

C/BT/GR

26th March 1935.

Dear Dr Thomas,

The difficulties in the way of making any satisfactory tests of significance on the pasture experiment are (1) there is only one strip for each treatment and (2) there is only one sample area in each sub-plot. With these limitations I do not think any possible process of statistical reduction could supply a valid test.

If I were ^{via} ~~determining~~ the data with a view of seeing what general light ^{they} ~~is~~ shed on the effects of ^{the} ~~extensive~~ treatment, I should be inclined, for each measurement, to take the seven differences between the values of each sample area and that available on the opposite plot. These differences cannot, unfortunately, be regarded as independent, but they are practically all we have.

Any of your measurements, such as dry matter, protein or fibre from any of the occasions, may be examined in this way. Or, if it is preferred not to treat the occasions separately, but to throw them together, there are a number of ways of doing this, which may well be thought relevant, e.g. the total or average values for all occasions, ^{The} totals

of these ¹¹ λ values multiplied in order by the numbers from -5 to +5 giving, so to speak, the mean date for each element and measuring effectively whether the bulk of it comes late or early. The same multiplied by the parabolic or quadratic series

15, 6, -1, -6, -9, -10, -9, -6, -1, 6, 15,

giving the extent to which the ^{is} yield is spread out, rather than concentrated in the central cuts; a measure, so to speak, of continuance or evenness of yield. ^{is} This will probably give the chief features of any effects of the treatment on seasonal variation.

Yours sincerely,

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