Garlic Planting Guide

Garlic is widely popular for adding flavor to sauces and stews, cooking meats, sautéing greens, and roasting on its own. Garlic contains chemical compounds that reduce the risk of cancer and heart disease and that help lower blood pressure! There are two main types of garlic: softneck (silverskin and artichoke) and hardneck (rocambole, purple stripe, and porcelain). Softneck garlic is most common simply because it is easy to grow and keeps longer. It offers a nice mild flavor and is the type you find in most grocery stores. Hardneck (stiffneck) garlic has fewer but much larger cloves per bulb than softneck types. As it grows it produces a stalk called a “scape.” Scapes can be harvested and used for cooking before the garlic itself is actually harvested. Hardneck is very richly flavored and generally stronger tasting than softneck. Hardneck garlic is more winter hardy than softneck garlic for fall plantings.

Hardneck Garlic

Hardnecks have fewer but much larger cloves per bulb than soft-neck types. They have less of an outer bulb wrapper, which reduces their shelf life. Unlike softnecks, as they grow they produce a stalk that coils from the top called a “scape” or garlic flower. Scapes can be harvested and used for cooking before the garlic itself is actually harvested. Often termed topsetting or bolting varieties, hardneck garlic is most closely related to wild garlic.

Rocamboles tend to grow better in cold winter climates. They produce large, tan or brown colored cloves, easily peeled skins, and a deep full-bodied flavor, considered by some to be the finest tasting garlic of all. Rocambole types include Blanak and German Red.

Purple Stripes are named for their vivid purple striping on the bulb wrappers and clove skins. Their taste is strong, complex and richly garlicky, without being overly sulfurous. Many regard purple stripes as the best for roasting. Purple stripes are further broken down into two groups: Glazed and Marbled. Purple Stripe types include Chesnok Red, Deerfield Purple, and Duganski.

Porcelains produce a beautiful plant and impressive bulb. They have a satiny white wrapper with four to six cloves around a sturdy scape. They are easy to peel and great for cooking. Porcelain types include German White, Mt. Hood and Music.

Softneck Garlic

Softneck is the garlic most commonly found in supermarkets. It generally has a longer shelf life than hardnecks, with more cloves per bulb than hardnecks. It is mildly flavored, adaptable to most climates, and can be braided easily.

Silver skin is the most common and easy to grow.

Artichoke has larger and fewer cloves per bulb and a milder flavor. The bulb wrappers on the artichoke varieties are coarser than the silverskin and may have some purple blotches. Softneck Italian Red is an Artichoke type.

Elephant Garlic

Elephant garlic is not a true garlic, but a variant of the garden leek species. It has a tall, solid flowering stalk, and broad flat leaves (much like those of the leek), but forms a bulb consisting of very large cloves. Each bulb is approximately 5 to 6” across and can weigh over a pound.
Garlic Culture

Garlic is often planted in the fall, from September until about 4 weeks before the ground freezes. It can be spring planted as soon as the ground can be worked, but best bulb size is generally from fall planted garlic. It may be planted through January in the south.

Select an area in full sun. Loose, well-drained soil with plenty of organic matter and a pH between 6 and 7 is ideal for garlic. You may use a fertilizer or compost higher in Phosphorous (P) and Potassium (K) to ensure good root development throughout the cold months. Since garlic commences growth very early in the season, it is important to avoid fields that are slow to drain in the spring. The conditions most likely to "winter-kill" garlic are very wet saturated soils with poor drainage.

Separate the garlic bulb into individual cloves before planting. Plant the cloves pointed side up to ensure that when the stem grows it will be straight. Plant individual cloves approximately 2-4” deep, 4-6” apart, in rows 18-24” apart.

The root system starts to develop in fall, and in winter the garlic is dormant. In spring, stems will emerge from the ground, and bulbs will start to grow.

This is a good time to feed with a fertilizer high in nitrogen (N) to promote top growth. Keep the area weed free.

In hardneck varieties, a seed scape, or flower stalk, will form on top of the stem in June (earlier in warmer regions). The scape should be cut or broken off soon after it appears, so that energy can be used to grow a larger bulb. The scapes are edible too!

Garlic is ready to be dug or pulled from mid-to-late July (earlier in warmer regions). Softnecks tend to mature about a week earlier than hardnecks. Softnecks are ready to harvest when about half of the crop has fallen over and is lying on the ground.

Hardnecks may be harvested when the lower leaves have died and turned brown. To check if they are mature, pull up a bulb and cut a cross section. If the cloves are tight against the central stem, then the garlic needs more time. When you begin seeing spaces develop between the stem and the cloves, then it is time to harvest.

Dry the garlic out of direct sunlight and in a place with good airflow. Allow bulbs to cure for about 2 weeks, and then the stem and roots may be trimmed. Garlic can be stored at room temperature for short term use, or for longer storage between 32°-50° F with moderate humidity. Rocamboles and Purple Stripes store for about 6 months. Porcelains and Artichoke types store 8 to 10 months. Silverskins will often store a full year.

How much garlic do I plant?

1 acre = 43,560 sq ft = 6,272,640 sq in.

6,272,640 sq in. ÷ x inches between rows ÷ x inches within rows = # cloves/acre

1 lb hardneck (5-6 bulbs) with 5-6 cloves per bulb = ~33 cloves

1 lb softneck (7-10 bulbs) with 6-10 cloves per bulb = ~80 cloves

So, with rows 24” apart and 6” spacing:

6,272,640 ÷ 24 ÷ 6 = 43,560 cloves / acre

For hardneck garlic:

43,560 ÷ 33 cloves = 1,320 lbs per acre

For softneck garlic:

43,560 ÷ 80 cloves = 545 lbs per acre

Let’s say you only want to plant a 25’ (300”) row at 6” spacing:

300 ÷ 6 = 50 cloves needed

@ 33 cloves/lb, you need about 1.5 lbs of hardneck garlic for a 25’ row.

@ 80 cloves/lb, you need 0.6 lbs of softneck garlic for a 25’ row.