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Sweet corn for the home garden

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Quick Facts

Sweet corn remains in prime condition for only a day in hot weather.

To enjoy the best quality, it must be harvested at its prime state and consumed immediately.

Missing kernels resulting from poor pollination is the most common cause of dissatisfaction.

Sweet corn must be well supplied with nitrogen to perform at its best.

There is much satisfaction in harvesting fresh corn from the garden, enjoying it for supper and knowing it is fresher than any corn that could be bought. This desire for fresh sweet corn is perhaps the main reason for including sweet corn in the garden.

Requirements

Light—Sweet corn requires at least eight hours of direct sunlight each day in order to grow its best. Since it will cast shade over other plants, it is customary to plant corn in the northern part of the garden.

Temperature—The soil temperature should be 50°F (10°C) at a depth of three inches (7.6 centimeters) before corn is planted. Below this temperature it will not germinate and stand losses will result from seed decay. The soil may be warmed by covering the ground with black plastic and punching holes through it to plant the seed. The rate at which corn grows is very much influenced by temperature. This has a bearing on planting, since plantings made a week apart in May will ripen one or two days apart in August. For this reason, plantings of the same variety seldom are made closer than a week apart when successive harvests are desired.

Water—Corn has a unique way of showing water stress. The leaves roll in toward the midrib. They should not be allowed to remain in this condition for more than an hour or two. If a gardener maintains the soil moisture level by providing approximately an inch (2.5 cm) of water a week, the corn leaves should not roll.

Fertilizer—Corn is a heavy user of nitrogen. While some of this can be supplied with manure, one should not try to furnish all the nitrogen with manure because salt damage may occur. Manure application should not exceed 50 pounds per 100 square feet (22.7 kilograms per 9.3 square meters). This will supply 0.3 pound (.14 kg) of nitrogen.

A corn crop requires ½ pound (.23 kg) of nitrogen and 1/10 pound (.05 kg) of phosphate per 100 square feet (9.3 sq m). All of the phosphate (P₂O₅) and half the nitrogen (N) should be applied before working the soil in the spring, and the rest of the nitrogen should be applied on July 1. The actual amount of fertilizer used will depend upon the percent of nitrogen and phosphate contained. In most cases, only nitrogen and phosphate will be required; however, there are many soils in Colorado that are deficient in other elements. Manuring is almost a sure way of avoiding minor element deficiencies. However, if there is some question about soil fertility, and manuring isn't practical, the local extension agent should be consulted about a soil test.

Pollination—Incomplete pollination results in kernel skips on the ear and is the most common cause of dissatisfaction. In order for a kernel to develop, a pollen grain must land on the silk that leads to that kernel. Since corn pollen is airborne, the air currents carrying the pollen must be directed to the silk. This is done by planting corn in blocks instead of rows.

Corn kernels have the unique ability to show evidence of cross pollination. For example, if sweet corn and field corn are planted side by side, the kernels pollinated with field corn pollen will lack sweetness. When yellow corn is planted beside white corn, the yellow ears will bear a few white kernels, and when the Xtra sweet lines are pollinated with regular pollen, the high sweetness will be lost. Therefore, white, field and Xtra sweet corn types should be isolated if kernels of uniform flavor and color are desired.

Planting—As soon as the soil temperature at 3 inches (7.6 cm) reaches 50°F (10°C), corn may be planted. To achieve good pollination corn should be planted in blocks. A block should have at least nine plants (3 x 3). The seed should be planted 1½

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inches (3.8 cm) deep and spaced 12 inches (30.5 cm) apart for the smaller early variety and 15 inches (38.1 cm) apart for the larger late varieties. Two seeds should be planted in each hole and later thinned to one plant if they both germinate. Pathways should be left from which to tend the blocks, since this planting method does not allow working room within the blocks.

The first planting may consist of a block each of early, midseason and late corn. Thereafter weekly or bi-weekly plantings of a block of midseason or late corn may be planted until June 15. Early corn may suffer the effects of shading if planted behind midseason or late corn because of its small size. Because the quality of early corn usually is not as good as later corn, only the first block is generally planted.

Varieties

Early corn—60 to 70 days. Stalks five to six feet (1.5 to 1.8 m) tall, ears six to seven inches (15.2 to 17.8 cm) with eight to 12 rows of kernels. Examples: Royal Crest, Early Sunglow, Early Xtra Sweet.

Midseason—70 to 80 days. Stalks six to seven feet (1.8 to 2.1 m) tall, ears seven to eight inches (17.8 to 20.3 cm) with 12 to 16 rows of kernels. Examples: Golden Beauty, Marcross, Sugar King, Morning Sun.

Late—80 to 100 days. Stalks seven to nine feet (2.1 to 2.7 m) tall, ears seven to nine inches (17.8 to 22.9 cm) with 16 to 20 rows of kernels. Examples: Golden Cross Bantam, WK199, Jubilee, Iochief, Illini Xtra Sweet.

White corn includes early (e.g., Silver Sweet), late (e.g., Silver Queen) and rowless kernel or shoe-peg kernel corn (e.g., Country Gentleman). Some authorities recognize Silver Queen as the epitome of sweet corn excellence. Its popularity is restricted to those who will accept a white sweet corn, however.

Suckers—During the season, many varieties of corn will produce shoots or suckers from the base. Tests have shown that removing these suckers does not increase yields and therefore they are best left alone.

Pests

Rootworm—When corn is grown in the same place year after year as it frequently is in home gardens, a rootworm population is likely to build up in the soil. Their presence is evidenced when stalks blow over in July. Cutting into the base of a fallen stalk will reveal small, black headed worms. Treatment may be applied then to try and save the remaining corn, and certainly should be applied at planting next year. Two ounces (56.7 grams) of granular Diazinon per 100 square feet (9.3 sq m) applied and raked in prior to planting is one control method.

Corn Earworm—Earworm infestation results after the adult moth lays her eggs on the silk. When the larva hatch they work their way into the ear and feed on the ear tip. To prevent this, the silk may be protected with an insecticide. A 2 percent Sevin dust is one method of control. However, since their activities generally are confined to the tip, the affected portion may be cut off after harvest.

Other insect and disease problems may be encountered, in which case the local extension agent should be contacted for more help.

Harvesting

Sweet corn should be harvested when the kernels are well-filled and tightly packed. A kernel should squirt milk when punctured with the thumbnail and show evidence of developing dough. The yellow varieties should have yellow kernels at the tip. When these conditions are met, the corn is ready to harvest.

At 60°F (15.6°C), an ear will remain in prime condition for five days; however, at 85°F (29.4°C) it will remain in prime condition only one day. To check the stage of maturity, peel back the husk of an average ear, observe, and apply the thumbnail test.

When ready, the full ears should be grasped firmly, bent downward and pulled toward the ground with a turning motion. As soon after harvest as possible, the corn should be husked and boiled to inactivate the enzymes that convert the sugars to starch. It is then ready to eat.