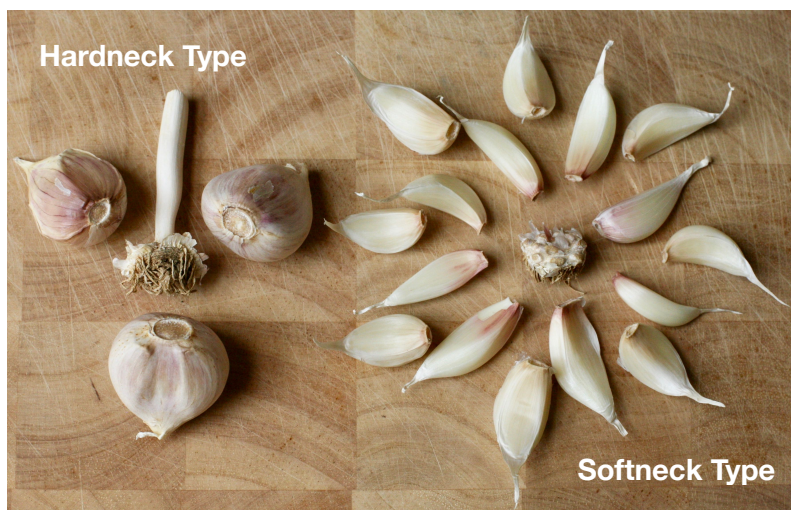


Garlic

BOTANICAL NAME: *Allium sativum*

NATIVE RANGE: Central Asia and northeastern Iran, though it is widely grown all over the world.

DESCRIPTION: Garlic is a bulb-forming plant in the same family as ramps, onions, chives, leeks and shallots. Typically grown as an annual, garlic is almost always propagated by dividing whole bulbs into individual cloves. This asexual propagation ensures that new plants are genetic clones of the mother plant. There are two general types of garlic - hardneck and softneck. Softneck varieties are what you typically find at the supermarket. They usually have medium size cloves with tight wrappers, arranged around the center in several layers, similar to artichoke leaves. Softnecks store longer than hardnecks, up to a full year when properly cured and stored. The smaller cloves also provide a little more flexibility for those who may not use a lot of garlic at any given time. Hardneck



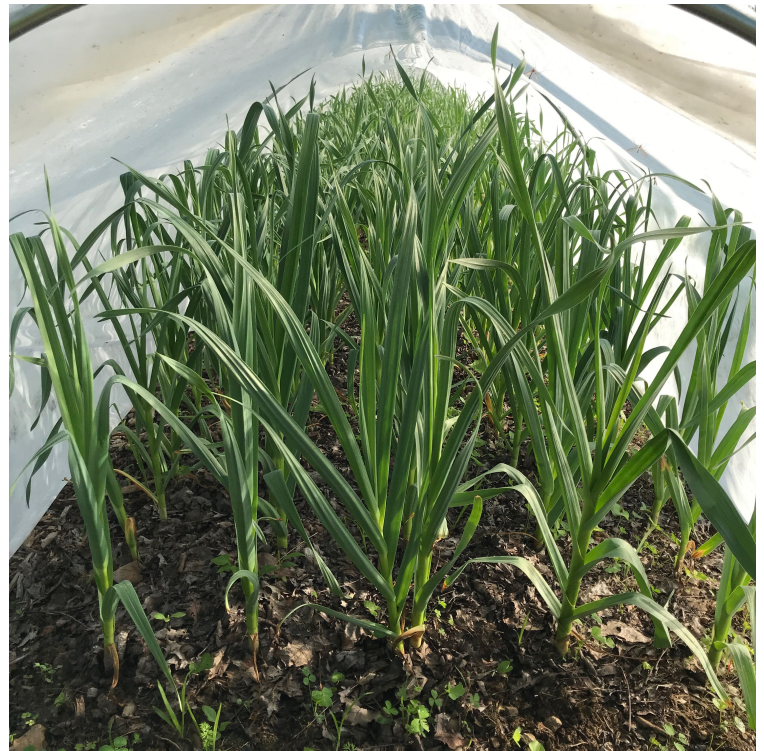
varieties, on the other hand, have a single layer of large cloves arranged around a central stem that is attached to a basal plate from which the roots grow. Hardneck varieties do not store quite as long as softnecks, typically around 6 months, but they do offer other advantages. Hardneck cloves are large and easy to peel, making them preferred by chefs and line cooks. They also offer a richer diversity of flavors, ranging from smooth and buttery to fiercely hot. Unlike softnecks, hardneck garlands also send up a scape, a slender flower stalk that terminates in a cone-shaped sheath containing bulbils, or tiny little garlic cloves. Eventually, the end of the scape will form into an elegant curl.

CULTIVATION: Garlic is easy to grow and has few pest or disease problems. Here in Ohio, garlic is planted in the fall, about three to four weeks before the ground freezes solid. This allows some time for roots to get established, but not enough time to sprout above ground and then (possibly) be injured by a hard freeze. Garlic prefers a deep, loose soil with lots of organic matter. Soil should be well-drained as garlic is prone to rot if soil stays wet for a prolonged period. We prefer to plant in raised beds, amended with compost and a balanced organic fertilizer. Beds should not be planted with garlic again (or other allium family plants) for at least two years, preferably three, in order to avoid pest and disease accumulation.

To plant garlic, simply divide whole heads of good quality garlic into individual bulbs. Try to leave as much of the wrapper on the cloves as possible as this will help protect the clove before and after planting. Cloves should be planted with the flat base end down, and the pointy end up. Cover with soil and press firmly. We plant cloves so that the base is about three inches deep. This leaves about two inches of soil covering the cloves. We use six inch

spacing within the row, and eight inches between rows. Once a bed is planted, we cover with a three to four inch layer of shredded leaves. Water thoroughly or plant just before a rain.

Garlic is one of the earliest plants to emerge, usually in late winter or early spring, depending on weather. In 2017 our plants were a foot tall by the first day of spring. Garlic can be harvested at this stage. This 'early garlic' or 'green garlic' has a small bulb about the size of a green onion and has not yet divided into cloves. It has the same garlic flavor as a mature bulb, but milder, without the spiciness. We apply organic fertilizer again around mid-April and add more mulch as needed. Around this time we also cover our rows with hoops and row cover fabric to protect the plants from insect damage. From that point until June, garlic appreciates consistent watering and regular weeding. When June arrives we remove the mulch from around the plants in order to let the soil dry. Garlic bulbs are most prone to rot at this stage. Garlic scapes, which grow only on hardneck varieties, also start to appear in June. We remove them at their base once the tip has curled around. Harvest them carefully as they are delicious in their own right.



Knowing when to harvest garlic bulbs can be tricky, and different varieties may be ready at different times. The best method we have found is to harvest when just over half of the leaves have turned brown and drooped over, but there are still a few green leaves near the top. We like to use a digging fork to gently loosen and lift the bulbs, then pull them out, holding the plant near the soil line. Shake or brush excess soil off the bulb and roots, taking care not to damage the wrapper. Trim the roots about a half inch from the base of the bulb. Newly harvested bulbs should not be exposed to direct sunlight for more than a few minutes.

Once harvested, bulbs need to cure for a period of two to three weeks. This process allows excess moisture to escape the bulb, improving storage. To cure, tie up bundles of 10 plants each and hang the bundles in a protected area with good air circulation and as close to room temperature as possible. After curing, trim the leaves from the bulb, leaving about a half inch of stem. Bulbs should feel solid with stems that are dry, solid and bright white. Any indication of softness or discoloration should be examined closely for possible damage or rot. If properly cured, hardneck varieties can store up to 6 months, while softneck varieties can store up to a full year.



CULINARY USES: Culinary uses for garlic are far too numerous to list here. After all, it seems half the recipes out there begin by cooking some garlic and onions in oil. There are, however, a few uses that we think are especially worth mentioning. If you have a lot of garlic, you can preserve it by roasting whole heads (or individual cloves) in the oven with a little salt and olive oil, maybe some from fresh or dried herbs if you like. Once cool, squeeze out the softened cloves and press into an airtight container. The paste will keep in the freezer indefinitely and garlic's naturally high oil content prevents the paste from freezing solid so it's easy to pull out and use what you need without having to thaw the whole container. Infusing oil or vinegar or alcohol with garlic is another great way to preserve the garlic, and the uses range from pasta sauce, to salad dressing, or even a killer Bloody Mary. You can visit the Recipes page at our website MAYAPPLEFARMS.COM for details on these recipes and more.

HISTORY & FOLKLORE: Given that garlic is so highly adaptable and thrives in so many different climates and soils, it is no surprise that it is one of the oldest wild plants cultivated by humans (Engeland, 1991). Evidence suggests garlic was being cultivated as early as 4,000-5,000 years ago, and since then its cultivation has spread all across the globe (Myers, 2006). Being so widely cultivated, garlic has a rich history that crosses many cultures. The Egyptians revered garlic both for its nutritional and spiritual powers. People enslaved by the Egyptians to build the pyramids were given a daily ration of garlic to promote physical health. In the time of King Tut, fifteen pounds of garlic would buy a healthy male slave. The Egyptian Book of the Dead contains no less than 22 remedies containing garlic (Myers, 2006). The Egyptians also revered garlic for its ability to promote health in the afterlife as well. Numerous garlic bulbs were found scattered throughout King Tut's tomb. Later cultures from Greece to Central Europe believed that garlic could ward off everything from scorpions and snakes to evil spirits, werewolves and of course, vampires. These beliefs became the basis for the common practice of Greek midwives hanging garlic in birthing rooms to ward off evil and/or provide good luck. And garlic's use hasn't been limited to just humans either. Scandinavian shepherds would reportedly hang garlic around the necks of their goats to protect them from trolls, because apparently that was an issue at the time. Some believe garlic was first introduced to North America by the Spanish conquistador Cortez, and to this today in the United States you can celebrate National Garlic Day every April 19th.

REFERENCES CITED IN THIS ARTICLE:

- + Engeland, Ron L. (1991) *Growing Great Garlic: The Definitive Guide for Organic Gardeners and Small Farmers*. Okanogan, WA: Filaree Productions.
 - + *Note:* This little book is the best single resource we've found for information on growing garlic.
- + Myers, Michele. (2006). *Garlic: An Herb Society of America Guide*. Retrieved from [HTTP://WWW.HERBSOCIETY.ORG/FILE_DOWNLOAD/INLINE/F751ABAD-CC5C-414F-89A5-B9E6B012EA70](http://WWW.HERBSOCIETY.ORG/FILE_DOWNLOAD/INLINE/F751ABAD-CC5C-414F-89A5-B9E6B012EA70)
 - + *Note:* This is an excellent short article that provides a nice overview, with lots of information on the chemistry and nutritional benefits of garlic, along with information about the cultural significance of garlic in history, folklore and the arts.