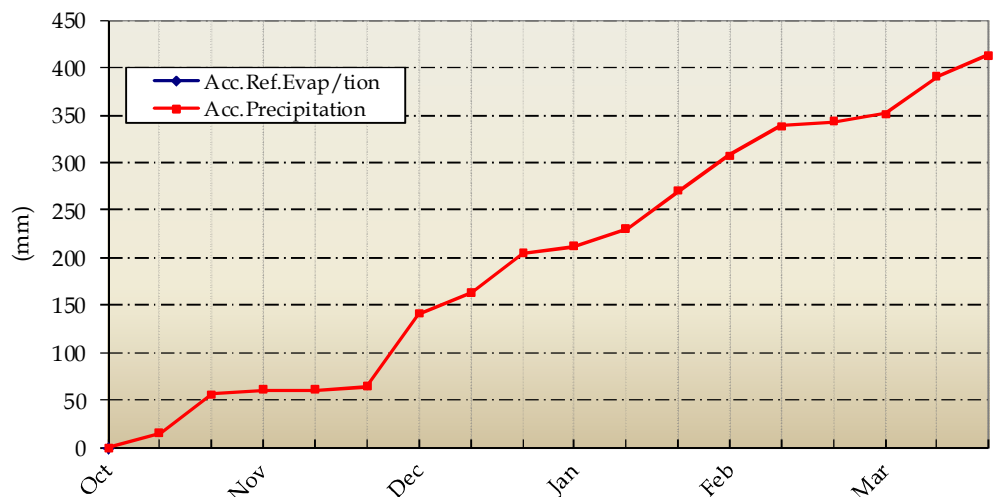
Tanagra

2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	3.2	1.4	7.6	8.9	12.3	15.6	14.8	6.2	6.5	5.0	8.2	15.2	15.0
	Min	-1.8	-5.0	-3.8	-1.8	-0.4	-1.3	3.0	5.5	1.5	-0.1	-0.4	4.9	4.9
Relative Humidity	Max	100	100	100	99	87	98	100	74	98	100	96	91	91
	Min	69	92	44	46	31	34	31	43	37	46	47	41	43
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		0.0	1.4	8.5	5.4	9.3	7.0	5.2	0.0	5.5	0.3	4.3	6.6	6.3
Precipitation		5.9	11.8		0.0			0.0	0.3		4.6	22.6	8.5	16.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	28.3
Growing Degrees	5	0.0	0.0	0.0	0.0	1.0	2.2	3.9	0.9	0.0	0.0	7.9	51.0	41.9
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	10.6

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	
Precipitation - Reference Evapotranspiration	-	-	
Number of Rainy Days	4.0	4.0	2.6
Number of Dry Days	0.0	3.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

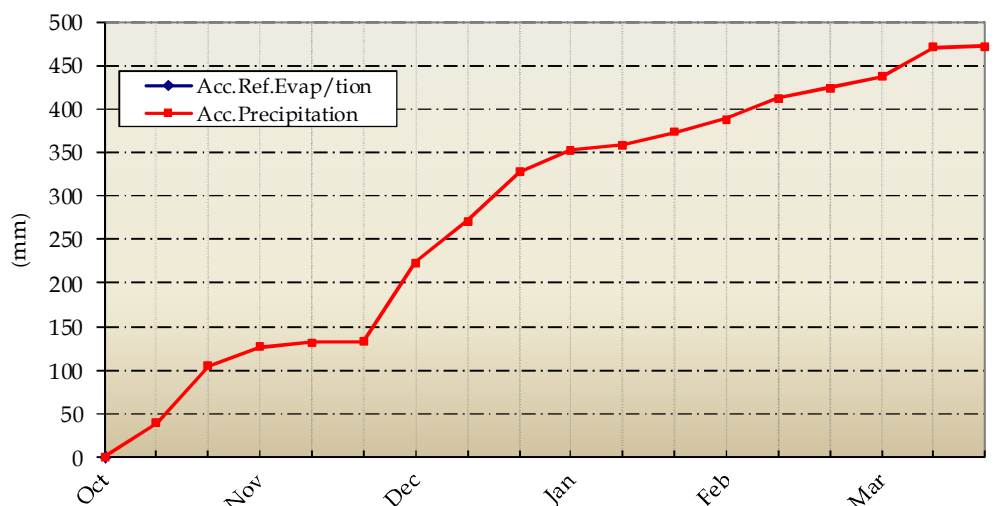


2nd 10-day period (11-20/03/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	3.1	3.4	7.7	8.3	12.6	16.4	14.9	4.4	3.9	4.2	7.9	12.6	13.8
	Min	-5.7	-3.7	-5.8	-2.3	-5.7	-4.1	-0.5	3.9	-0.1	-1.4	-2.5	2.2	1.4
Relative Humidity	Max	96	95	90	92	84	98	97	91	69	81	89	93	91
	Min	48	52	32	40	23	36	41	53	41	45	41	40	42
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	7.1
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	9.4
Sunshine Duration		5.0	1.5	9.6	6.7	10.0	9.0	6.3	0.0	6.5	4.7	5.9	6.4	6.6
Precipitation		0.3	0.0								0.0	0.3	46.7	15.5
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	55.8
Growing Degrees	5	0.0	0.0	0.0	0.0	0.0	1.2	2.2	0.0	0.0	0.0	3.4	24.3	24.6
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	3.7

2nd 10-day period (11-20/03/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	14.9	20.4	19.3
Precipitation - Reference Evapotranspiration	-14.6	26.3	-3.8
Number of Rainy Days	1.0	7.0	2.7
Number of Dry Days	0.0	3.0	-

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_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

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HELLENIC NATIONAL METEOROLOGICAL SERVICE

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