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Weather Tables

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WEATHER TABLES

ROTHAMSTED WEATHER 1984-85

Latitude 51° 48' 30" N; Longitude 0° 21' 10" W; Altitude 128 m

| | 1985 | | | | | | | | | | | | 1984 | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|
| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Year | Year | Year |
| TEMPERATURE (°C) | | | | | | | | | | | | | | | |
| Mean screen maximum | 2.7 | 4.7 | 7.9 | 12.3 | 14.5 | 17.0 | 21.0 | 19.0 | 19.0 | 14.5 | 6.5 | 8.5 | 12.3 | | |
| Difference from average | -2.8 | -1.3 | -1.0 | +0.3 | -1.3 | -2.0 | +0.5 | -1.4 | +1.1 | +0.6 | -2.5 | +1.7 | -0.7 | | |
| Mean screen minimum | -2.7 | -1.3 | 0.6 | 4.1 | 6.4 | 8.1 | 10.9 | 10.3 | 9.7 | 7.4 | 0.4 | 4.1 | 4.8 | | |
| Difference from average | -2.8 | -1.5 | -0.8 | +0.7 | +0.1 | -0.9 | 0.0 | -0.6 | +0.5 | +0.9 | -2.5 | +2.8 | -0.3 | | |
| Soil at 10 cm | 1.0 | 2.5 | 3.1 | 7.5 | 10.6 | 13.5 | 17.0 | 14.2 | 13.7 | 10.3 | 3.9 | 5.9 | 8.6 | | |
| Dew point | -1.9 | -1.4 | 2.2 | 4.4 | 7.1 | 9.3 | 12.7 | 11.5 | 11.7 | 8.7 | 1.6 | 5.1 | 5.9 | | |
| No. of days with ground frost | 29 | 24 | 23 | 11 | 10 | 3 | 0 | 0 | 1 | 12 | 22 | 13 | 148 | | |
| RADIATION | | | | | | | | | | | | | | | |
| Sunshine (h per month) | 43 | 82 | 98 | 144 | 163 | 165 | 221 | 181 | 134 | 110 | 81 | 38 | 1460 | | |
| Difference from average | -7 | +20 | -10 | +4 | -26 | -32 | +41 | +14 | -7 | +10 | +19 | -7 | +19 | | |
| Mean daily radiation (MJ m ⁻² day ⁻¹) | 2.4 | 5.4 | 7.7 | 12.6 | 13.7 | 16.7 | 17.9 | 13.7 | 10.8 | 6.1 | 3.5 | 1.6 | 112.1 | | |
| Difference from average | +0.2 | +1.4 | +0.2 | +0.9 | -1.9 | -0.8 | +2.1 | +0.5 | +1.0 | +0.5 | +0.7 | -0.1 | +4.7 | | |
| WIND (km day⁻¹) | | | | | | | | | | | | | | | |
| Wind run at 2 m | 233 | 220 | 207 | 275 | 189 | 167 | 135 | 187 | 151 | 133 | 219 | 249 | 197 | | |
| WATER (mm per month) | | | | | | | | | | | | | | | |
| Rainfall (5 inch walled gauge) | 58 | 29 | 38 | 31 | 49 | 102 | 48 | 63 | 18 | 22 | 51 | 108 | 617 | | |
| Difference from average | -5 | -23 | -14 | -17 | -2 | +44 | -3 | +2 | -41 | -37 | -19 | +39 | -76 | | |
| Rain days | 17 | 6 | 17 | 14 | 11 | 18 | 14 | 19 | 7 | 8 | 17 | 20 | 168 | | |
| Drainage through 50 cm bare undisturbed soil | 54 | 55 | 22 | 8 | 10 | 48 | 0 | 16 | 0 | 0 | 11 | 95 | 319 | | |
| Open water (tank) evaporation | 3 | 3 | 19 | 55 | 65 | 86 | 111 | 87 | 84 | 48 | 19 | 10 | 590 | | |
| Potential evaporation | 4 | 13 | 24 | 60 | 65 | 83 | 92 | 71 | 49 | 19 | 5 | 0 | 485 | | |

NOTES ON THE TABLE

1. Except for potential evaporation, all quantities are measured.
2. Drainage and evaporation are measured in inches.
3. Averages are for 30 years 1951-80, except radiation 29 years 1956-84.

WOBURN WEATHER 1984-85

Latitude 52° 1' 5" N; Longitude 0° 35' 35" W; Altitude 89 m

| | 1985 | | | | | | | | | | | | Year |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | |
| TEMPERATURE (°C) | | | | | | | | | | | | | |
| Mean screen maximum | 3.3 | 5.0 | 8.5 | 12.7 | 15.1 | 17.2 | 21.2 | 19.1 | 19.4 | 14.8 | 6.9 | 9.0 | 12.7 |
| Difference from average | -2.6 | -1.3 | -0.6 | +0.6 | -0.7 | -1.9 | +0.5 | -1.2 | +1.4 | +0.8 | -2.3 | +2.0 | -0.4 |
| Mean screen minimum | -2.8 | -2.4 | 0.8 | 4.2 | 5.9 | 8.0 | 11.2 | 11.1 | 10.0 | 6.9 | 0.3 | 4.5 | 4.8 |
| Difference from average | -3.3 | -2.8 | -0.7 | +0.9 | -0.3 | -0.9 | +0.3 | +0.3 | +0.9 | +0.4 | -2.9 | +3.0 | -0.4 |
| Soil at 10 cm | 1.4 | 2.2 | 3.6 | 8.0 | 11.1 | 13.9 | 17.3 | 14.8 | 13.9 | 10.8 | 4.3 | 6.2 | 8.9 |
| Dew point | 1.1 | -1.1 | 2.5 | 4.5 | 7.5 | 9.0 | 12.5 | 12.2 | 13.0 | 8.6 | 2.8 | 5.4 | 6.5 |
| No. of days with ground frost | 29 | 24 | 23 | 9 | 12 | 6 | 0 | 0 | 2 | 11 | 20 | 8 | 144 |
| RADIATION | | | | | | | | | | | | | |
| Sunshine (h per month) | 36 | 68 | 105 | 130 | 148 | 158 | 212 | 171 | 138 | 102 | 78 | 30 | 1376 |
| Difference from average | -14 | +7 | -2 | -2 | -35 | -34 | +36 | +9 | +2 | +2 | +16 | -15 | -30 |
| Mean daily radiation (MJ m ⁻² day ⁻¹) | 2.7 | 5.4 | 8.3 | 13.4 | 14.5 | N/A | N/A | 13.7 | 10.6 | 6.4 | 3.7 | 2.0 | — |
| WIND (km day⁻¹) | | | | | | | | | | | | | |
| Wind run at 2 m | 188 | 160 | 198 | 253 | 154 | 185 | 172 | 241 | 173 | 118 | 175 | 270 | 191 |
| WATER (mm per month) | | | | | | | | | | | | | |
| Rainfall (5 inch gauge) | 49 | 20 | 36 | 21 | 71 | 117 | 77 | 50 | 23 | 29 | 43 | 102 | 638 |
| Difference from average | -5 | -22 | -13 | -24 | +21 | +62 | +26 | -17 | -31 | -24 | -16 | +44 | +1 |
| Rain days | 14 | 6 | 17 | 16 | 11 | 20 | 14 | 17 | 6 | 10 | 17 | 18 | 166 |

NOTE ON THE TABLE

Averages are for 30 years, 1951-80.

SAXMUNDHAM WEATHER 1984-85

Latitude 52° 13' N; Longitude 1° 28' E; Altitude 37 m

| | 1985 | | | | | | | | | | | | Year | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 1984 | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Year |
| TEMPERATURE (°C) | | | | | | | | | | | | | | | | | |
| Mean screen maximum | 15.2 | 11.9 | 8.2 | 8.2 | 3.6 | 3.9 | 6.6 | 10.3 | 13.9 | 16.1 | 21.4 | 19.7 | 19.1 | 14.8 | 9.1 | 14.3 | 12.7 |
| Difference from average | +1.2 | +2.4 | +1.2 | +1.2 | -2.9 | -2.5 | -1.8 | -0.6 | -0.5 | -2.3 | +0.7 | -1.3 | +0.7 | +0.7 | -0.6 | +7.2 | -0.3 |
| Mean screen minimum | 8.1 | 6.4 | 2.6 | 2.6 | -1.9 | -0.2 | 1.6 | 5.0 | 6.6 | 8.6 | 12.1 | 10.9 | 10.7 | 8.4 | 1.8 | 5.2 | 5.7 |
| Difference from average | +0.8 | +2.3 | +0.3 | +0.3 | -3.6 | -1.5 | -0.2 | +1.6 | -0.2 | -1.0 | +0.4 | -1.1 | +0.4 | +1.0 | -2.4 | +2.9 | -0.4 |
| Soil at 10 cm | 11.4 | 8.8 | 5.4 | 5.4 | 2.3 | 2.6 | 3.5 | 8.6 | 11.4 | 14.6 | 18.8 | 15.5 | 14.8 | 11.6 | 5.1 | 6.4 | 9.6 |
| Dew point | 9.4 | 7.8 | 4.4 | 4.4 | 1.1 | 0.6 | 1.7 | 3.9 | 8.3 | 8.9 | 12.8 | 12.8 | 11.7 | 8.9 | 3.9 | 6.7 | 6.8 |
| No. of days with ground frost | 4 | 4 | 17 | 17 | 29 | 22 | 11 | 3 | 5 | 2 | 0 | 0 | 1 | 7 | 8 | 7 | 95 |
| RADIATION | | | | | | | | | | | | | | | | | |
| Mean daily radiation (MJ m ⁻² day ⁻¹) | 5.3 | 2.3 | 1.6 | 1.6 | 2.1 | 4.6 | 7.1 | 6.3 | 12.5 | 14.9 | 16.3 | 12.7 | 8.4 | 5.5 | 3.0 | 1.3 | 7.9 |
| WIND (km day ⁻¹) | | | | | | | | | | | | | | | | | |
| Wind run at 2 m | 260 | 270 | 215 | 215 | 309 | 261 | 263 | 302 | 231 | 185 | 183 | 236 | 188 | 204 | 275 | 316 | 246 |
| WATER (mm per month) | | | | | | | | | | | | | | | | | |
| Rainfall (5 inch gauge) | 63 | 64 | 57 | 57 | 90 | 25 | 50 | 58 | 53 | 116 | 43 | 67 | 14 | 13 | 41 | 62 | 632 |
| Difference from average | +13 | -5 | +2 | +2 | +30 | -18 | +2 | +19 | +10 | +72 | -7 | +26 | -53 | -38 | -28 | +7 | +21 |
| Rain days | 18 | 16 | 19 | 19 | 21 | 9 | 20 | 17 | 14 | 26 | 13 | 18 | 7 | 9 | 13 | 20 | 187 |
| Open water (tank) evaporation | 36 | 16 | 10 | 10 | — | — | — | 66 | 75 | 86 | 104 | 93 | 29 | 37 | 11 | — | — |

NOTES ON THE TABLE

1. All quantities are measured.
2. Temperatures are measured in °F.
3. Radiation is measured with a Kipp Solarimeter.
4. Rain and evaporation are measured in inches.
5. Evaporation is the mean of two open water tanks. They are 56 cm diameter, 30 cm deep and set 15 cm in the ground. Water level is about 6 cm below the rim.
6. Long period averages are for different periods: air temperatures 1969-84; rain 1968-84.

BROOM'S BARN WEATHER 1984-85
 Latitude 52° 16' N; Longitude 0° 34' E; Altitude 75 m

| | 1985 | | | | | | | | | | | | Year | | | |
|---|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Year |
| TEMPERATURE (°C) | | | | | | | | | | | | | | | | |
| Mean screen maximum | 14.9 | 10.6 | 7.9 | 2.8 | 4.2 | 8.0 | 12.6 | 14.6 | 16.8 | 21.2 | 19.7 | 19.6 | 15.1 | 6.6 | 8.6 | 12.5 |
| Difference from average | +0.7 | +1.4 | +1.3 | -3.3 | -2.0 | -1.0 | +1.0 | -1.0 | -2.3 | +0.2 | -1.5 | +1.3 | +0.8 | -2.6 | +1.9 | -0.7 |
| Mean screen minimum | 8.6 | 6.1 | 2.9 | -2.9 | -1.5 | 1.2 | 4.7 | 6.8 | 8.5 | 12.1 | 10.9 | 10.7 | 7.4 | 1.0 | 4.7 | 5.3 |
| Difference from average | +1.4 | +2.6 | +1.2 | -3.3 | -2.4 | -0.9 | +1.2 | +0.2 | -1.2 | +0.5 | -0.8 | +0.6 | 0.0 | -2.6 | +2.9 | -0.5 |
| Soil at 10 cm | 10.3 | 7.5 | 4.2 | 0.9 | 1.2 | 3.2 | 8.1 | 11.2 | 14.2 | 18.6 | 15.1 | 14.1 | 10.2 | 3.4 | 5.8 | 8.8 |
| Dew point | 8.9 | 6.6 | 3.7 | -1.2 | -0.9 | 2.2 | 4.8 | 7.9 | 9.3 | 12.9 | 11.6 | 12.0 | 8.8 | 1.4 | 5.2 | 6.2 |
| No. of days with ground frost | 1 | 2 | 13 | 26 | 21 | 18 | 5 | 3 | 0 | 0 | 0 | 0 | 9 | 19 | 4 | 105 |
| RADIATION | | | | | | | | | | | | | | | | |
| Sunshine (h per month) | 115 | 53 | 79 | 43 | 89 | 95 | 147 | 145 | 163 | 233 | 183 | 137 | 132 | 103 | 35 | 1504 |
| Difference from average | +6 | -15 | +32 | -8 | +27 | -11 | +3 | -45 | -38 | +49 | +6 | -8 | +23 | +35 | -14 | +19 |
| Mean daily radiation (MJ m ⁻² day ⁻¹) | 6.39 | 2.67 | 2.13 | 2.63 | 5.22 | 7.86 | 12.86 | 13.89 | 16.91 | 18.14 | 13.86 | 10.25 | 6.40 | 3.70 | 1.70 | 9.48 |
| Mean daily diffuse radiation (MJ m ⁻² day ⁻¹) | 3.58 | 1.82 | 1.22 | 1.80 | 3.36 | 5.25 | 7.50 | 8.10 | 8.88 | 9.15 | 8.17 | 6.05 | 3.18 | 1.65 | 1.26 | 5.36 |
| WIND (km day⁻¹) | | | | | | | | | | | | | | | | |
| Wind run at 2 m | 209 | 200 | 174 | 180 | 222 | 180 | 229 | 174 | 166 | 160 | 215 | 167 | 124 | 167 | 248 | 186 |
| Difference from average | +13 | -41 | -79 | -74 | -13 | -71 | 0 | -31 | -17 | -13 | +43 | -26 | -73 | -72 | -5 | -29 |
| WATER (mm per month) | | | | | | | | | | | | | | | | |
| Rainfall (5 inch gauge) | 57 | 75 | 39 | 47 | 9 | 49 | 34 | 62 | 87 | 39 | 50 | 15 | 13 | 42 | 72 | 519 |
| Difference from average | +7 | +15 | -14 | -1 | -26 | +6 | -8 | +9 | +35 | -4 | -1 | -41 | -39 | -20 | +18 | -74 |
| Rain days | 12 | 16 | 19 | 20 | 5 | 22 | 14 | 14 | 21 | 16 | 16 | 9 | 7 | 15 | 19 | 178 |
| Open water evaporation sunken tank | 37 | 18 | 12 | 6 | 7 | 22 | 59 | 65 | 83 | 114 | 90 | 68 | 39 | 20 | 14 | 590 |
| Difference from average | 0 | -1 | +2 | -3 | -9 | -15 | -4 | -36 | -36 | -10 | -28 | -13 | +2 | +1 | +4 | -143 |
| Open water evaporation Class 'A' pan | 42 | 17 | 10 | 2 | 4 | 24 | 73 | 74 | 86 | 119 | 102 | 79 | 40 | 21 | 19 | 643 |
| Potential transpiration | 26 | 5 | 0 | 1 | 11 | 26 | 60 | 65 | 85 | 99 | 77 | 51 | 18 | 2 | 2 | 497 |

NOTES ON THE TABLE

1. Except for potential transpiration, all quantities are measured.
2. Long term averages are 1965-84 except evaporation—1970-84.