

## Production

### Now is the Time to Plant Garlic

Garlic can be planted anytime from mid-September through November. Garlic prefers full sun and fertile, well drained soils with plenty of organic matter.

Prepare the soil by adding 4-6 inches of well-composted organic matter and 1-2 lb of all-purpose fertilizer (16-16-8) per 100 square feet. Work compost and fertilizer into the soil to a depth of 6-8 inches.

Garlic is grown from clean, well-developed, dry bulbs. Carefully break the bulbs apart into individual cloves and plant the largest unpeeled cloves 1-3 inches deep with the pointed end up. Space cloves 3-4 inches apart in the row with 6-10 inches between rows. Each planted clove will produce one bulb.

Apply an organic mulch (straw, sawdust, bark, etc.) immediately after planting to help conserve water, reduce weeding, and supply extra nutrients. The garlic root system will develop during fall and winter followed by rapid top growth during the spring.

For additional information on growing garlic, click the following link (or search the internet for):

[USU Garlic in the Garden](#)



### Harvest and Postharvest Storage of Winter Squash and Pumpkins

Excerpts from the 2016 Utah Vegetable Production and Pest Management Guide:

#### WINTER SQUASH HARVEST

For optimum quality, harvest the fruits of winter squash and pumpkins only after the shell (or rind) has hardened completely. If you can scratch the rind with a finger nail, the fruit is still not mature. Care should be taken during harvest not to damage or break off the stem. Most winter squash and pumpkins are cut off the vine and stacked 2-4 fruits deep, depending on their size.

When loading out of the field, trucks and trailers should be padded and fruit should not be bumped or bruised. Winter squash intended for long term storage should be washed or dipped in a 10% chlorine bleach solution (1 part chlorine bleach to 9 parts water), then dried before storing in a cool, dry place. Storage in the open sun causes excessive spoilage and sunburn.

#### PUMPKIN HARVEST

Pumpkins are mature when fruits have achieved normal size, are fully colored, and when the rind is hard. Stop watering 7-10 days before harvest to help dry out the vine and soil. Fruits should be cut from the vine at maturity leaving a 3-5-inch-long stem.

Generally, growers wait at least 2-3 days after harvest to allow time for the stem to cure. When moving, windrowing, or loading the fruits, do not grasp the stem; this helps to avoid breaking it off. Fruits can be windrowed and stacked like the winter squash before loading out of the field. Avoid storage in the open to minimize sunburn damage and fruit softening.

## WINTER SQUASH AND PUMPKIN STORAGE

The optimal storage conditions for winter squash and pumpkins are 50-60 °F at 50-70% relative humidity. All cucurbits are sensitive to chilling injury when exposed to or stored at low temperatures (<45 °F). For long-term storage of winter squash, maintain temperatures near 55 °F and relative humidity of 60% with good ventilation. Green skinned winter squash types (acorns, buttercups, or kabocha) tend to lose rind color (de-green) when stored at warmer temperatures and higher relative humidity. If pumpkins are stored in a well ventilated, shaded area, fruits will hold for 3-5 weeks even under the colder temperatures experienced in early-mid October. For fruits intended for long-term storage into the winter, first warm the fruits to condition them, then store near the minimum for the type.



For more detail on storage, handling and ripening techniques of the different cucurbits, refer to the specific produce fact sheets available through the UC Davis Postharvest Technology website: <http://postharvest.ucdavis.edu>. These fact sheets are comprehensive guides to maintaining postharvest quality of the specific crop of interest.

## Putting the Garden to Bed

Integrated pest management (IPM) is an ecosystem-based strategy that focuses on combining control techniques such as soil health, crop rotation, cultivation, sanitation, overall plant health, etc. to improve long-term prevention of pests and their damage. Preparing your garden for winter or "putting your garden to bed" can promote a healthy garden ecosystem, and thus compliment your overall IPM program.

### Soil

Late fall is a great time for soil testing and soil amendments. Field and garden activities are limited during this time and samples can be collected and analyzed in time for fall or spring fertilization.

Fall soil improvements allow for the application and incorporation of fertilizers with fall tillage or winter precipitation. Another advantage to fall soil amendments is



Cover crops can be planted in the fall to achieve winter or spring cover.

that if the compost applications are too hot from excessive salts, the salts will generally leach out over the winter and early spring months.

For annuals such as corn, small grains, and gardens, soil should be tested once every two years or more depending on the intensity of the production area. If you are making frequent fertilizer, manure, or other soil amendment applications, soil tests should be conducted more frequently to monitor changing soil conditions and prevent the build-up of excess levels of nutrients or salts.

### Plants

- If you still have ripe peppers and tomatoes, harvest them before the next hard frost. Mature green tomatoes can be ripened by individually wrapping them in newspaper.
- After the fall harvest, remove plant debris from the garden or field. Disease-free plants can be composted or disked under. Diseased plants should be discarded off-site. In cases where certain insects have been problematic, it may be important to remove plant debris completely or to deeply plow crop residues to reduce overwintering pest populations.
- Plan your crop rotation for the following growing season. Fall is a good time to take note of where crops were planted during the growing season, and decide on future crop rotations that will benefit your production area.
- If possible, plant a fall cover crop. If you need to narrow down the cover crop options, start by deciding a management goal (the reason you need a cover crop), a planting time (when you are able to plant the cover crop), and a duration (how long the plant can stay in the field before you need to plant the next crop). Cover crop options may be limited depending on these factors.

For additional information on soil testing, click the following links (or search the internet for):

[USU Analytical Lab](#)

[USU Frequently Asked Questions About Soil Testing](#)

For more information on farm and garden winter preparation, click the following links (or search the internet for):

[Cornell Decision Tool Cover Crop Guide](#)

[PSU This Isn't Your Father's Cereal Rye](#)

[Oregon State Checklist for Putting Your Garden To Bed](#)

[USU Six Tips for Putting the Yard to Bed](#)

[USU Cover Crops for Utah Gardens](#)

For more pest management information on specific crops of interest, click the following link (or search the internet for):

[Utah Vegetable Production and Pest Management Guide](#)

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