

- **My garlic was great with large bulbs last year. This year the harvest is very small. Why?**

There are various issues that can cause reduced size in garlic bulbs. Garlic (*Allium sativum*) is a plant that needs plenty of fertiliser and is best grown with no nearby competition from other plants including weeds. Garlic does best in full sun, so select a planting site that receives 6 to 8 hours of sunlight per day. It is advisable to rotate the crop to a new area each year and not replant in the same bed for four years after each planting. This lessens the chance of having organisms survive in the soil that can damage garlic.

Hardneck (Rocambole) garlics are a good choice for Northern gardeners. They are extremely cold hardy for harsh winters. These grow one ring of fat cloves around a hard stem, with fewer but larger cloves per bulb than softnecks. Hardnecks produce flower stems, aka “scapes,” which must be cut to encourage the bulbs to reach their full potential. The scapes themselves are an early summer treat, delicious if chopped into salads or added to stir-fries.

There are many cultivars of garlic, and your local garden centre or nursery will be able to advise you of available varieties suitable to our growing conditions on the Pacific Northwest. It is not a good idea to source you planting garlic from the grocery store as it may have been treated with chemicals, harbour pests and diseases or be unsuitable for growing in the Pacific Northwest.

Elephant garlic isn't a true garlic, but it is grown similarly to hardneck varieties, requiring a long cool growing season in zones 3 through 9. Most types take about 90 days to harvest once growth starts. Despite its size, it has quite a mild flavor, more like onion and shallots than traditional garlic. Bulbs and cloves are large (up to one pound each!), with just a few cloves to a bulb.

**How to Plant Garlic:** Rich, well-drained, loose soil is necessary. Whether planting in ground or in a raised bed, add compost or well-aged manure (lots of it if your soil is heavy) and do not compact the soil by stepping on it. Lime the soil several weeks before planting if the pH is lower than 6.0. Garlic needs to be in soil that drains well, or the bulbs may rot. Plant cloves from September to the end of November. There is a brief window at the beginning of March when you can plant for a fall harvest, but in this climate, garlic performs better if overwintered.

Immediately before planting, work a little balanced fertiliser, bonemeal, or fish meal into the soil several inches below where the base of the garlic cloves will rest. Select large, healthy cloves, free of disease. The larger the clove, the bigger and healthier the bulb you will get the following summer. Break apart cloves from the bulb a few days before planting but keep the papery husk on each individual clove. Plant cloves 4 to 8 inches apart and 2 inches deep, in their upright position (with the wider root side facing down and pointed end facing up). Plant in rows spaced 6 to 12 inches

apart. A single 10-foot row should yield about 5 pounds of bulbs, depending on the variety. Gardeners in areas where the ground freezes should mulch garlic beds heavily (minimum of 4 inches/10 cm) with straw or leaves to ensure proper overwintering. Mulch should be removed in the spring after the threat of frost has passed. (Young shoots can't survive in temps below 20°F / -6°C on their own.) In the spring, as warmer temperatures arrive, leaf shoots will emerge through the ground. Scapes (flower stems) emerge later in spring. These should be cut off as they may decrease bulb size. They can be eaten. Garlic is a heavy feeder. In early spring, side-dress with or broadcast blood meal, or a source of nitrogen such as a balanced fertiliser. Fertilize again just before the bulbs begin to swell in response to lengthening daylight (usually early May in most regions). Water every 3 to 5 days during bulbing (mid-May through June).

**Companion Planting:** Planting garlic near roses will help to repel aphids. Because of its sulphur compounds, it may also help repel whiteflies, Japanese beetles, root maggots, carrot rust fly, and other pests. Garlic, made into a tea, or spray, will act as a systemic pesticide, drawing up into the cells of the plants. It's a good companion for beets, Brassicas, celery, lettuce, potatoes, strawberries, and tomatoes. Avoid planting it near peas or beans of any kind.

**Harvesting:** As mid-June approaches, taper off watering. In general, the clue is to look for yellowing foliage, but this isn't the case for all garlic varieties. Harvest when the tops just begin to yellow and fall over, but before they are completely dry. Before digging up your whole crop, it's a good idea to sample one bulb. Lift a bulb to see if the crop is ready. Dig up a bulb before the tops are completely yellow (in late June or early July), as some garlic types will be ready earlier. The garlic head will be divided into plump cloves, and the skin covering the outside of the bulbs will be thick, dry, and papery. If pulled too early, the bulb wrapping will be thin and easily disintegrate. If left in the ground too long, the bulbs sometimes split apart. The skin may also split, which exposes the bulbs to disease and will affect their longevity in storage.

To harvest, carefully dig (don't pull or yank stems by hand) the bulbs using a garden fork. Avoid damaging the roots and especially the root-plate (where they attach to the bulb). Lift the plants and carefully brush off surplus soil, but do not remove any foliage or roots before putting them to dry thoroughly. Let garlic cure in an airy, shady, dry spot for about 2 weeks. Hang them upside down on a string in bunches of 4 to 6 or leave them to dry on a homemade rack made from chicken wire stretched over posts. Make sure all sides get good air circulation. After a few weeks, the garlic should be totally dry and ready to store.

The bulbs are cured and ready to store when the wrappers are dry and papery, and the roots are dry. The root crown should be hard, and the cloves can be cracked apart easily. Once the garlic bulbs are dry, you can store them. Brush off (do not

wash) dirt, remove only the dirtiest wrappers, trim roots to ¼ of an inch, and cut tops to 1 to 2 inches.

Bulbs should be stored in a cool (55°F / 13°C), dark, dry place, and can be kept in the same way for several months. Don't store in a humid area. Do not store garlic in the refrigerator, either, as it will be too cold and too humid.

The flavor will increase as the bulbs are dried. Properly stored, garlic should last until the next crop is harvested the following summer.

If you plan on planting garlic again next season, save some of your largest, best-formed bulbs to plant again in the fall.

**Pests & Disease:** Garlic is a relatively pest free crop, but some growers have had their garlic beds infected with White Rot, a devastating disease that causes black spots and decay on the bulbs. It is easily spread in infected soil and water and is very persistent in the soil. The best way to prevent it is to avoid leave decaying alliums in the ground and use a strict 4-year rotation of planting areas.

Sources:

<https://www.almanac.com/plant/garlic>

Backyard Bounty, the complete guide to organic gardening in the Pacific

Northwest by Linda Gilkeson (2018)

my own garden!