

15 December 1931.

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My dear Gaddum:

Thanks for your letter of 30 November, which I have not answered before, as it arrived at the height of a bout of chicken-pox, an odious disease, which I have neglected to have before.

I think it would be well worth while giving the equivalent of Thomson's analysis in a pharmacological journal and it would be of more than pharmacological interest to put his tests of significance right in respect of small samples.

Tattersfield here, slaughters large numbers of aphids with accurately determined quantities of various insecticides. He can fairly easily test a hundred or more at each concentration, but even so, it is clear that he can only explore the central portion of the toxicity curve, say between 10 and 90 per cent. mortality and only make comparisons with any useful degree of precision within this range. Consequently it is almost a matter

of indifference whether the response curve is accurately Gaussian, or some unimodal form quite different from the Gaussian, since what one's experiments tell one effectively, is only the position and height of the mode and this, I fancy, is all one really needs in any practical application. Indeed there is an enormous and almost unexplored field merely in determining how the height of the mode, i.e. the steepness of the death-curve, varies with different poisons.

Yours sincerely,