PART 1.
RICE VARIETY TRIAL.

1. INTRODUCTION.

(a) GENERAL.

Rice (Oryza sativa, L) is one of the most important food crops in the world. Hunter and Leake (63) consider that "to rice must be given the credit of being the most important source of human food". Figures compiled for the period 1928-32 from the International Yearbook of Agricultural Statistics (Appendix XI) show that the area under rice in the world is the largest of any single crop, apart from maize and wheat. For the period of 10 years from 1928 to 1937 (Appendix X), the world annual production of rice was in the region of 133,000,000 tons and its area 168,000,000 acres.

(b) REVIEW OF VARIETAL IMPROVEMENT WORK IN SOME RICE GROWING COUNTRIES.

Varietal improvement is one of the main lines of approach to the problem of increased production of any crop. The following three main methods in use in the United States of America (80) are typical of those generally adopted in rice improvement work:

1. Isolation of pureline selections from commercial and introduced varieties.
2. Introduction of varieties from foreign countries.
3. Creation of new varieties by crossing.

Varietal improvement by methods of selection is highly effective in rice, which as a normally self-fertilised crop maintains the purity of selected lines. It is usually the basic line of work employed by rice breeders and has generally been the most successful of the three methods mentioned. Line selection also serves as the final stage to the improvement work based on the other two methods. In countries which have