

June 20, 1942

Dear Peters,

Yes, one always needs the sums of products of any two variables used for partial regression, and so, resigned to the worst, one starts off by making a complete table of sums of squares and products, 10 values if there are four variates, i.e. one dependent and three independent in terms of which the first is to be predicted. With 9 variables it comes to 36, and you then settle down to spending the long Summer days solving sets of 9 simultaneous equations. It can be worked, though, as I said, I should only do it in a very good cause.

I doubt if the comparison between places would be used to throw light on the relation between worm burden and response, because I imagine that the response at different places has been very greatly affected by other circumstances, and it is to be expected that in conditions generally favourable to growth the response to the drug will be numerically greater than in the opposite conditions.

If the sampling survey of sugar beet eelworm is not planned with enough statistical exactitude to freeze the Ministry with terror, it will certainly be bungled. If I am reminded, I will send you a little bulletin lately received on sampling in

problems in the United States, where, because it is written by a good forester and a man who insists that his job should be done competently, the book has turned out to be a perfectly admirable introduction to statistical methods in general.

Yours sincerely,