Rice is one of the most important crops in China, as it is the staple food of almost half of the population. Thus, for the national welfare, it is imperative that the study of problems on any phase of rice improvement needs the highest scientific effort and technic. Since 1928 the author has been engaged in such studies and has conducted a series of experiments on rice at the University farm of the College of Agriculture, Lingnan University, Canton, China. The climatic conditions there are especially suitable for growing rice. The annual rainfall varies from 60 to 80 inches, and there are no spells of cold that are injurious to the crop. Thus it is possible to grow two crops of rice on the same field during one year.

The experimental designs used are those that have been advocated by Fisher and Wishart (2) at the Rothamsted Experiment Station, and the data have been analyzed by the methods published by Fisher (1). Part of the results were published in Chinese (4), while other parts are in the course of preparation. The present paper gives a brief summary of these results, but deals with only three groups of the experiments. The remainder will be published later. The three points considered here are (a) the effect of varying the amount of seed per row, (b) the effect of varying the number of seedlings per hill, and (c) a combined study of the number of plants per hill and distance between hills.

EFFECT OF VARYING AMOUNT OF SEED PER ROW

The object of this experiment was to find out what effect varying quantities of seed used in the rows had on yield and at the same time to determine the quantity of seed that would produce the highest yield.

1 Contribution from the Agricultural Department, Lingnan University, Canton, China. Received for publication November 13, 1936.
2 Assistant Professor of Plant Breeding. The author wishes to express his gratitude to Professor H. H. Love of Cornell University for his suggestions in the preparation of this paper and to Dr. J. Wishart of Cambridge, England, for his advice in the methods of calculation and interpretation of the data. The author, however, assumes responsibility for all calculations and interpretations of results.
3 Figures in parenthesis refer to "Literature Cited", p. 185.