STORING YOUR HARVEST

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Looking out into your garden, you pause to wonder, what was I thinking when I decided to grow all of these vegetable plants and all of these fruit trees? Questions keep flashing in your mind. How many recipes are there for zucchini? Why didn't you know that one zucchini plant would have been more than sufficient? How many tomatoes can one family eat without turning red? Do Fava beans really go well with a nice Chianti? What was once a fond hope of abundance just might have turned into a nightmare of what to do with it all!

It is a little late to worry about the number of plants or trees so why not focus on how to store some of this bounty for the non-productive month of winter. An abundant harvest can provide good eating long after the garden is gone if you take some steps to store your harvest.

What you grew this season will guide you in storing your harvest. Which one is the right one? There may be more than one way for every item that your grew, but basically you can:

- Freeze
- Dehydrate
- Can
- Root cellar/Cold storage
- Vacuum pack

No matter what method you use, the quality of the end product will depend on the quality of the starting product. Choose only the best of your crop to store, the rest should be used soon after harvesting.

Freezing is a great method to preserve flavor, texture, appearance, and nutritive value of your crops provided you have sufficient space in the freezer. Choose produce carefully since freezing will preserve quality, but it cannot improve upon it. Items must be thoroughly washed. Then they are blanched in boiling water, or sometime steam, to slow or stop the enzyme action which causes the vegetables to ripen. The vegetables or fruits must then be rapidly cooled in ice water to stop the cooking process. They are now ready to be packed in containers and put in the freezer.

Many cookbooks will give directions on the preparation for freezing various fruits and vegetables. The Internet is also good source of information about specific instructions for freezing any particular item.

Dehydrating is a method which removes moisture from the vegetable or fruit for long term storage. There are 4 ways to dry fruits, vegetables, herbs, and nuts.

- Sun Drying—requires 3 to 4 sunny days at 100 degree temperatures with very low humidity.
- Oven Drying—Oven drying is an acceptable method of drying food, but it is not very energy efficient. Your oven must be able to maintain temperatures below 200 degrees or you must keep the oven door ajar.
- Microwave drying—This can be very tricky as food tends to cook while drying. Might not be the best choice.
- Electric Dehydrators—These machines are efficient and operate at low temperature needed to maintain nutritive value.

Dried foods should be packed in air tight containers and stored in a cool, dark, dry area. Dependent on storage condition, dried foods could last up to one year. If using an electric dehydrator, check the instruction book for how to prepare the fruits, vegetables or herbs It will also give information on temperatures and drying times.

Canning fruits and vegetable has been a staple in crop storage for a very long time. Basically, canning preserves food by destroying spoilage bacteria with heat and sealing of the container so other microorganism contaminants are kept out. Methods and equipment for canning may have evolved over time, but the principles are still the same. It is a more involved process than either freezing or drying and more precautions must be taken to insure the safety of the end product.

Since canning involves heat, the end product tends to be cooked rather than raw. **The information here is a summary of the canning process and does not contain complete instructions.**

If you choose to store your harvest by canning, please refer to instructions available in books on canning, some cookbooks or detailed information from reliable sources on the Internet for the items to be canned. The steps in canning are generally as follows. Place the washed and prepared produce into the sterilized jar. Fill with boiling liquid to within one inch of top. Put on sterilized lid and screw band.

Dependent on whether the canned material is low acid or acid food, the jar is place in a boiling water bath or a pressure canner and it is held for the time and temperature stated in recipe for that particular food. Jars are removed and allowed to cool. After completely cooled, lids are tested for proper sealing and screw bands are removed. Under proper conditions, foods that are canned can be held for long periods of time.

Cold Storage or root cellar storage is great for keeping food supplies at low temperatures and steady humidity. Common before the advent of supermarkets they are still a viable manner to store your harvest. With a root cellar it is possible to have fresh home grown crops well into the winter. Good candidates for root cellars or cold storage are potatoes, carrots, turnips, winter squash, and pumpkins.

Conditions required will vary according to what you will be storing, but can range from cold and damp to warm and dry.

32-40°F and 90-95% relative humidity is good for holding beets, carrots, leeks, turnips, and rutabagas. While 50-60°F and 60- 70% humidity is good for holding winter squash and pumpkins. Potatoes are best held at 38-40° and 80-90% relative humidity. Check charts to see what the requirements are for your particular storage needs. Sometimes separate cellars are required for storing items that can not be stored with others. Examples are potatoes should not be stored with fruit; apples should not be stored with any vegetables.

Vacuum Packing is the last method of storage listed**.** This is somewhat of a hybrid as it is a way of packaging of items prepared by other methods.

Vacuum packing is not a substitution for the heat processing of home canned foods. Nor can vacuum packaging be considered a substitution for the refrigerator or freezer storage of foods that require it. But vacuum packing may extend the storage time of refrigerated foods, dried foods and frozen foods.

Vacuum packing removes air from the contents of a package. When oxygen is present it promotes certain reactions in foods which cause deterioration of quality.

In an almost oxygen-free environment like vacuum packaging produces, the growth of bacteria that causes spoilage is slowed and therefore the quality is maintained longer.

So, this has covered just the highlights of possible ways to store your harvest. But having ways to store the abundance just might keep you from being up all night wondering what to do with it all!

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Master Food Preservers
In Sacramento and El Dorado Counties, there are “Master Food Preservers”, who are volunteers trained in the art and science of preserving food. They give workshops on canning, de- hydrating, freezing and more in their respective counties.

In El Dorado County, the program maintains a HOTLINE to answer questions from public:
530-621-5506

Resources
“Freezing Vegetables,” P. Kendall, http://www.ext.colostate.edu/pubs/ foodnut/09330.html
“Freezing Fruits and Vegetables,” William Schafer and Shirley T. Munson http://www.extension.umn.edu/distribution/nutrition/dj0555.html
“Quality for Keeps: Drying Foods,” Food Preservation Team Nutritional Sciences http://extension.missouri.edu/publications/DisplayPub.aspx?P=GH1562
“Home Storage of Fruits and Vegetables in Root Cellars,” Barbara Willenberg http://extension.missouri.edu/publications/DisplayPub.aspx?P=MP562

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