

January 1st 1929.

Dear Professor Balmukand,

I was very glad to get your letter, and your interesting enclosure. I hope when you came home you found your family well and flourishing, and your business affairs in good order. The lists of land-holders you send are most interesting, but as you have pointed out there are a good many difficulties to be encountered. I believe that the age of the parent, whether he is the land-holder or a dependant child assisting on the farm would be a valuable means of eliminating irrelevant cases. If the exact age is difficult to ascertain, quite broad categories such as 10 year intervals would suffice.

I believe it will be necessary to exclude not only persons not supported by their holdings (although perhaps everyone earns a little in other ways), but also those who having divided property cannot be classed according to the size of their holdings. This will make very meagre material from some villages. Would it be possible to list a thousand genuine agriculturalists under these restrictions?

You are quite right about the variety experiment

Varieties	5
Blocks	9
Remainder	<u>45</u>
	59

The only account to be taken of the systematic arrangement is that one cannot be sure of the validity of the estimate based on the 45 degrees, although it is the best available. Hence

the test of significance cannot be rigorous. For any pair of varieties chosen without regard to their actual performance you would use the Mean Square based on 45 degrees, divide by 10, to obtain the variance of a mean of 10, or by 5 to obtain the variance of the difference between two such means, and finally take out the square root.

But of course if you pick out the best and worst of 6 varieties for comparison, they will often differ by more than twice this Standard Error even when there is no real varietal effect, i.e. when z is insignificant ($n_1 = 5, n_2 = 45$).

I enclose on separate sheet, notes for the village enquiry. Let me know if by writing to Census or Registration officials, I can do anything to help.

Perhaps Registration of births would be a possible line of approach, I do not know what information is required of parents at that time.

Yours sincerely,