

PROJECT NUMBER & TITLE: Introduction of Rice Germplasm from Foreign Rice Programs
into the United States.

PROJECT LEADER: W. F. Lehman

PERSONNEL: W. F. Lehman

OBJECTIVE: Produce seed under quarantine regulations for 300 to 500 rice lines. Obtain notes on height, maturity, and perhaps other characters. Harvest, thresh, package, and send the seed to three locations. Distribute the information obtained.

WORK IN PROGRESS: Package, treat twice, plant, grow under quarantine, take notes, harvest, and distribute about 1,096 varieties of rice from more than 19 countries.

EXPERIMENTS COMPLETED: Seed was received from the U. S. Department of Agriculture for 5,200 varieties of rice. By using check lists 2,711 lines were selected which had not been introduced into the United States. This seed was packaged, treated twice, and planted. Of the 2,575 varieties introduced and grown, seed was harvested, threshed, packaged, and distributed from 1,933 lines. Notes were taken on all lines for maturity and height. Miscellaneous notes were taken on lines that appeared unique in some way. The introduced varieties could be divided into two groups: (1) general introductions, and (2) special requests by Drs. Adair and Carnahan. For the general introductions, 58 and 64% were later and taller, respectively, than the California varieties. For the specially requested varieties, 61 and 10% were later and taller, respectively, than the California varieties.

WORK PLANNED: Produce seed under quarantine regulations for about 300 rice varieties. Obtain notes on each variety and distribute the seed and

notes obtained.

MAJOR ACCOMPLISHMENTS: The introduction of 1,933 new sources of rice germplasm into the United States.

IMMEDIATELY APPLICABLE RESEARCH RESULTS: Some of the varieties can be used in breeding programs as parents and as sources from which to make selections.

EVALUATION OF PROJECT: This project has introduced 8,490 varieties of rice into the United States, and 1,096 more are being processed. Many of these have been tested for resistance to present-day problems such as stem rot and rice water weevil. Some are being used as a source of short stature and in special genetic and engineering studies. All varieties will be placed in a seed bank and used when special problems arise in the future. Having all rice germplasm in the United States should save a minimum of one or two years of time on a new problem.

PUBLICATIONS OR REPORTS: