

ROTHAMSTED EXPERIMENTAL STATION

(LAWES AGRICULTURAL TRUST)

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HERTS.

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My dear Ron,

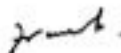
Sorry Goulden's form wasn't returned with the letter. It was sent immediately afterwards and I take it you have now received it. I think Irwin would be a useful third supporter.

I agree that the normal probability integral will give quite adequate values for rankings above 50. There remains, however, the question of exactly how to use the normal table. The simplest consistent procedure is to enter the table with $(i - \frac{1}{2})/n$. An improvement given by the first term of Rossow's approximation is to use $i - \frac{1}{8}$ or $i - \frac{3}{8}$, depending on whether i is $<$ or $>$ $\frac{1}{2}n$. The following are the comparative values for $n = 50$.

i	F & Y	$i - \frac{1}{8}$	$i - \frac{3}{8}$	Rossow
1	2.25	2.326	2.241	2.241
12	0.74	0.739	0.731	0.735
24	0.03	0.025	0.019	0.025

It might be worth giving some instructions in the next edition, as what to do in such cases is liable to perplex people occasionally. Rossow's approximation has, I take it, a mild interest and he might be encouraged to publish a short note on it.

Yours,


Professor Sir Ronald Fisher