



AGROMETEOROLOGICAL BULLETIN

June 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



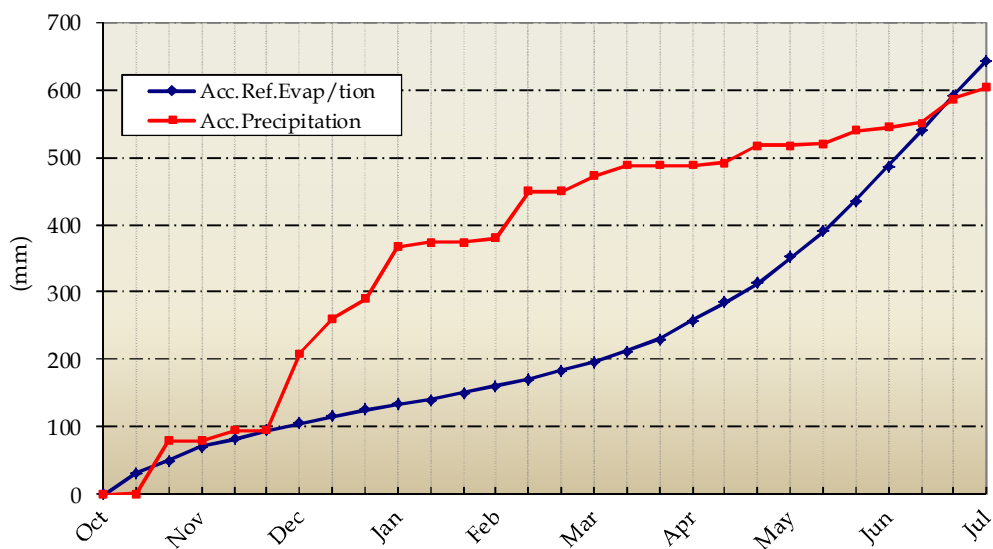
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3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	28.0	28.0	30.0	28.0	28.6	28.0	28.6	31.4	31.4	33.4	29.5	30.7	29.9
	Min	16.2	18.0	19.6	16.8	16.4	18.4	17.6	20.6	21.0	20.0	18.5	20.1	18.1
Relative Humidity	Max	88	88	92	92	91	94	92	84	88	85	89	89	80
	Min	51	62	42	39	40	57	51	41	32	35	45	51	39
Soil Temperature at 10 cm	06 UTC	24.0	25.4	25.0	23.4	23.4	24.2	23.2	24.2	25.4	25.0	24.3	24.2	24.7
	12 UTC	27.6	27.2	27.0	26.0	26.6	25.8	25.8	26.6	28.0	28.8	26.9	27.0	28.5
Sunshine Duration		13.7	9.2	6.9	11.6	12.0	4.5	11.8	8.3	13.8	13.3	10.5	11.6	10.7
Precipitation			0.6	6.6	0.9		8.5					16.6	40.3	3.0
Evaporation		9.6	2.4	8.1	7.2	7.6	4.9	6.7	9.3	9.0	9.3	74.1	71.2	86.6
Growing Degrees	5	17.1	18.0	19.8	17.4	17.5	18.2	18.1	21.0	21.2	21.7	190.0	203.7	169.9
	10	12.1	13.0	14.8	12.4	12.5	13.2	13.1	16.0	16.2	16.7	140.0	153.7	125.1

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	51.4	53.3	47.0
Precipitation - Reference Evapotranspiration	-34.8	-13.0	-44.0
Number of Rainy Days	4.0	2.0	1.0
Number of Dry Days	7.0	0.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

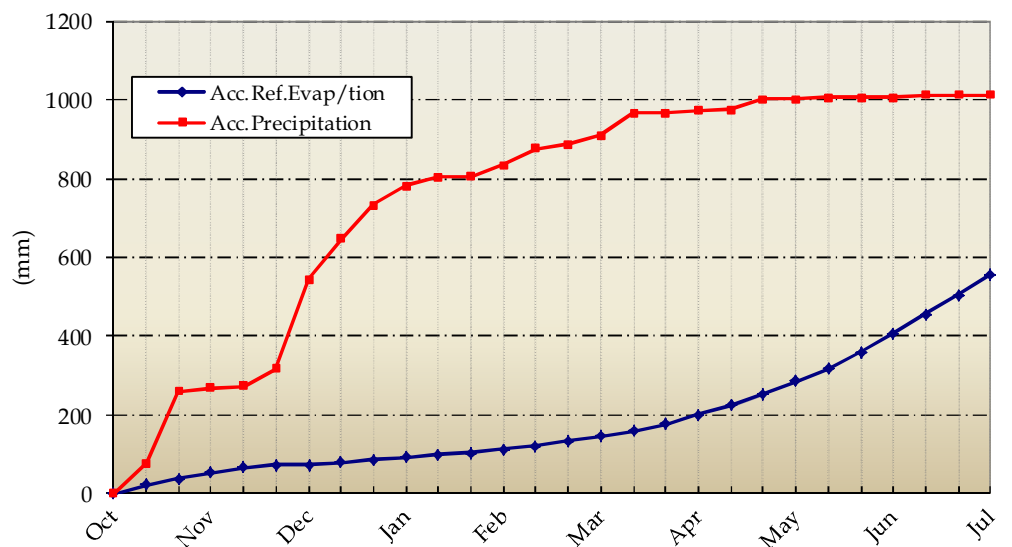


3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.0	32.1	33.6	33.5	31.4	33.0	33.8	33.0	32.4	33.2	32.6	35.0	29.7
	Min	18.8	18.3	20.0	19.9	21.8	20.3	19.8	21.4	22.0	21.9	20.4	19.0	18.0
Relative Humidity	Max	92	94	89	90	93	96	91	92	92	92	92	91	88
	Min	47	44	38	41	49	41	41	46	47	39	43	32	41
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	29.0	27.0
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	32.0	32.4
Sunshine Duration		13.5	13.4	11.3	10.4	12.4	13.2	13.1	13.2	12.4	13.1	12.6	12.0	12.1
Precipitation														4.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-	88.5	87.5
Growing Degrees	5	19.4	20.2	21.8	21.7	21.6	21.7	21.8	22.2	22.2	22.6	215.1	220.0	158.1
	10	14.4	15.2	16.8	16.7	16.6	16.7	16.8	17.2	17.2	17.6	165.1	170.0	116.1

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	53.7	51.5	42.1
Precipitation - Reference Evapotranspiration	-53.7	-51.5	-37.2
Number of Rainy Days	0.0	0.0	0.3
Number of Dry Days	20.0	20.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

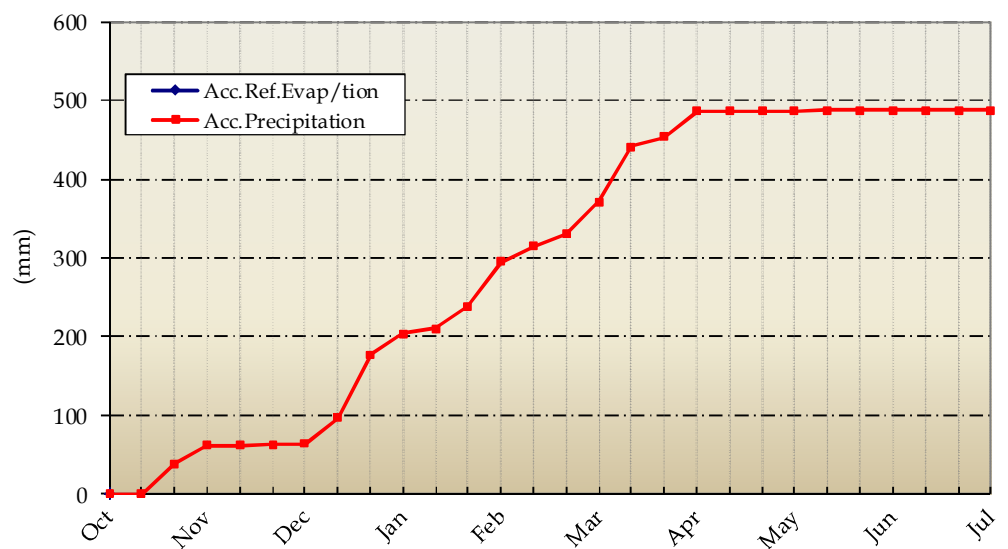


3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	27.8	30.0	30.4	29.6	28.8	30.0	28.4	28.4	27.8	29.6	29.1	31.6	28.5
	Min	18.4	19.8	23.2	23.2	23.2	22.6	24.0	24.2	24.4	24.2	22.7	24.0	21.1
Relative Humidity	Max	91	89	84	74	72	79	77	75	80	79	80	81	79
	Min	52	49	39	46	45	51	51	57	59	45	49	51	53
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		13.1	13.0	12.5	12.4	12.9	12.7	13.0	12.9	13.0	13.0	12.8	12.4	12.4
Precipitation														0.1
Evaporation		5.5	6.9	6.5	8.4	4.7	7.0	7.3	8.3	5.7	10.3	70.6	73.1	68.7
Growing Degrees	5	18.1	19.9	21.8	21.4	21.0	21.3	21.2	21.3	21.1	21.9	209.0	228.2	188.1
	10	13.1	14.9	16.8	16.4	16.0	16.3	16.2	16.3	16.1	16.9	159.0	178.2	140.4

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	-
Number of Rainy Days	0.0	0.0	0.1
Number of Dry Days	18.0	14.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

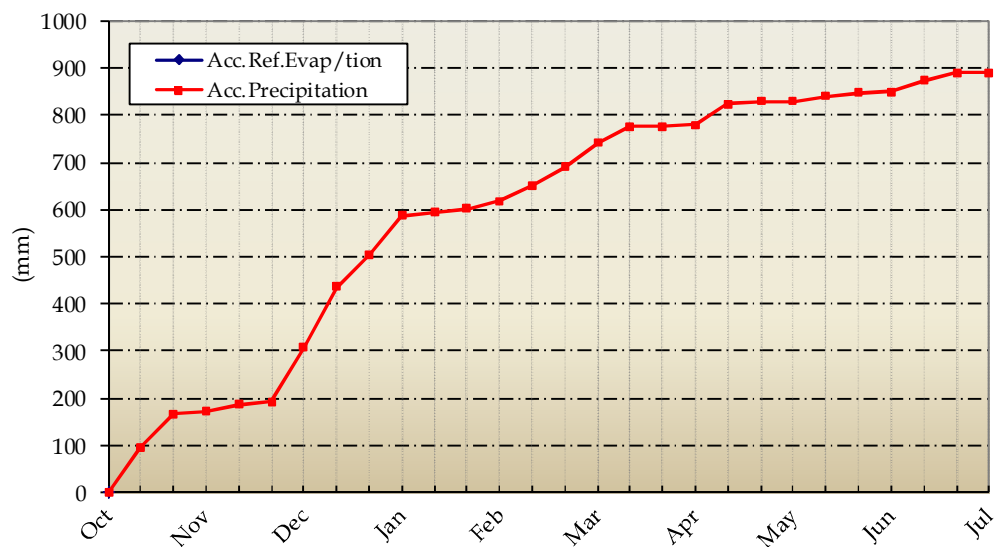


3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.4	34.6	34.4	33.8	33.5	33.6	34.4	34.2	34.4	33.9	33.8	36.4	30.1
	Min	11.6	13.4	15.2	16.9	15.6	14.5	13.8	15.8	18.0	17.3	15.2	15.6	14.9
Relative Humidity	Max	100	98	94	83	90	95	83	89	95	95	92	80	91
	Min	34	24	29	28	33	19	26	32	27	35	29	22	41
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	22.4
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	24.5
Sunshine Duration		13.0	12.2	10.5	12.4	12.7	13.2	13.1	12.7	12.8	10.7	12.3	11.2	9.7
Precipitation											0.0	0.0		5.8
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	
Growing Degrees	5	16.5	19.0	19.8	20.4	19.6	19.1	19.1	20.0	21.2	20.6	195.2	210.3	147.1
	10	11.5	14.0	14.8	15.4	14.6	14.1	14.1	15.0	16.2	15.6	145.2	160.3	105.0

3rd 10-day period (21-30/06/2022)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	29.8
Precipitation - Reference Evapotranspiration	-	-24.0
Number of Rainy Days	0.0	1.3
Number of Dry Days	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

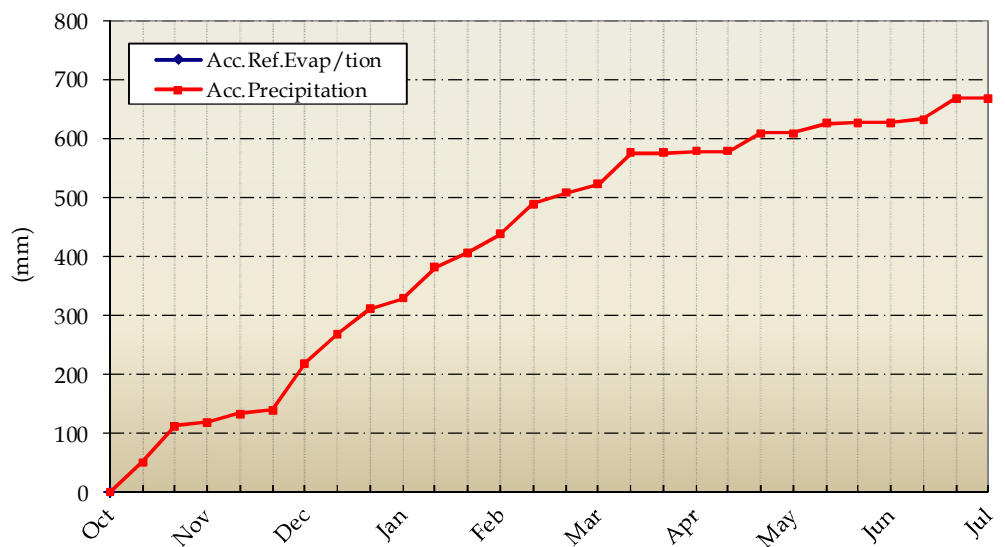


3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	32.4	32.9	37.2	36.9	31.0	37.4	30.7	31.3	31.3	31.6	33.3	34.6	30.8
	Min	17.8	20.7	21.8	21.7	19.2	21.4	19.4	19.1	21.2	18.0	20.0	20.4	17.7
Relative Humidity	Max	93	91	73	93	96	79	96	97	94	95	91	79	87
	Min	40	38	29	26	37	26	47	50	45	43	38	30	37
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	27.5	24.2
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	33.4	27.5
Sunshine Duration		13.3	13.2	13.2	12.7	13.0	13.1	12.7	13.0	13.1	13.2	13.0	12.4	11.3
Precipitation														5.1
Evaporation		-	-	-	-	-	-	-	-	-	-	-	80.7	71.3
Growing Degrees	5	20.1	21.8	24.5	24.3	20.1	24.4	20.1	20.2	21.3	19.8	216.5	225.1	177.9
	10	15.1	16.8	19.5	19.3	15.1	19.4	15.1	15.2	16.3	14.8	166.5	175.1	131.6

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	49.0
Precipitation - Reference Evapotranspiration	-	-	-43.9
Number of Rainy Days	0.0	0.0	0.5
Number of Dry Days	10.0	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



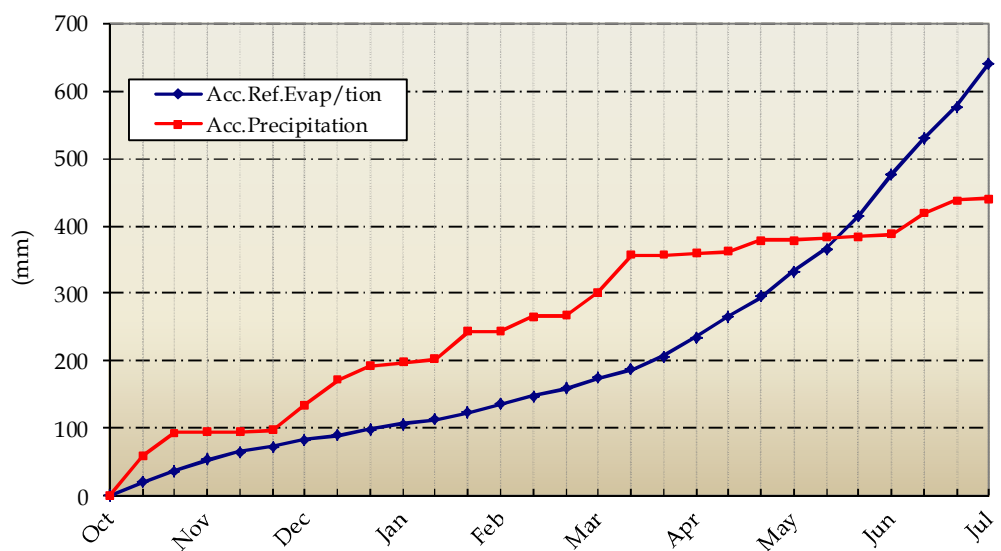
Larisa

3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	37.0	38.8	40.4	30.6	35.4	32.8	33.4	35.4	33.5	35.8	35.3	38.0	33.1
	Min	16.2	19.0	22.2	22.6	18.0	20.0	20.0	18.6	19.6	20.0	19.6	19.5	18.2
Relative Humidity	Max	91	84	74	81	100	96	92	93	90	79	88	89	79
	Min	24	19	17	47	31	35	36	29	30	29	30	27	28
Soil Temperature at 10 cm	06 UTC	24.6	26.0	26.2	27.6	27.0	26.2	27.0	27.2	27.6	27.6	26.7	-	25.9
	12 UTC	27.0	28.0	28.8	28.2	28.8	28.6	29.0	28.8	29.2	29.2	28.6	-	28.0
Sunshine Duration		11.0	10.9	9.5	9.7	9.5	10.9	10.8	10.9	10.6	8.6	10.2	8.7	10.2
Precipitation						2.3				0.3		2.6	3.1	7.1
Evaporation		8.9	12.5	13.1	11.7	7.7	15.0	13.6	11.2	11.0	12.5	117.2	103.4	107.3
Growing Degrees	5	21.6	23.9	26.3	21.6	21.7	21.4	21.7	22.0	21.6	22.9	224.7	237.3	188.4
	10	16.6	18.9	21.3	16.6	16.7	16.4	16.7	17.0	16.6	17.9	174.7	187.3	142.9

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	63.9	62.2	61.4
Precipitation - Reference Evapotranspiration	-61.3	-59.1	-54.3
Number of Rainy Days	2.0	2.0	1.2
Number of Dry Days	6.0	2.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



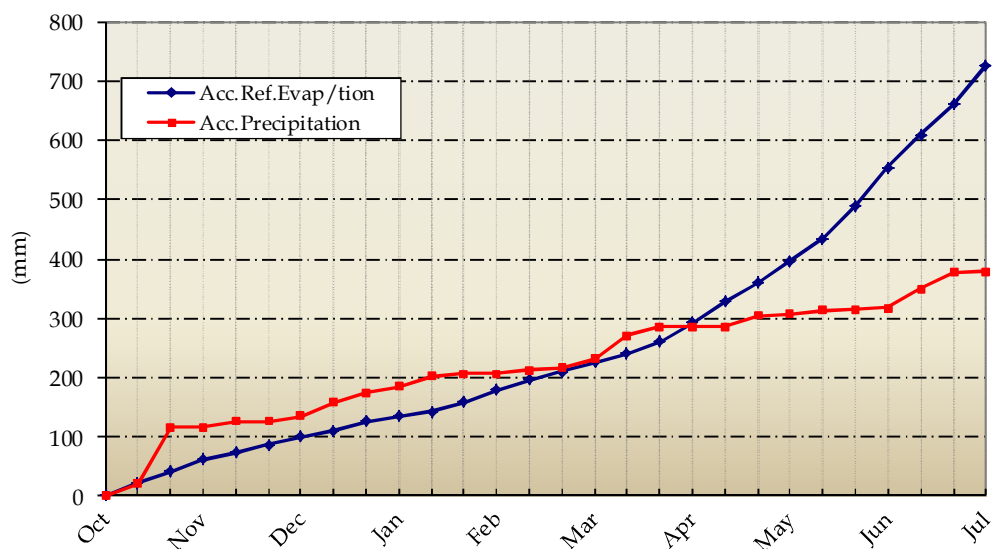
Mikra

3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	34.4	35.6	35.4	28.9	32.1	31.9	32.2	34.4	33.2	34.4	33.2	35.1	31.4
	Min	17.8	20.8	22.8	22.4	20.6	22.4	20.2	21.2	20.8	20.2	20.9	21.4	19.9
Relative Humidity	Max	78	85	91	90	87	87	92	89	90	80	87	86	75
	Min	36	29	38	48	44	36	43	29	30	33	37	38	34
Soil Temperature at 10 cm	06 UTC	23.4	24.8	25.5	25.0	25.2	25.8	25.4	25.0	26.8	25.8	25.3	28.0	26.4
	12 UTC	28.0	27.2	27.8	26.0	27.0	27.0	28.0	28.4	28.6	29.8	27.8	30.6	31.8
Sunshine Duration		13.5	12.2	9.9	6.1	11.6	13.5	12.3	13.1	13.9	12.3	11.8	11.7	11.0
Precipitation				0.4	0.4					0.1		0.9	1.1	6.7
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	104.2
Growing Degrees	5	21.1	23.2	24.1	20.7	21.4	22.2	21.2	22.8	22.0	22.3	220.9	232.4	187.5
	10	16.1	18.2	19.1	15.7	16.4	17.2	16.2	17.8	17.0	17.3	170.9	182.4	142.2

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	65.5	67.5	57.4
Precipitation - Reference Evapotranspiration	-64.6	-66.4	-50.7
Number of Rainy Days	3.0	1.0	1.2
Number of Dry Days	4.0	1.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



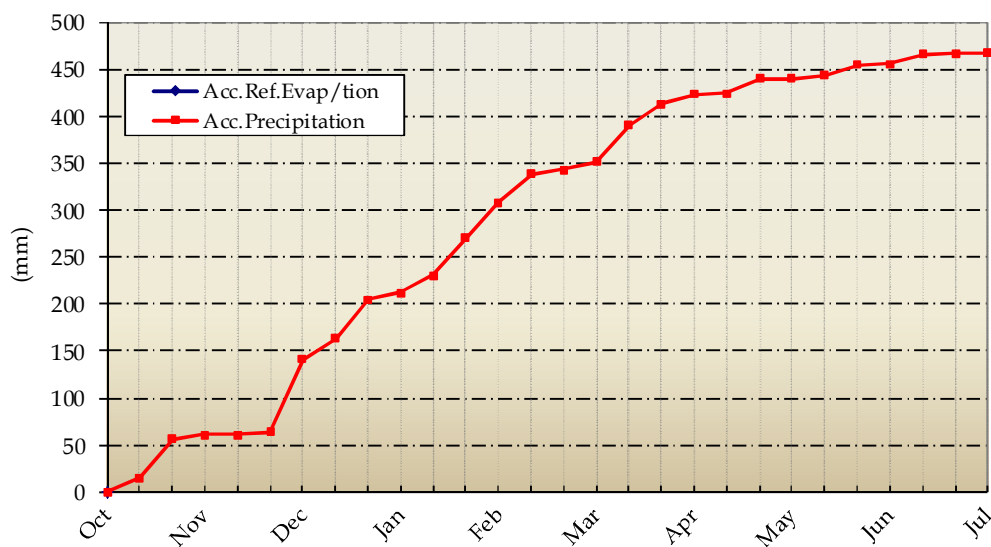
Tanagra

3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	34.0	36.8	39.4	31.1	34.6	32.4	31.9	32.1	31.7	33.4	33.7	36.2	31.7
	Min	17.6	20.1	21.6	21.1	17.4	20.0	18.3	19.2	21.3	18.8	19.5	20.6	18.6
Relative Humidity	Max	73	70	66	71	92	94	73	68	68	59	73	71	74
	Min	21	20	13	35	24	26	26	26	26	23	24	25	29
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		13.2	13.2	11.8	12.9	12.8	13.3	13.3	12.8	13.7	13.2	13.0	12.4	10.9
Precipitation							1.3					1.3	0.0	2.2
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	88.8
Growing Degrees	5	20.8	23.5	25.5	21.1	21.0	21.2	20.1	20.7	21.5	21.1	216.4	233.9	176.2
	10	15.8	18.5	20.5	16.1	16.0	16.2	15.1	15.7	16.5	16.1	166.4	183.9	132.7

3rd 10-day period (21-30/06/2022)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-
Precipitation - Reference Evapotranspiration	-	-
Number of Rainy Days	1.0	0.0
Number of Dry Days	14.0	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

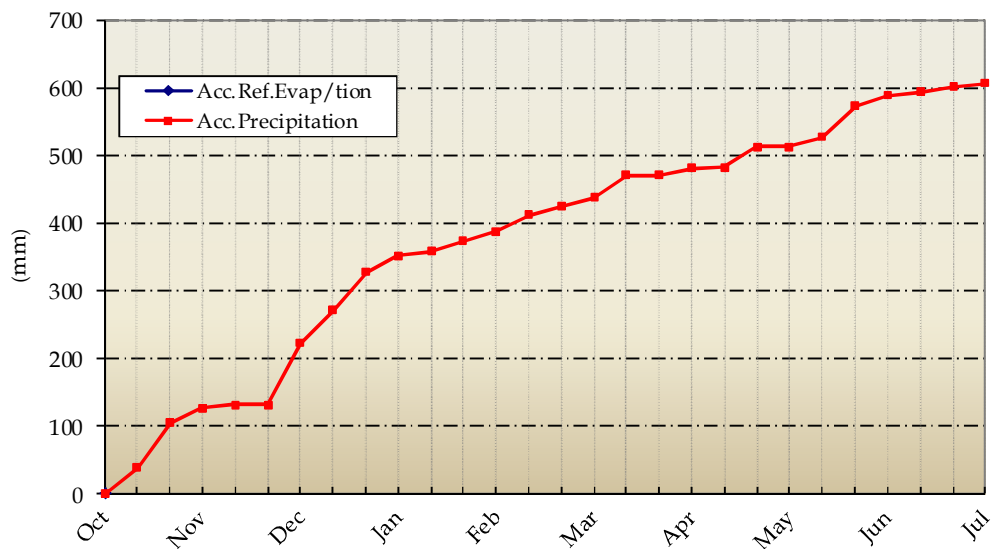


3rd 10-day period (21-30/06/2022)		21	22	23	24	25	26	27	28	29	30	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.8	34.6	37.0	34.9	33.5	33.6	30.7	32.3	30.5	32.9	33.1	35.7	30.2
	Min	11.5	13.9	15.2	16.9	15.4	15.3	15.1	14.4	15.2	13.7	14.7	15.8	13.3
Relative Humidity	Max	91	95	79	85	93	85	91	93	95	93	90	88	84
	Min	27	20	12	17	24	11	27	26	29	20	21	16	29
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	24.3
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	28.9
Sunshine Duration		13.3	13.3	11.4	13.1	11.6	13.2	10.0	12.1	12.5	13.0	12.4	11.8	10.6
Precipitation										5.8		5.8	0.0	3.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	61.1
Growing Degrees	5	16.2	19.3	21.1	20.9	19.5	19.5	17.9	18.4	17.9	18.3	188.7	207.8	143.4
	10	11.2	14.3	16.1	15.9	14.5	14.5	12.9	13.4	12.9	13.3	138.7	157.8	100.6

3rd 10-day period (21-30/06/2022)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	56.2	54.8	32.6
Precipitation - Reference Evapotranspiration	-50.4	-54.8	-28.7
Number of Rainy Days	1.0	0.0	1.1
Number of Dry Days	9.0	10.0	-

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)

Measurements 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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