

CORN.

The Effect of Removing the Tassels on the Prolificacy of Corn, as Shown at the State Agricultural Experiment Stations.

Experiments with strawberries, made at the Ohio experiment station, indicate that pollen bearing is an exhaustive process, and that larger yields of fruit, as a rule, may be expected from those varieties which produce pollen so sparingly that a small proportion of other varieties producing pollen abundantly must be planted with them in order to insure a full crop, than from those which produce sufficient pollen for self-fertilization.

The following very interesting and valuable experiment on corn, made by the experiment station of Cornell university, at Ithaca, N. Y., gives strong support to this theory:

It has been claimed that if the tassels were removed from corn before they have produced pollen, the strength thus saved to the plant would be turned to the ovaries and a larger amount of grain be produced. To test the effect of this theory the following trial was made during the past season.

In the general corn field a plot of forty-eight rows with forty-two hills in each row was selected for the experiment. From each alternate row the tassels were removed as soon as they appeared, and before any pollen had fallen. The remaining rows were left undisturbed.

The corn was Sibley's Pride of the North, planted the last week in May in hills, three feet six inches by three feet eight inches, on dry, gravelly, moderately fertile soil.

On July 21, the earliest tassels began to make their appearance in the folds of the upper leaves and were removed as soon as they could be seen, and before they were fully developed. A slight pull was sufficient to break the stock just below the tassel and the removal was easy and rapid.

On July 25, the plot was gone over again for the removal of such tassels as had appeared since the previous work, and at this time by far the greater number of the tassels were removed.

On July 28, when the plot was gone over the third time, the effects of the tasseling became apparent in the increased number of silks that were visible on the rows from which the tassels had been removed.

On the 1,008 tasseled hills there were visible 591 silks; on the 1,008 untasseled, 393 silks.

On August 4, the plot was gone over for the last time, but only a few tassels were found on the very latest stalks.

The preponderance of visible silk on the tasseled rows was still manifest, there being at this time 3,542 silks visible on the tasseled rows, and but 2,044 on the untasseled rows.

The corn was allowed to stand without cutting until ripe.

On September 29, to October 1, the rows were cut and husked, and the stalks and ears weighed and counted with the following results:

	Aggregate yield.	Comparative yield.
	Tassels left on.	Tassels removed.
No. of good ears.....	1551	1551
No. of poor ears.....	623	845
No. of abortive ears.....	2568	951
Total No. ears.....	4742	4174
Wt. Merchantable Corn, lbs.....	710	1078
Wt. of poor corn, lbs.....	150	187
No. of stalks.....	4183	4223
100 stalks weighed, lbs.....	82	79

It will thus be seen that the number of good ears and the weight of merchantable corn, were both a little more than fifty per cent. greater on the rows from which the tassels were removed than upon those upon which the tassels were left. This is not only true of the two sets of rows as a whole, but with the individual rows as well. In no case did a row upon which the tassels were left produce anywhere near so much as the tasseled rows on either side of it. In fact, the results given above are really the aggregate results of twenty-four distinct duplicate experiments, each of which alone showed the same thing as the aggregate of all.

By abortive ears is meant those sets that made only a bunch of husks, and sometimes a small cob, but no grain. It will be noticed that they were by far the most numerous on those rows from which the tassels were not removed. It will also be noticed that the total of the good, poor and abortive ears is about fourteen per cent. greater on the rows on which the tassels were left, while the weight of merchantable corn is more than fifty per cent. greater on those rows from which the tassels were removed.

SUGAR BEETS.

Valuable Points from the Ohio Experiment Station. The Result of Experiments.

Judging from European experience, it seems probable that the culture of the sugar beet in America will be most successful within the limits of a belt of about one hundred miles on each side of the summer isotherm of 70 degrees; that is, a line making an average temperature of 70 degrees for the months of June, July and August. In Ohio this line follows approximately the southern

shore of Lake Erie, so that the northern third of the state is included within the belt named. The summer temperature is not the only climatic question that must be considered, however; as, for instance, the mild winters of southern California permit the piling of the beets in immense heaps, requiring no protection, or at most, but a slight covering of straw, and thus extending the working season throughout the winter, whereas in northern Ohio the beets would have to be pitted or housed in expensive cellars or silos. Again, the California winter gives a season of three or four months, during which planting may be done, or three times as long as in northern Ohio. The soil most favorable to the culture of sugar beets is one that is easily worked, and is fertile enough to produce rapid growth. The moderately sandy soils, and especially the black sands of northern Ohio, will probably be found well adapted to beet culture. The fertile bottom lands of the farm occupied by the experiment station, at Columbus, produce large crops of beets. Stiff, heavy clays will not be found satisfactory as a rule, unless thoroughly underdrained and brought up to a high state of fertility by previous manuring and the growth of clover. The variety of beet is an important point, but a yet more important one is the care with which the seed has been selected. In France and Germany the percentage of sugar in the beet has been very greatly increased by improvements in the production of seed. The manufacture of sugar from beets involves the use of very expensive apparatus and requires great technical skill. In 113 German factories the mean capital invested in each factory is nearly \$200,000, and the total expense of manufacture is nearly eight dollars per ton, counting the beets at a little less than five dollars per long ton. The experience of the Ohio Experiment Station is that, on suitable soils, beets can be raised at this price with a very wide margin for profit.

Messrs. J. Clark & Son, dealers in agricultural implements, Fredericton, N. B., are doing an immense business this year. They have on hand all the supplies necessary for good farming.

We learn that the customers of Mr. A. Myers, dealer in agricultural implements, 27 Germain street, St. John, are more than satisfied with their dealings with that gentleman. Nothing is lost by selling first class goods.

The Berkshire and Improved Large White Yorkshire pigs are being sought after a great deal at present. Mr. Wm. Thirwall, of Kentville, N. S., has first class stock always on hand, for sale at reasonable prices.