



AGROMETEOROLOGICAL BULLETIN

February 2018
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



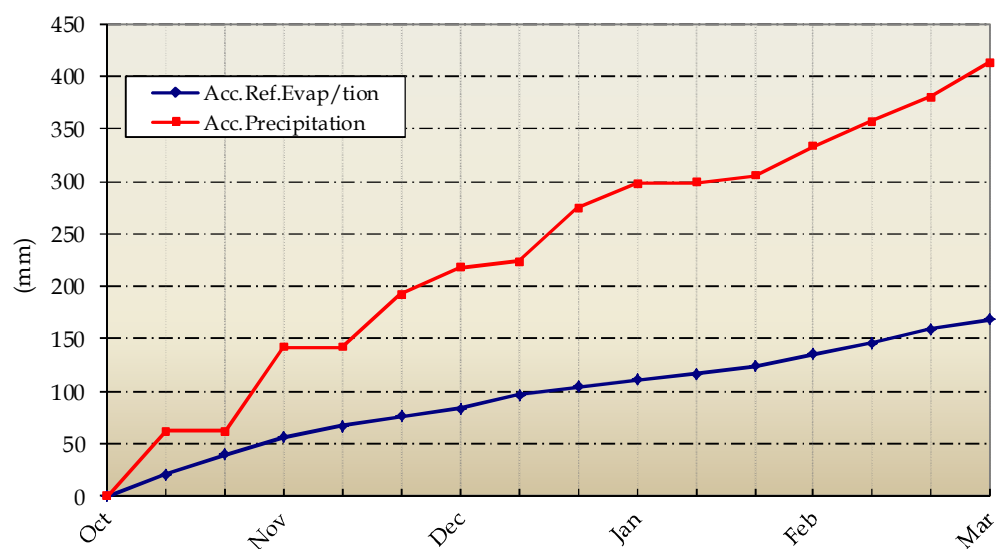
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3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	8.2	11.2	10.6	7.4	6.6	4.0	4.6	6.6	7.4	14.6	9.7
	Min	5.4	6.0	6.6	5.8	2.6	1.6	-1.2	-0.6	3.3	6.3	1.6
Relative Humidity	Max	97	91	80	85	96	93	89	97	91	93	-
	Min	71	72	62	66	56	79	59	67	66	65	-
Soil Temperature at 10 cm	06 UTC	6.8	7.0	7.4	7.2	6.2	4.8	3.8	4.6	6.0	8.8	5.7
	12 UTC	7.2	8.2	9.6	7.2	6.4	5.0	5.0	6.0	6.8	12.5	7.3
Sunshine Duration		0.0	1.2	3.7	0.0	0.2	0.0	6.0	5.0	2.0	6.1	4.8
Precipitation		0.8	10.5		0.0	1.2	7.5	0.0	13.0	33.0	4.2	14.4
Evaporation		0.2	2.3	2.9	0.7	1.3	0.0	0.0	0.0	7.4	17.2	9.4
Growing Degrees	5	1.8	3.6	3.6	1.6	0.0	0.0	0.0	0.0	10.6	43.6	17.0
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	2.5

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	9.2	12.1	12.0
Precipitation - Reference Evapotranspiration	23.8	-7.9	2.4
Number of Rainy Days	5.0	1.0	1.9
Number of Dry Days	6.0	5.0	-

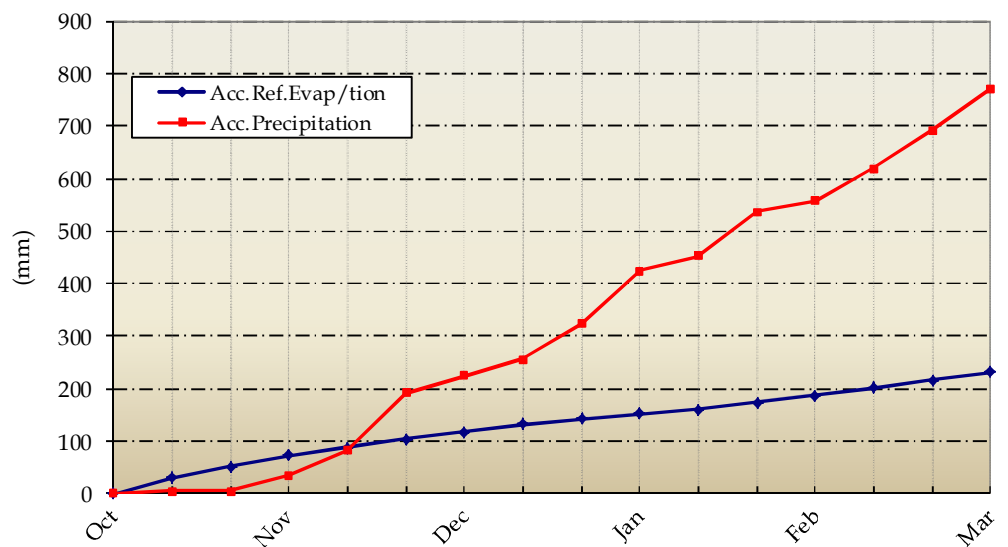
Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	15.8	16.6	19.8	15.4	14.4	12.8	14.7	13.4	15.4	17.3	14.1
	Min	9.5	9.7	6.4	8.8	8.9	8.0	5.8	8.5	8.2	8.5	5.3
Relative Humidity	Max	87	88	85	90	89	90	87	77	87	87	-
	Min	59	55	40	57	65	58	50	43	53	53	-
Soil Temperature at 10 cm	06 UTC	11.4	11.8	11.6	12.4	12.2	11.2	10.8	11.8	11.6	12.1	9.0
	12 UTC	12.3	12.4	13.2	12.9	12.8	12.2	12.0	12.4	12.5	14.4	11.2
Sunshine Duration		0.0	4.7	9.5	3.9	0.4	4.5	6.6	5.1	4.3	6.3	5.7
Precipitation		9.1	5.3		26.5	13.7	21.6	2.8	0.9	79.9	1.2	22.1
Evaporation		4.1	2.6	3.3	1.5	0.5	1.0	3.9	3.0	19.9	20.7	19.2
Growing Degrees	5	7.7	8.2	8.1	7.1	6.7	5.4	5.3	6.0	54.3	63.3	39.2
	10	2.7	3.2	3.1	2.1	1.7	0.4	0.3	1.0	14.3	23.3	8.3

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	13.9	14.1	12.9
Precipitation - Reference Evapotranspiration	66.0	-12.9	9.2
Number of Rainy Days	7.0	2.0	3.2
Number of Dry Days	0.0	5.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

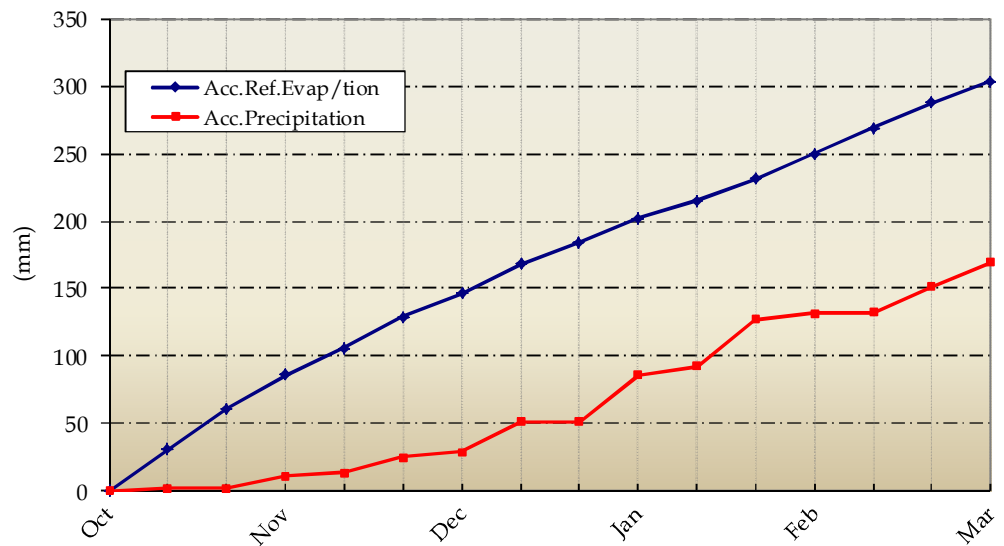


Iraklio

3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	15.4	17.2	16.8	16.0	15.8	15.0	17.2	18.4	16.5	18.8	14.9
	Min	11.0	11.0	9.6	11.2	10.0	10.2	9.4	14.0	10.8	11.3	8.9
Relative Humidity	Max	95	92	92	88	87	85	79	80	87	86	-
	Min	74	67	72	67	58	68	56	53	64	57	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		1.8	8.7	8.1	6.2	5.2	4.7	7.6	2.5	5.6	5.5	4.7
Precipitation		8.8			6.0	0.0	3.2			18.0		19.7
Evaporation		0.5	1.3	2.5	2.6	0.3	1.7	2.4	3.2	14.5	18.7	26.4
Growing Degrees	5	8.2	9.1	8.2	8.6	7.9	7.6	8.3	11.2	69.1	80.5	57.1
	10	3.2	4.1	3.2	3.6	2.9	2.6	3.3	6.2	29.1	40.5	18.9

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	16.0	17.5	-
Precipitation - Reference Evapotranspiration	2.0	-17.5	19.7
Number of Rainy Days	3.0	0.0	3.4
Number of Dry Days	0.0	14.0	-

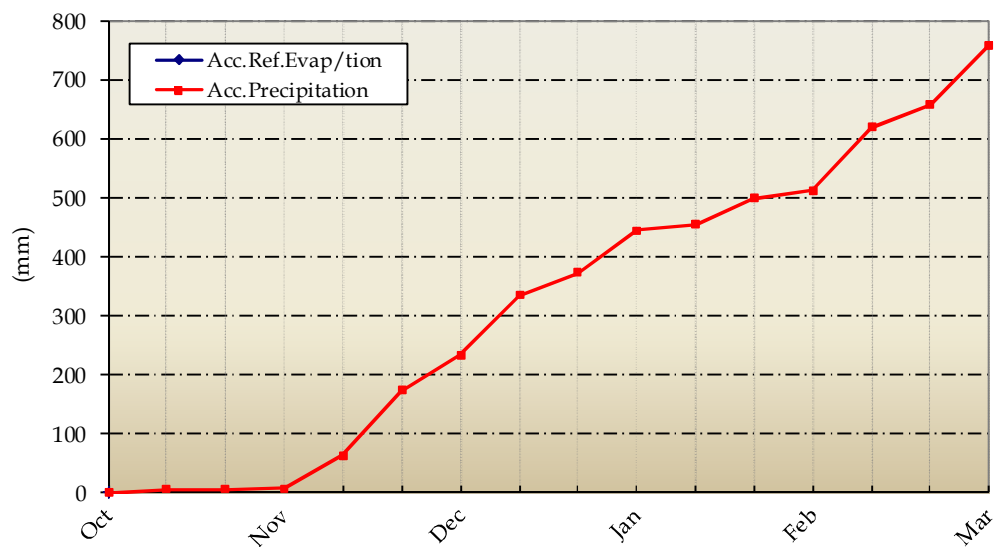
Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	10.8	12.8	15.6	11.8	10.0	7.8	7.6	7.0	10.4	15.6	10.4
	Min	6.0	6.4	0.2	5.0	4.2	1.6	0.4	0.6	3.0	0.3	1.4
Relative Humidity	Max	97	100	100	100	97	100	97	92	98	100	-
	Min	70	64	44	81	79	82	60	42	65	51	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	4.5
	12 UTC	-	-	-	-	-	-	-	-	-	-	5.7
Sunshine Duration		0.1	3.7	6.1	0.0	0.0	1.5	1.3	8.8	2.7	5.1	4.3
Precipitation		14.5	3.6		14.6	12.5	43.6	11.0	2.0	101.8	3.9	21.1
Evaporation		-	-	-	-	-	-	-	-	-	-	6.7
Growing Degrees	5	3.4	4.6	2.9	3.4	2.1	0.0	0.0	0.0	16.4	-	14.5
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	1.1

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	-	-	10.3
Precipitation - Reference Evapotranspiration	-	-	10.8
Number of Rainy Days	7.0	3.0	2.9
Number of Dry Days	0.0	5.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

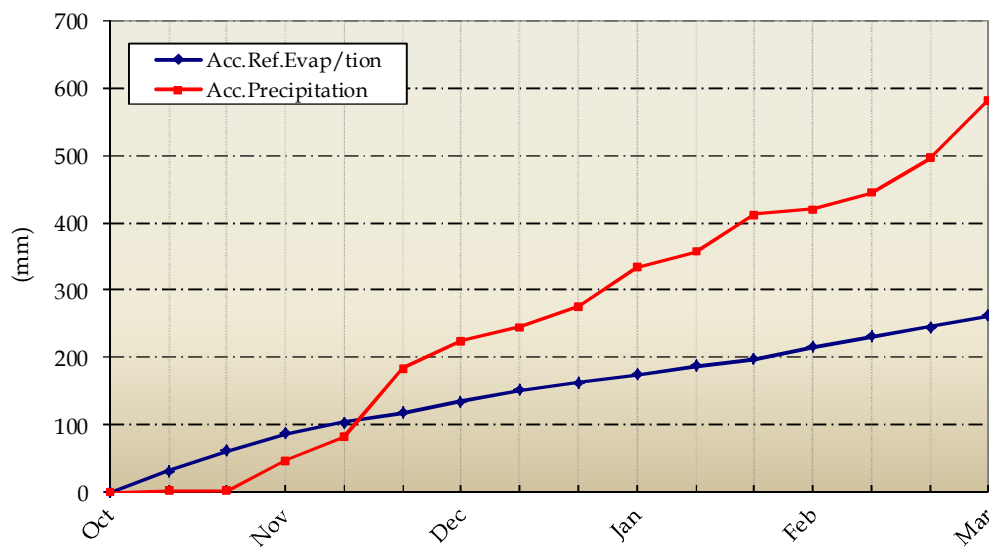


Kalamata

3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	17.7	17.1	19.9	16.3	15.4	14.7	15.9	14.5	16.4	19.2	14.8
	Min	8.6	9.8	6.3	9.0	4.7	7.7	5.8	10.5	7.8	7.1	5.1
Relative Humidity	Max	93	93	90	92	93	93	93	80	91	92	-
	Min	58	60	42	52	62	54	52	44	53	48	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	9.6
	12 UTC	-	-	-	-	-	-	-	-	-	-	11.1
Sunshine Duration		3.7	8.1	9.3	5.8	2.8	4.9	7.3	9.5	6.4	5.2	5.3
Precipitation		5.2	11.3		26.9	1.7	23.7	3.0	13.6	85.4	1.5	28.6
Evaporation		0.1	3.0	2.7	1.1	0.0	1.1	2.0	2.4	12.4	18.8	20.1
Growing Degrees	5	8.2	8.5	8.1	7.7	5.1	6.2	5.9	7.5	57.0	65.1	40.8
	10	3.2	3.5	3.1	2.7	0.1	1.2	0.9	2.5	17.0	25.1	8.0

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	15.8	15.6	13.5
Precipitation - Reference Evapotranspiration	69.6	-14.1	15.1
Number of Rainy Days	7.0	4.0	3.3
Number of Dry Days	0.0	1.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

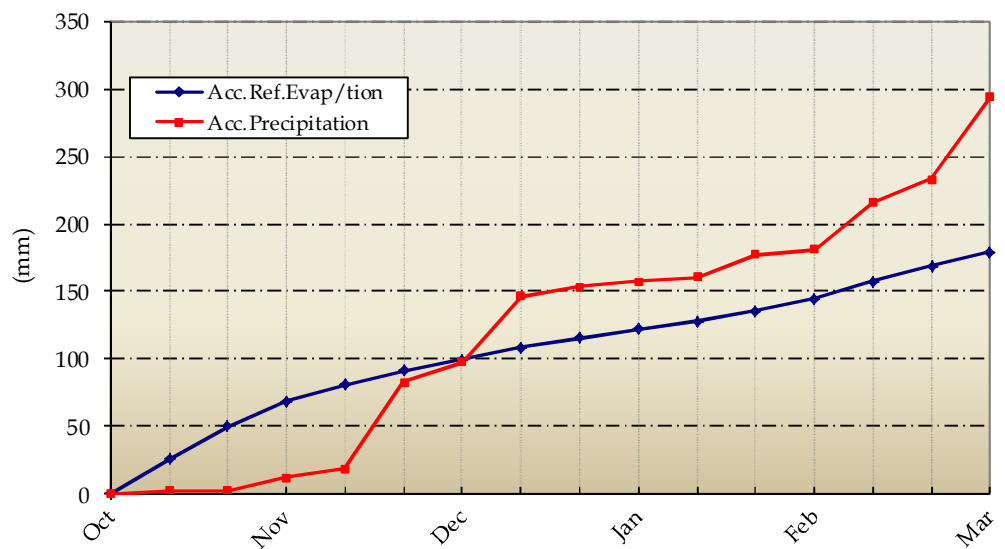


Larisa

3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	11.0	12.0	11.0	9.8	8.4	7.0	12.0	10.6	10.2	17.6	11.9
	Min	6.7	8.1	7.6	7.2	5.8	0.0	2.5	3.9	5.2	4.0	1.7
Relative Humidity	Max	96	96	96	96	95	100	97	97	97	100	-
	Min	74	72	79	81	79	70	37	26	65	48	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	7.0
	12 UTC	-	-	-	-	-	-	-	-	-	-	7.7
Sunshine Duration		1.0	1.1	0.0	0.0	0.0	0.1	7.0	9.4	2.3	5.4	4.6
Precipitation		2.7	6.4	0.1	10.0	0.8	33.0	1.3	6.5	60.8	5.0	13.4
Evaporation		0.2	1.4	1.8	0.0	5.3	0.1	0.9	5.6	15.3	17.3	9.6
Growing Degrees	5	3.9	5.1	4.3	3.5	2.1	0.0	2.3	2.3	23.3	46.5	20.2
	10	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.6	2.5

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	10.1	12.2	11.5
Precipitation - Reference Evapotranspiration	50.7	-7.2	1.9
Number of Rainy Days	8.0	3.0	2.6
Number of Dry Days	0.0	4.0	-

Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration

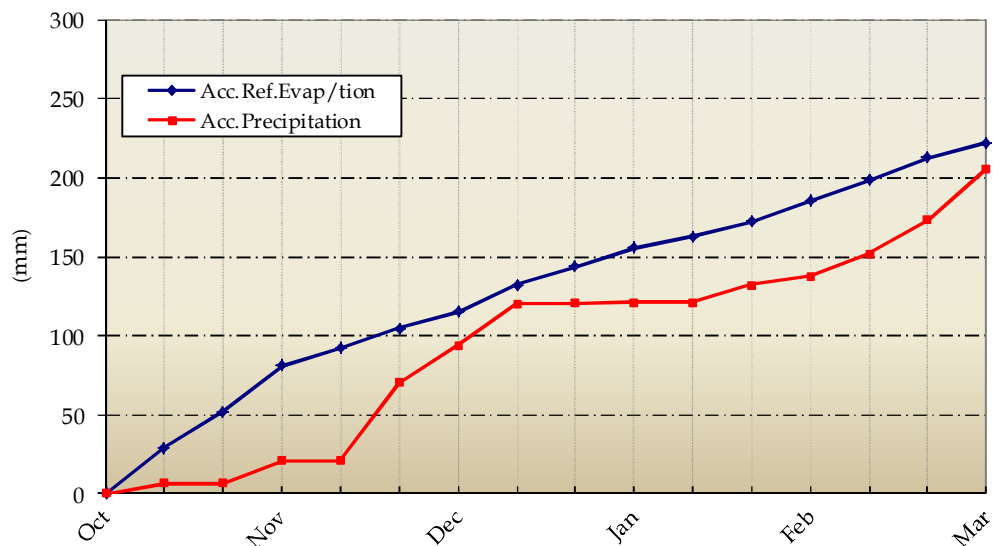


Mikra

3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	9.2	10.6	10.4	10.2	8.6	6.0	10.8	11.0	9.6	14.8	11.1
	Min	7.0	8.3	8.2	7.9	5.4	1.3	3.2	4.3	5.7	5.6	2.8
Relative Humidity	Max	87	91	91	80	91	91	90	88	89	93	-
	Min	78	78	66	62	60	75	43	38	62	56	-
Soil Temperature at 10 cm	06 UTC	9.1	8.4	9.8	9.5	8.8	7.2	6.0	7.9	8.3	8.8	6.7
	12 UTC	9.4	9.2	9.4	9.5	7.2	6.7	8.0	8.3	8.5	10.7	9.0
Sunshine Duration		0.0	0.0	0.0	0.0	0.0	0.0	6.7	9.0	2.0	5.5	4.4
Precipitation		0.5	1.8	0.2	2.5	5.7	12.5	3.3	5.9	32.4	3.0	13.2
Evaporation		0.0	0.0	0.1	2.7	0.7	0.5	6.2	0.0	10.2	15.8	13.2
Growing Degrees	5	3.1	4.5	4.3	4.1	2.0	0.0	2.0	2.7	22.6	41.5	21.0
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	2.4

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	9.7	11.1	11.8
Precipitation - Reference Evapotranspiration	22.7	-8.1	1.4
Number of Rainy Days	8.0	3.0	2.4
Number of Dry Days	6.0	5.0	-

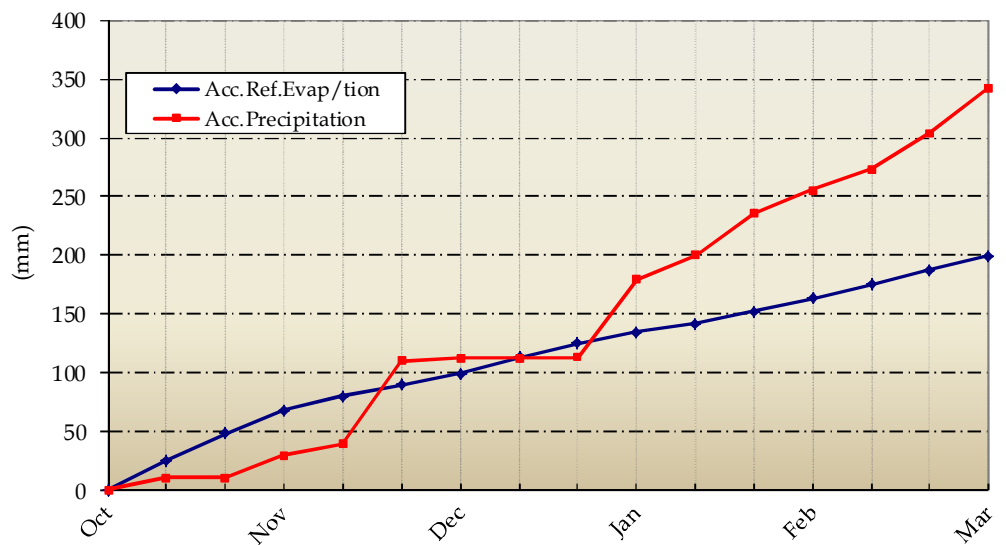
Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	13.9	14.6	15.8	14.0	10.5	12.2	15.8	14.7	13.9	17.8	12.6
	Min	8.3	5.3	7.4	8.3	7.2	7.6	3.9	8.8	7.1	6.8	3.5
Relative Humidity	Max	100	100	100	100	100	100	100	87	98	96	-
	Min	69	72	61	53	74	62	38	27	57	42	-
Soil Temperature at 10 cm	06 UTC	-	-	-	-	-	-	-	-	-	-	-
	12 UTC	-	-	-	-	-	-	-	-	-	-	-
Sunshine Duration		2.5	2.7	5.9	5.3	0.4	5.6	8.6	9.5	5.1	5.5	-
Precipitation		0.9	0.8	-	21.0	1.1	13.8	0.5	0.3	38.4	3.0	17.9
Evaporation		-	-	-	-	-	-	-	-	-	-	-
Growing Degrees	5	6.1	5.0	6.6	6.2	3.9	4.9	4.9	6.8	44.2	58.2	-
	10	1.1	0.0	1.6	1.2	0.0	0.0	0.0	1.8	5.6	18.2	-

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	11.8	12.4	-
Precipitation - Reference Evapotranspiration	26.6	-9.4	17.9
Number of Rainy Days	7.0	2.0	3.5
Number of Dry Days	0.0	16.0	-

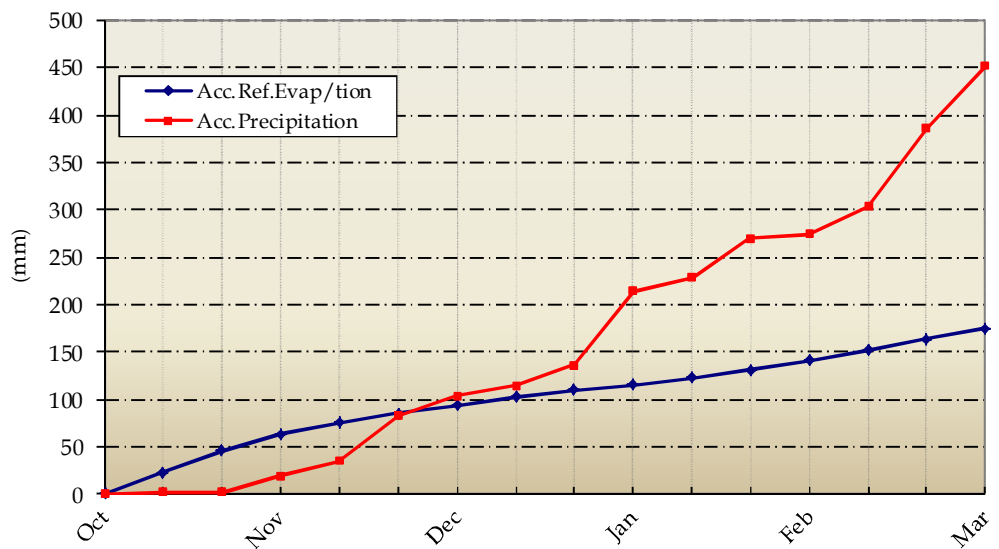
Diagram of Accumulated Precipitation and Accumulated Reference Evapotranspiration



3rd 10-day period (21-28/02/2018)		21	22	23	24	25	26	27	28	Mean Value or Sum	Previous Year Value	Past Years Mean Value
Temperature	Max	11.0	13.9	12.4	10.8	10.4	9.2	11.1	10.5	11.2	15.5	10.1
	Min	5.1	5.4	0.7	4.2	3.2	3.0	4.8	3.4	3.7	1.3	1.0
Relative Humidity	Max	100	100	100	100	100	100	100	97	100	100	-
	Min	73	42	66	59	58	62	46	33	55	44	-
Soil Temperature at 10 cm	06 UTC	7.2	7.8	6.6	7.8	7.6	7.2	6.8	8.0	7.4	6.8	5.0
	12 UTC	8.8	9.8	8.6	-	-	9.2	8.8	9.2	9.1	9.1	6.2
Sunshine Duration		2.6	6.0	5.2	4.9	1.8	8.8	7.8	9.8	5.9	6.2	5.1
Precipitation		6.1	0.6		19.0	5.1	15.7	0.8	18.0	65.3	2.8	27.0
Evaporation		0.7	0.8	1.5	0.6	0.8	2.4	1.6	4.0	12.4	12.4	9.7
Growing Degrees	5	3.1	4.7	1.6	2.5	1.8	1.1	3.0	2.0	19.6	27.4	14.5
	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4

3rd 10-day period (21-28/02/2018)		Previous Year Value	Past Years Mean Value
Reference Evapotranspiration	11.6	12.7	12.6
Precipitation - Reference Evapotranspiration	53.7	-9.9	14.4
Number of Rainy Days	7.0	2.0	3.2
Number of Dry Days	0.0	5.0	-

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.

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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ΕΘΝΙΚΗ
ΜΕΤΕΩΡΟΛΟΓΙΚΗ
ΥΠΗΡΕΣΙΑ

HELLENIC NATIONAL METEOROLOGICAL SERVICE

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