



FRUITS & VEGETABLES

Onions and Related Species

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Quick Facts...

Onions adapt well to the home garden and occupy little garden space.

Onions do best in a fertile, well-drained garden soil abundantly supplied with organic matter. Because onions are shallow-rooted, they require frequent irrigation. If properly cured and stored, some onion varieties will keep until May.

Onion species adapted to Colorado include bulb onions, green onions, chives, garlic, leeks and shallots. Chives are a perennial and will provide greens from early spring until late fall.

The word “onion” (*Allium cepa*) commonly refers to the edible bulb. The onion adapts well to the home garden and occupies minimum garden space. During the growing season, thinned-out plants may provide green onions. Cured onions of the storing varieties will keep until May under proper conditions.

Fertility

Onions do best in a fertile, well-drained garden soil abundantly supplied with organic matter. Starting with a productive soil, annually apply 5 to 10 bushels of organic matter, 3 pounds of ammonium nitrate and 2 pounds of superphosphate per 1,000 square feet. A one-time application of 1 pound of zinc sulfate and 1 pound of iron chelate per 1,000 square feet also is suggested, or follow a recommendation based upon a soil test.

Planting

Plant onion seed in March if possible but no later than May 1. Onions are affected by day length and begin to bulb when the day length reaches 12 hours and the temperature reaches 70 degrees F. Once bulbing begins, top growth stops. If the tops are small when this happens, the onions will be proportionally small. The pearl onions seen in the frozen food cases are produced in this way — by growing a short-day onion, such as Crystal Wax, under long-day conditions.

Onion sets and transplants may be planted later than seed and still produce normal size bulbs. However, planting after May 1 decreases the average bulb size, while planting before April 1 increases the percentage of seed stalks (bolters).

Plant onion seed 1 inch deep. Thin the plants as they grow so the bulbs never touch. The spacing between rows need be only wide enough to permit cultivation, generally 1 to 2 feet.

Because onions are shallow-rooted, they require frequent irrigation.

Pest Control

Weeds must be controlled because onions are short with narrow leaves and do not compete well with weeds. For the home garden, a reliable tool such as a hoe is recommended. For larger plantings, pre-emergent herbicides such as Prefar and Dacthal have given good results.

Among the insects that are likely to attack onions are the onion maggot and thrips. A single onion maggot will ruin a bulb. If they are expected, treat the soil prior to planting, according to label directions. Thrips are tiny and may escape observation. However, when the insect population builds up, the leaves will take on a silvery appearance. When this occurs, it is time to spray with malathion as directed on the labels.

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Onion diseases should not present a problem unless the ground has had a history of diseased onion crops. When diseases are noticed, they should be identified. Your local Colorado State University Cooperative Extension county office can help identify the disease and can recommend a treatment. To avoid losses from storage diseases, be sure onions are well-cured before storing.

Storage

The tops of onions will begin to lay over during the last week in August. When 80 percent of the tops are down, lift the onions just enough to break the roots. The bulbs should not be rolled over in the process — this will subject them to sunburn. When the tops have dried, cut them off and put the onions in a burlap sack. Leave the sack standing in the garden during fair weather until it rustles when shaken. The onions now are cured and ready to be moved into a dry, dark storage area with a temperature as close to freezing as possible.

Onions will tolerate frosty nights but not a freeze. If snow, rain or freezing temperatures threaten, place the sacks of onions indoors. Do not handle them if they are visibly frosted; wait until they thaw.

Onion Varieties

Onions are available in red, white or yellow varieties; mild or pungent; storing or nonstoring; deep globe or flat globe; and as seed, transplants or sets. When ordering seed, one has a wide choice of varieties.

Southport Red is a red, globe, pungent storage onion. Red Wetherfield is a flat, milder red onion.

Southport White is a popular white storage onion. White Sweet Spanish is a large, mild nonstoring onion that is grown from seed in southeastern Colorado where the season is long enough for it to mature.

There are more yellow onion varieties to choose from than reds or whites. Colorado 6 is the standard Sweet Spanish onion, but it should be transplanted in the Denver area to hasten its maturity. Brown Beauty is a popular pungent storage onion and it should mature satisfactorily from seed.

Onion sets generally are the Ebenezer variety because it is well adapted for this use. It is a flat, yellow storage onion. Transplants usually are the Sweet Spanish variety because that is the best way for gardeners in areas with a short growing season to get Sweet Spanish to mature in their gardens.

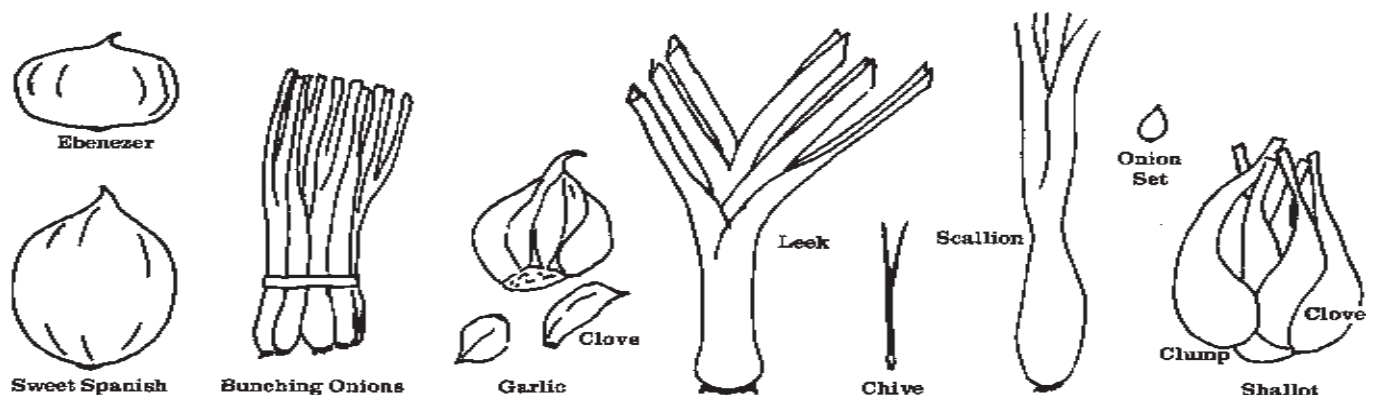


Figure 1: Types of onions and onion-like crops.

Onion-Like Crops

Green onions (*A. cepa* or *A. fistulosum*) may be onions of any variety that are pulled, bunched and sold before they bulb. There are onions (*A. fistulosum*) especially bred for bunching; they do not bulb. Examples are Beltsville Bunching and Evergreen. The Japanese or Welsh bunching onions (also *A. fistulosum*) are hardy perennials that do not bulb, but form clumps that should be thinned by pulling. They have the advantage of being available from early spring to late fall.

Chives (*A. schoenoprasum*) are hardy perennials that are grown from seed or plants. The leaves are used in salads and on cottage cheese, potatoes and other food. Divide the clumps every three years.

Garlic (*A. sativum*) differs from onion in that its bulb is composed of about 10 cloves that are arranged inside a membrane like segments in a tangerine. Plant the cloves in August or September so they get some root growth. After the ground freezes, mulch to keep them from frost heaving. After the tops die down in late summer, harvest the bulbs, cure and store like onions. The cloves may be eaten, but more often the raw juice is squeezed from the clove onto the food to impart a garlic flavor.

Leeks (*A. porrum*) are distinguished from other members of the onion family in that they have flat rather than tubular leaves. Only the white base of the plant is eaten, so it is customary to blanch the base by pulling soil up around the stem to promote a longer white base. They may be eaten fresh or used in cooked dishes.

Scallions (*A. cepa*) are not another member of the onion family but a name given to immature bulbing onions. Scallions have thick necks and will not store well. They may be bunched and sold as scallions, but they usually are left in the field when the mature onions are harvested.

Shallots (*A. ascalonicum*) have a milder flavor than onions. Bulbs are planted in early spring. During the season, some of the leaves may be cut at the ground level and used as green onions. Plants which are not heavily cut will form many bulbs attached together in a clump. In the fall, harvest the clumps and separate the bulbs for use or storage.