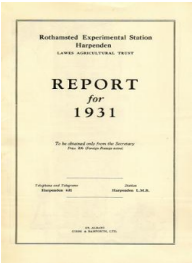
This work is licensed under a Creative Commons Attribution 4.0 International License.

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readible, or you suspect there are some problems, please let us know and we will correct that.

ROTHAMSTED RESEARCH

Report for 1931

Full Table of Content



Meteorological Observations

Rothamsted Research

Rothamsted Research (1932) *Meteorological Observations ;* Report For 1931, pp 66 - 67 **- DOI: https://doi.org/10.23637/ERADOC-1-65**

This work is licensed under a Creative Commons Attribution 4.0 International License.

Implements. The following firms have lent us implements in addition to those mentioned in the 1930 Report :

Austin Motor Co. (tractor).

Miller Wheels, Ltd. (Patent Tractor Wheels).

R. A. Lister & Co. (power-driven sheep-shearing machine).

We have also been indebted to Messrs. Massey-Harris, Ltd., for the loan for a few weeks of a four-wheel-drive tractor, tractor-plough and cultivator.

Staff. C. Frith left us in July, 1931, and went as assistant to a farmer in Cambridgeshire, who is adapting his system to mechanisation. J. R. Moffat came in December, 1931, as voluntary assistant, and is occupied with our sheep investigations and with our various farm records.

METEOROLOGICAL OBSERVATIONS

Meteorological observations have been systematically made at Rothamsted for many years ; these records are being used in the Statistical Department in interpreting crop records. The Station has co-operated in the Agricultural Meteorological Scheme since its inauguration by the Ministry of Agriculture in 1926, and possesses all the equipment required of a Crop-Weather Station. The observations taken under this scheme include :

OBSERVATIONS TAKEN ONCE DAILY : 9 a.m. G.M.T.

Temperatures—maximum and minimum (screen), solar maximum, grass minimum.

Rain (inches) and *Sunshine* (hours and minutes by Campbell-Stokes recorder) during the previous 24 hours.

OBSERVATIONS TAKEN THRICE DAILY : 9 a.m., 3 p.m., and 9 p.m. G.M.T.

Temperatures—wet and dry bulb (screen), 4 inches and 8 inches under bare soil.

Wind—direction and force (continuously recording anemobiagraph).

Weather—(Beaufort letters).

Visibility.

These, together with notes and observations of crop growth are used in drawing up the weekly statement for the purpose of the Crop Weather Report of the Ministry of Agriculture.

Additional data are collected under the following heads :

RADIATION.—A Callendar Radiation Recorder (on loan from the Imperial College of Science) gives a continuous record of the radiant energy falling on a receiver situated on the roof of the laboratory. The records are compared with those for South Kensington, and are also used in plant physiological studies in the Station.

RAINFALL AND DRAINAGE.—The rain falling on one thousandth of an acre is collected in the big gauge erected by Lawes in 1871. Samples of the water are analysed in order to ascertain its nutrient value.

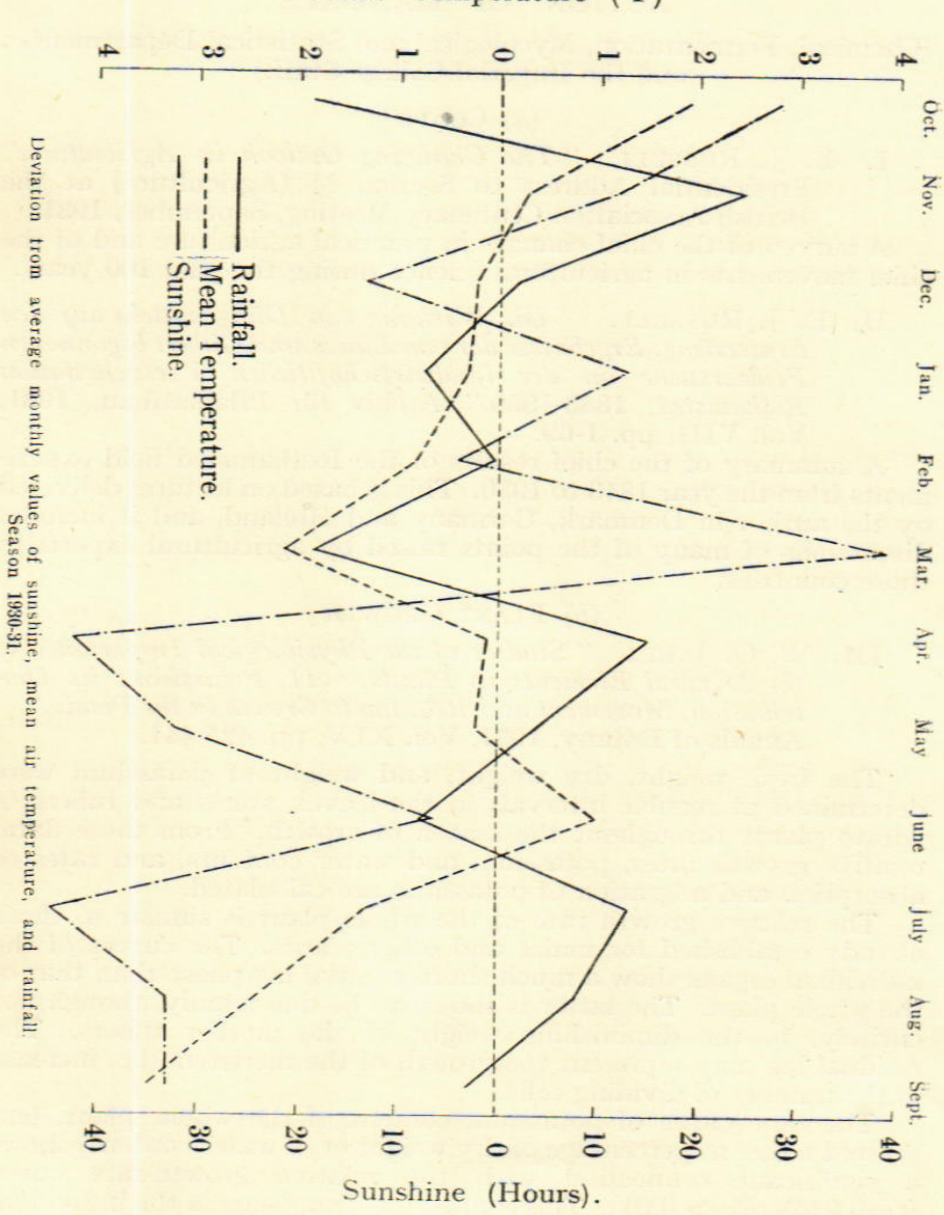
EVAPORATION.—The amount of water that evaporates in 24 hours from a porous porcelain candle dipping into a bottle of water is measured daily by the loss in weight. This measurement has been found to give a good general indication of the " drying power " of the atmosphere during rainless periods which, being controlled

https://doi.org/10.23637/ERADOC-1-65

This work is licensed under a Creative Commons Attribution 4.0 International License.

by wind, radiation, and humidity, is difficult to complete from standard data.

SOIL TEMPERATURE.—Soil temperature records are taken under grass as well as bare soil. These are a continuation of experiments which have been carried out for some years past and which have for their object the determination of the best times for making single temperature measurement for use in calculating averages.



Deviation from average monthly values of sunshine, mean air temperature, and rainfall. Season 1930-31.

https://doi.org/10.23637/ERADOC-1-65