In a previous article it was shown that, though border rows produced 32% higher yield than interior rows (data from an 8-disc, 8-inch drill), the yield from all rows was only 8% greater than if calculated from interior rows. Furthermore, when the area of the narrow alley (width 8 inches net, 16 inches between grain rows) was included as a part of the plat, the yields calculated from all rows was 3.0% below that calculated from the interior rows.

In a continuation of these studies made in 1929, 1930 and 1931, the work was broadened to include two widths of alleys, viz., 8 and 16 inches and varying widths of plats as made by varying numbers of rows of grain. The method of conducting the tests was to drill the grain crop solidly in the field as any farmer would drill it and then when the seedlings were emerging to take a hand or garden plow and destroy such rows as would give desired sizes of plats and widths of alleys. At harvest time rows 15 feet in length were harvested, these being replicated as shown in the various tables. The use of short lengths of rows permitted the use of the nursery thresher and restricted the demand upon labor during the rush period of harvesting.

Table 1 gives the summary of the tests made with Appler winter oats in 1928-29.

The gain of first border rows with the 8-inch alley ranges from 5.8 to 45.9%, averaging 24.9%. With the 16-inch alley the range is from 37.7 to 73.8%, averaging 52.5%. On second borders there is much less yet quite a noticeable effect, averaging 3.8% with 8-inch alleys and 6.9% with the wider alleys. The average yield from the second borders with the 8-inch alleys is not markedly different from