

2003

## OCTOBER DATA

The cooling process that had begun towards the end of September continued into early October, the first seeing the maximum air temperature for the period of 19.3C/66.7F. Cloud amounts also became more significant, though this failed to produce any substantial fall of rain, amounts being very small when any did fall. Nights were generally cool with one quite sharp frost on the grass of -2.7C/27.1...F on the 5<sup>th</sup>, which incidentally produced the lowest air temperature for early October of 0.2C/32.4F, just avoiding an air frost.

Air temperatures for early October ranged from a high of 19.3C/66.7F on the 1<sup>st</sup> to a low of 0.2C/32.4F on the 5<sup>th</sup> with temperatures over grass falling to minus 2.7C/27.1F on the 5<sup>th</sup> giving a widespread ground frost. In compensation, black bulb radiation temperatures peaked at 51.8C/125.2F on the 9<sup>th</sup> which was a pleasantly warm and sunny day. Due to the shorter days and clear nights, soil temperatures are now falling off quite quickly with a mean over the 10-day period of 10.1C/50.2F at 20cm/8ins whilst remaining as high as 14.2C/57.6F at 100cm/3feet.

Lack of rainfall still continues to pose problems with a 10-day total of just 6.2mm/0.24in some 2.0mm/0.08in of this falling on the 3<sup>rd</sup> that was the "heaviest" fall for the period! In contrast evaporation continues apace under relatively high pressure and totalled 22.0mm/0.87in giving a deficit yet again of 15.8mm/0.62in in the supply of water. The sunny days have aided this, a total of 38hr having been recorded with the 1<sup>st</sup> providing 7.5hr. Winds

have been predominantly from a westerly quarter on 80% of the days remaining light at 6.1kn/7.0mph, the maximum gust reaching no higher than 28kn/32mph on the 4<sup>th</sup>.

The very pleasant conditions have now been with us since spring and we have had one of the best summers for almost half a century. This produced a heat wave in mid-August that set new records in temperature. Unfortunately, we must always bear in mind that this type of weather does not suit all, and we are now encountering a real lack of rain that must, if it continues into the autumn, end with a water shortage.

This lack of rain continued as the month progressed, the last measurable fall being of 0.1mm/tr on the 8<sup>th</sup>. Days also continued to accumulate very reasonable sunshine totals, the 9.3 hours on the 11<sup>th</sup> making it a "sunny" day [ $<9$ hr]. Though some totals were not large, only 2 days so far this month to the 16<sup>th</sup> have been totally without sunshine, the 2<sup>nd</sup> and 8<sup>th</sup>. With the 30-year mean maximum temperature standing at 13.7C/56.7F it is clear to see how well these have held up with only 3 days of the month so far failing to reach this figure. In fact, from the 11<sup>th</sup> onwards the daily maxima rose steadily from 11.7C/53.1F to 17.3C/63.1F on the 14<sup>th</sup> providing further warm, sunny and dry days that have seemed the norm from the spring onwards. We have, indeed, had a quite exceptional spell of weather over the past 7 months.

Mid-October saw a range in air temperature from 17.3C/63.1F on the 14<sup>th</sup> to 3.0C/37.4F on the 20<sup>th</sup> with the minimum over grass falling to -0.4C/31.3F on the 19<sup>th</sup>. Set against this black bulb radiation tem-

peratures still managed to peak at 44.4C/111.9F on the 16<sup>th</sup> under clear skies. Soil temperatures are by now falling appreciably under the influence of the shorter days, the 5cm mean being 5.1C/41.2F to 12.6C/54.7F at 100cm. As nights lengthen and get much colder both soil and earth temperatures will quickly fall to their normal levels: they are currently relatively high after such a very warm spell of summer weather.

Rainfall has been very low, totalling a mere 0.4mm/0.02in over the ten days whilst evaporation has continued apace reaching 22.8mm/0.90in for the same period. This still gives a deficit in water availability reaching 22.4mm/0.88in just for the mid-month period. In terms of bright sunshine we have had a total of 55.9 hours of which 9.3 hours was recorded on the 11<sup>th</sup> with a further 9.2 hours on the 16<sup>th</sup>, both being classified as "sunny" days.

Winds have been from an easterly quarter for the full period averaging 6kn/7mph with a maximum gust to 25kn/29mph on the 19<sup>th</sup>. This is still below the 32kn/37mph required for a gale force gust.

As late-October set in the weather began to reflect the conditions more common to autumn: cool nights with a potential for ground frost coupled with ever-shortening days with lower daytime maxima. The 21<sup>st</sup> saw the first substantial rainfall of the month with a fall of 2.4mm/0.09in, though by the 25<sup>th</sup> the rainfall total for the month still stood at only 9mm/0.35in! Under the influence of anticyclonic conditions and clear night skies frost was recorded both in the air and over grass from the 22<sup>nd</sup> onwards.