Dear Finge,

Thanks for your letter and good wishes. I am really very glad to hear from you again on any excuse.

I feel sure that you are right in principle, and that any correlation between mother's performance and daughter's, of which the mother's performance does not enter into the calculation, can make no difference to the conclusions.

It would be a pity also if the discussion were diverted from the important question of the conduct of the experiment to some technical detail which perhaps Østergaard has in view. The bulls should certainly have been used with a selection of cows from all herds, so as to randomise the genotypes with the mothers, and if this had been done it is probable that the standard deviation of heifers from the same bull might have been considerably larger. But herd differences would then be capable of elimination.

It seems to me a very minor matter whether your estimate is 15% too high or not, though I see no reason to think that it is too high.

There is one technical point, however, on which I should like further elucidation. In the second paragraph you say: "and they were fed exactly alike", with the footnote "but in proportion to their yield". I have the impression that it is
customary in milk yield tests to give a basic ration, supposedly enough to meet the subsistence requirements of the cow, and to increase this, largely with concentrated foods, in proportion to the milk yielded. I have often been puzzled to imagine how this procedure should give values comparable for cows with different response curves. For these will presumably be convex on the upper side, and will allow the predetermined relationship to cut them at two points or at none.

The experimental problem which seems to require attention is that of discovering for the animal's own responses at what level of nutrition she can most profitably be fed, and it is her profit at this level which should be compared in providing pedigree material for selection. Is this asking too much?

Yours sincerely,