



AGROMETEOROLOGICAL BULLETIN

October 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



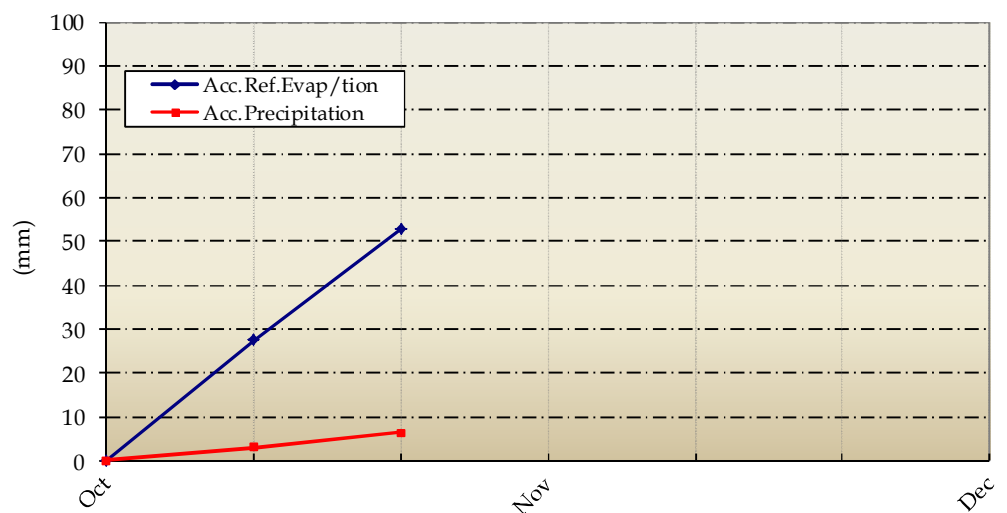
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2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	22.0	24.2	22.8	22.0	17.0	20.4	20.8	21.0	22.4	22.4	21.5	19.3	21.1
	Min	13.0	14.6	9.4	13.2	14.0	12.0	9.0	13.0	10.2	6.6	11.5	11.5	11.5
Relative Humidity	Max	91	79	85	89	89	76	82	74	90	91	85	92	89
	Min	46	38	40	39	69	39	40	42	39	40	43	58	53
Soil Temperature at 10 cm	06 UTC	19.4	19.4	18.4	18.6	17.6	16.2	15.8	16.6	16.6	15.6	17.4	15.9	14.5
	12 UTC	21.4	22.4	21.3	20.4	19.8	19.2	19.0	19.6	19.8	19.8	20.3	17.7	18.6
Sunshine Duration		4.9	9.0	10.0	2.5	0.0	9.6	10.0	9.5	9.8	9.0	7.4	4.7	4.4
Precipitation					0.0	3.4						3.4	77.4	12.2
Evaporation		4.4	3.5	4.3	4.3	0.7	4.1	5.2	3.3	4.0	4.6	38.4	41.8	37.3
Growing Degrees	5	12.5	14.4	11.1	12.6	10.5	11.2	9.9	12.0	11.3	9.5	115.0	103.9	101.5
	10	7.5	9.4	6.1	7.6	5.5	6.2	4.9	7.0	6.3	4.5	65.0	53.9	57.1

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	25.4	17.8	16.8
Precipitation - Reference Evapotranspiration	-22.0	59.6	-4.6
Number of Rainy Days	1.0	7.0	1.8
Number of Dry Days	10.0	2.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

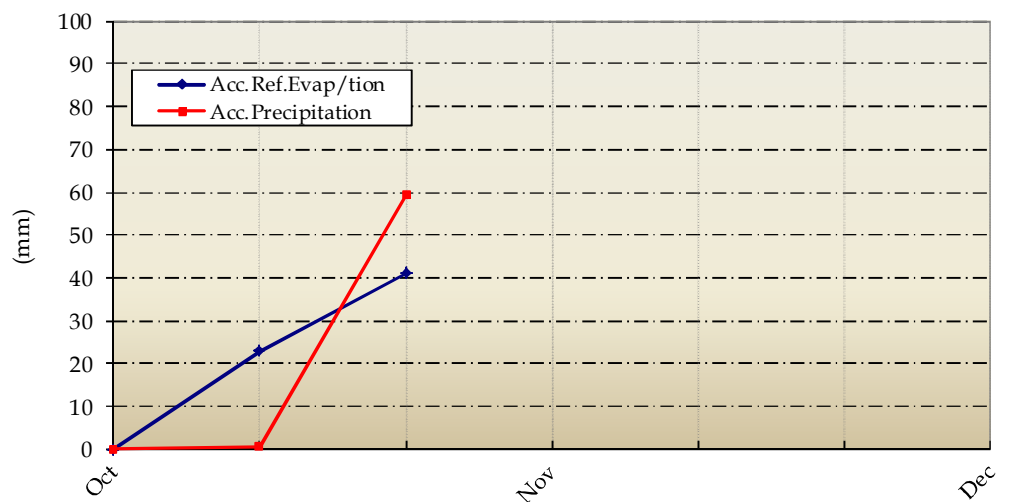


2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	25.0	24.8	24.4	23.0	23.6	24.4	24.8	24.9	24.2	24.4	24.4	21.7	24.4
	Min	18.3	15.5	13.0	15.1	15.2	13.0	8.5	10.0	9.2	9.5	12.7	13.1	13.7
Relative Humidity	Max	95	95	95	99	85	89	93	87	95	93	93	97	92
	Min	59	53	58	57	47	40	32	35	34	38	45	58	49
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	17.9	18.8
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	19.8	22.2
Sunshine Duration		3.7	10.1	7.0	0.3	9.3	10.0	9.9	9.8	9.7	9.8	8.0	5.7	4.9
Precipitation		0.5			50.1	8.2						58.8	183.4	29.0
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	69.7
Growing Degrees	5	16.7	15.2	13.7	14.1	14.4	13.7	11.7	12.5	11.7	12.0	135.4	124.0	117.7
	10	11.7	10.2	8.7	9.1	9.4	8.7	6.7	7.5	6.7	7.0	85.4	74.0	75.7

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	18.3	16.2	22.4
Precipitation - Reference Evapotranspiration	40.5	167.2	6.6
Number of Rainy Days	3.0	6.0	2.0
Number of Dry Days	4.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



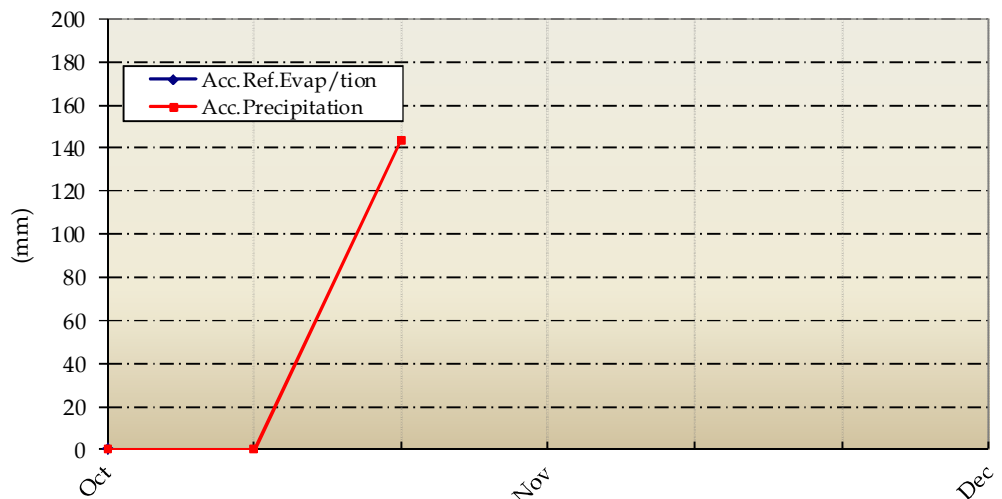
Iraklio

2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	24.2	23.4	23.0	23.8	20.6	22.0	20.0	21.0	20.4	21.2	22.0	23.8	24.7
	Min	15.6	17.0	19.6	16.0	17.0	20.0	19.0	19.2	19.2	15.8	17.8	17.6	17.8
Relative Humidity	Max	91	90	79	90	94	83	79	81	86	89	86	83	85
	Min	62	68	61	62	80	71	69	73	71	64	68	53	58
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		8.8	9.0	9.7	5.7	0.0	3.5	4.0	0.6	0.2	8.3	5.0	5.9	4.7
Precipitation			0.3			142.7	0.0	0.3	0.0			143.3	33.1	23.2
Evaporation		3.0	3.4	3.2	2.6	-	6.2	4.4	3.8	1.7	4.7	-	28.3	47.1
Growing Degrees	5	14.9	15.2	16.3	14.9	13.8	16.0	14.5	15.1	14.8	13.5	149.0	156.9	154.9
	10	9.9	10.2	11.3	9.9	8.8	11.0	9.5	10.1	9.8	8.5	99.0	106.9	107.0

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	3.0	3.0	1.9
Number of Dry Days	3.0	18.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

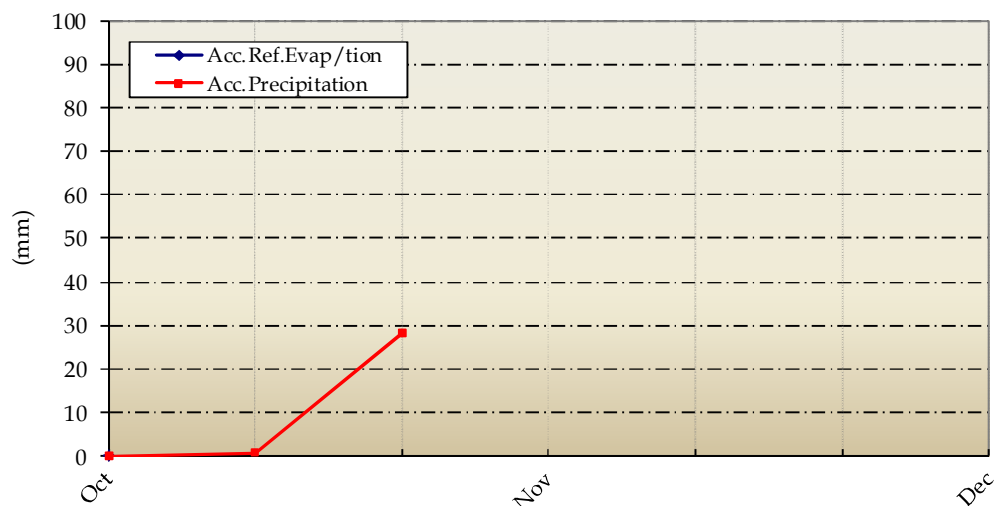


2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	18.8	20.7	20.6	17.1	20.1	23.0	22.3	24.5	23.4	23.7	21.4	17.7	21.0
	Min	13.8	10.7	13.4	13.7	11.7	5.1	6.9	12.1	2.8	2.5	9.3	10.0	8.8
Relative Humidity	Max	100	100	100	99	91	100	81	92	100	100	96	99	96
	Min	70	61	60	73	40	44	35	23	31	31	47	62	52
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	14.0
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	15.4
Sunshine Duration		1.4	2.6	1.4	0.0	10.0	9.6	9.9	9.7	9.5	8.9	6.3	3.1	3.7
Precipitation		22.9	0.1		3.8	0.7						27.5	70.2	42.3
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	
Growing Degrees	5	11.3	10.7	12.0	10.4	10.9	9.1	9.6	13.3	8.1	8.1	103.5	88.3	81.9
	10	6.3	5.7	7.0	5.4	5.9	4.1	4.6	8.3	3.1	3.1	53.5	38.3	41.1

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	17.3
Precipitation - Reference Evapotranspiration	-	-	25.0
Number of Rainy Days	4.0	7.0	2.6
Number of Dry Days	8.0	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

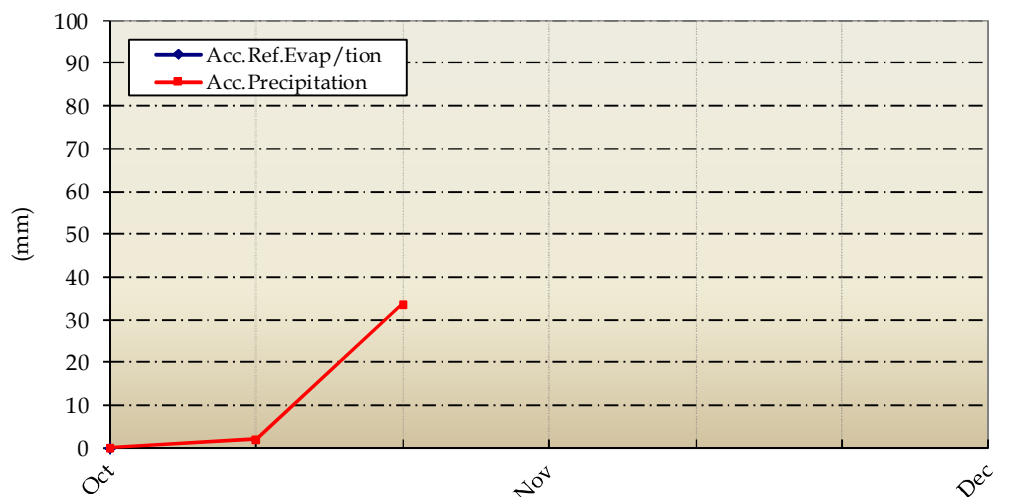


2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	23.8	25.7	25.7	23.2	24.2	26.4	25.0	24.5	24.1	24.8	24.7	22.5	25.0
	Min	16.1	14.2	13.8	16.3	15.1	14.5	12.9	14.0	11.3	12.3	14.0	13.7	13.6
Relative Humidity	Max	96	96	96	99	94	82	74	92	94	95	92	97	91
	Min	66	53	53	62	43	39	28	36	45	41	47	55	48
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	18.2	19.3
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	21.0	21.1
Sunshine Duration		1.1	9.7	6.9	1.4	6.2	10.1	10.1	11.1	10.0	10.7	7.7	5.0	5.7
Precipitation		0.0	0.0		22.7	8.9						31.6	61.9	20.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	45.0
Growing Degrees	5	15.0	15.0	14.8	14.8	14.7	15.5	14.0	14.3	12.7	13.6	144.0	131.1	127.9
	10	10.0	10.0	9.8	9.8	9.7	10.5	9.0	9.3	7.7	8.6	94.0	81.1	82.8

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	19.1
Precipitation - Reference Evapotranspiration	-	-	1.5
Number of Rainy Days	2.0	9.0	2.4
Number of Dry Days	8.0	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

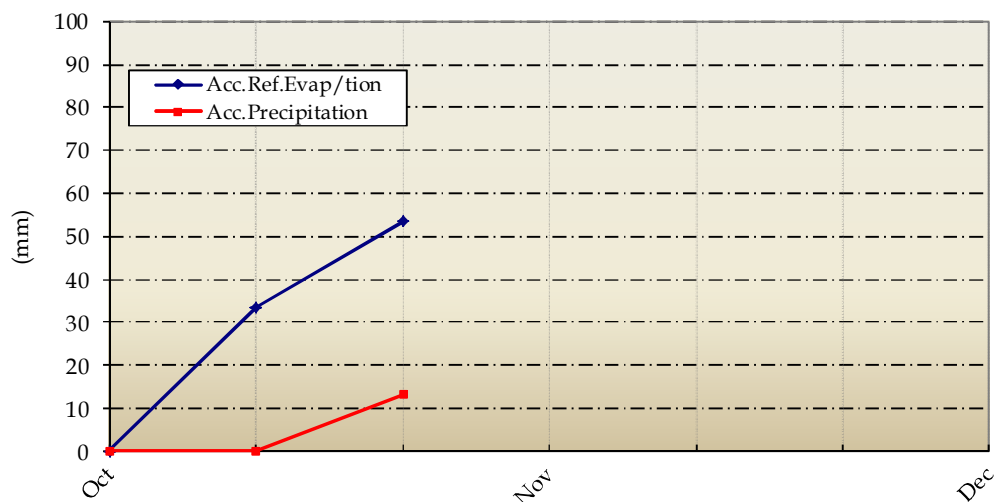


Larisa

2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	23.6	22.4	24.2	18.8	18.8	21.2	21.8	22.0	24.2	23.8	22.1	19.0	23.1
	Min	14.0	16.6	13.4	13.6	13.0	9.0	8.8	5.8	5.8	5.6	10.6	10.7	11.1
Relative Humidity	Max	91	91	92	100	93	100	100	98	100	94	96	98	93
	Min	50	57	35	72	51	9	38	38	27	33	41	60	44
Soil Temperature at 10 cm	06 UTC	21.4	21.8	21.2	21.4	19.0	17.8	17.6	17.0	16.6	16.4	19.0	15.7	17.7
	12 UTC	22.2	22.2	22.6	20.4	20.2	19.0	19.0	18.4	17.8	18.0	20.0	17.7	18.6
Sunshine Duration		0.9	0.1	5.7	0.0	0.0	7.6	8.6	8.2	8.4	6.6	4.6	4.6	3.5
Precipitation		0.0			13.1							13.1	34.7	16.7
Evaporation		3.3	4.4	4.1	1.0	1.7	3.1	3.5	3.2	4.9	8.3	37.5	20.0	34.8
Growing Degrees	5	13.8	14.5	13.8	11.2	10.9	10.1	10.3	8.9	10.0	9.7	113.2	98.4	111.4
	10	8.8	9.5	8.8	6.2	5.9	5.1	5.3	3.9	5.0	4.7	63.2	48.4	65.2

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	19.9	15.9	16.7
Precipitation - Reference Evapotranspiration	-6.8	18.8	0.0
Number of Rainy Days	1.0	6.0	2.2
Number of Dry Days	37.0	0.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



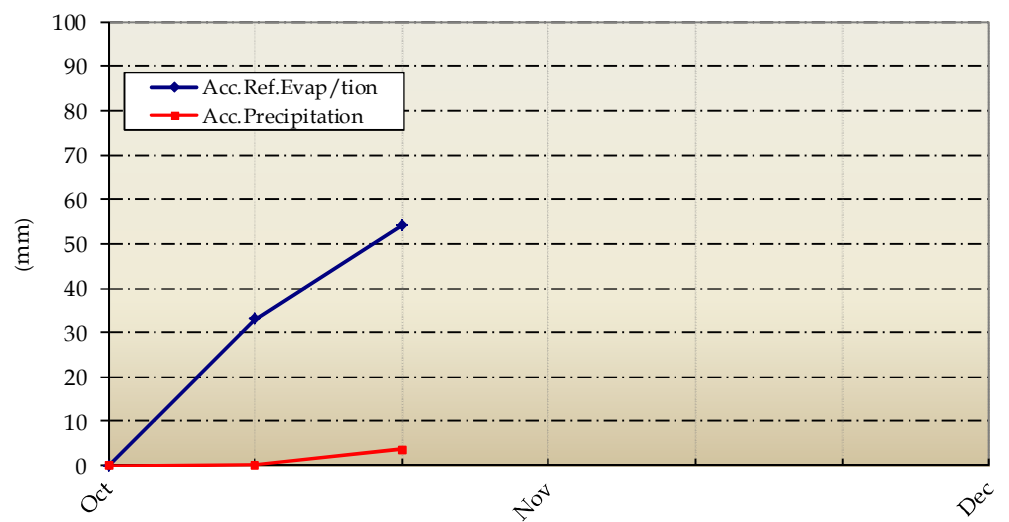
Mikra

2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	20.6	22.8	21.5	19.8	20.3	21.5	22.1	22.5	22.8	23.1	21.7	18.3	21.7
	Min	14.4	14.0	13.9	14.7	13.6	10.9	10.1	8.3	7.8	8.1	11.6	12.4	12.9
Relative Humidity	Max	94	98	90	100	97	98	100	91	89	89	95	93	84
	Min	66	53	52	46	50	49	48	37	40	41	48	64	49
Soil Temperature at 10 cm	06 UTC	19.6	19.6	19.8	20.0	18.2	17.4	17.2	16.6	16.4	16.2	18.1	15.5	17.2
	12 UTC	20.6	20.8	20.8	20.0	18.8	19.0	18.8	26.8	18.0	17.9	20.2	16.3	20.1
Sunshine Duration		0.0	4.5	2.6	0.0	4.1	9.4	9.8	10.0	10.1	10.1	6.1	4.0	4.1
Precipitation		0.1			2.9	0.5						3.5	94.8	11.3
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	37.6
Growing Degrees	5	12.5	13.4	12.7	12.3	12.0	11.2	11.1	10.4	10.3	10.6	116.4	103.8	115.0
	10	7.5	8.4	7.7	7.3	7.0	6.2	6.1	5.4	5.3	5.6	66.4	53.8	68.2

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	21.1	20.2	17.0
Precipitation - Reference Evapotranspiration	-17.6	74.6	-5.7
Number of Rainy Days	3.0	6.0	1.9
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



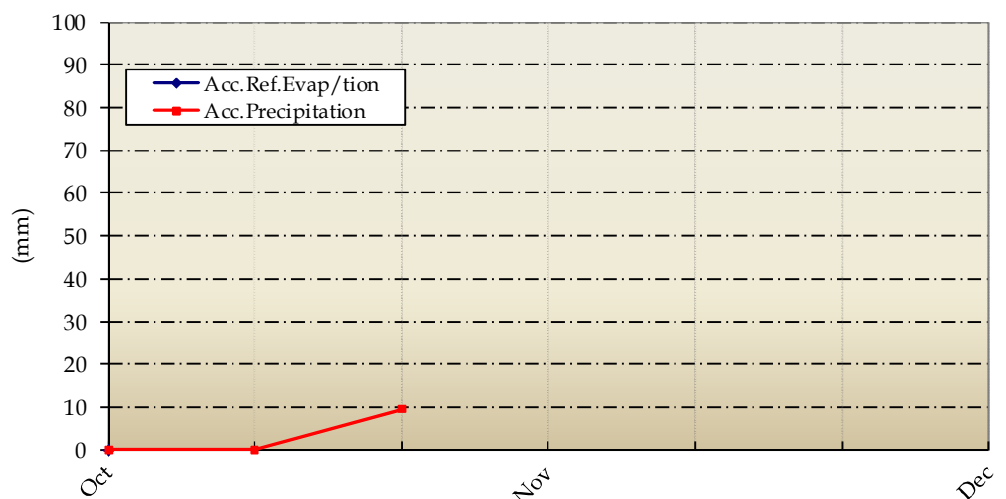
Tanagra

2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	23.8	23.4	23.0	18.5	16.5	20.4	19.1	18.8	22.8	22.1	20.8	20.1	22.9
	Min	13.1	13.7	12.6	13.0	13.9	15.0	12.3	16.2	10.8	7.6	12.8	12.2	12.9
Relative Humidity	Max	80	80	76	93	95	67	66	75	76	85	79	98	92
	Min	40	43	29	59	75	43	33	48	30	40	44	56	44
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		5.5	7.2	8.5	0.0	0.0	4.9	10.0	2.3	10.0	8.9	5.7	3.5	4.9
Precipitation					0.9	8.5						9.4	41.2	11.1
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	35.9
Growing Degrees	5	13.5	13.6	12.8	10.8	10.2	12.7	10.7	12.5	11.8	9.9	118.3	111.5	111.6
	10	8.5	8.6	7.8	5.8	5.2	7.7	5.7	7.5	6.8	4.9	68.3	61.5	68.6

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	2.0	5.0	1.8
Number of Dry Days	16.0	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



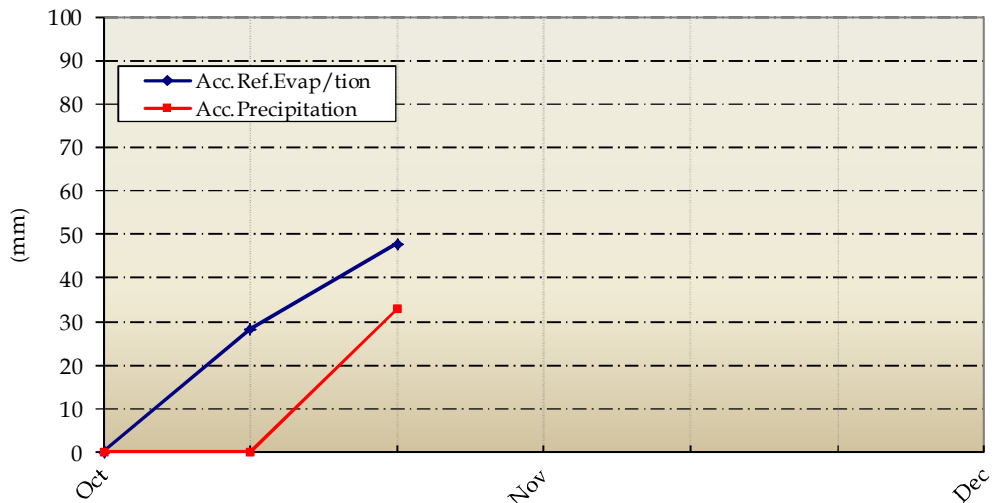
Tripoli

2nd 10-day period (11-20/10/2022)		11	12	13	14	15	16	17	18	19	20	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	22.4	21.9	22.0	16.0	17.7	18.8	19.6	19.7	22.5	21.4	20.2	17.9	21.6
	Min	11.6	7.9	12.0	12.8	12.0	12.1	9.2	9.3	4.5	4.0	9.5	8.8	7.9
Relative Humidity	Max	97	99	99	99	99	80	78	93	98	99	94	98	95
	Min	34	47	50	80	57	43	29	44	26	21	43	55	44
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	13.2
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	17.6
Sunshine Duration		5.4	3.8	4.8	0.0	3.5	8.0	9.5	9.4	9.0	8.4	6.2	4.4	4.2
Precipitation			4.1		13.0	15.8						32.9	65.7	17.6
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	31.5
Growing Degrees	5	12.0	9.9	12.0	9.4	9.9	10.5	9.4	9.5	8.5	7.7	98.7	83.1	77.2
	10	7.0	4.9	7.0	4.4	4.9	5.5	4.4	4.5	3.5	2.7	48.7	33.1	37.6

2nd 10-day period (11-20/10/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	19.5	14.6	14.8
Precipitation - Reference Evapotranspiration	13.4	51.1	2.8
Number of Rainy Days	3.0	7.0	2.4
Number of Dry Days	14.0	0.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration





◆ List of Symbols and Abbreviations

Reference Evapotranspiration ET_0 (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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