

APRIL DATA.

As the new month began it was accompanied by a change in the weather. The last three weeks of March had seen an exceptional spell of very mild, dry and record-breaking sunny weather. However, the final day of the month was also the last day of these unusually pleasant conditions. The anticyclone that had brought the settled spell gave way to an Atlantic low and the incursion of a warm front brought the first rain for 21 days to the area, April 1st seeing 4.5mm/0.18in of rain and somewhat cooler conditions with an air maximum of 11.2°C/52.2°F. Fortunately, the long-term forecast was for this “breakdown” to last just a few days with a return to anticyclonic conditions by the end of the week.

Though the high pressure did return, it built from the Atlantic bringing with it a westerly airflow that contained significantly more cloud. We therefore had to contend with a “cloudy” high as opposed to the “clear” high that had prevailed for much of the previous month. Fortunately, the weather did not deteriorate significantly, and the run of sunny days and clear, cold nights continued. Though maximum temperatures remained in the mid or upper teens, nighttime minima in the air fell as low as -3.6°C/25.5°F on the 8th and to -7.4°C/18.7°F over grass. Both the 7th and 8th were exceptionally sunny, each day producing the maximum possible sunshine total of 12.3 hours.

Also, after the rainfall on the 1st, this was to be the only break in a spell of extremely dry weather that had begun on the 12th of March. Several days did see a trace [tr] mainly resulting from heavy dews or slight drizzle though in every case this was insufficient to break the drought. The clear air enabled radiation black bulb maximum temperatures to reach 50.0°C/122.0°F on the 4th with radiation levels peaking at 0.812 kilowatt per square metre on the 3rd. The unusually clear skies by both day and night resulted in one or two wide diurnal temperature ranges, which reached 14°C/25.2°F on the 8th and 12.2°C/22.0°F on the 5th.

Early April produced some astonishing weather yet again, with very warm days reaching a maximum of 16.4°C/61.5°F on the 5th, yet producing a flurry of snow around 9.0 a.m. on the 10th. The overall mean for the period ended at 6.7°C/44.1°F that is slightly down on average. The total rainfall for the period of just 4.6mm/0.18in was well below expectation with just 2 days seeing measurable rain in a 4-week period. Winds were generally northerly averaging 7.5kn/8.7mph and gusting to 33kn/38mph on the 7th with no gale force gusts recorded over the 10-day period.

With the synoptic patterns still mainly anticyclonic the weather remained settled, days being generally low in cloud, sunny and warm with nights cold with sharp ground frosts. The main requirement at the start of mid-April is a good spell of warm rain, and frost-free nights if germination and plant growth is to be possible. In fact, mid-April had some astonishing weather lying in store, and long-standing records tumbled as the thermometer and rain gauge vied with each other to set new ones.

A new record for the air maximum occurred on the 16th when the temperature reached 25.4°C/77.7°F which not only set the new record for April but also for the earliest date on which the air maximum breached 25°C/77°F. Over the 10 day period air temperatures ranged from 25.4°C/77.7°F on the 16th to -1.2°C/29.8°F on the 12th. In fact there were some amazing ranges both in air, and soil surface, temperatures. The range in the air on the 16th was 19.2°C/34.6°F with the soil surface on the same day covering 41.4°C/74.5°F. No wonder plants have to struggle to survive such extremes! The first rainfall since the start of the month occurred overnight on the 20th/21st when 12.8mm/0.50in fell. Since the 12th of March rain has occurred on just 3 days, which has given the driest spell since last September.

Sunshine in mid-month was excellent with a total of 69.3 hours. Five days were classed as sunny with over 9 hours each and 3 as very sunny with over 12 hours each. The 16th was the best day with a total of 12.8 hours, which is just about the maximum possible for mid-April. Evaporation totalled 32.2mm against the addition to water surfaces of 13.1mm of rain, thus giving a deficit in water availability.

Winds were easterly on 9 out of the 10 days, remaining generally light throughout at 4.9knots/5.7mph, the maximum gust to 28kn/32mph occurring on the 11th. In view of the high daytime maxima and good visibility, black bulb radiation temperatures peaked at 54.5°C/130.1°F on the 16th, though the global radiation peak did not occur until the 19th at 0.961 kilowatt per square metre bringing us ever closer to the 1 kilowatt per square metre mark.

In all 4 days saw maximum temperatures in excess of 21°C/70°F with 1 day in excess of 25°C/77°F giving a “hot” day, quite a rare event for April since this has not occurred before at this site. It will be interesting to see how the weather of late-April measures up to these records, or, indeed, if it sets any new ones!

Late April was not to see the high temperatures noted in mid month, though days remained mild. Air temperatures ranged from 19.0°C/66.2°F on the 23rd to 1.7°C/35.1°F also on the morning of the 23rd. The lowest grass temperature was -2.8°C/27.0°F on the 24th. However, days were relatively cloud free and radiation temperatures rose as high as 51.2°C/124.2°F around noon on the 26th with a global radiation high of 0.946 kilowatt per square metre achieved on April 27th. Since nights saw more cloud than earlier in the month soil temperatures did not cover such a wide range, this being from 11.6°C/52.9°F at 5cm depth on the 23rd to 9.1°C/48.4°F at 10cm depth on the 29th. Despite this the range of temperature in the air was as high as 16.9°C/30.2°F and 36.7°C/66.1°F on the soil surface, both attained on the 23rd. Over the same 10-day period MSL pressure saw a maximum range of 11.0hPa on the 28th.

Buoyed up by the superb weather seen mid-month, expectations were high that an early summer spell of weather was likely. Unfortunately this did not materialise, though conditions were more like late May than late April. Prevailing winds remained westerly on 60% of the days and were light at 3.5kn/4.0mph with a maximum gust no higher than 17kn/20mph. Rainfall totalled 23.1mm/0.91in of which 11.0mm/0.43in fell on the 27th as conditions became more unsettled. However, sunshine remained plentiful with a total of 57.4 hours, 11.9 hours of this coming on the 23rd that was by far the best day of late April seeing mild and sunny conditions with dry air over the country, the evaporation total for the day reaching 3.8mm from a 10-day total of 16.8mm.

Thunder was absent as was hail and sleet and no gale force gusts were noted in what ended as a period of relatively unsettled weather to conclude the month.

APRIL SUMMARY.

April was an unusual month with exceptional ranges in temperature, atypical rainfall patterns, and very sunny days.

The mean maximum temperature of 15.0°C/59°F was the highest since the 15.4°C/59.7°F of 1987 due to the succession of high temperatures mid-month, when, from the 15th to the 18th inclusive, these breached the 21°C/69.8°F mark peaking at 25.4°C/77.7°F on the 16th, the highest April temperature ever recorded here as well as being the earliest date to breach the 25°C/77°F mark. The mean maximum was 0.4°C above the 30-year mean with the mean daily of 9.5°C/49.1°F some 1.5°C above average and the highest figure since the 10.1°C/51.1°F in 1987. In all 15 days, 50% of the month saw maxima above 15°C/59°F.

Temperature ranges were impressive both in the air and at the soil surface. In the air the ranges were 19.2°C/34.6°F on the 16th, 17.2°C/31°F on the 17th, 15.8°C/28.4°F on the 18th and 16.8°C/30.2°F on the 23rd. At the soil surface they were even more impressive as follow, 41.0°C/73.8°F on the 12th, 41.4°C/74.5°F on the 16th, 39.7°C/71.5°F on the 17th, 37.2°C/67.0°F on the 18th and 36.7°C/30.2°F on the 23rd. Air pressure also saw some wide ranges with 12.8hPa on the 1st, 12.3hPa on the 2nd, 11.3hPa on the 19th and 11.0hPa on the 28th.

Sunshine was well above the 30-year mean totalling 199.7 hours [144.8hrs] giving the best figures since 1995 [200.6hrs]. Only 2 days were sunless, about half expectation, with 11 days pronounced "sunny" [>9 hrs], the same as in 1995 with 5 days noted as "very sunny" [>12hrs], figures not seen since 1984! The 16th to 18th inclusive all ended as "very sunny days" with the sunniest of the month the 16th with 12.8 hours, a value last exceeded in 1999.

Rainfall was 30% below expectation at 40.8mm/1.61ins, the lowest since 1997 [30.8mm/1.21ins]. Most of this came in the late month, the first 19 days seeing just 3 days of rain totalling a mere 4.9mm/0.19in. Once initiated, rain fell consecutively from the 24th to the 30th when the bulk of the month's fall came. Rain fell on just 10 days with 8 of these "wet" [>1mm], 2 "wetter" [>5mm] and also 2 "very wet" [>10mm], with some form of precipitation occurring over a time-span of 75 hours.

Snow fell on 1 day though it did not lie on any day at 0900 hr. Fog occurred once and there was no hail. However, there were 5 frosts in the air lasting over 19.3 hours with 13 frosts over grass. Against the fall of 40.8mm of rain, evaporation amounted to 68.4mm so producing a water deficit of 27.6mm.

Winds were predominantly easterly for 40% of the month and were light averaging 5.8kn/6.7mph with a maximum gust of 32kn/37mph on the 1st. All soil and earth temperatures are well up on expectation with a good spread of mean air temperatures, 25 days of the month in the range 5°C-15°C/41°F-59°F, figures which are excellent for April.