Growing Garlic

Most garden crops are planted in the spring, but garlic is a common favorite that should be planted in the fall of the year.

Garlic is closely related to onions and chives and is used as a medicinal and culinary herb. Garlic forms bulbs, which separate into many cloves, each covered with a white-purplish or pinkish, papery sheath.

Most commercial garlic is grown in the mild climate of northern California. These varieties of garlic will not grow well in Minnesota, and will develop a “hot” flavor. When choosing garlic for your garden, use varieties adapted to cold climates.

Garlic is easy to grow and propagated by planting cloves. Purchase cloves at the local farmers market or trade freshly baked cookies with a benevolent neighbor that grows garlic in the garden. Do not plant cloves from the grocery store, most are softneck varieties and will not do well under Minnesota conditions.

Optimal shoot and bulb production require a cold treatment, so cloves are generally planted in the fall, usually one or two weeks after the first killing frost. Roots and shoots will emerge from the cloves by the first hard freeze, but shoots will usually not emerge from the soil until the following spring.

Separate individual cloves a day or two before planting. Plant cloves in double rows 6 inches apart within and between rows on beds centered 30 inches apart. If planting in raised beds, garlic can be “solid” seeded in a grid pattern throughout the entire bed, there is no need for rows to walk or cultivate.

Cover beds with 3-4 inches of leaf or straw mulch to prevent fluctuating temperatures during the winter and early spring, and to help control weeds. The mulch can be removed in the spring after the threat of hard freezes is over to help the soil warm up, or it can be left in place to help with weed control and preserve soil moisture. Be sure to plant the pointed side up, with the base of the clove 2-3 inches from the soil surface. Planting the cloves “upside down” will result in the plant growing the wrong direction and the fruit of your labor will be enjoyed by a surprised Chinese gardener.

Garlic grows best on well-drained, moisture-retentive soils high in organic matter. Well-rotted manure or compost is an ideal soil amendment. Prior to planting, soils should be well tilled to provide a loose growing bed for bulb growth. Garlic has a moderate to high demand for nitrogen, so additional amounts can be top dressed as soon as shoots emerge and 2-3 weeks afterwards. Avoid applying nitrogen after the first week in May, or bulbing may be delayed. Nitrogen in the spring may not be necessary if adequate compost was incorporated in the fall.

Proper watering will enhance good production. Soak the soil thoroughly when watering, to a depth of at least one inch each week during the growing season. There is little or no value in light watering that only wets the soil surface. Sandy soils may require more frequent watering. Stop watering two weeks before harvest to avoid staining bulb wrappers and promoting diseases.
Garlic does not compete well against weeds. Use of mulch will help control weeds. Frequent, shallow cultivation will kill weeds before they become a problem. The roots of garlic are very close to the surface of the soil, so it is important not to cultivate too deeply. Cultivate just deeply enough to cut the weeds off below the surface of the soil. Be careful not to damage the plants when cultivating.

Harvesting too early will result in small bulbs, and harvesting too late will result in cloves popping out of bulbs. Depending on variety and climate zone, garlic is normally harvested between late June and late July. One indication to start harvesting is when the lower leaves turn brown and when half or slightly more than half of the upper leaves remain green. Alternatively, you can pull a few bulbs and cut them in half; if the cloves fill the skins, then the bulbs are ready to harvest.

Harvest plants with shoots and bulbs attached. Knock off any large clumps of soil, and then put the plants in a warm, dry, airy place for 3-4 weeks to cure. This will dry the sheaths surrounding the bulbs, as well as the shoots and roots. After curing, the shoots can be cut ½ - 1 inch above the bulbs and the roots trimmed close to the bulb base.

Garlic cloves can easily be saved from one crop to the next. It is recommended to keep the biggest one for planting the following year.

Garlic is easy and fun to grow. Whether you grow it for its medicinal properties, culinary uses or to keep vampires at bay now is the time to get started.

For more tips to keep vampires at bay, contact me 800-450-2465 or stordahl@umn.edu. This article was adapted from the UM publication, Growing Garlic in Minnesota Home Gardens. To see the full article, simply Google the title.