FRUITS & VEGETABLES

Storage of Home-Grown Vegetables no. 7.601

by J.E. Ells and C.J. Jorgensen [1]

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 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 them. The storage facilities can be built at little or no cost. Stored vegetables can represent considerable savings in food dollars.

Harvesting

Root crops store best where they are grown until there is a danger of soil freezing. Postpone harvesting 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. Dig the remaining roots before the soil freezes, top, clean, and put into storage.

Harvest onions soon after the tops fall over. Pull the onions, remove the tops, and cure the onions in mesh bags or crates where they have good air circulation until the necks dry down. When they rustle upon handling, they are ready to move to a cool, dry storage area.

Do not harvest winter squash and pumpkins until the vines are frost-killed and the skin is hard to the thumbnail. Leave stems on the fruit to protect against disease invasion.

Parsnips will withstand freezing. Leave part of the crop in the ground and dig in the spring when the flavor is greatly improved.

Kale and collards can be left in the garden long after the first fall frost. Harvest as needed until the foliage finally succumbs to cold weather. Wind protection will prolong its usefulness.

Celery and late cabbage may be harvested after the frost has stopped their growth. Pull celery with its roots attached. Cut cabbage and remove the loose outer leaves.

Storage

Root crops, including potatoes, carrots, beets, turnips, rutabagas, winter radishes, kohlrabi and parsnips, adapt to home storage. This group stores best at near freezing with a high relative humidity. Store onions near freezing but with a low relative humidity to discourage neck rot. Leafy crops such as celery and cabbage may also be stored. Store them by themselves — they give off ethylene gas while in storage, which has proven detrimental to other vegetables.

Celery may be harvested and stored directly in trenches that are dug for that purpose. Pull the celery plants and pack them upright in the trench. Cover with paper, boards and soil. They will root, bleach, tenderize and develop a nutty flavor when removed in late December.

Colorado State University Cooperative Extension

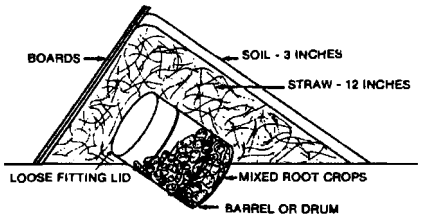

Figure 1: An outdoor barrel storage pit.

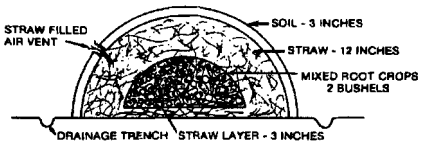

Figure 2: A storage mound.

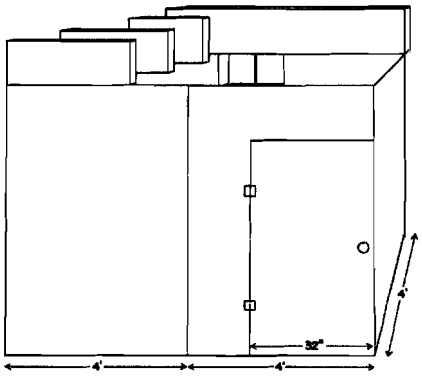

Figure 3. A basement storage area in the corner of a basement with a window. Walls are three sheets of 4- x 8-foot 3/8-inch plywood. Cut a 7-foot x 32-inch door in one sheet. Insulate the ceiling and interior walls. Build shelves and bins around all walls inside the storage area. Leave a small walkway near the door.

Pack cabbage upside down so the covering soil does not work into the heads.

Pumpkins and winter squash store longer at 50 to 60 degrees F and a low relative humidity.

When selecting vegetables for storage, discard any unsound produce. This includes immature, damaged or diseased specimens. Also, when using vegetables from storage, check over the produce and discard any showing signs of rot. 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 (Figure 1). Place the roots in the barrel and put the lid loosely in place to allow for air transfer. Cover the barrel with straw held in place by a layer of soil. The straw may be 1 to 3 feet deep, 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.

Storage Mound

A storage mound (see Figure 2) is similar to the unlined pit. It is used where groundwater 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 of mixed roots, so when the mounds are removed, all the produce 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 (see Figure 3). Insulate the ceiling and walls of the room and open or close the window to provide the desired temperature. The temperature should be between 33 and 45 degrees. Add bins and shelves for efficient storage.

Root vegetables store best at high humidities, and onions, pumpkins and squash at lower humidities. Pack root crops 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. Store dahlia roots and gladiolus corms dry in bins with perlite or vermiculite until spring.

[1]*J.E. Ells, Colorado State University Cooperative Extension vegetable crop specialist and associate professor (retired); C.J. Jorgensen, former associate professor; horticulture and landscape architecture.*

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Milan A. Rewerts, Director of Cooperative Extension, Colorado State University, Fort Collins, Colorado. Cooperative Extension programs are available to all without discrimination. No endorsement of products mentioned is intended nor is criticism implied of products not mentioned.