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Report for 1927-28

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Meteorological Observations

Rothamsted Research

Rothamsted Research (1928) *Meteorological Observations* ; Report For 1927-28, pp 95 - 96 - DOI: <https://doi.org/10.23637/ERADOC-1-85>

METEOROLOGICAL OBSERVATIONS.

Meteorological observations have been systematically made at Rothamsted for many years. The deviation of sunshine, mean air temperature and rainfall from their average monthly values is shown in Figs. I and II for the seasons 1926-27 and 1927-28 respectively, an excess being recorded above the horizontal line and a deficiency below.

The records now taken at Rothamsted are as follows :—

Continuous self-registering records of :—

- Barometric pressure. (Negretti and Zambra barograph.)
- Radiation. (Callendar recorder.)
- Sunshine. (Campbell Stokes recorder.)
- Wind direction and velocity. (Negretti and Zambra anemobiograph.)
- Rainfall. (Negretti and Zambra hyetograph.)
- Drainage through 20 inch, 40 inch and 60 inch gauges. (Negretti and Zambra special design.)
- Air temperature. (Negretti and Zambra thermograph.)
- Soil temperatures at 4 inch, 8 inch and 12 inch depths, both under grass and in bare soil. (Negretti and Zambra recording thermometers and Cambridge Instrument Company electrical resistance recording thermometers.)

Records taken at stated hours each day.

In addition to the above, the usual barometer, air and soil temperatures and rainfall readings are taken at 9 a.m. ; these are supplemented by further readings at 3 p.m. and 9 p.m. of certain selected factors—wet and dry bulb for relative humidity and dew-point, soil temperature at 4 inch and 8 inch depths. A daily reading is also made of a simple atmometer, to obtain a measure of the amount of evaporation from a wet surface during the preceding 24 hours. Full notes are also made of the general weather conditions.

The detailed information obtained from these records and observations is employed by the Statistical Department in interpreting the crop records, and is also used, together with phenological notes and observations of crop growth, in drawing up the monthly statement for the purpose of the Crop-Weather Report of the Ministry of Agriculture. The continuous self-registering records are used by the Physical Department in their studies of border-line problems Meteorology and Soil Physics.

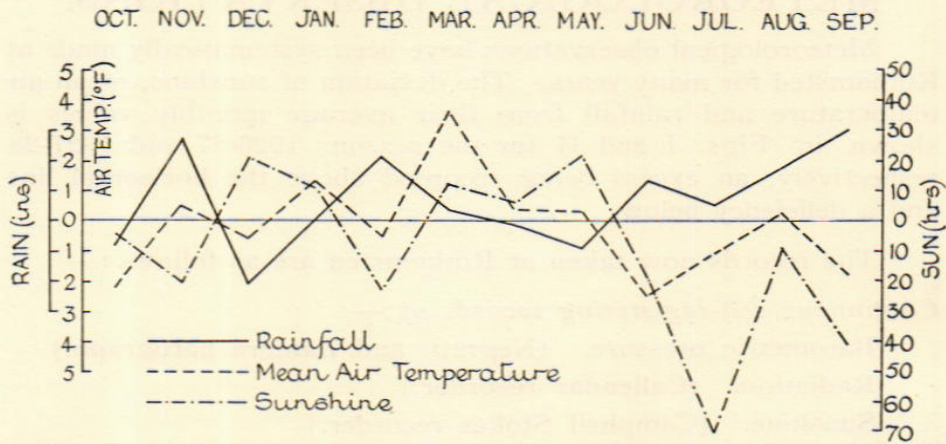


Fig. I.—Deviation from average monthly values of sunshine, mean air temperature, and rainfall—Season 1926-27.

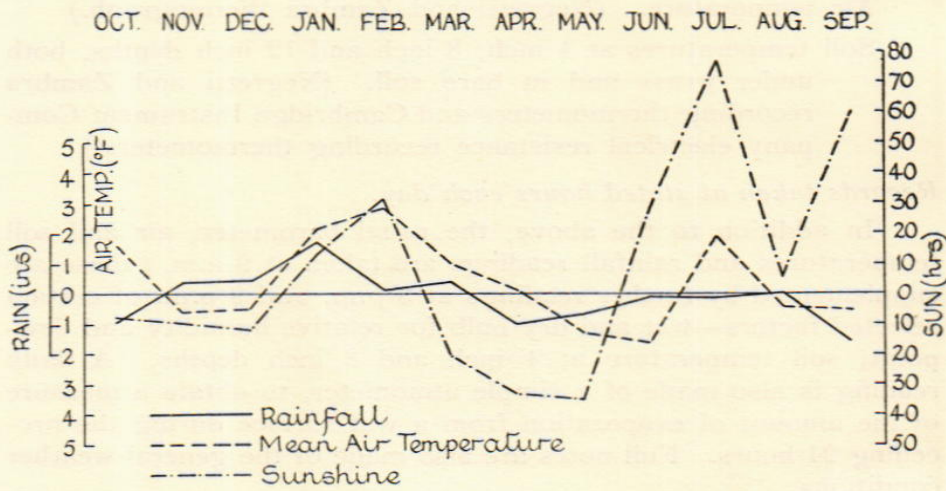


Fig. II.—Deviation from average monthly values of sunshine, mean air temperature, and rainfall—Season 1927-28.