THE DIRECT PLANTING AND TRANSPLANTING OF RICE IN CHINA

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It is the purpose of this paper to set forth results obtained from rice experiments in which the same varieties are compared when grown by the transplanting method which is commonly used by the rice farmers of China and the direct planting method. In the latter method the seed is sown directly in the field where the crop is to be grown and was first suggested by H. H. Love in 1925 and adopted for the breeding tests conducted by the Department of Agronomy of the University of Nanking in that year. The method was suggested to save labor and to reduce the chances of error in handling the material.

In the rice belt of China rice is planted after a winter crop such as wheat, barley, rape, or some legumes. Chiefly on account of such rotation, the transplanting of rice can hardly be replaced by direct planting, and the question naturally arises whether the results of the breeding test by direct planting can be applied to the farmer's practice of transplanting.

The writer investigated this question from 1928 to 1932 at Nanking, and at the Chekiang Provincial Experiment Station of Agriculture at Hangchow in 1931, as well as at the substation at Wufu southeast of Hangchow. Nanking is on the border of the rice belt of China and only medium late rice is grown there, while at Hangchow medium late and late varieties prevail and at Wufu early, medium-late, and late varieties. Rainfall and the possibility of irrigation are favorable for rice at Hangchow and Wufu but not so favorable at Nanking. With this difference in environment, the effects upon the methods of planting in the breeding test can be studied.

1 Contribution from the Department of Agronomy, University of Nanking, Nanking, China. In addition to data obtained from experiments conducted by the Department of Agronomy, University of Nanking, the author includes certain data from the Chekiang Provincial Experiment Station of Agriculture, Hangchow, which were collected while he was serving there as Head of Agronomy. Received for publication April 22, 1933.

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