Table S1. Recorded weather data and calculated reference evapotranspiration (*ETo*) inside the two screenhouses during experiment.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Regular shade |  | Extra Shade |  |
| Date | Outside ave. wind speed (m/s) | Est. inside ave. wind speed (m/s) | Ave Temp (C)  | RS (MJ/m2/d) | RH (%) | *ETo* (mm) | Ave Temp (C)  | RS (MJ/m2/d) | RH (%) | *ETo* (mm) |
| 6/29/2017 | 2.1 | 0.40 | 24.17 | 21.05 | 56.29 | 4.17 | 24.13 | 8.01 | 56.12 | 1.69 |
| 6/30/2017 | 2.7 | 0.51 | 23.29 | 20.73 | 58.94 | 4.10 | 23.42 | 8.00 | 58.20 | 1.73 |
| 7/1/2017 | 2 | 0.38 | 24.32 | 20.65 | 53.95 | 4.12 | 23.61 | 7.99 | 55.03 | 1.66 |
| 7/2/2017 | 2.3 | 0.44 | 24.58 | 21.15 | 55.84 | 4.26 | 24.46 | 7.99 | 55.71 | 1.74 |
| 7/3/2017 | 2.9 | 0.55 | 24.39 | 20.94 | 50.39 | 4.38 | 24.08 | 7.95 | 50.84 | 1.87 |
| 7/4/2017 | 2.4 | 0.46 | 25.02 | 21.15 | 49.24 | 4.40 | 24.90 | 7.99 | 48.94 | 1.85 |
| 7/5/2017 | 2.2 | 0.42 | 24.72 | 16.96 | 52.72 | 3.47 | 24.32 | 6.19 | 53.13 | 1.42 |
| 7/6/2017 | 1.8 | 0.34 | 28.75 | 20.25 | 43.96 | 4.45 | 27.32 | 7.84 | 45.84 | 1.83 |
| 7/7/2017 | 2.1 | 0.40 | 32.75 | 20.91 | 34.29 | 5.11 | 30.23 | 7.94 | 36.24 | 2.15 |
| 7/8/2017 | 2.1 | 0.40 | 30.55 | 20.30 | 35.55 | 4.78 | 30.01 | 7.76 | 35.91 | 2.11 |
| 7/9/2017 | 2.1 | 0.40 | 27.60 | 20.37 | 44.76 | 4.45 | 27.24 | 7.84 | 45.16 | 1.90 |
| 7/10/2017 | 2.4 | 0.46 | 26.33 | 20.78 | 51.47 | 4.40 | 25.99 | 7.86 | 51.66 | 1.84 |
| 7/11/2017 | 2.6 | 0.49 | 24.41 | 20.63 | 54.32 | 4.21 | 24.30 | 7.83 | 54.44 | 1.76 |
| 7/12/2017 | 2.1 | 0.40 | 25.27 | 20.58 | 52.45 | 4.21 | 24.94 | 7.79 | 52.79 | 1.72 |
| 7/13/2017 | 2.1 | 0.40 | 25.29 | 20.51 | 52.55 | 4.20 | 24.93 | 7.81 | 53.02 | 1.72 |
| 7/14/2017 | 2.1 | 0.40 | 25.82 | 20.25 | 51.73 | 4.20 | 25.46 | 7.65 | 52.12 | 1.72 |
| 7/15/2017 | 1.7 | 0.32 | 28.42 | 18.46 | 51.26 | 3.95 | 26.91 | 7.72 | 53.22 | 1.70 |
| 7/16/2017 | 2.1 | 0.40 | 32.39 | 20.69 | 37.28 | 4.99 | 30.73 | 7.71 | 38.47 | 2.10 |
| 7/17/2017 | 2.6 | 0.49 | 25.39 | 13.82 | 46.64 | 3.05 | 25.36 | 5.57 | 46.68 | 1.50 |
| 7/18/2017 | 3.4 | 0.65 | 22.09 | 18.75 | 51.98 | 3.82 | 22.19 | 7.31 | 51.57 | 1.75 |
| 7/19/2017 | 2 | 0.38 | 24.18 | 17.74 | 54.67 | 3.53 | 23.30 | 6.90 | 55.55 | 1.45 |
| 7/20/2017 | 2 | 0.38 | 27.24 | 23.22 | 46.81 | 4.96 | 26.07 | 8.78 | 48.65 | 1.98 |
| 7/21/2017 | 1.8 | 0.34 | 27.06 | 21.50 | 48.46 | 4.53 | 25.72 | 8.03 | 50.69 | 1.76 |
| 7/22/2017 | 1.6 | 0.30 | 26.78 | 16.93 | 52.93 | 3.49 | 25.90 | 6.80 | 54.54 | 1.46 |
| 7/23/2017 | 1.9 | 0.36 | 27.38 | 14.23 | 47.01 | 3.11 | 26.43 | 5.08 | 49.03 | 1.28 |
| 7/24/2017 | 3.5 | 0.67 | 24.53 | 18.27 | 46.78 | 4.02 | 24.31 | 6.43 | 47.23 | 1.77 |
| 7/25/2017 | 2.1 | 0.40 | 23.62 | 14.69 | 55.88 | 2.91 | 23.23 | 5.67 | 56.38 | 1.24 |
| 7/26/2017 | 2.1 | 0.40 | 25.77 | 18.03 | 50.95 | 3.76 | 25.29 | 6.43 | 51.83 | 1.49 |
| 7/27/2017 | 1.7 | 0.32 | 26.57 | 16.18 | 51.10 | 3.36 | 25.63 | 6.25 | 52.19 | 1.39 |
| 7/28/2017 | 2.2 | 0.42 | 25.87 | 16.58 | 53.45 | 3.47 | 25.33 | 5.99 | 54.35 | 1.41 |
| 7/29/2017 | 2.2 | 0.42 | 23.37 | 15.00 | 58.79 | 2.94 | 22.94 | 5.45 | 59.36 | 1.18 |
| 7/30/2017 | 2 | 0.38 | 24.61 | 15.73 | 57.19 | 3.14 | 23.85 | 5.63 | 57.98 | 1.22 |
| 7/31/2017 | 1.8 | 0.34 | 25.78 | 14.83 | 51.24 | 3.06 | 24.95 | 5.38 | 52.74 | 1.23 |
| 8/1/2017 | 2.1 | 0.40 | 27.00 | 14.78 | 50.11 | 3.20 | 26.10 | 5.59 | 51.84 | 1.37 |
| 8/2/2017 | 2.4 | 0.46 | 27.72 | 14.21 | 47.47 | 3.22 | 26.98 | 5.29 | 48.46 | 1.44 |
| 8/3/2017 | 2.4 | 0.46 | 27.57 | 10.21 | 44.51 | 2.45 | 26.69 | 4.26 | 45.89 | 1.28 |
| 8/4/2017 | 2.6 | 0.49 | 26.31 | 7.92 | 49.90 | 1.92 | 25.80 | 3.23 | 50.96 | 1.05 |
| 8/5/2017 | 2.5 | 0.48 | 25.55 | 13.92 | 54.35 | 2.96 | 24.93 | 4.84 | 55.36 | 1.23 |
| 8/6/2017 | 2.5 | 0.48 | 23.19 | 15.68 | 59.97 | 3.08 | 22.95 | 6.17 | 59.83 | 1.34 |
| 8/7/2017 | 2 | 0.38 | 22.63 | 13.81 | 62.33 | 2.60 | 22.15 | 5.13 | 62.91 | 1.04 |
| 8/8/2017 | 2.2 | 0.42 | 23.46 | 15.27 | 62.64 | 2.95 | 23.00 | 5.83 | 62.79 | 1.21 |
| 8/9/2017 | 2.4 | 0.46 | 23.02 | 14.95 | 64.63 | 2.86 | 22.67 | 5.57 | 64.80 | 1.16 |
| 8/10/2017 | 1.8 | 0.34 | 24.40 | 14.52 | 61.56 | 2.82 | 23.79 | 5.81 | 62.41 | 1.18 |
| 8/11/2017 | 1.6 | 0.30 | 25.58 | 14.10 | 59.48 | 2.79 | 24.88 | 5.29 | 60.66 | 1.10 |
| 8/12/2017 | 2.1 | 0.40 | 23.81 | 12.85 | 60.55 | 2.52 | 23.47 | 4.88 | 61.60 | 1.06 |
| 8/13/2017 | 2.8 | 0.53 | 22.24 | 13.40 | 62.65 | 2.60 | 22.04 | 5.03 | 63.10 | 1.12 |
| 8/14/2017 | 3.4 | 0.65 | 20.67 | 15.37 | 68.90 | 2.84 | 20.52 | 5.68 | 69.42 | 1.15 |
| 8/15/2017 | 2.6 | 0.49 | 20.98 | 15.15 | 65.36 | 2.79 | 20.63 | 6.32 | 66.26 | 1.22 |
| 8/16/2017 | 2.3 | 0.44 | 22.36 | 14.80 | 61.83 | 2.82 | 21.97 | 5.67 | 62.73 | 1.16 |
| 8/17/2017 | 2 | 0.38 | 24.42 | 13.31 | 58.99 | 2.64 | 23.52 | 5.01 | 61.09 | 1.07 |
| 8/18/2017 | 2 | 0.38 | 25.00 | 14.12 | 57.59 | 2.85 | 24.21 | 5.59 | 59.54 | 1.21 |
| 8/19/2017 | 2.1 | 0.40 | 23.76 | 12.34 | 61.32 | 2.42 | 23.29 | 4.71 | 62.26 | 1.02 |
| 8/20/2017 | 2.3 | 0.44 | 23.53 | 12.12 | 61.70 | 2.39 | 22.91 | 4.56 | 63.26 | 1.00 |
| 8/21/2017 | 2.4 | 0.46 | 23.37 | 13.10 | 60.20 | 2.59 | 23.15 | 5.07 | 61.02 | 1.13 |
| 8/22/2017 | 1.9 | 0.36 | 24.25 | 12.74 | 60.01 | 2.50 | 23.33 | 5.61 | 62.00 | 1.15 |
| 8/27/2017 | 1.8 | 0.34 | 31.02 | 10.98 | 39.27 | 2.69 | 28.92 | 4.61 | 41.11 | 1.33 |
| 8/28/2017 | 1.6 | 0.30 | 31.34 | 10.91 | 43.49 | 2.59 | 28.75 | 4.49 | 46.09 | 1.20 |
| 8/29/2017 | 2.4 | 0.46 | 26.46 | 11.40 | 53.02 | 2.52 | 25.84 | 4.63 | 53.91 | 1.22 |
| 8/30/2017 | 1.9 | 0.36 | 24.72 | 10.66 | 54.75 | 2.19 | 23.68 | 4.07 | 55.94 | 0.96 |
| 8/31/2017 | 1.9 | 0.36 | 27.29 | 11.04 | 47.43 | 2.46 | 25.29 | 4.10 | 47.28 | 1.09 |
| 9/1/2017 | 2.7 | 0.51 | 30.92 | 10.23 | 29.21 | 2.92 | 29.71 | 4.02 | 29.03 | 1.64 |
| 9/2/2017 | 1.4 | 0.27 | 30.65 | 9.99 | 43.05 | 2.32 | 28.88 | 3.90 | 43.99 | 1.06 |
| 9/3/2017 | 1.5 | 0.29 | 29.78 | 7.24 | 46.96 | 1.72 | 28.45 | 2.96 | 48.38 | 0.87 |
| 9/4/2017 | 2.9 | 0.55 | 26.73 | 6.60 | 48.91 | 1.76 | 26.25 | 2.66 | 50.06 | 1.03 |
| 9/5/2017 | 2.3 | 0.44 | 28.73 | 10.19 | 55.45 | 2.34 | 27.41 | 3.86 | 58.11 | 1.05 |
| 9/6/2017 | 2.6 | 0.49 | 26.54 | 11.33 | 55.55 | 2.51 | 25.80 | 4.42 | 56.86 | 1.17 |
| 9/7/2017 | 3.3 | 0.63 | 22.40 | 7.04 | 64.69 | 1.50 | 21.77 | 2.59 | 65.98 | 0.74 |
| 9/8/2017 | 1.8 | 0.34 | 24.81 | 11.56 | 61.97 | 2.27 | 23.53 | 4.02 | 64.77 | 0.84 |
| 9/9/2017 | 1.4 | 0.27 | 23.82 | 8.15 | 64.36 | 1.51 | 22.15 | 3.20 | 67.33 | 0.61 |
| 9/10/2017 | 1.9 | 0.36 | 29.07 | 7.71 | 49.95 | 1.85 | 26.47 | 2.44 | 52.15 | 0.79 |
| 9/11/2017 | 2 | 0.38 | 28.03 | 8.39 | 47.53 | 1.99 | 26.88 | 3.44 | 49.01 | 1.02 |
| 9/12/2017 | 2.2 | 0.42 | 26.59 | 9.78 | 55.30 | 2.15 | 25.36 | 3.79 | 57.38 | 0.99 |
| 9/19/2017 | 2.2 | 0.42 | 21.29 | 10.61 | 46.16 | 2.15 | 19.24 | 3.69 | 48.62 | 0.91 |
| 9/20/2017 | 3.2 | 0.61 | 19.28 | 8.13 | 57.93 | 1.64 | 18.96 | 3.12 | 58.51 | 0.85 |
| 9/21/2017 | 2.4 | 0.46 | 17.52 | 10.39 | 53.66 | 1.87 | 16.66 | 3.58 | 54.49 | 0.80 |
| 9/22/2017 | 1.9 | 0.36 | 18.24 | 10.26 | 51.48 | 1.84 | 16.24 | 3.49 | 54.52 | 0.70 |
| 9/23/2017 | 3.7 | 0.70 | 20.00 | 10.17 | 31.36 | 2.48 | 18.57 | 3.42 | 32.24 | 1.32 |
| 9/24/2017 | 2.9 | 0.55 | 21.54 | 9.69 | 30.59 | 2.33 | 20.04 | 3.25 | 31.57 | 1.20 |
| 9/25/2017 | 1.9 | 0.36 | 22.37 | 10.03 | 32.74 | 2.18 | 20.70 | 3.34 | 33.77 | 0.99 |
| 9/26/2017 | 2.5 | 0.48 | 25.53 | 9.83 | 31.12 | 2.48 | 24.33 | 3.21 | 31.93 | 1.23 |
| 9/27/2017 | 0.5 | 0.10 | 25.48 | 9.62 | 32.76 | 1.82 | 23.58 | 3.12 | 34.35 | 0.61 |
| 9/28/2017 | 0.4 | 0.08 | 22.62 | 9.59 | 43.58 | 1.63 | 21.26 | 3.05 | 45.52 | 0.49 |
| 9/29/2017 | 1 | 0.19 | 20.83 | 8.09 | 55.11 | 1.40 | 20.14 | 2.72 | 56.61 | 0.52 |
| 9/30/2017 | 2.1 | 0.40 | 21.45 | 9.02 | 59.45 | 1.73 | 19.76 | 2.92 | 62.18 | 0.66 |
| 10/1/2017 | 4.6 | 0.87 | 22.20 | 8.86 | 27.87 | 2.63 | 21.47 | 2.74 | 28.12 | 1.57 |
| 10/2/2017 | 0.5 | 0.10 | 19.98 | 8.93 | 25.72 | 1.51 | 18.71 | 2.59 | 26.48 | 0.49 |
| 10/3/2017 | 0.8 | 0.15 | 18.19 | 8.54 | 32.10 | 1.45 | 17.24 | 2.35 | 32.47 | 0.50 |
| 10/4/2017 | 0.9 | 0.17 | 18.61 | 8.61 | 42.97 | 1.45 | 16.47 | 2.15 | 44.65 | 0.43 |
| 10/5/2017 | 1.3 | 0.25 | 18.62 | 8.55 | 41.01 | 1.54 | 16.94 | 2.10 | 41.79 | 0.53 |