

5. Accuracy of the estimates.

It can be mentioned briefly that we have two ways of estimating the accuracy of these variance components.

Firstly, a certain analysis of variance of the diallel table enables exact significance levels to be obtained for V_M , H_2 , (H_1-H_2) , $((n+2)H_2 - H_1)$ and $(P - F_1)^2$. These determine whether there is significant dominance and heterosis and, when significant, whether the estimate of uv differs significantly from either of its bounds, $1/4$ and $1/n + 2$.

Secondly, the n estimates, $W_r - V_r$, of $\frac{1}{4}(D-H_1)$ enable an error to be derived from D , H_1 , H_2 and F . This is the source of the standard errors given in the table.

The results and analysis of our measurements of flowering time, leaf length and height in *Nicotiana rustica* will be published later, together with a more detailed exposition of the theory and methods.