

## H O M E G A R D E N I N G

---

# Growing Onions

If you like onions, you may be wondering if you can grow your favorite variety in the home garden. Onions are a cool-season vegetable that can be grown in most soils in Alabama. Onions grow best in well-drained loam or sandy-loam soil.

Onions are members of the lily family, or Amaryllidaceae. Onions are classified by the scientific name *Allium cepa*. Onions are close relatives of other *Allium* family members such as garlic, leeks, and shallots. With so many different names for different onion types, choosing the varieties that grow best and deciding when to plant them can be confusing.

### Types Of Onions

The two basic types of onions are bulb-forming onions, which produce a single bulb in one year, and perennial onions, which produce clusters of small onions that can be harvested and replanted for the next crop. The bulb-forming onions include storage onions and fresh or "sweet" onions. Perennial onions include bunching or multiplier onions, Egyptian onions, shallots, and potato onions.

**Storage onions.** The most obvious difference between storage and fresh onions is that storage onions keep for a longer period of time. Storage onions generally have a darker color, thicker skins, and a more pungent flavor than fresh onions. Storage onions can be grown from seed, onion sets, or transplants. Sets are generally sold as yellow, white, or red onions, not by a variety name.

**Fresh onions.** As the name implies, fresh onions are not good keepers and are best eaten soon after they are harvested. Fresh

onions are also commonly referred to as sweet onions. The most famous fresh "sweet" onion is the Bermuda onion. It is the grandfather of all of the sweet onions on the market today. Sweet fresh onions are not grown from sets. They must be planted from seed or transplants. Look for the fresh sweet onions under variety names such as yellow or white Bermuda, Excel, Texas Grano 502, Texas Grano 1015, and Texas Granex 33 (commonly sold under the name "Vidalia" onion).

**Bunching or multiplier onions** (also called green onion, Welsh onion, Japanese onion and scallions) produce continuous clusters of small pearl type onions. To grow them from seed, plant in late winter to early spring for an early summer harvest, and in fall for late winter, early spring harvest. Sets should be planted in the fall. Once you have established some clumps, simply harvest as needed, divide clumps, and replant for the next crop. Varieties to plant include Evergreen White Bunching and Beltsville Bunching.

**Egyptian onions** are the most cold hardy of all onions. They are not as tender and tasty as scallions or bulb onions, and are most useful in mid-winter when other onions are out of season. Egyptian onions do not produce seeds, but instead produce bulbils at the top of the plant. Egyptian onions are also called "walking" onions because if not harvested, clusters of bulbils will bend down and take root. The bulbs are very pungent, but green tops can be used in winter. Divide Egyptian onion clusters of bulbils as they dry in late summer. Plant in the fall as you would onion sets.

**Shallots** are another cool weather, small, bulb-forming perennial onion

plant. Plant individual bulbs or sets 4 inches apart in the fall. These clusters of bulbs are ready for harvest in 3 to 4 months or when leaves start to wither. Mature bulbs will be about 1 to 1 1/2 inches in diameter and pear shaped with papery covering.

**Potato onions** are similar in growth habit to shallots. However, potato onions are larger than shallots and have more of a flattened-shaped bulb. Potato onions produce large and small onions. Each small bulb will produce one large bulb, and each large bulb planted will produce a cluster of small bulbs. Plant a mixture of small and large bulbs about 16 inches apart in the fall. Harvest large bulbs the following summer for eating or replanting. Cure and keep in a cool, dark area until ready to plant in the fall.

### Variety Selection: Bulb-forming Onions

Planting the right varieties in a particular area determines whether or not onions form bulbs. When onions are first planted, their growth is concentrated on roots and green leaves or tops. Onions start to form bulbs when a particular combination of daylight and darkness occurs. This is referred to as day length or photoperiod needs of an onion variety.

In Alabama, you can plant short-day varieties from late fall to early winter, which stimulates the formation of bulbs when day length is at its shortest. Long-day onion varieties, like 'Walla Walla' for example, are planted in the northern United States in late spring, growing at a time when day length is at its longest.

## Bulb Size

The size of bulb onions depends on the amount of top growth. For each green leaf, there will be one ring in the bulb. Sometimes onions will produce a flower stalk, which is referred to as bolting. To encourage good bulb development, cut out flower stalks.

The size of onion bulbs also depends on the weather. Onions may bolt as a reaction to cold weather stress. Warm fall weather that encourages rapid growth and large transplants, followed by a late cool spring, often produces a high percentage of seed heads. Conversely, a cool fall that holds transplant size to about 1/4 inch in diameter and a warm spring that turns hot about bulbing time usually produce an onion crop with a minimum of bolting.

## Site Selection And Soil Preparation

Choose a garden site that is in full sun and has a well-drained soil with pH of 6.0 to 6.5. Apply lime and fertilize according to soil test results. Many gardeners plant onions in a raised bed rich in well-rotted compost, manure, and other organic matter.

## Planting

Onions can be grown from seeds, small dormant onions called "sets," or onion transplants.

Onion seeds should be sown in the garden in the fall (October). However, onion seedlings are easier to grow in a soilless mix where conditions can be controlled. Sow seeds about 1/4 inch deep, covering lightly with a soilless mixture. Uniform moisture and a temperature of 70 to 75°F should be maintained. Seed should germinate in 10 to 14 days. Grow onions in individual cell packs to reduce transplant shock. Seedlings

should be grown in a cool location in full sun.

Transfer onion transplants into the garden when they reach pencil size in diameter (about  $\pi$  inch). Onions may be transplanted from December to February. To reduce risk of loss from freeze damage in colder areas of Alabama, set onions in January to early February. Set plants 1 inch deep, and about 3 to 4 inches apart.

## Watering

Watering is critical to the development of onions. Onions should receive about 1 inch of water per week (2 inches in sandy soils). Water slowly and deeply to produce healthy onions.

## Fertilizing

In the absence of a soil test, apply a complete fertilizer such as 8-8-8 or 10-10-10, a few days before planting. Onions are heavy nitrogen feeders early when producing roots and top growth. Sidedress about 4 to 6 weeks after planting with a high nitrogen fertilizer (do not use a sulfur product). Sidedress onions one more time about 1 month later in late winter. Later applications of nitrogen can delay maturity of bulbs, cause thick necks and bulb splitting.

## Controlling Weeds, Diseases, And Insects

Weed control in onions is very important. Onions are shallow rooted and any cultivation should take care not to damage the bulbs or roots. Any cultivation should be shallow, without bringing excessive soil to the plants. Many gardeners pull the soil away from plants in order to allow greater bulb expansion. However, this practice is not needed on well prepared, highly organic soil. Mulching can also help control weeds.

Growing onions in well-drained soils will discourage disease problems. It is always wise to follow a rotation schedule when planting onions. Do not plant onions or other members of the Amaryllidaceae family in the same soil for more than one season. Wait several years before moving onions back to the same growing area.

Ask your county Extension agent what to use if you think you have a disease or insect problem. Always follow product label directions.

## Harvesting And Storage

One limitation on storing onions can be the climate in Alabama. Humid, moist conditions may prevent drying and curing onions for storage. Onions will store better if they are dried for several days outdoors, away from direct sunlight. Leave tops on bulbs during drying. After drying, cut tops within an inch of bulb.

Fresh sweet onions can be stored for several weeks in a cool, dark place. They can be stored in the refrigerator, but do not put them in plastic bags. This will inhibit air circulation.

Storage onions should be dried for a longer period of 10 to 14 days. After cured, the tops can be removed and onions stored in mesh bags, or dried tops can be braided into a string of onions. Depending on the variety, storage onions will remain firm and flavorful if kept in a cool, dry place (32 to 45°F) for 3 to 6 months or more.

**Mary Beth Musgrove**, *Extension Associate*, Department of Horticulture, Auburn University

**For more information**, call your county Extension office. Look in your telephone directory under your county's name to find the number.

### Short-Day Onion Varieties

Yellow	White	Red
Texas Granex 32	Crystal White Wax	Red Grano
Texas Grano 502	White Grano	Burgundy
Excel		Italian Red
Texas Grano 1015		
Yellow Bermuda		

Issued in furtherance of Cooperative Extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, and other related acts, in cooperation with the U.S. Department of Agriculture. The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.

UPS, 10M04, **New Feb 1998**, ANR-1085