



Garden Notes

GN 128

UNDERSTANDING INFORMATION ON A SEED PACKET

Most gardeners may feel comfortable understanding all of the information that comes on a seed packet, but some novice gardeners might be confused with all of the symbols, abbreviations, and pictures. All of the information that is contained on a seed packet is vital towards the success of growing that particular plant. Seed packets will differ from one company to another, but most seed packets offer a brief description of the plant, how to sow the seeds, when to sow the seeds, and what type of environment the seeds need to germinate and grow. Following is information clarifying notes often found on a seed packet. A breakdown of a typical seed packet is on the last page of this document.

HYBRID VS. HEIRLOOM: Hybrids are artificially pollinated to produce desired characteristics such as disease resistance, uniform size, and increased productivity. They may produce more fruit than many heirlooms and may produce earlier. Hybrids may have a better appearance than some of the heirlooms. For example, heirloom tomatoes can be contorted, lobed, or irregularly shaped, while hybrids have been bred to have a more uniform size and shape. There are many hybrids from which to choose, and many produce excellent vegetables. The downside is that plants grown from seeds saved from hybrid fruits will be different from the variety from which it was saved, or the saved seed may be sterile. Since hybrids must be artificially pollinated every year, often the cost of the seeds is higher.

Heirlooms are open-pollinated varieties that have been passed down from generation to generation, and they sometimes have a personal history. Many heirloom authorities feel that they should be at least 50 years old. Open-pollinated means that plants cross naturally without human intervention. As long as they do not get cross-pollinated with another variety, the seeds you save will produce a plant just like the one from which they were gathered. Some heirlooms are from Europe or other areas of the United States and may not be adapted to our climate in California. One advantage of growing heirlooms is that seeds from the strongest, healthiest plants can be saved and grown, repeating the process for several years until the plant has adapted to our region. Most heirlooms require the same cultural care as hybrids.

PLANTING DATES: Timing is everything. See Environmental Horticulture Note 11 (Sacramento Vegetable Planting Schedule) for guidance. In general, for seeds started indoors, start them 6 to 8 weeks prior to the proper planting date. The key is to be sure the soil has warmed sufficiently for the crop being grown.

LAST FROST: In the Sacramento area, the average date for the first frost is December 10, and the average date for the last frost is January 27. Be aware that this is an average and you should always be prepared for extremes. We have had frost as early as November 4 and as late as April 7.

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DAYS TO HARVEST: This is an estimate of the time from sowing seed to first harvestable fruit. This is an estimate only and will vary for different areas of the country, the weather (too cool, too hot, too much rain), the soil, and other conditions. Use this number to compare different varieties of the same vegetable. For instance, if you want an early crop of sweet corn, compare the days to harvest of various varieties and choose the one that has the shortest days. For plants that are typically started indoors (such as tomatoes, peppers, eggplant, lettuce, broccoli, cauliflower, cabbage, and melons), start counting the days from the date of transplanting into the garden rather than the date of seed sowing.

SEED VIABILITY: If the seed packet does not contain the date for which the seeds were packed, be sure to write on the packet the year in which they were received. It is easy to forget when they were purchased, and it is important to use the freshest seed for best results. Some seeds, such as onion, parsley, and parsnip, lose viability after about a year. Seeds of other vegetables are good for three years or more if properly stored. Seeds should be stored in airtight containers in a cool, dry location. A good place is the coolest part of your house, such as under a bed or in a closet.

You may want to do a germination test on older seeds before planting them, or plant old seeds more thickly. A germination test consists of placing 10 seeds on moistened paper towels, cover with more moistened paper towels, and place everything in a plastic bag that has been perforated to provide air circulation; then put it in a warm, dark place. Check the seeds daily to make sure the paper towels have not dried out. Most vegetable seeds will start to germinate in about a week. Remove each seed as it sprouts, noting how many have germinated. By the end of the second week, you will have an idea of how viable the seeds really are.

COTYLEDONS AND TRUE LEAVES: If you are new to vegetable gardening, you probably have heard the phrase “true leaves”. This is especially true if growing from seed, where this phrase is used most often. But what exactly are true leaves?

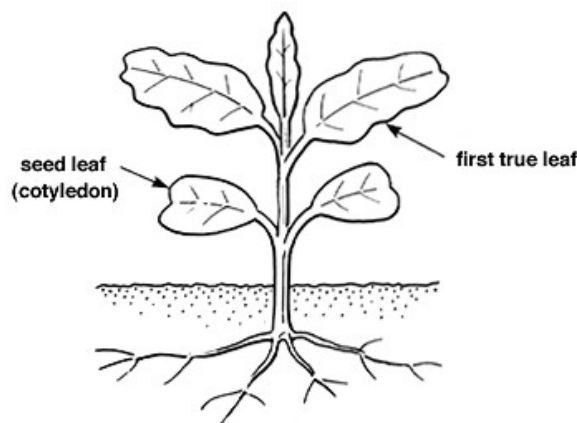
When a seed first emerges from the soil or potting mixture, it has a set of two leaves called cotyledons. The cotyledons are actually a part of the seed and act as a food source for the sprouting seedling. At this time, the seedling does not conduct photosynthesis. It gets all of its food and nutrition from the cotyledons.

As the seedling becomes stronger and healthier, it will begin to form two more leaves that look very different from the cotyledons. The true leaves will look more like what the plant’s leaves look like when mature. Once the true leaves are present, the plant is now actively photosynthesizing. Eventually the cotyledons will wither and fall off as the true leaves take over the job of feeding the plant

Not every variety of every crop will thrive in every region. When you start your own seeds, you can choose varieties that are regionally adapted to your area, leading to healthier plants and better yields. Additional resources for seed planting depth, plant spacing, and thinning requirements, as well as general vegetable gardening information:

- Vegetable Gardening 101, Environmental Horticulture Note 96*
- Sacramento Vegetable Planting Schedule, Environmental Horticulture Note 11*
- *Sunset Western Garden Book of Edibles*, 2010, Sunset Publishing Corporation

*Environmental Horticulture Notes are available at the Sacramento County Master Gardener Office or on-line at www.ucanr.edu/sacmq.



TYPICAL SEED PACKET DETAILS

Hybrid designation explains why cost may be higher. Hybrids are generally more vigorous and uniform than non-hybrids. However, seeds generated by hybrid plants will produce offspring different from the plant from which it was saved.


Sow indoors implies that plant needs a long, frost-free season to develop – and requires transplanting. **Sow in garden** implies frost tolerance.

Last frost guesstimates are usually too general for the West, where a few miles can mean days of difference. For local planting times, contact your cooperative extension office.

If there is a photo or drawing, it may not depict the actual variety.

FOHC Seeds
F1 hybrid
'Sweet Berry' Tomato

\$3.50 ¼ gram
100 seeds




75 days to harvest

Days to harvest assumes ideal conditions. If summers are cool, add 50 percent for fruit- and flower-bearing crops, unless seed company caters to your region. For leaf crops, estimates may be more accurate. For plants usually started indoors, days start counting from date of transplanting into the garden.

F1/hybrid **'Sweet Berry Tomato'**

Planting dates: Sow indoors before last frost is predicted.

Dates of last frost:



Planting directions: Scatter seeds in flats, cover with 1/8 to 1/4 inch potting soil; water in well. Give plenty of light. After seedlings develop four sets of true leaves, transplant into small pots. When danger of frost is past and soil has warmed to 65°F, plant out in the garden in rich soil in full sun. Space plants 2 to 3 feet apart.

Tip: This tomato is indeterminate. Tie each plant to a 6-foot stake or support in a tall, heavy cage to keep fruit off of the ground.

Packed for 2013

Tips often are not optional. Take them seriously; they usually address a variety's shortcomings or special needs.

Date is year in which seed should be planted.

Seed packet adapted from *Sunset Garden Guide, Spring/Summer, 1995*

February 2013. Prepared by UC Master Gardener Gail Pothour. Reviewed by UC Master Gardeners Kim Brady, Dan Vierria, and Dave Vaughan. Edited by Judy McClure, UC Master Gardener Program Coordinator.