PLOT COMPETITION WITH POTATOES.1

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That there is much competition between adjacent plots in experimental work with many crops is an undisputed fact and considerable information has been published on this subject.

At the Storrs Station, competition between variety plots of soybeans and oats has been noted and a brief summary of the data is given here. In 1917, 25 single row check plots of soybeans averaged 26.9 bushels of seed per acre. The variety used as a check was a small, early-maturing one. When the check variety occurred between the varieties O'Kute and Swan or Mammoth Yellow and Mongol, all of which are much larger and later than the check, the latter averaged only 17.1 bushels of seed per acre or 63.6 percent as much as the average for all check plots. In the same series of plots were planted a few varieties of field beans, which were much less vigorous in growth than the soybeans and which matured 17 days before the check variety. The average for the four check plots of soybeans which were between two plots of field beans was 38.4 bushels of seed per acre, or 142.7 percent of the average for all checks.

In 1919, a series of oat varieties were drilled solidly in 4 row (28 inch) plots, and the two outside rows of each plot were discarded at harvest. To obtain some measure as to the comparative yields of outside rows and the average of the two central rows, 10 outside rows from different plots were threshed and the grain and straw weighed. Although varying in the amount of increase, the outside rows averaged 73.2 bushels of grain and 3,802 pounds of straw as compared to 52.3 bushels of grain and 2,464 pounds of straw per acre for the average of the two central rows for the same 10 plots, or a 40 percent increase of grain and a 54.3 percent increase of straw.

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