



# AGROMETEOROLOGICAL BULLETIN

*May 2021  
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



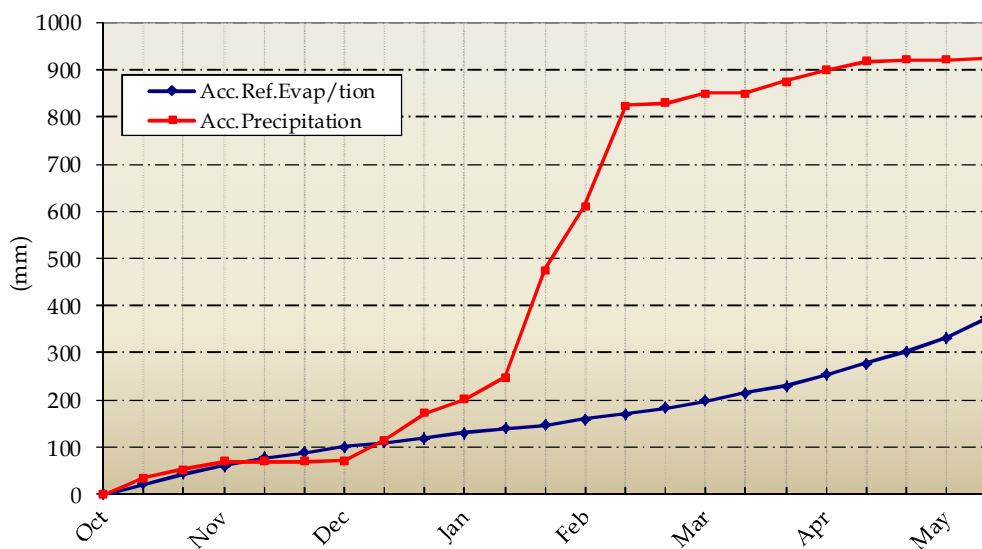
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1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	24.0	25.8	25.0	25.8	24.0	25.0	25.0	23.6	20.4	23.2	24.2	20.3	20.6
	Min	11.6	14.2	15.0	16.0	10.6	12.4	11.4	13.4	11.0	9.2	12.5	11.1	9.7
Relative Humidity	Max	95	69	80	71	83	89	90	88	79	92	84	85	-
	Min	53	37	48	25	35	45	48	44	43	23	40	53	-
Soil Temperature at 10 cm	06 UTC	16.6	18.0	18.0	18.4	17.6	18.6	18.2	18.4	17.6	16.0	17.7	15.9	15.1
	12 UTC	19.8	21.5	21.4	21.6	21.0	21.8	22.3	20.8	19.8	19.6	21.0	19.2	19.2
Sunshine Duration		7.3	8.1	10.3	10.3	10.0	10.6	9.2	5.5	13.2	13.2	9.8	8.6	8.0
Precipitation					0.4		1.0					1.4	41.3	9.3
Evaporation		4.5	3.7	6.0	7.0	7.4	5.2	4.1	7.2	5.2	8.6	58.9	51.5	55.4
Growing Degrees	5	12.8	15.0	15.0	15.9	12.3	13.7	13.2	13.5	10.7	11.2	133.3	106.7	101.5
	10	7.8	10.0	10.0	10.9	7.3	8.7	8.2	8.5	5.7	6.2	83.3	56.7	51.6

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	42.3	34.4	37.0
Precipitation - Reference Evapotranspiration	-40.9	6.9	-27.7
Number of Rainy Days	2.0	5.0	2.2
Number of Dry Days	8.0	10.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

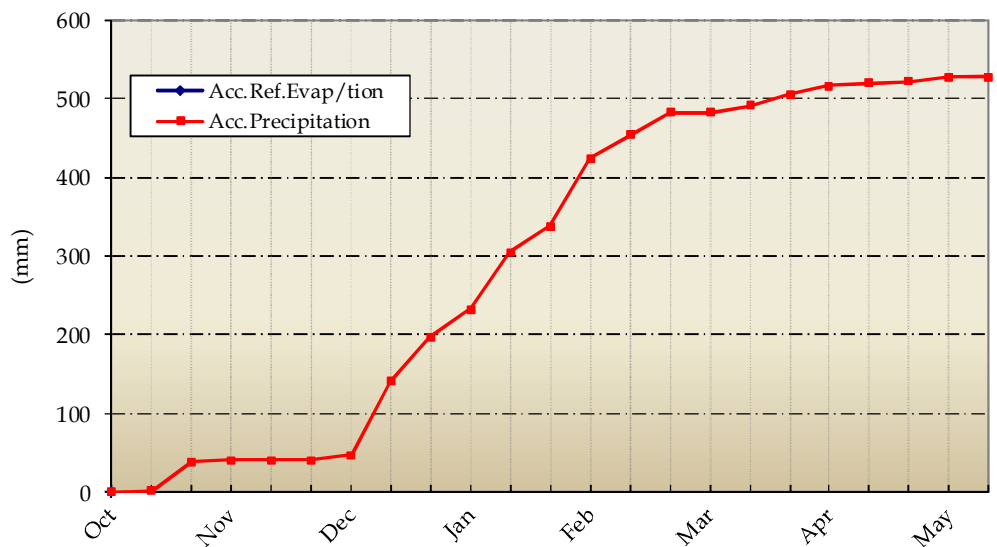


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.7	28.1	27.3	24.7	25.2	22.9	26.8	26.7	27.9	25.6	26.6	23.7	22.2
	Min	12.0	16.4	14.6	14.2	9.5	12.4	12.4	14.1	11.1	11.1	12.8	10.7	11.6
Relative Humidity	Max	91	93	92	92	94	96	98	95	91	95	94	93	-
	Min	26	39	37	40	28	58	36	36	40	30	37	39	-
Soil Temperature at 10 cm	06 UTC	18.8	20.4	20.2	20.4	19.8	20.4	20.0	19.8	20.8	21.2	20.2	20.1	17.3
	12 UTC	20.6	21.6	21.8	21.6	22.4	21.6	21.6	22.4	23.0	22.8	21.9	23.0	21.1
Sunshine Duration		8.2	8.0	9.1	11.0	8.3	8.5	8.2	12.6	12.9	13.1	10.0	11.3	8.8
Precipitation						0.0						0.0		8.6
Evaporation		6.8	6.4	6.6	7.1	6.2	5.8	4.6	6.0	6.8	6.2	62.5	-	49.3
Growing Degrees	5	16.4	17.3	16.0	14.5	12.4	12.7	14.6	15.4	14.5	13.4	146.9	122.0	119.0
	10	11.4	12.3	11.0	9.5	7.4	7.7	9.6	10.4	9.5	8.4	96.9	72.0	69.0

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	37.9	-	35.8
Precipitation - Reference Evapotranspiration	-37.9	-	-27.2
Number of Rainy Days	0.0	0.0	2.0
Number of Dry Days	16.0	17.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

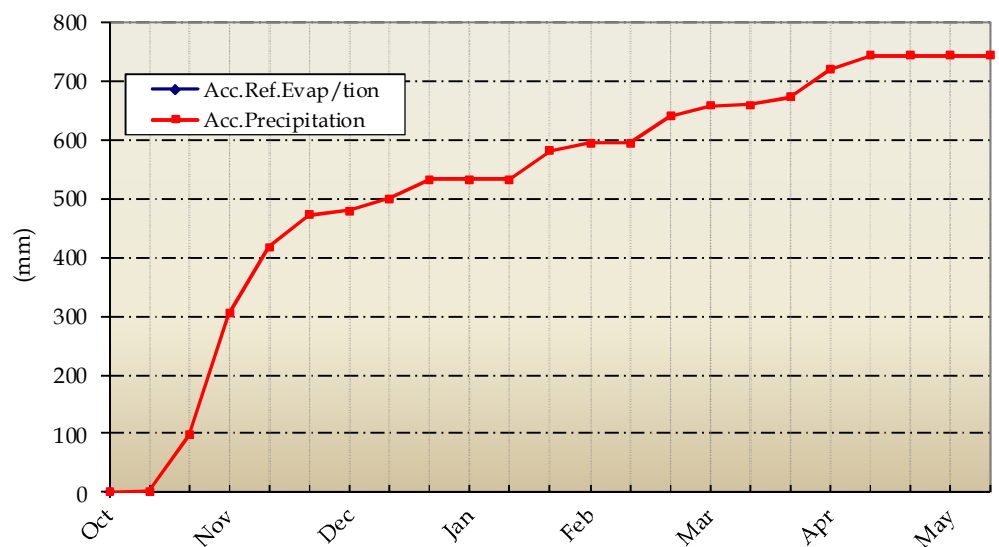


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	27.6	33.6	29.4	24.6	24.0	26.4	23.2	25.2	22.4	20.6	25.7	21.7	22.0
	Min	20.2	20.2	22.8	18.2	14.2	17.0	15.0	18.4	19.0	17.0	18.2	14.1	14.0
Relative Humidity	Max	85	73	85	87	85	86	79	91	88	80	84	80	-
	Min	38	25	26	60	51	53	25	28	63	60	43	49	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		9.2	10.9	10.4	9.3	11.8	4.1	12.1	7.4	12.5	12.8	10.0	11.2	9.1
Precipitation													0.5	5.2
Evaporation		4.5	7.5	5.5	3.4	3.6	5.3	3.8	5.0	6.5	6.8	51.9	47.0	59.2
Growing Degrees	5	18.9	21.9	21.1	16.4	14.1	16.7	14.1	16.8	15.7	13.8	169.5	128.9	130.2
	10	13.9	16.9	16.1	11.4	9.1	11.7	9.1	11.8	10.7	8.8	119.5	78.9	80.2

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	-
Precipitation - Reference Evapotranspiration	-	-	5.2
Number of Rainy Days	0.0	1.0	1.4
Number of Dry Days	31.0	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

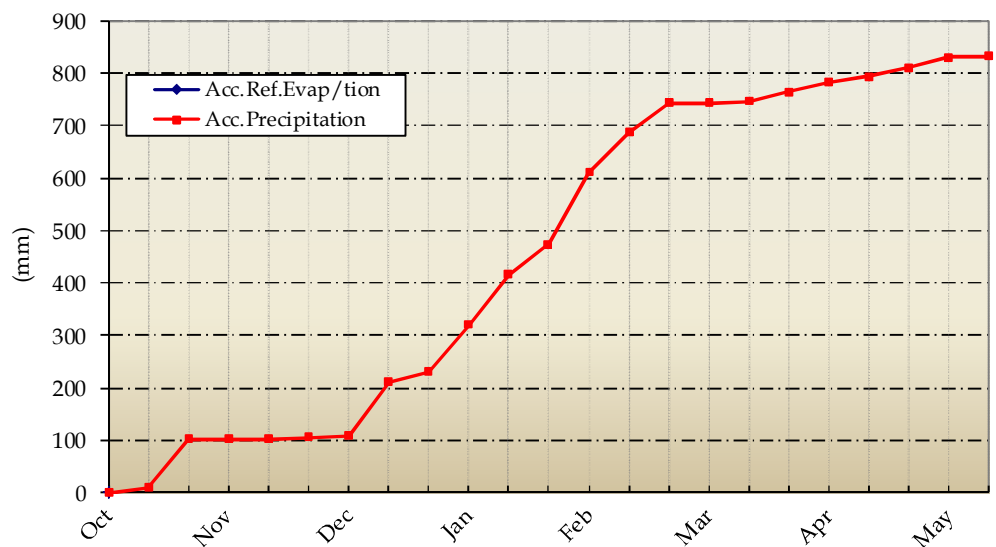


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.1	27.8	25.4	26.0	24.4	24.5	27.0	28.0	27.0	28.4	26.9	22.5	21.2
	Min	10.7	17.6	10.9	6.4	8.3	10.1	10.3	7.4	8.1	9.1	9.9	5.8	8.6
Relative Humidity	Max	95	80	100	100	95	95	91	74	68	100	90	99	-
	Min	28	42	27	20	38	34	27	28	39	31	31	35	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	13.7
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	17.5
Sunshine Duration		7.5	6.3	6.0	8.5	5.6	11.1	4.7	12.2	11.8	12.2	8.6	9.7	6.7
Precipitation				0.0		1.7	0.9					2.6	3.7	22.2
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	36.0
Growing Degrees	5	15.4	17.7	13.2	11.2	11.4	12.3	13.7	12.7	12.6	13.8	133.8	91.8	99.4
	10	10.4	12.7	8.2	6.2	6.4	7.3	8.7	7.7	7.6	8.8	83.8	41.8	49.6

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	33.0
Precipitation - Reference Evapotranspiration	-	-	-10.8
Number of Rainy Days	2.0	3.0	3.9
Number of Dry Days	9.0	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

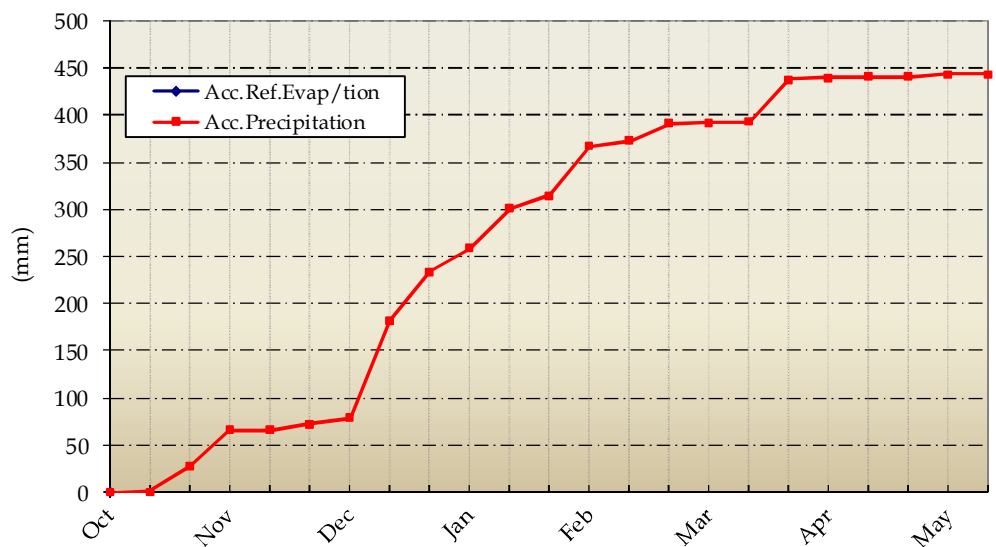


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.8	32.4	33.6	30.5	28.8	26.5	28.2	32.1	26.0	23.6	29.4	23.9	22.8
	Min	11.8	11.8	13.6	20.1	10.8	15.6	12.2	17.6	12.5	10.6	13.7	10.5	11.0
Relative Humidity	Max	76	78	86	49	80	72	84	76	83	100	78	91	-
	Min	15	15	12	15	16	41	28	20	41	41	24	33	-
Soil Temperature at 10 cm	06 UTC	18.4	18.5	19.6	21.4	20.0	20.4	19.6	21.0	20.8	20.5	20.0	19.5	16.9
	12 UTC	22.0	23.5	23.4	24.6	22.5	22.0	22.4	24.5	24.4	24.0	23.3	23.2	20.6
Sunshine Duration		9.8	10.2	9.9	12.3	6.8	2.3	8.5	11.8	12.6	12.7	9.7	9.9	8.6
Precipitation						0.0				0.0		0.0	0.9	9.1
Evaporation		5.0	10.8	12.6	10.4	9.6	6.0	7.4	12.4	7.6	7.0	88.8	63.4	52.2
Growing Degrees	5	16.8	17.1	18.6	20.3	14.8	16.1	15.2	19.9	14.3	12.1	165.1	122.0	119.0
	10	11.8	12.1	13.6	15.3	9.8	11.1	10.2	14.9	9.3	7.1	115.1	72.0	69.0

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	45.7	36.5
Precipitation - Reference Evapotranspiration	-	-44.8	-27.4
Number of Rainy Days	0.0	1.0	2.3
Number of Dry Days	12.0	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



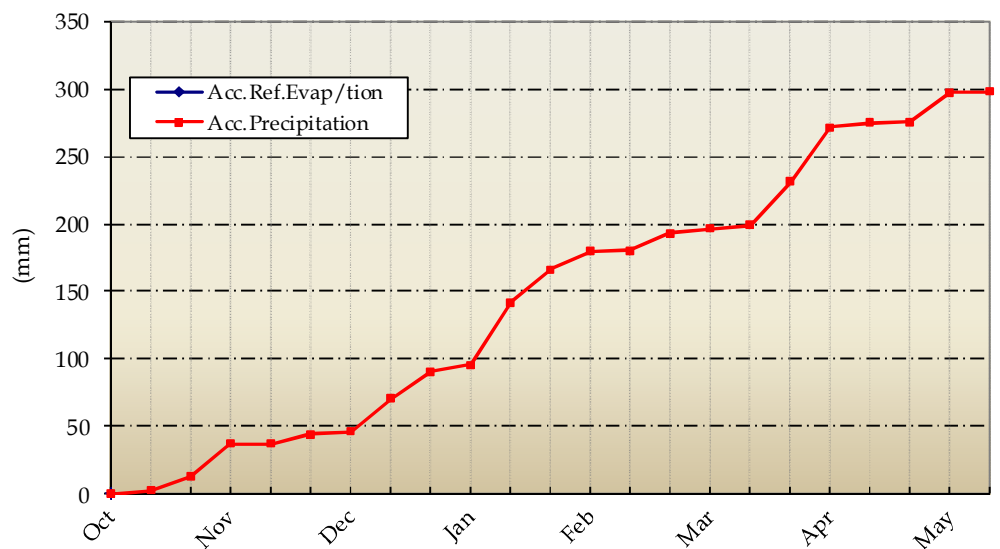


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	30.0	33.9	31.4	23.6	27.8	28.1	28.6	28.8	22.0	23.2	27.7	25.1	23.7
	Min	13.3	12.6	16.6	14.2	10.6	11.4	11.6	13.0	15.2	7.5	12.6	9.3	9.3
Relative Humidity	Max	95	95	73	78	89	91	88	92	86	92	88	85	-
	Min	45	27	21	38	34	27	30	34	41	43	34	30	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	16.2
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	18.4
Sunshine Duration		5.5	9.9	8.8	8.5	10.4	12.0	8.1	11.8	5.4	11.5	9.2	9.3	8.0
Precipitation		0.0					0.7					0.7	0.2	10.2
Evaporation		3.1	9.0	7.8	7.2	7.3	6.4	5.9	7.4	6.5	4.6	65.2	62.3	50.6
Growing Degrees	5	16.7	18.3	19.0	13.9	14.2	14.8	15.1	15.9	13.6	10.4	151.7	121.9	115.4
	10	11.7	13.3	14.0	8.9	9.2	9.8	10.1	10.9	8.6	5.4	101.7	71.9	65.4

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	46.6	42.0	38.0
Precipitation - Reference Evapotranspiration	-45.9	-41.8	-27.8
Number of Rainy Days	1.0	2.0	2.5
Number of Dry Days	10.0	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



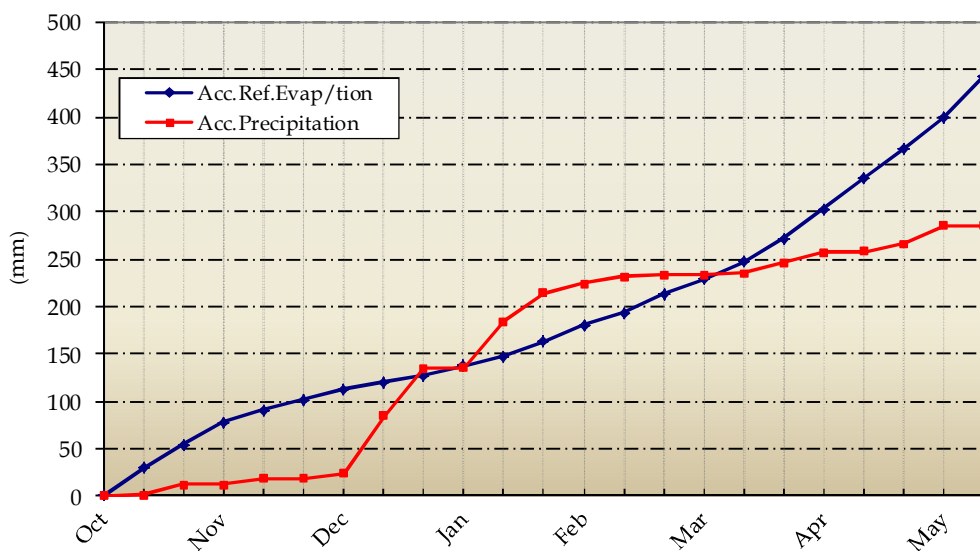
Mikra

1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	24.0	28.2	28.2	25.0	23.8	29.2	23.6	24.7	21.8	22.0	25.0	23.0	22.7
	Min	13.0	14.0	15.0	14.6	13.0	12.0	13.6	14.3	15.2	9.8	13.4	10.7	10.7
Relative Humidity	Max	94	93	93	80	85	90	88	93	86	88	89	79	-
	Min	56	51	30	39	40	22	45	44	44	46	42	38	-
Soil Temperature at 10 cm	06 UTC	17.6	17.8	19.2	19.4	18.8	19.0	19.6	19.2	19.4	17.8	18.8	17.1	16.9
	12 UTC	19.2	20.8	22.0	21.8	21.8	22.0	22.4	22.6	19.6	21.2	21.3	19.8	21.5
Sunshine Duration		5.2	10.3	9.2	8.7	8.6	12.2	3.8	11.2	4.1	12.9	8.6	10.4	7.9
Precipitation						0.1				0.0		0.1	0.5	12.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	53.6
Growing Degrees	5	13.5	16.1	16.6	14.8	13.4	15.6	13.6	14.5	13.5	10.9	142.5	118.2	116.7
	10	8.5	11.1	11.6	9.8	8.4	10.6	8.6	9.5	8.5	5.9	92.5	68.2	66.7

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	43.6	49.2	38.0
Precipitation - Reference Evapotranspiration	-43.5	-48.7	-25.1
Number of Rainy Days	1.0	2.0	2.6
Number of Dry Days	9.0	9.0	-

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

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



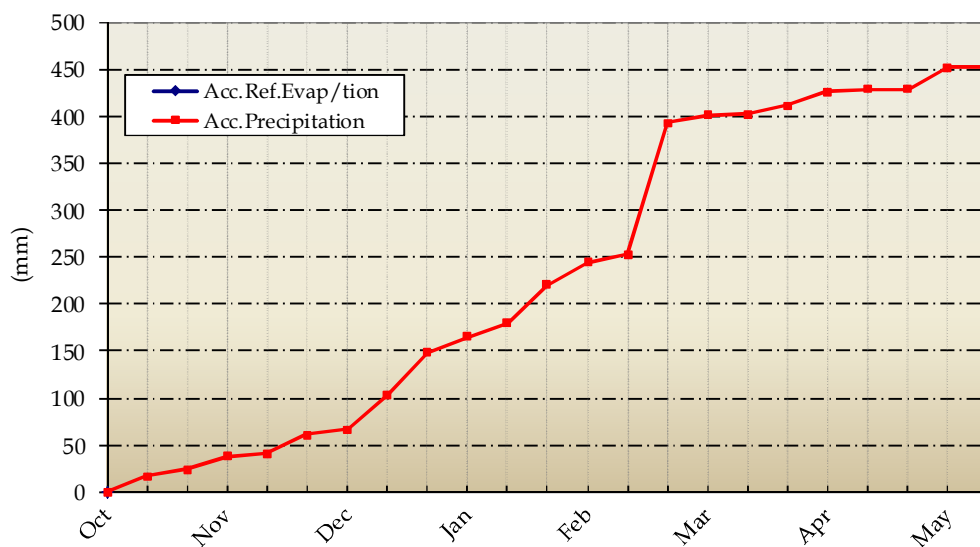


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	29.6	29.6	29.9	25.9	27.2	27.0	29.3	27.6	21.2	21.4	26.9	23.9	22.9
	Min	12.5	13.4	17.7	14.6	11.6	13.9	12.0	16.8	14.4	9.2	13.6	10.3	9.6
Relative Humidity	Max	80	85	63	81	79	81	93	73	72	80	79	82	-
	Min	34	28	23	35	33	26	23	29	28	31	29	26	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		4.7	2.6	3.6	10.5	6.9	11.3	7.8	10.7	13.0	13.4	8.4	10.5	
Precipitation													0.4	8.5
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	-
Growing Degrees	5	16.1	16.5	18.8	15.3	14.4	15.5	15.7	17.2	12.8	10.3	152.4	121.1	
	10	11.1	11.5	13.8	10.3	9.4	10.5	10.7	12.2	7.8	5.3	102.4	71.1	

1st 10-day period (1-10/05/2021)	Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-
Precipitation - Reference Evapotranspiration	-	8.5
Number of Rainy Days	0.0	1.0
Number of Dry Days	15.0	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

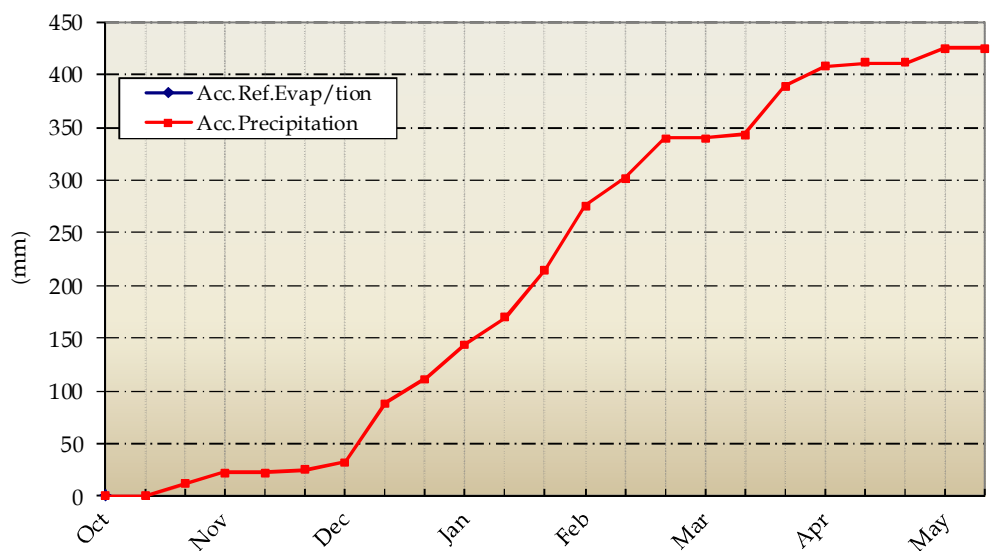


1st 10-day period (1-10/05/2021)		1	2	3	4	5	6	7	8	9	10	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	31.8	-	30.5	27.0	26.0	25.8	28.5	29.2	22.5	23.5	27.2	22.1	21.0
	Min	9.1	14.0	10.7	14.9	7.1	11.0	9.8	12.3	11.1	5.4	10.5	5.9	7.0
Relative Humidity	Max	81	78	83	85	90	86	92	77	80	85	84	90	-
	Min	14	12	11	24	20	23	15	19	37	23	20	30	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-	-	14.6
	12 UTC	-	-	-	-	-	-	-	-	-	-	-	-	17.1
Sunshine Duration		5.8	10.2	10.3	9.0	8.0	7.5	7.8	11.7	10.5	12.8	9.4	10.0	8.1
Precipitation													9.3	10.2
Evaporation		-	-	-	-	-	-	-	-	-	-	-	-	39.1
Growing Degrees	5	15.5	-	15.6	16.0	11.6	13.4	14.2	15.8	11.8	9.5	-	90.3	89.7
	10	10.5	-	10.6	11.0	6.6	8.4	9.2	10.8	6.8	4.5	-	40.3	40.9

1st 10-day period (1-10/05/2021)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	36.7
Precipitation - Reference Evapotranspiration	-	-	-26.5
Number of Rainy Days	0.0	2.0	2.8
Number of Dry Days	16.0	6.0	-

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.

**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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