

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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SEPTEMBER, 1924: WINDY AND VERY WET. DULL, EXCEPT IN SCOTLAND.

General.—Unsettled weather, with heavy rain at times, prevailed throughout the greater part of the month, although there were fine periods in some Districts. From the 2nd to the 6th, fine sunny conditions were experienced in the northern part of the British Isles, the anticyclone centred near southern Norway extending also across Scotland. In the south, the weather was cloudy and rain fell on most days, but the amounts were mainly moderate or slight. On the 6th the conditions changed, a depression approaching from the Atlantic and crossing the British Isles from south-west to north-east. This caused general heavy rain from the 6th to the 8th. Thunderstorms occurred in many parts of England between the 7th and the 9th. From the 10th to the 19th depressions were generally centred to the north-west of the British Isles, and south-westerly winds, strong at times, prevailed with frequent heavy rain. There were, however, some bright days, e.g., the 14th and 18th, when about 11 hours bright sunshine were recorded at several places in England and Scotland. After the 19th, depressions developed further south, and high winds or gales occurred at times on parts of our coasts, notably on the night of the 20th to 21st. From the 19th to the 25th bright sunshine and heavy rain continued to alternate. In the rear of this disturbance an anticyclone moved across England, giving fair weather for a day or two, though a fresh depression centred near Iceland caused heavy rain in Ireland and Scotland on the evening of the 28th, and a subsequent renewal of wet weather in England.

The general character of the month is illustrated by the following remarks taken from the observers' notes:—Berwick-on-Tweed,—Windy and wet. Copdock (Suffolk),—Another wretched month, dull and very wet. Temperature not far from normal. Corn crops much damaged by persistent rain. Hodsock Priory (Notts.),—The feature of the month was the warm nights. The mean minimum temperature was equally high in September, 1880, but has never been higher in this month. Harvest late but secured in fairly good condition. Isleworth,—A cool, equable month, but most unfortunate for the fruit harvest, 30 to 40 per cent. of the crop being spoilt. Lerwick,—The period from the 8th onwards, characterised by heavy rains and high winds, proved a disastrous one for the crops in Shetland. Morwenstow,—A very wet month. Rain very frequent and persistent. Newport (Isle of Wight),—An exceptionally wet and windy month. Torquay,—Generally unsettled, abundance of rain and deficient sunshine. Walton-on-Naze,—An abnormal month, unusually overcast. St. Andrews,—A few very fine days, but wet and chilly on the whole. Harvest very late. Ullapool (Ross and Cromarty),—A month of little sunshine, few dry days and days of heavy rains. Cork (University College),—The wettest September in 41 years, excepting 1901 and 1908. Dublin,—A cool month of heavy rains.

Pressure and Winds.—The mean pressure was everywhere markedly below normal. The deviation of monthly means of pressure at fixed hours from the normal varied from -10.1mb. at Stornoway to -5.5mb. at Southampton. The prevailing winds were again westerly to south-westerly, the isobars of mean pressure trending mainly from W.S.W. to E.N.E.

Four primary depressions and one secondary crossed the British Isles, the tracks lying within a relatively narrow path passing over Ireland, southern Scotland and northern England. A depression also passed over the Orkneys on the 11th to 12th (Track D). The highest recorded pressure, 1032mb., was experienced at Lerwick on the 3rd, the lowest, 975mb., occurred at Lerwick on the 18th.

Gales were of general occurrence on the 20th and 21st, and in Dublin on the night of the 20th the gale was sufficiently violent to cause much destruction of trees. During the early hours of the 21st, a storm force of 65 m.p.h. was recorded at Southport for two hours, while in gusts a force of 87 m.p.h. was obtained. A gust of 87 m.p.h. was also registered at Quilty on the 20th and gusts of 79 m.p.h. occurred at Holyhead and Valencia on the same date and at Fleetwood on the 21st.

Temperature.—The mean temperature of Districts 1 to 10 was 55°F. and was exactly normal. The mean temperature of six Districts was below normal and that of the remaining six above normal. The largest excess, 1.3°F., occurred in England E. (mean temperature 57°F.), and the largest deficiency, 1.2°F., in Scotland E. (mean temperature 51°F.). The week 21st to 27th, was the coldest, every District being below normal, while the first week of the month was the warmest. During the first week the nights were warm and at

some stations screen minima did not fall below 55°F. As in previous months the mean daily range of temperature was again comparatively small.

The extreme screen temperatures for the month were:—(England and Wales) 76°F. at Canterbury on the 7th, 31°F. at Garforth on the 28th; (Scotland) 73°F. at Fort Augustus on the 3rd, 26°F. at Braemar on the 27th; (Ireland) 73°F. at Killarney on the 2nd, 36°F. at Phoenix Park (Dublin) on the 19th and at Markree Castle on the 22nd and 27th. Seven or eight days of ground frosts were experienced at some Scottish stations, but generally speaking the frequency was much smaller and at many places no ground frosts were recorded. At Balmoral the temperature on the ground was 24°F. on the 22nd and at Renfrew it was 24°F. on the 25th.

Precipitation.—Precipitation was in excess in all Districts. The only part of the British Isles in which precipitation was under normal was eastern Kent and Sussex. Twice the normal amount was exceeded in the south-eastern half of Ireland, a large area in southern England and Wales and three small Scottish areas. The peculiarity of these Scottish areas was the fact that one lay on the north coast, one on the east coast and one on the south coast. Relatively small areas in England and Ireland had precipitation exceeding 250 per cent. of the normal, and at Birr Castle and Waterford 300 per cent. was nearly reached. The general precipitation of the British Isles expressed as a percentage of the normal was 183; the values for the several countries were:—England and Wales 174, Scotland 173, Ireland 217.

The first week of the month was the driest and the second the wettest. After the 6th precipitation was above normal in most Districts for each week separately. The heaviest daily falls occurred on the 7th, 16th and from the 19th to the 25th; many exceeded 50mm. On the 16th, 91mm. was recorded at Carnarvon and 75mm. at Dungeon Ghyll (Westmoreland). On the 25th, 88mm. fell at Beaulieu (Hants.). The fall of 53mm. at Selsey on the latter date was the largest since January, 1908.

The total fall for the month of 118mm. at Teignmouth, constitutes a record for that town for September. During the week 7th to 13th, the fall of 136mm. at Arlington (Devon) was seven and a half times the normal for that week. On the 9th flooding was very serious in the northern parts of Scotland; the observer at Forglen Castle (Banffshire) reported that the River Deveron had risen to within four inches of the level reached in the historic "Moray floods" of August, 1829.

Snow fell on many of the higher Scottish mountains on the 9th and 10th.

Several stations reported 4 days of thunder, and Worksop had 5, but thunder was not of general occurrence and many stations experienced none. Thunderstorms occurred in Scotland over considerable areas on the 17th and 23rd. During a thunderstorm in the early morning of the 8th, accompanied by high wind, some oak trees in the neighbourhood of Tunbridge Wells had their tops completely twisted off by the force of the wind.

Sunshine.—With the exception of Scotland N. and E. the duration of sunshine was below normal in all Districts. The largest mean daily excess, 0.65 hr., was experienced in Scotland E. and the largest deficiency, 1.20 hrs., in England E. The Channel Isles had 45 per cent. of the possible duration, while Ireland S. had only 28 per cent. The week 21st to 27th, was the brightest, the duration of sunshine being above normal in most Districts; during the rest of the month it was mainly below normal. In Scotland there was more sunshine than during August. On the 4th, Crathes (Kincardine) had 13.0 hrs. and Lerwick had 12.9 hrs. on the succeeding day.

Fog.—Fog was infrequent at most stations and many recorded none at the hour of morning observation. Aberystwyth reported 9 days of fog, Manchester (Whitworth Park) 7 days and Bellingham (Northumberland) 6 days.

Miscellaneous Phenomena.—Halos were of frequent occurrence. Parhelia were seen at Oxford on the 10th and at Aberdeen on the 18th. At Morwenstow (Cornwall) a bright lunar rainbow was observed at 22.30 (G.M.T.) on the 9th. Aurora was seen in Orkney on the 25th and 27th. The Zodiacal Band and Counterglow were observed at Wadhurst (Sussex) on the 27th.