

9th March 1934.

J. Wishart Esq.,  
School of agriculture,  
Cambridge.

Dear Wishart,

What I objected to of course was the implication that the validity of the analysis of variance had not yet been established for randomised blocks, latin squares and other factorial arrangements, which as you put it, arise in practice. Actually they arise only from an appreciation of the experimental possibilities of the analysis of variance itself. In my remarks as amended I only state that a complete analytical proof had been given in 1925, that in Irwin's paper he fully recognised this fact and referred his readers to the paper, and that it would be a pity if a man of Dr. Wilks's abilities should occupy his time in proving by more elaborate methods a fact that had already been proved for a much wider class of cases. In view of the position you took up in your paper and at the meeting, I think these comments are still worth making, though if the text of your paper is modified in the way you suggest they will be out of date as criticisms

of your own views.

In respect of Wilks's paper, I understand that it was submitted to the Mathematical Committee with the claim put forward, I suppose on your behalf, that it contained proofs on points that had not previously been satisfactorily established. So far <sup>to (xxx)</sup> has the Society from endorsing this view that it has had to request Wilks to state what points in methods or results he claims to be novel. It would certainly clear the air if you were to inform the Committee, <sup>to (xxx)</sup> most properly I suppose through you, that the method I gave in 1925 being valid for all regression automatically covers the cases of the specially designed field experiments where the fitting of the regression constants degenerates into the taking of means of rows, columns, etc.

You will agree that so long as it is stated or implied that the 1925 proof was either incomplete in itself, or inapplicable to the experimental arrangements I must continue to make it clear that the original proof covers these cases as well as others.

Yours <sup>in</sup> sincerely,