

Vegetable Gardening Hints



Sweet Corn in the Home Garden

When it is grown and handled properly, sweet corn is one of the highest quality vegetables grown. Sweet corn is a warm-season crop that grows best when temperatures are in the range of 60-80 degrees F. Almost any soil type is suitable for corn production as long as it is well drained. An adequate supply of moisture is especially critical at silking time and when the kernels are forming.

The quality of sweet corn is associated with its sweetness. In Louisiana, the sugar content of normal (su) sweet corn remains for only a short time because high temperatures hasten the conversion of sugar to starch. So, for the highest quality, plant corn as early as possible after the danger of frost is over. Then the ears will be ready to harvest before the temperature gets extremely high and before insect pests get thick.

Varieties

Varieties with different maturity dates, early, mid-season and late, can be planted on the same date and provide a harvest of sweet corn for an extended period. Normal or sugary (su) sweet corn varieties recommended for Louisiana are:

Early-maturing: Seneca Horizon and Aztec.

Mid-season: Bonanza, Merit and Funks Sweet G90 (bi-color).

Late-maturing: Silver Queen (white), NK199, Lochief (AAS), Gold Queen and Golden Cross Bantam.

New high sugar varieties have recently been developed and are very popular. Their new genetic makeup is such that they have a higher sugar content and maintain the high sugar content longer than

ordinary sweet corn varieties having the normal (su) sweet corn gene. This breakthrough is accomplished in several ways.

Those varieties with the shrunken 2 gene (sh2) have very high sugars but lack the creamy texture of normal (su) sweet corn. Their shriveled seed are weak, fragile and germinate poorly in cool soils, so postpone early planting of these "super sweets." These sh2 types will hold their peak of sweetness for a week or more. Varieties with sh2 genes must be protected from cross pollination with types of corn other than sh2 super sweets. You can block cross pollination effectively by using different maturity dates or by planting varieties several hundred feet apart. You must check for ripeness by feeling to see if the ear is completely filled out. Fully ripe kernels of sh2 varieties will have a clear, watery juice.

Another major high sugar type is the sugary enhanced (se) type, also called EH. This type has slow starch conversion genes. Although not as sugary sweet as sh2 types, it too is sweeter than normal (su) sweet corn, but maintains some creaminess. At maturity, se corn will hold its quality for almost a week. It needs no isolation from other sweet corn for a normally sweet crop.



Recommended High Sugar Varieties

Supersweet (sh2): Prime Plus Y, Promise Y, How Sweet It Is (AAS), Honey-N-Pearl (AAS), Summer Sweet #8101W, #7210Y, #7640Y, #781W, #7630Y, #7710Y, #8100Y, #8102BC and Pegasus.

Sugary Enhanced (se): Honey Select (AAS), Accord, Miracle, Argent, Merlin, Summer Flavor, #79BC bi-color, #81W, Incredible, Bodacious, DelectableBC, Precious Gem BC, AmbrosiaBC and Calico BelleBC.

Culture

Corn is a heavy user of nutrients, and it responds well to fertilizer on most soils. In the garden, apply 6 to 8 pounds of a complete fertilizer like 8-8-8 or its equivalent per 100 feet of row. Do this several days before planting. If the fertilizer is placed in a band, it should be well below and off to the side of the seed. Make additional sidedressings of nitrogen when the corn is about 18 inches and 36 inches tall. Use 1 pound of ammonium nitrate or 4 pounds of 8-8-8 each time for every 100 feet of row.

Make the first planting of sweet corn about the

time of the last average frost date in your area. If the soil is too cold (below 60F), the seed will be slow to germinate and may even rot. This is especially true of the high sugar or super sweet varieties. Make successive plantings every two weeks or when the previously planted corn is 2 to 4 inches tall.

Plant sweet corn in a block of several short rows side by side rather than in one or two long rows. By planting in blocks, you allow the pollen to move from one plant to another more surely. This helps to ensure pollination of each silk. A fully pollinated ear should fill out completely. Each silk is connected to one kernel of corn, and pollen from the tassels must be deposited on each silk to ensure fertilization of each kernel.

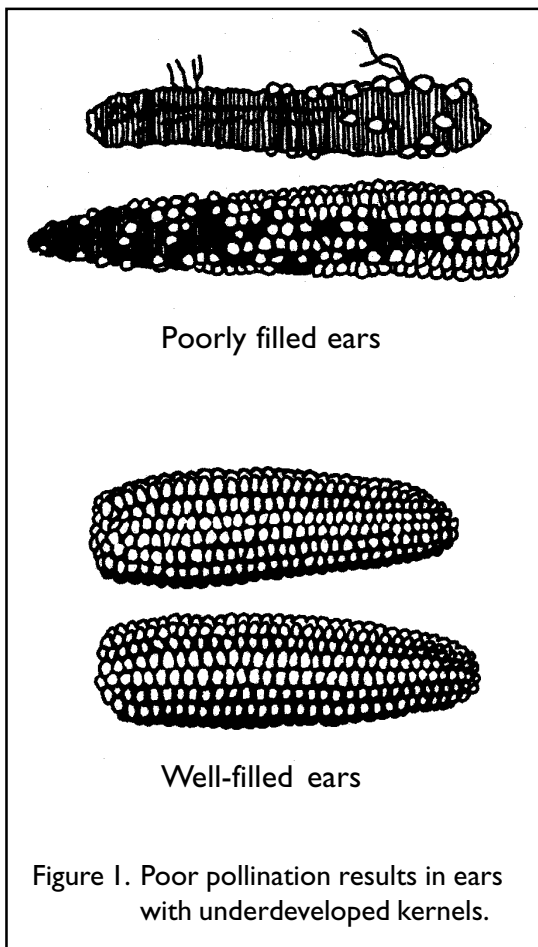
Plant the seed about 1 inch deep and thin plants about 10 to 12 inches apart in rows. Rows should be at least 36 inches apart. Two ounces of seed will be sufficient to plant 100 feet of row. Very sugary varieties or the super sweets have poor seed vigor, so plant these heavier and thin them. A yield of 8 dozen to 8 1/2 dozen ears may be expected per 100 feet of row.

Cultivation should be shallow to avoid damage to the corn roots. Remember: Moisture is essential for good sweet corn production. If less than 1 inch of rain falls during the week, the corn should be irrigated, especially at silking and when temperatures are high and growth is rapid.

It's not necessary to remove the suckers at the base of the plants. In fact, it can cause more harm than good.

Pest Control

The most common pests of sweet corn are the corn earworm, chinch bugs, stinkbugs, aphids and birds. To control the corn earworm, apply Sevin to the silks about every 2-3 days after the silks appear. Stinkbugs and chinch bugs are hard to control, but Sevin will give satisfactory control if used regularly. Ambush and Pounce may also be used on the above three pests. Use malathion to control aphids. To help control the damage from birds, cover the ear with a paper bag after the silks have been pollinated or have first begun to dry. Varieties with a good husk cover can help to discourage birds. Planting early helps to miss much of the insect pressure. Avoid summer and fall corn plantings.



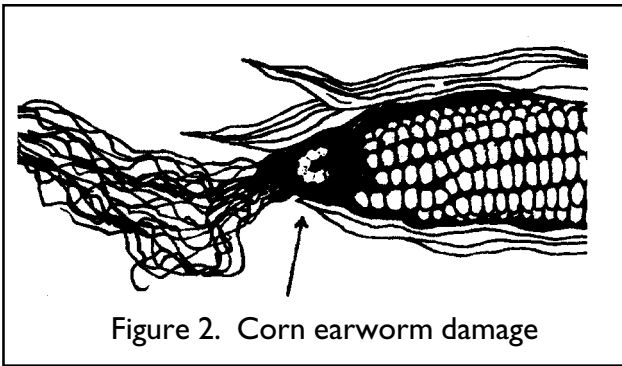


Figure 2. Corn earworm damage

Harvest and Use

The best time to harvest sweet corn is in early morning while the temperature is low. To determine when normal (su) sweet corn is ready to harvest, first check the silks to see if they have begun to dry and turn brown, then feel the ear. It should feel firm and full. Puncture a few kernels on the ears with your thumbnail to make sure they are plump and milky. When sweet corn is at its highest quality, the juice from the kernels will be milky white and runny. It is not ready when the juice is clear and watery. Corn is overmature and starchy when the kernels are large, chewy and the sap inside the kernels is doughlike.

Corn usually matures 18 to 24 days after the tassels appear or 15 to 20 days after the first silks

appear. Watch the corn closely, because the quality changes fast with the normal sweet varieties. Refrigerate or cook immediately after harvesting.

Fully ripe kernels of sh2 varieties will still have a clear, watery juice at their peak of ripeness. This wateriness comes from a high sugar concentration which is achieved at the expense of the water-soluble polysaccharides (WSP) that provide the creaminess in regular sweet corn. With high sugar and low WSP, the corn is very sweet but not as creamy. High sugar varieties, especially those with sh2 genes, may be too watery to cut off the cob and process.

Corn from the other types of high sugar varieties compromise some sugar for creaminess. Varieties of sugar enhanced (se) hybrids also store some different sugars and may have a distinct flavor.

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