IN America the same technic is followed in conducting yield tests with rice as with other small grains, except that the land is submerged during the most of the growing season. A departure from the conventional three-row nursery plat with the rows 12 inches apart and only the center row harvested for yield would appear to have the following possible advantages: (a) Less space between rows would more nearly approximate the usual farm practice and give better control of weeds and grasses; (b) in 36-inch or 40-inch plats with rows spaced 6, 8, or 10 inches apart, four, three, or two inside rows could be harvested and the larger proportion of the plat harvested should tend to reduce variability; (c) a better distribution of plants over the area sown in rows more closely spaced might also tend to increase yields; and (d) additional seed would be available for more extensive tests.

Possible disadvantages in spacing rows less than 12 inches apart are (a) difficulty in seeding on rough seedbeds; (b) difficulty in weeding and roguing on submerged land; and (c) increased plant competition for light and nutrients.

Similar experiments herein reported were conducted in 1936 at the Rice Experiment Station, Crowley, Louisiana, and the Texas Agricultural Substation No. 4, Beaumont, Texas, to study the effect of closer spacing between rows on yield and variability.

PROCEDURE AND EXPERIMENTAL CONDITIONS

The split strip experimental design was used to permit a study of the distribution of the seed into rows 6, 8, 10, and 12 inches apart for each rate of seeding. Plats for the 6-inch spacing were six rows wide, those for the 8-inch spacing were five rows wide, those for the 10-inch spacing were four rows wide, and those for the 12-inch spacing were the usual three rows wide.

The experiment at each location comprised four blocks. Each block consisted of 16 plats involving the 16 possible combinations of four varieties with four rates of seeding. Each plat was subdivided into four sub-plats for the four-row spacings. The varieties used were Caloro (medium to early), Fortuna (medium maturity), Blue Rose (late), and Rexoro (very late). The rates of seeding were 60, 80, 100, and 120 pounds per acre. At Crowley the four blocks were arranged in a square, but at Beaumont they were in a single series. Limited transplanting was necessary to obtain uniform stands in certain plats at Crowley, but at Beaumont the stands were as nearly perfect as could be expected.

The plats at Crowley were sown May 4 and 5, the seedlings were fully emerged about May 24, and the land was submerged June 8. Water was maintained on the