

## Some Corn-y Advice

Plant corn this spring. Come August, you and those who profit from your gardening skills will be glad, your corn-fidence level will go up corn-siderably, and you'll be hooked. In shopping for seed, you'll encounter the following terms. If you're speed-reading this article, buy bicolor Sugary Enhanced corn. If you're going to plant just one block of corn, select a mid-season variety (with seventy-some days to maturity). If you want to extend the harvest, select two varieties with at least a fourteen-day difference in days to maturity.

## Understanding the Different Types of Sweet Corn

**Standard or Normal Sugary (su)** Good for early sowing because it germinates in colder soils than other types of corn, old-fashioned sweet corn, whether open-pollinated or hybrid, begins declining in quality within an hour of being picked. Open-pollinated varieties allow for seed-saving, require less fertilization, but yield about half as much corn as hybrid varieties.

**Sugary Enhanced (se/SE)** Refrigerated, tender, creamy-textured Sugary Enhanced corn stays sweet three to five days; its sugars do not convert to starch as quickly after picking as those of standard corn. Since cross-pollination has little effect on its sweetness, there is no need to isolate Sugary Enhanced corn from standard sweet corn varieties in the garden. Vigorous and easy to grow, this type of corn is recommended for beginners. There are two classes of Sugary Enhanced corn, one designated se and one designated SE.

**Super Sweet (sh2)** Crisp-textured Super Sweet corn, which carries the shrunken-2 gene (sh2), has double the sugar content of standard sweet corn. It retains its sweetness up to ten days after harvest. High sugar content invites fungal attack, so it does not germinate well in cold soil. Isolation from other types of corn is necessary to avoid cross-pollination and the resulting woody, starchy kernels in the affected corn. Super Sweet corn is the best choice for gardeners who wish to freeze part of their corn harvest.

**Everlasting Heritage (E.H.)** This high-sugar type has seed that germinates well and does not need to be isolated from other tasseling sweet corns, thus solving two of the main problems with the Super Sweet varieties.

## Selecting Early, Mid- or Late-season Varieties

Early corn is any variety with a low number (in the 60 to low 70 range) of days to maturity. Some catalogs may give a variety a 60-plus "days to maturity" label, but in fact the corn will take a good 70 days to mature in Pacific Northwest gardens. Since nature needs time to provide an ear of corn that is both large and flavorful, if you want to grow an early variety, resign yourself to smaller ears and hope for the best possible flavor under the circumstances. Most gardeners who have tried early corn agree that varieties with more days to maturity generally taste better.

A good alternative to direct-seeding an early variety is to start a mid-season variety indoors. Starting corn indoors may be a good idea, especially if you choose to plant a super sweet variety. Soak seed overnight to help speed

germination. Sugary Enhanced and Super Sweet varieties must absorb twice as much water as standard corn in order to germinate. Since corn does not transplant well, start seeds in peat pots, on the last average annual frost date for your area. Do not let the seedlings become pot-bound. Set seedlings out two to three weeks after germination; avoid disturbing their roots.

Corn growth is dependent upon day length and heat. North of the 40th parallel, long summer days delay maturity. Very late varieties of corn are not a good choice, especially in the Pacific Northwest, where summers are far from hot. With some experience, a gardener with lots of space might plant a late variety as a gamble, knowing that some years the immature crop will be relegated to the compost heap. Mature corn may come through a frost with flying colors, thanks to its husk.

To assure a steady supply of corn, plant an early, a mid- and a late-season variety all at the same time. Alternatively, plant varieties with about the same days to maturity at two- to three-week intervals, or wait until most seedlings from the most recent planting have three leaves before seeding the next one.

## Avoiding Cross-pollination

If two varieties need to be isolated from one another, they may be planted at the same time if there are two to three weeks difference in maturity dates so that they will be pollinating at different times. If two varieties with similar days to maturity are planted at the same time, plant windbreak or barrier crops (such as several rows of tall sunflowers) between the types of corn to help keep pollen from traveling. Hand-top any late flowering plants or suckers among the group of plants from which you do not want pollen distributed. Planting corn with wind direction in mind might also prevent cross-pollination. Plant the earlier corn downwind. The remaining alternative, distancing varieties which need to be isolated from each another by 250 to 500 feet, is usually not an option for home gardeners. Be aware that popcorn needs to be isolated from sweet corn.

## White, Yellow or Bicolor

Yellow corn contains more vitamins than white or bicolor corn. White and bicolor corn need to be isolated from yellow corn or they will not necessarily end up being the color you expect. Solve the problem in any of the ways suggested in the previous paragraph.

## Choosing a Site and Preparing the Corn Patch

Dig in an inch or more of organic matter several weeks before seeding. Corn develops better in well-drained humus-rich soil with pH in the 5.8 to 7.0 range. The site should be flat and in full sun, and ideally large enough to accommodate a block of at least four ten-foot rows spaced two-and-a-half to three feet apart. Soil may be warmed by laying sheets of clear plastic over the planting area prior to seeding. Corn is wind-pollinated, for the most part. To ensure good pollination, plant in blocks or circles, or hand-pollinate. A block of at least four ten-foot rows is a common configuration, or plan a block of square-foot units, with a kernel at each corner of a square, if you need to plant intensively. If circles intrigue you, plant seeds eight inches apart in two-foot diameter circles, with a foot of space between the circles.

Hand-pollination will be necessary if you are not planting enough corn to be able to depend on the wind for pollination, but some gardeners hand-pollinate even if they have planted corn in a block. Signs that it is time to undertake this task are: little flags on the tassels where pollen heads have opened; very fine dust drifting down

(and downwind); silks freshly and fully open. On a calm windless morning, when the air temperature has reached 65 degrees, slip a paper bag over the tassels and shake out the pollen. Spread the silk below and sprinkle the pollen over it. Repeat this three days in a row. (Each silk connects to a single kernel-to-be, so your aim is to maximize the chance of pollen reaching each silk, and thus of having a full ear.) Another approach is to quickly walk down the rows of corn while gently tapping each corn stalk with a stick the size of a long broom handle. You will not be able to escape the cloud of pollen that is stirred up, so this is a project to take up before you shower.

## Planting Corn

Avoid corn seed treated with a fungicide to help it survive in cold soil. Wait until soil temperatures reach sixty degrees to sow standard corn seeds; wait for another ten degrees of soil warmth before sowing the sweeter varieties. In fifty-degree soil, corn might take twenty days to emerge, whereas only five days are required in seventy-degree soil. In most parts of Clark County, one should be able to plant corn some time in May or early June. Remember that covering the soil with plastic will help to heat it up faster. To speed germination and seedling emergence, pre-soak untreated seed in warm (68 degrees Fahrenheit) water for twenty-four hours, changing the water at least three times to maintain oxygen levels.

At planting time apply one of the following fertilizers (or the equivalent): two inches of compost or, for every hundred square feet, three pounds of soybean meal, alfalfa meal or 5-10-5. Sow seed a half-inch to an inch deep for early plantings because surface soil is warmer; when the soil has warmed, plant at a depth of an inch or more because soil moisture is more even at that depth. Plant short-stalked, early varieties six to eight inches apart in rows thirty inches apart; and taller, later-maturing varieties, about twelve inches apart in rows thirty to thirty-six inches apart. You can plant in hills, placing several seeds at each spot designated for a corn plant. If all the seeds germinate, cut (don't pull) the extra and less desirable seedling(s). Other gardeners plant a seed every three inches or so and thin the seedlings to the appropriate spacing.

Open-pollinated varieties need space – observe packet recommendations. Row covers, which are recommended in cool climates, should be removed at the five-leaf stage. If you do not use a row cover, you may wish to protect newly-planted seed from birds with long strips of chicken wire, bent into a hoop shape. Leave the wire in place until the seedlings are four to six inches tall.

## Providing Companions for Corn

Plants which prefer cool weather, such as chard or lettuce, make good candidates for inter-planting with corn, as do shade-tolerant plants such as parsley, celery and green onions. Cucumbers also appreciate the light shade offered in the corn patch. A late crop of peas can be grown in the shade of a corn row. Pole beans are classic companions for corn. Let the corn get a head start; after a few weeks, plant the beans.

Growing plants that occupy different rooting zones is an excellent way to make the most efficient use of soil resources (nutrients, water). Intersperse winter squash and corn, as native Americans did. Combining an upright plant with a shallow root system and a spreading plant which delves deep for its nutrients and water, allows room for both to develop well. Some gardeners believe that the squash vines deter raccoons.

## Maintaining the Corn Patch

Weed control is most critical during the three weeks after the corn shoots emerge. Remove weeds growing very close to the corn seedlings by hand; otherwise, remove weeds by hoeing or tilling until the plants are about a foot in height. From that time on, avoid damage to the many shallow roots spreading out from the plants: apply a thick layer of mulch to suppress weeds and conserve moisture, and avoid walking between the rows, which compacts the soil over the roots.

A critical watering time for corn is the ten days before tasseling through flowering. After flowering, too much water delays ear formation. One good soaking every four to six days, or an inch of water a week during most of the growing season is a good guideline. Avoid overhead watering when pollen is flying, or you might not get good ear fill.

A grass, corn needs generous amounts of nitrogen to prosper. Organic sources of nitrogen include manures, fish meal, alfalfa meal and blood meal. Avoid using manures mixed with uncomposted sawdust or wood chips, as those components decrease the amount of nitrogen available to the plants. Nitrogen-fixing cover crops (alfalfa, crimson clover, vetch) planted in the fall should be tilled under several weeks before a corn crop is seeded in spring or early summer. In addition to planting in a site rich in organic matter, most experts advise side-dressing several times with a high-nitrogen fertilizer, e.g., when plants are four to eight inches in height, and again when tassels form.

Suckers, the side shoots that sometimes grow out of a corn stalk at ground level, will send nutrients to the main stalk in times of moderate stress. Their removal could cause weakening of the main stalk and provide an entryway for disease. Not all varieties of corn produce suckers. When they appear, they are often a sign that a plant has excess nutrients – the gardener could have spaced the plants more closely.

## Dealing with Pests and Diseases of Corn

Consult Washington State University Cooperative Extension's [Hortsense](#) (home gardener fact sheets for managing plant problems) or Oregon State University Extension's [An Online Guide to Plant Disease Control](#) for information about corn pests and diseases.

## Monitoring Corn

Note when tassels appear down in the leaves – about two weeks later, the plant should reach full height and begin to shed pollen. When silk appears on ears, shake stalks to ensure pollination, which fills out ears with kernels; expect corn to be ripe about eighteen to twenty-one days later.

## Harvesting Corn

Indications that corn is ready to harvest vary, but may include the following: ears feel firm and well filled and are blocky (blunt, not tapered or sharp) at the tip; kernels are plump, and when punctured, spurt milky (as opposed to watery) juice; silks are brown, but moist; husks are “slightly browning off”; and in some varieties, the ears “lean out.” Sugary Enhanced varieties may develop much of their sweetness just before they are ready to be picked. If all other signs indicate that they are ready, but they don't taste as good as you think they should, give them another couple of days.

Harvest will last about a week. Ears in a patch of standard sweet corn will mature some days apart, and the corn will be in prime condition for about three days. Ears in patches of Sugary Enhanced and Super Sweet corns will ripen all together, but the corn will be in prime condition for longer than standard sweet corn. Removing husks speeds the conversion of stored sugar to starch, so leave the husks on until you are about to cook the corn.

## Freezing Corn

For details on freezing corn, consult the publication [Sweet Corn](#) published by Skagit County Washington State University Cooperative Extension.

In some tests, Super Sweet corn is rated as having better flavor after several months in the freezer than when it was fresh...

## Resources

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