

$$\left. \begin{aligned} \mu_1(\bar{t}^2) &= \frac{N-p}{N-p-2} \\ \mu_2(\bar{t}^2) &= \frac{2(N-p)^2}{(N-p-2)(N-p-4)} \left\{ \frac{N-p-1}{N-p-2} - \frac{(p+1)(p-2)}{p(p-1)} \right. \\ &\quad \left. + \frac{8}{p^2(p-1)^2} \sum \frac{n_j n_k}{(n_i+n_j)(n_i+n_k)} \right\} \end{aligned} \right\} \dots (4)$$

where  $\Sigma$  is taken over all values from 1 to  $p$  of  $i, j, k$  in such a way that  $i \neq j \neq k$ .

From (3), on the other hand, we easily get :—

$$\left. \begin{aligned} \mu_1(w) &= \frac{N-p}{N-p-2} \\ \mu_2(w) &= \frac{2(N-3)}{(p-1)(N-p-4)} \cdot \left( \frac{N-p}{N-p-2} \right)^2 \end{aligned} \right\} \dots (5)$$

Comparing (4) and (5) we find that though the first moments agree, the second moments of  $\bar{t}^2$  and  $w$  are entirely different. There can now be no doubt that the distribution of (1) is different from (3). [It may be noticed, however, that if we put  $n_1 = n_2 = \dots = n_p$  in (4) the two second moments coincide; this is as it ought to be because in this case  $\bar{t}^2 \equiv w$ .]

I can now recall my comments : “ Mr. Iyer does not appear to have realised that nothing is known about the sampling distribution of what he calls  $\bar{t}^2$  in the case of unequal observations. It is therefore absolutely useless for purposes of tests of significance.”

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<sup>1</sup> Proc. Ind. Acad. Sci., (A), 1937, 5, 528.  
<sup>2</sup> Curr. Sci., 1937, 6, 290.  
<sup>3</sup> Ibid., 1938, 6, 392.

quently the matter was reinvestigated, with the result that the so-called *D. elliptica* of Assam has now definitely been established as *D. ferruginea* Benth (Kew concurring). These findings negative the occurrence of *D. elliptica* in India. The analytical results given previously, therefore, refer to *D. ferruginea* and are of additional interest in so far that the occurrence of rotenone in this species has not been recorded before.

This Indian species of wild Derris is sufficiently rich in rotenone (nearly 3 per cent.) and can be of value as an insecticide, both for home consumption and export purposes. Its distribution in Assam is, therefore, being published for the benefit of those interested in the commercial exploitation of this important vegetable insecticide.

Forest Division	Localities
Sibsagar ..	Kamalabari, Bakuba and Dikumer
Nowgong ..	Doboka Reserve
Lakhimpur ..	Elemgmora, Bartagaon, Panigoa Reserve
Khasi and Jaintia Hills ..	Umsaw
Goalpara ..	Haltugaon
Darrang ..	Charduar

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June 29, 1938.

<sup>1</sup> Curr. Sci., 1936, 4, 857.

**Derris ferruginea** Benth from Assam.  
It was reported,<sup>1</sup> in a previous article entitled “ Occurrence of *D. elliptica* in India”, that a species of Derris, at that time believed to be *D. elliptica*, was found in the plains of Assam. Later on, doubts arose as to its correct identity and conse-