

10 September 1931.

F.R. Tubbs, Esq.,
Tea Research Inst. of Ceylon,
St Coombs,
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Dear Tubbs,

I am glad to hear you are going ahead with direct experimentation. The larger experiment will, as you suggest, give information on the main effects of time and type of pruning and their interaction, while in conjunction with the two smaller experiments it will bring in locality and interaction of type with locality. I should, however, hesitate to ascribe the local effects and their interactions entirely to altitude since doubtless other factors, such as soil, aspect and exposure, will also come in.

As you say the gross effect of the treatment is probably what the planter wants, but if you want also to eliminate the effect of mortality I do not anticipate that its effect in making the precision variable would be of any importance in vitiating the analysis. I should use adjusted yields, or, what comes to the same thing, yields per bush surviving, without hesitation, though, if you have reason to fear a competitive effect, giving an advantage

to those bushes whose neighbours have died, you could either separate the produce so as to obtain independently the mean yield for fully competitive bushes, or, what would be perhaps less trouble, do a corresponding analysis of covariance for yield and bush number, as a pair of variates observed on each plot, and so, eliminating bush number, derive the analysis of yield corrected for bush number. The regression of yield on bush number is of course taken from the error line of the analysis which thereby loses one degree of freedom.

Yours sincerely,