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Sweet corn (*Zea mays* L. var. *rugosa*) is one of the most popular summer vegetable crops. Like peppers, pumpkins, squash and beans, sweet corn is native to the New World where it has been cultivated for more than 4,000 years. Sweet corn is a monoecious plant, which means it has a separate male and female flower on each stalk. The tassel is the male flower, which produces the pollen, and the ear is the female flower (Figure 1). For kernels to form on each ear, pollen from the tassel must be deposited on the silk of the ear. Sweet corn is primarily wind pollinated, which is why it's usually planted in tight rows or blocks, although bees are often seen collecting nectar and pollen from the tassels. For small plantings of sweet corn, a series of short rows rather than a single, long row will improve the chances for efficient pollination. Sweet corn typically produces one or two ears per plant. When planting in a garden plot, plant it along the north side of the garden so as not to shade the other plants and offer the garden protection from the north wind.

Sweet corn is sensitive to cool weather and should be seeded when soil temperatures reach at least 60 degrees Fahrenheit (2 inch depth) or about 7 to 10 days before the last killing frost. In addition, early plantings avoid many insect pests that become established later in the growing season. For early production of sweet corn, an early-maturing variety can be planted. Also, the sweet corn seeds can be sown as double rows (14 to 24 inches apart) under clear, perforated plastic (1 to 1.25 mil). The rows can be covered with clear plastic or row covers to protect against frost and early pests. The cover can be left on the plants for about 30 days and removed when plants are 6 to 12 inches in height. If plastic is used irrigation under it is necessary. Mold can form if too much water is added. Row covers are better for ventilation purposes. Some growers have success seeding sweet corn through black plastic mulch for early harvest. Sweet corn can also be transplanted for early harvest, but transplanting sweet corn requires more care than transplanting most vegetables. Ideally transplants should be planted in cone-shaped, inverted pyramid cells or peat pots, which allow for vigorous root growth without damaging the root system. Organic starter mix should be used to give the plants nutrients while they are getting going. Intervale compost or Moo-Doo products work great for this.

Early-maturing varieties can be seeded 8 inches apart while later maturing varieties can be seeded 9 to 12 inches apart in the row. **Approximately 10 to 15**

pounds of seed will be needed per acre, and seed should be planted about 1 inch deep. Corn can also be planted in hills about 3 feet apart, each hill containing three or four seeds. At wider spacing, sweet corn sometimes develops suckers or tillers. These should be left on the plant because they do not reduce yield and pulling them off could damage the plant. A final plant population of 15,000 to 24,000 plants per acre is average.

Fertilization

Sweet corn grows well in a wide range of soils with a pH range of 5.5 to 7.0 but 6 to 7 in optimum. Sweet corn requires relatively high levels of nitrogen to produce a large stalk and ears with juicy kernels. Rotation in the plot with nitrogen-fixing plants such as [alfalfa](#), [vetch](#) or [clover](#) is beneficial to sweet corn production because those plants fix nitrogen into the soil naturally and rotating them into the cultivation sequence cuts down on parasite build up in the plot and prevents corn smut and other pathogens from getting a permanent foot hold in the soil. Avoid applying all the required nitrogen at planting. Before seeding, 65 pounds of actual nitrogen (1.5 pounds per 1,000 square feet) should be applied. Based on a recent soil test, 0 to 100 pounds (0 to 2.3 pounds per 1,000 square feet) of phosphorus (P₂O₅) and 0 to 150 pounds (0 to 3.4 pounds per 1,000 square feet) of potassium (K₂O) can be broadcast over the field. When sweet corn plants reach a height of 6 inches, an additional sidedress application of 35 pounds of nitrogen (0.8 pound of actual nitrogen per 1,000 square feet) is beneficial. We recommend [Peruvian Pelletized Seabird Guano](#) or [Pro-Booster](#) and additions [of Rock Phosphate or Bone Char and Greensand](#) if more phosphorous and potassium are required. Synthetic fertilizers tend to run off and contaminate the soil and harm the biological life you're trying to establish in organic soil media. Crop rotation as mentioned above will cut down on your cost of these inputs. If you're growing a lot of sweet corn for profit it will be worth your while to start of with a soil test. Call your [local extension agent](#) for a kit.

*An old time companion planting method you can try is, Plant beans and squash in the plot after the corn plants emerge if you can get in there without disturbing the corn plants. The beans will fix nitrogen into the soil as the corn grows, replenishing the resource naturally. The squash and the beans will act as a cover to suppress weed growth eliminating the need for herbicides.