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Storage of home-grown vegetables

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Quick Facts

- Many home-grown vegetables lend themselves to storage.
- Storing vegetables can be quicker, easier and more economical than canning, freezing or dehydrating.
- Root crops will store best where they are grown until there is a danger of soil freezing.
- Storage facilities can be constructed at little or no cost.

Storing vegetables produced in the home garden can be easier, quicker and more economical than freezing, canning or dehydrating. The storage facilities can be constructed at little or no cost, and stored vegetables can represent considerable savings in food dollars.

Harvesting

Root crops will store best where they are grown until there is a danger of soil freezing. Harvesting can be delayed by hilling the soil over the shoulders of carrots and beets to protect from freezing. If straw and soil are piled over the row as insulation, harvest may be delayed even longer. While in the row, the vegetables are readily accessible and the time and damage associated with harvesting and storage are circumvented. The remaining roots should be dug before the soil freezes, topped, cleaned, and put into storage.

Onions should be harvested as soon as the tops fall over to prevent basal rot. The onions are

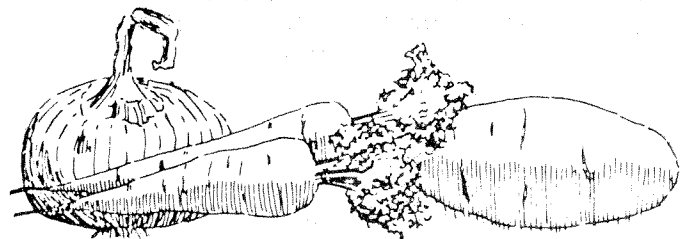
pulled, the tops removed, and the onions cured in mesh bags or crates in the field until the necks have dried down. When they rustle upon handling, they are ready to move into storage where it is cool and dry.

Winter squash and pumpkins should not be handled until the vines have been frost killed and the skin is hard to the thumbnail. Stems should remain on the fruit to protect against disease invasion.

Parsnips will withstand freezing, allowing part of the crop to be left in the ground to be dug in the spring when the flavor will be greatly improved.

Kale can be left in the garden and used as a green all winter long. Where winds are dry and frequent, a wind barrier is required to protect kale.

Celery and late cabbage may be harvested after the frost has stopped their growth. Celery is pulled with its roots attached, while cabbage is cut and the loose outer leaves removed.



Storage

Root crops—including potatoes, carrots, beets, turnips, rutabagas, winter radishes, kohlrabi and parsnips—are adapted to home storage. This group stores best at near freezing with a high relative humidity. Onions also should be stored near freezing but a low relative humidity to discourage neck rot. Leafy crops such as celery and cabbage may also be stored, but since they give off a gas called ethylene while in storage, which has proven det-

¹James Ells, Colorado State University Cooperative Extension vegetable crop specialist and associate professor; and Carl J. Jorgensen, associate professor, horticulture (revised 7/88)

rimental to other vegetables, they should be stored by themselves.

A very high quality will result if a trench is dug and the celery plants pulled and packed in this trench in an upright position, then covered with paper, boards and soil. They will proceed to root, bleach, tenderize and develop a nutty flavor when removed at Christmas time. Cabbage usually is packed in a pit upside down so that the covering soil does not work into the head.

Pumpkins and winter squash will store longer at 50°-60° F (10°-16° C) and a low relative humidity.

In selecting vegetables for storage, discard any that show signs of early spoilage. This includes immature, damaged or diseased specimens. Also, when using vegetables from storage, check over the produce and discard any showing signs of rot since, if allowed to remain, they will affect adjacent sound produce.

Outdoor Pit

This pit may be either lined or unlined. A lined pit is one that is sealed against ground water and rodents. This may be a barrel buried semi-horizontally in the ground. The roots are placed in the barrel and the lid is put loosely in place to allow for air transfer. The barrel is then covered with straw held in place by a layer of soil. The depth of the straw may be 1 to 3 feet (30.5-91.4 centimeters) depending upon the amount of cold that must be endured.

In the unlined pit, the roots are piled on a layer of straw and the pile is covered with straw held in place by a layer of soil. The unlined pit must be dug in an area where water will not fill the pit and where rodents are not a problem.

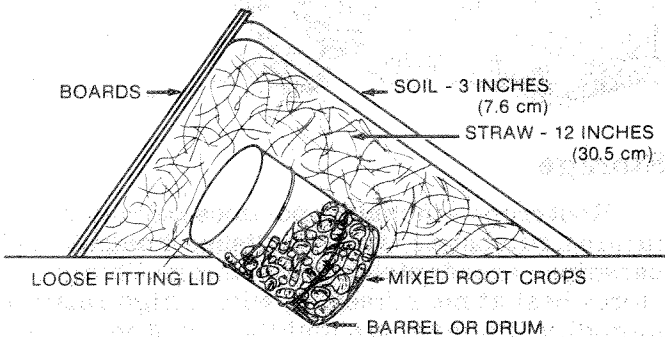


Figure 1: Barrel storage as an example of an outside pit.

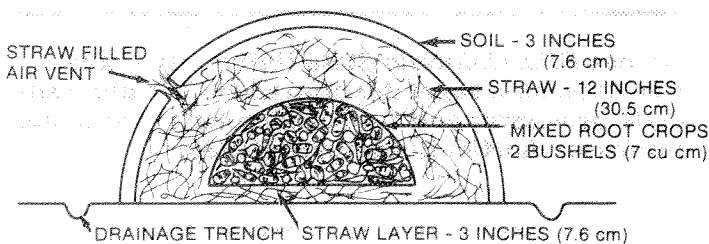


Figure 2: An example of mound storage.

Storage Mound

A storage mound is similar to the unlined pit and it is used where ground water is a problem or where only a short storage period under mild temperatures is anticipated. The vegetables are piled on a layer of straw on top of the ground. The mound then is covered with a layer of straw that is held in place by a layer of soil. The mound usually contains one or two bushels (.35-.7 cubic meter) of mixed roots, so when the mounds are removed, all the product can be taken into the house.

House Cellar

The root cellar under the house was the most popular means for storing vegetables before the days of central heating. However, acceptable storage can be constructed in a heated basement by partitioning off a storage room that includes a basement window. The ceiling and walls of the room should be insulated and the window opened or closed to provide the desired temperature. The temperature should be between 33° and 45° F (.56° to 7.2° C). The room can be provided with bins and shelves for efficient storage. Roots store best at high humidities, while onions, pumpkins and squash should be stored at lower humidities. Root crops should be packed in bins with moist sand or vermiculite. These are preferable to organic materials because they don't decompose and are easier to handle than soil. Dahlia roots and gladiolus corms can be stored dry in bins with perlite or vermiculite until spring.

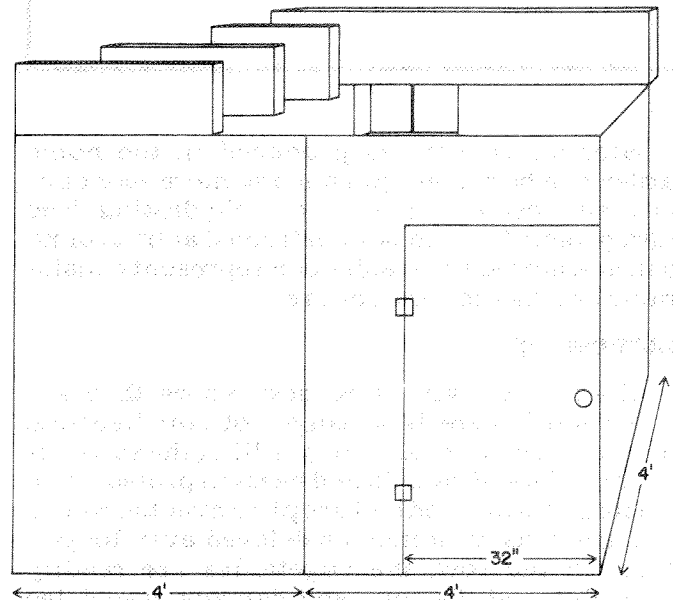


Figure 3: Example of a basement storage that can be constructed in the corner of a basement with a window. Walls consist of three sheets of 4 x 8-foot (1.2 x 2.4 m) 3/8-inch (9.5 mm) plywood. A 7-foot x 32-inch (2.1 m x 76.3 cm) door is cut in one sheet. The ceiling and interior walls are insulated. Shelves and bins can be built around all walls inside the storage with a small walkway area left near the door.