TWO general methods of sowing or planting rice are used throughout the world. These are direct seeding and transplanting. In the United States the commercial rice crop is all direct sown and is grown in essentially the same manner as wheat, oats, and barley, except that the land is submerged during most of the growing season. Farm machinery is used in preparation of the land, in seeding, and in harvesting the crop. In the Orient machine methods are generally not employed for the farms usually are too small. Work animals, when available, are used in preparing the land. The rice usually is sown broadcast in small, well-prepared beds where it is given the best of care during the 25 to 50 days that it is grown there. The seedlings are then pulled and transplanted by hand in the field. Before transplanting, the fields are submerged a few inches and the soil is stirred into a loose mud. One to five seedlings are placed in hills spaced 3 to 6 inches apart in rows 8 to 12 inches apart.

The high yields of transplanted rice often obtained under intensive culture in certain countries have led to a more or less common belief that yields of transplanted rice generally are higher than those from direct seeding. It seemed desirable to compare the yields of rice planted by the two methods in the United States.

An experiment was begun in 1937 in which three varieties at three rice experiment stations in the southern states and two varieties at the California rice experiment station were direct sown and transplanted during a 3-year period. The results are reported herein.

LITERATURE

All Oriental rice that enters commercial trade, according to Copeland (7, page 226), is grown by the transplanting method. The literature dealing with the preparation and care of seedbeds, effect of age of seedlings when transplanted, number of seedlings per hill, and the space between hills and rows on yield is extensive. Studies also have been reported in which the yields of rice from direct seeding and transplanting are compared.

In Egypt higher yields were reported from direct sown than from transplanted rice (1, 8). At the present time, however, part of the rice acreage in