

Growing Popcorn Should be More Popular!

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One plant not often grown in a typical vegetable garden is popcorn. Its cultural requirements are similar to those of sweet corn and, who can turn down a handful of this low calorie snack when freshly popped and lightly salted and buttered? Popcorn is believed to be one of the oldest types of corn grown, dating back to perhaps 3600 B.C. Native Americans introduced popcorn to the early settlers.

While the popcorn you purchase at the store is a pale golden color, you can grow popcorn in the colors of the rainbow. There are more than 100 different popcorn varieties, although only a handful are available to the home gardener. ‘Strawberry Popcorn’, as its name implies, is shaped like a 2 to 3 inch strawberry. Plants grow 4 feet high and produce 2 to 4 ears of magenta colored kernels.

‘Calico’ has 6 inch ears filled with colorful kernels in shades of brown, yellow, red, blue, purple and white. ‘Glass Gem’ is an attractive heirloom with jewel tone kernels in a delightfully wide range of mostly pastel colors. Tall plants produce 3 to 4 ears, each up to 8 inches long. ‘Robust 997’ is a high-yielding yellow popcorn with 7 to 8 inch ears. All of the above listed varieties take about 100 days to mature.

‘Early Pink’ is a good choice for a quicker maturing popcorn with pretty, pink kernels that are ready in about 85 days from germination. Five to 6 inch ears are formed on 5 foot tall plants. Regardless of the color of the kernels, popcorn is white when popped. Many popcorn varieties can be ground into cornmeal and that is where their true colors appear. They can also be used for craft purposes and as decorations.

Both sweet corn (*Zea mays*) and popcorn (*Zea mays praecox*) are members of the grass family and, as such, both are wind pollinated so best planted in a block consisting of at least 4 rows. Those with smaller gardens can plant 3 to 4 seeds in at least 6 hills about 2 feet apart. Tassels on top of the stalks are the male parts while the female parts are the ears. Pollen from the tassels must fall onto the silks for pollination to occur and for the kernels, or seeds, to be produced. Each pollinated silk forms one kernel on the cob.

Another factor to keep in mind when growing popcorn is that it should not be allowed to cross-pollinate with sweet corn. If it does, some of the sweet corn kernels will not be sweet and may be rather tough and flavorless. If you are planting both types of corn, keep a 500 foot distance between the two, or stagger the plantings so they do not tassel at the same time.

Seeds can be planted in the next 2 or 3 weeks about one-half inch deep and 10 inches apart in rows that are about one foot apart. Germination usually occurs in 3 to 10 days depending on the moisture and temperature. Keep the soil moist and be on the lookout for crows who find the emerging seedlings quite delectable.

Keep the garden weeded and provide an inch of water a week if Mother Nature does not do this for you. Plants can be mulched with untreated grass clippings or straw to keep weeds at bay and moisture in. All corn plants are fairly, heavy feeders so fertilize as recommended by a soil test or on the fertilizer package before planting and then in mid-July, sidedress with a natural or synthetic source of nitrogen as directed by the test or on the package.

The main insect pest that affects both sweet and popcorn is the corn earworm. In small plantings, they can be successfully controlled with a sprinkling of Bt (*Bacillus thuringiensis*), a bacterium, on the tip of each ear before the silks wither and then, after the silks turn brown, apply a drop of mineral oil to the tip of each ear. This is not practical in large plantings but works about 99% for smaller home gardeners like myself.

Ideally one would want the ears to dry on the stalks in the garden, at least until a hard frost threatens. Gather the ears when the husks have turned brown and, are at least, partially dried. During wetter falls, the ears can be collected, husks pulled back and several ears can be tied in a bunch and hung to dry where it is less humid. The key is to dry before storing but do not let the kernels get too dry.

As a general rule of thumb, when the kernels can be easily rubbed or twisted off the cob, they are ready for storage. Removing the kernels from the cob, or shelling, is hard on the hands. Some people use a twisting motion but the year I grew popcorn, it seemed easier to rub two ears against each other and remove the rest using leather gloves. Discard the immature tip kernels as they will not pop. Kernels should be stored in an airtight container in a cool location.

Why do the kernels of popcorn pop? Thirteen to 14 percent moisture is the key. When heated, water molecules transform into a greater volume of steam causing the starchy interior of a popcorn kernel to explode. If the moisture level in your stored popcorn falls below 12 percent, you just get duds – those kernels that just do not pop.

To figure out your moisture content, try popping a few kernels either on the stove in oil or in the microwave. When your test kernels are popping well, it is time to store the harvest. If the popped corn is chewy and not crisp, let the kernels dry longer. If stored popcorn fails to pop, it may be too dry and needs to be rehydrated. Do this by adding a tablespoon of water to a quart of popcorn kernels and shaking it a few times until the moisture is absorbed. Wait 3 days and try popping again. Repeat this procedure until popping is satisfactory.

Popcorn is a fun plant to grow especially if trying to get children interested in gardening and nature. There is still time to purchase or order seeds and popcorn is rich in dietary fiber and low in calories (sans the butter). Give it a try in your garden this year.

If you have questions about growing popcorn or on any home or garden topic, contact the UConn Home & Garden Education Center, toll-free in CT, at (877) 486-6271, visit us at www.ladybug.uconn.edu or call your local Cooperative Extension Center