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SUCKERED AND UNSUCKERED SWEET CORN

by

A. G. B. Bouquet - Horticulturist.

Removing the suckers from the base of sweet corn plants is a practice which was thought desirable to promote earlier and greater yield of ears than from unsuckered plants.

Experimental data provided by Thompson (1), based on trials conducted in New York state, indicate that suckering may not necessarily be attended with earlier or larger yields. This investigator found there was not any consistent nor statistically significant advantage in earliness due to the removal of suckers; neither was there any definite advantage of suckering in increasing the size of the ear. An average of several years' records showed a slight gain in ear size in Golden Bantam from early and continued suckering but that this gain was not statistically significant and there was a slight loss from late suckering. The suckering reduced the yield of stover of Golden Bantam from 9,525 pounds per acre for no treatment to 6,502 pounds in the case of the suckered plants. In general, suckering was not a profitable operation and is now not a generally recommended practice in New York state. The late suckering proved to be markedly injurious in yield and also had a small but consistent reducing influence on the yields.

Nissley (2) reports that in the state of New Jersey the value of removal of suckers from sweet corn is a disputed practice among corn growers. The best and largest growers in New Jersey are removing the suckers when 12 to 15 inches tall. The majority of these growers have conducted their own test plots where the suckers were allowed to grow and where they were removed. The results secured have satisfied these growers that it pays to remove the suckers. This corn was being produced for fresh market, however, and not for the cannery or for freezing purposes.

Beattie (3) states that "removing the suckers from the base of sweet corn plants is an old practice which supposedly increases the yield and size of the ear and promotes earliness. Under normal conditions suckering is a practice that cannot be recommended in the growing of corn for canning, because of the labor and expense involved, and because no definite increase in yield results, while slight decreases may result. For those who depend upon stover for livestock, it will result in the loss of some feeding material."

This circular discusses preliminary investigations made at Corvallis regarding the yields of suckered and unsuckered sweet corn strains in two crops of the season of 1934. In both crops treatments of all lots were in duplicate. Removal of the suckers began when they were about 6-8 inches long and was repeated when further suckers appeared. In general two suckering removed all that the plant produced. No observations were made as to the difference in weight of fodder of the suckered and unsuckered plants but the mean number of suckers per plant was observed. The influence of suckering on earliness of production of marketable ears is recorded in Table II. All harvesting records are for marketable ears, "nubbins" being discarded.

Table I. Characters and Yield of Suckered and Unsuckered Sweet Corn.

Summer Crop 1934								
Variety	Strain	Plants suckered (S) or unsuckered (U)	Number Suckers per Plant	No. ears produced	No. ears per plant	Total Wt. of ears		Mean Wt. of ears oz.
						lb.	oz.	
Golden Cross Bantam	A	S	3.6	115	2.8	66	7	9.2
		U		129	2.9	75	2	9.2
Golden Cross Bantam	B	S	3.5	111	2.1	64	4	9.2
		U		126	2.4	78	3	9.9
Golden Cross Bantam	C	S	3.0	129	2.0	75	6	9.3
		U		134	2.2	78	8	9.4
Top Cross Bantam	A	S	3.6	112	2.1	58	6	8.3
		U		113	2.8	59	12	8.4
Fall Crop 1934								
Golden Cross Bantam	A	S	4.0	88	1.7	51	2	9.2
		U		80	1.6	47	10	9.5
Golden Cross Bantam	B	S	4.1	88	1.8	51	11	9.4
		U		90	1.8	51	0	9.0
Golden Cross Bantam	C	S	4.0	71	1.4	40	7	9.0
		U		72	1.5	43	11	9.7
Top Cross Bantam	A	S	3.0	68	1.4	41	4	9.7
		U		67	1.3	40	2	9.5
					Summer Crop	Fall Crop		
Mean yield of all plants suckered					2.25 ears	1.57		
Mean yield of all plants unsuckered					2.57 "	1.55		
Mean weight of ears - suckered plants					9.00 oz.	9.32		
Mean weight of ears - unsuckered plants					9.22 "	9.42		

In each of the three lots of Golden Cross Bantam of the summer crop there was a larger number of ears harvested from the unsuckered rows than from the suckered with also a slightly higher mean number of ears per plant. In none of the four lots of the summer crop was suckering productive of a greater number of marketable ears.

In the fall crop the total yields, number of ears per plant and weight of ears of the suckered and unsuckered rows were virtually similar. Certainly there was no statistically significant differences between the two treatments.

Earliness of harvesting. In four out of five lots in which observations were made as to the influence of suckering on the season of harvesting, the suckering treatment showed a definite trend towards earlier maturity of the ears. These data are shown as follows:

Table II. Influence of Suckering on Season of Harvesting Sweet Corn

Variety	Strain No.	Percent of total yield in first two harvestings	
		Suckered	Unsuckered
Golden Cross Bantam	A	32	23
Golden Cross Bantam	B	14	8
Golden Cross Bantam	C	32	19
Top Cross Bantam	A	36	16
Top Cross Sunshine	A	76	68

Summary. 1. Observations of yields of sweet corn ears from suckered and unsuckered plants indicate slight gain in total yield, yield per plant and mean weight of ear from the unsuckered treatments although in few, if any, of the treatments were the differences significant. Certainly no advantages appeared in total yield records from the removal of suckers.

2. There were definite indications, however, that suckering tended to increase the percentage of ears harvested during the first two pickings.

References Cited

1. Thompson, H. C. Results of Sweet Corn Suckering Experiments. New York (Cornell) Experiment Station, Bulletin 450, 1926.
2. Nissley, C. H. Sweet Corn Growing. New Jersey Agricultural Extension Service Bulletin 130, 1934.
3. Beattie, J. H. Growing Sweet Corn for the Cannery. U.S.D.A. Farmers Bulletin 1634, 1930.
