



# Vegetable Gardening Tips

Growing Information for the Home Gardener Series



## Allium Crops Onions, Shallots, Garlic

Onions, shallots, garlic and leeks are all in the same genus of Allium and have much in common. Onions are the most popular of these crops in the United States, but in Louisiana, garlic and shallots are just as popular as onions. Alliums are quite hardy and grow from fall to late spring. Although the alliums are used mostly as seasonings, they are a good source of vitamin B.

### Onions - *Allium cepa*

Onions may be grown for either bulbs or green tops (scallions). Planting from seed can start in late September in north Louisiana and extends through mid-October in south Louisiana. Plant onion sets or transplants mid-December through late-January.

Select “short day” varieties of bulbing onions. This is very important, since bulb formation is controlled by day length and temperatures. Bulb initiation begins in the spring as days begin to get longer and the temperature rises. Bulb size depends on variety and growing conditions. If a large bulb is desired, choose a variety capable of producing a large bulb, and that develops a large, vigorous plant before bulbing begins. Bulb shape depends on variety, depth of planting and soil type. Heavier soils and shallow setting produce a more flattened bulb. Crowding plants will also produce smaller and slimmer bulbs. Onions,



**Miss Megan (yellow onion)**

particularly those grown for bulbs, produce best in light silty or sandy soils. Clay soils may interfere with the swelling of the bulb. Adding organic matter or compost to heavy soils can make good production possible.

Several good “short day” varieties are available for Louisiana conditions.

For red onions, the Red Creole and Creole C5 are popular selections. These are medium-small, pungent and store well. Red Burgundy, Red Grano and Tropicana produce a medium, mild bulb.

For white onions, Crystal White Wax is popular. It is a medium-size, mild Bermuda type also used for bunching onions. White Granex, Contessa, Eclipse and Early Supreme are also very good.

Yellow onions offer the most choices. Granex 33, Century, Georgia Boy, Miss Megan, Mr. Buck, Nirvana, Sweet Caroline, Sweet Vidalia, Texas Grano 1015Y and Texas Grano 502 are good choices.

Onions grown for green onions (scallions) or bunching onion grow well in all soil types. These onions are normally direct-seeded thickly in the row and are grown to suitable size and then harvested for table use. Varieties for green onion use include Crystal White Wax and the Japanese Bunching or “Nebuka” types, such as Evergreen Bunching and White Spear.



**Red Burgundy (red onion)**

## Leeks - *Allium porrum*

Leeks are alliums that are similar to green onions but milder in flavor. Leeks are grown from seed or small bulbs and planted in the fall. Although the above-ground portion resembles a thick-necked garlic plant, the thick white neck is used in soups, stews and for general onion use. Most varieties should be suitable for Louisiana home gardens.

## Garlic - *Allium sativum*

Garlic is often touted as having many uses from warding off cancer to protection from evil. Louisianans use it to flavor food and boil shellfish. Varieties differ in size and pungency. The large bulb Tahiti, or Elephant, variety produces large darker cloves on vigorous plants. These cloves are mild in flavor. The Creole variety clove is smaller. Its pungency is moderate, and it does not store for long periods. Italian types have the strongest flavor and store best. Italian-type cloves are small and have pinkish skin. Home gardeners will do well planting many garlic varieties just be sure to select "soft neck type" garlic, which grows better in Louisiana than hard neck types.

When you buy garlic to plant, choose whole bulbs. Break apart the cloves just before planting. Planting a true clove in mid- to late fall should provide a plant that produces a cloving bulb in spring. Some bulbs will produce offset corms, which will grow up against the lower side of the bulb. These tough nutlike corms will produce a plant that develops a solid or non-cloving bulb of garlic resembling an onion bulb. These solid bulbs may be used for cooking. If replanted, the solid bulbs will produce plants that will clove the next year.

## Shallots - *Allium ascalonicum*

Shallots are a key ingredient in many Cajun dishes. Shallots are similar to multiplying onions but have a garlic flavor. In Louisiana, green shoots are used as a green onion or scallion substitute. Varieties of shallots commonly found in Louisiana include:

Bonheur – medium size, some resistance to pink root, produces good dry sets.

Delta Giant – large and vigorous, some resistance to leaf spot and pink root, can be planted earlier and grows longer into summer before bulbing.

Summergreen – large, some pink root resistance, remains green year round and produces true seed in flower heads. May be increased by true seed or by dividing and separating.

Louisiana Evergreen – large, pink root resistance, remains green year-round and is increased by dividing and separating.

Because of mass trade and renaming of shallot varieties, finding a shallot with a variety name that is verifiable is extremely hard. Do not worry about the variety, just plant them and enjoy! They will all grow well in Louisiana.

Plant shallots September through early November. As the shallot set sprouts and divides into several stalks, the clump may be pulled and divided. Each stalk then may be harvested or set back in a row to grow and divide again all the way through May. After May, most gardeners wait until the next fall to plant again.

## Cultural Practices

Seed for all alliums should be planted from mid-September through October. When grown for bulbs, they are long-season crops harvested about nine months after seeding. These seeds are small and have very hard seed coats, so they are slow to germinate. A moist, well-prepared seed bed is important to obtain a good stand. Seed may be planted in drills (rows) on a garden row and allowed to mature in place, or they may be transplanted into a permanent row a few months later. Soaking seed for several hours in warm water will promote good germination.

Choose a well-drained garden loam or sandy soil that will not easily crust over. Turn the soil, and build beds high enough for good drainage or plant in raised beds. Mix into the bed a complete fertilizer like 8-24-24. Use about a pound per 25 feet of row. Cover seed with no more than 1/4 inch of good soil or sand. When plants are well sprouted, thin to proper spacing if they are directly planted into the garden bed. More than one drill can be planted on a bed. Allow 6-8 inches between plants in all directions in high-density plantings. Transplants are commonly planted for onions and leeks. Plants should be about the size of a thin pencil or smaller so that they are large enough to withstand the winter cold and shock of planting. Too large a plant going through winter may be more easily induced to bolt, that is, to send up a seed stalk and split the bulb. Transplants should be planted in well-developed beds. Use a complete fertilizer like 8-8-8 at the rate of one pound per 20 feet of row. As the plants grow, sidedress with 8-8-8 at 1 pound per 25 feet or calcium nitrate (15-0-0 at 1/2 pound per 25 feet). On poorer soils, the complete fertilizer is preferable. Lightly sidedress every four to six weeks when temperatures are high enough for plant growth.

Dry bulb sets or cloves are planted and grown much like transplants. Press them into the soil 1 to 1.5 inches deep with root side down. Be sure to water and fertilize as the plant begins to grow in early spring. A large, healthy plant is needed when bulbing occurs if a large bulb is to be obtained. On heavy or sticky soils, a little soil may be loosened or pulled away from the plant to reduce restriction of the bulb. Be careful not to dig or cultivate deeply and injure the shallow roots.

An organic mulch cover applied in late winter will help control weeds, conserve moisture and keep the soil loose around the bulb shoulders. The cooler spring soil of mulched alliums can also help produce larger bulbs. When growing leeks, rake up soil or mulch heavily around the plant's neck to encourage a thick white stem 4 or 5 inches long. This thick stem is used in cooking.

## Harvest

Shallots and young onions can be harvested for scallion use any time they reach sufficient size. With multiplying onions and shallots, you may pull the clump out, break off one stalk and replant it. This stalk will re-establish and begin to divide again if the weather is not too hot.

Leeks are harvested before they bulb and whenever their thick, white necks are big enough to use (usually in spring). Use them in soups, stews or for general onion use.



Some kind of bulb is formed by all these alliums when it gets hot enough or when you pull your crop to allow it to rest.

If you want a crop of storage onions, choose a bulbing short-day onion. Allium bulbs are ready for harvest when they have stopped swelling. At that time the leaves lose their healthy color, necks become soft and most of the tops lay over.

Garlic bulbs will have cloved at harvest time. When two-thirds of the tops lay over, pull the plants and store bulbs in a dark location with good airflow. When harvesting garlic, gather the bulbs and trim off roots and tops. Leave an inch or so of stalk at the neck to seal off infection. If you wish to braid the bulbs and store them this way, you must leave more top on the bulb for braiding.

## Pests

Allium crops are easy to grow and have few major pest problems. Properly maintained onions will thrive in your home garden. Use proper plant spacing, fertilize and irrigate to help them achieve maximum growth. Doing so will enable plants to withstand some pest pressure. Read all labels before applying pesticides. Using these materials properly will benefit you, your crops and the environment. Proper timing, application and the amount used are essential for the safe use of pesticides.

## Weeds

Since alliums grow slowly and are shallow-rooted, they will be subject to weed pressure. Growing alliums on black plastic mulch is very effective in larger home gardens. The black film should cover the prepared row a week or more before planting. Black plastic mulch helps warm the soil and controls most weeds around the plants. In smaller gardens, pine straw, hay and leaves are also effective mulch materials. Options for chemical weed control are limited when growing alliums. Therefore, shallow cultivation during the developmental stages is best. Grasses such as crabgrass and bermudagrass can be controlled after they emerge with the active ingredient sethoxydim (Poast, Hi-

Yield Grass Killer) without injuring alliums. Broadleaf weed control options are limited to preemergent control only with trifluralin (Treflan or Miracle Gro Weed Preventer). This herbicide should be applied prior to transplanting allium bulbs, and it should also be soil incorporated into the top 2 inches.

## Insects

Thrips are the major insect pest of alliums. These small (0.04 in.) flying/crawling insects are generally tan or light in color. Heavy feeding on leaves and stalks produces a stippled, grayish color on the leaves. Tapping a leaf over a white paper usually will reveal the pests. They resemble jumping dust.

## Diseases

Commonly found diseases in Louisiana alliums are purple blotch, downy mildew, Botrytis leaf blight and pink root.

Purple blotch starts as small, whitish, sunken spots on leaves and stalks. These spots enlarge and later become black or dark purple. Affected leaves may collapse and lay over. The bulb or neck may also be affected.

Downy mildew first starts as small, pale green flecks. Leaves later collapse and shrivel or lay over. Stalks may also be affected. Affected plants are stunted, and bulbs are very small.

Botrytis leaf blight is foliar disease and rapidly develops under extended periods of leaf wetness. Tiny white necrotic lesions surrounded by a light green halo appears on the leaves. As the disease develops the leaves appear blighted.

Manage foliar diseases with use of fungicides such as chlorothalonil, copper, mancozeb and sulfur in conjugation with good cultural practices.

Pink root is caused by the fungus that lives in contaminated soil for many years. Affected roots become characteristically pink before rotting off. Without sufficient roots, plants become stunted, often exhibiting a dieback of the leaf tips.



**Texas Grano (yellow onion)**

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