

Organic Garlic:

Growing and Seed Saving Information



Garlic

Garlic is in the *Amaryllidaceae* family, which includes leeks, onions, scallions and chives.

- *Allium sativum* var. *sativum*, also known as Softneck, has two rings of cloves around a soft stem which can be braided. Silverskin and Artichoke garlic are of this type.
- *Allium sativum* var. *ophioscorodon*, also known as Hardneck, has a single ring of cloves around a hard stem that sends up a flower stalk. Hardneck varieties don't store quite as long and are a bit milder than softneck. Rocambole, Purple Striped and Porcelain are of this type.
- *Allium ampeloprasum*, also known as Elephant, has huge, mild cloves. It is more closely related to leeks and not quite as hardy.

Soil and Nutrient Requirements

Garlic is tolerant to many soil types and textures, but grows best in sandy clay loam that has a high organic content with a 6.5 pH. Bulbs may rot in heavy, wet soils. It is important that the bed is free of weeds. Garlic is usually mulched to control weeds and keep moisture even. Garlic likes to be well fertilized. Use quality compost or fertilizer with 1-2-2 NPK ratio. Side-dress plants in spring when leaves start to yellow and plants are about 8" tall. Do not fertilize beyond late spring, high nitrogen levels at this stage may affect storage quality.

Position

Garlic prefers full sun.

Seeding Depth

2" if mulching with straw or using plastic mulch, 3-4" otherwise.

Seeding Rate

60M cloves/acre (1,500lb/acre) using 6" spacing, 18" row spacing.

Plant Spacing

Hardneck and softneck types 4-6", Elephant garlic 8-12"

Row Spacing

18-24" or use a spacing that accommodates cultivation equipment.

When to Sow

Garlic is best planted in the fall for a spring crop. It can be planted in spring, but this will result in lower yields and is not recommended, as cloves that have not been exposed to temperatures below 65 degrees may not form bulbs. Separate bulbs into individual cloves right before planting, being careful not to break off the basal scar. Plant each clove with the basal root end down, and pointed tip up. Larger cloves will produce the larger bulbs. Small cloves, found on softneck bulbs, can be sown in the fall at a close planting density for green onions.

Other Considerations

Hardnecks produce flower stalks called "scapes" that are often used for cooking, and should be removed to increase yields.

Frost Tolerant

Yes

Drought Tolerant

No. Garlic needs even moisture especially during bulb formation.

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Heat Tolerant

Garlic grows during the cool season, finishing just as the summer is heating up.

Seed Specs

- Softnecks - 2.25oz/bulb, 50 seed cloves/lb, ~7-10 seed cloves/bulb. Seeding Rate: 60M cloves/acre (~1,200lb/acre) using 6" bulb spacing, 18" row spacing.
- Hardnecks - 2oz/bulb, 40 seed cloves/lb, ~4-7 seed cloves/bulb. M=1,000

Seeding Rate

60M cloves/acre (1,500lb/acre) using 6" spacing, 18" row spacing.

Harvest

Harvest mid-late summer when 6 or 7 healthy green leaves remain. Loosen soil and lift with a garden fork. Cure in a dim area with ample airflow for 2-3 weeks. After curing is complete, lop off the tops about an inch above bulb and trim roots.

Storage

Ideal storage conditions are 35 - 50°F, moderate humidity between 65 - 70%, and good air circulation. Most hardnecks can be kept for several weeks, softneck varieties tend to have a longer shelf life.

Pest Info

Garlic is not generally bothered by insect pests. Onion thrips can be a problem in some areas.

Disease Info

Prevent most disease by using certified garlic seed that has been tested for pathogens. Cloves should look clean. Rotate allium crops by at least two years. Rouge out infected plant immediately to stop the spread of disease.