



Unraveling the mysteries of seed packet terminology

When buying seeds, a vast array of options presents itself. The simple task of picking a packet of cucumber or zinnias seeds can become daunting. Heirloom or hybrid? GMO or organic? And what exactly does open pollinated mean? Which one should you choose? Learn what these terms mean and be more confident choosing seeds which fit your needs.

Hybrids are an enhancement of specific inherent characteristics of a plant through intentional breeding. Breeders choose parent plants with traits they wish to emphasize, then hand pollinate the female plant with pollen from the chosen male plant. There is nothing added to the pairing which could not have happened naturally; however, the gene pool is limited because of this intentional breeding of specific parents. Hybrid varieties are created for fruit or flower size; disease resistance; early maturation; plant vigor; extended bloom time; unique coloring; or any number of other desired characteristics. They require many attempts at pairings of parent plants before the best combination is found, so this added effort can mean higher priced seeds. Also, hybrid plants will not produce seeds which are “true to type”; rather traits from the grandparent plants will show up in successive generations. Therefore, seeds from hybrid plants may not be saved to plant in successive years.

Heirlooms are old varieties, usually pre-dating 1951, when the first hybrid plants were introduced. Heirlooms were passed from generation to generation within a family or community. They have a large, diverse gene pool so plants can adapt to new local growing conditions over time. Saved seeds will produce similar plants from year to year. Protecting this diverse gene pool for future generations is a major consideration when choosing heirloom seeds, as is excellent taste and unusual color options (such as purple carrots or green striped tomatoes).

Open pollinated means plants are either self or cross-pollinated by insects, birds or wind, resulting in traits which are stable from one generation to the next. Self-pollinated plants, such as beans, lettuce, peas and tomatoes, are easy to save seed from year to year while maintaining similar plants. Cross-pollinated plants, such as squash, pumpkins and brocolli, must be grown away from other varieties within the same family to maintain plants which are “true to type.” Otherwise the genes from one variety will mix with the other variety, creating something new. All heirloom plants are open pollinated, but not all open pollinated plants are heirlooms, as they may not be old enough.

GMO (genetically modified organism) is created by inserting genes from one species into an unrelated species, such as fish genes into tomatoes for frost tolerance. This is not the same as hybrid, since there is no crossing between species. Though 70% of processed foods include GMO products, it is unlikely you will find GMO seeds because these require a contract with the seed manufacturer and are purchased in bulk for commercial agriculture.

Organic seeds are harvested from organically grown plants. Often times this results in healthier plants. Conventional seeds are often pre-treated with fungicides to inhibit mold and fungi growth, while organic seeds are not. The primary purpose for purchasing organic seeds is to support organic, independent producers.

RESOURCES: University of Illinois Extension, “Home Hort Hints,” Feb to March 2001
Butte County Master Gardeners, Billie Parish, “The Real Dirt Blog,” March 13, 2015
UMass Extension Agriculture and Landscape Program, April 2012
Rodale's Organic Life, “Why You Should Buy Organic Seeds,” Emily Main, March 30, 2011