Vol.1 #3 2017

Green Thoughts

Conversations and ideas about growing at the Spring Gardens

There is an old adage that if you plant things, they will grow. And basically that is true as long as you get the season right, water regularly, have reasonable amount of sun and have soil with some worms in it. Once you start gardening you realize it is usually easier and more reliable to plant seedlings rather than seeds. Plants/seedlings that have been grown in commercial greenhouses also let you get a head start on the race to harvest. On the other hand, seeds offer a much greater variety of species and you can start them indoors at times when plant nurseries aren't offering much or aren't even open for business. Seeds tend to be much less expensive and if things don't work, you can always plant more seeds.

seeds *seeds*

Seeds

Some species have seeds that are really easy to grow. Plop seeds of lettuce, arugula, radishes, beets, basil, or kohlrabi into the soil and they seem have a high germination rate and to grow like, ahem, weeds. As mentioned in the last issue, spinach is more spotty, at least in my hands. Beans are easy to grow, but in some plots, pests can mess them up as they emerge from the ground and are most vulnerable. Among flowers, zinnias, cosmos, bachelor buttons, and asters are not hard to grow from seed planted directly in soil outdoors.

Artichokes

Seeds allow you to be more adventurous. Last year I bought some artichoke seeds. I figured I'd give them a try. Most artichokes in the US are grown on the west coast. Castroville, CA, about halfway between Monterey and Santa Cruz, calls itself the "Artichoke Center of the World". Marilyn Monroe, yes her, was crowned Castroville's first honorary Artichoke Queen in 1948. Castroville's climate consists of cool summers and mild winters, with frequent early morning fogs. Nothing like Philadelphia conditions. Nonetheless, I germinated my artichoke seeds indoors in late winter 2016 and grew them into seedlings. I transplanted them into my plot and I produced real plants and harvested two artichokes the first year. Artichokes are allegedly perennials. Or rather, in mild climates they *are* perennials. Much to my surprise, two of my artichoke plants survived our Philadelphia winter (which was pretty mild) and this year I harvested 6

artichokes photographed 6 June 2017 in SG plot

artichokes (see photo above). We'll see if they can survive another winter…..

Sizes of seeds

Seeds come in all sizes and shapes. They are robust and portable and have that marvelous ability to go into suspended animation in a dry state. Miraculously, add some water and they wake up and go into action dividing into many cells and forming embryos that first send out a root (radicle) then extend a shoot.

Seed production

The making of seeds is a complicated business. It starts with flowers. As our botanist friends tell us, flowers have thin, straight, filaments that stick out.* At the outer ends of the filaments are anthers that are filled with pollen, the male parts of the flower. At the center of the flower is the female pistil which contains a long tube called a style that is parallel to the filaments. At the inner end of the style is the ovary consisting of several cells including egg cells. At the outer end of the style is the stigma, a surface where the pollen is deposited,. When a pollen particle attaches to the stigma the pollen particle germinates producing 2 sperm cells and extends a tube that grows inside the style all the way down to the ovary. The tube brings the two sperm cells along for the ride. Then double fertilization occurs. One of the sperm cells fuses with an egg cell to produce an embryo and the other sperm cell fuses with another cell that will produce food for the embryo. Given the flower's anatomy, most flowering plants are hermaphrodites – they contain both male and female organs. Some flowers are self–pollinators. But others have to be pollinated by pollen from other flowers of their species. Wind or bees or other animals are the intermediaries. The ovaries grow into a fruit that protects the seeds inside. In a tomato it is obvious what is the fruit and what are the seeds. In a pea, the pod is the fruit….*Thanks for floral anatomical advice from botanist (and former plot holder in the Spring Gardens) Dr. Rachel Spigler.

pH redux

In the last issue I was surprised to find my plot, near the center of the Gardens, was very acidic. Measured in several places within the plot, the pH ranged between 5.0 and 5.5 Since then other Spring Gardeners measured the pH of their plots and found similar results – the pH was mostly around 5.0. One plot was in the southwest part of the Spring Gardens; one was in the southeast part and one was in the central part of the Gardens near me. The obvious question is – does pH matter? If you start by planting seedlings, you might not be able to detect any gross difference in yield unless you do really controlled experiments. If you start by planting seeds, it is not so clear what the effect of pH is. But looking at USDA reports on commercial grain crops – such as

wheat, rye and barley - yields for most species go down drastically in soils below a pH of 6 or 5.5 Curiously, oats are more tolerant of pH.

Eggplant, anyone?

I'm still having spotty (at best) success growing eggplant. This year I am trying 3 different varieties. In early July I have only one tiny fruit. However, fellow Spring Gardener Mike Heaney has had success already. Writing on 10 July:

> "Both my Shikou and Little Fingers eggplants are doing well. Both are Asian eggplants, although the Shikou plant is almost 3 times larger with darker fruit. They have a few leaf holes from aphids, but not many. I've harvested one Shikou eggplant about 8-inches and 5 Little Fingers which are full-grown at 5-inches. I'm not doing anything special except a couple tablespoons of organic fertilizer once after they were established."
>
> Mike

From our fellow Spring Gardener (and foreign correspondent) Marty Connolly:

On Feb 22, 2017 my sister and I arrived in Sorrento, Italy after a grueling and treacherous drive from Rome. Our BNB was in a little house on the harbor and we were so fortunate to be the last diners in this small restaurant on the beach. We started our meal with a salad that had these amazing little tomatoes. They rivaled the "height of summer" taste that was impossible to find anywhere during winter. My sister commented that they were the best she had ever eaten summer or winter!

As our trip continued along the Amalfi Coast , we saw road side fruit and vegetable stands with these gorgeous tomatoes hanging in bunches from the top of the carts. Not having converted my mind to metric, I bought 2 kilo and was rewarded with an entire week of these little beauties for breakfast, lunch and dinner. Alas, it was the last time I found them anywhere in Italy and

this is why.

These small cherry tomatoes, "Pomodorini del Piennolo del Vesuvio" Tomato (Solanum lycopersicon) are unique to the Mt. Vesuvius slopes. They are sweet with a thick pulp and low water content. They can be found hanging unrefrigerated in clusters outside peoples' homes from when they are harvested in September until late February,

providing a beautiful bright red backdrop to the area around the Mt. Vesuvius volcano. Piennolo, in fact, is a Neapolitan dialectal word that means "hanging". They are also called “winter tomatoes” and get sweeter and more intense as they ripen.

I wanted to buy some seeds to grow for the City Harvest but they were sold out everywhere online and seemed to be unknown in Italy except in the Campania region.

So if anyone is going to Italy this fall or winter, buy some, dry them for seed and share with all of us if they clear customs (just kidding)! Totally worth the risk and effort but we may need some volcanic soil too!

Enjoy your summer tomatoes!

Please send your ideas, thoughts, suggestions and observations to:

e.gruberg@temple.edu

that address can also be used for getting on the mailing list for Green Thoughts, or getting off.

Prepared by Ed Gruberg