

Simple steps when storing root vegetables lead to great tasting food months from now

By Hudson Hill

Gardening is a great hobby – practitioners spend time outdoors getting exercise while making yards beautiful and vegetable gardens productive.

One of the best rewards for many is the fresh, home-grown food; however, there is a downside to producing your own food many don't consider until harvest time – we often produce more food than we can consume at the time. This is a great problem to have and leads many gardeners to become food storage experts.

All of the vegetables we grow will store for some time under the right conditions and, with a little extra work, we can store certain crops without canning or freezing allowing us to look forward to months of great eating!

Root Vegetable Storage

Mother Nature has made root vegetables, such as potatoes and carrots, some of her best vegetables for longer term storage. With proper storage, carrots and potatoes keep for six months while onions easily store up to seven months.

By following simple procedures and considering three main components, we can become pros. The procedures are growing, harvesting, preparing vegetables, and choosing a location for storage. The components are simple but critical. Temperature, light, and humidity have to be controlled.

Following these steps and monitoring the three components should lead to root vegetable storage success.

Growing, Harvesting, Preparing Vegetables to Store

Growing vegetables for storage takes planning. Plant vegetables so they are ready to harvest when we are ready to store them (usually as late in the year as weather permits). We want to harvest vegetables when the soil is drier and as late in the fall as possible (but we do not want vegetables to freeze). Select only the best vegetables for long-term storage: any vegetables with insect or mechanical damage should be removed and put into a "use first" bag.

Cut off the tops and about ½ inch of the stems to prepare carrots and similar vegetables for storage. Gardeners generally do not need to wash root vegetables prior to storage. Leaving the vegetables in the sun for several hours after digging them will help dry the tiny root hairs and help the vegetables go dormant. It will also help the dirt dry and fall off prior to storage.





Jeff Edwards, University of Wyoming Cooperative Extension Service educator, prepares to store vegetables in a root cellar (see photo of inside page 21).



Root vegetables, such as potatoes and carrots, are excellent choices for long-term food storage.

Temperature

Most gardeners can only approximate the best conditions for storing vegetables – these are the ones that work best. Potatoes need to be stored between 45 and 60 F for two weeks and then stored long term at 35 to 40 F. If sprouts appear, the temperature is too high. Do not store potatoes where there is light, excessive moisture, or with apples. Light causes potatoes to start photosynthesis, and apples emit a gas that speeds ripening. Other root vegetables store better about 5 degrees cooler than potatoes without freezing. However, a constant temperature is as important as the right temperature. Produce may begin to sprout if the temperature varies up or down by as little as 5 degrees. If vegetables freeze, they will not keep long after thawing. Storing vegetables on a small scale takes some practice; monitoring and making adjustments help achieve success.

Light

Light is detrimental to root vegetable storage. Light can cause photosynthesis and other chemical reactions that can cause faster decay in vegetables.

Moisture

Maintaining humidity levels around root vegetables is important. If the humidity is too low, vegetables will lose moisture and shrivel. Optimum humidity levels for root vegetables like potatoes are above 90 percent; however, humidity levels above 70 percent will help preserve vegetables. With Wyoming's dry climate, keeping humidity above 90 percent is not easy. Packing vegetables in sawdust, paper, sand, or other similar materials will help reduce surface evaporation and slow dehydration.

Location, Location, Location

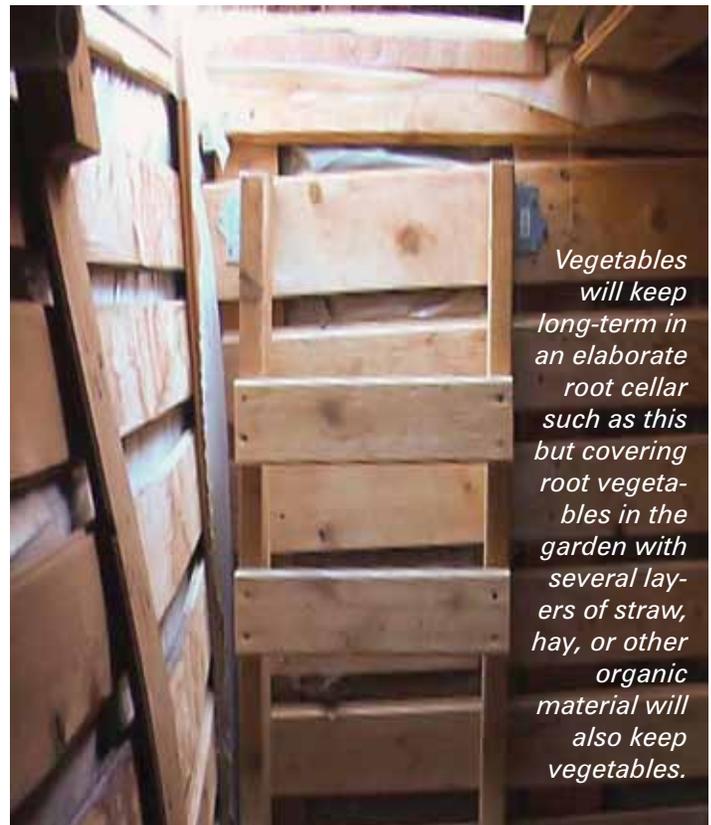
Finding an appropriate location is limited only by the components we need to consider: temperature, moisture, and light. Some of the more commonly used and least expensive are in-ground pits and containers, unheated cellars, back porches, and unheated rooms. The least expensive way to store root vegetables is in underground storage. Underground storage facilities (such as root cellars) may be constructed. If ground water is an issue, a simple pit or mound can be used. If utilizing in-ground storage, add insulating materials such as hay, straw, or other organic material to ensure vegetables do not freeze during our often-severe winter weather.

Keeping them "in-ground" is perhaps the simplest method. Wait until the ground around the root vegetables has cooled and then cover the rows with deep layers of straw, hay, or other material to protect them from freezing. This can work well when rodents are not a concern.

You do not need a large or elaborate set-up in a cellar or refrigeration unit to add months of life to harvested root vegetables. The coolest place in most houses is on the basement floor. Since insulation is the key, placing vegetables in a sawdust-filled cardboard or wooden box may work well. Make sure the vegetables are covered with at least a ¼ inch of sawdust, newspaper, or other organic material to reduce skin wrinkling from evaporation. Check these vegetables after about a month of storage and remove any with rot or other problems.

By following these simple steps and adjusting conditions as necessary, home gardeners can enjoy their home-grown produce well into the dark days of winter.

Hudson Hill, a University of Wyoming Cooperative Extension Service educator based in Lincoln County, has always eaten his vegetables. He can be reached at (307) 885-3132 or at hhrhill@uwyo.edu.



Vegetables will keep long-term in an elaborate root cellar such as this but covering root vegetables in the garden with several layers of straw, hay, or other organic material will also keep vegetables.

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