

Food Storage

I am a practical person with nine children; I am still homeschooling six of them. I didn't grow up knowing or doing any of this. I have a 3-bedroom house with very limited closet space and no basement and no attic to speak of. My point is, if I can do this, anybody can.

When it came to food storage, I needed to consider what I did have, instead of what I didn't. What I do have are some pantry shelves in the laundry room, a crawl space (aka "mouse-infested root cellar"), and a large chest freezer and 4x6-foot space in a lightly-climate-controlled workshop attached to the house (the original garage). So, I used what I have.

My supplies reflect the size of my family as well as our cooking habits. For example, because I have a grain mill and make our bread (allergies), I store spelt grain. Because I have a family of 11 including four teenagers (one is an athlete), we go through a lot more food than most people. There are many books and blog posts written about food storage; my methodology was simpler. I bought more of what we already use. :-)

Long ago, I read in The Complete Tightwad Gazette by Amy Dacyczyn (highly recommended) about the pantry principle. The idea is to buy in bulk (when it's on sale; it's a budgeting book) and eat out of your pantry, replacing items as they go on sale again (or are needed). So, for example, I buy 12 jars of peanut butter and once we only have three left, I buy nine more jars. When I buy dried basil, I order a pound from Mountain Rose Herbs (which is about 9-12 months' worth for us); once we only have about two months' supply left, I order more. Obviously there are trade-offs since, for example, dried spices are best turned over more frequently. But it serves for our purposes at this stage of life.

Practicing the pantry principle has given me probably one of the greatest "peace of mind" of anything I've done, from an earthly perspective. When storms have arrived and the grid was down for four days, when unrest has happened, when everything shut down or when store shelves were empty, we never had to worry. By the way, we also practice the pantry principle with other household supplies (like toilet paper, shampoo, socks, etc.).

Although we have more stored now, we started small and slowly built up over time as funds were available. If we were buying 25 lbs. of rice (our normal amount to keep in the pantry), and if we had the funds, we bought 50 lbs. instead and put half in a 5-gallon food-grade bucket and put it in the crawl space. Almost everything in the crawl space and freezer will last years or indefinitely under those conditions.

My method of food storage was to buy more of what we already use. That method may or may not work for you, depending on what you eat. If your diet does not immediately lend itself to storability, you may find some of the food you currently eat may be storable, perhaps in a different form (such as dehydrated or in oil or canned). Or you may want to carefully consider what you would be willing to eat that is storable. What I do not recommend is storing a lot of food you would not want to eat.

A few suggestions:

- Grocery stores with bakeries get frosting, etc., in food-grade 5-gallon buckets that they throw away every day. You can speak with the bakery manager and ask to pick them up. You may have to wash them, though they usually wash them for you. You can usually accumulate a few a week that way. I do not worry about storing in Mylar bags or specially sealed tops. I buy bay leaves in bulk through Mountain Rose Herbs (a half-pound will last forever); six bay leaves put on top of whatever you're storing in the bucket before closing the lid will nearly always prevent any bug infestations. I've been using this method since 2008 and have lost about five buckets' worth over that time out of probably a thousand buckets stored (over time, not all at once).
- Other things to consider storing include spices (very important as bland food is a morale killer), vitamins, medicines and first aid supplies.
- Realize that **in an emergency situation, your mindset is critical**. We need to see this as an opportunity for creativity, flexibility and adventure. Everyone will be on a serious learning curve, even if you have practiced. As much as we have stored, we cannot store some of our beloved foods, and our cooking methods may have to adapt significantly. Having a good attitude will be important not only for you, but for those around you.
- **NOTE:** I have a well that we can hook up to an alternate power source as needed so I do not store water. If that is not your situation, I would strongly recommend storing water. A Berkey water filter, which operates without electricity, may be valuable depending on your water supply.

Below is a general list of what we keep, just as a starting place/fodder for ideas:

"Root cellar":

Grains: Spelt, rice, rice, rolled oats

Dried beans and legumes: Split peas, lentils

Bought by the case, in bulk: Pickles, tomato products, condiments

Nuts

Oils: Olive, coconut

Dried fruit, home-canned applesauce (thanks Mom!)

Sweets: Maple syrup

Pasta

Popcorn

Salt

Bulk freezer: Meat, fruit, vegetables, cheese

Bulk storage in workshop: Five-gallon buckets of one of each of the things we normally use (to avoid schlepping from the root cellar)

Pantry: Smaller bulk of everything we go through quickly or need access regularly -- for example, one case of diced tomatoes. Also bulk herbs.

General Food Storage Principles

There are as many ways to store food as there are people, probably. The most well-known currently are:

- freezing
- canning
- dehydrating

However, there are many lesser-known ways used by traditional people, including:

- fermenting (a classic is The Art of Fermentation by Sandor Ellix Katz but there are also many other good ones)
- preserving in a root cellar (which is generally the same as a crawl space, if dry; the classic reference is Root Cellaring by Mike and Nancy Bubel. There are plans in the book for a “root cellar” set up in the coldest corner of a basement, for those who have a basement.)
- preserving in oil (see Keeping Food Fresh, as mentioned above)
- vinegar
- salt
- sugar (including honey)
- alcohol
- smoking

Another not-often-mentioned classic is what Virginia farmer Joel Salatin refers to as "storage on the hoof" (i.e., not preserved, but fresh). This can also be used for greens and winter vegetables using Eliot Coleman's method of an unheated winter greenhouse or hoop house over your existing garden bed; see his book The Four-Season Harvest (our gardening zone but on the coast of Maine, so worse winds) or Niki Jabbour's Growing Under Cover and Year-Round Vegetable Gardener (same gardening zone but in Nova Scotia so less light).

Also consider indoor growing, such as sprouts or indoor garden beds/pots under a shop light. A good book in that genre is Year-Round Indoor Salad Gardening by Peter Burke.

One indoor technique I have no experience with but resources abound is growing hydroponically. (Solari member Sandy Campagna has lots of experience with this and sells hydroponic kits.)

There are also techniques to lengthen the life of fresh food you have, by storing it properly. Fruits and vegetables last longer when they are grown in healthy soil, when they are carefully handled (no bruises) and when they are stored according its preferences. Food storage generally falls into the following categories:

- Cool, humid, dark
- Dry, ventilated, room lit
- Dry, ventilated, dark

It also matters whether the food produces ethylene and/or is sensitive to it. For example, if you store apples (which produce ethylene) in your root cellar next to pumpkins (which are sensitive to it), it will cause the pumpkins to spoil pretty quickly. Apart (or with good ventilation), the pumpkins might have lasted the whole winter. This is important if you are storing fresh foods, but it doesn't apply to things like beans, grains and herbs. The French website *Low Tech Lab* has excellent information about these, with an especially lovely grid you can print for reference.

If you are growing your own food, it is important to know how to cure it for storage. Things like onions, garlic and squash will last much longer if cured properly.

You also need to consider what scenarios might occur. If you choose, for example, to store everything in your freezer and the grid goes down, you could have a calamity on your hands unless you have a generator and access to refueling (solar/gas/natural gas). On the other hand, if you prepared for that by having canning supplies enough to can what is in your freezer -- and know how to do it -- you can do that as a back-up in an emergency.

Then there are the cautions about rotating your food, so you are using and replacing it regularly. This is more important when stored fresh (like apples or squash), and less important when the food is frozen, canned or dried AND sealed well.

You can see this can get complicated and overwhelming. On the other hand, you can use my simpler method, and store more of what you already eat. Use this information to help you think through how best to store it.

Suggested resources and options:

- Mormon food prep sites (Mormons, as a tenet of their religion, believe every person should store one year of food). There are many suggestions, usually more focused on how to store what you already eat, often more "convenience" foods.
- *Granola Shotgun* blog, perhaps starting with the "Recipes for Disaster" post. He is a single guy in a one bedroom apartment who has genius ways of storing a wide variety of whole food, acquiring it cheap, and using it very well (he's a foodie).
- [Keeping Food Fresh: Old World Techniques and Recipes](#), by the Gardeners and Farmers of Terre Vivante. This records ways traditional French people have stored food in various ways without electricity. The usual food storage books count on canning, freezing or drying. This book details a far wider array of techniques.
- *Low Tech Lab: Food Storage Beyond the Refrigerator* (online): Contains a description of food storage solutions according to food type. It's important to know that some food stores better if dark, dry and ventilated (potatoes); some prefer dark, cold and humid (beans, butter), etc. The site was translated from French and includes a lot of ideas and a nice chart of how to store different kinds of fruits and vegetables.
- **There are other food possibilities in using what we normally don't use** -- for example, carrot tops. A good resource on this: [The CSA Cookbook](#) by Linda Ly (now retitled [The No-Waste Vegetable Cookbook](#)). For example, it turns out Americans are

the only ones in the world who eat unripened broccoli florets. Everyone else in the world eats the leaves, the stems and the flowers, but not the florets. And bamboo was not an invasive weed when everyone saw it as a food source.

- I also have books on **wild foraging**, and occasionally practice. Yes, you can generally eat the weeds! However, make sure you choose a book based in the Midwest, such as authors Sam Thayer or Peter Gail, as directions for foraging for clams on the east coast or combing the boreal forest of the northwest for mushrooms will not be helpful (though fun to read).
- There are several books written during difficult times when food was scarce (war, depression) that have **helpful tips on how to stretch food, make a monotonous diet more appetizing, etc.** Here are three good ones: [An Everlasting Meal](#) by Tamar Adler, [More-with-Less Cookbook](#) by Doris Janzen Longacre and [Good Recipes for Hard Times](#) by Louise Newton. Entire nations have a food culture based on this -- for example, the Japanese. They eat what is in season and are extremely creative in using what we would call leftovers -- in sushi (nori) rolls, bento boxes, etc.
- I have no experience with **fishing, hunting or trapping**, but certainly those are other options. Obviously having supplies to fish, hunt or trap, and also to process and preserve meat would be important (smoking, drying or canning might be options). Hunted meat can also be accessible to those who don't hunt by means of barter and trade. You can plan for that by knowing who hunts, and preferably setting up that now so you can both be in the habit of using it, and in regular relationship with the hunter.

For a Grid-Down Situation

Just after Hurricane Katrina, I read a post from a man who was in New Orleans who had a large freezer full of food, and realized he would have no power for weeks, and very limited access to fuel to keep his generator going. He immediately spent 24 hours straight (not that I'd recommend that) canning all the food in his freezer. Note that he had canning equipment and a gas grill with backup propane already in place for the scenario, as well as space that he could put the canned food.

On cooking in a grid-down situation: *Ideally, have several options available to you. As Andy has reminded us, "two is one and one is none."*

- Charcoal grill and stored charcoal
- Gas grill and stored propane
- Rocket stove (and know how to use it)
- Solar cooker (and know how and when to use it)
- Camping stove with fuel
- Wood stove
- Campfire
- Hay box/insulated cooker (many options, including just using blankets or towels or a sleeping bag around your pot); this is great used in conjunction with the other options to save fuel. There is a free downloadable book called The Fireless Cooker (very old) that explains how to use it and has recipes; make sure you have a copy printed if it's useful to you
- And, of course, non-cook food options are always good to have available

For cleaning in grid-down situations: *If you are not used to hand-washing dishes and conserving water...*

Set up a washing area with three bins: One for scraping food off, one for hot soapy water, one for cold rinse water. The best supplies we've found:

- Standard dishpans, available at the dollar store
- Dish gloves plus extras (you'll have enough problems without cracked, dried-out hands)
- Dish soap with a high rating from the Environmental Working Group (at least a couple; we try to keep a dozen bottles on hand)
- O-Cedar heavy duty scrunge scrub sponges
- Standard dish and bottle brush
- Plastic bowl scraper
- Handy Home's "The Scraper"
- The Ringer cast iron cleaner
- 8-inch nylon tube brush set