DIRTY FINGERNAILS AND ALL

Talk about being confused!

BY SIOUX ROGERS

As usual, I spent hours pondering what would be interesting to write about and what you would find interesting to read. My initial idea was, as I see it now, overly biased and undereducated. I thought I would give this column over to heirloom plants and the case for saving seeds. I must admit, I am now overwhelmed as to the contradictory statements I found in my quest.

For the sake of enlightenment, I will just present, in *Reader's Digest* form, some of what I have read. This article will not include information on genetically engineered crops.

What is the difference between "heirloom plants" and "hybrid plants"? The basic definition seems to be a timeframe of at least 40 to 50 years ago. The values of heirloom vs. hybrid are clearly at odds. Growers of the newer hybrids view lovers of the heirloom culture as relatives of a tree hugger. Proponents of heirloom seed saving and growing march to the tune as the saviors of world food diversity. Who owns and is producing the new and old seed variety should be of concern to both groups, not a dividing ground. Sadly, this is not true.

"Heirloom plant"(from *Wikipedia*, the free encyclopedia):

"An heirloom plant, heirloom variety, or (especially in the UK) heirloom vegetable is a cultivar that was commonly grown during earlier periods in human history, but which is not used in modern large-scale agriculture. Many heirloom vegetables have kept their traits through open pollination, while fruit varieties such as apples have been propagated over the centuries through grafts and cuttings. The trend of growing heirloom plants in gardens has been growing in popularity in the United States and Europe over the last decade.

"Some people grow heirloom plants for historical interest, while others want to increase the available gene pool for a particular plant for future generations. Some select heirloom plants due to an interest in traditional organic gardening. Many simply want to taste the different varieties of vegetables, or see if they can grow a rare variety of plants."

As for the date as to what qualifies as "heirloom," that seems to vary by a few years depending on the literature. Generally, from 1940 to 1950 is the acceptable timeframe. The transition from heirloom to hybrid seems to be when the Mendelian (the pea guy) techniques took over and the large seed companies began wooing the commercial farmer to shift to the more profitable but "unstable" hybrids. As previously mentioned, this was about 50 to 60 years ago.

Prior to the resurgence in heirlooms, this also meant the seeds were not available commercially. This does not seem to be so anymore, as I have noticed commercial seed growers jumping on the proverbial bandwagon and selling heirloom tomato seeds, especially "stabilized."

Heirloom seeds have subcategories, albeit a bit confusing, but go something like this:

It can be called "Commercial Heirloom" if it existed pre-1940 but was sold by commercial companies. A "Family Heirloom" is a seed variety handed down from generation to generation. It generally is very stable, producing the same type of previously known plant. Then there is "Created Heirloom," which means that cross-pollinization was done for at least five generations and a stable new heirloom was created. Lastly, there is the "Mystery Heirloom," rather like the "Created Heirloom," except the birds, bees and wind did the job, not humans. (Above information gleaned from Planet Veggie Garden.)

Unlike hybrids, heirloom tomatoes, or heirloom plants in general, may have different names in different parts of the country. To make this more confusing, heirlooms are very adaptable, so the same plant with the same name may taste very different if it is planted in Maine or California. One of my sisters was comparing this to her vast music knowledge and said, " That is something like Baa Baa Black Sheep, the Alphabet song and Twinkle Twinkle Little Star all having the same melody but a different title." Right, something like that.

Basically, planting an heirloom seed means you can plan on harvesting the exact type of tomato Grandma gave you when you where a child.

Renee Shepard, one of the garden gurus and a personal heroine of mine, wrote an article discussing heirloom vs. hybrids in general, not just tomatoes. The next few paragraphs are from her thoughts, but first I must quote her directly with this timely statement: "When it comes to the world of garden seeds, warring factions can make the Republicans and Democrats seem nonpartisan."

"Hybrid seed" (from *Wikipedia*, the free encyclopedia).

"In agriculture and gardening, hybrid seed is seed produced by artificially cross-pollinated plants. Hybrids are bred to improve the characteristics of the resulting plants, such as better yield, greater uniformity, improved color, disease resistance, and so forth. Today, hybrid seed is predominant in agriculture and home gardening, and is one of the main contributing factors to the dramatic rise in agricultural output during the last half of the 20th century. In the US, the commercial market was launched in the 1920s, with the first hybrid maize. Hybrid seed cannot be saved, as the seed from the first generation of hybrid plants does not reliably produce true copies; therefore, new seed must be purchased for each planting."

Now back to Renee's thinking. Hybrid breeding is not the same as genetic engineering, cloning or a test-tube baby. If you eat a hybrid anything, it will not alter your DNA. Hybrids are like designer cars, built for certain commercial qualities.

In general, hybrids are easier to grow, more productive and more uniform in size.

When a hybrid tomato, for example, is first put on the market, meaning the first several years or so, it is labeled as 'F1'. They are not as stable as one would generally expect, but eventually do stabilize. From the website "About.com/gardening...but for the moment a tomato like the popular 'Early Girl' does not produce seeds that reliably have the features you expect in an 'Early Girl' tomato. Seed from hybridized plants tends to revert to the qualities of the parents, so tomatoes grown from seeds saved from your 'Early Girl' tomatoes might still be tasty, but not so early." Actually, as I found out this year, one of the parents of hybridized plants is often a cherry tomato due to their disease resistance and hardy quality. So guess what we had growing in the middle of our dahlia garden: a fabulous orange cherry tomato!

In summation, hybridizing was commercially started because they are easy to harvest as they are bred to be the same shape, size, and mature at the same time. They also are bred to be more disease-resistant. That, of course, is a good quality for any type plant.

I am sure you are waiting to quibble about "taste." Well, not all of the hybrids taste like wet cardboard. In fact, I have found, much to my dismay, that my chickens turned down my own homegrown heirloom tomatoes. Now that is a sad story. At the same time, I have had delicious organic hybrids bought from local markets.

Basically we all know tomatoes are rich in vitamin C, and contain significant amounts of vitamins A and B. They also are rich in the minerals iron, potassium and phosphorus. But have you heard of "lycopenes"? Lycopenes are just recently being studied and understood as one of the most important components of tomatoes. Because lycopenes appear to be so very important in many of the antioxidant studies, the following is just a very brief and partial synopsis of what I found.

"Lycopene is not produced by the body, but must be obtained by eating foods that are rich in it. Found most abundantly in tomatoes and tomato-based sauces, lycopene is the nutrient that gives tomatoes and other red fruits and vegetables their vibrant color...

A study conducted by the Harvard Medical School and the Harvard School of Public Health examined the diets and health status of more than 50,000 men. Follow-up surveys were performed over a 12-year period. Nearly 2,500 men were diagnosed with prostate cancer during that time. The researchers found that the more lycopene the men ate in their diets, the lower their risk of prostate cancer. Lycopene also has been tested in scientific studies for its role in heart disease prevention. Scientific findings reveal that higher blood levels of lycopene concentrations are associated with a lower risk of heart disease in women. Higher levels of lycopene are found in cooked tomato sauces than in raw tomatoes..." (http://www.barillaus.com/Home/Pages/Lycopenes.aspx)

Additional Reading

Sesso HD, Buring JE, Norkus EP, Gaziano JM. Plasma lycopene, other cartenoids, and retinol and the risk of cardiovascular disease in women. *American Journal of Clinical Nutrition* 2004 Jan; 79(1):47-53

Giovannucci E. A review of epidemiologic studies of tomatoes, lycopene, and prostate cancer. *Experimental Biology and Medicine* 2002 Mar 6; 94(5):391-8

To finish off this confusion, I will quote, once again, Renee Shepard. "As in most areas of life, gardeners should celebrate diversity. Plant the best hybrids as well as exceptional heirlooms. Enjoy the process of seeing what successes each growing season produces, and keep experimenting. In the end, gardening is an art in evolution in everyone's backyard, and a full palette of variety options are its tools." Wish I had said that first.

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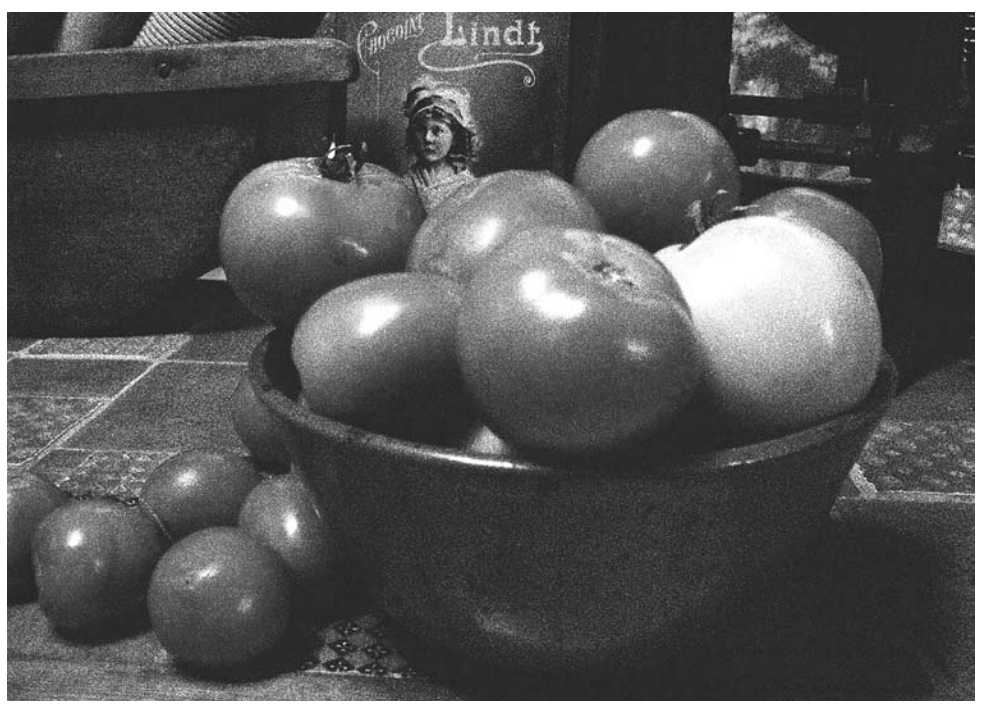

A bowl of the author's delicious heirloom tomatoes.