

The Joys of Garlic

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The ancient plant has many practical uses

Garlic is an ancient plant that has been cultivated for over 7000 years for its use in enhancing culinary flavors and as a medicine. It also is used to repel pests. The unique pungent odor of garlic comes from sulfur compounds that it absorbs from the soil. Garlic (*Allium sativum*) produces Allicin, an organosulfur compound, when it is crushed or chopped.

There are two main types of garlic: softneck and hardneck. Elephant garlic is not a true garlic, but a leek.

Hardneck sends up a stiff stalk in the spring with a curled end called a scape. The bulbs produce 5-7 good sized bulbs. The stalk on a hardneck will produce a scape which has small bulbils, not seeds, at its end.

A softneck garlic, like its name implies, has a softer stalk that does not produce scapes and has smaller bulbs. The stalk will flop over in the summer when ready to harvest and is often braided after the bulbs are pulled and dried. Softnecks are more commonly sold in the supermarkets than the hardneck as they have a longer storage life.

One of the interesting things about garlic is that it is multiplied by vegetative reproduction, not sexual (seed) production. A garlic clove that is planted will produce cloves, all of which have the same genetic make-up.

Can you buy grocery store garlic and plant the cloves? Yes, and genetically it will be the same, but garlic flavor, like grapes, will depend on the characteristics and content of the soil it is planted in as well as the climate. If the cloves were not grown in the same type of soil and climate as we have here, then they will probably not have the same flavor. Sometimes commercial garlic is sprayed with a chemical that prevents the bulbs from sprouting.

How do you pick a variety to grow? Garlic is easy to grow in most soils and climates, but it is important to choose those that are adapted to the Northwest. The best sources are local garlic growers or from sources that specialize in your area.

The names of garlic can be very misleading as there is no established process of naming or maintaining a variety. The result is a lot of different names of garlic strains, but many are genetically the same. Scientists have only discovered ten true different varieties. It is therefore a good idea is to choose several that grow well in your area and evaluate each under your conditions.



A garlic flower. *Photo by Ruth Sutton / WSU Skagit County Extension Master Gardeners.*

One of the nice things about growing garlic is that it is an off-season plant as it is planted in the fall to allow enough time to develop good root growth. Garlic requires a cold treatment of a minimum of 40 degrees in order to trigger bulbing. Choose the biggest and healthiest cloves to plant. They should be planted in well-drained fertile soil and preferably in a sunny location. They grow best in soil with a range of 6.2 -7 pH. Do not plant next to asparagus, peas or beans because garlic produces a chemical that will stunt their growth. The individual garlic bulb should be planted 2 inches deep and spaced 4-6 inches apart. A light mulch can be helpful in cold areas.

In the spring when temperatures rise and days get longer, the bulbs begin to grow. Once growth starts, apply a fertilizer with an NPK (nitrogen-phosphorus-potassium) ration of 5-5-5 each month. By April and May the stalks have appeared and scapes appear on hardneck garlic. These

should be removed to promote nutrients to the bulb development. The scapes are edible and are a real delicacy—do not discard them!



Above Left: Garlic cloves. **Above Right:** Garlic scapes. *Photos by Ruth Sutton / WSU Skagit County Extension Master Gardeners.*

Excessive moisture is the leading cause of disease or rot in the bulbs. Moisture also leads to the rust fungus that affects the leaves of the garlic plant. Rotate your crops each year to reduce the risk of disease.

Harvesting usually begins when the lower leaves of the hardneck plant begin to yellow, typically in late June or July. The softneck stalks will droop over when harvest ready. Ideally, the bulbs are large but not separating as they will store poorly. To harvest, undercut the bulbs for easier removal and less chance of damage to the bulb.

Allow to air-dry in a shaded area. It takes several weeks of placement in a well-ventilated area before they are ready for storage. Brush off the soil and tie them up in clumps to dry. Do not remove the outer peel as it helps the garlic store longer. Garlic clumps can remain for several months in a cool dry area. Longer periods of storage require cooler temperatures. If you are careful you can enjoy garlic all winter long.

RESOURCES:

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