

JULY DATA 2003

June passed into July with little change in the general pattern of the weather. Pressure remained low to the northwest of the country whilst the Azores high remained stubbornly anchored over its home base. The resultant weather was therefore changeable with periods of rain and brief sunny spells, though it did remain relatively warm. Cloud amounts were unusually high for much of the first three days with Wimbledon being interrupted on a number of occasions by heavy showers. By the 4th signs of movement in the Azores anticyclone were evident and hopes rose that the weather would settle into a more seasonable, summer, pattern.

Temperatures remained in the upper teens for the first 6 days and did not breach the 20C/68F mark until the 7th, then touching 22.2C/72F for a brief time. A gradual rise in daytime maxima then occurred with a high of 26.7C/80.1F achieved on the 9th that ended as a hot and sticky day. Over the 10 day period marking "early July" the air minimum of 10.2C/50.4F occurred during the small hours on the 7th with a grass minimum of 6.6C/43.9F on the same day. With a predominantly westerly zonal flow of air over the U.K. that was generally clear, visibilities were good on most days.

It was, however, cloudy, the 09hr mean cloud amount being as high as 6.7 oktas or 83.8%. This burnt off on most days allowing temperatures to rise, though keeping humidity's high and days "sticky". Consequently, though we had sunshine on 100% of the days and rainfall on 30%, the latter produced a meagre 2.3mm/0.09in of water. Evaporation was evident on most days

amounting to a total of 24.2mm/0.95in of water. The period therefore saw a water deficit of 21.9mm/0.86in, not at all well for gardeners, horticulturalists or farmers.

Days were sunny though amounts varied widely from the near maximum 14.8hours on the 9th to a mere 24 minutes [0.4hr] on the 6th giving a ten-day total of 47.7 hours. This and the clear air, enabled black bulb radiation maxima to peak at 58.7C/137.7F on the 8th as well as keeping both soil and earth temperatures well up. These ranged from means of 20.3C/68.5F on the 10th at 10cm depth, to a mean of 14.6C/58.3F also at 10cm depth on the 3rd.

Winds were westerly on 100% of the days and light, averaging 3.9kt/4.7mph at 09 hours and producing a peak gust of 20kt/23mph on the 10th. To date the month has not had any thunder or seen any hail, unusual for a mid-summer month. Pressure has not been exceptionally high or low, the mean sea level values ranging from 998.8 hPa on the 1st to 1022.8hPa on the 7th due principally to the absence of either the Azores high itself, or a "tongue" of high pressure from it.

Mid-July was ushered in with high temperatures, the 12th reaching 25.1°C/77.2°F under clear blue skies and a very light south easterly drift. With forecasts of highs in the region of 30°C/86°F expected, high summer at last seemed to be here, howbeit tempered with a mention of a thundery breakdown in mid-week. Nights were very warm, even sticky, making comfortable sleep near impossible, night time minima falling no lower than 12.4°C/54.3°F on

the 11th/12th. Under such conditions it remained dry, the last rain occurring as far back as the 7th. Radiation temperatures rose to 57.3°C/135.1°F on the 13th with evaporation in the range of 2.2mm/0.09in to 3.9mm/0.15in

daily. With the absence of rain, this will soon lead to rapid water depletion.

The middle of the month saw some really high temperatures, peaking at 31.5°C/88.7°F in the air on the 15th, and falling no lower than 8.2°C/46.8°F on the 12th, the grass reaching a low of 5.4°C/41.7°F on the same morning. Black bulb radiation temperatures peaked at 60.2°C/140.4°F on the 15th a day that was both hot and humid. Soil temperatures have been unusually high, the surface peaking at 26.3°C/79.3°F on the 16th, the 30cm depth reaching 20.1°C/68.2°F on the same morning. Despite these high temperatures and humidity's just one thunderstorm occurred on the 16th. One can only marvel at the nature of plant life, seeing that it has to contend with temperatures such as those mentioned above. Unlike humans, plants cannot move into the shade, or take a long drink of cool water! They have to "stand firm" and take whatever is thrown at them, yet they survive and provide us with panoply of colour that brightens up the garden and patio. How wonderful is Nature.