

SWEET CORN IN THE SANFORD AREA

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(Presented in 1946)

With the development of the new hybrid sweet corns and other varieties suitable for this State and with better methods for the control of the corn ear worm the acreage planted to this crop has increased at a rapid rate in the Sanford area. Last season approximately 250 acres were planted to sweet corn in this section. This year the best estimates that we have been able to get place the acreage at 1200 acres with some going as high as 2000 acres. While this shows a tremendous increase, one must take into consideration that the acreage planted to roasting ears has taken a drop almost as great as the increase in sweet corn acreage, thus the total acreage planted to green corn has not increased as much as the figures would seem to indicate.

Corn has long been a favorite crop for planting after celery, but up until a few years ago most of this corn was field corn. With the increased use of tractors and decrease in mule power there has been less demand for this type of corn. Planted after celery, in many cases, no fertilizer is applied to the corn crop, or only side application of nitrate of soda, as there is enough residual fertilizer in the soil. Where corn is planted not following celery, approximately 1000-1500 lbs. of mixed fertilizer per acre is applied generally before planting with subsequent applications of either high nitrogen fertilizer or nitrate of soda or nitrate of potash when the corn is knee high and/or tasseling. Sweet corn is planted in the Sanford area in 30 or 36 inch rows with the corn chopped to a stand of one per foot. Most of the corn is now shipped

in bags of 4 or 5 dozen to the bag. A yield of 200 bags per acre is considered a good yield.

While the two varieties now being most generally grown, Ioana and Golden Cross Bantam, are quite satisfactory, we have been continuing our search for still better varieties. Last season we made trial plantings of 62 varieties or strains of sweet corn, many of them on four different planting dates. Of these 62 varieties, eight were All American selections, twenty-one were crosses made by Dr. Hull of the Main Experiment Station and the balance were varieties grown in other sections of the country or crosses developed at some of the northern Experiment Stations. A good many of those tested had characteristics which eliminated them from further consideration for this area, while others showed qualities which made them worthy of further trials. In this connection let us outline briefly just what we consider desirable in a sweet corn. First, a medium tall plant, sturdy and well-rooted so as to withstand wind, one of our worst enemies; secondly, ears with tight shucks borne well up on the stalk; third, well-filled ears clear to the tip, of good length (7 inches or longer); fourth, sweet and tender kernels and fifth, better than one ear per stalk.

A very considerable number of the varieties tested fell down on the first requirement, being badly blown down and even broken off by the wind. Number three (well filled ears) was next in importance as an elimination factor. A great many varieties had poorly filled ears, some not filling out to the tip and others not filling at the butt. Of those that remained, the following were considered best:

All American No. 21. This produced a medium sized plant with few suckers, small cobs, light yellow kernels, well-filled ears,

ears averaged 8.85 inches in length with 12-14 rows of kernels per ear and 1.85 ears per stalk. This was considered the best variety we had by all who saw the different varieties. We have learned that this variety as yet unnamed was entered by the Associated Seed Growers as Bantam Hybrid No. 56.

All American No. 22. This is very similar to number 21 but the ears were not quite so well filled and are somewhat shorter, averaging 8.20 inches and having 14-16 rows per ear.

Tri-State. Medium to tall plants, some suckers, small cob, well-filled ears, medium size kernels, ears 8.45 inches long, 12 rows per ear, 1.6 ears per stalk.

Evergold. Small to medium plants, some suckers, small cob, medium sized kernels, long shanks, ears 7.87 inches long, 12-14 rows per ear, 1.5 ears per stalk.

Goldengrain. Tall plants, no suckers, tough tight husks, large cob, small to medium kernels, ears 8.57 inches long, 14-20 rows per ear, 1.2 ears per stalk.

Southern Cross Bantam. Tall plants, ears close to stalk, light cream colored kernels, fairly large cob, ears 7.04 inches long, 12-14 rows per ear, 1.35 ears per stalk.

Golden Cross Bantam. Small plants, many suckers, golden colored kernels, well filled ears, ears 7.73 inches long, 10-14 rows per ear, 1.33 ears per stalk.

Ioana. Medium sized plants, few suckers, well-filled ears, light golden colored kernels, ears 7.72 inches long, 10-12 rows per ear, 1.13 ears per stalk.

U. S. No. 34. Which I understand has given good results in the Everglades region, did not measure up to those mentioned above. The plants were very tall, it matured late, the ears varied greatly in length, the kernels were almost white in color. The ears average 6.81 inches long, but as mentioned a moment ago, some were much longer and others much shorter.

In addition to the above several of Dr. Hull's crosses looked promising.

This season we are again planting a number of new varieties and repeats on some of those planted last year. Our crops are not far enough along to pass judgment on any of them.

In growing sweet corn in the Sanford areas there are two factors that we have to contend with which cut down the yields, first, as I mentioned previously, is the wind. During the months of March and April we have almost continuously high winds blowing either from the east or west that frequently cut down the stand of corn in exposed areas; the second factor is one that all corn growing areas have to fight, namely the corn ear worm. A few years ago the USDA developed the oil injection method for control of the ear worm. If properly applied this method will give good control of the ear worm, entering the ear through the silks, but will not control him when he gets in through the side of the ear. Another drawback to this method is that in most cases the tips of the ears are not filled out. With the advent of DDT and after one year's trials, we thought we had the answer to the question of how to control the ear worm. As we reported at the Horticultural Meeting in 1944, Mr. Russell, our entomologist, obtained almost perfect results in using a dust the year previous. During Mr. Russell's absence in the services, the writer conducted further experiments using not only various strengths of dust, but also sprays made with the water dispersible material and the emulsified material. Last year, using all of the above, we had excellent results on the first crop of corn, but the results on later plantings were rather disappointing. One reason for the unsatisfactory results may be because each ear received only one treatment and the effectiveness of the DDT was dissipated before the ear matured. Even where we found worms in the ears they were only in the tips in the majority of cases and had not done any appreciable damage. We did not, however, get any control of the worms entering the side of the ears. This year, Mr. Russell is again

making tests and on a much more elaborate scale and we hope to have some very definite information by the end of the season. Just before I left for this meeting Mr. Russell gave me the following preliminary results of the first planting of corn this year. He had the following treatments:

1% DDT dust; 3% DDT dust; 5% DDT dust; 20% wettable DDT—2 lbs to 100 gallons; the same material, 4 lbs. to 100 gallons; 25% DDT emulsifiable oil—1 pint to 100 gallons; also 2 pints to 100 gallons; DDD spray; Benzene Hexachloride spray; and injections of oil plus dichlor ethyl ether and untreated checks. Each of the above was applied at three different intervals of time, every two days, every three days, and every four days, with the first application being made shortly after the first silks appeared. A total of six applications was made on the every second day treatments,

four on the every third day treatment, and three on the every fourth day treatments. The results of the first check showed the untreated having 80% wormy ears, oil injection, 70% wormy, Benzene Hexachloride 60% wormy, for the every other day treatments, and 100% wormy for every fourth day treatments. All of the DDT and the DDD treatments showed from 0 to 20% wormy ears. As I stated above these are preliminary reports based on only a few ears from each plot. Also Mr. Russell states that the first application was made later than it should have been, which he feels accounts for the presence of worms in DDT or DDD treated plots. By the end of this season, we feel that we will be able to state definitely whether or not DDT and/or DDD can be successfully used to control ear worms in corn and at a cost low enough to make it profitable.

GROWERS PROBLEMS IN GROWING AND MARKETING ICEBERG LETTUCE

By JOHN TIEDTKE
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The State of Florida is proud of its climate and can easily demonstrate its great ability to grow a wide range of crops: beans, tomatoes, cabbage, celery, citrus, and many others. It would seem strange that with all these crops to choose from anyone would want to grow iceberg lettuce, which is one crop that is not suited to the Florida climate, and frequently fails to make a marketable crop. But this very difficulty is the reason for some farmers choosing to grow it. As long as there is only a small amount of it produced in Florida, the bulk of the supply for the Florida consumer must come from California and Arizona. The cross-country freight rate gives the Florida grower a competitive advantage which is not found in the crops that are grown in abundance.

Those farmers who have decided that they like this kind of risk and have had experience in growing the crop, have found that in addition to the common problems which occur to the standard truck crops, iceberg lettuce has a few additional ones of its own. This paper is addressed to farmers who are familiar with the common hazards: cutworm, wire worm, damp off, freeze, flood, etc., and will just concern itself with the troubles that are encountered only with Florida iceberg.

By far the most important is warm weather, which causes the heads to be soft. The Everglades must have unusually cool, dry weather to compete with the Imperial Valley. Most of the time even in the middle of the winter, the quality of the lettuce is irregular, and the number of marketable heads does not exceed 25% of those planted. It takes the unusually cool, dry periods to make a good crop. Last year, for example,