UNIFORM STANDS ESSENTIAL IN FIELD
PEA VARIETY TESTS1

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The fact that large-seeded varieties of field peas had never been high-yielding ones in variety tests at the Idaho Experiment Station led to calibration work in connection with variety testing, a preliminary report of which has appeared in a previous issue of this Journal.3 The first studies included calibration tests with wheat, oats, and barley as well as peas. However, it was soon found that due to the tillering ability of cereals there was little to be gained by securing equal stands per unit area in small grain variety tests.

METHODS

The field methods used were described in the preliminary report. The actual calibration data were secured by running the seed through the drill at each of various drill set rates. The drill was set on a frame, the seeding tubes disconnected, and 2-quart jars used to catch the seed as it was discharged from the drill.

Previous work at Moscow had proved that the amount of seed in the hopper and the speed of the drill made no difference in the delivery rate.4 It was also determined that the amount of seed delivered by one side of the drill checked closely with that from the other.

The seed, previously prepared for seeding, was placed in the drill box and the drive wheel turned the same number of revolutions necessary to seed the size of plat used. The calibration delivery was found to correspond almost exactly with actual field delivery.

Stand counts were secured when the young plants were 4 or 5 inches in height by counting the plants in three 1-square-yard areas in each plat.

RESULTS

There is not only less tillering of pea plants but greater extremes in size of seed of different varieties than is found in the small grains. To give an idea of the variation in delivery rate of peas of different sizes, Table 1 was prepared. These data show the number of seeds

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