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Onions and related species for the home garden

James E. Ells¹

Quick Facts

The onion is well adapted to the home garden and occupies minimum 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 perennial and will provide greens from early spring until late fall.

The word "onion" (*Allium cepa*) commonly refers to the edible bulb. The onion is well adapted to the home garden and occupies minimum garden space. During the growing season, thinned-out plants may provide green onions, while afterwards, cured onions 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, apply 5 to 10 bushels (.2-.4 cubic meter) of organic matter, 3 pounds (1.4 kilograms) of ammonium nitrate and 2 pounds (.9 kg) of superphosphate per 1000 square feet (90 sq m) annually. A one-time application of a pound (.5 kg) of zinc sulfate and a pound (.5 kg) of iron chelate per 1000 square feet (90 sq m) also is suggested, or follow a recommendation based upon a soil test.

Planting

Onion seed should be planted in March if possible but no later than May 1. This is because onions are affected by day length and begin to bulb when the day length reaches 12 hours and the temperature reaches 70° F (21° C). Once bulbing begins, top growth is arrested and if the tops happen to be small at this time, the onions produced also 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 will decrease the average bulb size, while planting before April 1 will increase the percentage of seed stalks (bolters).

Onion seed should be planted 1-inch (2.5 centimeters) deep. Thin the plants as they grow so that the bulbs never touch. The spacing between rows need be only wide enough to permit cultivation—generally 1 to 2 feet (.3-.6 m).

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 provide the shade needed to hold down weeds. For the home garden a reliable tool such as a hoe is recommended; however, for larger planting such herbicides 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 so if they are expected the soil should be treated with Diazinon prior to planting according to label directions. Thrips are quite 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 Diazinon or

¹James E. Ells, Colorado State University Cooperative Extension vegetable crop specialist and associate professor, horticulture (revised 4/91). ©Colorado State University Cooperative Extension. 1991.

malathion as directed on the labels.

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. The local county Cooperative Extension agent 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, the onions should be lifted just enough to break the roots. The bulbs should not be rolled over in the process since this will subject them to sunburn. When the tops have dried, they should be cut off and the onions put in a burlap sack. The sack is left 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, but 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 non-storing; deep globe or flat globe; and as seed, transplants or sets. When ordering seed, one has a wide choice of varieties and may purchase Southport Red for a red, global, pungent, storage onion or Red Wetherfield for a flat, milder, red onion.

Southport White is a popular white storage onion and White Sweet Spanish is a large, mild, non-storing 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 since it is well adapted for this use. It is a flat, yellow, storage onion. Transplants usually are the Sweet Spanish variety since it is the best way for gardeners in areas of short growing season to get Sweet Spanish to mature in their gardens.

Other Onion-Like Crops

Green onions may be onions of any variety that are pulled, bunched and sold before they bulb. The Japanese or Welsh bunching onions (*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 may be grown from seed or plants. The leaves are used in salads, especially as a garnish on cottage cheese. The clumps should be divided every three years.

Garlic differs from onion in that its bulb is composed of about ten cloves that are arranged inside a membrane like segments in a tangerine. The cloves are planted in early spring, producing mother bulbs for fall harvest that are cured and stored like onions. The cloves may be eaten, but usually 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. Since only the white base of the plant is eaten, 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 proceed to form many bulbs which are all attached together forming a clump. In the fall, the clumps are harvested and the bulbs separated for use or storage.

