SEEDS: Heirloom, Open-Pollinated, Hybrid, GMO

by Carol Ann Harlos

Open-pollinated seeds result from plants that are fertilized by insects, birds, wind, and sometimes rain. The seed grows into a plant that may exhibit the traits of one or the other parents. If humans are pleased with the result(s) they may isolate the resulting plants from other plants of the same species and let open pollination happen again in the next generation.

Heirloom seeds started from open pollinated plants. Desired traits are passed down from one generation to the next. Characteristics that gardeners may have looked for include: flavor, hardiness, productivity, disease resistance, and the ability to grow in different climates. Since they have been developed over a long period of time by seed savers they will breed true, i.e. they will exhibit the same traits as their parents.

I remember when hybrid seeds and plants were tauted by the U.S. Department of Agriculture. Plant breeders create hybrids by cross-pollinating two different varieties of a plant — frequently by hand. Hopefully desirable traits from both parents will show up in the offspring. Since two different varieties were the parents one cannot have guaranteed success when the offspring cross pollinate. There is no predictability as to the outcome. That is why you need to purchase hybrid seeds of a certain plant type each year. Seed saving cannot accomplish this.

GMOs are plants whose seeds were modified in a laboratory using gene splicing and other types of genetic engi-neering. These seeds are usually used by large commercial growers. I went to the Trial Gardens located at the Buffalo Waterfront. Stan Swisher pointed out some celosias and asked me if I knew how there could be so many colors. I replied “They were raised from different celosia seed varieties.” He replied “They are the result of gene splicing.” Wow!
If you have the appropriate spot, give one of our native ferns a try. They will reward you with beauty throughout the growing season for years.

Image from Rawpixel

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