**Gardening Tips & Techniques: The Frost**

Gardeners and weather stations often talk about “the frost.” But what exactly is it? In basic terms, frost is made up of ice crystals that form under the right combination of low temperature and moisture in the air. Frost is common with temperatures around 32 degrees F. Colder air can’t hold as much moisture and therefore doesn’t create frost crystals as easily. Frost is more likely to occur on clear nights than cloudy ones, as clouds act as insulation and keep plants slightly more warm.

Some plants, like kale, can survive a heavy frost, while others, like basil, die. Kale, other brassicas, and some root crops like carrots get sweeter with cold weather, so they can become even tastier after a heavy frost! Some flowers, like bee balm, and fruits, like raspberries, will die back with a heavy frost and re-sprout in the spring. In general, once a plant’s foliage has turned brown, it can be pruned and removed from the garden. (With raspberries and other brambles, you may want to wait to prune, based on your variety and harvesting plan.)

Even cold hardy plants can survive frosts but may not last through the winter. If you’d like to try to save them, now is the time to mulch them heavily with leaves or straw, and protect them with row cover or a plastic low tunnel.

After a frost, how do you know if your plants are damaged or still viable? It can be difficult to determine whether a plant made it through a frost while the frost is still on the leaves. Often, leaves will look water-soaked and darkened but will recover fully later in the day. If the plants have been damaged by the frost, they stay dark in color after the frost dissipates. Frost-damaged fruits will often wither or feel soft.

If plants are damaged, are they still edible? If the plant is discolored and soft, it has started to decompose and would not be good to eat. However, sometimes only parts of plants are affected. If a plant’s leaves or fruit looks and feels like produce you had previously harvested, it should taste fine.

In Pittsburgh, our typical first heavy frost of the year occurs in October, and the last heavy frost tends to be in May. These approximate dates help to indicate how long tender crops will survive into the fall and how early they can be planted in the spring.

For more information about the frost and how it may affect your garden, check out [this Urban Harvester article](http://www.growpittsburgh.org/wp-content/uploads/Garden-Tips-First-Frost-Oct-10-2012-ARCHIVE.pdf). [This “winterizing” article](http://www.growpittsburgh.org/wp-content/uploads/Garden-Tips-Techniques-Winterizing-Oct-24-2012-ARCHIVE.pdf) offers more information about putting your garden to bed.