TECHNICAL REPORT

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SUSTAINABLE BUILDING DESIGN LAB

SPATIOTEMPORAL THERMAL COMFORT ASSESSMENT WITHIN MULTI-CONFIGURATIONS OF AN AGRICULTURAL OASIS SETTLEMENTS IN ARID CLIMATE: DATASET REPORTING

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This dataset contains continuous field measurements and local oasis settlements thermal thresholds, in the arid climatic zone (BWh) as per the Köppen-Geiger classification Tolga oasis territory, southern Algeria. The field measurements were monitored from March 2021 to March 2022, inside a local agricultural oasis settlement. Further, the conducted site contains one cultivator's house as well, which shows a typical housing throughout such territory. Therefore, in North Africa the Saharan oasis settlements' inhabitants are strongly attached to their rural livelihood, making their houses as a part of the local agricultural landscape.

The research aims to quantify the human outdoor thermal comfort (HTC) in arid climate inside multi-models (scenarios) of an agricultural oasis settlements, through a spatial-temporal dimension by calculating PET index, basically to outline the most significant microclimatic parameters' thresholds for a potential Oasis Cooling effect. Accordingly, this report contains all the monitored and resulted dataset used for the study's processing: field measurements, modelling and simulations, following several mandatory steps. Clearly, the dataset were gathered between site measurements and simulated data via the CFD ENVI-met software with scientific version. All the data are verified, validated and strongly linked from the starting stage to the last results. Accordingly, the study methodology is based on worldwide relevant recent researches linked to same topic, were published and taken as references for urban climate studies.

For the acquisition of these datasets, data analysis and simulations were carried out using a workstation at the Sustainable Building Design (SBD) Lab, the Super COmputeR ProcessIng wOrkstatioN (SCORPION), which uses a processor with 6 cores, 128 threads, and a 256 MB cache for the computing power and performance. This is in combination with 128 GB of Random Access Memory (RAM) and a graphics card of 24 GB that masters most scientific applications.

Liège, April 2023

Table 1. Monitoring field measurements: 14.07.2021 [validation & simulation datasets]

Date	Time	SW DIR /low clouds [W/m²]	SW DIR /mid. Clouds [W/m²]	LW /high clouds [W/m²]	Abs.Temperature [K]	Rel.Humidity [%]	Wind speed [m/s]	WindDir [°]	Precipitation [mm]
14/07/2021	00.00.00	0.00	0.00	0.00	307.95	34.90	2.2	0.00	0.00
14/07/2021	00.30.00	0.00	0.00	0.00	307.75	35.00	2.2	0.00	0.00
14/07/2021	01.00.00	0.00	0.00	0.00	307.45	35.50	5.4	0.00	0.00
14/07/2021	01.30.00	0.00	0.00	0.00	307.35	34.90	5.4	0.00	0.00
14/07/2021	02.00.00	0.00	0.00	0.00	306.85	35.20	7.2	0.00	0.00
14/07/2021	02.30.00	0.00	0.00	0.00	306.95	34.30	7.2	0.00	0.00
14/07/2021	03.00.00	0.00	0.00	0.00	306.25	34.60	6.3	0.00	0.00
14/07/2021	03.30.00	0.00	0.00	0.00	306.35	34.90	6.3	0.00	0.00
14/07/2021	04.00.00	0.00	0.00	0.00	305.75	36.90	5.8	0.00	0.00
14/07/2021	04.30.00	0.00	0.00	0.00	305.65	37.00	5.8	0.00	0.00
14/07/2021	05.00.00	0.00	0.00	0.00	305.15	38.00	2.7	0.00	0.00
14/07/2021	05.30.00	0.00	0.00	0.00	304.95	38.50	2.7	0.00	0.00
14/07/2021	06.00.00	0.00	0.00	0.00	304.85	38.10	2.7	0.00	0.00
14/07/2021	06.30.00	0.00	0.00	0.00	304.75	38.80	2.7	0.00	0.00
14/07/2021	07.00.00	0.00	0.00	0.00	304.85	39.70	3.1	0.00	0.00
14/07/2021	07.30.00	0.00	0.00	0.00	304.85	40.20	3.1	0.00	0.00
14/07/2021	08.00.00	0.00	0.00	0.00	305.05	40.40	0.9	0.00	0.00
14/07/2021	08.30.00	0.00	0.00	0.00	305.65	38.80	0.9	0.00	0.00
14/07/2021	09.00.00	0.00	0.00	0.00	306.35	37.30	2.2	0.00	0.00
14/07/2021	09.30.00	0.00	0.00	0.00	307.05	35.30	2.2	0.00	0.00
14/07/2021	10.00.00	0.00	0.00	0.00	307.35	33.80	3.6	0.00	0.00
14/07/2021	10.30.00	0.00	0.00	0.00	308.05	31.70	3.6	0.00	0.00
14/07/2021	11.00.00	0.00	0.00	0.00	307.75	32.60	4.0	0.00	0.00
14/07/2021	11.30.00	0.00	0.00	0.00	308.45	30.40	4.0	0.00	0.00
14/07/2021	12.00.00	0.00	0.00	0.00	308.85	31.20	2.7	0.00	0.00
14/07/2021	12.30.00	0.00	0.00	0.00	308.95	30.60	2.7	0.00	0.00
14/07/2021	13.00.00	0.00	0.00	0.00	310.35	28.30	2.2	0.00	0.00
14/07/2021	13.30.00	0.00	0.00	0.00	310.65	26.90	2.2	0.00	0.00
14/07/2021	14.00.00	0.00	0.00	0.00	311.15	25.00	1.3	0.00	0.00
14/07/2021	14.30.00	0.00	0.00	0.00	310.35	24.30	1.3	0.00	0.00
14/07/2021	15.00.00	0.00	0.00	0.00	311.25	24.90	2.7	0.00	0.00
14/07/2021	15.30.00	0.00	0.00	0.00	311.45	25.30	2.7	0.00	0.00
14/07/2021	16.00.00	0.00	0.00	0.00	311.55	25.40	1.3	0.00	0.00
14/07/2021	16.30.00	0.00	0.00	0.00	311.35	24.80	1.3	0.00	0.00
14/07/2021	17.00.00	0.00	0.00	0.00	311.25	25.70	2.2	0.00	0.00
14/07/2021	17.30.00	0.00	0.00	0.00	311.15	25.10	2.2	0.00	0.00
14/07/2021	18.00.00	0.00	0.00	0.00	310.85	26.70	2.2	0.00	0.00
14/07/2021	18.30.00	0.00	0.00	0.00	310.45	26.50	2.2	0.00	0.00
14/07/2021	19.00.00	0.00	0.00	0.00	310.35	27.10	2.7	0.00	0.00
14/07/2021	19.30.00	0.00	0.00	0.00	309.95	28.30	2.7	0.00	0.00
14/07/2021	20.00.00	0.00	0.00	0.00	309.35	29.80	2.7	0.00	0.00
14/07/2021	20.30.00	0.00	0.00	0.00	308.25	33.10	2.7	0.00	0.00
14/07/2021	21.00.00	0.00	0.00	0.00	308.65	32.10	1.3	0.00	0.00
14/07/2021	21.30.00	0.00	0.00	0.00	308.45	34.30	1.3	0.00	0.00
14/07/2021	22.00.00	0.00	0.00	0.00	308.05	34.30	1.3	0.00	0.00
14/07/2021	22.30.00	0.00	0.00	0.00	307.85	35.20	1.3	0.00	0.00
14/07/2021	23.00.00	0.00	0.00	0.00	307.85	35.20	0.9	0.00	0.00
14/07/2021	23.30.00	0.00	0.00	0.00	307.05	36.60	0.9	0.00	0.00

Table 2. Monitoring field measurements: 15.07.2021 [validation & simulation datasets]

Date	Time	SW DIR /low clouds [W/m²]	SW DIR /mid. Clouds [W/m²]	LW /high clouds [W/m²]	Abs.Temperature [K]	Rel.Humidity [%]	Wind speed [m/s]	WindDir [°]	Precipitation [mm]
15/07/2021	00.00.00	0.00	0.00	0.00	306.45	36.40	3.1	0.00	0.00
15/07/2021	00.30.00	0.00	0.00	0.00	306.45	36.40	3.1	0.00	0.00
15/07/2021	01.00.00	0.00	0.00	0.00	307.05	29.30	6.3	0.00	0.00
15/07/2021	01.30.00	0.00	0.00	0.00	306.75	32.30	6.3	0.00	0.00
15/07/2021	02.00.00	0.00	0.00	0.00	306.45	33.30	7.2	0.00	0.00
15/07/2021	02.30.00	0.00	0.00	0.00	305.45	36.10	7.2	0.00	0.00
15/07/2021	03.00.00	0.00	0.00	0.00	304.95	37.00	3.1	0.00	0.00
15/07/2021	03.30.00	0.00	0.00	0.00	304.95	38.00	3.1	0.00	0.00
15/07/2021	04.00.00	0.00	0.00	0.00	304.75	40.80	4.0	0.00	0.00
15/07/2021	04.30.00	0.00	0.00	0.00	304.45	43.00	4.0	0.00	0.00
15/07/2021	05.00.00	0.00	0.00	0.00	304.15	44.40	3.6	0.00	0.00
15/07/2021	05.30.00	0.00	0.00	0.00	304.25	44.30	3.6	0.00	0.00
15/07/2021	06.00.00	0.00	0.00	0.00	304.15	44.70	2.2	0.00	0.00
15/07/2021	06.30.00	0.00	0.00	0.00	304.35	44.50	2.2	0.00	0.00
15/07/2021	07.00.00	0.00	0.00	0.00	304.15	45.90	1.3	0.00	0.00
15/07/2021	07.30.00	0.00	0.00	0.00	304.45	44.60	1.3	0.00	0.00
15/07/2021	08.00.00	0.00	0.00	0.00	304.25	45.20	3.1	0.00	0.00
15/07/2021	08.30.00	0.00	0.00	0.00	303.65	39.40	3.1	0.00	0.00
15/07/2021	09.00.00	0.00	0.00	0.00	304.35	38.90	3.1	0.00	0.00
15/07/2021	09.30.00	0.00	0.00	0.00	304.55	37.40	3.1	0.00	0.00
15/07/2021	10.00.00	0.00	0.00	0.00	305.25	36.60	4.0	0.00	0.00
15/07/2021	10.30.00	0.00	0.00	0.00	305.55	33.90	4.0	0.00	0.00
15/07/2021	11.00.00	0.00	0.00	0.00	305.45	35.90	1.3	0.00	0.00
15/07/2021	11.30.00	0.00	0.00	0.00	305.65	34.40	1.3	0.00	0.00
15/07/2021	12.00.00	0.00	0.00	0.00	307.05	31.60	3.1	0.00	0.00
15/07/2021	12.30.00	0.00	0.00	0.00	306.85	31.10	3.1	0.00	0.00
15/07/2021	13.00.00	0.00	0.00	0.00	307.45	28.90	3.1	0.00	0.00
15/07/2021	13.30.00	0.00	0.00	0.00	307.65	29.80	3.1	0.00	0.00
15/07/2021	14.00.00	0.00	0.00	0.00	309.15	26.50	3.1	0.00	0.00
15/07/2021	14.30.00	0.00	0.00	0.00	309.35	26.50	3.1	0.00	0.00
15/07/2021	15.00.00	0.00	0.00	0.00	309.75	25.20	5.8	0.00	0.00
15/07/2021	15.30.00	0.00	0.00	0.00	309.25	25.70	5.8	0.00	0.00
15/07/2021	16.00.00	0.00	0.00	0.00	310.05	25.30	4.0	0.00	0.00
15/07/2021	16.30.00	0.00	0.00	0.00	309.75	25.10	4.0	0.00	0.00
15/07/2021	17.00.00	0.00	0.00	0.00	309.05	26.80	5.4	0.00	0.00
15/07/2021	17.30.00	0.00	0.00	0.00	308.85	26.90	5.4	0.00	0.00
15/07/2021	18.00.00	0.00	0.00	0.00	308.45	27.60	4.0	0.00	0.00
15/07/2021	18.30.00	0.00	0.00	0.00	308.55	27.80	4.0	0.00	0.00
15/07/2021	19.00.00	0.00	0.00	0.00	308.55	30.10	3.1	0.00	0.00
15/07/2021	19.30.00	0.00	0.00	0.00	307.85	33.60	3.1	0.00	0.00
15/07/2021	20.00.00	0.00	0.00	0.00	307.55	32.80	1.3	0.00	0.00
15/07/2021	20.30.00	0.00	0.00	0.00	307.55	33.20	1.3	0.00	0.00
15/07/2021	21.00.00	0.00	0.00	0.00	307.15	34.20	2.2	0.00	0.00
15/07/2021	21.30.00	0.00	0.00	0.00	306.75	35.20	2.2	0.00	0.00
15/07/2021	22.00.00	0.00	0.00	0.00	306.75	36.10	2.7	0.00	0.00
15/07/2021	22.30.00	0.00	0.00	0.00	306.85	30.60	2.7	0.00	0.00
15/07/2021	23.00.00	0.00	0.00	0.00	306.65	31.40	4.0	0.00	0.00
15/07/2021	23.30.00	0.00	0.00	0.00	305.65	33.90	4.0	0.00	0.00

Table 3. Monitoring field measurements: 15.04.2021 [simulation datasets]

Date	Time	SW DIR /low clouds [W/m²]	SW DIR /mid. Clouds [W/m²]	LW /high clouds [W/m²]	Abs.Temperature [K]	Rel.Humidity [%]	Wind speed [m/s]	WindDir [°]	Precipitation [mm]
15/04/2021	00.00.00	0.00	0.00	0.00	294.75	39.30	3.1	0.00	0.00
15/04/2021	00.30.00	0.00	0.00	0.00	294.65	40.50	3.1	0.00	0.00
15/04/2021	01.00.00	0.00	0.00	0.00	294.25	41.80	0.9	0.00	0.00
15/04/2021	01.30.00	0.00	0.00	0.00	293.95	42.30	0.9	0.00	0.00
15/04/2021	02.00.00	0.00	0.00	0.00	293.85	41.10	1.3	0.00	0.00
15/04/2021	02.30.00	0.00	0.00	0.00	293.65	43.10	1.3	0.00	0.00
15/04/2021	03.00.00	0.00	0.00	0.00	293.35	42.90	0.9	0.00	0.00
15/04/2021	03.30.00	0.00	0.00	0.00	292.95	43.90	0.9	0.00	0.00
15/04/2021	04.00.00	0.00	0.00	0.00	292.25	46.30	0.0	0.00	0.00
15/04/2021	04.30.00	0.00	0.00	0.00	292.25	46.90	0.0	0.00	0.00
15/04/2021	05.00.00	0.00	0.00	0.00	292.05	47.90	1.3	0.00	0.00
15/04/2021	05.30.00	0.00	0.00	0.00	292.55	46.10	1.3	0.00	0.00
15/04/2021	06.00.00	0.00	0.00	0.00	292.95	44.90	0.9	0.00	0.00
15/04/2021	06.30.00	0.00	0.00	0.00	293.15	46.30	0.9	0.00	0.00
15/04/2021	07.00.00	0.00	0.00	0.00	293.35	44.20	0.0	0.00	0.00
15/04/2021	07.30.00	0.00	0.00	0.00	293.45	47.10	0.0	0.00	0.00
15/04/2021	08.00.00	0.00	0.00	0.00	293.55	48.30	0.9	0.00	0.00
15/04/2021	08.30.00	0.00	0.00	0.00	293.65	46.30	0.9	0.00	0.00
15/04/2021	09.00.00	0.00	0.00	0.00	293.95	48.50	3.1	0.00	0.00
15/04/2021	09.30.00	0.00	0.00	0.00	293.95	45.90	3.1	0.00	0.00
15/04/2021	10.00.00	0.00	0.00	0.00	294.35	42.80	6.3	0.00	0.00
15/04/2021	10.30.00	0.00	0.00	0.00	296.05	39.60	6.3	0.00	0.00
15/04/2021	11.00.00	0.00	0.00	0.00	296.95	36.70	7.2	0.00	0.00
15/04/2021	11.30.00	0.00	0.00	0.00	297.95	35.20	7.2	0.00	0.00
15/04/2021	12.00.00	0.00	0.00	0.00	298.45	34.70	9.4	0.00	0.00
15/04/2021	12.30.00	0.00	0.00	0.00	298.65	32.10	9.4	0.00	0.00
15/04/2021	13.00.00	0.00	0.00	0.00	298.75	27.90	8.9	0.00	0.00
15/04/2021	13.30.00	0.00	0.00	0.00	299.85	24.40	8.9	0.00	0.00
15/04/2021	14.00.00	0.00	0.00	0.00	300.55	20.00	9.8	0.00	0.00
15/04/2021	14.30.00	0.00	0.00	0.00	300.95	20.50	9.8	0.00	0.00
15/04/2021	15.00.00	0.00	0.00	0.00	300.75	21.00	11.2	0.00	0.00
15/04/2021	15.30.00	0.00	0.00	0.00	300.55	19.90	11.2	0.00	0.00
15/04/2021	16.00.00	0.00	0.00	0.00	300.15	20.20	11.2	0.00	0.00
15/04/2021	16.30.00	0.00	0.00	0.00	299.85	18.20	11.2	0.00	0.00
15/04/2021	17.00.00	0.00	0.00	0.00	300.15	19.30	11.2	0.00	0.00
15/04/2021	17.30.00	0.00	0.00	0.00	299.85	20.80	11.2	0.00	0.00
15/04/2021	18.00.00	0.00	0.00	0.00	299.45	20.30	11.2	0.00	0.00
15/04/2021	18.30.00	0.00	0.00	0.00	299.15	19.10	11.2	0.00	0.00
15/04/2021	19.00.00	0.00	0.00	0.00	298.55	19.90	9.4	0.00	0.00
15/04/2021	19.30.00	0.00	0.00	0.00	298.15	21.30	9.4	0.00	0.00
15/04/2021	20.00.00	0.00	0.00	0.00	297.75	22.80	8.9	0.00	0.00
15/04/2021	20.30.00	0.00	0.00	0.00	297.55	23.50	8.9	0.00	0.00
15/04/2021	21.00.00	0.00	0.00	0.00	297.35	24.60	6.3	0.00	0.00
15/04/2021	21.30.00	0.00	0.00	0.00	297.15	25.80	6.3	0.00	0.00
15/04/2021	22.00.00	0.00	0.00	0.00	296.75	27.30	2.7	0.00	0.00
15/04/2021	22.30.00	0.00	0.00	0.00	296.35	28.20	2.7	0.00	0.00
15/04/2021	23.00.00	0.00	0.00	0.00	295.85	29.40	1.3	0.00	0.00
15/04/2021	23.30.00	0.00	0.00	0.00	295.15	30.20	1.3	0.00	0.00

Table 4. Monitoring field measurements: 15.10.2021 [simulation datasets]

Date	Time	SW DIR /low clouds [W/m²]	SW DIR /mid. Clouds [W/m²]	LW /high clouds [W/m²]	Abs.Temperature [K]	Rel.Humidity [%]	Wind speed [m/s]	WindDir [°]	Precipitation [mm]
15/10/2021	00.00.00	0.00	0.00	0.00	294.25	41.90	4.5	0.00	0.00
15/10/2021	00.30.00	0.00	0.00	0.00	294.35	41.80	4.5	0.00	0.00
15/10/2021	01.00.00	0.00	0.00	0.00	294.25	42.80	4.0	0.00	0.00
15/10/2021	01.30.00	0.00	0.00	0.00	294.05	43.70	4.0	0.00	0.00
15/10/2021	02.00.00	0.00	0.00	0.00	293.95	43.70	0.9	0.00	0.00
15/10/2021	02.30.00	0.00	0.00	0.00	293.25	45.70	0.9	0.00	0.00
15/10/2021	03.00.00	0.00	0.00	0.00	292.75	46.80	0.9	0.00	0.00
15/10/2021	03.30.00	0.00	0.00	0.00	292.15	48.30	0.9	0.00	0.00
15/10/2021	04.00.00	0.00	0.00	0.00	291.85	48.30	2.2	0.00	0.00
15/10/2021	04.30.00	0.00	0.00	0.00	292.35	47.90	2.2	0.00	0.00
15/10/2021	05.00.00	0.00	0.00	0.00	292.35	47.80	2.7	0.00	0.00
15/10/2021	05.30.00	0.00	0.00	0.00	292.15	47.20	2.7	0.00	0.00
15/10/2021	06.00.00	0.00	0.00	0.00	292.15	46.60	2.2	0.00	0.00
15/10/2021	06.30.00	0.00	0.00	0.00	291.55	46.90	2.2	0.00	0.00
15/10/2021	07.00.00	0.00	0.00	0.00	291.85	46.60	0.4	0.00	0.00
15/10/2021	07.30.00	0.00	0.00	0.00	291.35	49.10	0.4	0.00	0.00
15/10/2021	08.00.00	0.00	0.00	0.00	292.15	47.60	2.2	0.00	0.00
15/10/2021	08.30.00	0.00	0.00	0.00	292.45	47.30	2.2	0.00	0.00
15/10/2021	09.00.00	0.00	0.00	0.00	292.95	43.60	2.2	0.00	0.00
15/10/2021	09.30.00	0.00	0.00	0.00	293.45	42.10	2.2	0.00	0.00
15/10/2021	10.00.00	0.00	0.00	0.00	293.85	39.70	2.2	0.00	0.00
15/10/2021	10.30.00	0.00	0.00	0.00	294.55	39.40	2.2	0.00	0.00
15/10/2021	11.00.00	0.00	0.00	0.00	294.75	35.40	2.2	0.00	0.00
15/10/2021	11.30.00	0.00	0.00	0.00	295.25	34.20	2.2	0.00	0.00
15/10/2021	12.00.00	0.00	0.00	0.00	295.45	33.20	1.3	0.00	0.00
15/10/2021	12.30.00	0.00	0.00	0.00	295.85	30.50	1.3	0.00	0.00
15/10/2021	13.00.00	0.00	0.00	0.00	296.25	30.20	1.3	0.00	0.00
15/10/2021	13.30.00	0.00	0.00	0.00	296.75	29.00	1.3	0.00	0.00
15/10/2021	14.00.00	0.00	0.00	0.00	296.95	26.40	0.0	0.00	0.00
15/10/2021	14.30.00	0.00	0.00	0.00	297.35	26.30	0.0	0.00	0.00
15/10/2021	15.00.00	0.00	0.00	0.00	297.35	26.90	0.0	0.00	0.00
15/10/2021	15.30.00	0.00	0.00	0.00	297.25	26.80	0.0	0.00	0.00
15/10/2021	16.00.00	0.00	0.00	0.00	296.85	27.50	0.0	0.00	0.00
15/10/2021	16.30.00	0.00	0.00	0.00	296.75	27.50	0.0	0.00	0.00
15/10/2021	17.00.00	0.00	0.00	0.00	296.65	28.50	0.0	0.00	0.00
15/10/2021	17.30.00	0.00	0.00	0.00	296.15	30.40	0.0	0.00	0.00
15/10/2021	18.00.00	0.00	0.00	0.00	295.45	33.60	0.0	0.00	0.00
15/10/2021	18.30.00	0.00	0.00	0.00	294.75	35.50	0.0	0.00	0.00
15/10/2021	19.00.00	0.00	0.00	0.00	294.15	35.90	0.0	0.00	0.00
15/10/2021	19.30.00	0.00	0.00	0.00	293.85	36.30	0.0	0.00	0.00
15/10/2021	20.00.00	0.00	0.00	0.00	293.65	36.60	1.3	0.00	0.00
15/10/2021	20.30.00	0.00	0.00	0.00	293.25	37.60	1.3	0.00	0.00
15/10/2021	21.00.00	0.00	0.00	0.00	293.25	38.40	1.3	0.00	0.00
15/10/2021	21.30.00	0.00	0.00	0.00	293.05	40.30	1.3	0.00	0.00
15/10/2021	22.00.00	0.00	0.00	0.00	292.75	41.60	0.0	0.00	0.00
15/10/2021	22.30.00	0.00	0.00	0.00	292.15	42.80	0.0	0.00	0.00
15/10/2021	23.00.00	0.00	0.00	0.00	291.75	43.40	1.3	0.00	0.00
15/10/2021	23.30.00	0.00	0.00	0.00	291.75	43.60	1.3	0.00	0.00

Table 5. Phoenix Dactylifera (8m) spacing, PET index values [thermal mapping]

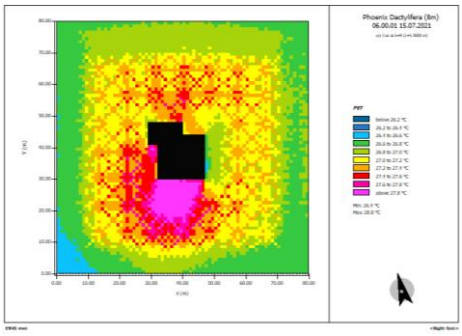
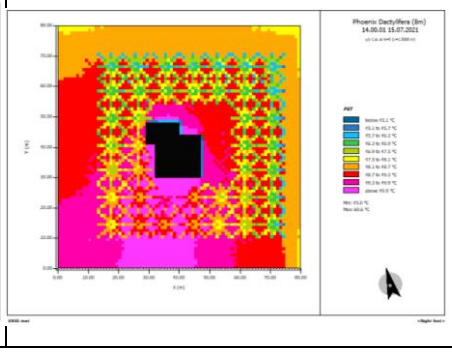
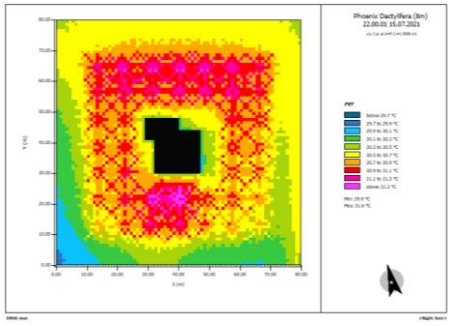
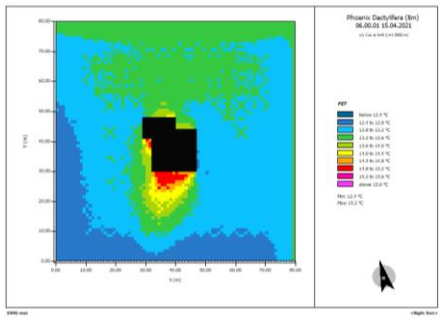
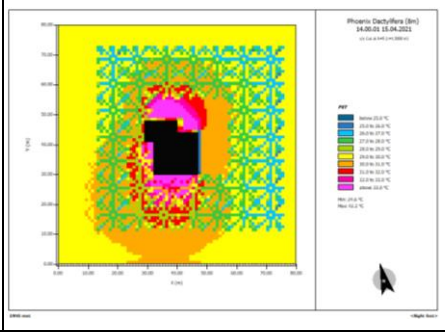
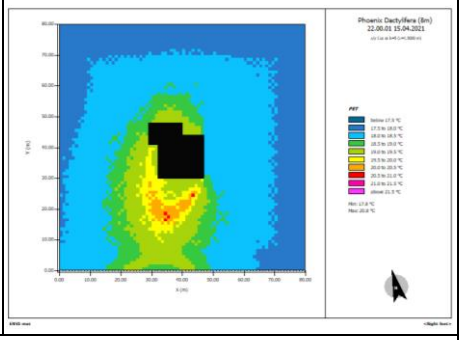
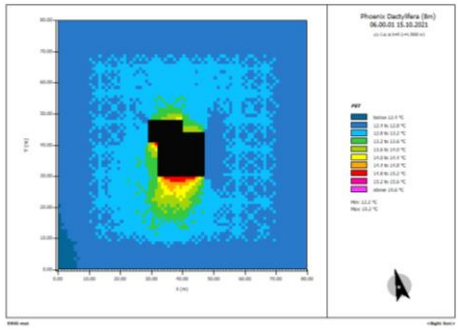
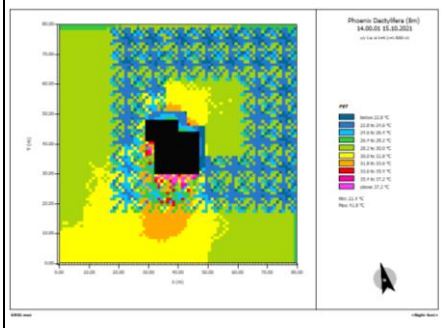
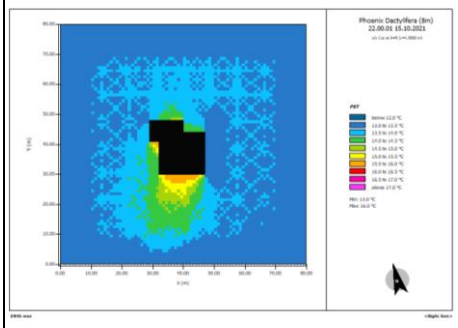
Phoenix Dactylifera (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 6. Phoenix Dactylifera (8m) spacing, PET index values [histograms]

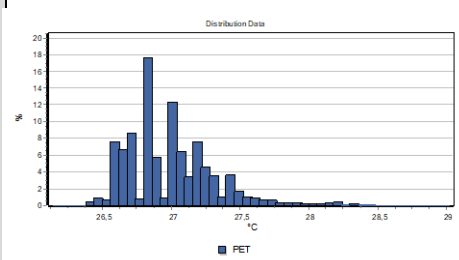
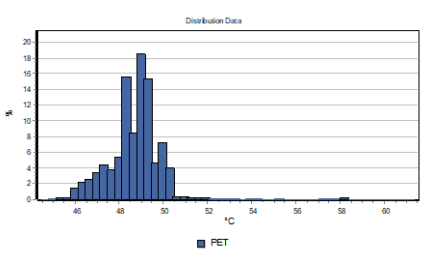
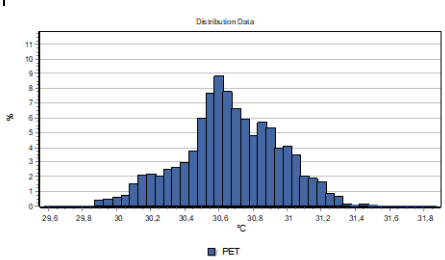
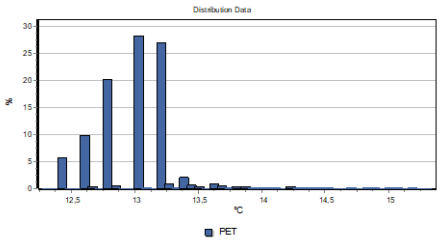
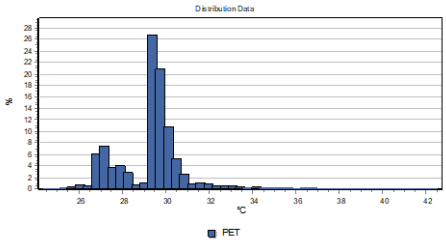
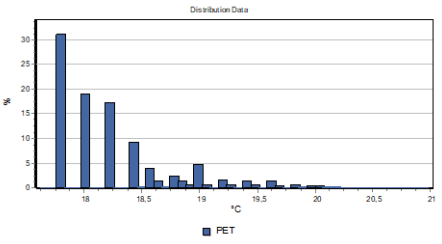
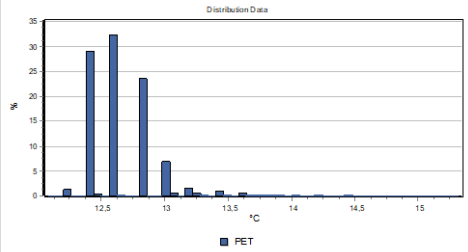
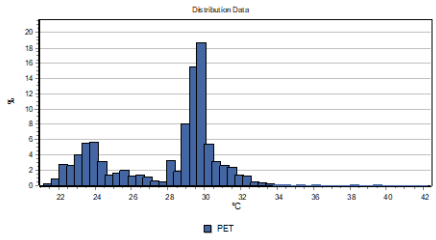
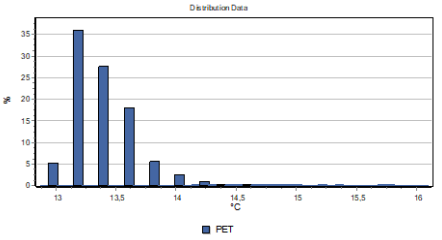
Phoenix Dactylifera (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 7. Phoenix Dactylifera (8m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.1	50.6	1.79	27.7
15/07/2021	01.00.00	33.7	36.7	3.58	28.4
15/07/2021	02.00.00	33.3	36.5	4.22	28.3
15/07/2021	03.00.00	31.8	40.2	2.95	26.6
15/07/2021	04.00.00	31.6	44.8	2.31	26.2
15/07/2021	05.00.00	30.9	49.5	2.06	25.4
15/07/2021	06.00.00	30.9	51.0	1.82	25.3
15/07/2021	07.00.00	31.0	53.6	1.52	42.8
15/07/2021	08.00.00	31.4	54.5	1.73	47.0
15/07/2021	09.00.00	31.6	47.8	1.72	47.2
15/07/2021	10.00.00	32.6	44.5	2.21	60.8
15/07/2021	11.00.00	32.8	41.0	1.87	52.8
15/07/2021	12.00.00	34.7	38.7	1.75	61.8
15/07/2021	13.00.00	35.4	36.9	1.75	59.1
15/07/2021	14.00.00	37.0	35.4	1.74	57.8
15/07/2021	15.00.00	37.1	32.0	3.28	65.9
15/07/2021	16.00.00	37.1	29.3	2.37	54.5
15/07/2021	17.00.00	36.1	31.5	3.12	62.2
15/07/2021	18.00.00	35.4	31.9	2.35	55.3
15/07/2021	19.00.00	35.4	36.6	1.80	36.9
15/07/2021	20.00.00	34.3	42.6	1.55	29.5
15/07/2021	21.00.00	33.9	46.9	1.23	28.9
15/07/2021	22.00.00	33.5	49.4	1.52	28.2
15/07/2021	23.00.00	33.3	45.1	2.25	28.1

Table 8. Phoenix Dactylifera (8m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.4	52.6	1.90	10.9
15/04/2021	01.00.00	20.8	55.7	1.79	10.4
15/04/2021	02.00.00	20.3	55.0	1.91	9.9
15/04/2021	03.00.00	19.8	54.5	2.21	9.5
15/04/2021	04.00.00	18.8	54.7	2.28	8.6
15/04/2021	05.00.00	18.6	55.9	1.90	8.6
15/04/2021	06.00.00	19.5	55.5	1.65	9.7
15/04/2021	07.00.00	20.0	56.5	1.46	26.0
15/04/2021	08.00.00	20.4	59.5	1.65	21.7
15/04/2021	09.00.00	20.8	59.8	1.77	34.6
15/04/2021	10.00.00	21.3	50.0	3.65	40.6
15/04/2021	11.00.00	23.9	40.3	4.32	43.4
15/04/2021	12.00.00	25.4	38.0	5.60	53.1
15/04/2021	13.00.00	25.7	31.4	5.27	49.1
15/04/2021	14.00.00	27.4	24.0	5.78	47.7
15/04/2021	15.00.00	27.7	25.0	4.58	50.0
15/04/2021	16.00.00	27.1	24.6	4.58	55.7
15/04/2021	17.00.00	27.0	23.7	4.59	52.1
15/04/2021	18.00.00	26.3	24.7	4.60	41.5
15/04/2021	19.00.00	25.4	24.1	5.57	18.3
15/04/2021	20.00.00	24.6	26.8	5.26	17.3
15/04/2021	21.00.00	24.2	28.8	3.69	16.7
15/04/2021	22.00.00	23.6	33.0	1.55	15.8
15/04/2021	23.00.00	22.6	43.2	1.31	14.2

Table 9. Phoenix Dactylifera (8m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.6	49.9	2.50	11.5
15/10/2021	01.00.00	20.6	49.2	2.29	11.7
15/10/2021	02.00.00	20.4	50.3	2.23	11.8
15/10/2021	03.00.00	19.3	53.0	2.22	10.9
15/10/2021	04.00.00	18.4	53.8	2.38	10.2
15/10/2021	05.00.00	19.0	52.4	2.67	11.0
15/10/2021	06.00.00	18.8	51.3	1.83	11.0
15/10/2021	07.00.00	18.5	53.6	1.93	10.6
15/10/2021	08.00.00	18.9	54.1	1.80	19.0
15/10/2021	09.00.00	19.7	51.5	1.62	23.7
15/10/2021	10.00.00	20.9	49.8	1.21	48.6
15/10/2021	11.00.00	21.9	48.6	1.49	51.5
15/10/2021	12.00.00	22.8	45.8	1.82	40.8
15/10/2021	13.00.00	23.4	39.7	1.91	53.0
15/10/2021	14.00.00	24.0	34.1	2.20	53.0
15/10/2021	15.00.00	24.3	32.4	2.59	52.0
15/10/2021	16.00.00	23.8	31.8	2.86	47.6
15/10/2021	17.00.00	23.5	33.1	2.02	36.5
15/10/2021	18.00.00	22.2	40.7	1.78	15.4
15/10/2021	19.00.00	20.9	44.1	1.97	13.8
15/10/2021	20.00.00	20.4	44.1	1.85	13.1
15/10/2021	21.00.00	20.0	46.3	1.89	12.6
15/10/2021	22.00.00	19.5	49.1	1.77	12.0
15/10/2021	23.00.00	18.5	51.3	1.82	10.8

Table 10. Phoenix Dactylifera (8m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	30.1	14.6	14.0
15/04-07-10/2021	01.00.00	30.8	14.2	14.0
15/04-07-10/2021	02.00.00	30.2	13.6	13.8
15/04-07-10/2021	03.00.00	28.0	13.2	12.8
15/04-07-10/2021	04.00.00	27.8	12.2	11.8
15/04-07-10/2021	05.00.00	27.0	12.2	12.4
15/04-07-10/2021	06.00.00	27.0	13.2	12.6
15/04-07-10/2021	07.00.00	34.1	18.0	12.2
15/04-07-10/2021	08.00.00	39.4	23.0	18.4
15/04-07-10/2021	09.00.00	41.9	21.8	22.8
15/04-07-10/2021	10.00.00	43.1	19.6	26.8
15/04-07-10/2021	11.00.00	43.8	25.6	24.0
15/04-07-10/2021	12.00.00	43.1	26.4	23.8
15/04-07-10/2021	13.00.00	45.7	24.2	24.0
15/04-07-10/2021	14.00.00	46.5	27.6	28.6
15/04-07-10/2021	15.00.00	46.6	32.0	21.8
15/04-07-10/2021	16.00.00	44.9	30.6	20.2
15/04-07-10/2021	17.00.00	46.1	26.6	18.6
15/04-07-10/2021	18.00.00	38.6	21.2	16.2
15/04-07-10/2021	19.00.00	35.9	19.2	14.8
15/04-07-10/2021	20.00.00	32.0	18.4	14.2
15/04-07-10/2021	21.00.00	31.4	18.2	13.8
15/04-07-10/2021	22.00.00	30.7	18.2	13.2
15/04-07-10/2021	23.00.00	30.4	17.2	12.2

Table 11. Phoenix Dactylifera (10m) spacing, PET index values [thermal mapping]

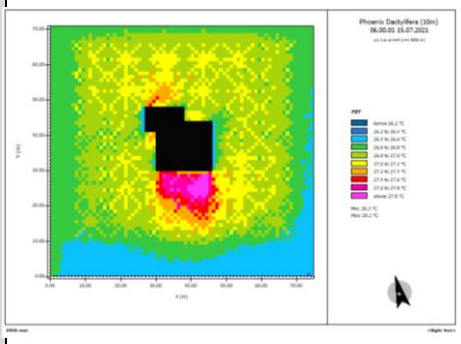
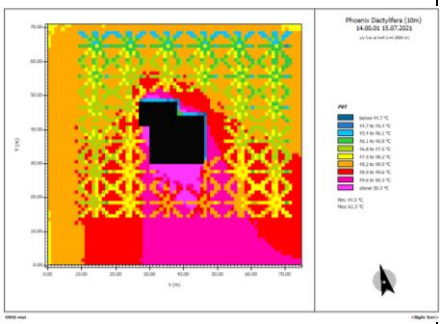
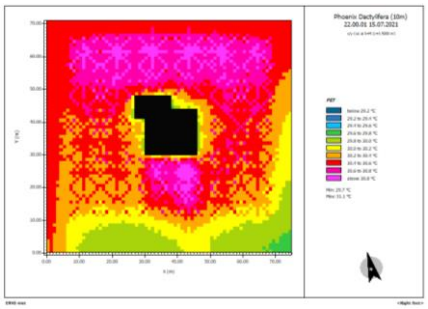
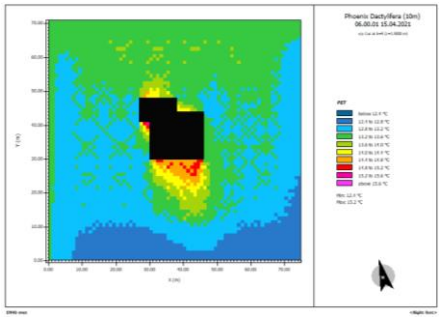
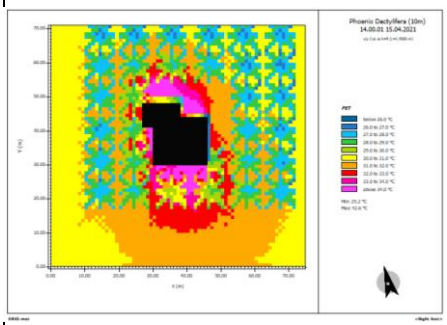
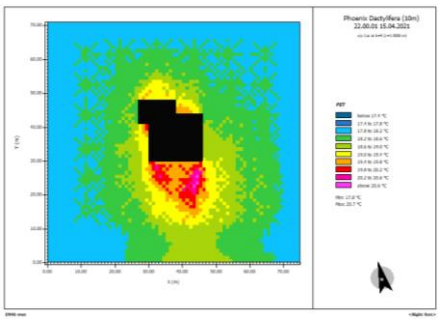
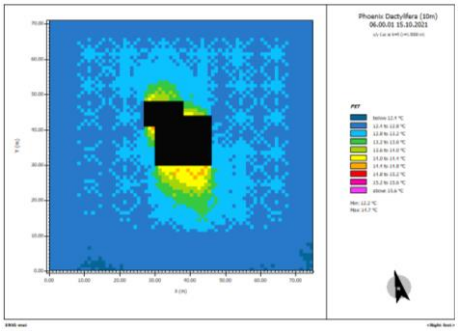
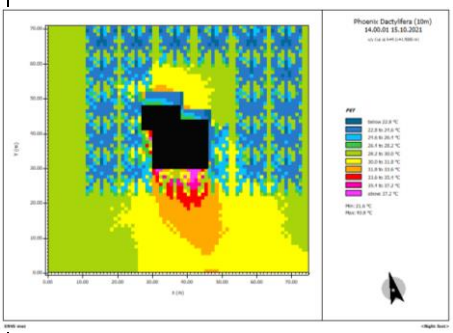
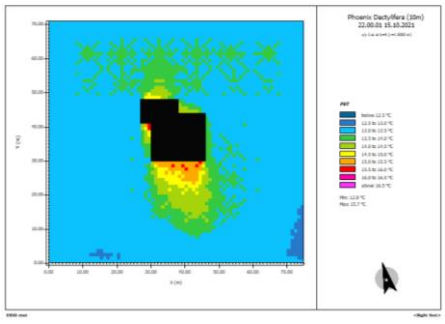
Phoenix Dactylifera (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 12. Phoenix Dactylifera (10m) spacing, PET index values [histograms]

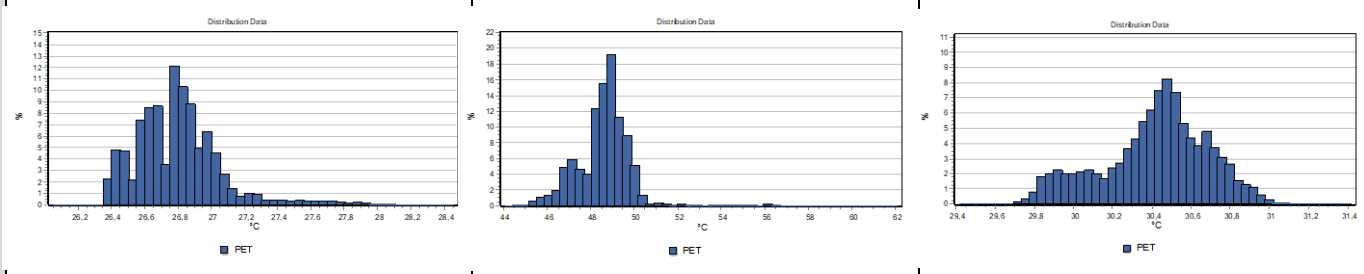
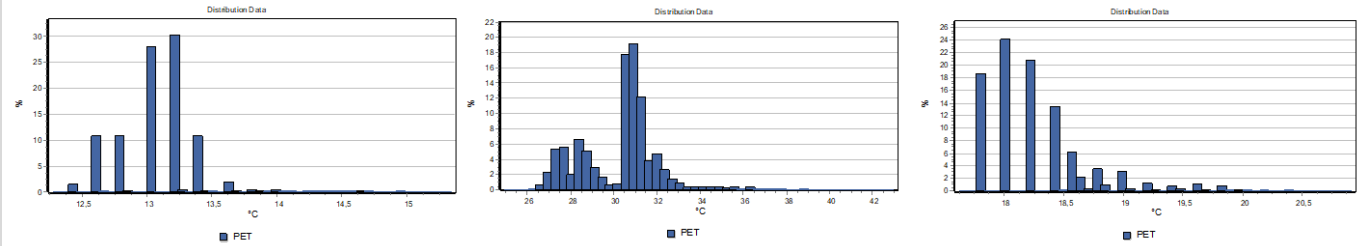
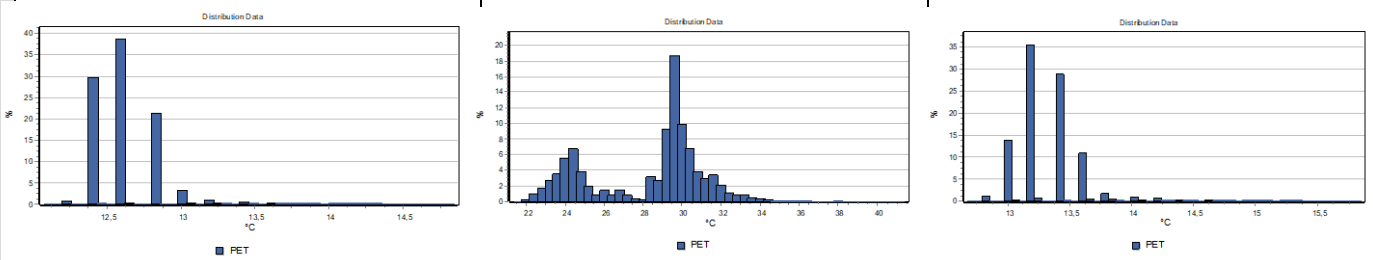
Phoenix Dactylifera (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 13. Phoenix Dactylifera (10m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.0	50.7	1.85	24.4
15/07/2021	01.00.00	33.2	41.5	3.49	24.4
15/07/2021	02.00.00	33.1	38.2	4.06	25.8
15/07/2021	03.00.00	31.7	41.3	2.81	26.0
15/07/2021	04.00.00	31.5	46.1	2.22	26.0
15/07/2021	05.00.00	30.9	50.9	2.00	25.3
15/07/2021	06.00.00	30.9	52.6	1.76	25.2
15/07/2021	07.00.00	31.0	55.4	1.48	42.8
15/07/2021	08.00.00	31.3	55.9	1.70	53.8
15/07/2021	09.00.00	31.6	49.8	1.70	47.3
15/07/2021	10.00.00	32.6	46.8	2.20	51.8
15/07/2021	11.00.00	32.8	43.1	1.83	61.2
15/07/2021	12.00.00	34.6	41.0	1.71	62.3
15/07/2021	13.00.00	35.1	39.8	1.71	59.6
15/07/2021	14.00.00	36.7	38.4	1.71	59.7
15/07/2021	15.00.00	37.0	34.8	3.20	60.9
15/07/2021	16.00.00	37.1	30.7	2.29	65.6
15/07/2021	17.00.00	36.0	33.2	3.03	55.8
15/07/2021	18.00.00	35.3	33.3	2.27	46.4
15/07/2021	19.00.00	35.4	38.5	1.75	36.9
15/07/2021	20.00.00	34.3	44.8	1.50	29.4
15/07/2021	21.00.00	33.9	47.4	1.21	28.7
15/07/2021	22.00.00	33.6	47.3	1.51	28.0
15/07/2021	23.00.00	33.0	50.7	1.85	24.4

Table 14. Phoenix Dactylifera (10m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.4	52.1	1.94	12.0
15/04/2021	01.00.00	20.8	55.5	1.84	11.5
15/04/2021	02.00.00	20.4	54.9	1.97	11.0
15/04/2021	03.00.00	19.9	54.7	2.26	10.6
15/04/2021	04.00.00	18.8	55.0	2.32	9.7
15/04/2021	05.00.00	18.6	56.0	1.94	9.7
15/04/2021	06.00.00	19.5	55.5	1.69	10.7
15/04/2021	07.00.00	20.0	56.4	1.50	26.9
15/04/2021	08.00.00	20.4	59.1	1.69	42.1
15/04/2021	09.00.00	20.9	59.5	1.82	32.8
15/04/2021	10.00.00	21.3	50.9	3.69	50.3
15/04/2021	11.00.00	23.9	40.5	4.43	43.1
15/04/2021	12.00.00	25.4	38.4	4.55	48.1
15/04/2021	13.00.00	25.7	31.8	5.43	54.4
15/04/2021	14.00.00	27.5	24.4	4.74	44.8
15/04/2021	15.00.00	27.7	25.5	4.97	50.3
15/04/2021	16.00.00	27.0	24.7	4.97	39.9
15/04/2021	17.00.00	27.0	24.0	4.36	32.1
15/04/2021	18.00.00	26.3	25.2	4.36	42.2
15/04/2021	19.00.00	25.4	24.8	4.48	19.3
15/04/2021	20.00.00	24.6	27.6	4.20	18.3
15/04/2021	21.00.00	24.2	29.5	3.83	17.7
15/04/2021	22.00.00	23.6	33.2	1.62	16.9
15/04/2021	23.00.00	22.6	43.1	1.37	15.4

Table 15. Phoenix Dactylifera (10m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.6	50.3	2.53	11.3
15/10/2021	01.00.00	20.7	49.5	2.34	11.6
15/10/2021	02.00.00	20.4	50.6	2.28	11.6
15/10/2021	03.00.00	19.3	53.2	2.27	10.7
15/10/2021	04.00.00	18.5	54.1	2.43	10.0
15/10/2021	05.00.00	19.0	52.7	2.73	10.8
15/10/2021	06.00.00	18.8	51.6	1.90	10.7
15/10/2021	07.00.00	18.5	53.9	1.98	10.4
15/10/2021	08.00.00	18.9	54.5	1.85	33.5
15/10/2021	09.00.00	19.9	51.5	1.67	43.9
15/10/2021	10.00.00	20.9	50.5	1.25	39.5
15/10/2021	11.00.00	21.9	48.5	1.53	45.1
15/10/2021	12.00.00	22.8	46.1	1.87	52.5
15/10/2021	13.00.00	23.6	39.9	1.97	53.4
15/10/2021	14.00.00	24.2	34.5	2.25	53.5
15/10/2021	15.00.00	24.4	32.7	2.64	52.2
15/10/2021	16.00.00	23.7	32.3	2.93	37.6
15/10/2021	17.00.00	23.5	33.6	2.09	36.6
15/10/2021	18.00.00	22.2	41.4	1.72	15.3
15/10/2021	19.00.00	20.9	46.6	1.46	13.6
15/10/2021	20.00.00	20.3	49.7	1.90	12.8
15/10/2021	21.00.00	19.9	48.9	1.30	12.3
15/10/2021	22.00.00	19.5	54.8	1.69	11.5
15/10/2021	23.00.00	18.4	54.4	1.85	10.5

Table 16. Phoenix Dactylifera (10m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.5	15.2	13.8
15/04-07-10/2021	01.00.00	28.6	14.6	14.0
15/04-07-10/2021	02.00.00	29.0	14.0	13.8
15/04-07-10/2021	03.00.00	27.6	13.4	12.8
15/04-07-10/2021	04.00.00	27.6	12.2	12.0
15/04-07-10/2021	05.00.00	26.8	12.4	12.6
15/04-07-10/2021	06.00.00	26.9	13.4	12.8
15/04-07-10/2021	07.00.00	34.2	18.2	12.2
15/04-07-10/2021	08.00.00	33.4	22.6	18.8
15/04-07-10/2021	09.00.00	36.4	20.4	23.4
15/04-07-10/2021	10.00.00	42.9	22.6	22.0
15/04-07-10/2021	11.00.00	43.7	22.8	23.8
15/04-07-10/2021	12.00.00	46.2	27.2	26.8
15/04-07-10/2021	13.00.00	44.0	27.0	30.4
15/04-07-10/2021	14.00.00	48.8	31.0	30.0
15/04-07-10/2021	15.00.00	46.8	28.4	28.8
15/04-07-10/2021	16.00.00	46.3	24.6	21.4
15/04-07-10/2021	17.00.00	46.1	23.6	19.0
15/04-07-10/2021	18.00.00	36.5	24.8	16.6
15/04-07-10/2021	19.00.00	35.8	19.4	15.2
15/04-07-10/2021	20.00.00	31.9	18.4	14.2
15/04-07-10/2021	21.00.00	31.3	18.0	14.2
15/04-07-10/2021	22.00.00	30.7	18.0	13.4
15/04-07-10/2021	23.00.00	28.5	17.2	12.2

Table 17. Phoenix Dactylifera (12m) spacing, PET index values [thermal mapping]

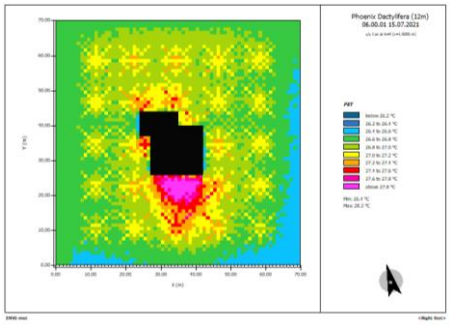
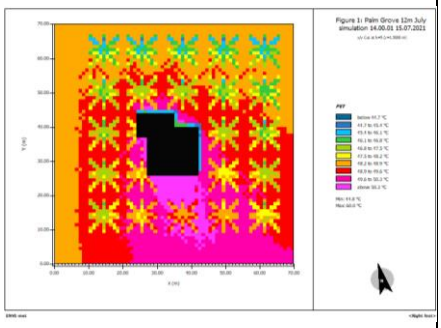
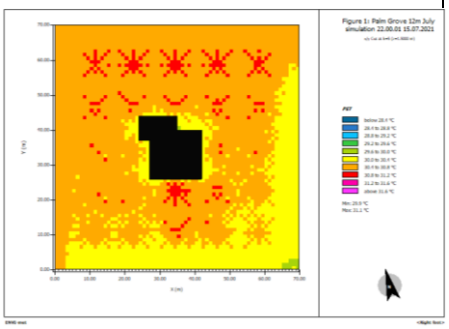
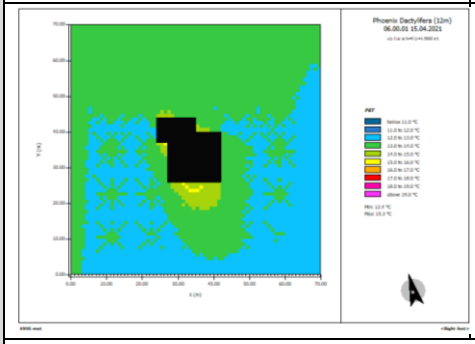
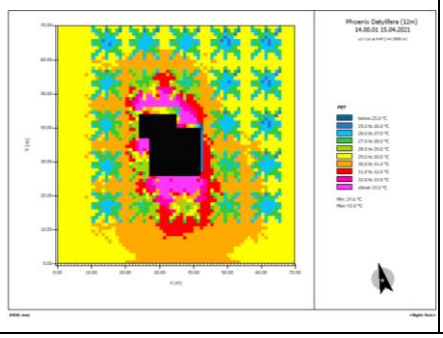
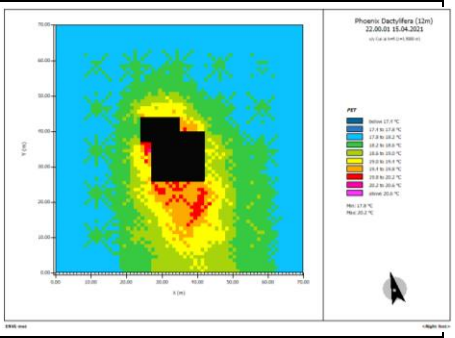
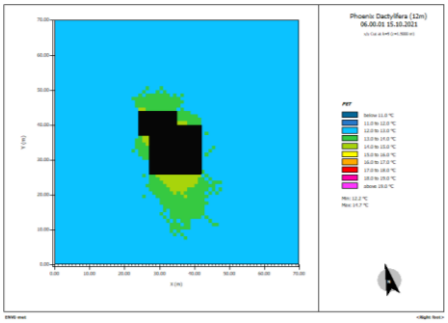
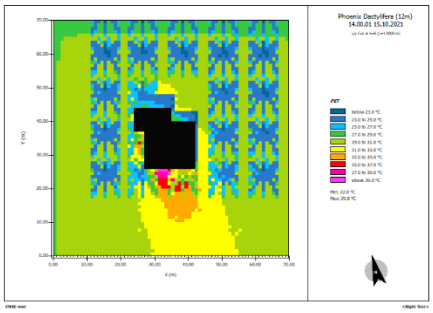
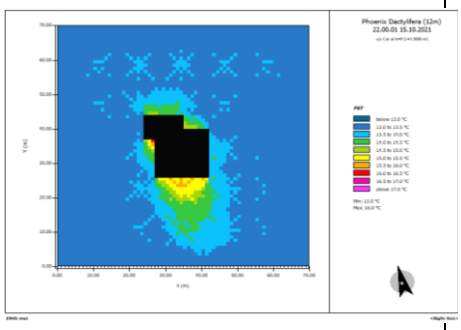
Phoenix Dactylifera (12 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 18. Phoenix Dactylifera (12m) spacing, PET index values [histograms]

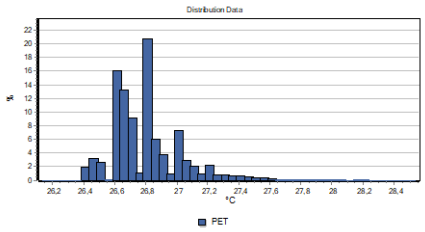
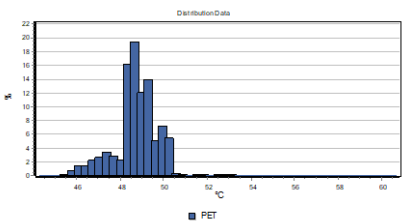
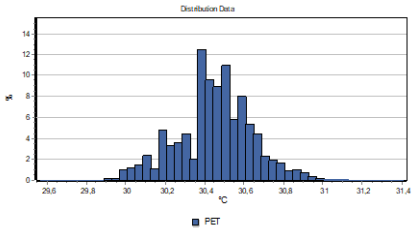
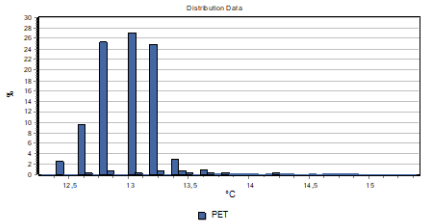
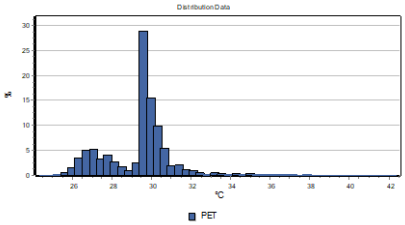
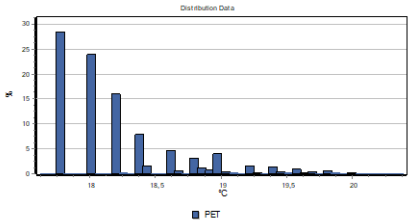
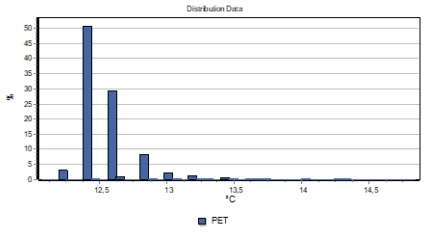
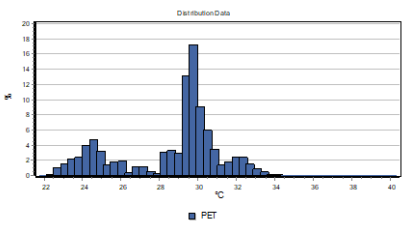
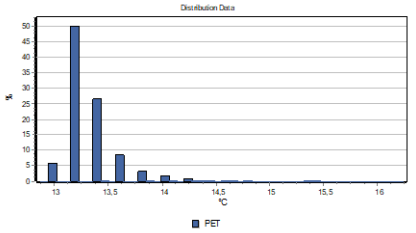
Phoenix Dactylifera (12 m)			
	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 19. Phoenix Dactylifera (12m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.2	48.0	1.94	23.9
15/07/2021	01.00.00	33.4	42.7	3.70	23.9
15/07/2021	02.00.00	33.1	38.8	4.36	25.2
15/07/2021	03.00.00	31.7	42.0	3.10	25.5
15/07/2021	04.00.00	31.5	46.9	2.39	25.6
15/07/2021	05.00.00	30.9	52.0	2.13	24.9
15/07/2021	06.00.00	30.9	53.9	1.87	24.8
15/07/2021	07.00.00	31.0	56.4	1.56	42.5
15/07/2021	08.00.00	31.2	55.4	1.83	53.8
15/07/2021	09.00.00	31.4	50.6	1.83	58.7
15/07/2021	10.00.00	32.4	48.4	2.36	61.1
15/07/2021	11.00.00	32.7	44.8	1.92	61.0
15/07/2021	12.00.00	34.4	43.0	1.80	62.2
15/07/2021	13.00.00	34.8	41.7	1.80	62.5
15/07/2021	14.00.00	36.4	40.1	1.80	59.0
15/07/2021	15.00.00	36.9	38.2	2.81	66.2
15/07/2021	16.00.00	37.1	33.0	2.38	65.4
15/07/2021	17.00.00	36.0	36.1	2.25	50.3
15/07/2021	18.00.00	35.4	37.5	2.34	43.2
15/07/2021	19.00.00	35.4	40.5	1.81	36.5
15/07/2021	20.00.00	34.3	46.0	1.56	29.0
15/07/2021	21.00.00	34.0	46.6	1.70	28.3
15/07/2021	22.00.00	33.5	49.3	2.20	27.8
15/07/2021	23.00.00	33.4	42.9	2.32	27.8

Table 20. Phoenix Dactylifera (12m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.0	55.5	1.79	11.5
15/04/2021	01.00.00	20.4	55.8	1.69	11.0
15/04/2021	02.00.00	20.0	54.7	1.82	10.5
15/04/2021	03.00.00	19.6	53.4	2.13	10.1
15/04/2021	04.00.00	18.6	53.8	2.22	9.2
15/04/2021	05.00.00	18.5	54.9	1.87	9.2
15/04/2021	06.00.00	19.3	54.1	1.63	10.2
15/04/2021	07.00.00	19.7	55.3	1.45	26.4
15/04/2021	08.00.00	20.3	59.5	1.61	42.0
15/04/2021	09.00.00	20.9	58.2	1.71	35.2
15/04/2021	10.00.00	21.3	48.6	3.50	50.3
15/04/2021	11.00.00	23.9	39.4	4.19	46.1
15/04/2021	12.00.00	25.4	37.2	5.30	42.3
15/04/2021	13.00.00	25.7	30.6	4.90	54.4
15/04/2021	14.00.00	27.5	23.0	5.36	46.9
15/04/2021	15.00.00	27.7	24.0	4.19	47.2
15/04/2021	16.00.00	27.1	23.6	4.21	56.2
15/04/2021	17.00.00	27.0	22.8	4.23	40.7
15/04/2021	18.00.00	26.3	23.7	4.25	42.2
15/04/2021	19.00.00	25.4	23.2	5.18	18.8
15/04/2021	20.00.00	24.6	25.9	4.85	17.8
15/04/2021	21.00.00	24.2	27.9	3.37	17.3
15/04/2021	22.00.00	23.5	31.7	1.37	16.4
15/04/2021	23.00.00	22.5	41.2	1.17	14.8

Table 21. Phoenix Dactylifera (12m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.6	50.3	2.61	11.3
15/10/2021	01.00.00	20.7	49.6	2.41	11.6
15/10/2021	02.00.00	20.4	50.8	2.34	11.6
15/10/2021	03.00.00	19.3	53.5	2.34	10.7
15/10/2021	04.00.00	18.4	54.5	2.50	10.0
15/10/2021	05.00.00	19.0	53.0	2.81	10.7
15/10/2021	06.00.00	18.8	51.9	1.96	10.7
15/10/2021	07.00.00	18.5	54.5	2.04	10.3
15/10/2021	08.00.00	18.9	55.1	1.90	33.5
15/10/2021	09.00.00	19.9	52.2	1.70	44.0
15/10/2021	10.00.00	21.0	50.6	1.27	34.3
15/10/2021	11.00.00	21.8	47.6	1.57	40.3
15/10/2021	12.00.00	22.8	46.5	1.93	52.9
15/10/2021	13.00.00	23.5	40.8	2.02	42.9
15/10/2021	14.00.00	24.0	35.3	2.32	40.1
15/10/2021	15.00.00	24.3	33.2	2.72	41.7
15/10/2021	16.00.00	23.7	32.5	3.02	47.8
15/10/2021	17.00.00	23.5	33.7	2.17	26.6
15/10/2021	18.00.00	22.2	41.5	1.89	15.3
15/10/2021	19.00.00	20.9	45.2	2.08	13.6
15/10/2021	20.00.00	20.4	45.0	1.94	12.9
15/10/2021	21.00.00	20.0	47.3	1.99	12.4
15/10/2021	22.00.00	19.5	50.0	1.86	11.8
15/10/2021	23.00.00	18.5	52.3	1.91	10.6

Table 22. Phoenix Dactylifera (12m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	27.9	15.0	13.8
15/04-07-10/2021	01.00.00	28.2	14.4	14.0
15/04-07-10/2021	02.00.00	28.8	13.8	13.8
15/04-07-10/2021	03.00.00	27.6	13.2	12.6
15/04-07-10/2021	04.00.00	27.6	12.2	11.8
15/04-07-10/2021	05.00.00	26.8	12.2	12.4
15/04-07-10/2021	06.00.00	26.8	13.2	12.4
15/04-07-10/2021	07.00.00	34.3	18.0	12.2
15/04-07-10/2021	08.00.00	32.9	22.4	18.4
15/04-07-10/2021	09.00.00	42.0	24.6	22.8
15/04-07-10/2021	10.00.00	40.5	19.4	27.4
15/04-07-10/2021	11.00.00	40.0	22.6	28.8
15/04-07-10/2021	12.00.00	46.7	25.6	26.2
15/04-07-10/2021	13.00.00	44.4	26.6	24.6
15/04-07-10/2021	14.00.00	46.8	26.4	26.6
15/04-07-10/2021	15.00.00	48.8	31.2	28.2
15/04-07-10/2021	16.00.00	48.8	27.0	25.0
15/04-07-10/2021	17.00.00	40.9	28.6	20.6
15/04-07-10/2021	18.00.00	43.3	21.4	16.4
15/04-07-10/2021	19.00.00	35.8	19.0	14.8
15/04-07-10/2021	20.00.00	31.8	18.2	14.2
15/04-07-10/2021	21.00.00	31.1	18.0	13.8
15/04-07-10/2021	22.00.00	30.5	17.8	13.2
15/04-07-10/2021	23.00.00	30.2	16.8	12.2

Table 23. Prosopis Juliflora (8m) spacing, PET index values [thermal mapping]

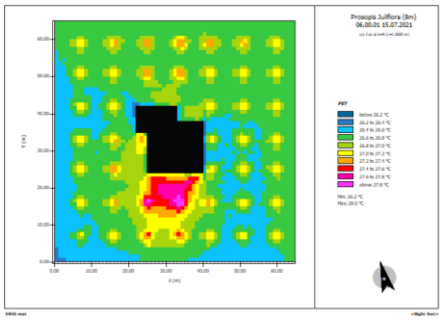
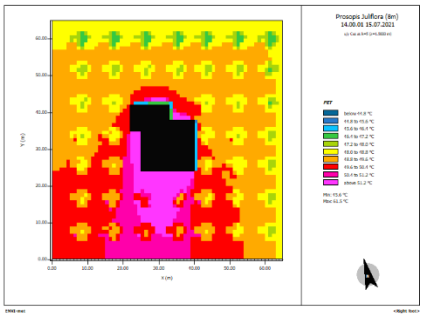
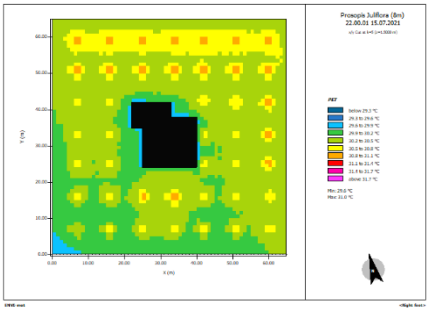
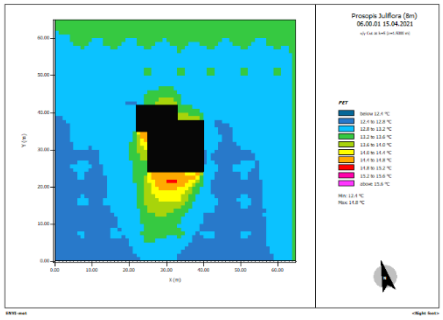
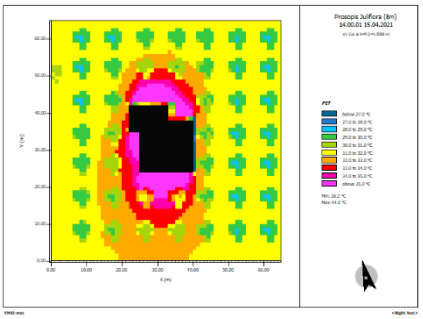
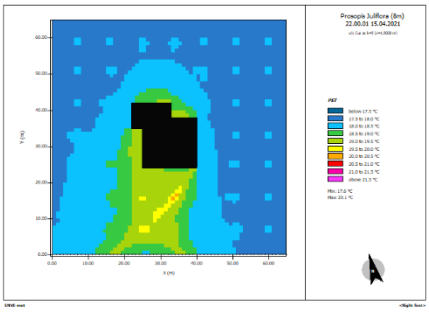
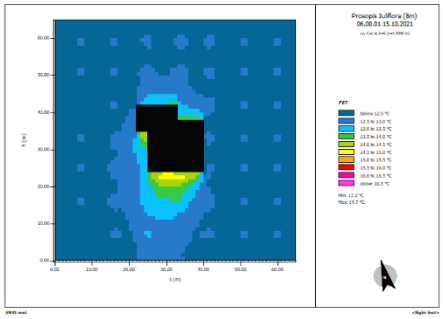
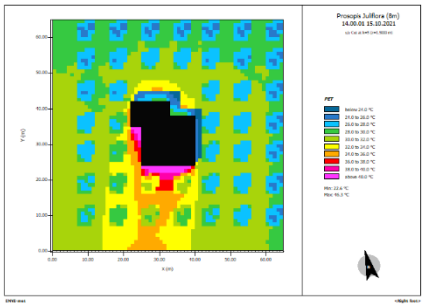
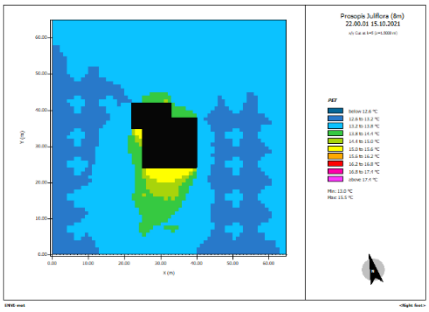
Prosopis Juliflora (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 24. Prosopis Juliflora (8m) spacing, PET index values [histograms]

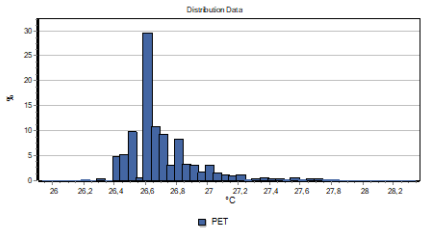
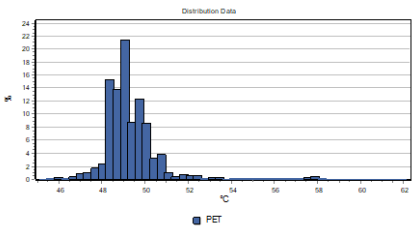
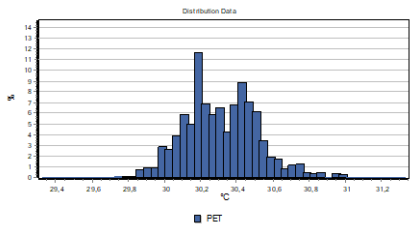
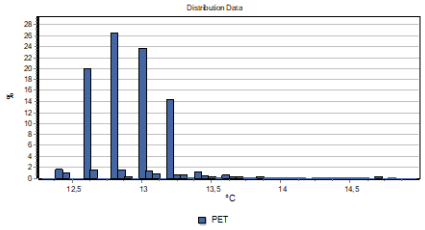
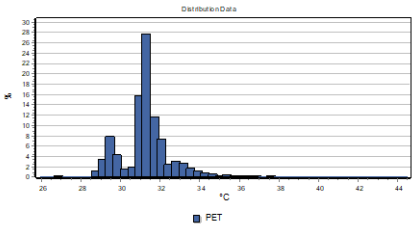
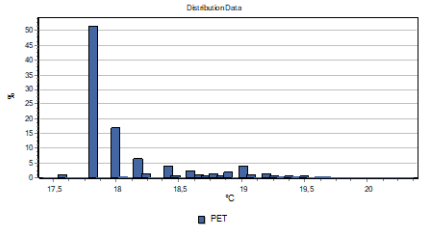
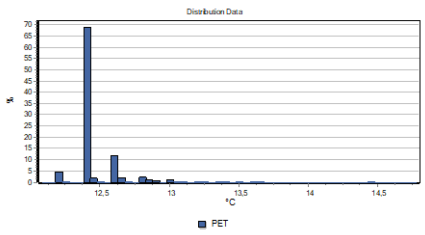
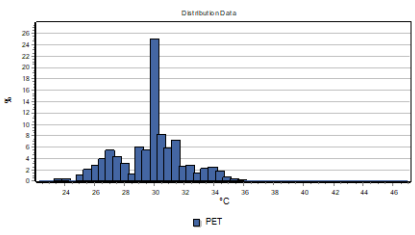
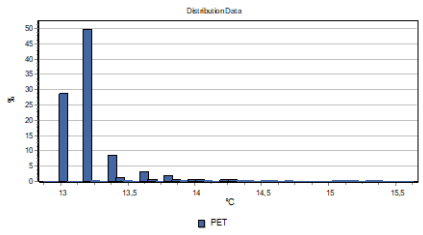
Prosopis Juliflora (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 25. Prosopis Juliflora (8m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.1	49.7	1.90	23.8
15/07/2021	01.00.00	33.3	40.7	3.62	23.8
15/07/2021	02.00.00	33.1	38.5	4.15	25.3
15/07/2021	03.00.00	31.7	41.6	2.90	25.4
15/07/2021	04.00.00	31.5	46.4	2.27	25.4
15/07/2021	05.00.00	30.9	51.3	2.04	24.6
15/07/2021	06.00.00	30.9	53.1	1.81	24.5
15/07/2021	07.00.00	31.0	55.9	1.52	29.5
15/07/2021	08.00.00	31.2	56.1	1.77	53.9
15/07/2021	09.00.00	31.5	50.4	1.77	59.4
15/07/2021	10.00.00	32.5	47.4	2.28	61.6
15/07/2021	11.00.00	32.7	43.4	1.88	61.7
15/07/2021	12.00.00	34.5	41.7	1.76	62.9
15/07/2021	13.00.00	35.1	40.4	1.76	63.7
15/07/2021	14.00.00	36.7	38.9	1.76	66.4
15/07/2021	15.00.00	37.1	36.3	2.74	62.2
15/07/2021	16.00.00	37.1	32.0	2.31	58.6
15/07/2021	17.00.00	36.1	34.9	2.19	54.8
15/07/2021	18.00.00	35.4	36.4	2.28	46.3
15/07/2021	19.00.00	35.4	39.4	1.76	36.1
15/07/2021	20.00.00	34.3	45.6	1.52	28.8
15/07/2021	21.00.00	33.9	47.8	1.65	28.1
15/07/2021	22.00.00	33.5	49.5	2.13	27.6
15/07/2021	23.00.00	33.4	41.6	2.27	27.6

Table 26. Prosopis Juliflora (8m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	51.0	1.91	10.7
15/04/2021	01.00.00	20.9	54.8	1.82	10.1
15/04/2021	02.00.00	20.5	54.6	1.95	9.7
15/04/2021	03.00.00	19.9	55.2	2.24	9.2
15/04/2021	04.00.00	18.8	55.6	2.28	8.3
15/04/2021	05.00.00	18.6	56.8	1.88	8.3
15/04/2021	06.00.00	19.5	56.3	1.64	9.3
15/04/2021	07.00.00	20.0	56.1	1.47	25.6
15/04/2021	08.00.00	20.4	58.0	1.69	41.4
15/04/2021	09.00.00	20.8	59.2	1.83	48.0
15/04/2021	10.00.00	21.3	51.1	3.64	50.7
15/04/2021	11.00.00	23.9	41.1	4.22	53.2
15/04/2021	12.00.00	25.4	38.9	4.32	54.3
15/04/2021	13.00.00	25.7	32.4	5.17	54.8
15/04/2021	14.00.00	27.5	25.0	4.48	57.4
15/04/2021	15.00.00	27.7	26.1	4.73	53.3
15/04/2021	16.00.00	27.0	25.4	4.73	49.2
15/04/2021	17.00.00	27.0	24.7	4.14	46.5
15/04/2021	18.00.00	26.3	25.9	4.15	35.9
15/04/2021	19.00.00	25.4	25.5	4.28	17.9
15/04/2021	20.00.00	24.6	28.2	3.99	16.9
15/04/2021	21.00.00	24.2	30.1	3.65	16.4
15/04/2021	22.00.00	23.6	34.1	1.52	15.5
15/04/2021	23.00.00	22.6	42.8	1.31	13.8

Table 27. Prosopis Juliflora (8m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.7	50.8	2.52	9.9
15/10/2021	01.00.00	20.7	50.0	2.29	10.2
15/10/2021	02.00.00	20.4	51.3	2.22	10.2
15/10/2021	03.00.00	19.3	54.0	2.22	9.2
15/10/2021	04.00.00	18.5	54.9	2.38	8.5
15/10/2021	05.00.00	19.0	53.5	2.68	9.3
15/10/2021	06.00.00	18.8	52.4	1.83	9.2
15/10/2021	07.00.00	18.5	55.2	1.93	8.8
15/10/2021	08.00.00	18.9	55.9	1.80	32.1
15/10/2021	09.00.00	19.9	53.1	1.61	43.1
15/10/2021	10.00.00	21.0	51.2	1.20	48.8
15/10/2021	11.00.00	21.8	46.9	1.53	45.3
15/10/2021	12.00.00	22.7	46.5	1.92	46.3
15/10/2021	13.00.00	23.6	41.5	1.99	46.9
15/10/2021	14.00.00	24.1	36.0	2.24	46.5
15/10/2021	15.00.00	24.4	33.8	2.61	52.2
15/10/2021	16.00.00	23.8	33.2	2.87	39.7
15/10/2021	17.00.00	23.5	34.2	2.43	24.3
15/10/2021	18.00.00	22.2	40.2	2.24	13.9
15/10/2021	19.00.00	20.9	43.3	1.99	12.3
15/10/2021	20.00.00	20.4	45.3	1.92	11.5
15/10/2021	21.00.00	20.0	47.4	1.92	10.9
15/10/2021	22.00.00	19.5	50.6	1.79	10.3
15/10/2021	23.00.00	18.5	52.9	1.84	9.1

Table 28. Prosopis Juliflora (8m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.5	14.6	13.8
15/04-07-10/2021	01.00.00	28.6	14.0	14.0
15/04-07-10/2021	02.00.00	28.8	13.6	13.8
15/04-07-10/2021	03.00.00	27.4	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.5	12.0	12.2
15/04-07-10/2021	06.00.00	26.6	13.0	12.4
15/04-07-10/2021	07.00.00	33.7	15.0	12.0
15/04-07-10/2021	08.00.00	38.9	22.6	18.2
15/04-07-10/2021	09.00.00	41.6	25.4	22.8
15/04-07-10/2021	10.00.00	43.0	22.8	25.0
15/04-07-10/2021	11.00.00	43.8	25.2	24.6
15/04-07-10/2021	12.00.00	46.2	27.6	26.8
15/04-07-10/2021	13.00.00	47.1	27.0	30.0
15/04-07-10/2021	14.00.00	48.8	31.2	29.8
15/04-07-10/2021	15.00.00	48.8	31.4	28.4
15/04-07-10/2021	16.00.00	48.6	30.0	22.4
15/04-07-10/2021	17.00.00	47.1	25.8	20.0
15/04-07-10/2021	18.00.00	43.0	22.2	16.2
15/04-07-10/2021	19.00.00	35.5	19.0	14.6
15/04-07-10/2021	20.00.00	31.7	18.2	14.0
15/04-07-10/2021	21.00.00	31.1	17.8	13.6
15/04-07-10/2021	22.00.00	30.4	17.8	13.0
15/04-07-10/2021	23.00.00	30.2	16.6	12.0

Table 29. Prosopis Juliflora (10m) spacing, PET index values [thermal mapping]

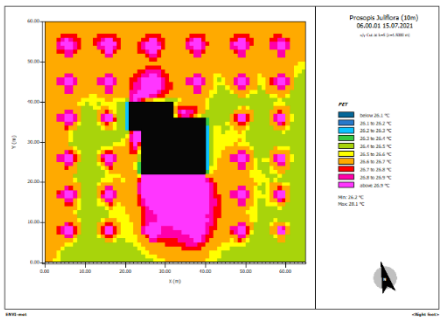
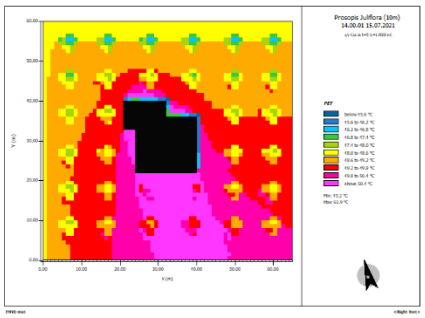
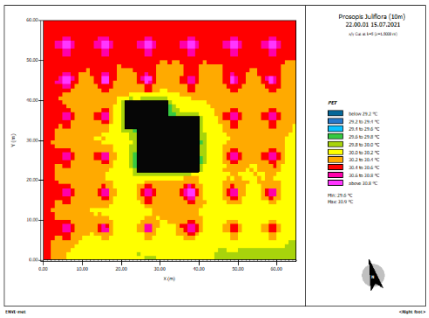
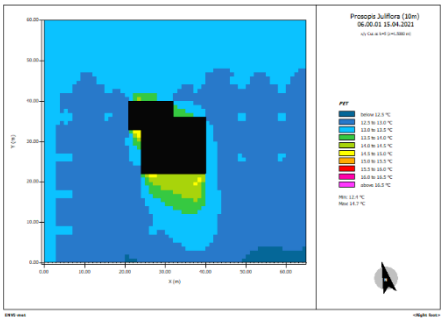
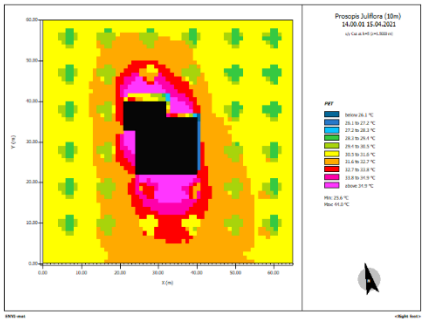
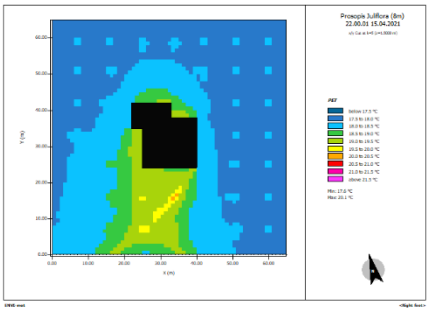
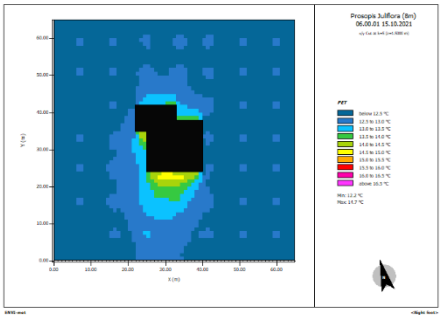
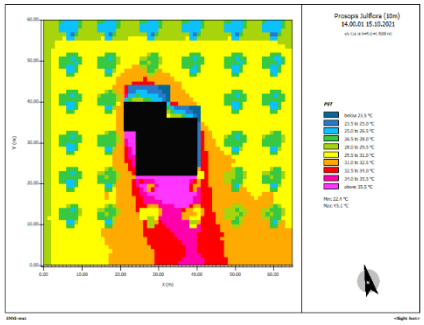
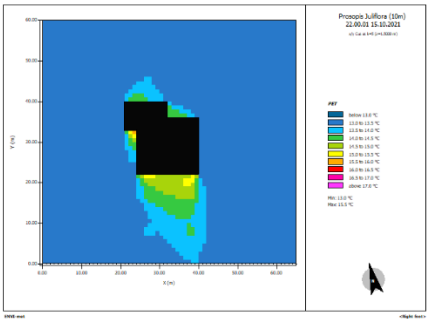
Prosopis Juliflora (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 30. Prosopis Juliflora (10m) spacing, PET index values [histograms]

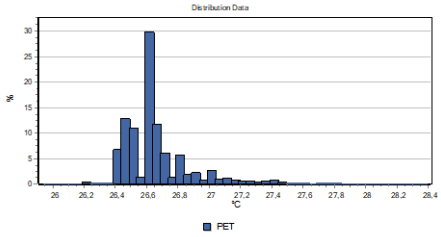
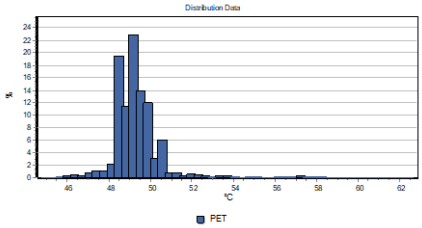
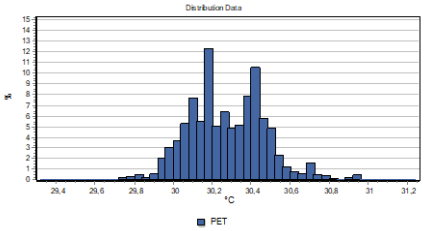
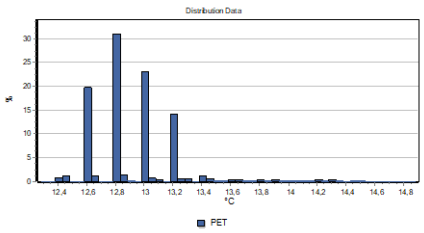
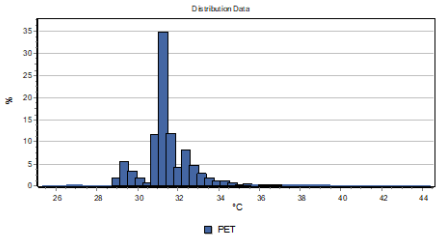
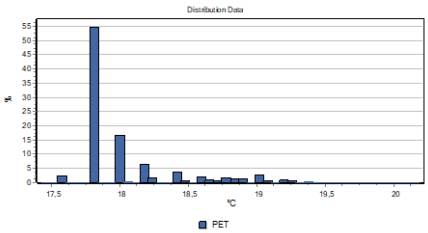
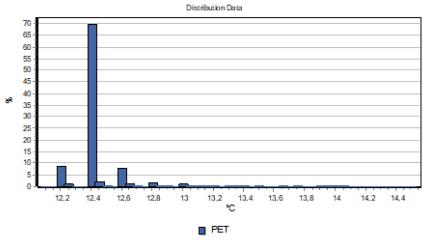
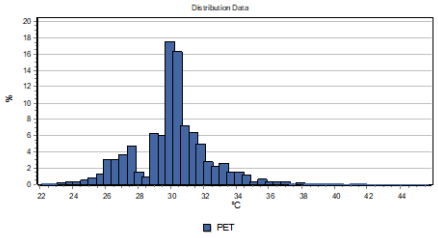
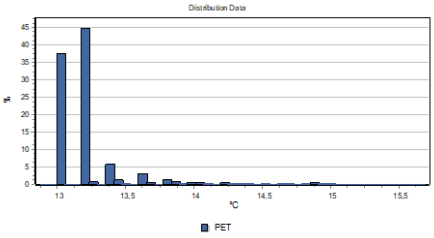
Prosopis Juliflora (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 31. Prosopis Juliflora (10m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.1	49.1	1.94	24.3
15/07/2021	01.00.00	33.3	42.1	3.70	24.3
15/07/2021	02.00.00	33.1	38.7	4.29	25.6
15/07/2021	03.00.00	31.7	41.8	3.01	25.8
15/07/2021	04.00.00	31.6	46.7	2.34	25.8
15/07/2021	05.00.00	30.9	51.7	2.09	25.1
15/07/2021	06.00.00	30.9	53.5	1.85	25.0
15/07/2021	07.00.00	31.0	56.1	1.55	42.4
15/07/2021	08.00.00	31.2	55.8	1.81	54.3
15/07/2021	09.00.00	31.5	50.4	1.81	59.8
15/07/2021	10.00.00	32.5	47.8	2.34	62.5
15/07/2021	11.00.00	32.7	43.9	1.92	62.7
15/07/2021	12.00.00	34.5	42.3	1.80	59.7
15/07/2021	13.00.00	34.9	41.0	1.80	60.8
15/07/2021	14.00.00	36.6	39.4	1.80	66.9
15/07/2021	15.00.00	37.1	37.2	2.79	68.0
15/07/2021	16.00.00	37.1	32.4	2.37	66.8
15/07/2021	17.00.00	36.1	35.4	2.23	63.5
15/07/2021	18.00.00	35.4	36.9	2.33	43.3
15/07/2021	19.00.00	35.4	39.8	1.80	32.0
15/07/2021	20.00.00	34.3	45.8	1.56	29.2
15/07/2021	21.00.00	33.9	47.4	1.68	28.5
15/07/2021	22.00.00	33.5	49.5	2.18	28.0
15/07/2021	23.00.00	33.4	42.2	2.31	28.0

Table 32. Prosopis Juliflora (10m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	51.3	1.95	10.5
15/04/2021	01.00.00	20.9	55.1	1.85	10.0
15/04/2021	02.00.00	20.4	54.7	1.99	9.5
15/04/2021	03.00.00	19.9	55.0	2.29	9.0
15/04/2021	04.00.00	18.8	55.3	2.34	8.1
15/04/2021	05.00.00	18.7	56.3	1.94	8.1
15/04/2021	06.00.00	19.6	55.9	1.69	9.1
15/04/2021	07.00.00	20.0	56.2	1.50	25.4
15/04/2021	08.00.00	20.4	58.4	1.71	29.6
15/04/2021	09.00.00	20.9	59.2	1.84	39.1
15/04/2021	10.00.00	21.3	51.2	3.75	50.9
15/04/2021	11.00.00	23.9	40.7	4.46	53.3
15/04/2021	12.00.00	25.4	38.6	4.60	54.6
15/04/2021	13.00.00	25.7	32.1	5.52	55.0
15/04/2021	14.00.00	27.5	24.6	4.83	57.5
15/04/2021	15.00.00	27.7	25.8	5.05	58.1
15/04/2021	16.00.00	27.0	25.0	5.06	56.4
15/04/2021	17.00.00	27.0	24.3	4.43	52.5
15/04/2021	18.00.00	26.3	25.5	4.42	41.3
15/04/2021	19.00.00	25.4	25.2	4.54	17.8
15/04/2021	20.00.00	24.6	27.9	4.25	16.7
15/04/2021	21.00.00	24.2	29.8	3.87	16.2
15/04/2021	22.00.00	23.6	33.6	1.61	15.3
15/04/2021	23.00.00	22.6	43.3	1.36	13.7

Table 33. Prosopis Juliflora (10m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.7	51.9	2.55	9.9
15/10/2021	01.00.00	20.8	50.9	2.31	10.1
15/10/2021	02.00.00	20.5	52.4	2.25	10.1
15/10/2021	03.00.00	19.4	55.1	2.24	9.1
15/10/2021	04.00.00	18.5	56.0	2.41	8.4
15/10/2021	05.00.00	19.0	54.4	2.70	9.1
15/10/2021	06.00.00	18.9	53.4	1.85	9.1
15/10/2021	07.00.00	18.6	56.5	1.95	8.7
15/10/2021	08.00.00	18.9	57.2	1.82	25.4
15/10/2021	09.00.00	19.9	54.5	1.64	43.2
15/10/2021	10.00.00	20.8	50.9	1.25	48.8
15/10/2021	11.00.00	21.6	45.6	1.59	52.2
15/10/2021	12.00.00	22.5	45.7	2.00	53.4
15/10/2021	13.00.00	23.5	43.2	2.06	53.9
15/10/2021	14.00.00	24.1	38.1	2.29	54.1
15/10/2021	15.00.00	24.4	35.6	2.64	52.4
15/10/2021	16.00.00	23.8	34.5	2.90	34.9
15/10/2021	17.00.00	23.5	35.9	2.04	35.4
15/10/2021	18.00.00	22.2	44.3	1.79	13.8
15/10/2021	19.00.00	20.9	48.1	2.00	12.0
15/10/2021	20.00.00	20.4	47.8	1.87	11.4
15/10/2021	21.00.00	20.0	49.9	1.93	10.8
15/10/2021	22.00.00	19.5	52.5	1.81	10.2
15/10/2021	23.00.00	18.5	54.6	1.87	9.0

Table 34. Prosopis Juliflora (10m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.5	14.6	13.8
15/04-07-10/2021	01.00.00	28.6	14.0	13.8
15/04-07-10/2021	02.00.00	28.8	13.6	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.5	13.0	12.4
15/04-07-10/2021	07.00.00	29.0	17.8	12.0
15/04-07-10/2021	08.00.00	35.4	22.6	18.2
15/04-07-10/2021	09.00.00	41.6	25.4	22.8
15/04-07-10/2021	10.00.00	43.0	22.8	27.8
15/04-07-10/2021	11.00.00	43.8	25.2	28.8
15/04-07-10/2021	12.00.00	46.3	27.6	29.2
15/04-07-10/2021	13.00.00	47.2	27.0	30.0
15/04-07-10/2021	14.00.00	48.8	31.0	29.8
15/04-07-10/2021	15.00.00	48.8	31.4	24.2
15/04-07-10/2021	16.00.00	48.6	30.0	22.8
15/04-07-10/2021	17.00.00	47.2	29.2	22.4
15/04-07-10/2021	18.00.00	43.0	24.4	16.2
15/04-07-10/2021	19.00.00	35.4	19.0	14.6
15/04-07-10/2021	20.00.00	31.6	18.2	14.0
15/04-07-10/2021	21.00.00	31.0	17.8	13.6
15/04-07-10/2021	22.00.00	30.4	17.6	13.0
15/04-07-10/2021	23.00.00	30.1	16.6	12.0

Table 35. Prosopis Juliflora (12m) spacing, PET index values [thermal mapping]

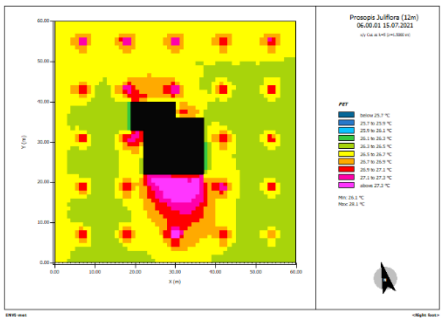
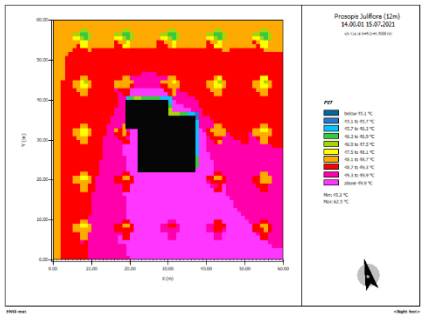
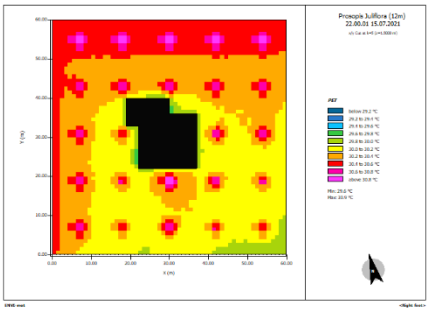
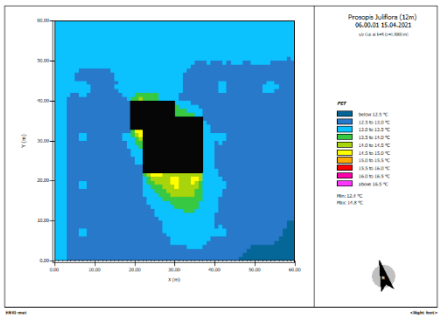
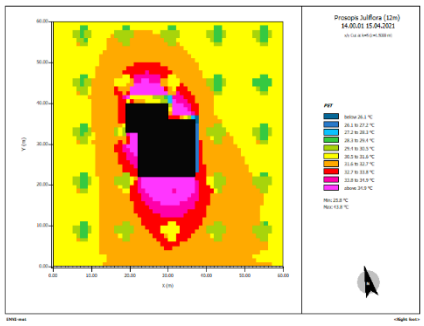
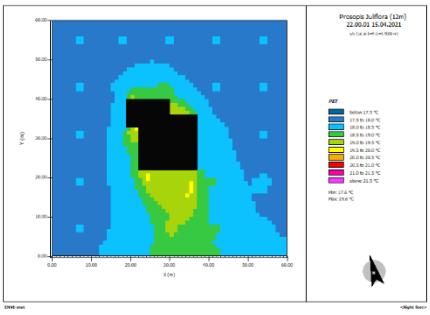
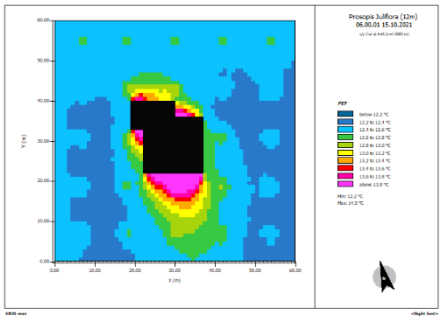
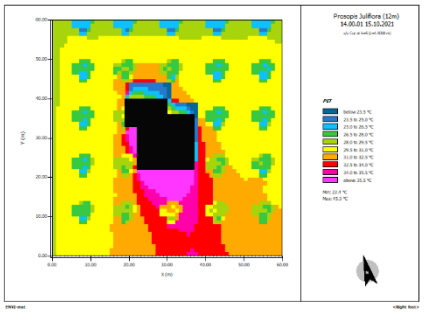
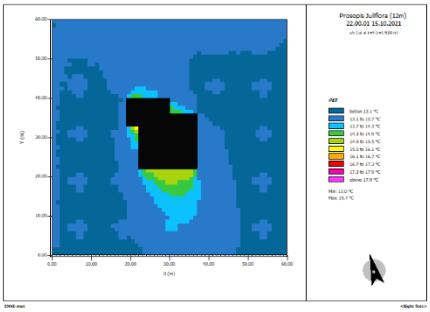
Prosopis Juliflora (12 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 36. Prosopis Juliflora (12m) spacing, PET index values [histograms]

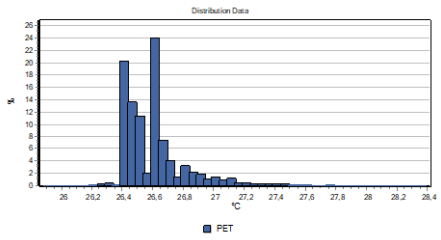
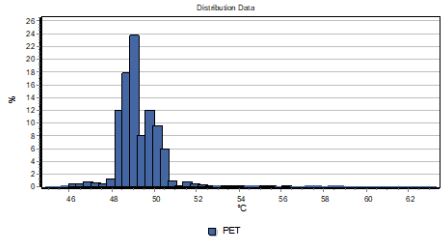
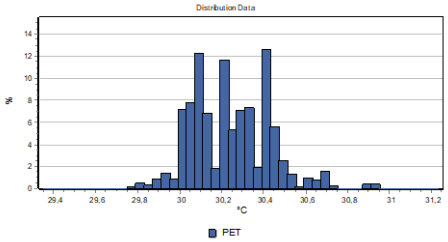
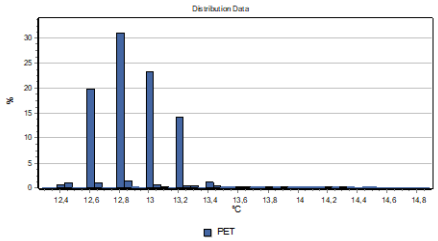
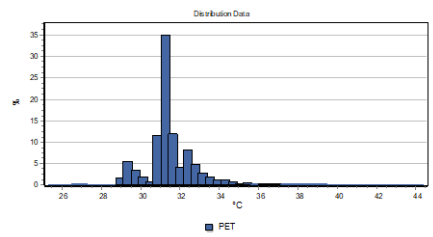
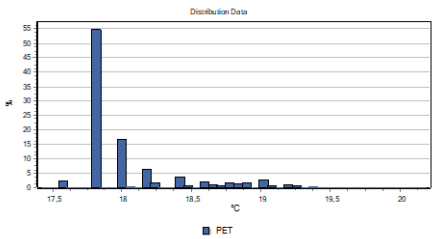
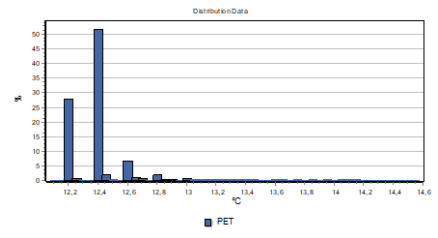
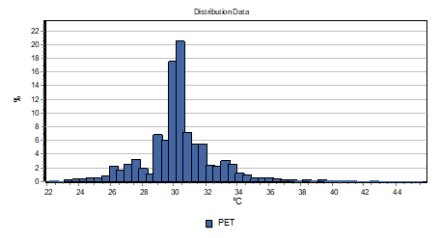
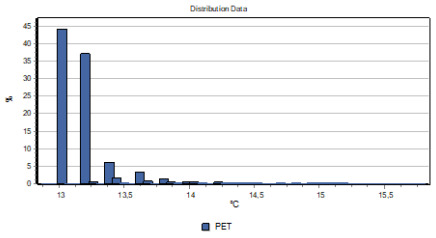
Prosopis Juliflora (12 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 37. Prosopis Juliflora (12m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.3	46.0	1.96	24.2
15/07/2021	01.00.00	33.5	43.4	3.86	24.2
15/07/2021	02.00.00	33.1	39.8	4.42	25.5
15/07/2021	03.00.00	31.7	42.9	3.12	25.6
15/07/2021	04.00.00	31.6	48.0	2.41	25.7
15/07/2021	05.00.00	31.0	53.2	2.15	25.0
15/07/2021	06.00.00	31.0	54.9	1.90	24.9
15/07/2021	07.00.00	31.0	55.7	1.61	42.4
15/07/2021	08.00.00	31.1	53.7	1.91	54.3
15/07/2021	09.00.00	31.3	49.4	1.92	59.8
15/07/2021	10.00.00	32.2	48.4	2.47	52.1
15/07/2021	11.00.00	32.6	46.3	1.96	55.5
15/07/2021	12.00.00	34.1	44.0	1.85	58.3
15/07/2021	13.00.00	34.5	41.5	1.86	60.9
15/07/2021	14.00.00	36.2	39.5	1.87	62.8
15/07/2021	15.00.00	36.9	39.3	2.94	68.0
15/07/2021	16.00.00	37.1	34.5	2.40	66.8
15/07/2021	17.00.00	36.0	37.7	2.27	63.5
15/07/2021	18.00.00	35.3	39.3	2.38	49.0
15/07/2021	19.00.00	35.4	41.9	1.83	36.5
15/07/2021	20.00.00	34.4	44.8	1.61	29.1
15/07/2021	21.00.00	34.0	44.2	1.77	28.4
15/07/2021	22.00.00	33.6	47.5	2.30	27.9
15/07/2021	23.00.00	33.4	44.2	2.41	27.9

Table 38. Prosopis Juliflora (12m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	20.7	51.3	2.35	9.8
15/04/2021	01.00.00	20.7	50.5	2.13	10.0
15/04/2021	02.00.00	20.4	51.8	2.08	10.0
15/04/2021	03.00.00	19.3	54.5	2.08	9.0
15/04/2021	04.00.00	18.4	55.4	2.24	8.3
15/04/2021	05.00.00	19.0	53.9	2.51	9.0
15/04/2021	06.00.00	18.8	52.8	1.71	8.9
15/04/2021	07.00.00	18.5	55.7	1.81	8.6
15/04/2021	08.00.00	18.9	56.3	1.69	32.1
15/04/2021	09.00.00	19.9	53.5	1.52	43.4
15/04/2021	10.00.00	21.0	51.4	1.14	49.0
15/04/2021	11.00.00	21.9	47.3	1.44	52.5
15/04/2021	12.00.00	22.7	46.6	1.81	53.6
15/04/2021	13.00.00	23.6	41.8	1.89	54.2
15/04/2021	14.00.00	24.2	36.4	2.12	54.4
15/04/2021	15.00.00	24.4	34.2	2.46	52.7
15/04/2021	16.00.00	23.8	33.4	2.69	47.7
15/04/2021	17.00.00	23.5	34.9	1.87	28.9
15/04/2021	18.00.00	22.2	43.1	1.65	13.7
15/04/2021	19.00.00	20.9	46.8	1.86	12.0
15/04/2021	20.00.00	20.4	46.5	1.74	11.3
15/04/2021	21.00.00	20.0	48.7	1.79	10.7
15/04/2021	22.00.00	19.5	51.3	1.68	10.1
15/04/2021	23.00.00	18.5	53.5	1.73	8.9

Table 39. Prosopis Juliflora (12m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	21.6	48.5	1.94	11.3
15/10/2021	01.00.00	21.1	51.8	1.87	10.8
15/10/2021	02.00.00	20.6	51.6	2.04	10.3
15/10/2021	03.00.00	20.1	54.8	2.36	9.9
15/10/2021	04.00.00	18.9	57.0	2.36	8.9
15/10/2021	05.00.00	18.7	58.1	1.92	8.9
15/10/2021	06.00.00	19.7	55.8	1.71	9.9
15/10/2021	07.00.00	20.2	53.1	1.56	26.1
15/10/2021	08.00.00	20.4	55.9	1.78	42.0
15/10/2021	09.00.00	20.8	56.9	1.92	48.8
15/10/2021	10.00.00	21.2	53.9	3.77	51.5
15/10/2021	11.00.00	23.8	42.7	4.25	47.4
15/10/2021	12.00.00	25.4	40.4	4.35	49.0
15/10/2021	13.00.00	25.7	34.0	5.22	50.0
15/10/2021	14.00.00	27.5	26.7	4.53	54.2
15/10/2021	15.00.00	27.7	27.9	4.78	58.8
15/10/2021	16.00.00	27.0	27.1	4.78	57.2
15/10/2021	17.00.00	27.0	26.5	4.19	53.2
15/10/2021	18.00.00	26.3	27.7	4.19	42.0
15/10/2021	19.00.00	25.4	27.3	4.32	18.5
15/10/2021	20.00.00	24.6	30.0	4.03	17.5
15/10/2021	21.00.00	24.2	32.0	3.68	17.0
15/10/2021	22.00.00	23.6	36.4	1.53	16.1
15/10/2021	23.00.00	22.7	39.8	1.33	14.4

Table 40. Prosopis Juliflora (12m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.2	14.6	13.8
15/04-07-10/2021	01.00.00	28.4	14.0	13.8
15/04-07-10/2021	02.00.00	28.2	13.6	13.6
15/04-07-10/2021	03.00.00	26.6	13.0	12.6
15/04-07-10/2021	04.00.00	26.8	12.0	11.8
15/04-07-10/2021	05.00.00	26.2	12.0	12.2
15/04-07-10/2021	06.00.00	26.4	13.0	12.4
15/04-07-10/2021	07.00.00	29.7	18.2	12.0
15/04-07-10/2021	08.00.00	38.8	23.6	18.4
15/04-07-10/2021	09.00.00	41.8	27.0	23.0
15/04-07-10/2021	10.00.00	43.3	24.2	28.2
15/04-07-10/2021	11.00.00	44.0	27.8	29.4
15/04-07-10/2021	12.00.00	46.7	30.2	29.8
15/04-07-10/2021	13.00.00	47.6	29.8	30.6
15/04-07-10/2021	14.00.00	49.0	34.0	30.2
15/04-07-10/2021	15.00.00	49.2	34.0	28.8
15/04-07-10/2021	16.00.00	49.0	32.6	25.4
15/04-07-10/2021	17.00.00	44.8	31.8	22.6
15/04-07-10/2021	18.00.00	39.2	24.2	16.2
15/04-07-10/2021	19.00.00	35.4	19.4	14.6
15/04-07-10/2021	20.00.00	31.6	18.4	14.0
15/04-07-10/2021	21.00.00	30.9	18.0	13.6
15/04-07-10/2021	22.00.00	30.3	18.0	13.0
15/04-07-10/2021	23.00.00	30.0	16.9	12.0

Table 41. Ceratonia Siliqua (8m) spacing, PET index values [thermal mapping]

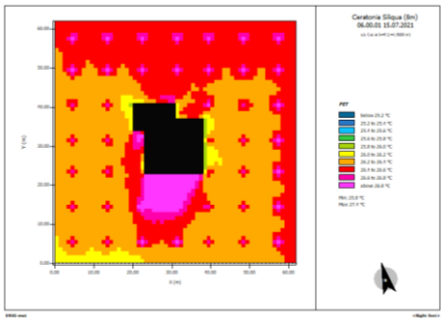
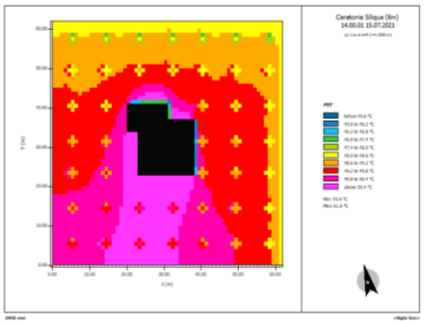
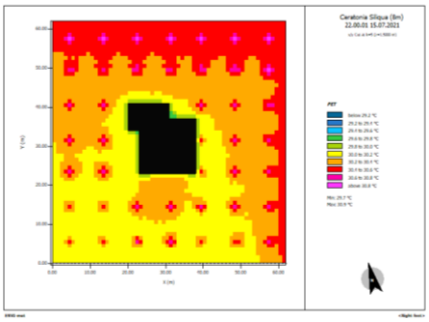
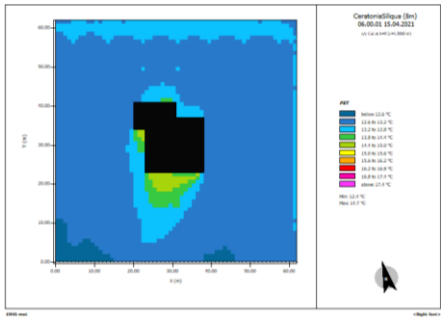
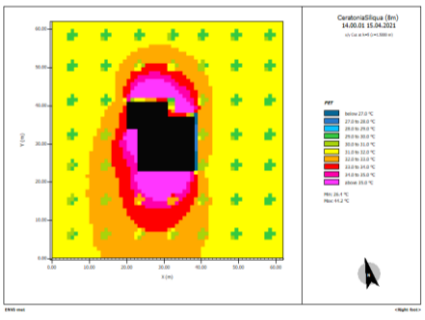
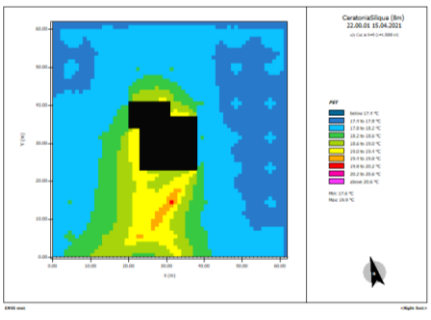
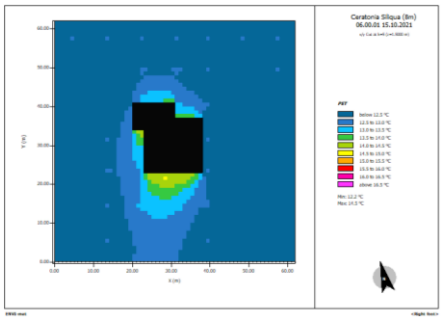
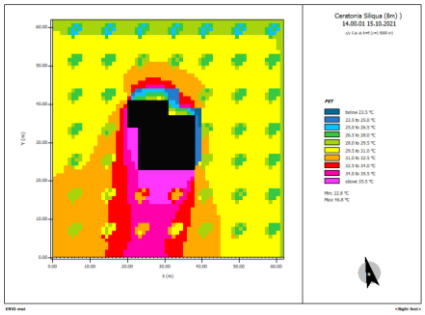
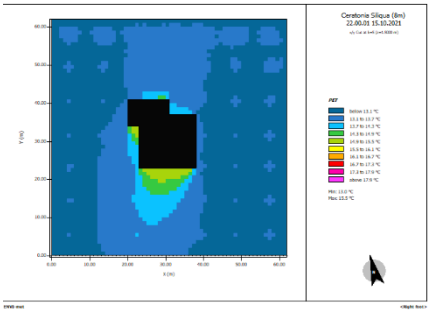
Ceratonia Siliqua (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 42. Ceratonia Siliqua (8m) spacing, PET index values [histograms]

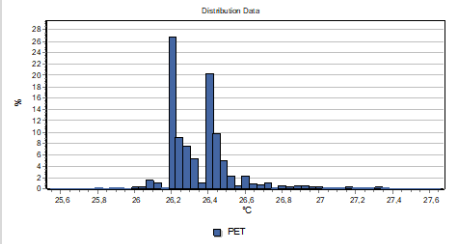
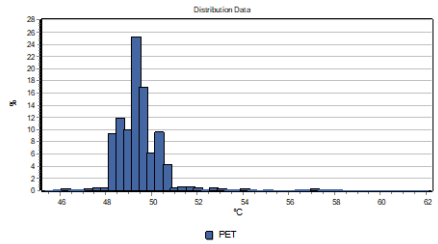
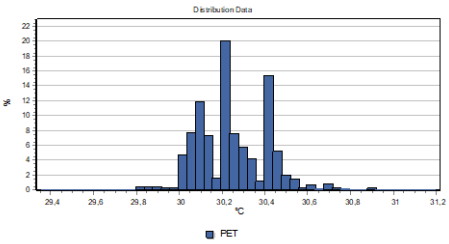
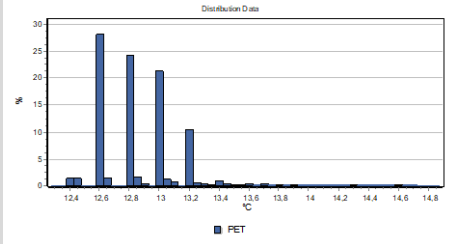
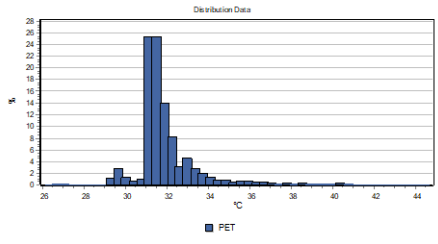
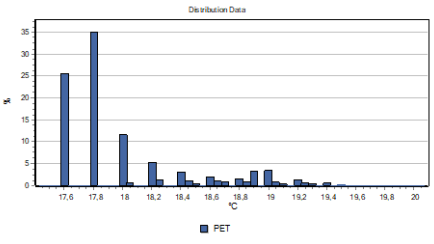
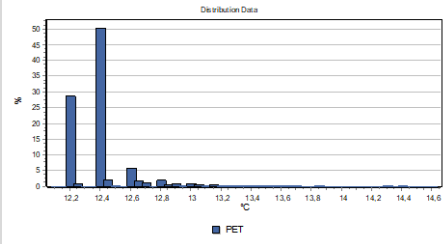
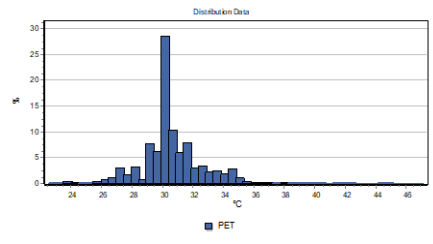
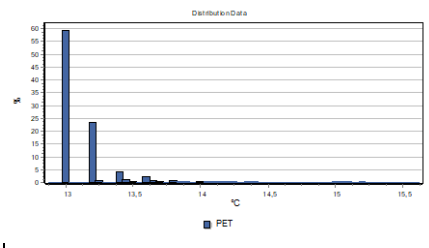
Ceratonia Siliqua (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 43. Ceratonia Siliqua (8m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.3	46.8	1.93	23.4
15/07/2021	01.00.00	33.6	44.7	2.57	23.6
15/07/2021	02.00.00	32.9	44.3	2.42	23.8
15/07/2021	03.00.00	31.5	47.1	2.36	23.3
15/07/2021	04.00.00	31.4	50.3	2.30	23.9
15/07/2021	05.00.00	30.9	53.8	2.07	23.7
15/07/2021	06.00.00	30.9	55.3	1.84	23.8
15/07/2021	07.00.00	30.9	56.8	2.15	33.3
15/07/2021	08.00.00	31.1	55.4	1.79	53.7
15/07/2021	09.00.00	31.3	50.5	1.79	59.5
15/07/2021	10.00.00	32.3	48.6	2.36	62.2
15/07/2021	11.00.00	32.7	45.8	1.90	62.2
15/07/2021	12.00.00	34.3	43.9	1.79	63.4
15/07/2021	13.00.00	34.7	41.9	1.80	64.0
15/07/2021	14.00.00	36.3	40.0	1.81	66.7
15/07/2021	15.00.00	36.9	39.5	2.25	68.0
15/07/2021	16.00.00	37.2	37.8	2.32	59.3
15/07/2021	17.00.00	36.1	38.5	1.95	53.1
15/07/2021	18.00.00	35.4	40.8	2.31	45.7
15/07/2021	19.00.00	35.4	42.1	1.77	35.9
15/07/2021	20.00.00	34.4	46.2	2.16	28.4
15/07/2021	21.00.00	33.9	46.6	1.84	27.9
15/07/2021	22.00.00	33.5	48.9	2.16	27.3
15/07/2021	23.00.00	33.4	43.6	2.31	27.2

Table 46. Ceratonia Siliqua (8m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.4	14.6	13.8
15/04-07-10/2021	01.00.00	28.6	14.0	13.8
15/04-07-10/2021	02.00.00	28.8	13.6	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.5	12.8	12.4
15/04-07-10/2021	07.00.00	33.8	17.8	12.0
15/04-07-10/2021	08.00.00	39.3	22.8	18.2
15/04-07-10/2021	09.00.00	42.1	25.6	23.0
15/04-07-10/2021	10.00.00	43.5	23.0	28.0
15/04-07-10/2021	11.00.00	44.2	25.6	29.2
15/04-07-10/2021	12.00.00	46.7	27.8	29.4
15/04-07-10/2021	13.00.00	47.6	28.0	30.2
15/04-07-10/2021	14.00.00	49.0	31.4	30.2
15/04-07-10/2021	15.00.00	48.8	32.4	28.6
15/04-07-10/2021	16.00.00	48.8	31.2	23.4
15/04-07-10/2021	17.00.00	47.5	30.2	19.6
15/04-07-10/2021	18.00.00	43.2	24.6	16.0
15/04-07-10/2021	19.00.00	35.5	19.0	14.6
15/04-07-10/2021	20.00.00	31.5	18.2	14.0
15/04-07-10/2021	21.00.00	30.9	17.8	13.6
15/04-07-10/2021	22.00.00	30.3	17.2	13.0
15/04-07-10/2021	23.00.00	30.0	16.4	12.0

Table 47. Ceratonia Siliqua (10m) spacing, PET index values [thermal mapping]

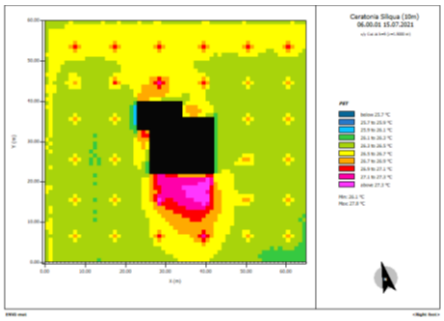
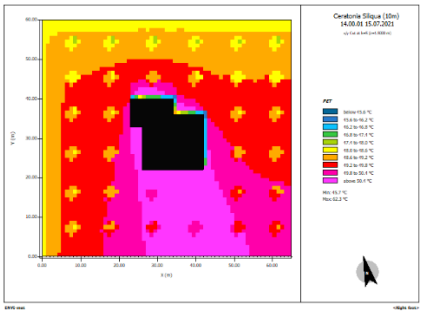
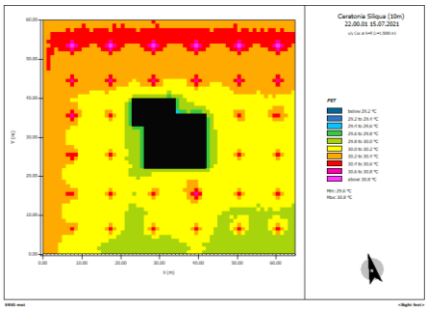
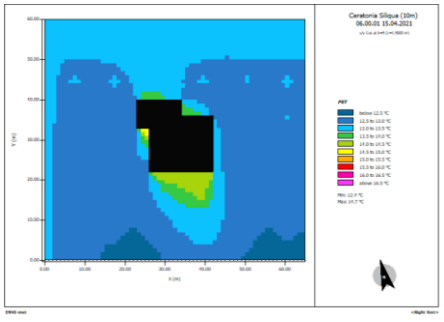
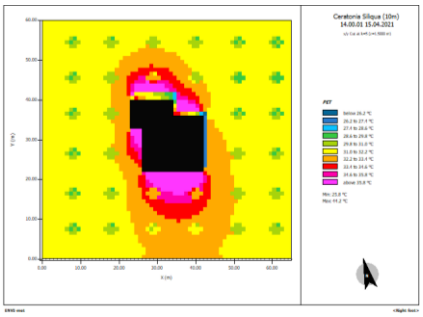
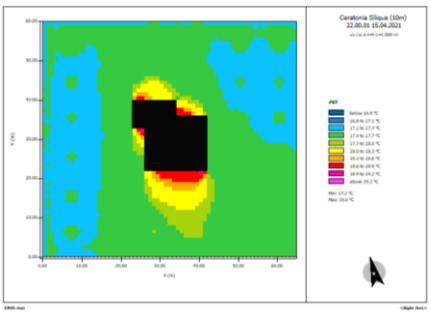
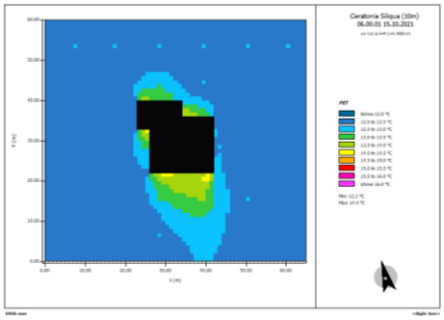
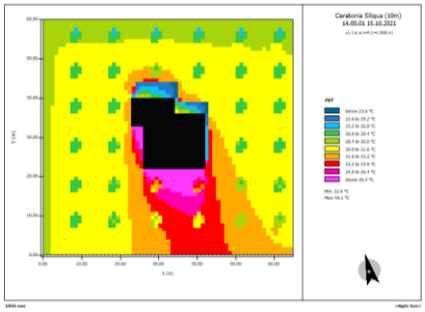
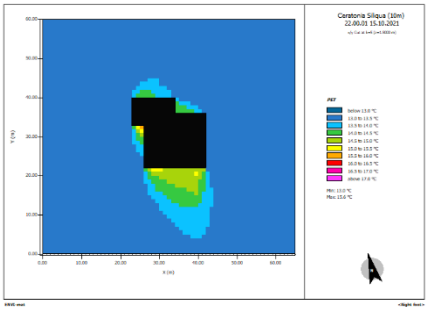
Ceratonia Siliqua (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 48. Ceratonia Siliqua (10m) spacing, PET index values [histograms]

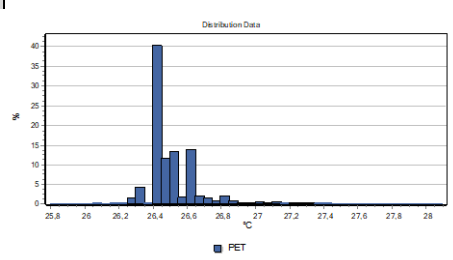
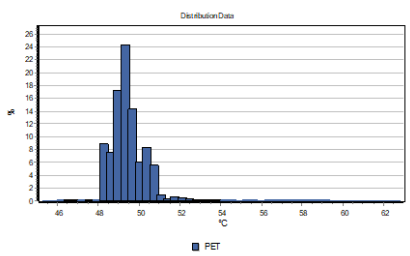
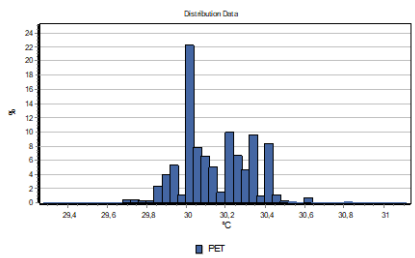
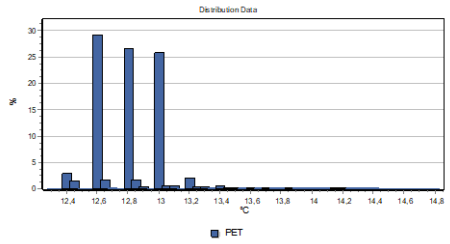
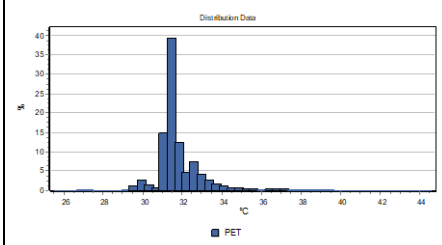
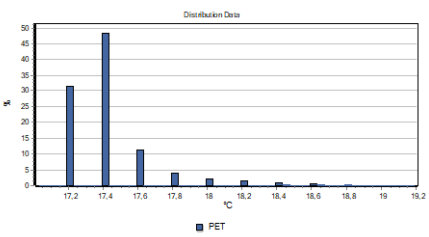
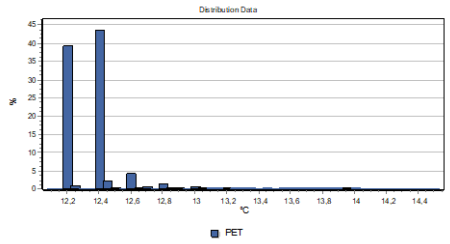
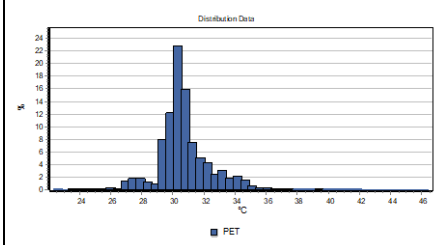
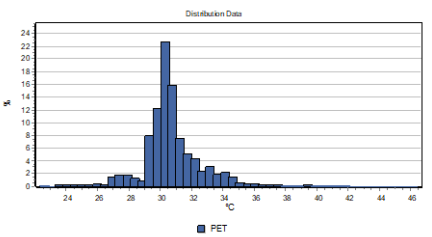
Ceratonia Siliqua (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 49. Ceratonia Siliqua (10m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	32.97	51.0	1.83	23.2
15/07/2021	01.00.00	33.19	41.8	3.50	23.2
15/07/2021	02.00.00	33.05	38.3	4.02	24.5
15/07/2021	03.00.00	31.73	41.4	2.76	24.7
15/07/2021	04.00.00	31.54	46.3	2.17	24.7
15/07/2021	05.00.00	30.93	51.2	1.96	24.0
15/07/2021	06.00.00	30.91	53.0	1.73	23.9
15/07/2021	07.00.00	30.99	55.7	1.45	32.6
15/07/2021	08.00.00	31.30	56.1	1.69	45.1
15/07/2021	09.00.00	31.59	50.0	1.69	59.8
15/07/2021	10.00.00	32.65	46.8	2.20	62.4
15/07/2021	11.00.00	32.89	42.9	1.81	62.4
15/07/2021	12.00.00	34.72	41.0	1.70	63.3
15/07/2021	13.00.00	35.24	39.7	1.70	64.0
15/07/2021	14.00.00	36.89	38.2	1.70	66.7
15/07/2021	15.00.00	37.24	36.1	2.64	67.7
15/07/2021	16.00.00	37.20	31.7	2.25	66.7
15/07/2021	17.00.00	36.18	34.5	2.13	63.3
15/07/2021	18.00.00	35.43	36.1	2.22	55.6
15/07/2021	19.00.00	35.37	39.1	1.72	35.9
15/07/2021	20.00.00	34.30	45.3	1.48	28.2
15/07/2021	21.00.00	33.90	48.2	1.59	27.5
15/07/2021	22.00.00	33.47	49.5	2.04	26.9
15/07/2021	23.00.00	33.39	41.4	2.19	26.9

Table 50. Ceratonia Siliqua (10m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	50.3	1.94	11.1
15/04/2021	01.00.00	20.9	54.3	1.85	10.5
15/04/2021	02.00.00	20.5	54.1	2.00	10.1
15/04/2021	03.00.00	19.9	55.4	2.29	9.6
15/04/2021	04.00.00	18.9	56.0	2.31	8.7
15/04/2021	05.00.00	18.7	57.0	1.90	8.7
15/04/2021	06.00.00	19.6	56.4	1.66	9.7
15/04/2021	07.00.00	20.1	55.6	1.50	26.0
15/04/2021	08.00.00	20.4	57.4	1.72	42.2
15/04/2021	09.00.00	20.9	58.6	1.86	49.1
15/04/2021	10.00.00	21.3	52.1	3.71	51.9
15/04/2021	11.00.00	23.9	41.2	4.33	49.8
15/04/2021	12.00.00	25.4	39.1	4.44	51.1
15/04/2021	13.00.00	25.7	32.7	4.72	51.1
15/04/2021	14.00.00	27.5	25.4	4.66	53.9
15/04/2021	15.00.00	27.7	26.5	4.28	54.1
15/04/2021	16.00.00	27.1	26.0	4.03	57.5
15/04/2021	17.00.00	27.0	25.5	3.68	53.4
15/04/2021	18.00.00	26.3	26.4	4.28	42.1
15/04/2021	19.00.00	25.4	25.8	4.18	18.3
15/04/2021	20.00.00	24.6	28.8	3.62	17.3
15/04/2021	21.00.00	24.2	30.7	3.73	16.7
15/04/2021	22.00.00	23.6	33.6	2.78	16.0
15/04/2021	23.00.00	22.6	38.1	1.92	14.7

Table 51. Ceratonia Siliqua (10m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.6	51.3	2.19	9.7
15/10/2021	01.00.00	20.7	50.4	1.98	9.9
15/10/2021	02.00.00	20.4	51.7	1.94	9.9
15/10/2021	03.00.00	19.3	54.4	1.94	8.9
15/10/2021	04.00.00	18.4	55.3	2.09	8.2
15/10/2021	05.00.00	19.0	53.8	2.35	8.9
15/10/2021	06.00.00	18.8	52.7	1.58	8.9
15/10/2021	07.00.00	18.5	55.5	1.69	8.5
15/10/2021	08.00.00	18.9	56.0	1.58	32.2
15/10/2021	09.00.00	19.9	53.1	1.43	43.7
15/10/2021	10.00.00	21.2	51.0	1.06	49.4
15/10/2021	11.00.00	22.1	47.5	1.34	53.0
15/10/2021	12.00.00	22.9	46.2	1.70	54.2
15/10/2021	13.00.00	23.7	41.2	1.78	54.7
15/10/2021	14.00.00	24.3	36.0	2.00	54.8
15/10/2021	15.00.00	24.4	34.0	2.30	45.8
15/10/2021	16.00.00	23.8	33.2	2.52	36.5
15/10/2021	17.00.00	23.5	34.3	2.10	35.7
15/10/2021	18.00.00	22.2	40.3	1.95	13.7
15/10/2021	19.00.00	20.9	43.5	1.74	12.0
15/10/2021	20.00.00	20.4	45.5	1.69	11.2
15/10/2021	21.00.00	20.0	47.6	1.69	10.6
15/10/2021	22.00.00	19.5	50.8	1.58	10.0
15/10/2021	23.00.00	18.5	53.2	1.63	8.8

Table 52. Ceratonia Siliqua (10m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.8	14.8	13.8
15/04-07-10/2021	01.00.00	29.2	14.0	14.0
15/04-07-10/2021	02.00.00	28.8	13.6	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.5	12.0	12.2
15/04-07-10/2021	06.00.00	26.5	13.0	12.4
15/04-07-10/2021	07.00.00	33.7	17.8	12.0
15/04-07-10/2021	08.00.00	38.6	22.6	18.2
15/04-07-10/2021	09.00.00	41.3	25.4	22.8
15/04-07-10/2021	10.00.00	42.7	22.8	27.8
15/04-07-10/2021	11.00.00	43.8	25.4	28.8
15/04-07-10/2021	12.00.00	46.1	27.6	29.0
15/04-07-10/2021	13.00.00	46.7	27.0	30.0
15/04-07-10/2021	14.00.00	48.6	31.2	30.0
15/04-07-10/2021	15.00.00	48.6	31.4	28.6
15/04-07-10/2021	16.00.00	48.8	30.0	25.2
15/04-07-10/2021	17.00.00	44.1	29.2	22.0
15/04-07-10/2021	18.00.00	38.8	24.4	16.0
15/04-07-10/2021	19.00.00	34.1	19.0	14.6
15/04-07-10/2021	20.00.00	31.7	18.2	14.0
15/04-07-10/2021	21.00.00	31.0	17.8	13.6
15/04-07-10/2021	22.00.00	30.4	17.6	13.0
15/04-07-10/2021	23.00.00	30.2	16.6	12.0

Table 53. Ceratonia Siliqua (12m) spacing, PET index values [thermal mapping]

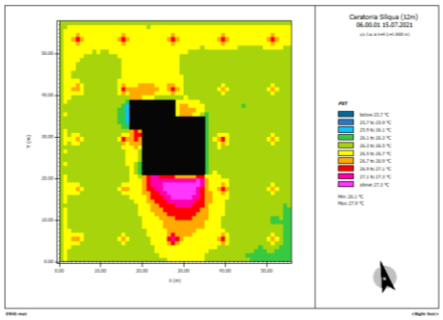
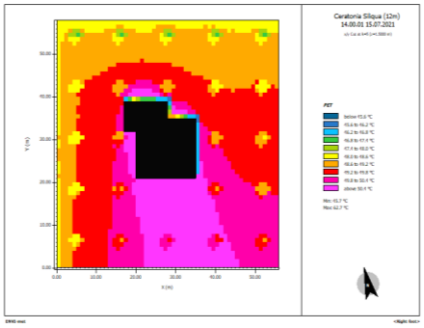
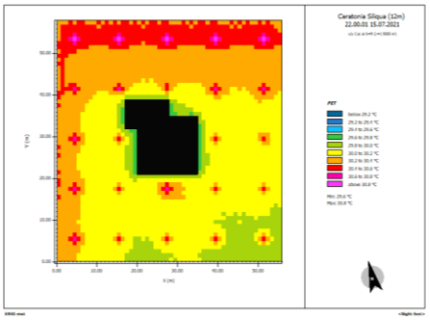
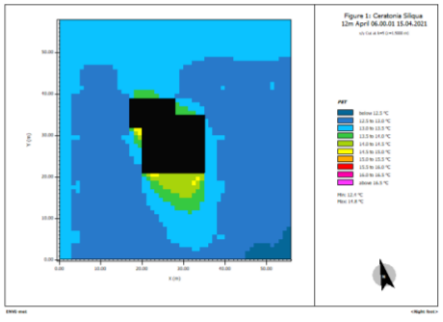
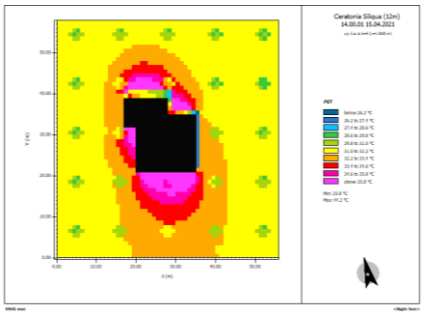
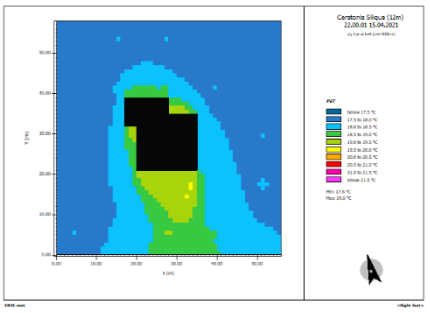
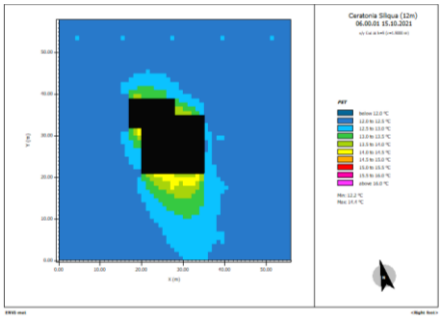
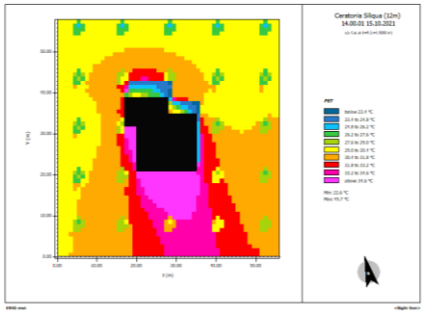
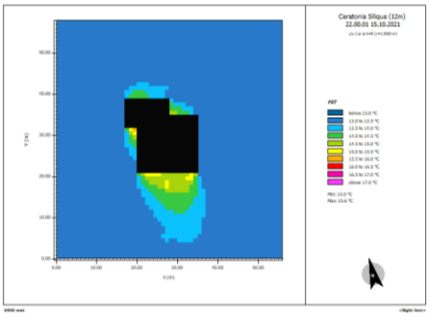
Ceratonia Siliqua (12 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 54. Ceratonia Siliqua (12m) spacing, PET index values [histograms]

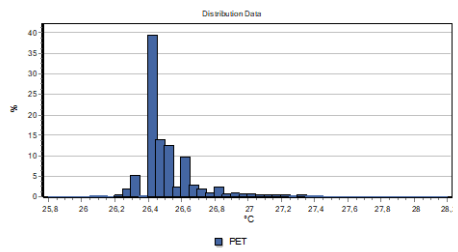
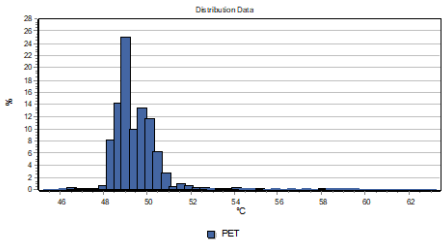
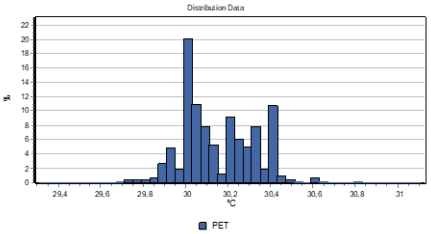
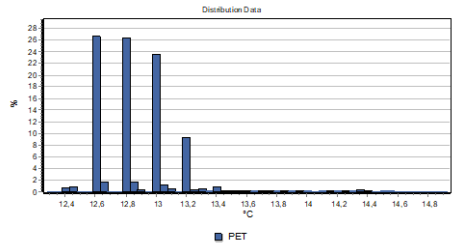
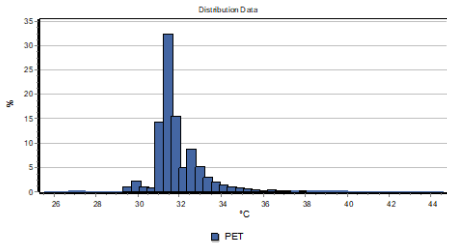
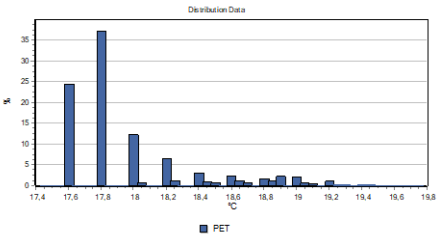
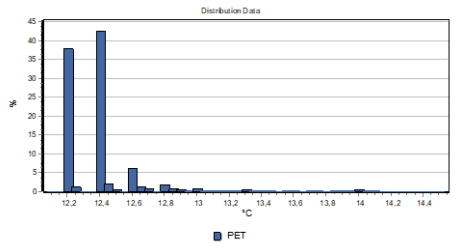
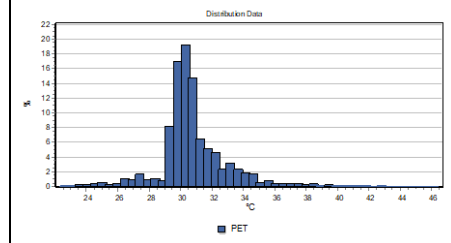
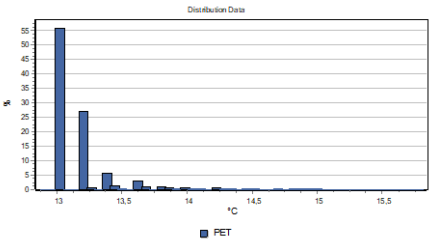
Ceratonia Siliqua (12 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 55. Ceratonia Siliqua (12m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	32.9	51.8	1.82	23.2
15/07/2021	01.00.00	33.1	41.6	3.46	23.3
15/07/2021	02.00.00	33.0	38.1	4.00	24.5
15/07/2021	03.00.00	31.7	41.2	2.73	24.6
15/07/2021	04.00.00	31.5	46.1	2.14	24.6
15/07/2021	05.00.00	30.9	50.9	1.93	23.9
15/07/2021	06.00.00	30.9	52.6	1.71	23.8
15/07/2021	07.00.00	31.0	55.3	1.43	36.7
15/07/2021	08.00.00	31.3	55.9	1.67	54.1
15/07/2021	09.00.00	31.7	49.3	1.67	59.8
15/07/2021	10.00.00	32.7	46.1	2.17	62.4
15/07/2021	11.00.00	32.9	42.4	1.79	62.4
15/07/2021	12.00.00	34.8	40.3	1.68	63.3
15/07/2021	13.00.00	35.3	39.0	1.68	64.0
15/07/2021	14.00.00	37.0	37.4	1.68	66.7
15/07/2021	15.00.00	37.3	35.4	2.61	67.7
15/07/2021	16.00.00	37.2	31.3	2.23	66.7
15/07/2021	17.00.00	36.2	34.1	2.11	63.3
15/07/2021	18.00.00	35.4	35.6	2.21	55.6
15/07/2021	19.00.00	35.4	38.6	1.70	35.9
15/07/2021	20.00.00	34.3	44.9	1.46	28.2
15/07/2021	21.00.00	33.9	48.2	1.57	27.5
15/07/2021	22.00.00	33.5	49.0	2.01	26.9
15/07/2021	23.00.00	33.4	40.9	2.16	26.9

Table 56. Ceratonia Siliqua (12m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	51.4	1.84	10.4
15/04/2021	01.00.00	20.9	55.0	1.76	9.8
15/04/2021	02.00.00	20.5	54.7	1.89	9.4
15/04/2021	03.00.00	19.9	55.6	2.16	8.9
15/04/2021	04.00.00	18.8	56.1	2.18	8.0
15/04/2021	05.00.00	18.6	57.2	1.80	8.0
15/04/2021	06.00.00	19.5	56.7	1.57	9.0
15/04/2021	07.00.00	20.0	56.3	1.41	25.4
15/04/2021	08.00.00	20.4	58.3	1.62	41.7
15/04/2021	09.00.00	20.8	59.4	1.76	48.6
15/04/2021	10.00.00	21.3	52.3	3.48	51.4
15/04/2021	11.00.00	23.9	41.3	3.94	53.9
15/04/2021	12.00.00	25.4	39.1	3.99	55.1
15/04/2021	13.00.00	25.7	32.7	4.73	55.6
15/04/2021	14.00.00	27.5	25.3	4.05	58.0
15/04/2021	15.00.00	27.7	26.4	4.30	58.6
15/04/2021	16.00.00	27.1	25.6	4.30	57.0
15/04/2021	17.00.00	27.0	25.0	3.76	52.9
15/04/2021	18.00.00	26.3	26.2	3.79	41.6
15/04/2021	19.00.00	25.4	25.9	3.93	17.6
15/04/2021	20.00.00	24.6	28.6	3.66	16.6
15/04/2021	21.00.00	24.2	30.5	3.36	16.0
15/04/2021	22.00.00	23.6	34.6	1.38	15.2
15/04/2021	23.00.00	22.6	43.2	1.19	13.5

Table 57. Ceratonia Siliqua (12m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.8	2.58	52.8	9.8
15/10/2021	01.00.00	20.8	2.29	52.0	10.0
15/10/2021	02.00.00	20.6	2.23	53.5	10.0
15/10/2021	03.00.00	19.4	2.23	56.2	9.0
15/10/2021	04.00.00	18.5	2.40	57.2	8.3
15/10/2021	05.00.00	19.1	2.69	55.6	9.0
15/10/2021	06.00.00	18.9	1.84	54.8	9.0
15/10/2021	07.00.00	18.6	1.95	57.4	8.6
15/10/2021	08.00.00	18.9	1.84	58.1	32.2
15/10/2021	09.00.00	19.8	1.68	54.7	43.5
15/10/2021	10.00.00	20.7	1.30	49.2	49.1
15/10/2021	11.00.00	21.6	1.65	44.8	52.7
15/10/2021	12.00.00	22.4	2.03	44.2	53.8
15/10/2021	13.00.00	23.3	2.11	43.8	54.4
15/10/2021	14.00.00	24.0	2.33	39.9	54.5
15/10/2021	15.00.00	24.4	2.63	37.4	52.7
15/10/2021	16.00.00	23.8	2.87	36.0	47.6
15/10/2021	17.00.00	23.5	2.43	37.0	35.5
15/10/2021	18.00.00	22.3	2.24	43.2	13.8
15/10/2021	19.00.00	20.9	2.00	46.5	12.1
15/10/2021	20.00.00	20.4	1.94	48.4	11.3
15/10/2021	21.00.00	20.0	1.95	50.3	10.8
15/10/2021	22.00.00	19.5	1.84	53.1	10.1
15/10/2021	23.00.00	18.5	1.91	54.8	8.9

Table 58. Ceratonia Siliqua (12m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.3	14.6	13.8
15/04-07-10/2021	01.00.00	28.4	14.0	14.0
15/04-07-10/2021	02.00.00	28.8	13.4	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.5	12.8	12.4
15/04-07-10/2021	07.00.00	29.4	15.6	12.0
15/04-07-10/2021	08.00.00	34.9	19.6	18.2
15/04-07-10/2021	09.00.00	39.1	25.8	22.8
15/04-07-10/2021	10.00.00	43.5	25.6	27.8
15/04-07-10/2021	11.00.00	44.2	29.8	28.8
15/04-07-10/2021	12.00.00	46.8	32.0	29.0
15/04-07-10/2021	13.00.00	47.6	32.2	30.0
15/04-07-10/2021	14.00.00	49.0	36.2	30.0
15/04-07-10/2021	15.00.00	48.8	37.9	28.6
15/04-07-10/2021	16.00.00	48.8	35.8	25.2
15/04-07-10/2021	17.00.00	47.4	32.8	22.0
15/04-07-10/2021	18.00.00	43.1	24.6	16.0
15/04-07-10/2021	19.00.00	35.4	19.4	14.6
15/04-07-10/2021	20.00.00	31.6	18.6	14.0
15/04-07-10/2021	21.00.00	30.9	18.0	13.6
15/04-07-10/2021	22.00.00	30.3	17.4	13.0
15/04-07-10/2021	23.00.00	30.0	16.4	12.0

Table 59. Ficus Retusa (8m) spacing, PET index values [thermal mapping]

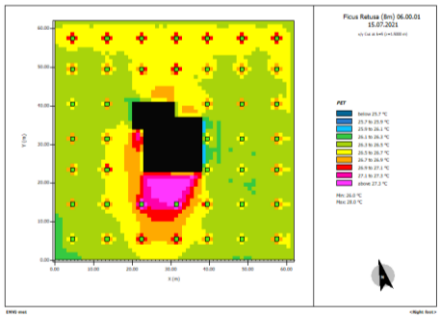
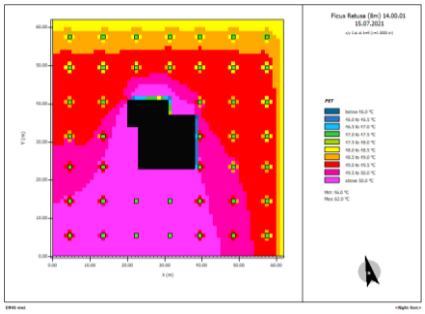
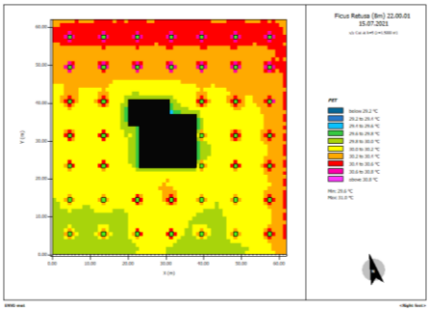
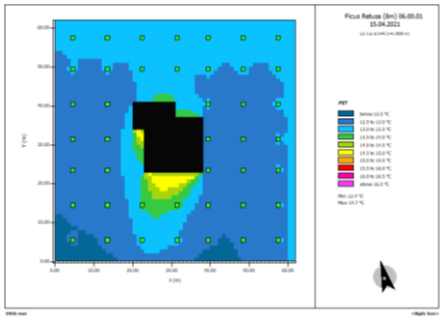
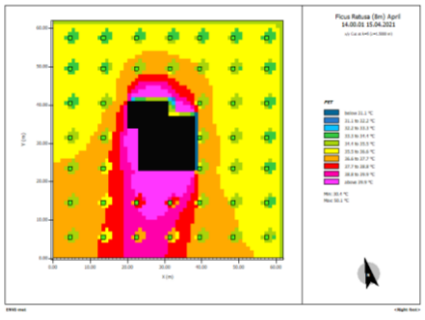
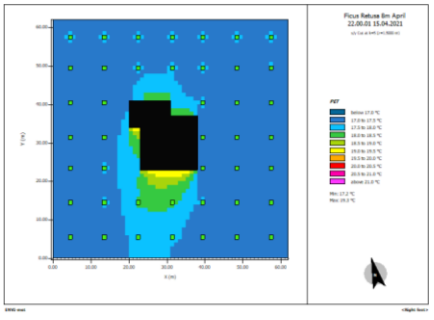
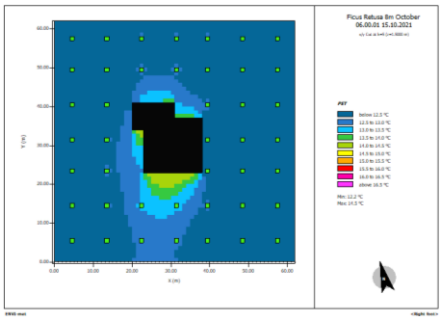
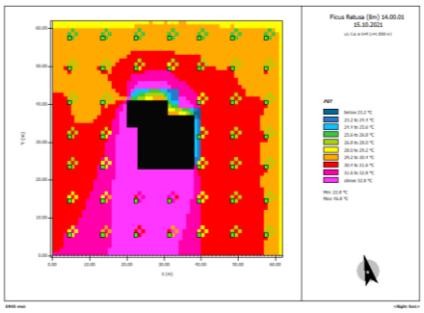
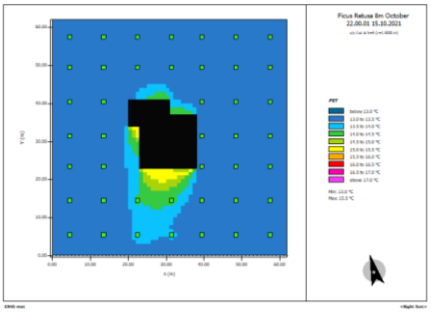
Ficus Retusa (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 60. Ficus Retusa (8m) spacing, PET index values [histograms]

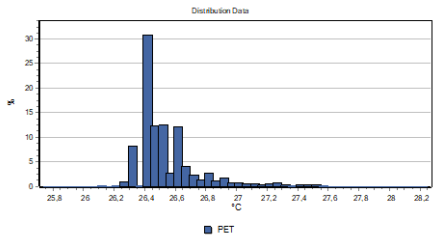
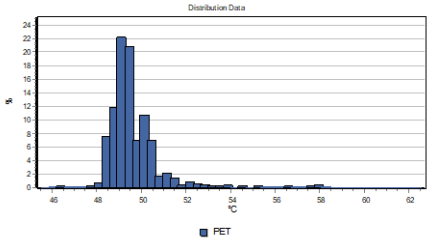
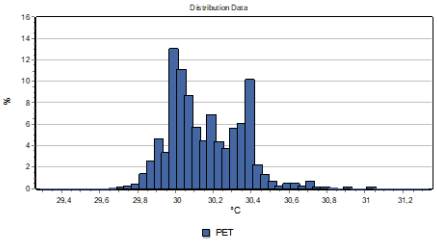
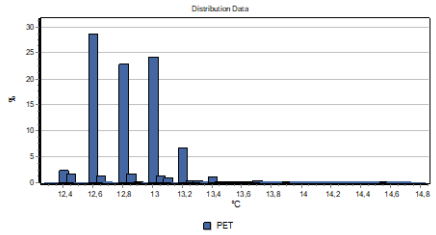
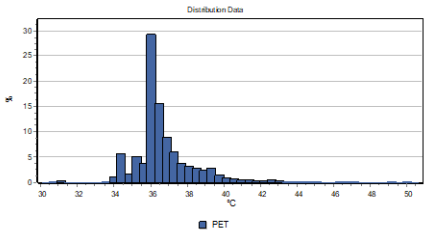
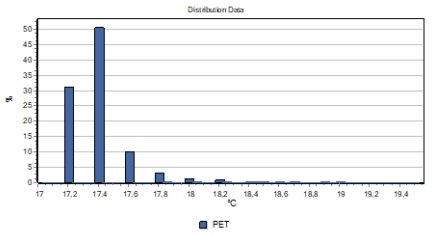
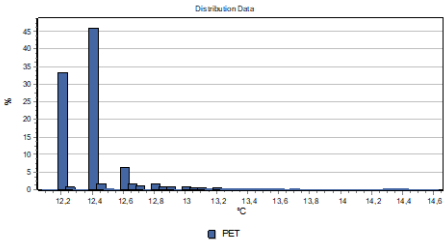
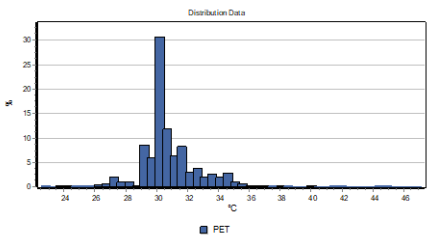
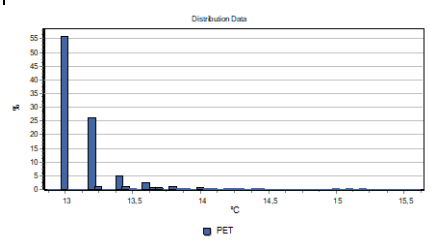
Ficus Retusa (8 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 61. Ficus Retusa (8m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.2	47.9	1.92	23.3
15/07/2021	01.00.00	33.4	42.0	3.62	23.3
15/07/2021	02.00.00	33.1	39.2	4.20	24.7
15/07/2021	03.00.00	31.7	42.3	2.94	24.8
15/07/2021	04.00.00	31.5	47.4	2.29	24.8
15/07/2021	05.00.00	30.9	52.6	2.05	24.0
15/07/2021	06.00.00	30.9	54.4	1.81	23.9
15/07/2021	07.00.00	31.0	56.6	1.53	41.8
15/07/2021	08.00.00	31.2	55.3	1.82	54.0
15/07/2021	09.00.00	31.4	50.7	1.83	59.7
15/07/2021	10.00.00	32.4	48.6	2.34	62.3
15/07/2021	11.00.00	32.7	45.0	1.87	62.3
15/07/2021	12.00.00	34.4	43.5	1.76	63.3
15/07/2021	13.00.00	34.8	41.9	1.77	63.9
15/07/2021	14.00.00	36.5	40.1	1.78	66.7
15/07/2021	15.00.00	37.0	38.2	2.78	67.5
15/07/2021	16.00.00	37.1	33.5	2.30	66.5
15/07/2021	17.00.00	36.1	36.6	2.17	63.1
15/07/2021	18.00.00	35.4	38.2	2.28	55.4
15/07/2021	19.00.00	35.4	41.2	1.75	31.7
15/07/2021	20.00.00	34.3	46.2	1.53	28.2
15/07/2021	21.00.00	34.0	46.3	1.68	27.6
15/07/2021	22.00.00	33.5	49.4	2.20	27.0
15/07/2021	23.00.00	33.4	43.3	2.29	27.0

Table 62. Ficus Retusa (8m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	51.2	1.87	10.4
15/04/2021	01.00.00	20.9	54.9	1.78	9.8
15/04/2021	02.00.00	20.5	54.6	1.92	9.3
15/04/2021	03.00.00	19.9	55.5	2.19	8.9
15/04/2021	04.00.00	18.8	55.9	2.22	7.9
15/04/2021	05.00.00	18.6	57.0	1.83	7.9
15/04/2021	06.00.00	19.5	56.6	1.60	8.9
15/04/2021	07.00.00	20.0	56.2	1.43	25.3
15/04/2021	08.00.00	20.4	58.0	1.65	41.6
15/04/2021	09.00.00	20.8	59.2	1.79	48.4
15/04/2021	10.00.00	21.4	54.2	2.44	51.5
15/04/2021	11.00.00	24.0	44.4	2.35	54.2
15/04/2021	12.00.00	25.6	41.9	2.47	55.7
15/04/2021	13.00.00	26.0	35.2	2.58	56.4
15/04/2021	14.00.00	27.8	28.4	2.13	58.9
15/04/2021	15.00.00	28.0	32.0	1.78	59.8
15/04/2021	16.00.00	27.4	34.0	2.12	58.2
15/04/2021	17.00.00	27.2	30.8	2.34	53.5
15/04/2021	18.00.00	26.3	30.3	2.34	41.6
15/04/2021	19.00.00	25.3	30.1	2.24	17.4
15/04/2021	20.00.00	24.5	34.2	1.72	16.3
15/04/2021	21.00.00	24.1	39.4	1.83	15.6
15/04/2021	22.00.00	23.5	41.0	2.06	14.8
15/04/2021	23.00.00	22.6	41.4	1.82	13.8

Table 63. Ficus Retusa (8m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.8	52.4	2.53	9.8
15/10/2021	01.00.00	20.8	51.4	2.28	10.0
15/10/2021	02.00.00	20.5	52.9	2.21	10.0
15/10/2021	03.00.00	19.4	55.7	2.21	9.0
15/10/2021	04.00.00	18.5	56.6	2.37	8.3
15/10/2021	05.00.00	19.0	55.0	2.68	9.0
15/10/2021	06.00.00	18.9	54.1	1.82	9.0
15/10/2021	07.00.00	18.6	57.2	1.92	8.6
15/10/2021	08.00.00	18.9	57.9	1.79	32.1
15/10/2021	09.00.00	19.8	54.8	1.62	43.4
15/10/2021	10.00.00	20.8	50.1	1.24	49.1
15/10/2021	11.00.00	21.6	45.2	1.59	52.7
15/10/2021	12.00.00	22.4	44.9	1.97	53.9
15/10/2021	13.00.00	23.4	43.7	2.04	54.5
15/10/2021	14.00.00	24.1	39.1	2.26	54.4
15/10/2021	15.00.00	24.4	36.4	2.61	52.6
15/10/2021	16.00.00	23.8	35.1	2.88	47.4
15/10/2021	17.00.00	23.5	36.0	2.43	35.3
15/10/2021	18.00.00	22.2	42.3	2.24	13.7
15/10/2021	19.00.00	20.9	45.7	1.98	12.0
15/10/2021	20.00.00	20.4	47.8	1.91	11.3
15/10/2021	21.00.00	20.0	49.8	1.91	10.7
15/10/2021	22.00.00	19.5	52.8	1.79	10.1
15/10/2021	23.00.00	18.5	54.8	1.85	8.9

Table 64. Ficus Retusa (8m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.3	14.6	13.8
15/04-07-10/2021	01.00.00	28.4	14.0	13.8
15/04-07-10/2021	02.00.00	28.8	13.4	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.5	12.8	12.4
15/04-07-10/2021	07.00.00	29.4	15.6	12.0
15/04-07-10/2021	08.00.00	34.9	19.6	18.4
15/04-07-10/2021	09.00.00	39.1	25.8	23.0
15/04-07-10/2021	10.00.00	43.5	25.6	28.2
15/04-07-10/2021	11.00.00	44.2	29.8	29.6
15/04-07-10/2021	12.00.00	46.8	32.0	29.8
15/04-07-10/2021	13.00.00	47.6	32.2	30.6
15/04-07-10/2021	14.00.00	49.0	36.2	30.2
15/04-07-10/2021	15.00.00	48.8	37.9	28.8
15/04-07-10/2021	16.00.00	48.8	35.8	25.4
15/04-07-10/2021	17.00.00	47.4	32.8	20.2
15/04-07-10/2021	18.00.00	43.1	24.6	16.0
15/04-07-10/2021	19.00.00	35.4	19.4	14.6
15/04-07-10/2021	20.00.00	31.6	18.6	14.0
15/04-07-10/2021	21.00.00	30.9	18.0	13.6
15/04-07-10/2021	22.00.00	30.3	17.4	13.0
15/04-07-10/2021	23.00.00	30.0	16.4	12.0

Table 65. Ficus Retusa (10m) spacing, PET index values [thermal mapping]

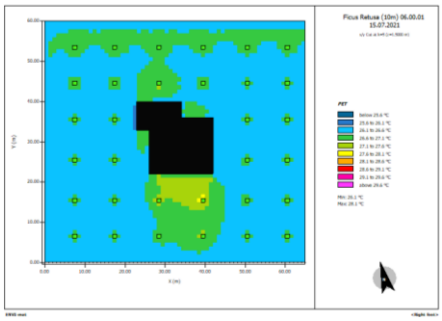
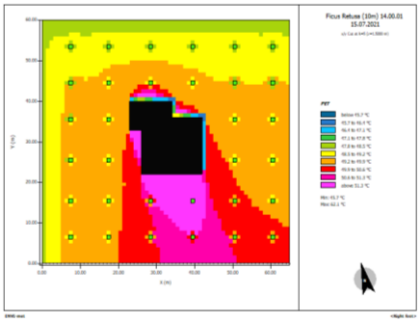
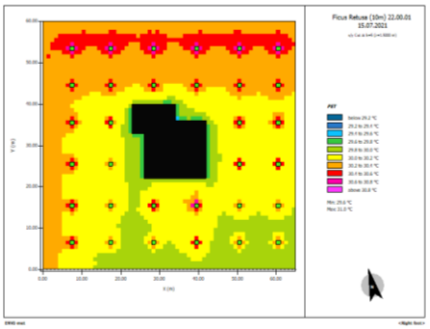
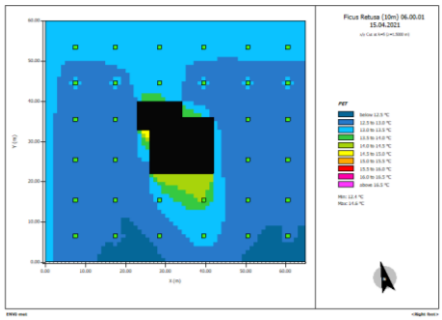
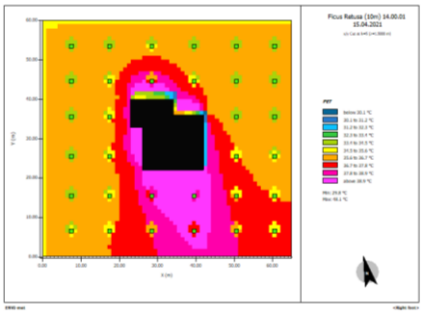
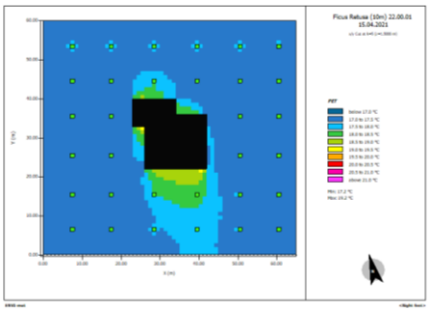
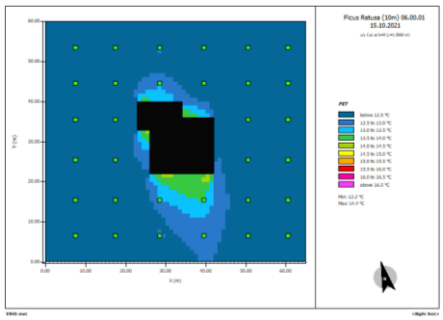
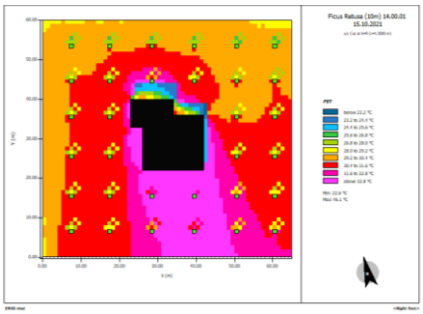
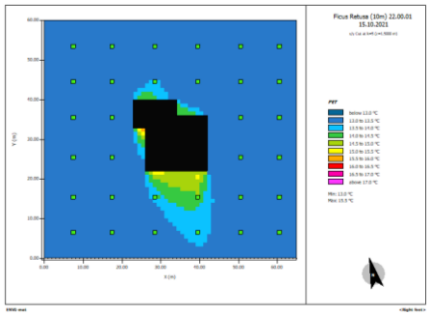
Ficus Retusa (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 66. Ficus Retusa (10m) spacing, PET index values [histograms]

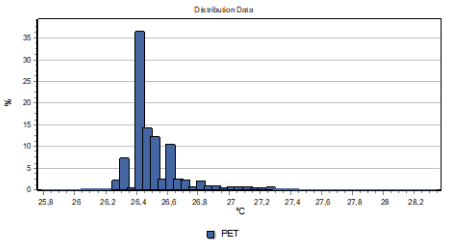
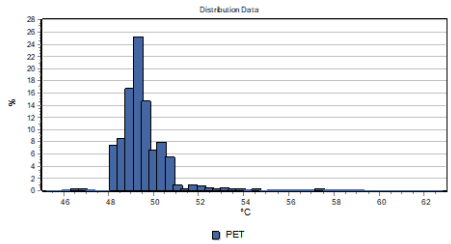
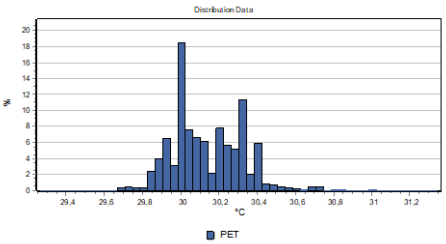
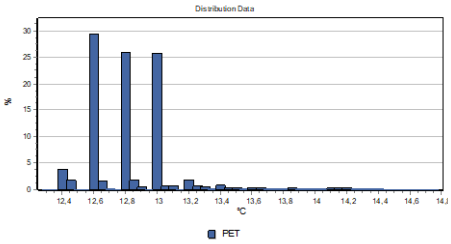
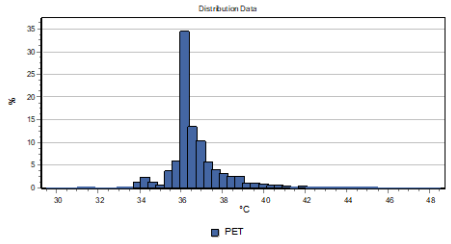
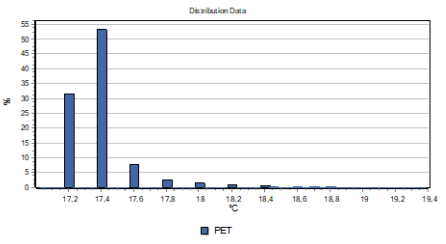
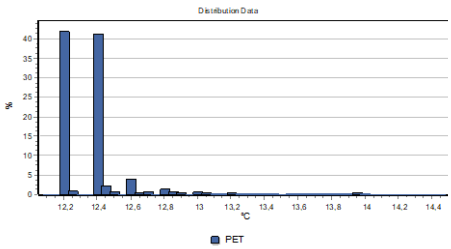
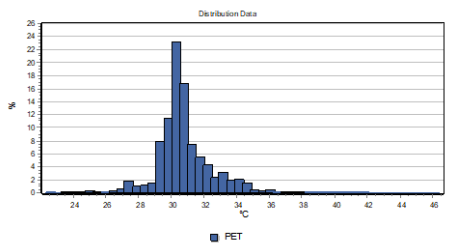
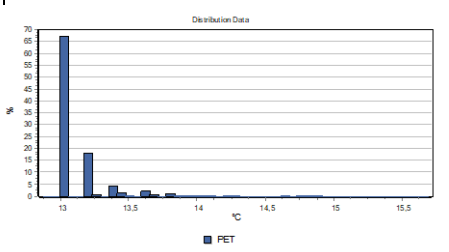
Ficus Retusa (10 m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 67. Ficus Retusa (10m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	33.1	50.2	1.85	23.2
15/07/2021	01.00.00	33.2	42.2	3.52	23.2
15/07/2021	02.00.00	33.1	38.5	4.05	24.5
15/07/2021	03.00.00	31.7	41.7	2.79	24.7
15/07/2021	04.00.00	31.5	46.6	2.19	24.7
15/07/2021	05.00.00	30.9	51.6	1.97	23.9
15/07/2021	06.00.00	30.9	53.5	1.75	23.8
15/07/2021	07.00.00	31.0	56.2	1.46	32.5
15/07/2021	08.00.00	31.3	56.1	1.71	54.1
15/07/2021	09.00.00	31.6	50.4	1.71	59.8
15/07/2021	10.00.00	32.6	47.5	2.23	62.5
15/07/2021	11.00.00	32.9	43.6	1.82	62.4
15/07/2021	12.00.00	34.7	41.8	1.71	63.4
15/07/2021	13.00.00	35.1	40.5	1.71	63.9
15/07/2021	14.00.00	36.8	39.0	1.71	66.6
15/07/2021	15.00.00	37.2	36.9	2.66	67.7
15/07/2021	16.00.00	37.2	32.2	2.26	66.6
15/07/2021	17.00.00	36.2	35.2	2.13	63.2
15/07/2021	18.00.00	35.4	36.7	2.23	55.6
15/07/2021	19.00.00	35.4	39.7	1.72	32.9
15/07/2021	20.00.00	34.3	45.9	1.48	28.1
15/07/2021	21.00.00	33.9	48.0	1.60	27.4
15/07/2021	22.00.00	33.5	49.8	2.07	26.9
15/07/2021	23.00.00	33.4	42.1	2.21	26.9

Table 68. Ficus Retusa (10m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.4	53.1	1.77	10.4
15/04/2021	01.00.00	20.8	55.9	1.67	9.8
15/04/2021	02.00.00	20.4	55.4	1.79	9.3
15/04/2021	03.00.00	19.8	55.2	2.05	8.8
15/04/2021	04.00.00	18.8	55.5	2.08	7.9
15/04/2021	05.00.00	18.6	56.6	1.72	7.9
15/04/2021	06.00.00	19.5	56.1	1.50	8.9
15/04/2021	07.00.00	20.0	56.9	1.33	25.3
15/04/2021	08.00.00	20.4	59.5	1.52	41.8
15/04/2021	09.00.00	20.9	59.7	1.64	48.6
15/04/2021	10.00.00	21.5	53.3	2.28	51.8
15/04/2021	11.00.00	24.1	43.5	2.20	54.4
15/04/2021	12.00.00	25.7	40.7	2.32	56.0
15/04/2021	13.00.00	26.0	34.1	2.43	56.7
15/04/2021	14.00.00	27.8	27.3	2.01	59.0
15/04/2021	15.00.00	28.1	30.6	1.69	60.1
15/04/2021	16.00.00	27.5	32.1	2.00	58.4
15/04/2021	17.00.00	27.2	29.3	2.20	53.6
15/04/2021	18.00.00	26.3	29.1	2.20	41.9
15/04/2021	19.00.00	25.3	28.9	2.10	17.5
15/04/2021	20.00.00	24.5	33.1	1.62	16.3
15/04/2021	21.00.00	24.1	38.1	1.72	15.6
15/04/2021	22.00.00	23.5	39.7	1.93	14.8
15/04/2021	23.00.00	22.6	40.3	1.71	13.8

Table 69. Ficus Retusa (10m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.7	51.4	2.33	9.6
15/10/2021	01.00.00	20.7	50.5	2.11	9.8
15/10/2021	02.00.00	20.4	51.9	2.06	9.8
15/10/2021	03.00.00	19.3	54.6	2.06	8.9
15/10/2021	04.00.00	18.5	55.5	2.22	8.1
15/10/2021	05.00.00	19.0	53.9	2.49	8.9
15/10/2021	06.00.00	18.8	52.8	1.69	8.8
15/10/2021	07.00.00	18.5	55.7	1.80	8.4
15/10/2021	08.00.00	18.9	56.3	1.68	32.1
15/10/2021	09.00.00	19.9	53.4	1.51	43.6
15/10/2021	10.00.00	21.1	51.2	1.12	49.3
15/10/2021	11.00.00	21.9	47.2	1.42	52.9
15/10/2021	12.00.00	22.8	46.3	1.80	54.2
15/10/2021	13.00.00	23.7	41.7	1.88	54.6
15/10/2021	14.00.00	24.3	36.4	2.10	54.7
15/10/2021	15.00.00	24.4	34.3	2.44	53.0
15/10/2021	16.00.00	23.8	33.5	2.67	47.8
15/10/2021	17.00.00	23.5	34.9	1.86	29.8
15/10/2021	18.00.00	22.2	43.2	1.64	13.6
15/10/2021	19.00.00	20.9	46.9	1.84	11.8
15/10/2021	20.00.00	20.4	46.6	1.72	11.1
15/10/2021	21.00.00	20.0	48.8	1.77	10.5
15/10/2021	22.00.00	19.5	51.5	1.66	9.9
15/10/2021	23.00.00	18.5	53.7	1.71	8.7

Table 70. Ficus Retusa (10m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.4	14.6	13.8
15/04-07-10/2021	01.00.00	28.6	14.0	13.8
15/04-07-10/2021	02.00.00	28.8	13.6	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.4	12.8	12.2
15/04-07-10/2021	07.00.00	31.6	17.8	12.0
15/04-07-10/2021	08.00.00	39.1	22.8	18.2
15/04-07-10/2021	09.00.00	42.0	25.6	23.0
15/04-07-10/2021	10.00.00	43.4	25.6	28.0
15/04-07-10/2021	11.00.00	44.1	29.6	29.2
15/04-07-10/2021	12.00.00	46.6	31.8	29.4
15/04-07-10/2021	13.00.00	47.4	32.0	30.2
15/04-07-10/2021	14.00.00	49.0	36.0	30.2
15/04-07-10/2021	15.00.00	48.8	37.7	28.8
15/04-07-10/2021	16.00.00	48.8	35.6	25.2
15/04-07-10/2021	17.00.00	47.3	32.6	20.8
15/04-07-10/2021	18.00.00	43.1	27.0	16.0
15/04-07-10/2021	19.00.00	35.4	19.4	14.6
15/04-07-10/2021	20.00.00	31.5	18.6	14.0
15/04-07-10/2021	21.00.00	30.9	18.0	13.6
15/04-07-10/2021	22.00.00	30.3	17.4	13.0
15/04-07-10/2021	23.00.00	30.0	16.4	12.0

Table 71. Ficus Retusa (12m) spacing, PET index values [thermal mapping]

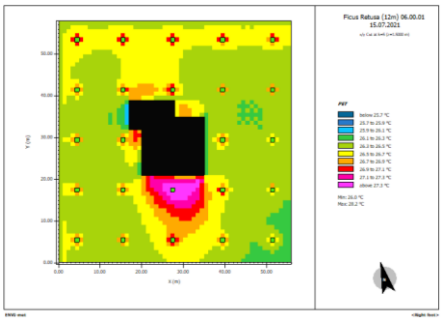
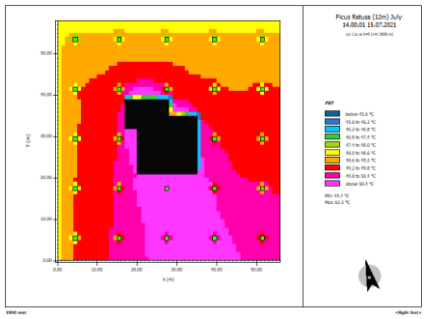
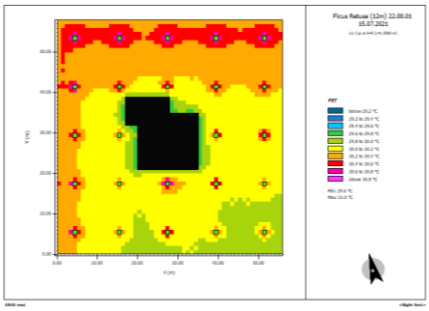
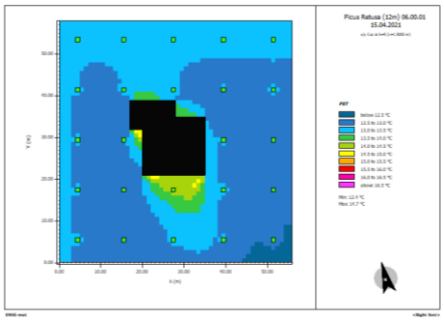
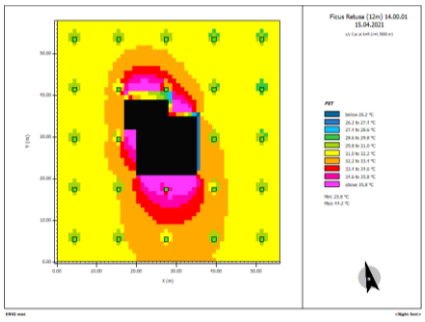
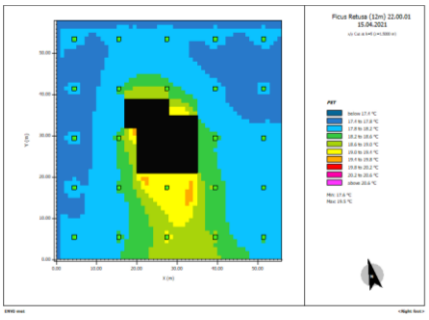
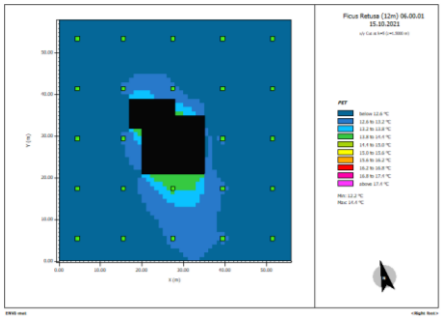
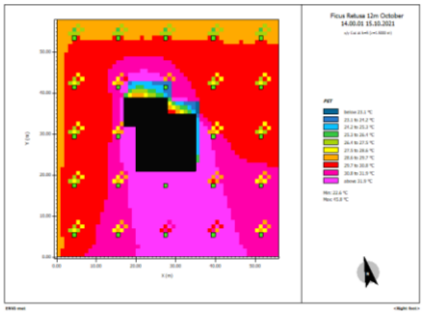
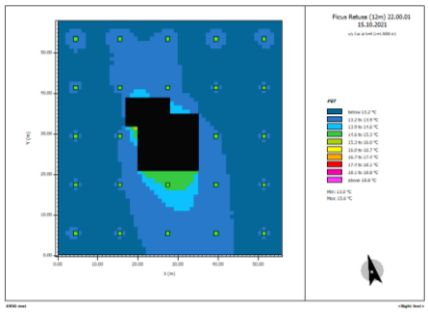
Ficus Retusa (12m)	15th July		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th April		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			
	15th October		
	06:00 a.m.	02:00 p.m.	10:00 p.m.
			

Table 72. Ficus Retusa (12m) spacing, PET index values [histograms]

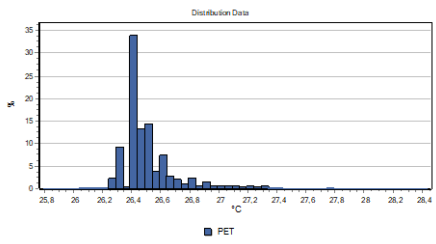
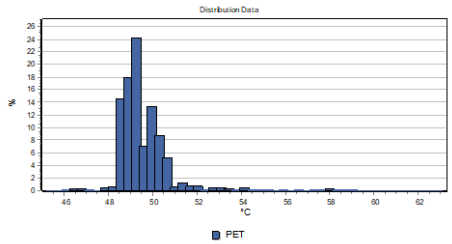
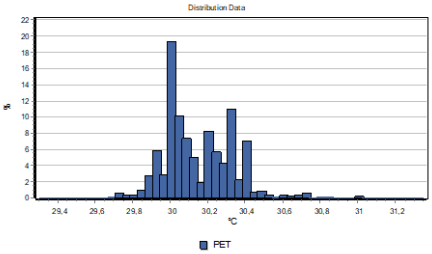
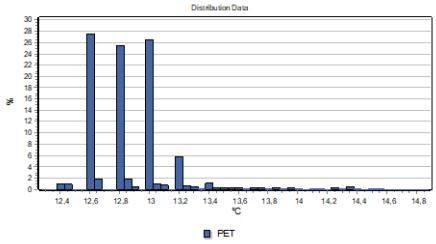
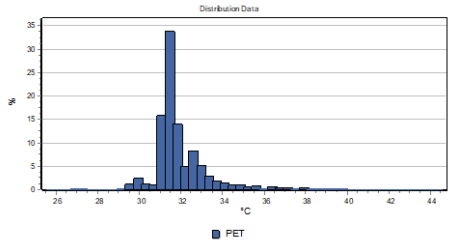
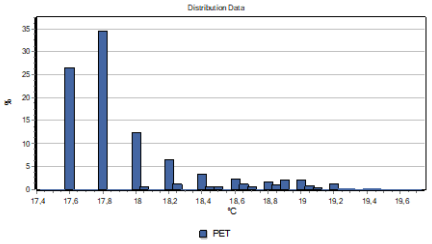
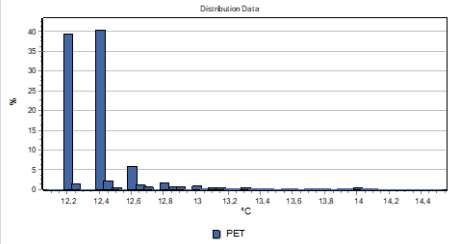
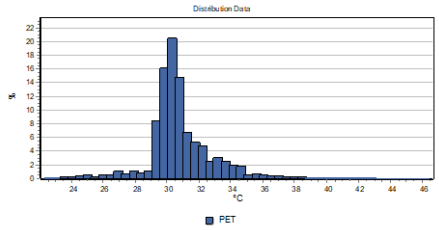
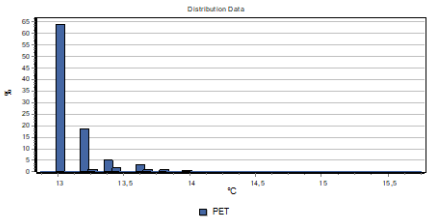
Ficus Retusa (12m)	06:00 a.m.	02:00 p.m.	10:00 p.m.
	15th July		
			
	15th April		
			
	15th October		
			

Table 73. Ficus Retusa (12m) spacing, July microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/07/2021	00.00.00	32.9	51.2	1.92	23.2
15/07/2021	01.00.00	33.2	41.5	3.68	23.3
15/07/2021	02.00.00	33.1	38.0	4.40	24.5
15/07/2021	03.00.00	31.7	41.1	3.09	24.6
15/07/2021	04.00.00	31.5	45.9	2.39	24.6
15/07/2021	05.00.00	30.9	50.8	2.13	23.9
15/07/2021	06.00.00	30.9	52.5	1.87	23.8
15/07/2021	07.00.00	31.0	55.3	1.56	41.8
15/07/2021	08.00.00	31.3	56.0	1.79	54.0
15/07/2021	09.00.00	31.6	49.6	1.78	59.7
15/07/2021	10.00.00	32.6	46.4	2.30	62.4
15/07/2021	11.00.00	32.9	42.6	1.91	62.4
15/07/2021	12.00.00	34.7	40.6	1.79	63.4
15/07/2021	13.00.00	35.2	39.3	1.79	63.9
15/07/2021	14.00.00	36.9	37.8	1.79	66.6
15/07/2021	15.00.00	37.2	35.6	2.77	67.6
15/07/2021	16.00.00	37.2	31.4	2.39	66.6
15/07/2021	17.00.00	36.2	34.1	2.26	63.2
15/07/2021	18.00.00	35.4	35.6	2.36	55.5
15/07/2021	19.00.00	35.4	38.6	1.82	35.8
15/07/2021	20.00.00	34.3	44.9	1.56	28.1
15/07/2021	21.00.00	33.9	48.1	1.67	27.5
15/07/2021	22.00.00	33.5	49.1	2.13	26.9
15/07/2021	23.00.00	33.4	40.9	2.30	26.9

Table 74. Ficus Retusa (12m) spacing, April microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/04/2021	00.00.00	21.5	51.5	1.92	10.3
15/04/2021	01.00.00	20.9	55.2	1.82	9.8
15/04/2021	02.00.00	20.4	54.8	1.96	9.3
15/04/2021	03.00.00	19.9	55.4	2.25	8.8
15/04/2021	04.00.00	18.8	55.8	2.29	7.9
15/04/2021	05.00.00	18.6	56.8	1.89	7.9
15/04/2021	06.00.00	19.5	56.4	1.65	8.9
15/04/2021	07.00.00	20.0	56.4	1.47	18.8
15/04/2021	08.00.00	20.4	58.6	1.68	41.6
15/04/2021	09.00.00	20.9	59.4	1.82	48.5
15/04/2021	10.00.00	21.3	51.8	3.66	51.3
15/04/2021	11.00.00	23.9	41.0	4.28	53.7
15/04/2021	12.00.00	25.4	38.8	4.38	54.9
15/04/2021	13.00.00	25.7	32.4	5.23	55.5
15/04/2021	14.00.00	27.5	24.9	4.53	57.7
15/04/2021	15.00.00	27.7	26.1	4.76	58.5
15/04/2021	16.00.00	27.1	25.3	4.77	56.8
15/04/2021	17.00.00	27.0	24.6	4.17	52.8
15/04/2021	18.00.00	26.3	25.9	4.17	41.5
15/04/2021	19.00.00	25.4	25.5	4.31	17.6
15/04/2021	20.00.00	24.6	28.2	4.02	16.5
15/04/2021	21.00.00	24.2	30.1	3.67	16.0
15/04/2021	22.00.00	23.6	34.1	1.51	15.1
15/04/2021	23.00.00	22.6	43.5	1.29	13.4

Table 75. Ficus Retusa (12m) spacing, October microclimatic parameters [simulation's data]

Date	Time	T_{air} (°C)	R_H (%)	V_{air} (m/s)	Tmrt (°C)
15/10/2021	00.00.00	20.7	52.3	2.44	9.7
15/10/2021	01.00.00	20.8	51.4	2.19	9.9
15/10/2021	02.00.00	20.5	52.8	2.13	9.8
15/10/2021	03.00.00	19.4	55.6	2.13	8.9
15/10/2021	04.00.00	18.5	56.5	2.29	8.1
15/10/2021	05.00.00	19.0	54.9	2.57	8.9
15/10/2021	06.00.00	18.8	53.9	1.76	8.8
15/10/2021	07.00.00	18.5	57.1	1.86	8.4
15/10/2021	08.00.00	18.9	57.7	1.74	32.1
15/10/2021	09.00.00	19.8	54.9	1.57	43.5
15/10/2021	10.00.00	20.8	50.9	1.20	49.2
15/10/2021	11.00.00	21.7	45.8	1.54	52.8
15/10/2021	12.00.00	22.5	45.7	1.93	54.0
15/10/2021	13.00.00	23.5	43.6	1.99	54.5
15/10/2021	14.00.00	24.1	38.6	2.20	54.6
15/10/2021	15.00.00	24.4	36.1	2.52	52.8
15/10/2021	16.00.00	23.8	34.9	2.75	47.7
15/10/2021	17.00.00	23.5	36.3	1.92	35.5
15/10/2021	18.00.00	22.2	44.9	1.69	13.6
15/10/2021	19.00.00	20.9	48.5	1.91	11.8
15/10/2021	20.00.00	20.4	48.3	1.79	11.1
15/10/2021	21.00.00	20.0	50.3	1.85	10.5
15/10/2021	22.00.00	19.5	52.9	1.74	9.9
15/10/2021	23.00.00	18.5	54.9	1.80	8.7

Table 76. Ficus Retusa (12m) spacing, July, April and October PET values [simulation's data]

Date	Time	PET (°C) July	PET (°C) April	PET (°C) October
15/04-07-10/2021	00.00.00	28.6	14.8	13.8
15/04-07-10/2021	01.00.00	28.6	14.0	13.8
15/04-07-10/2021	02.00.00	28.8	13.6	13.6
15/04-07-10/2021	03.00.00	27.2	13.0	12.6
15/04-07-10/2021	04.00.00	27.2	12.0	11.8
15/04-07-10/2021	05.00.00	26.4	12.0	12.2
15/04-07-10/2021	06.00.00	26.4	13.0	12.2
15/04-07-10/2021	07.00.00	33.7	17.8	12.0
15/04-07-10/2021	08.00.00	38.9	22.6	18.2
15/04-07-10/2021	09.00.00	41.8	25.4	22.8
15/04-07-10/2021	10.00.00	43.2	22.8	27.8
15/04-07-10/2021	11.00.00	44.0	25.2	28.8
15/04-07-10/2021	12.00.00	46.5	27.6	29.0
15/04-07-10/2021	13.00.00	47.3	27.0	30.0
15/04-07-10/2021	14.00.00	48.8	31.2	30.0
15/04-07-10/2021	15.00.00	48.8	31.4	28.6
15/04-07-10/2021	16.00.00	48.8	30.0	25.2
15/04-07-10/2021	17.00.00	47.2	29.2	22.4
15/04-07-10/2021	18.00.00	43.0	24.4	16.0
15/04-07-10/2021	19.00.00	35.4	19.0	14.6
15/04-07-10/2021	20.00.00	31.6	18.2	14.0
15/04-07-10/2021	21.00.00	31.0	17.8	13.6
15/04-07-10/2021	22.00.00	30.3	17.6	13.0
15/04-07-10/2021	23.00.00	30.0	16.6	12.0

Table 77. July PET index values throughout all scenarios

Date	Hour	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
15.07.2021	00.00.00	32.9	32.5	32.7	32.7	32.6	32.9	32.9	32.9	32.1	32.9	33.3	33.0
15.07.2021	01.00.00	33.7	33.0	33.0	33.1	33.0	33.1	33.1	33.1	32.8	33.1	33.6	33.2
15.07.2021	02.00.00	33.3	33.0	32.7	33.1	33.0	33.1	33.1	33.1	33.0	33.1	33.1	33.1
15.07.2021	03.00.00	31.8	31.7	31.4	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
15.07.2021	04.00.00	31.5	31.5	31.4	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
15.07.2021	05.00.00	30.9	30.9	30.8	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9	30.9
15.07.2021	06.00.00	30.9	30.9	30.8	30.9	30.9	30.9	30.9	30.9	30.9	30.9	31.0	30.9
15.07.2021	07.00.00	31.0	31.0	30.9	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
15.07.2021	08.00.00	31.7	31.3	31.2	31.4	31.4	31.3	31.4	31.3	31.5	31.3	31.1	31.3
15.07.2021	09.00.00	32.2	31.7	31.7	31.7	31.7	31.6	31.7	31.7	31.8	31.6	31.3	31.6
15.07.2021	10.00.00	33.1	32.7	32.7	32.7	32.7	32.6	32.7	32.7	32.9	32.6	32.3	32.6
15.07.2021	11.00.00	33.2	32.9	32.9	32.9	32.9	32.8	32.9	32.9	33.1	32.8	32.6	32.8
15.07.2021	12.00.00	35.2	34.9	34.9	34.8	34.8	34.7	34.8	34.8	35.1	34.7	34.2	34.6
15.07.2021	13.00.00	35.9	35.5	35.4	35.4	35.3	35.2	35.3	35.3	35.6	35.2	34.5	35.1
15.07.2021	14.00.00	37.4	37.1	37.1	37.1	36.9	36.9	36.9	36.9	37.2	36.8	36.2	36.8
15.07.2021	15.00.00	37.2	37.3	37.4	37.3	37.1	37.2	37.3	37.3	37.4	37.2	36.8	37.2
15.07.2021	16.00.00	37.2	37.2	37.4	37.2	37.1	37.2	37.2	37.2	37.2	37.2	37.1	37.2
15.07.2021	17.00.00	36.1	36.2	36.2	36.2	36.0	36.1	36.2	36.2	36.2	36.1	36.0	36.1
15.07.2021	18.00.00	35.4	35.4	35.5	35.4	35.3	35.4	35.4	35.4	35.5	35.4	35.4	35.4
15.07.2021	19.00.00	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4	35.4
15.07.2021	20.00.00	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.2	34.3	34.4	34.3
15.07.2021	21.00.00	33.8	33.8	33.9	33.9	33.9	33.9	33.9	33.9	33.8	33.9	34.0	33.9
15.07.2021	22.00.00	33.3	33.4	33.5	33.4	33.5	33.5	33.5	33.5	33.4	33.5	33.6	33.5
15.07.2021	23.00.00	33.3	33.4	33.4	33.4	33.3	33.4	33.4	33.4	33.3	33.4	33.4	33.4

Thermal comfort stress level	< 6	6 - 8	8 - 13	13 - 17	17- 26	26 - 28	28 - 37	37- 42	> 42
	Very cold	Cold	Cool	Slightly cool	Neutral	Slightly warm	Warm	Hot	Very hot
	Extreme cold stress	Strong cold stress	Moderate cold stress	Slight cold stress	No thermal stress	Slight heat stress	Moderate heat stress	Strong heat stress	Extreme heat stress

Table 78. All perceived thermal levels' percentages during July typical day based on PET index

PET scale	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
Very Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cool	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Slightly Cool	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Neutral	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Slightly Warm	12.5 %	16.7 %	16.7 %	16.7 %	16.7 %	16.7 %	16.7 %	16.7 %	20.8 %	16.7 %	16.7 %	16.7 %
Warm	41.7 %	37.5 %	37.5 %	41.7 %	50.0 %	37.5 %	37.5 %	37.5 %	37.5 %	41.7 %	37.5 %	37.5 %
Hot	12.5 %	16.7 %	12.5 %	4.20 %	0.00 %	8.30 %	4.20 %	8.30 %	16.7 %	4.20 %	12.5 %	8.30 %
Very Hot	33.3 %	29.2 %	33.3 %	37.5 %	33.3 %	37.5 %	41.7 %	37.5 %	25.0 %	37.5 %	33.3 %	37.5 %

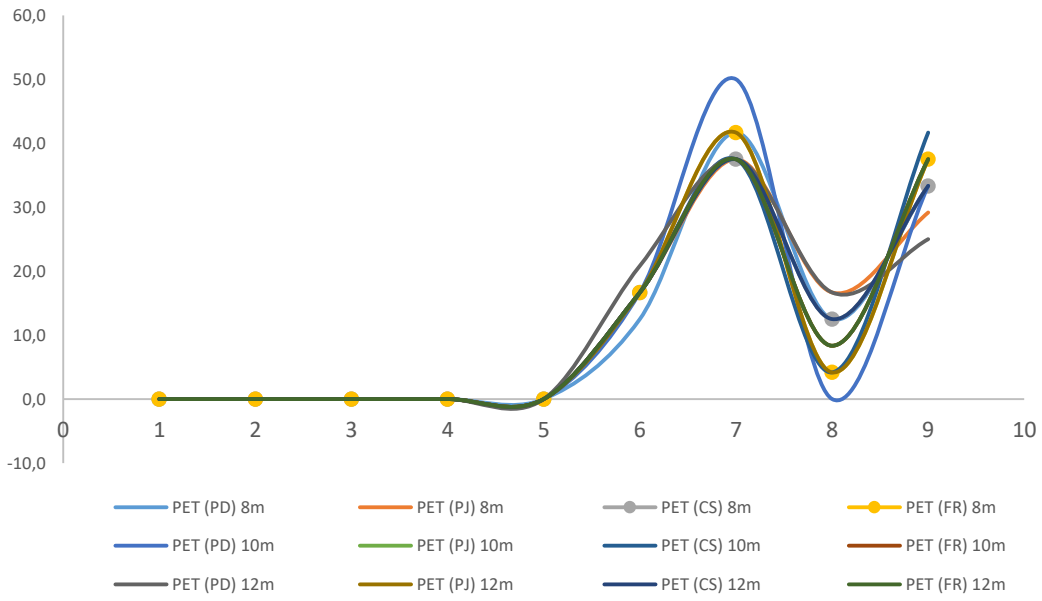


Figure 01. July perceived thermal stress trends throughout oasis settlements' scenarios

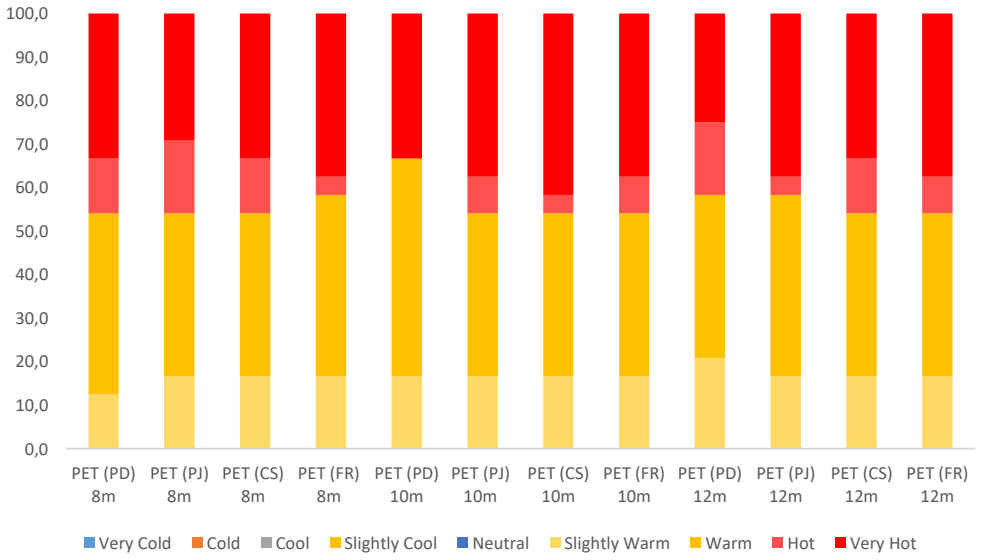


Figure 02. July perceived thermal stress percentages throughout oasis settlements' scenarios

Table 79. Perceived thermal levels' percentages during July typical day based on PET index

Scenarios	Slightly Warm	Scenarios	Warm	Scenarios	Hot	Scenarios	Very Hot
PET (PD) 8m	12.5 %	PET (PD) 12m	37.5 %	PET (PD) 10m	0.00 %	PET (PD) 12m	25.0 %
PET (PJ) 8m	16.7 %	PET (PJ) 8m	37.5 %	PET (FR) 8m	4.20 %	PET (PJ) 8m	29.2 %
PET (CS) 8m	16.7 %	PET (CS) 8m	37.5 %	PET (CS) 10m	4.20 %	PET (CS) 8m	33.3 %
PET (FR) 8m	16.7 %	PET (PJ) 10m	37.5 %	PET (PJ) 12m	4.20 %	PET (PD) 10m	33.3 %
PET (PD) 10m	16.7 %	PET (CS) 10m	37.5 %	PET (PJ) 10m	8.30 %	PET (CS) 12m	33.3 %
PET (PJ) 10m	16.7 %	PET (FR) 10m	37.5 %	PET (FR) 10m	8.30 %	PET (PD) 8m	33.3 %
PET (CS) 10m	16.7 %	PET (CS) 12m	37.5 %	PET (FR) 12m	8.30 %	PET (FR) 8m	37.5 %
PET (FR) 10m	16.7 %	PET (FR) 12m	37.5 %	PET (CS) 8m	12.5 %	PET (PJ) 10m	37.5 %
PET (PJ) 12m	16.7 %	PET (FR) 8m	41.7 %	PET (CS) 12m	12.5 %	PET (FR) 10m	37.5 %
PET (CS) 12m	16.7 %	PET (PJ) 12m	41.7 %	PET (PD) 8m	12.5 %	PET (PJ) 12m	37.5 %
PET (FR) 12m	16.7 %	PET (PD) 8m	41.7 %	PET (PD) 12m	16.7 %	PET (FR) 12m	37.5 %
PET (PD) 12m	20.8 %	PET (PD) 10m	50.0 %	PET (PJ) 8m	16.7 %	PET (CS) 10m	41.7 %

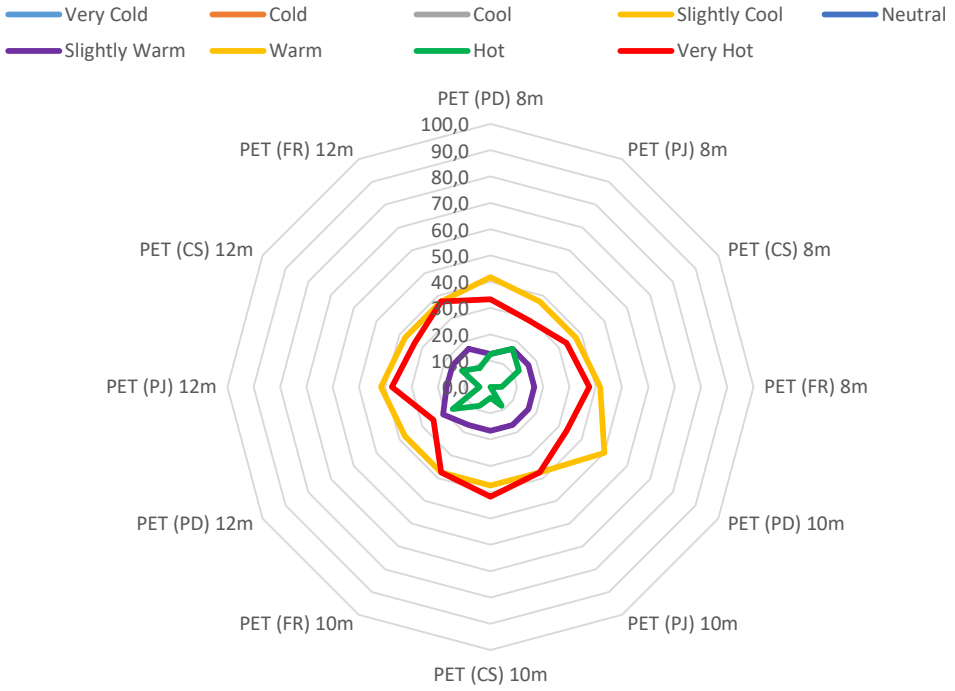


Figure 03. July perceived thermal stress cycles throughout oasis settlements' scenarios

Table 80. Air temperature (T_{air}) thresholds for the perceived thermal levels during July typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔT
Slightly Warm	31.5	31.7	31.4	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.4	31.7	0.30
Warm	31.0	31.0	30.9	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	30.9	31.0	0.10
Hot	31.7	31.3	31.2	31.7		31.3	31.4	31.3	32.9	31.6	31.1	31.3	31.1	32.9	1.70
Very Hot	33.1	32.7	32.7	32.7	32.7	32.6	31.7	31.7	31.8	32.6	32.3	32.6	31.7	33.1	1.40

Table 81. Relative Humidity (R_H) thresholds for the perceived thermal levels during July typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔR_H
Slightly Warm	44.8	41.6	47.1	42.3	41.3	41.8	41.4	41.7	42.0	42.9	41.2	41.1	41.1	47.1	6.0
Warm	53.6	55.9	56.8	56.6	55.4	56.1	55.7	56.2	56.4	55.7	55.3	55.3	53.6	56.8	3.2
Hot	54.5	56.1	55.4	50.7		55.8	56.1	56.1	48.4	49.4	55.9	56.0	48.4	56.1	7.8
Very Hot	44.5	47.4	48.6	48.6	46.8	47.8	50.0	50.4	50.6	48.4	46.1	46.4	44.5	50.6	6.1

Table 82. Air Velocity (V_{air}) thresholds for the perceived thermal levels during July typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔV_{air}
Slightly Warm	2.45	2.93	2.39	3.04	2.71	3.18	2.95	3.15	2.50	3.23	3.03	3.23	2.39	3.23	0.85
Warm	1.62	1.51	2.11	1.52	1.44	1.59	1.50	1.56	1.30	1.60	1.60	1.58	1.30	2.11	0.81
Hot	1.82	1.73	1.76	1.72		1.81	1.73	1.79	2.10	1.81	1.90	1.82	1.72	2.10	0.38
Very Hot	2.33	2.22	2.27	2.22	2.14	2.32	1.72	1.78	1.60	2.33	2.45	2.35	1.60	2.45	0.85

Table 83. Mean Radiante Temperature (Tmrt) thresholds for the perceived thermal levels during July typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔTmrt
Slightly Warm	26.6	25.3	23.2	24.8	25.8	25.0	24.7	24.7	25.6	24.9	24.7	24.6	23.2	26.6	3.40
Warm	43.1	29.1	33.2	31.1	42.7	41.8	41.8	36.6	42.7	30.1	41.8	41.7	29.1	43.1	14.0
Hot	54.3	53.8	53.7	53.4		53.7	54.1	54.0	55.0	59.3	54.0	54.0	53.4	59.3	5.90
Very Hot	61.1	61.6	62.1	62.3	60.9	61.8	59.8	59.7	58.9	61.9	62.3	62.4	58.9	62.4	3.50

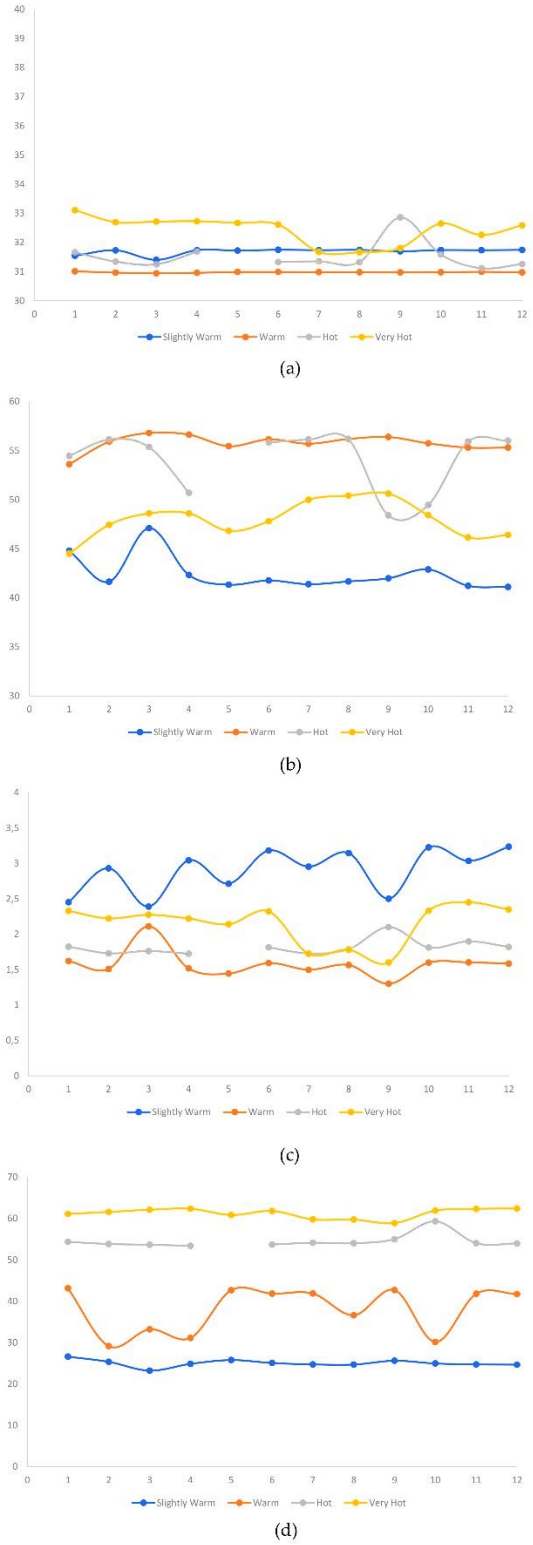


Figure 04. July thermal stress microclimatic thresholds throughout oasis settlements' scenarios; (a) air temperature, (b) relative humidity, (c) air velocity, and (d) mean radiant temperature

Table 84. April PET index values throughout all scenarios

Date	Hour	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
15.04.2021	00.00.00	14.6	14.6	14.6	14.6	15.2	14.6	14.6	14.6	15.0	14.6	14.8	14.8
15.04.2021	01.00.00	14.2	14.0	14.0	14.0	14.6	14.0	14.0	14.0	14.4	14.0	14.0	14.0
15.04.2021	02.00.00	13.6	13.4	13.6	13.4	14.0	13.6	13.6	13.6	13.8	13.6	13.6	13.6
15.04.2021	03.00.00	13.2	13.0	13.0	13.0	13.4	13.0	13.0	13.0	13.2	13.0	13.0	13.0
15.04.2021	04.00.00	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0
15.04.2021	05.00.00	12.2	12.0	12.0	12.0	12.4	12.0	12.0	12.0	12.2	12.0	12.0	12.0
15.04.2021	06.00.00	13.2	13.0	13.0	12.8	13.4	13.0	12.8	12.8	13.2	13.0	13.0	13.0
15.04.2021	07.00.00	18.0	17.8	18.2	15.6	18.2	15.0	17.8	17.8	18.0	17.8	17.8	17.8
15.04.2021	08.00.00	23.0	22.8	23.6	19.6	22.6	22.6	22.8	22.8	22.4	22.6	22.6	22.6
15.04.2021	09.00.00	21.8	25.6	27.0	25.8	20.4	25.4	25.6	25.6	24.6	25.4	25.4	25.4
15.04.2021	10.00.00	19.6	23.0	24.2	25.6	22.6	22.8	23.0	25.6	19.4	22.8	22.8	22.8
15.04.2021	11.00.00	25.6	25.6	27.8	29.8	22.8	25.2	25.6	29.6	22.6	25.2	25.4	25.2
15.04.2021	12.00.00	26.4	28.0	30.2	32.0	27.2	27.6	27.8	31.8	25.6	27.6	27.6	27.6
15.04.2021	13.00.00	24.2	27.4	29.8	32.2	27.0	27.0	28.0	32.0	26.6	27.0	27.0	27.0
15.04.2021	14.00.00	27.6	31.6	34.0	36.2	31.0	31.2	31.4	36.0	26.4	31.0	31.2	31.2
15.04.2021	15.00.00	32.0	29.6	34.0	37.9	28.4	31.4	32.4	37.7	31.2	31.4	31.4	31.4
15.04.2021	16.00.00	30.6	30.4	32.6	35.8	24.6	30.0	31.2	35.6	27.0	30.0	30.0	30.0
15.04.2021	17.00.00	26.6	26.8	31.8	32.8	23.6	25.8	30.2	32.6	28.6	29.2	29.2	29.2
15.04.2021	18.00.00	21.2	23.2	24.2	24.6	24.8	22.2	24.6	27.0	21.4	24.4	24.4	24.4
15.04.2021	19.00.00	19.2	19.2	19.4	19.4	19.4	19.0	19.0	19.4	19.0	19.0	19.0	19.0
15.04.2021	20.00.00	18.4	18.2	18.4	18.6	18.4	18.2	18.2	18.6	18.2	18.2	18.2	18.2
15.04.2021	21.00.00	18.2	17.8	18.0	18.0	18.0	17.8	17.8	18.0	18.0	17.8	17.8	17.8
15.04.2021	22.00.00	18.2	17.8	18.0	17.4	18.0	17.8	17.2	17.4	17.8	17.6	17.6	17.6
15.04.2021	23.00.00	17.2	16.6	16.9	16.4	17.2	16.6	16.4	16.4	16.8	16.6	16.6	16.6
Thermal comfort stress level	< 6	6 - 8	8 - 13	13 - 17	17- 26	26 - 28	28 - 37	37- 42	> 42				
	Very cold	Cold	Cool	Slightly cool	Neutral	Slightly warm	Warm	Hot	Very hot				
	Extreme cold stress	Strong cold stress	Moderate cold stress	Slight cold stress	No thermal stress	Slight heat stress	Moderate heat stress	Strong heat stress	Extreme heat stress				

Table 85. All perceived thermal levels' percentages during April typical day based on PET index

PET scale	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
Very Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cool	8.30 %	16.7 %	16.7 %	16.7 %	8.30 %	16.7 %	16.7 %	16.7 %	8.30 %	16.7 %	16.7 %	16.7 %
Slightly Cool	20.8 %	16.7 %	16.7 %	20.8 %	20.8 %	20.8 %	16.7 %	16.7 %	25.0 %	16.7 %	16.7 %	16.7 %
Neutral	50.0 %	41.7 %	33.3 %	33.3 %	54.2%	41.7 %	41.7 %	33.3 %	45.8 %	41.7 %	41.7 %	41.7 %
Slightly Warm	12.5 %	12.5 %	8.30 %	0.00 %	8.30 %	8.30 %	8.30 %	4.20 %	12.5 %	8.30 %	8.30 %	8.30 %
Warm	8.30 %	12.5 %	25.0 %	25.0 %	8.30 %	12.5 %	16.7 %	25.0 %	8.30 %	16.7 %	16.7 %	16.7 %
Hot	0.00 %	0.00 %	0.00 %	4.20 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Very Hot	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %

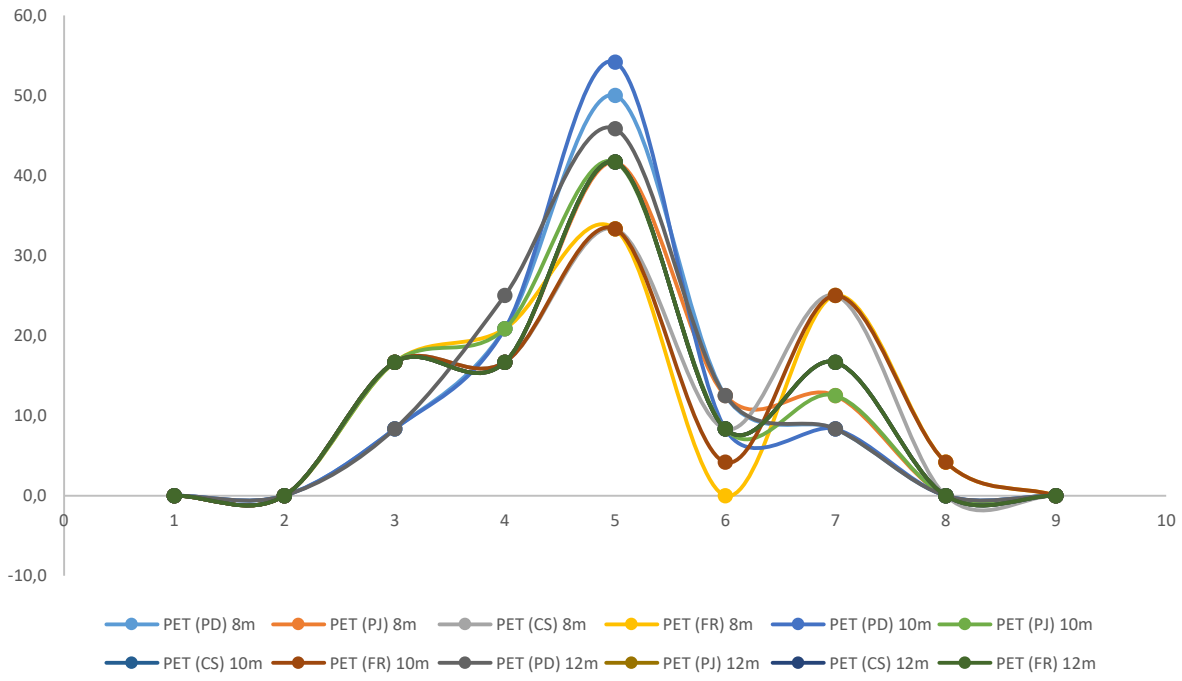


Figure 05. April perceived thermal stress trends throughout oasis settlements' scenarios

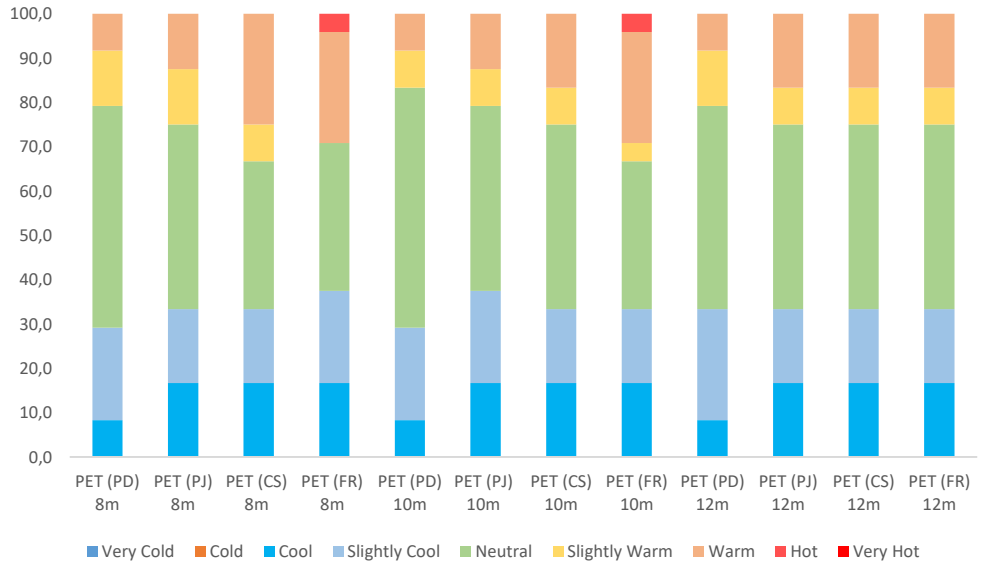


Figure 06. April perceived thermal stress percentages throughout oasis settlements' scenarios

Table 86. Perceived thermal levels percentages during April typical day based on PET index

Scenarios	Cool	Slightly cool	Neutral	Slightly warm	Warm	Hot
PET (PD) 8m	8.30 %	20.8 %	50.0 %	12.5 %	8.30 %	0.00 %
PET (PJ) 8m	16.7 %	16.7 %	41.7 %	12.5 %	12.5 %	0.00 %
PET (CS) 8m	16.7 %	16.7 %	33.3 %	8.30 %	25.0 %	0.00 %
PET (FR) 8m	16.7 %	20.8 %	33.3 %	0.00 %	25.0 %	4.20 %
PET (PD) 10m	8.30 %	20.8 %	54.2 %	8.30 %	8.30 %	0.00 %
PET (PJ) 10m	16.7 %	20.8 %	41.7 %	8.30 %	12.5 %	0.00 %
PET (CS) 10m	16.7 %	16.7 %	41.7 %	8.30 %	16.7 %	0.00 %
PET (FR) 10m	16.7 %	16.7 %	33.3 %	4.20 %	25.0 %	4.20 %
PET (PD) 12m	8.30 %	25.0 %	45.8 %	12.5 %	8.30 %	0.00 %
PET (PJ) 12m	16.7 %	16.7 %	41.7 %	8.30 %	16.7 %	0.00 %
PET (CS) 12m	16.7 %	16.7 %	41.7 %	8.30 %	16.7 %	0.00 %
PET (FR) 12m	16.7 %	16.7 %	41.7 %	8.30 %	16.7 %	0.00 %

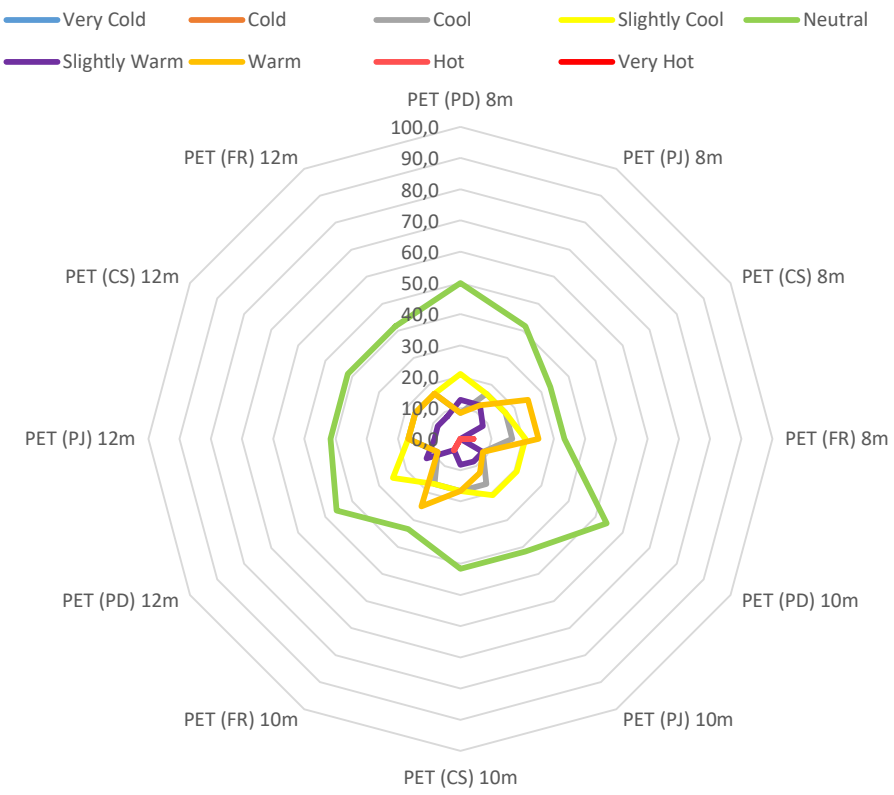


Figure 07. April perceived thermal stress cycles throughout oasis settlements' scenarios

Table 87. Air temperature (T_{air}) thresholds for the perceived thermal levels during April typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔT
Cool	18.6	19.6	19.7	19.7	18.9	19.8	19.8	19.8	18.9	19.8	19.8	19.8	18.6	19.8	1.30
Slightly cool	20.8	21.1	21.2	21.2	21.5	21.3	21.3	21.3	21.6	21.3	21.4	21.4	20.8	21.6	0.80
Neutral	19.7	19.8	19.8	20.3	20.1	20.4	19.9	19.9	20.1	19.9	20.0	20.0	19.7	20.4	0.70
Slightly Warm	25.4	25.4	21.0		25.4	25.4	25.4	26.3	25.6	25.4	25.4	25.4	21.0	26.3	5.40
Warm	27.7	27.5	25.4	24.1	27.5	27.5	27.5	24.1	27.6	27.5	27.5	27.5	24.1	27.7	3.60
Hot				28.2				28.1					28.1	28.2	0.00

Table 88. Relative Humidity thresholds for the perceived thermal levels during April typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔR_H
Cool	54.7	55.2	54.9	55.5	55.0	55.0	55.4	54.8	53.8	54.8	55.6	55.4	53.8	55.6	1.9
Slightly cool	52.6	51.0	52.8	51.2	52.1	51.3	50.3	48.6	55.5	48.5	51.4	51.5	48.5	55.5	7.00
Neutral	56.5	56.1	56.8	58.0	56.4	58.4	55.6	53.2	55.3	53.1	56.3	56.4	53.1	58.4	5.30
Slightly Warm	38.0	38.9	59.7		38.4	38.6	39.1	32.9	30.6	40.4	39.1	38.8	30.6	59.7	29.1
Warm	25.0	25.0	38.4	44.4	24.4	24.6	25.4	46.6	24.0	26.7	25.3	24.9	24.0	46.6	22.6
Hot				32.0				34.6					32.0	34.6	2.60

Table 89. Air Velocity thresholds for the perceived thermal levels during April typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔV_{air}
Cool	2.26	2.14	1.78	2.16	2.33	2.25	2.24	2.24	2.36	2.26	2.28	2.28	1.78	2.36	0.58
Slightly cool	1.80	1.82	1.53	1.86	1.95	1.93	1.92	1.91	1.96	1.94	1.95	1.95	1.53	1.96	0.43
Neutral	1.47	1.43	1.17	1.60	1.51	1.68	1.49	1.48	1.53	1.51	1.50	1.50	1.17	1.68	0.51
Slightly Warm	5.48	4.31	1.43		4.52	4.65	4.59	2.46	5.60	4.71	4.73	4.73	1.43	5.60	4.17
Warm	4.46	4.48	3.09	2.39	4.73	4.87	4.81	2.45	4.89	4.95	4.99	4.99	2.39	4.99	2.60
Hot				1.85				1.91					1.85	1.91	0.07

Table 90. Tmrt thresholds for the perceived thermal levels during April typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔTmrt
Cool	9.90	9.20	8.90	8.90	9.50	9.00	8.80	8.80	8.60	9.00	8.90	8.90	8.60	9.90	1.20
Slightly cool	12.2	10.7	10.4	10.4	11.8	10.5	10.3	10.3	11.0	10.5	10.4	10.3	10.3	12.2	1.90
Neutral	27.0	25.6	25.5	31.0	26.7	41.4	25.3	25.3	25.9	25.4	25.4	25.3	25.3	41.4	16.1
Slightly Warm	53.9	54.3	48.7		53.3	54.5	55.0	41.7	54.1	54.6	55.0	55.0	41.7	55.0	13.3
Warm	57.8	57.4	54.9	54.2	56.6	57.5	57.9	54.2	57.0	57.6	57.9	57.7	54.2	57.9	3.70
Hot				59.8				59.8					59.8	59.8	0.00

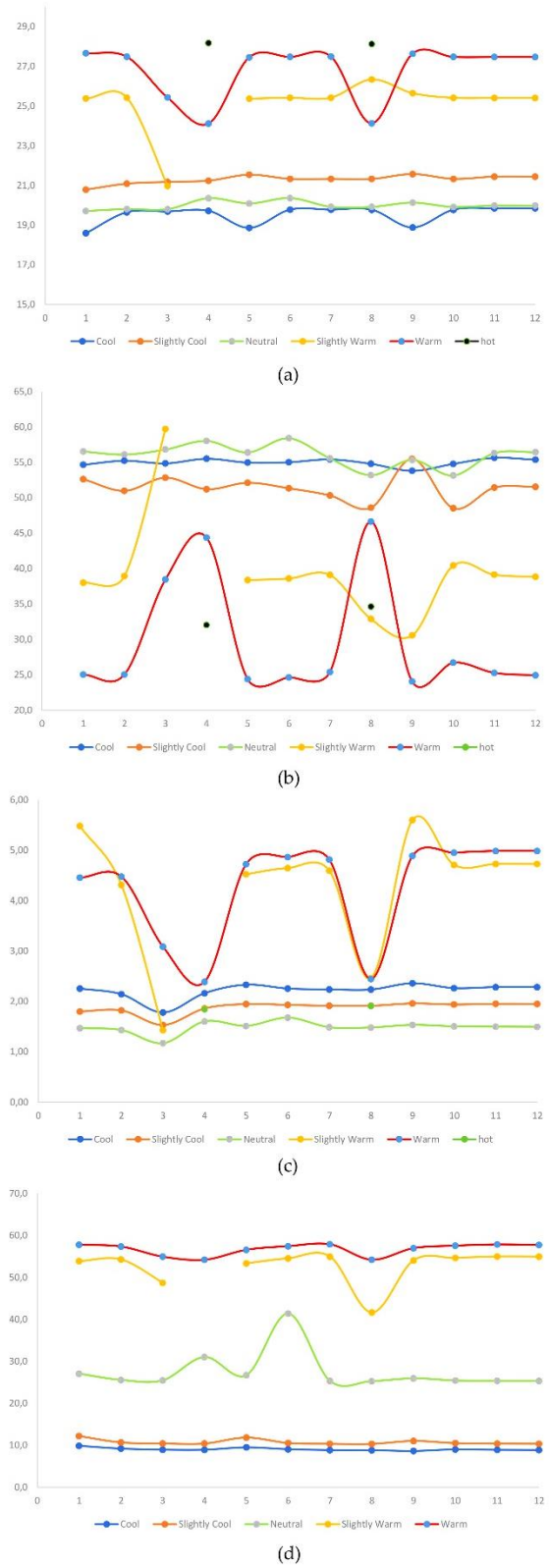


Figure 08. April thermal stress microclimatic thresholds throughout oasis settlements' scenarios; (a) air temperature, (b) relative humidity, (c) air velocity, and (d) mean radiant temperature

Table 91. October PET index values throughout all scenarios

Date	Hour	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
15.10.2021	00.00.00	14.0	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
15.10.2021	01.00.00	14.0	13.8	13.8	13.8	14.0	14.0	13.8	13.8	14.0	13.8	14.0	13.8
15.10.2021	02.00.00	13.8	13.6	13.6	13.6	13.8	13.8	13.6	13.6	13.8	13.6	13.6	13.6
15.10.2021	03.00.00	12.8	12.6	12.6	12.6	12.8	12.6	12.6	12.6	12.6	12.6	12.6	12.6
15.10.2021	04.00.00	11.8	11.8	11.8	11.8	12.0	11.8	11.8	11.8	11.8	11.8	11.8	11.8
15.10.2021	05.00.00	12.4	12.2	12.2	12.2	12.6	12.2	12.2	12.2	12.4	12.2	12.2	12.2
15.10.2021	06.00.00	12.6	12.4	12.4	12.4	12.8	12.4	12.4	12.2	12.4	12.4	12.4	12.2
15.10.2021	07.00.00	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0
15.10.2021	08.00.00	18.4	14.6	18.4	18.4	18.8	18.2	18.2	18.2	18.4	18.2	18.2	18.2
15.10.2021	09.00.00	22.8	20.8	23.0	23.0	23.4	22.8	23.0	23.0	22.8	22.8	22.8	22.8
15.10.2021	10.00.00	26.8	28.2	28.2	28.2	22.0	25.0	28.0	28.0	27.4	27.8	27.8	27.8
15.10.2021	11.00.00	24.0	29.6	29.4	29.6	23.8	24.6	29.2	29.2	28.8	28.8	28.8	28.8
15.10.2021	12.00.00	23.8	30.0	29.8	29.8	26.8	26.8	29.4	29.4	26.2	29.2	29.0	29.0
15.10.2021	13.00.00	24.0	30.6	30.6	30.6	30.4	30.0	30.2	30.2	24.6	30.0	30.0	30.0
15.10.2021	14.00.00	28.6	30.0	30.2	30.2	30.0	29.8	30.2	30.2	26.6	29.8	30.0	30.0
15.10.2021	15.00.00	21.8	28.8	28.8	28.8	28.8	28.4	28.6	28.8	28.2	24.2	28.6	28.6
15.10.2021	16.00.00	20.2	25.4	25.4	25.4	21.4	22.4	23.4	25.2	25.0	22.8	25.2	25.2
15.10.2021	17.00.00	18.6	22.2	22.6	20.2	19.0	20.0	19.6	20.8	20.6	22.4	22.0	22.4
15.10.2021	18.00.00	16.2	16.0	16.2	16.0	16.6	16.2	16.0	16.0	16.4	16.2	16.0	16.0
15.10.2021	19.00.00	14.8	14.6	14.6	14.6	15.2	14.6	14.6	14.6	14.8	14.6	14.6	14.6
15.10.2021	20.00.00	14.2	14.0	14.0	14.0	14.2	14.0	14.0	14.0	14.2	14.0	14.0	14.0
15.10.2021	21.00.00	13.8	13.6	13.6	13.6	14.2	13.6	13.6	13.6	13.8	13.6	13.6	13.6
15.10.2021	22.00.00	13.2	13.2	13.0	13.0	13.4	13.0	13.0	13.0	13.2	13.0	13.0	13.0
15.10.2021	23.00.00	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0	12.2	12.0	12.0	12.0

Thermal comfort stress level	< 6	6 - 8	8 - 13	13 - 17	17- 26	26 - 28	28 - 37	37- 42	> 42
	Very cold	Cold	Cool	Slightly cool	Neutral	Slightly warm	Warm	Hot	Very hot
	Extreme cold stress	Strong cold stress	Moderate cold stress	Slight cold stress	No thermal stress	Slight heat stress	Moderate heat stress	Strong heat stress	Extreme heat stress

Table 92. All perceived thermal levels' percentages during October typical day based on PET index

PET scale	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m
Very Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cold	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Cool	25.0 %	25.0 %	29.2 %	29.2 %	25.0 %	29.2 %	29.2 %	29.2 %	25.0 %	29.2 %	29.2 %	29.2 %
Slightly Cool	33.3 %	37.5 %	29.2 %	29.2 %	33.3 %	29.2 %	29.2 %	29.2 %	33.3 %	29.2 %	29.2 %	29.2 %
Neutral	33.3 %	12.5 %	16.7 %	16.7 %	25.0 %	25.0 %	16.7 %	16.7 %	20.8 %	20.8 %	16.7 %	16.7 %
Slightly Warm	4.20 %	0.00 %	0.00 %	0.00 %	4.20 %	4.20 %	4.20 %	4.20 %	12.5 %	4.20 %	4.20 %	4.20 %
Warm	4.20 %	25.0 %	25.0 %	25.0 %	12.5	12.5 %	20.8 %	20.8 %	8.30 %	16.7 %	20.8 %	20.8 %
Hot	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
Very Hot	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %

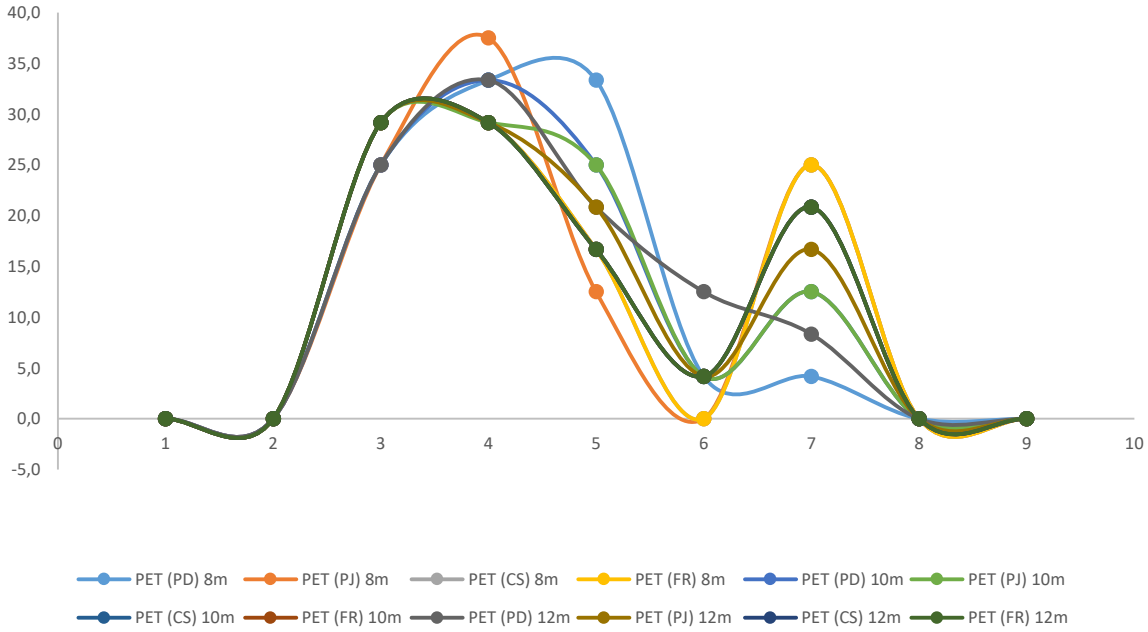


Figure 09. October perceived thermal stress trends throughout oasis settlements' scenarios

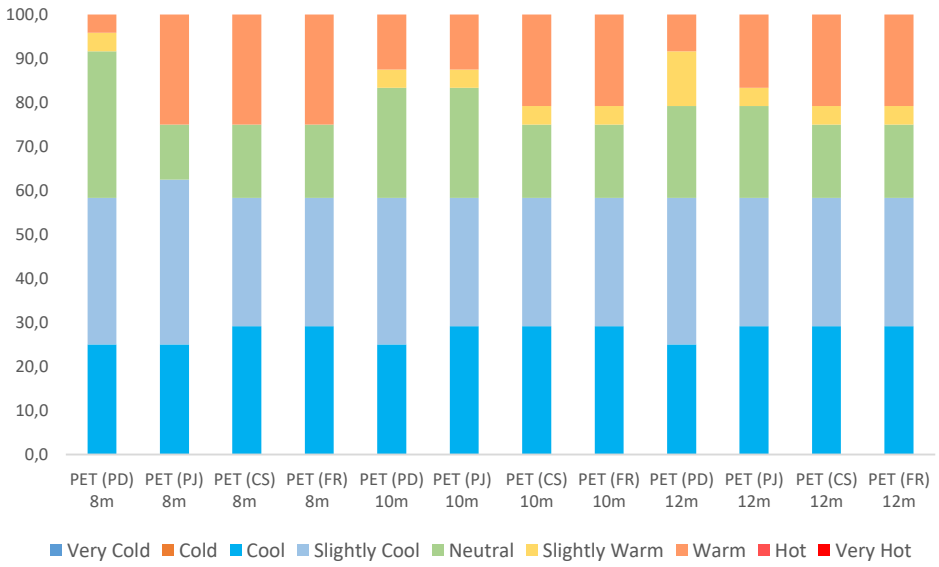


Figure 10. October perceived thermal stress percentages throughout oasis settlements' scenarios

Table 93. Perceived thermal levels percentages during October typical day based on PET index

Scenarios	Cool	Slightly cool	Neutral	Slightly warm	Warm
PET (PD) 8m	25,0 %	33,3 %	33,3 %	4,20 %	4,20 %
PET (PJ) 8m	25,0 %	37,5 %	12,5 %	0,00 %	25,0 %
PET (CS) 8m	29,2 %	29,2 %	16,7 %	0,00 %	25,0 %
PET (FR) 8m	29,2 %	29,2 %	16,7 %	0,00 %	25,0 %
PET (PD) 10m	25,0 %	33,3 %	25,0 %	4,20 %	12,5 %
PET (PJ) 10m	29,2 %	29,2 %	25,0 %	4,20 %	12,5 %
PET (CS) 10m	29,2 %	29,2 %	16,7 %	4,20 %	20,8 %
PET (FR) 10m	29,2 %	29,2 %	16,7 %	4,20 %	20,8 %
PET (PD) 12m	25,0 %	33,3 %	20,8 %	12,5 %	8,30 %
PET (PJ) 12m	29,2 %	29,2 %	20,8 %	4,20 %	16,7 %
PET (CS) 12m	29,2 %	29,2 %	16,7 %	4,20 %	20,8 %
PET (FR) 12m	29,2 %	29,2 %	16,7 %	4,20 %	20,8 %

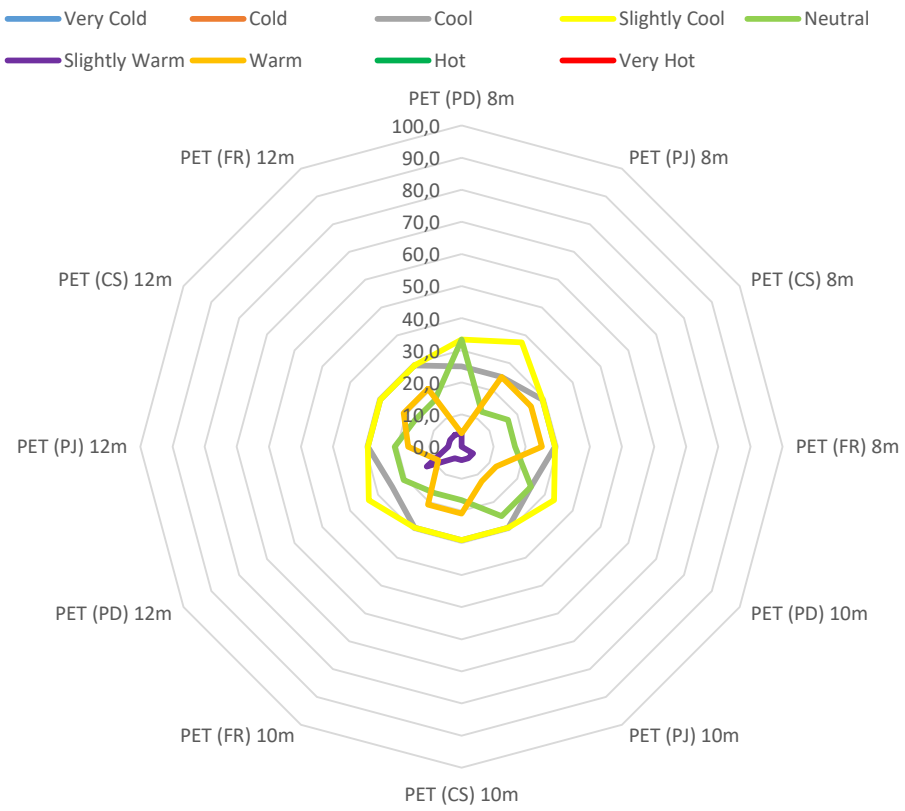


Figure 11. October perceived thermal stress cycles throughout oasis settlements' scenarios

Table 94. Air temperature (T_{air}) thresholds for the perceived thermal levels during October typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔT
Cool	19.4	19.3	19.3	19.3	19.2	19.3	19.3	19.3	19.3	19.3	19.4	19.4	19.2	19.4	0.20
Slightly cool	20.8	20.6	20.6	20.6	20.4	20.7	20.7	20.7	20.5	20.7	20.7	20.7	20.4	20.8	0.40
Neutral	18.9	19.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	19.9	1.00
Slightly Warm	20.8				23.2	22.8	21.1	21.1	21.2	21.0	20.9	20.9	20.8	23.2	2.50
Warm	23.9	21.2	21.1	21.1	23.9	23.6	21.9	21.9	22.1	21.9	21.7	21.7	21.1	23.9	2.80

Table 95. Relative Humidity (R_H) thresholds for the perceived thermal levels during October typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔR_H
Cool	53.0	54.0	55.4	55.7	53.2	55.1	54.4	54.6	53.5	54.5	56.2	55.6	53.0	56.2	3.30
Slightly cool	49.9	50.8	52.1	52.4	50.3	51.9	51.3	51.4	50.3	51.3	52.8	52.3	49.9	52.8	2.80
Neutral	54.1	53.1	57.6	57.9	54.5	57.2	56.0	56.3	55.1	56.3	58.1	57.7	53.1	58.1	5.00
Slightly Warm	49.8				46.1	45.7	51.0	51.2	50.6	51.4	49.2	50.9	45.7	51.4	5.70
Warm	34.1	51.2	50.8	50.1	39.9	43.2	47.5	47.2	47.6	47.3	44.8	45.8	34.1	51.2	17.0

Table 96. Air Velocity (V_{air}) thresholds for the perceived thermal levels during October typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔV_{air}
Cool	2.29	2.21	2.24	2.24	2.15	2.33	2.30	2.30	2.38	2.33	2.33	2.32	2.15	2.38	0.23
Slightly cool	2.61	2.51	2.53	2.52	2.44	2.62	2.59	2.59	2.64	2.62	2.63	2.63	2.44	2.64	0.20
Neutral	1.86	1.61	1.81	1.81	1.74	1.88	1.87	1.87	1.93	1.89	1.88	1.88	1.61	1.93	0.32
Slightly Warm	1.29				1.83	1.96	1.24	1.24	1.30	1.26	1.25	1.25	1.24	1.96	0.72
Warm	2.34	1.19	1.20	1.19	1.92	2.04	1.56	1.56	1.59	1.58	1.60	1.60	1.19	2.34	1.14

Table 97. Tmrt thresholds for the perceived thermal levels during October typical day

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔTmrt
Cool	9.60	9.20	9.00	8.90	10.5	9.10	8.90	8.80	10.0	9.00	8.90	8.90	8.80	10.5	1.70
Slightly cool	10.2	10.0	9.70	9.70	11.1	9.80	9.60	9.60	10.7	9.80	9.70	9.60	9.60	11.1	1.50
Neutral	32.5	36.2	32.1	32.0	33.4	32.0	32.1	32.0	33.0	32.0	32.0	32.0	32.0	36.2	4.20
Slightly Warm	47.7				46.3	47.9	49.1	49.1	48.5	48.8	49.1	49.0	46.3	49.1	2.80
Warm	52.1	48.8	49.2	49.1	53.4	53.9	52.7	52.7	51.5	52.2	52.6	52.6	48.8	53.9	5.10

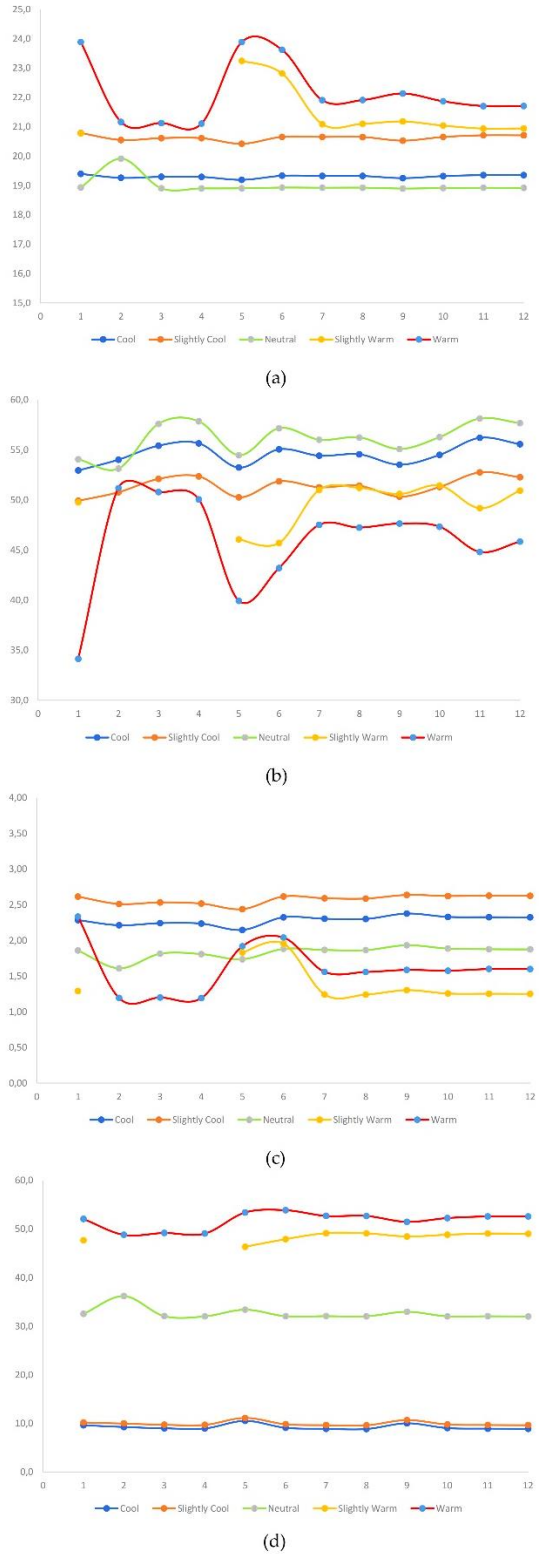


Figure 12. October thermal stress microclimatic thresholds throughout oasis settlements' scenarios; (a) air temperature, (b) relative humidity, (c) air velocity, and (d) mean radiant temperature

Table 98. Differences between PET index values of the baseline model and other scenarios

Configuration of the scenario	Time	Phoenix Dactylifera			Prosopis Juliflora			Ceratonia Siliqua			Ficus Retusa		
		July	April	October	July	April	October	July	April	October	July	April	October
8 m	6:00 a.m.	27.0	13.2	12.6	▼ 0.4	▼ 0.2	▼ 0.2	▼ 0.6	▼ 0.2	▼ 0.2	▼ 0.5	▼ 0.4	▼ 0.4
	2:00 p.m.	46.5	27.6	28.6	▲ 2.5	▲ 4.0	▲ 1.4	▲ 2.5	▲ 6.4	▲ 1.6	▲ 2.5	▲ 8.6	▲ 1.6
	10:00 p.m.	30.7	18.2	13.2	▼ 0.3	▼ 0.4	▼ 0.0	▼ 0.4	▼ 0.2	▼ 0.2	▼ 0.4	▼ 0.8	▼ 0.2
10 m	6:00 a.m.	▼ 0.1	▲ 0.2	▲ 0.2	▼ 0.4	▼ 0.2	▼ 0.2	▼ 1.0	▼ 0.4	▼ 0.2	▼ 0.6	▼ 0.4	▼ 0.4
	2:00 p.m.	▲ 2.3	▲ 3.4	▲ 1.4	▲ 2.3	▲ 3.6	▲ 1.8	▲ 2.5	▲ 3.8	▲ 1.6	▲ 2.5	▲ 8.4	▲ 1.6
	10:00 p.m.	▼ 0.0	▼ 0.2	▲ 0.2	▼ 0.3	▼ 0.4	▼ 0.2	▼ 0.4	▼ 1.0	▼ 0.2	▼ 0.4	▼ 0.8	▲ 0.4
12 m	6:00 a.m.	▼ 0.2	▼ 0.0	▼ 0.2	▼ 0.5	▼ 0.2	▼ 0.2	▼ 0.5	▼ 0.2	▼ 0.2	▼ 0.6	▼ 0.2	▼ 0.4
	2:00 p.m.	▼ 0.3	▼ 1.2	▼ 2.2	▲ 2.3	▲ 3.4	▲ 1.2	▲ 2.1	▲ 3.6	▲ 1.4	▲ 2.3	▲ 3.6	▲ 1.4
	10:00 p.m.	▼ 0.2	▼ 0.4	▼ 0.0	▼ 0.3	▼ 0.6	▼ 0.2	▼ 0.3	▼ 0.6	▼ 0.2	▼ 0.4	▼ 0.6	▼ 0.2

Table 99. Differences between PET index values of the baseline model and other scenarios

Configuration of the vegetation	Time	April				July				October			
		PD	PJ	CS	FR	PD	PJ	CS	FR	PD	PJ	CS	FR
8 m	6:00 a.m.	13.2	▼ 0.2	▼ 0.2	▼ 0.4	27.0	▼ 0.4	▼ 0.6	▼ 0.5	12.6	▼ 0.2	▼ 0.2	▼ 0.4
	2:00 p.m.	27.6	▲ 4.0	▲ 6.4	▲ 8.6	46.5	▲ 2.5	▲ 2.5	▲ 2.5	28.6	▲ 1.4	▲ 1.6	▲ 1.6
	10:00 p.m.	18.2	▼ 0.4	▼ 0.2	▼ 0.8	30.7	▼ 0.3	▼ 0.4	▼ 0.4	13.2	▼ 0.0	▼ 0.2	▼ 0.2
10 m	6:00 a.m.	▲ 0.2	▼ 0.2	▼ 0.4	▼ 0.4	▼ 0.1	▼ 0.4	▼ 1.0	▼ 0.6	▲ 0.2	▼ 0.2	▼ 0.2	▼ 0.4
	2:00 p.m.	▲ 3.4	▲ 3.6	▲ 3.8	▲ 1.6	▲ 2.3	▲ 2.3	▲ 2.5	▲ 2.5	▲ 1.4	▲ 1.8	▲ 1.6	▲ 1.6
	10:00 p.m.	▼ 0.2	▼ 0.4	▼ 1.0	▲ 0.4	▼ 0.0	▼ 0.3	▼ 0.4	▼ 0.4	▲ 0.2	▼ 0.2	▼ 0.2	▲ 0.4
12 m	6:00 a.m.	▼ 0.0	▼ 0.2	▼ 0.2	▼ 0.2	▼ 0.2	▼ 0.5	▼ 0.5	▼ 0.6	▼ 0.2	▼ 0.2	▼ 0.2	▼ 0.4
	2:00 p.m.	▼ 1.2	▲ 3.4	▲ 3.6	▲ 3.6	▼ 0.3	▲ 2.3	▲ 2.1	▲ 2.3	▼ 2.2	▲ 1.2	▲ 1.4	▲ 1.4
	10:00 p.m.	▼ 0.4	▼ 0.6	▼ 0.6	▼ 0.6	▼ 0.2	▼ 0.3	▼ 0.3	▼ 0.4	▼ 0.0	▼ 0.2	▼ 0.2	▼ 0.2

Table 100. Differences between the baseline model's PET index values versus other scenarios

Thermal stress	PET (PD) 8m	PET (PJ) 8m	PET (CS) 8m	PET (FR) 8m	PET (PD) 10m	PET (PJ) 10m	PET (CS) 10m	PET (FR) 10m	PET (PD) 12m	PET (PJ) 12m	PET (CS) 12m	PET (FR) 12m	Min	Max	ΔT_{air}
Air temperature (°C) Thresholds for All periods															
Very cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cool	19.0	19.5	19.5	19.5	19.0	19.6	19.5	19.5	19.1	19.5	19.6	19.6	19.0	19.6	0.60
Slightly cool	20.8	20.8	20.9	20.9	21.0	21.0	21.0	21.0	21.0	21.0	21.1	21.1	20.8	21.1	0.30
Neutral	19.3	19.9	19.4	19.6	19.5	19.6	19.4	19.4	19.5	19.4	19.4	19.4	19.3	19.9	0.50
Slightly Warm	25.9	28.6	26.2	31.7	26.8	26.7	26.1	26.4	26.2	26.1	26.0	26.0	25.9	31.7	5.80
Warm	27.5	26.5	25.8	25.4	27.4	27.4	26.8	25.7	26.9	26.8	26.7	26.7	25.4	27.5	2.10
Hot	31.7	31.3	31.2	29.9		31.3	31.4	29.7	32.9	31.6	31.1	31.3	29.7	32.9	3.10
Very hot	33.1	32.7	32.7	32.7	32.7	32.6	31.7	31.7	31.8	32.6	32.3	32.6	31.7	33.1	1.40
Relative Humidity (%) Thresholds for All periods													**Min**	**Max**	**ΔR_H**
Very cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cool	53.8	54.6	55.1	55.6	54.1	55.0	54.9	54.7	53.7	54.6	55.9	55.5	53.7	55.9	2.30
Slightly cool	51.3	50.9	52.5	51.8	51.2	51.6	50.8	50.0	52.9	49.9	52.1	51.9	49.9	52.9	3.00
Neutral	55.3	54.6	57.2	57.9	55.4	57.8	55.8	54.7	55.2	54.7	57.2	57.1	54.6	57.9	3.30
Slightly Warm	44.2	40.3	53.4	42.3	41.9	42.0	43.8	41.9	41.0	44.9	43.2	43.6	40.3	53.4	13.1
Warm	37.6	44.0	48.7	50.4	39.9	41.3	42.9	50.0	42.7	43.3	41.8	42.0	37.6	50.4	12.8
Hot	54.5	56.1	55.4	41.4		55.8	56.1	45.4	48.4	49.4	55.9	56.0	41.4	56.1	14.8
Very hot	44.5	47.4	48.6	48.6	46.8	47.8	50.0	50.4	50.6	48.4	46.1	46.4	44.5	50.6	6.10
Air Velocity (m/s) Thresholds for All periods													**Min**	**Max**	**ΔV_{air}**
Very cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cool	2.3	2.2	2.0	2.2	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.0	2.4	0.4
Slightly cool	2.2	2.2	2.0	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	2.3	0.3
Neutral	1.7	1.5	1.5	1.7	1.6	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.8	0.3
Slightly Warm	3.1	3.6	1.9	3.0	3.0	3.3	2.9	2.3	3.1	3.1	3.0	3.1	1.9	3.6	1.7
Warm	2.8	2.4	2.1	1.7	2.7	2.8	2.6	1.9	2.6	2.7	2.7	2.7	1.7	2.8	1.1
Hot	1.8	1.7	1.8	1.8		1.8	1.7	1.8	2.1	1.8	1.9	1.8	1.7	2.1	0.4
Very hot	2.3	2.2	2.3	2.2	2.1	2.3	1.7	1.8	1.6	2.3	2.4	2.3	1.6	2.4	0.8
Mean Radiant Temperature (°C) Thresholds for All periods													**Min**	**Max**	**ΔTmrt**
Very cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cold	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cool	9.7	9.2	9.0	8.9	10.0	9.1	8.9	8.8	9.3	9.0	8.9	8.9	8.8	10.0	1.2
Slightly cool	11.2	10.3	10.1	10.0	11.5	10.2	10.0	10.0	10.8	10.1	10.0	10.0	10.0	11.5	1.5
Neutral	29.8	30.9	28.8	31.5	30.0	36.7	28.7	28.7	29.4	28.7	28.7	28.7	28.7	36.7	8.1
Slightly Warm	42.7	39.8	35.9	24.8	41.8	42.5	42.9	38.5	42.7	42.8	42.9	42.9	24.8	42.9	18.1
Warm	51.0	45.1	45.8	44.8	50.9	51.0	50.8	47.8	50.4	46.6	50.7	50.7	44.8	51.0	6.3
Hot	54.3	53.8	53.7	56.6		53.7	54.1	56.9	55.0	59.3	54.0	54.0	53.7	59.3	5.7
Very hot	61.1	61.6	62.1	62.3	60.9	61.8	59.8	59.7	58.9	61.9	62.3	62.4	58.9	62.4	3.5

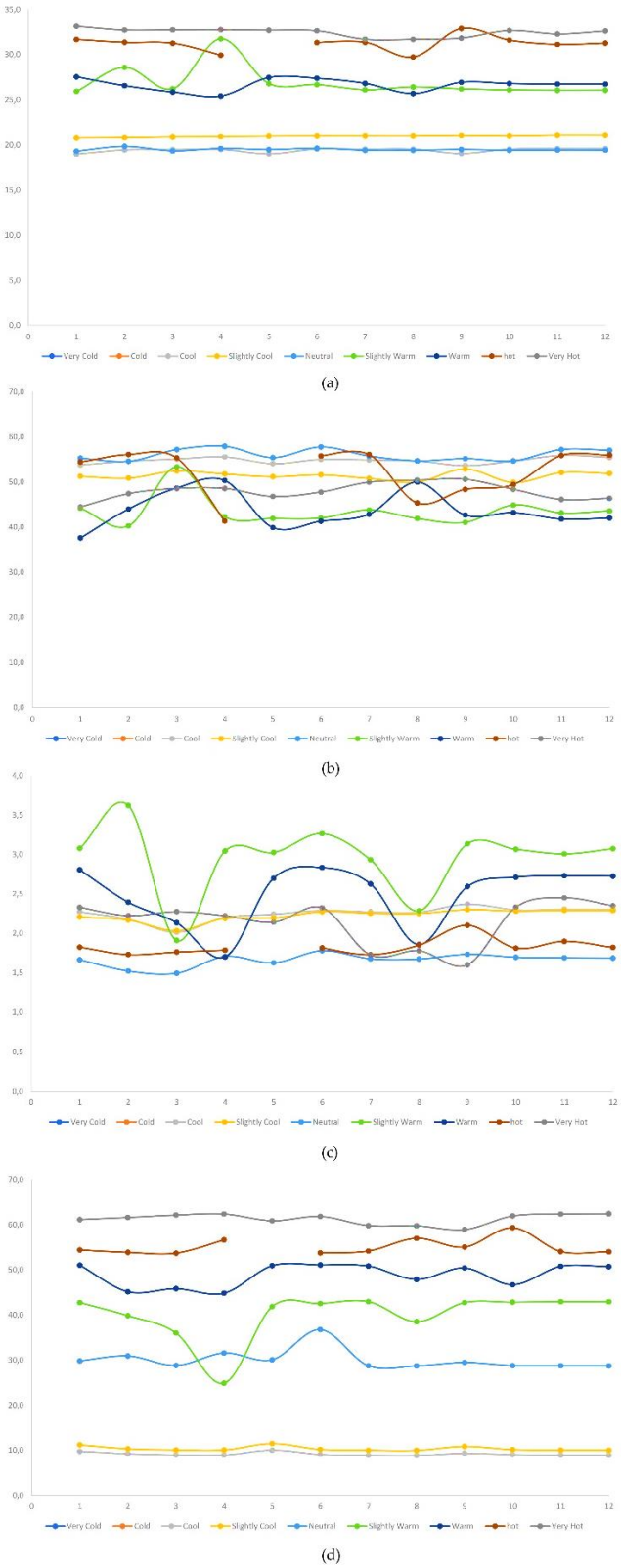


Figure 13. Thermal stress and microclimatic thresholds throughout oasis settlements' scenarios; (a) air temperature, (b) relative humidity, (c) air velocity, and (d) mean radiant temperature