WITH the development of numerous new strains of alfalfa requiring testing in various improvement programs, the results of an alfalfa nursery method study at the Nebraska Agricultural Experiment Station would seem of interest. The chief objective of these investigations has been to determine whether the yields and other data obtained from small nursery plats with low seed requirements are comparable with those from ordinarily accepted field plats.

Variations in nursery technic were studied with respect to such factors as number of rows per plat, distance between rows, alley space between plats, removal of border rows at harvest, interplat varietal competition, spacing of plants within the row, planting equal amounts of seed per row versus equal amounts per acre for the different row spacings, and plat distribution. The tests were made through comparable, adjacent plantings of two varieties, Hardistan and Ladak, which differ in growth habits and productivity. The relative yields of these two varieties under the various modes of testing are reported.

MANNER OF LAYING OUT THE TEST

The general planting plan of one complete replication, showing the plat distribution, number of rows per plat, and the row-spacing, is illustrated in Fig. 1. The plats were planted in eight beds of two complete replications each. Within a replication, similar types of plats of the two varieties were always placed adjacent to enable a direct study of differential varietal responses in the various plat types. Adjacent unlike plats were separated by suitable guard rows in order to provide the specific conditions required of the tests. Since there were eight beds and seven main types of nursery plats under comparison, the latter were so distributed in the beds that the same type of plat did not fall in the same strip or column more than once (with one exception), thus resembling in this respect a Latin square arrangement.

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