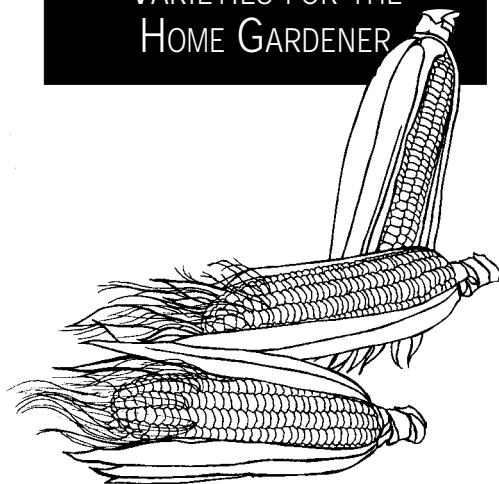


CULTURE AND
VARIETIES FOR THE
HOME GARDENER



Growing Sweet Corn

SUGGESTED VARIETIES AND DESIRABLE CHARACTERISTICS

Variety (F1 hybrids)	Days to maturity	Disease resistance	Suggested uses	Comments
Early				
Seneca Horizon	62	BWm	G	Good quality, very early
Seneca Horizon se	64	BWm	G	Good quality; very early; se*
Seneca Daybreak	64	BWm	G	Good quality; very early, se*
Sundance	69	BWm	G	Ears 7 1/2" long, 14 rows of kernels; best overall quality
Second early				
Sugar Buns	71	BWm	G	Ears 8" long; se/se*
Breeders Choice	72		G	Very attractive, high quality; se/se*
Bodacious	73	BW	G	Ears 8" long, 18 rows; too tender for canning or freezing; se/se*
King Arthur	75		C,F,G	Ears 9" long, se/se*
Tuxedo	76	BW,R	C,F,G	Ears 8" long and best for drier soils and disease tolerance; se/se*
Main season				
Empire	78	BWm, R	C,F,G	Ears 9" long; NK 199 type; 18 rows of kernels; also good for later plantings; se*
Miracle	81	BW	C,F,G	Excellent quality; se/se*
Incredible	84	BW	C,F,G	Excellent quality; se/se*
Merit	84	BW, S	C,F	Standard
NK 199	85	BW	C,F	Standard
Bi-color				
Seneca-Dawn	69	—	G	Very early; se/se*
Rine-N-Shine	70	BWm	G	Good quality, se*
Delectable	79	—	C,F,G	Ears over 8" long, 18 rows, se/se*
Sweet Sue	88	BWm	C,F,G	Very good quality
White				
Sugar Snow	68	—	G	Best second early; large-eared, white se/se*
Sweet Ice	74	BWm,S	G	Looks like Quick Silver, much better eating quality†
Alpine	78	R	C,F,G	An early Silver Queen type, se*
Silverado	79	BW,S	C,F,G	Better appearance and eating quality than Silver Queen, se*
Summer Flavor 81W	81	BW	C,F,G	Ears 8 1/2" long, 16 rows, glossy; 8' plant; se/se*
Argent	84	BW,R	C,F,G	Better than Silver Queen; se*
Narrowgrain Evergreen	94	BW	C,F,G	A standard
Silver Queen	94	BWm	C,F,G	Very good quality; standard

CODES

Disease resistance: **BW** = Resistant to Stewart's Bacterial Wilt; **BWm** = Moderately resistant to Stewart's Bacterial Wilt; **S** = Resistant to Smut; **R** = Resistant to Rust

Suggested uses: **C** = Canning; **F** = Freezing; **G** = For use fresh from garden

Comments: *se/se = 2 doses of sugar enhanced gene type; se = 1 dose of sugar enhanced gene type

† = Harris' Sweet Breed type—claims to combine the best of sw, se, se/se, and sh₂

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ABOUT SWEET CORN TYPES

Generally, sw (normal endosperm) corn types are best for cold soils, but they have the least sugar.

Generally, se/se, some se, and new complex combinations like Harris' Sweet Breed have the best flavor, texture, aroma, and sugar content.

The sh₂ types are not recommended for home gardens because isolation (to avoid cross-pollination) can be a problem if other varieties of sweet corn are growing in the neighborhood. Also, many people consider the kernels of sh₂ types too sweet and too crisp whether eaten fresh, canned, or frozen. These types were developed for long-distance shipping to supermarkets. However, for short-term camping, hiking, or minivacation trips, sh₂ types would hold acceptable quality the longest.

Usually, se and se/se types that are about 75 days or later in maturity and that have deep kernels and long, fat ears (more recovery) make the best canning and freezing varieties. Sometimes an se/se type may have kernels that are considered too tender for canning. Because of their appearance, yellows are usually thought best for processing (especially canning) and whites considered poorest.

CULTURAL PRACTICES

Soil Fertility and pH

Sweet corn does best at a soil pH between 6.0 and 6.8. Fertilize and lime as directed by soil test results (kits can be purchased from county offices of Penn State Cooperative Extension).

In the absence of a soil test, fertilize in one of these ways: (1) Apply 4 1/2 lb of 5-10-5 fertilizer per 100 sq ft mixed with compost as a broadcast treatment, or (2) apply and work into the soil. Mix compost with 3 lb of 5-10-5 per

100 sq ft prior to planting, and then band 1 lb of 5-10-5 per 100 sq ft at planting time (2 inches to the side and 2 inches below the seed).

Planting Dates

Plant seed May 1 to July 1 in central Pennsylvania. For successive harvests, sow a series of varieties of varying maturities; also make several sowings of the better main-season types. Remember that corn responds to total heat units, so a later planting of the same variety will generally develop at a faster rate than the earlier planting.

Depth of Seeding

One inch in heavy or moist soils; 1 1/2 inches in dry or sandy soils.

Spacing

Between rows—2 1/2 to 3 feet

Between plants in row—Sow seed about 4 inches apart.

Thinning—Thin early varieties 8 to 10 inches apart and late varieties 10 to 12 inches apart. Thin when corn plants are 4 inches high.

Suggestions

To conserve space in a garden, plant corn next to vine crops such as cucumbers. As the vines grow, they will tend to grow between the corn rows and up the stalks.

If possible, plant corn varieties in small blocks to obtain maximum pollination. Four or more short rows of a variety side by side will give much better results than one long row.

Sweet corn should be picked at the milk stage; that is, as soon as kernels become well filled and plump, but before the dough stage develops. For maximum sweetness and tenderness, eat corn as soon as possible after picking. If quantities must be kept for a day or two, harvest during the cool early morning hours and then keep the harvested ears just above freezing (about 34°F) until ready to use.

DISEASE IDENTIFICATION AND CONTROL

Color photos of disease symptoms can be found in the publication *Identifying Diseases of Vegetables*, for sale from the College of Agricultural Sciences Mailroom or from your county extension office.

Stewart's Bacterial Wilt

Yellow to brown streaks up to 1 inch wide develop on leaves and may extend the length of the leaf. Brown discoloration and sometimes cavities form in the center of the stem near the soil line. Plants affected early may die; plants affected late may be stunted or merely have streaked leaves. The disease is most prevalent following mild winters, especially in the mildest parts of Pennsylvania.

Smut

Smut is characterized by the presence of large, fleshy, irregular galls on leaves, stems, ears, and tassels. Immature galls are white and spongy; mature galls turn brown and contain powdery dark spores. Smut is promoted by plant injury caused by cultivation, insects, and hail.

Rust and Leaf Spots

Rust is characterized by reddish to brown rusty powdery areas on the top surfaces of leaves. Leaf spots can be small or large; the spots usually are elongated and appear first on oldest leaves. These diseases can be significant, but usually only late in the season.

General Control Measures

1. Grow varieties with resistance to Stewart's wilt when needed.
2. Remove and dispose of smut balls before they turn black and break open. Dispose of stalks and leaves as soon as harvest is over.

A statewide monitoring network gives flight catches of European corn borer, corn earworm, and fall armyworm. Data are contained in the *Vegetable Insect Newsletter* on the PENpages system. Contact your county extension office for more information. Call 1-800-PENN-IPM for flight data.

Corn Earworms

Earworms are large (up to 1 3/4 inches) and vary greatly in color, from a light green or pink to brown with alternating light and dark stripes running lengthwise on the body. The worms are a minor problem on early and mid-season corn, but after August 15 and especially on corn that silks in September, the crop often is heavily infested. Spray the ear zone when plants are 30 percent, 50 percent, and 100 percent in silk. Corn harvested in late September may need five sprays.

Control: Brushing silks with horticultural oils during heavy flights of adults (August 15-September 15) may help if done several times as the silks grow. Cutting tips off ears removes worms.

European Corn Borers

Borers are up to 1 inch long, flesh-colored, and marked with numerous small, round, brown spots. They feed in all parts of the stem and ear. A group of small pinholes on the leaves is characteristic of borer feeding. If over 30 percent of the plants have feeding injury, several sprays are suggested. The best time to control the first brood with sprays is during the last two weeks of June. To control the second brood, apply sprays during August.

Control: Use carbaryl (Sevin) for European corn borer, corn ear-

worm, sap beetle, Japanese beetle, and fall armyworm control.

Fall Armyworms

Fully grown larvae are about 1 1/2 inches long; worm colors vary from light tan or green to black with a black stripe along each side. The head has a prominent “y” with a series of dark spots running along the back, and the last or next-to-last abdominal segment has four distinct black dots.

Control: See European corn borer.

Sap Beetles

These beetles can be found feeding on silks from June through August, but particularly during July. Dusky sap beetles are small, about 3/16 inch long. They are gray to black in color and oblong in shape. They invade plants when tassels begin to show, feed on green silks, and feed on kernels when the silks begin to brown. Damage from corn borer larvae and Japanese beetles attract sap beetles.

Control: See European corn borer.

Flea Beetles

Flea beetles are small (1/16 inch) and black, and can be recognized by their jumping habit when disturbed. They eat the surface from the leaf, causing a white streak parallel with the veins. Flea beetles are most abundant in warmer areas of the state and especially after mild winters. The beetles are most important in their transmission of a disease known as Stewart’s wilt or bacterial wilt.

Control: Where wilt has been a problem, grow resistant varieties. Use carbaryl (Sevin) if necessary.

Prepared by P. A. Ferretti, professor of vegetable crops; A. A. MacNab, professor of plant pathology; S. Fleischer, extension assistant for entomology; and T. Bilik, Master Gardener coordinator

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