

## Sweet Corn in the Community Garden? Sure, Why Not!

By Roger Levy and Claire Hanson

Published in *Estes Park News*, March 30, 2018, page 12.

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Gardeners are curious and adventurous souls, often interested in trying out crops that may be uncommon or considered hard to grow in their local climate. Our Community Gardeners are no different, and we've seen examples of unusual veggies or other experiments taking place in many of the garden plots.

Roger Levy, a Community Gardener for the past two years and returning this spring, has a sweet corn story to share. He says you too can grow sweet corn in a 4 x 10 foot plot in our short growing season – here are his notes to prove it.

In 2016 I planted a very early variety of corn called Gaspé flint, which is from Canada. It produces flint-type kernels that are very hard and can be milled into cornmeal, flour, and hominy. It matured in plenty of time, but the ears were very small. This showed me that I could grow early corn in Estes Park.

So in 2017, I grew three of the earliest sweet corn varieties that I could find, all much later maturity than Gaspé flint. I started about 25 seeds of each variety indoors on June 1, and transplanted about 16 of each into my garden plot on June 5. I later thinned them to about 6 inches apart in a 4-foot row, giving me 24 plants, 8 of each variety.

- *Hybrid Northern Xtra-Sweet Sweet Corn* (Gurney's Seed & Nursery Co.), 67 days to maturity. This is "shrunken 2" ("sh2"), a super-sweet gene type. With higher sugar content, this type is slower to convert to starch so it keeps its flavor longer after harvesting. It also generally germinates poorly in the cold soil temperatures that are common in the spring here in Estes Park. That is why I started germinating the seed indoors.
- *On Deck Hybrid Sweet Corn* (Burpee Seeds), 63 days to maturity. This is also "shrunken 2", or super-sweet gene type, with the same characteristics as *Hybrid Northern*.
- *Mirai 130Y Hybrid Sweet Corn* (Kitazawa Seed Co.), 73 days to maturity. This is "sh2/se/su", which has genes of all three types– super-sweet, sugary-enhanced, and normal sweet. This combination has "superb sweetness" due to very high sugar content, very slow to convert the sugars to starch. As with the other types this also germinates poorly in cold soil.

When the corn silks emerged, I used corn pollinating bags to collect pollen and spread it on the silks because I did not have enough plants to provide adequate pollen. This is called "hand pollination", accomplished by putting the special water-resistant paper pollinating bags over the tassels (the branched structure at the very top of the corn plant) that are shedding pollen, and paper-clipping them in place.

The bags are typically left up overnight. The next day the captured pollen is sprinkled on the silks (thin "threads" at the top of each ear) that are out on the same corn variety. The pollen can be spread among several plants. This ensures the silks receive adequate pollen to produce good ear fill. Each silk is attached to an egg and the pollen travels down the silk to mate with the egg, each pollinated egg producing one kernel on the ear.

I watered the young plants especially carefully to get them off to a good start, but not so much that root growth would be hindered. Diseases and pests were not a problem since most corn diseases need moisture to develop. That is one advantage of our dry climate. Our short growing season and cold nights are the biggest obstacles to growing sweet corn here – we are pushing the limits for maturity.

From the 24 plants I harvested about 21 ears of sweet corn, between September 7 and 23. If there had been a freeze earlier in September, I could have lost the corn. The last ears were harvested too early because a freeze was predicted.

*Mirai* and *On Deck* ears both had very good flavor and texture. *Northern Xtra-Sweet* was a little tougher. I was satisfied with the ear size for all three varieties. The *Mirai* variety had weaker roots, causing some of the plants to lean over in our windy conditions.

When I was at the University of Illinois working on corn breeding projects, we planted the Gaspé flint variety. It was so early that we could grow two generations each summer, thus speeding up research projects. While there, I got to know John Laughnan, who discovered the high sugar characteristics of “shrunk 2” and called it “supersweet” corn. He was an interesting person. We all have him to thank for the varieties now commonly available for our summer enjoyment, and that you can grow even here in Estes Park, with a bit of extra effort.

*Roger Levy is a retired corn breeder from Indiana who now makes his home in Estes Park. He is Construction Committee chair on the EVCG Board, has been a Community Gardener in 2016 and 2017, and will be gardening with us again this spring.*

*Claire Hanson retired to Estes Park after a career that included a lot of editing in various university research settings. She is currently Secretary of the EVCG Board and will be a Community gardener again this spring.*