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HARPENDEN 21.

Railway Station:
HARPENDEN (MIDLAND RAILWAY).

Lawes Agricultural Trust.

*Rothamsted Experimental Station
Harpenden.*

Director:

E. J. RUSSELL, D.Sc. F.R.S.

R. A. FISHER, M.A., Chief Statistician.
WINIFRED A. MACKENZIE, B.Sc. (ECON).

In reply to T.G. 3203.

November 15th 1924.

Dear Mr Black,

There are one or two points re the dew point machine, which I think I can make with confidence.

(i) the discrepancies between different wet and dry bulb hygrometers, of which two have been available at Rothamsted for many years, are such as to render it doubtful if indications ~~shown~~^{drawn} from their study would ever be of sufficient accuracy to be brought into relation to laboratory studies in plant pathology or plant growth.

(ii) as a measure of variable humidity the dew point presents overwhelming advantages in statistical treatment over such alternatives as the wet bulb temperature, or the relative humidity.

(iii) in relation to the work of the Meteorological Committee, such an apparatus, if reliable and not too expensive, would seem to solve one of the most serious of our problems, if adopted as a standard instrument. The three daily observations, and the conversion of these to dew point values, even if the results be sufficiently accurate, are time consuming and, in the long run, expensive processes. My impression is that, even if Mr Richardson were less successful than he anticipates in producing an inexpensive instrument, stations would have nothing or little to lose financially by its adoption, as a set off against an increase in reliability, which would be of immediate value.

Yours sincerely,

(sgd.) R. A. FISHER.

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