



GARDEN NOTES

ANATOMY OF VARIETIES AND HYBRIDS

By Dennis Hinkamp

January 2001

Winter-22

Gardening catalogs are great; especially if you shred and compost them.

“This time of year I like to play a little game I call, ‘See How Many Gardening Catalogues I Can Stack,’” says Jerry Goodspeed, Utah State University Extension horticulturist. “If I can pile them higher than a dead quaking aspen, then I reward myself by ordering a new vegetable variety from the one on top.”

I am also often asked how new varieties are created and if homeowners can develop their own new varieties in their home gardens, he says. Actually, without even realizing it, some of us produce new varieties when we fail to completely clean up the garden in the fall.

For instance, those volunteer seedling tomatoes, pumpkins, watermelons and squash could be considered new varieties, Goodspeed says. The problem is, they are usually not worth bragging about. People often come into the office with a zucchini that grew from a seed left in the garden last year. The seed was pollinated by who-knows-what, and the fruit ended up looking like a cross between an eggplant and a catfish.

So, how are new varieties developed that are actually fit for sale?

The process is a lot like what happens in your own garden, he says. Pollen from one variety is transferred to the pistil of another. The two combine to form a seed that has different characteristics than either parent.

Another term often used in seed catalogues is “hybrid,” Goodspeed says. A hybrid seed or plant is simply one with specific parentage. A good example is sweet corn. Many sweet corn varieties are hybrids, which means they have been developed with certain desirable characteristics. Some come from their mom and some from their dad.

For example, if you take the pollen from sweet corn plant ‘A’ (pollen is on the tassels), and transfer it to the silks (the female part of the flower) of plant ‘B,’ the seed that develops is a hybrid, or a cross from plant A and B, which we then call ‘C,’ he explains. There is no other way to get seed ‘C’ than transferring pollen from plant ‘A’ to the silks of plant ‘B.’ If you reversed the process, and took pollen from ‘B’ and transferred it to ‘A,’ the seed and subsequent plant would be different.

If everything goes well, ‘C’ produces a nice sweet ear of corn, Goodspeed says. If a few kernels or seeds were dried from one of those delicious ears and planted the following year, you would not get more of the same corn because the seed has different parentage than the original.

“Occasionally I am asked if one type of vegetable or fruit can be crossed with another,” Goodspeed says. “For example, can a watermelon cross with a cucumber? The answer is ‘no.’ Different genus and species of plants cannot cross. I have seen some weird looking squashes and melons, but they are just the results of different crosses within the same species.”

So, as you pore through those stacks of catalogues, take the time to notice the new varieties and hybrids. You may even want to try a couple in your own garden this year.

Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran’s status. USU’s policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran’s status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person other wise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work. Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jack M. Payne, Vice President and Director, Cooperative Extension Service, Utah State University. (EP/01/2001/DF)