

3. A COMPLEX EXPERIMENT ON WINTER RICE AT DACCA

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A three factor complex experiment on a selected strain of winter rice—Indrasail (Dacca No. 1)—of a medium ripening habit, was conducted during the year 1936-37 at Dacca Farm Bengal. The factors under observation were: five dates of planting (July 23, August 8 and 23, September 8 and 23); 6 different ages of seedling (2 weeks, 3 weeks, 4 weeks, 5 weeks and 6 weeks) and three different numbers of seedlings per hole (one plant, 2 plants and 3—4 plants or the local method). The lay-out of the experiment was of the split-plot type with five blocks.

The results indicate that the yield remained practically constant for all transplantations up to the end of the first week of August, after which any delay resulted in decreased yield, particularly, in late September transplantations which ended in complete failures; six weeks old seedlings gave the best result and there was a definite tendency of fall in yield with two, three, four, five and seven weeks old seedlings; in fact the first two gave the least outturn and the three latter gave almost identical outturn. With the increase of seedling number the yield fell steadily and there was thus not much to choose between two seedlings and the local method of planting with 3—4 seedlings per hole. Almost for any date of planting, seedlings of six weeks age gave the best results.

For early transplantations, one seedling gave the highest yield but its superiority over larger number of seedlings diminished as the transplantation was delayed. This was

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particularly true of seedlings two, three and seven weeks old. In the early August plantings, there was a fall of yield for one seedling groups but in other cases there were occasional significant increases. The over-all superiority, "one seedling" over others in late August plantings, was due only to two and three weeks old seedlings.

In early September plantings, the yield of one seedling groups began to fall below that of larger seedling numbers with a significant difference in favour of 2 weeks age groups and in late September plantings the local method of planting with 3—4 seedlings per hole gave the highest yield for all the age groups.