

2003

—SEPTEMBER DATA

The start of the new month saw a continuation in the rather warm, sunny and relatively dry weather that had been the hallmark of the end of August. Daytime maxima still managed to reach the low to mid-twenties Celsius though the nights were now beginning to demonstrate more in the way of cooling. Black bulb radiation temperatures were mainly in the low to mid fifties Celsius whilst rainfall was still very sparse, just 0.2mm/0.01in falling in a light shower on the 5th. However, the sixth was a rather humid day with cumulo-nimbus in profusion and this led to an afternoon thunderstorm moving north eastwards to the east of the station which lasted just over an hour and produced little in the way of the much-needed rainfall.

Statistics for early September revealed nothing of note, the maximum air temperature reaching 24.3C/75.7F on the 4th with a night low of 5.4C/41.7F on the 7th. The same period produced a black bulb radiation temperature of 55.1C/131.2F on the 2nd with a grass minimum of 2.5C/36.5F on the 7th. Signs of autumn were now much in evidence with a distinct chill in the air in the mornings with mist in low-lying valleys. Daylight was also drawing in noticeably though both soil and earth temperatures have managed to remain quite high, both being in the mid-teens C.

Rainfall at last began to occur on a more regular basis, the 10-day total reaching 16.5mm/0.65in with a maximum daily fall of 6.1mm/0.24in on the 9th, precipitation being noted on 60% of the days. With evaporation at 25.8mm/1.02in there was still a water deficit of

9.3mm/0.37in. Sunshine continued to hold up well with a total of 49.4hours overall and a maximum daily of 10.4hours on the 4th. Winds were mainly westerly on 60% of the days and were light with a mean speed of 3.9kn/4.5mph and a maximum gust of 23kn/26mph, still well below the level for a gale.

Thunder occurred on one day but there was a complete absence of hail, fog and grass frost. The glorious summer still remained in the minds of many people and so most were reluctant to face the fact that September marks the start of autumn, and that high temperatures and very sunny days are likely to be the exception rather than the rule from now onwards.

Mid-September did not produce any startling changes in the predominant weather patterns, days remaining, on the whole, dry, sunny and warm though the nights were beginning to draw in appreciably. The period saw a range of temperature in the air from a maximum of 26.7C/80.1F on the 16th to a minimum of 7.4C/45.3F on the morning of the same day. Grass temperatures fell to 3.4C/38.1F also on the 16th whilst black bulb temperatures reached a high of 58.9C/138F on the afternoon of the 16th. Earth temperatures are now beginning to fall, the mean at 10cm depth standing at 14.4C/57.9F and at both 30 and 50cm depths, 16C/60.8F, though this will become even more noticeable once night frost sets in under the rapid decline in day length.

Days remained sunny with a total of 66.5 hours over the 10-days, peaking with 11.5 hours on the 13th. Rainfall for this period amounted to no more than 1.3mm/0.05in, all falling on the 11th though evaporation

totalled 31.3mm/1.23ins for the same time-span. There is still a heavy water deficit amounting to 30mm/1.18ins that is resulting in premature leaf-fall and severe cracking of the ground. Winds were from a westerly quarter on 60% of the days averaging 5.2kn/6.0mph with a maximum gust of 33kn/38mph on the 12th.

The first substantial fall of rain occurred on the 22nd as an active cold front passed south eastwards across the UK. Behind this was much colder Polar air with the result that the night of the 23rd/24th saw quite a sharp ground frost of -2.0C/28.4F, the first real sign of autumn. Subsequent days were much cooler, though with ample sunshine, the 23rd producing 11.8 hours. The final part of the month was much more in line with normal, temperatures by night and day reflecting the autumn season that is now with us. Rainfall remained very sparse with the water deficit now becoming quite serious.

The month ended on a much cooler note with occasional rainfall, much more in line with September than the weather seen earlier in the month. Radiation maxima continued in the 40'sC/100'sF peaking at 50.0C/122F on the 27th. End of month rainfall amounted to 15.2mm/0.60in for the last 10 days but evaporation again exceeded this adding still more to the water deficit.