

Thundery start to Summer

Although there were some good sunny days in June, the month was most notable for the thunderstorms that affected most areas at one time or another. During the first half of the month the weather was generally cool and unsettled with mostly westerly winds. Around the middle of the month high pressure developed to the east of the country and the weather systems affecting us tended to come from the continent. This caused temperatures to rise but also brought quite an amount of thunderstorm activity, particularly in the last ten days of the month. These thunderstorms caused widespread damage and destruction, particularly on Friday 27th and Saturday 28th. In Dublin about a dozen houses were struck by lightning and at least one was gutted by the resulting fire. Power supplies, transport and communications were disrupted and computers, cable television and other electrical and electronic equipment knocked out.

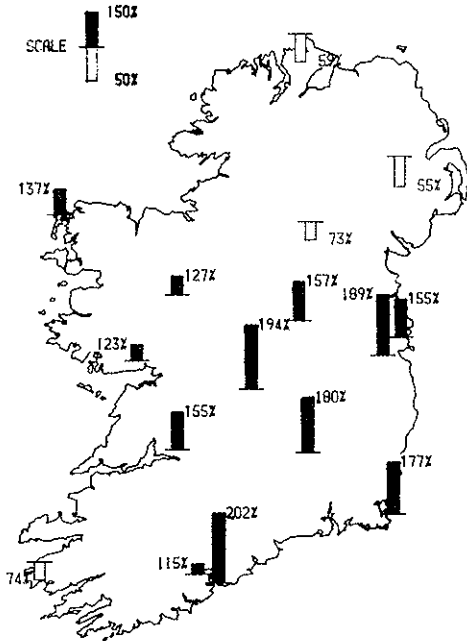
Outbreaks of thundery rain

A series of thundery troughs moved northwards across the country, mainly during the second half of the month. These brought some quite heavy outbreaks of rain to most areas. Amounts for the month were well above normal everywhere except in Kerry and the northeast (see map across). Birr was the wettest station with 101mm during the month, the highest June total since 1966. Roches Point in Co. Cork had just over 100mm which is more than twice its June average. Belmullet in Co. Mayo had the wettest day of June on the last day of the month when 35.2mm - almost an inch and a half of rain - was recorded. This is the greatest daily rainfall amount recorded there during the month of June in more than 30 years. The 10th was the wettest day of the month in Dublin; in most southern areas it was the weekend of the 20th and 21st while in the midlands and west it was the last day of the month, the 30th. Belfast was the driest place in the country with only 35mm. of rain. Malin Head was also very dry in June; only 42.1mm of rain fell, the lowest June total in more than 10 years.

Temperatures near normal

Temperatures were normal or a bit above in most areas. The south coast was the exception. Roches Point was almost half a degree below average whereas Clones was 0.9°C above. Shannon Airport had

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Reinfall percentage of (1951-1980) normals

June 1986

Distribution of Daily Values

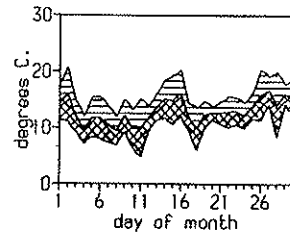
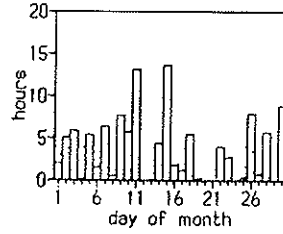
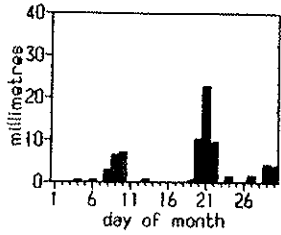
Max
Mean
Min

Rainfall

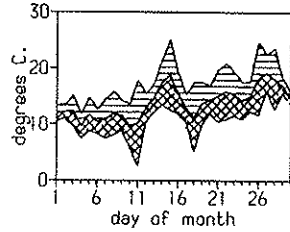
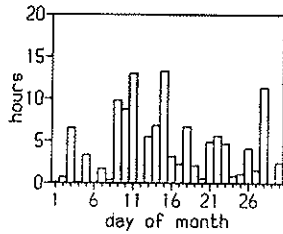
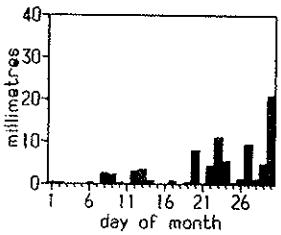
Sunshine

Temperature

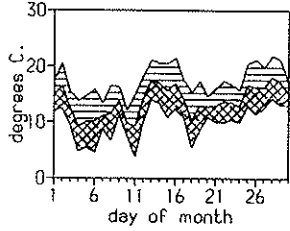
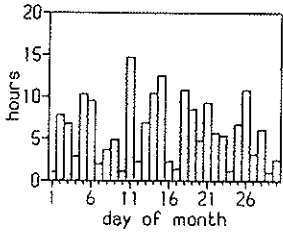
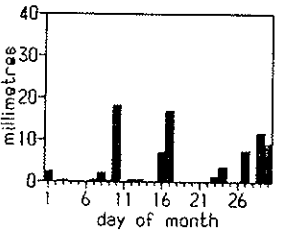
CORK



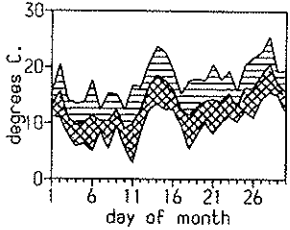
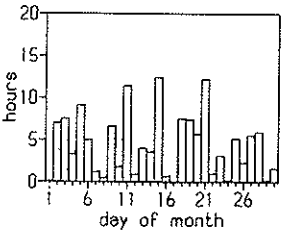
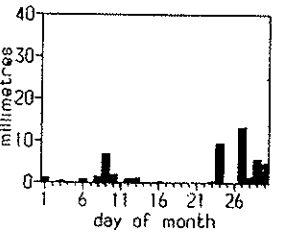
GALWAY



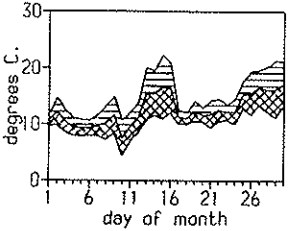
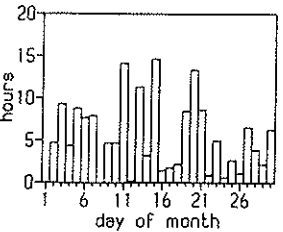
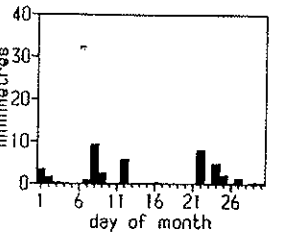
DUBLIN



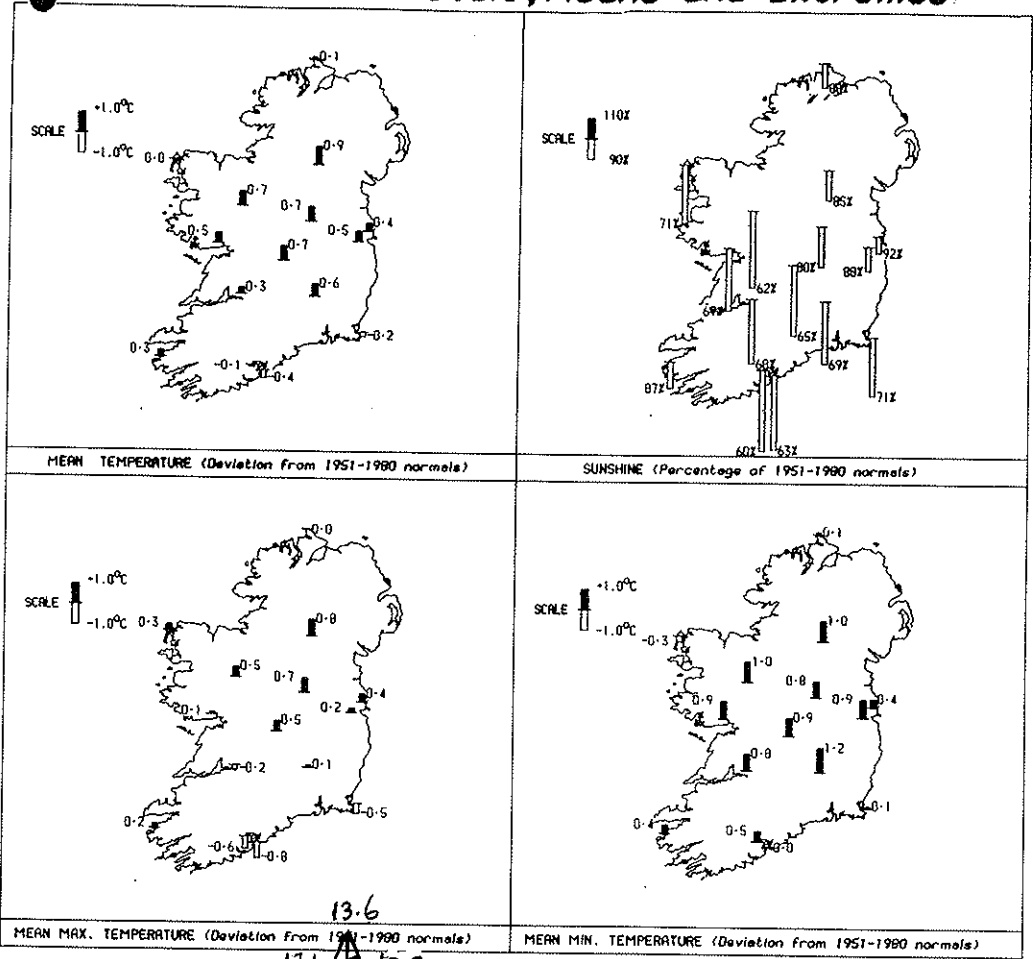
CLONES



MALIN HEAD



June 1986 - Totals, Means and Extremes



Station	Rainfall			Air Temperature						Sunshine Duration			Number of days with							
	Total	Most in a Day	Means of	Max	Min	Mean	Extreme Temperature		Total	Most in a Day	Rain*	Snow	Air Frost	Hail	Thunder	Fog				
	Amount	Date(s)	Max	Min	Mean	Highest	Lowest	Date(s)	Amount	Date(s)										
Belmullet	95.6	35.2	30	16.1	9.6	12.9	24.5	15	1.4	11	126.7	12.8	15	20	-	-	-	4	3	
Birr	101.0	26.5	28	10.3	9.9	14.1	25.2	14	1.1	11	105.2	13.9	11	17	-	-	-	5	-	
Cahiriveen	56.6	12.0	21,22	16.7	10.6	13.7	24.9	26	4.0	11	142.7	11.1	15	18	-	-	1	2	5	
Casement	92.5	29.2	10	18.0	9.6	13.8	24.0	26	2.8	6	164.5	14.0	11	15	-	-	1	4	2	
Claremorris	94.0	24.3	30	17.5	9.5	13.5	24.7	15	1.6	11	95.7	13.2	15	16	-	-	2	5	2	
Clones	50.3	13.3	27	18.0	9.7	13.9	25.5	28	2.9	11	132.0	12.4	15	16	-	-	-	4	2	
Cork Airport	73.6	22.8	21	16.1	9.9	13.0	20.7	2	4.8	11	111.3	13.6	15	17	-	-	1	2	15	
Dublin Airport	82.1	18.2	10	17.6	10.1	13.9	21.9	28	3.9	11	176.6	14.7	11	16	-	-	-	5	4	
Galway	83.5	21.1	30	17.4	10.4	13.9	25.1	15	2.6	11	121.6	13.3	15	22	-	-	1	6	6	
Kilkenny	84.5	28.1	30	18.3	9.9	14.1	25.2	26	1.0	11	118.7	14.4	11	13	-	-	-	4	5	
Malin Head	42.1	9.3	8	15.2	9.9	12.6	22.2	15	4.4	10	160.1	14.6	15	17	-	-	-	-	5	
Mullingar	98.7	25.4	30	17.7	9.4	13.6	23.2	15	2.5	11	133.3	14.0	11	16	-	-	1	3	2	
Roche's Point	100.8	30.0	21	15.7	10.5	13.1	20.3	26	6.1	11	121.1	13.9	11	16	-	-	1	4	6	
Rosslare	86.8	20.6	30	15.6	10.6	13.1	20.1	16	6.0	11	151.4	15.6	11	15	-	-	-	1	6	9
Shannon Airport	91.5	23.6	20	17.8	10.9	14.4	24.7	15	3.6	11	114.1	12.9	15	18	-	-	-	4	2	

NOTES: Rainfall in millimetres, Temperatures in Degrees Celsius and Sunshine Duration in Hours.

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the highest mean temperatures of the month with 14.4°C while Malin Head came bottom of the list at 12.6°C. The highest temperature of the month 25.5°C was recorded at Clones on Saturday the 28th. The night of the 10th/11th was the coldest with widespread ground frost and air temperatures falling to 1.0°C at Kilkenny.

Sunshine

The north and east got most sun during the month. Dublin averaged almost 6 hours a day whereas Clonmorris in Co. Mayo got just over half that amount. Rosslare had 15.6 hours of sunshine on the 11th making it the sunniest day of the month. The 11th was the sunniest day in most eastern areas; in the west it was the 15th. Generally however, sunshine amounts were below average everywhere, ranging from a high of 92% at Dublin Airport to a low of 60% at Cork. Nonetheless most areas had a few good sunny days during the month, most notably Wednesday 11th, the weekend of Friday 13th to Sunday 15th, Wednesday 25th, Thursday 26th, and in the west, Saturday 28th.

Thunderstorm Dates

Malin Head, the extreme northern tip of the country, was the only station to escape the widespread thunderstorms that occurred during June. Most places had between 4 and 6 days with thunder which is way above the June average, although it must be said that the incidence of thunder can vary quite a bit from year to year. The dates of most marked thundery activity were the 10th, the night of the 16th/17th in Dublin, the 21st and the period from the 26th to the 30th.

7-DAY FORECAST

[from 2nd to 9th July]

The week ahead will be unsettled with no sign of a long dry spell as yet. Sunny spells and scattered showers on Wednesday, with some of the showers being heavy in the northern half of the country. Larger falls of rain spreading from the west on Thursday and continuing at times on Friday.

Temperatures will remain close to normal until the weekend with highest values 18 to 20°C. Northwesterly breezes will bring cooler showery weather at the weekend with good drying conditions. A westerly airflow over Ireland for the first half of next week will bring further rainfalls with temperatures returning to normal.

THUNDERSTORMS

Thunderstorms are without doubt the most dramatic weather phenomenon experienced in Ireland. They occur in the unstable atmospheric conditions favourable for the development of heavy showers, but their unique and spectacular features are of course thunder and lightning.

Lightning is simply an enormous electrical spark, caused by the discharge of static electricity either from one cloud to another, within a cloud, or between a cloud and the ground. The often heard distinction between forked and sheet lightning is not a real difference: lightning is always forked, but if clouds or heavy rain are blocking your view you only see a diffuse flash. The lightning stroke causes a sudden and intense heating of the air along its path which in turn causes an explosive expansion producing the loud noise known as thunder. Because a lightning stroke can be up to 2kms long, the sound from different parts of the flash reaches you at slightly different times which, together with echoes, accounts for the characteristic rumbling sounds of thunder. While the light from the flash reaches you almost instantaneously, the sound from the thunder travels through the air much more slowly, at about

1km every 3 seconds. Thunder can often be heard up to 15kms away.

The amount of energy involved in a thunderstorm is enormous. The potential difference just before a lightning stroke occurs is estimated at between 100 million and 1000 million volts, and during its most active phase a thunderstorm will produce about one stroke every 20 seconds. A small thunderstorm of about 1km radius is equivalent in terms of energy to ten nuclear bombs of the type dropped on Hiroshima.

There are about 2,000 thunderstorms occurring at any one time around the world. They are most frequent in equatorial regions; the island of Java in Indonesia is probably the most thundery place in the world with an average of 220 days with thunder each year. By contrast, thunder is virtually unknown in polar regions. In Ireland there are between 3 and 7 days with thunder each year, on average.