UMass Extension

CENTER FOR AGRICULTURE

# Storage of Vegetable Crops

A shrewd gardener always plans to grow more vegetables than can be eaten fresh. The surplus of course can be preserved in a variety of ways for consumption during the winter months. Most often these vegetables are processed via canning, freezing, or drying. These are the best ways to handle the long term storage of highly perishable crops such as green beans, tomatoes, peppers, and summer squash.

However, there are several vegetables which can be stored without any processing. These include many root crops as well as pumpkins and winter squash. Though little or no processing is involved, successful long term storage of these vegetable crops depends on their careful harvest and post-harvest handling. Here are some suggestions for dry storage of selected vegetable crops.

***Carrots:*** Those best for winter storage are the ones harvested in late fall before the ground freezes. They should be dug when the soil is dry. Cut off the carrot tops to within one-half inch of the carrot root. Soil can be removed from the carrots with a quick rinse but the carrots should not be scrubbed. Once they are dry, place the carrots in plastic bags perforated with small holes. They'll keep best if stored in a cold (32 to 40 degrees F) and humid location.

Root cellars are ideal but few people have such storage facilities. A second refrigerator would make sense, especially if similar root crops such as beets, horseradish, parsnips, radishes, rutabagas, and kohlrabi are being stored. Radishes and kohlrabi will keep under these conditions for about a month whereas the other crops can be stored for four months or more.

These root crops can also be "stored" right where they growing simply by placing a deep layer of straw mulch over the plantings as the weather gets cold but before the ground freezes.

***Potatoes:*** Late maturing varieties are best for storage. Another key to long term storage of potatoes is proper handling at harvest time. First, potatoes to be stored should not be dug until the tops have died and dried. When digging, be very careful to avoid bruising or cutting the potatoes. Damaged potatoes should be set aside and used soon after harvest. Potatoes should not be washed or scrubbed if they are to be stored but soil can be carefully brushed from the tubers.

Once potatoes are dug, they need to be cured for a week or two in a warm (60 to 75 degrees F), moist, and dark location. Curing will help heal any minor wounds. Once cured, potatoes should be stored in a cooler location with temperatures near 45 degrees. Again, that's difficult to achieve in most homes, so pick the coolest corner of the basement. The location should be humid and dark. The closer to these temperature and humidity requirements, the longer the potatoes will keep in storage. That could be between 2 and 9 months.

***Onions:*** Storage requirements for onions also apply to shallots and garlic. The best onions for storage are those that have been harvested when fully mature, i.e. after the tops have flopped and turned brown. The tops or leaves of stiff-necked garlic varieties do not flop, but they will turn brown and should be harvested when at least half the leaves have browned.

Good curing is essential for long-term storage of onions. Curing involves exposing the onions to mild temperatures in a dry, well-ventilated area. There are several ways to cure onions. One method is spread the onions in a single layer over screens (these can be made by simply attaching chicken wire to a wooden frame) in a shaded and well-ventilated area. This can be outdoors but the onions should be covered with a tarp if rain threatens. Curing takes about two to three weeks.

After onions have been cured, cut the tops back to a length of about one inch. DO NOT remove the dry, scaly skins from onions, shallots, or garlic when storing.

Store the onions in a dry, well-ventilated location. For example, put onions in mesh bags (save the ones in which oranges are often sold in supermarkets) and hang these bags in an attic or garage. The closer to 32 degrees F, the longer the onions will keep; however, they should not be exposed to freezing temperatures for long periods of time.

Yellow onions will keep in storage longer than white, red, and sweet varieties. That may be as long as six or seven months.

***Winter Squash and Pumpkins***: Forget the images of "frost on the pumpkin." If they are going to keep in storage for any length of time, winter squash and pumpkins should be harvested before being exposed to frost. Harvest winter squash and pumpkins when the rinds have hardened and the fruit have developed a deep, solid color. Acorn squash are mature when a yellow color has developed where the fruit are in contact with the ground. Leave about three inches of stem attached to pumpkins and two inches attached to the fruit of winter squash. Don't bother storing any fruit if the stems have been completely removed. They won't keep very long. Cure pumpkins and winter squash at temperatures of 80 to 85 degrees F for seven to ten days. Acorn squash do not need curing. After curing, store the fruit in a dry, airy location with temperatures near 55 degrees F, 45 degrees F for acorn squash. In olden days, settlers would store winter squash beneath their beds.

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