

## Supplementary material

Supplemental material reports climatic features of the study site.

**Table S1.** Thermo-pluviometric dataset related to the study site reporting air temperature (in °C) and rainfall (in mm) monitored across the 2016 and 2017 growing seasons. Soil and plant observation period extended from May 2016 to July 2017. Field monitoring of olive leaf photosynthetic parameters was done in July both years.

| Year                 | Month       |             |             |             |            |             |             |             |              |             |             |             | Year                      |
|----------------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|---------------------------|
|                      | <i>Jan.</i> | <i>Feb.</i> | <i>Mar.</i> | <i>Apr.</i> | <i>May</i> | <i>June</i> | <i>July</i> | <i>Aug.</i> | <i>Sept.</i> | <i>Oct.</i> | <i>Nov.</i> | <i>Dec.</i> |                           |
| <b>2016</b>          |             |             |             |             |            |             |             |             |              |             |             |             |                           |
| T <sub>min</sub>     | -0.2        | 2.5         | 4.8         | 6.4         | 10.2       | 15.0        | <b>15.6</b> | 16.7        | 13.0         | 9.0         | 2.8         | -0.7        | <b>7.93<sup>§</sup></b>   |
| T <sub>max</sub>     | 20.4        | 24.0        | 27.2        | 30.4        | 31.2       | 29.7        | <b>30.1</b> | 31.3        | 31.0         | 27.9        | 26.9        | 18.2        | <b>27.36<sup>§</sup></b>  |
| T <sub>average</sub> | 11.7        | 13.7        | 12.4        | 16.7        | 18.3       | 22.3        | <b>25.2</b> | 24.8        | 21.9         | 19.7        | 15.7        | 11.6        | <b>17.83<sup>§</sup></b>  |
| Rainfall             | 121.6       | 42.0        | 155.0       | 28.6        | 64.4       | 16.0        | <b>3.0</b>  | 75.4        | 81.6         | 90.0        | 90.2        | 16.8        | <b>784.60<sup>#</sup></b> |
| <b>2017</b>          |             |             |             |             |            |             |             |             |              |             |             |             |                           |
| T <sub>min</sub>     | -2.9        | 4.2         | 3.4         | 3.9         | 10.0       | 14.2        | <b>17.9</b> | 18.3        | 12.4         | 8.8         | 2.6         | 0.3         | <b>7.76<sup>§</sup></b>   |
| T <sub>max</sub>     | 15.3        | 24.0        | 21.0        | 26.4        | 25.7       | 38.7        | <b>35.2</b> | 34.6        | 34.0         | 26.9        | 21.1        | 19.5        | <b>26.87<sup>§</sup></b>  |
| T <sub>average</sub> | 8.3         | 12.0        | 13.2        | 15.1        | 18.8       | 23.6        | <b>25.5</b> | 26.3        | 22.1         | 18.6        | 14.1        | 10.6        | <b>17.35<sup>§</sup></b>  |
| Rainfall             | 175.4       | 38.2        | 26.4        | 65.2        | 43.0       | 0.4         | <b>16.2</b> | 4.6         | 61.2         | 14.0        | 128.0       | 88.2        | <b>660.80<sup>#</sup></b> |

<sup>§</sup> Average value

<sup>#</sup> Cumulative annual rainfall