

WEST AFRICAN MAIZE RESEARCH UNIT
Moor Plantation
Ibadan, Nigeria

A number of articles were received from the West African Maize Research Unit. Since they are too lengthy for publication in full, the titles and summaries are given below. The complete articles will be kept in our files and may be obtained on request.

1. Analysis and discussion of 4 variety trials grown at Ibadan 1957-1958.

The four trials had a rather consistent standard error of 313 lb/acre (per plot). This is satisfactory to detect differences between the varieties of approx. 250 lb/acre. Three groups of varieties with very different residual variabilities are present. Therefore three variance components were considered in the calculation of the analysis of variance. Mexico 1 is the most variable treatment. Mexico 7, Mexico 13 and local form the medium variable group. Year and season main effects and their interactions were not shown to be significant. Some differences between varieties within both least variable groups are significant. Mexico 5 and Trinidad are the highest yielders. The interaction of varieties with seasons is most pronounced for Mexico 7, Mexico 13 and local. The "within trials" error is 128 lb/acre; the "between trials" error is 277 lb/acre. This indicates the advantage of a further repetition of trials in preference to an additional replication within trials.

C. L. M. Van Eijnatten

2. Report on a yield trial with varietal crosses.

Forty-one varieties were topcrossed to three very different tester varieties with a view to a determination of their combining ability on a varietal level. The varieties EAFRO 237 and EAFRO 231 (WAMRU Acquisitions 772 and 766) ranked highest, followed by Sicaragua Br. 155 Trinidad and Br. 149 Trinidad (WAMRU Acquisition 40, 1017 and 265). The presence of a high variety x tester interaction was indicated.

C. L. M. Van Eijnatten