

The Essentialist

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PUTTING FOOD BY, by Fran Wade

Putting Food By means preserving food without refrigeration. Our grandparents, or great-grandparents for the younger generation, lived quite well this way. We wouldn't be here if they hadn't.

This presentation is about sharing knowledge, learning new things, and helping each other prepare for the simpler life that is just around the corner.

Solar Food Drying

Why dry foods? Aside from the advantages of less storage space required than for canned foods, dried foods are more nutritious than canned. Canning can destroy up to 65% of the vitamins and minerals, according to the USDA, not to mention all the enzymes. Drying retains most of the vitamins A & C, thiamine and riboflavin.

While there are many electric dehydrators on the market, all of which come with complete instructions on how to prepare the different foods, you can easily dry without electricity using warmth from the sun.

Optimal conditions for solar drying:

- Hot, dry days are best for successful solar drying, though if the humidity is not too high, it does not require direct sunlight on the foods to accomplish.
- A breeze is always helpful to keep the moisture moving off the food. .

Preservation process:

See References section for several references with charts for the exact food you want to preserve.

- Use your best fruits or vegetables. Save slightly bruised and older ones for jams, preserves, and immediate consumption.
- Pre-treatments to preserve color are optional, including: treating with ascorbic acid (e.g. Fruit Fresh); blanching (also preserves nutrients); and sulfuring -- a process I avoid.
- Vegetable preparation: peel and core as needed and cut the larger pieces into smaller ones. Blanching with steam is necessary to retard spoilage, since due to lower acid levels, vegetables spoil more quickly than fruits. (Blanching is not necessary for garlic, leeks, onions, peppers or tomatoes.
- Fruit preparation: peel and core as needed and cut the larger pieces into smaller ones.
- Put prepared food on racks/shelves one layer deep, and stirred 2 or 3 times a day. At the end of the second day, start testing for dryness.

Putting Food By

- Test for dryness; be sure you cannot squeeze out any moisture; the texture will be tough and pliable, “leathery” and “suede-like.” Vegetables are generally brittle, or tough to brittle. When checking food in the dryer realize that foods still warm from the sun will seem softer, more pliable, more moist than they actually are. Cool a test handful a few minutes before deciding it is done.
- To speed the drying process, with vegetables, it is best to cut into smaller pieces than you do fruits. Refer to reference charts for individual fruit and vegetable drying times.

Drying Foods by Schnitzing

Schnitzing is a German term for a simple method of solar drying in an attic or other warm, dry space. Choose a space protected from direct sunlight, with a window for a breeze to wick the moisture away. Another great option is to hang over a wood stove.

Apples:

Core and peel; string on a strong thread; hang strings in your chosen dry space.

Mushrooms:

I've dried: puff balls, fairy-ring mushrooms, and commercial mushrooms.

Clean with damp rag, then cut into thin slices,. String on thread and hang as for apples.

Fairy ring mushrooms may dry themselves in your lawn; wipe off & hang for short time in attic.

Herbs:

Tie in a bundle and hang in a paper grocery bag from overhead beams. If drying leaves already separated from the stems, lay-out on newspapers in a dry place, out of the sun, for a day or so until they are crumbly, then store in glass or tins.

Making and Using a Solar Food Dryer

Materials include: screening from a hardware store, such as Sliters; doweeling, to stabilize the shelves; black fabric. Refer to separate handout for pattern and list of materials needed, which of course, is flexible depending on the size you want to make. There are also plans for a different style dryer, from the [Food Guys](#), included on the hand-out.

Commercial solar dryers are available, but not locally. Pictured, right, is one example from www.wheatgrasskits.com (see References)



Storing dried food

- Put them up in quart glass jars with screw lids -- a good use for jars no longer fit for canning. Put into a closed box or cabinet to protect from light, which would fade your dried food.
- You could use food grade freezer bags, then store them in a critter-proof metal container with a close fitting lid.
- If using plastic or galvanized trash barrels can leech toxins, use a food grade material to keep acid in the food from coming in contact with the container.

Drying Meats

Unsalted Jerky:

This isn't really without salt, just less. Leanest varieties of meat are best: venison, bison, lean muscle of elk or beef.

A basic recipe per pound of fresh meat is:

- 1 teaspoon salt
- pepper, garlic powder and favorite herbs, to taste.

Salt the meat:

1. Cut meat in strips, lengthwise of the grain, 1" wide and ½" thick, as long as possible.
2. Mix together salt and seasonings. Lay strips of meat on cutting board, and pound the seasonings into meat on both sides, with a meat mallet.

Dry in oven:

3. Spread foil in the bottom of oven to catch drips. Treat wire rack with non-stick spray.
4. Preheat oven to 150° F.
5. Put seasoned strips ½" apart on treated rack.
6. Immediately turn oven to 120° degrees F. Vent door of oven to allow moisture to escape.
7. Turn strips over after 5-6 hours. Continue drying 4 more hours, then check for dryness: strips should be shriveled and black, and brittle when cooled.

Store:

8. Wrap in moisture-proof material, put in a solid container with a close fitting lid.
9. Store below 40° F, or freeze. Without refrigeration or freezer, meat can be kept in a metal box, with tight fitting lid in a pit in the ground, or in a box set into the creek. Naturally in winter, the world is a freezer.
10. Meat can be eaten as is, or can be re-constituted, and used in stew, soup, etc.

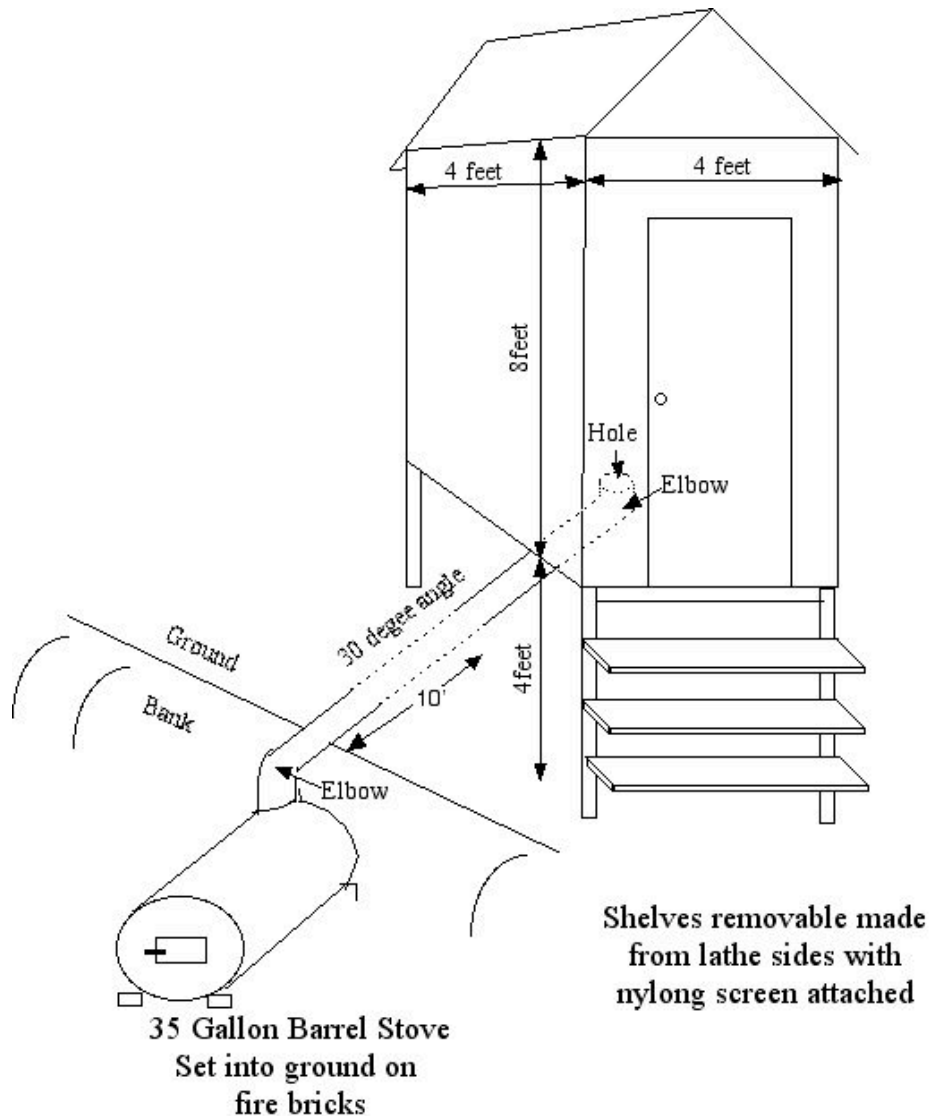
Salted Jerky:

1. Prepare brine using 2 ½ cups of pickling salt per 3 quarts of water. Soak strips of meat, 2-3 days, then remove and wipe dry.
2. Dry:
In the sun, or hang 4 feet above a very slow, non-smoking fire -- not much more than a bed of coals. Alder is best, if hard wood is not available. Feed the fire with small pieces of wood, carefully so juice does not ooze from excess heat. Depending on conditions, should take 24 hours. Test for dryness, package and store in freezer, as for unsalted jerky (see above).

In open air: choose time with good, not roasting sun, dry air day and night, gentle breeze. Hang salted strips from drying frame, or lay out on black canvas tarps in hot sun. Leave until brittle dry, turning often the first half-day. This method requires careful watching to keep insects and animals away from meat. Will dry in about 15 hours

Smokehouse

We used alder for smoking meat. Refer to separate handout for sketch. Shelves were made from nylon screening attached to a frame of lath, and rested on wood strips nailed into the walls, so they were removable. All seams must be insect and animal proof to protect the food, and concentrate the smoke.



Curing

Unable to find the old book I used, so I don't have the exact recipe I used to keep bear meat. Most of the "cures" I found in the other sources are heavy duty salting, as if for hams. Mine included brown sugar, allspice, and salt, which I rubbed into the raw meat, then layered it with butcher paper, and stored it all in a large plastic garbage can, in the creek. The water came up far enough on the can to keep all the meat surrounded. There were often just two of us there, eating it, and we never had any of the meat to spoil. It kept like fresh meat, for at least a month at a time, perhaps longer, I wasn't keeping records, just surviving.

Canning

Great references for canning times & pressures: ESP handouts on hot water bath & pressure canning; the book that comes with your canner; [USDA](#) website; county extension service brochures.

There are many books & websites available with recipes for putting up every fruit and vegetable and combination thereof; as well as jams, jellies, preserves, pickles and relishes.

Here are a few things to keep in mind:

- **Freshness:** as with any preserving process, always use the freshest fruits and vegetables.
- **Salt** should be canning/pickling or kosher salt, not regular table salt nor sea salt. Table salt has additives to keep it from clumping and that make your liquid cloudy. Sea salt's natural minerals do not always combine well with food during fermenting and curing.
- **Sugar** is always white, granulated, unless a recipe specifically calls for brown sugar. As sweeteners are not used as preservatives in pickles, you can use a light honey, such as clover, orange blossom or alfalfa, which are mild in flavor, in similar amount as you would use sugar. But it is good to taste your syrup for sweetness. Amount guidelines are not hard and fast, and you can use less if you like the taste.
- **Spices** should be fresh. Time, heat and humidity deteriorate spices and they lose their potency, so keep them in air tight containers, away from light and heat.
- **Vinegar** should be cider or white of 4-6% acidity; white vinegar produces lighter pickles.
- **Pots:** Never use copper, brass, galvanized iron or aluminum pots for pickling; these metals react with acids & salts in the liquids and may cause undesirable color changes.
- **Hygiene:** As with all food preparation, cleanliness is imperative. Always keep some hot water on hand to rinse off knives, spoons, and ladles, and be scrupulous about cross-contamination. All jars used must be washed in hot, soapy water, rinsed and sterilized before use. Lids must be sterilized and kept in hot water or they will not seal properly. A little magnet on a handle that reaches right into the pot and picks up a lid is a handy tool.

References

The Food Guys (www.thefoodguys.com/solarfooddryer.htm)

Wheatgrass Kits (<http://www.wheatgrasskits.com/foodpantrie.htm>)

Culinary Café Canning Guide (www.culinarycafe.com/Canning.html)

USDA Complete Guide to Home Canning (www.uga.edu/nchfp/publications/publications_usda.html)

The EssentialList: Pickling & Lacto-Fermentation

(http://essentialstuff.org/wp-content/uploads/2009/02/picklingsources_esl1.pdf)

Books:

“Stocking Up,” by the Editors of Organic Gardening & Farming

“Putting Food By,” by Janet Greene, Ruth Hertzberg, Beatrice Vaughan

“Pickles & Preserves,” by Marion Brown

“Preserving Summer Bounty,” Edited by Susan McClure & Staff of Rodale Food Center; a preview copy is available online: <http://books.google.com>