

2003

## NOVEMBER DATA

As the month changed the weather continued with the same pattern, rather unsettled with cool days and more in the way of rain than had been seen for some time. The ten-day period marking "early" November saw a total of 14.6mm/0.57in of rain falling of which 7.1mm/0.28in fell on the 2<sup>nd</sup>. Measurable rain fell over a period of 9 hours, with 7.1 hours of this coming on the 1<sup>st</sup> giving us the "heaviest" period of rainfall for many months. Against this the sun shone for a total of 26.5 hours of which 5.5 hours was recorded on the 3<sup>rd</sup> that was a fine and sunny day. Indeed, the black bulb radiation level on this day peaked at 42.6C/108.7F, an excellent figure for so late in the year and still in excess of 100F! Maximum global radiation levels on the 3<sup>rd</sup> were also the highest of the period reaching a total of 0.541kilowatts per square metre.

Air temperatures have now fallen back considerably on the values seen but a few weeks earlier and ranged from a maximum of 14.9C/58.8F on the 5<sup>th</sup> to a minimum of 2.9C/37.2F on the 9<sup>th</sup>, the grass falling to -1.6C/29.1F on the same day. With the depleted levels in global radiation both earth and soil temperatures have reached more customary levels with the 10cm soil at 6.9C/44.4F whilst the 100cm depth is now averaging 10.7C/51.3F.

Evaporation levels have now begun to fall back appreciably with some days not managing to reach 1mm/0.04in. Early November saw a total of 10.9mm/0.43in evaporating from water surfaces, which, with rainfall at 14.6mm/0.57in

now gives us a water surplus of 3.7mm/0.15in, just the third time to see a surplus this year. Winds have been light averaging 6kn/7mph with a maximum gust of 30kn/35mph on the 1<sup>st</sup>. They have been variable in direction coming both from an easterly and westerly quarter on 40% of the days. There has been no incidence of thunder or hail and just 1 day was totally without sun whilst 5 saw measurable rain.

Mid-month arrived with little appreciable change in the overall pattern in the weather, days being mild or very mild

with spells of rain. It was quite "balmy" on the 19<sup>th</sup> with air maxima in the region of 14.1C/57.4F as a southerly air stream brought in a flow of air from the south Atlantic. The 12<sup>th</sup> saw a black bulb maximum as high as 40.7C/105.3F, exceptional for so late in the year though peak radiation levels could manage no more than 0.444kilowatt per square metre on the 16<sup>th</sup>, the maximum achieved over the 10-day period.

At last we began to get reasonable falls of rain, the total for the 10 days reaching 15.9mm/0.63in with a maximum daily fall of 4.7mm/0.19in on the 14<sup>th</sup>. This has now brought water accumulation above loss, the surplus standing at 5.5mm/0.21in for mid-November. This still leaves an appreciable total to make up before rainfall for the year comes anywhere near expectation. What has been exceptional has been temperature, both days and nights on the whole showing quite large positive anomalies. The lowest night temperature in the air was 0.6C/33.1F on the 16<sup>th</sup> with the grass falling to -2.8C/27.0F on the same date.

Wind was from a westerly quarter for 90% of the time and was light, averaging 6.8kn/

7.8mph with a gust of 31kn/37mph occurring on November 14<sup>th</sup>. However, sunshine has been depleted during the period from the 11<sup>th</sup> to 20<sup>th</sup>, the total reaching 16.1 hours with 5 sunless days. Cloud cover has been well up as has relative humidity but we have had no snow or sleet, unusual for so late in the year. Daylight is also falling back to its lowest levels, there being just 8.2 hours on the 20<sup>th</sup> compared with the 15.5 hours produced in mid-June.

Late November, the period from the 21<sup>st</sup> to 30<sup>th</sup> inclusive, was to see more seasonable weather in that night frost became a little more prevalent with days much cooler and in line with what one would expect for the month. By now all leaves had gone, the fresher winds of the last week seeing to that. A sharp drop in temperature immediately follows any clearance in the sky at this time of the year so a clearance after rain often leads to icy conditions on the roads. This was prominent in the last few days when ground frosts led to such occurrences. The mornings of the 24<sup>th</sup> and 25<sup>th</sup> saw particularly sharp frost with grass temperatures as low as -6.9C/19.6F. The deficit in rainfall was also reduced as significant amounts fell, as much as 13.5mm/0.53in accruing on the 25<sup>th</sup>. The end of the month was more seasonable than had seemed likely in the early stages, though there was still a marked absence of snow or sleet and winds were also relatively light, four "calms" being recorded on successive mornings, far more than for many years. Moderate rain on the 29<sup>th</sup> was followed on the 30<sup>th</sup> by a day of reasonable sunshine to end the month with above-average temperatures.