

(pt. 4) Family Food Security-the end

Grain mill. Many people are learning the advantages of grinding their own flour or cracking grains to make their own cereals. In the event of prolonged problems due to Y2K, it is possible that there will be emergency distributions of whole grains, since processing may be disrupted by the effects of the Y2K bug. In such a situation, the ability to grind those whole grains at home will be very important. While it is possible to improvise a grinder using three small diameter metal water pipes bound tightly together, this is strictly a third world human labor technology (lift, pound, grind, lift, pound, grind). Electric mills are available that also have hand cranks. Metal-burr mills can be bought cheaply, and are often found at flea markets and thrift shops.

Hand mixers and choppers, kitchen knives, non-electric can openers.

Power failure will mean that electric food processors will not be available (unless you have alternative power). Hand mixers, potato mashers, and hand crank choppers, which are inexpensive right now, will be very useful -- especially if you are feeding more people than usual. Make sure you have a quality set of kitchen knives, as well as the appropriate sharpening equipment. It's also possible to find DC food processors, mixers, and blenders that will work on battery power.

Don't forget non-electric can openers. Get extras.

Spice mill, coffee grinder, meat and sausage grinder, pasta maker. These items can add a lot of quality to your life right now, as well as being about as useful as it gets in the event of problems in January 2000.

Food preservation tools. Dehydrators, and boiling water and pressure canners have many uses here and now as well as in any later emergency. Home processing is the best way to ensure taste, nutrition, and quality for your family. It opens a world of traditional activity, including the making of your own jams, jellies, salsas, pickles, saurkrauts, and other specialty and ethnic food items. (These make wonderful gifts during holiday seasons.) Home processing is much easier than most people think, as long as you are able to follow the instructions. Mason jars and lids are useful, and it's good to have a supply of them on hand in the event of emergencies.

Dutch oven (cast iron), metal pie and muffin pans, extra oven racks, large pots, aluminum foil, oven baking bags, cake pans, cooling racks, trivits. Dutch ovens are practical cooking tools. Metal pie and muffin pans can be used to improvise camp-stove top or campfire ovens. Large pots are useful if you find yourself feeding extra guests or helping to set up a soup kitchen. Extra oven racks can be used over camp fires or charcoal briquets. Aluminum foil has many uses in an emergency kitchen, many foods can be cooked in it. Oven baking bags are useful for making solar ovens. Trivits sit underneath a pot on a cast iron stove and raise it up a bit, preventing the scorching of the food inside.

Your concerns are to keep the food clean and free of infestations by rodents or bugs, as well as maintaining its nutritional quality. You must maintain high standards of hygiene at each stage of this process.

The basic storage drill is quite easy.

Start with good quality products.

For products like rice, beans, flour, dried milk, pasta and etc., open the original package and fill a large ziplock bag (gallon size), seal it, and then place that bag inside another ziplock bag. Many people put a bay leaf inside each bag of beans, grains, or flour. Pack these ziplock baggies in food grade plastic buckets with airtight lids. This helps keep the products free from contamination, and if you do have a "bug outbreak" inside the containers, the ziplock bags help minimize the contamination.

The warmer and more humid the climate, the more trouble you will have with weevils and bugs hatching inside the containers. If you generally have a problem with storing flour on your shelf, freeze the bags for 2 days before putting them in the buckets.

Food grade plastic buckets may be purchased new from local sources and catalogs. Many people get them for free, or at reduced cost, from bakeries, donut shops, restaurants, or other users of institutional size containers of food products. Plastic paint buckets and trash cans are not food grade plastic and should not be used for this kind of storage.

Canned goods are best bought by the case, and stored in their original cans and cases. Canned goods have expiration dates, and if the date is stamped in a code, you can ask at your local grocery store or county extension office for help in deciphering it. Many companies have a toll free number on the can for consumer information; such departments can also give you this information. Dried and canned foods bought in 1999 will still be safe and nutritious to eat well into the year 2000. If a can is bulging, don't use its contents.

Store all food away from light and at a constant temperature, avoiding extremes of hot or cold. Garages or attics are not good places to store food, unless you live in a mild climate. Dry basements are better; always put food storage containers on shelves or on bricks or boards so that they aren't stacked on bare concrete. Put a label or sticker on the buckets that lists the contents and the date they were purchased.

At all stages of the food purchase, storage, preparation and consumption process, observe good food safety procedures. Wash your hands with soap and warm water before handling food products. Make sure that any areas to be used for food packing or preparation are cleaned thoroughly with soap and water and then rinsed so that no soap residue remains. Use a sanitizing solution on all preparation or packing surfaces. A sanitizing

solution is 1 tablespoon of chlorine bleach in a gallon of water in a gallon of water for hard surfaces, 3 tablespoons of bleach in a gallon of water for porous surfaces such as wood, the chapter on Health and Wellness has complete instructions for this.

Once food has been prepared, hot foods must be kept hot (above 140 degrees Fahrenheit) and cold foods must be kept cold (below 45 degrees Fahrenheit). Be careful about storing prepared foods in the absence of refrigeration. If it is winter, use an enclosed porch or unheated room as a cold room. Put a thermometer in the area and check it several times a day to make sure it is staying below 45 degrees. Protecting the cold box from sunlight will help maintain cold temperatures. If it is very cold -- freezing cold -- food in your freezer can be kept frozen in such a box in a cold room or outside. During the Montreal ice storm of 1998, many people had food spoil in their freezer because they didn't think about keeping their food frozen in a box on their porch.

If the power goes off, you can prolong the life of food in your refrigerator or freezer by opening them as little as possible and by providing additional insulation. Wrap the freezer in blankets or newspapers, and/or stack bags of clothes against the walls or on the tops. The more insulation the unit has, the longer the items inside will be safe to eat. Shield it from any direct sunlight, and don't heat that room. You could buy some rigid board insulation, and use duct tape to wrap the refrigerator (or an improvised cold box).

Eat the items in the refrigerator first, that same day, even if it makes for an odd collection of salads, sandwiches, and leftovers. Invite the neighbors for a Y2K buffet and barbecue (morale and neighborhood solidarity are always issues in emergencies, so don't discount this as a rhetorical flourish).

Creamed foods, soft cheeses (cream cheese, cheese spreads, cottage cheese)gravy, mayonnaise, salad dressings, pork, and poultry spoil quickly. Dispose of them if they have been in the refrigerator without power for 12 hours or more. Spoiled foods may not have an offensive odor, so while the presence of a bad odor is a sure indicator of spoilage, its absence may not be an assurance of safety. Quickest spoiling of all are seafood, chopped meat, and poultry sandwich fillings, which are not safe after 4 hours without refrigeration.

Hard cheeses will often be fine at room temperature. If a surface mold develops, cut it off and use the rest. So does milk, but sour milk can be used in baking (corn bread, pancakes, waffles, biscuits, sour dough starter). Butter will keep for several days, and clarified butter will keep for months without refrigeration. Clarified butter has the additional virtue of being low in cholesterol while still imparting that unique natural butter flavor, it doesn't smoke when used in cooking, and it is found in the finest gourmet kitchens.

If you keep the door closed, most freezer food will stay below 40

degrees for up to 3 days, even in the summer. A full freezer stays colder longer than one that is partially full. If you are expecting a power outage, turn the freezer to its coldest setting several days in advance of the expected emergency (add this to your last week of December 1999 checklist). Fill any empty spaces in the refrigerator with bottles of water (leave 2 inches of empty space in the bottle to allow for expansion of the ice). The larger the freezer, the longer foods will stay frozen:

Freezer size time until food spoilage

4 cubic feet 3 days

12 - 36 cubic feet 5 days, and possibly as long as 7 or 8 days

If you plan to intermittently generate power to keep your freezer or refrigerator cold, you will need a good thermometer. Before an emergency, experiment with the appliance to determine how much power is needed each day to keep the food in the freezer frozen.

A second alternative is to preserve freezer foods by pressure canning (if you have the equipment, jars, and ability to follow directions exactly). Frozen prepared meals should be eaten right away, as there isn't a practical way to preserve them in the absence of electricity, ice, or very cold temperatures outside. Meats can also be made into jerky, or cooked and dehydrated.

Since Y2K may bring power outages, if you are not equipped to generate power and you don't expect outside temperatures to remain below 45 degrees, slowly emptying your freezer and refrigerator in December 1999 is a good idea. If nothing happens, you can always restock; if the power does go off for an extended period of time, you won't lose the investment you've made in frozen food. Fortunately, December is the holiday season, so you shouldn't lack for opportunities to prepare and serve food.

These days many people take short cuts regarding food safety and manage to not kill themselves or others, but these risks are assumed in the context of a fully functioning medical system ready to rescue in case something does go wrong. In an emergency, that medical backup may not be available, so it becomes imprudent and risky to cut corners with food safety. Do it by the book, follow the instructions, use a disinfecting solution liberally in food preparation areas, don't eat questionable foods or drink unboiled/unpurified water. When in doubt, err on the side of caution. If the pharmacy is closed, you do not want to deal with dysentery or intestinal parasites. Even if food is scarce, don't eat questionable foods. If you are undernourished in general, the last thing you want is a food-related illness or parasite.

Urban areas grow an amazing variety of food, so foraging may be a viable alternative, depending on your knowledge of edible wild plants. This

requires a good plant identification guide, or expert personal knowledge about the subject. Those dandelions in your yard aren't weeds, they could be lunch, or even wine! So could the nasturtiums and bachelor buttons and carnations in your flower garden. (You would pay a lot of money in a fine restaurant for a salad garnished with these flowers.)

The most common form of foraging is fishing. An essential part of your preparedness plans should be fishing equipment for use in ponds, rivers, streams, lakes or the ocean. An added advantage of fishing is that time spent fishing is not deducted from your allotted life span. If fishing in an urban area, think about what pollutants may be present; check with local health authorities about eating fish taken from the urban rivers or lakes in your area.

There are many perennial plants, trees, and shrubs that have attractive displays of foliage in addition to their food production capabilities. A local home and garden center, or the county extension office, can offer advice about appropriate selection and cultivation of such plants in your area. Many areas have community gardening associations that can provide everything from free expert advice to seeds and tools. Gardening offers advantages that include exercise and a closeness with nature that is often missing from our urban lives. The sweetest asparagus comes from the perennial patch in your own back yard.

Persons who live in apartments can garden in containers or pots, on porches, and on roof-tops. Plastic five or six gallon buckets make excellent containers for growing food. Hydroponics gardening sounds complicated, but it really isn't, and information is readily available. It's even possible to raise fish in a barrel or a tank -- it's possible to raise as much as five tons of trout in a year in tanks in a space the size of the average basement (20 X 30). An indoor fish farm like this works well with hydroponics; as the water is changed in the fish tanks, it is circulated into hydroponics to feed and water the plants.

The community gardening movement, which is well established in all parts of the country, can provide expert assistance in starting and maintaining a garden, empowering people to join together to create community gardens. One city provided land in street medians for such gardens; vacant lots, church properties, and other open spaces are also used. During the siege of Sarajevo, seeds were smuggled into the city and gardens were planted everywhere.

Be sure to store seeds, and get extras.

About 10% of the world's food is already grown in cities. The experience of cities in crisis suggests that the amount of food actually produced in a given city can be expanded very rapidly, the limiting factor usually being seeds. People planted gardens in Sarajevo, even as snipers fired and shells landed.

In Indonesia, which has experienced major disruptions over the past

year, people in cities have turned athletic fields and golf courses into gardens. Although cities may have high density populations, there is also a lot of open space that can be turned into gardens (medians in streets, parks, lawns of homes and public buildings, roadsides, golf courses, vacant lots, etc.) Flat roofed buildings can support bucket or other container gardens, and containers can also be placed on porches, sidewalks, streets, hillsides, or other areas where regular gardening is not practical. Old tires (which are in plentiful supply in most cities) can be turned into containers for growing crops.

Salt cured and smoked country hams will keep without refrigeration, even after slicing. If a bit of mold develops, simply cut it off. Such hams should always be cooked before eating. Some people find the taste a bit salty; recipe books suggest soaking the ham slices in water overnight to draw out the salt.

Hard cheeses can be preserved by coating of with wax. Dip the cheese into a salt solution (salty enough that an egg floats) and place on a rack to dry overnight. On the second day, rub with salt and leave on the rack. Do this again a third day. By this time a rind should be developing. If it feels dry and smooth, continue to the waxing; if not, rub with salt and let dry another day. Apply 3 or 4 coats (either with a brush, or by dipping into melted wax), letting the wax dry between each coat. Wrap with cheese cloth, and continue the process of dipping and drying until several layers later the cheese is completely covered with a smooth wax exterior. It will continue to age inside, but remain good. If you do find mold on hard cheese, simply scrape or cut it off and use the rest of the cheese. Paraffin wax is the best for this.

In situations of food scarcity, fats and oils are often the first foods to disappear, and we miss them a lot when they're gone. Olive oil stores virtually indefinitely without refrigeration (keep it cool and dark, don't refrigerate), and has the advantage of being a healthy choice. Hydrogenated shortening in a metal can stores for a very long time, but many people have health concerns about it (although in the author's opinion shortening is necessary for pie crust!). Note that usually only the larger sizes (five or six pounds) are sold in metal cans, most of the smaller 1 and 3 pound cans are a waxed cardboard.

Another alternative is clarified butter. It will keep indefinitely without refrigeration, and is easily made at home. Put butter in a pan (do about five pounds at a time), and melt it slowly over low heat. After the butter melts, allow it to boil slowly until the solids collect together in the bottom of the pan. The butter oil will be clear and golden. Sometimes a bit of scum floats up to the top; skim that off. Ladle off the clarified butter, leaving the solids in the bottom of the pan (you can pour the remaining bits of butter oil and solids through a cheese cloth to extract all the butter and leave all the solids behind).

Pour into a clean mason jar (boil the jar and lids for 10 minutes, and leave covered with hot water until you are ready to fill with the hot

butter oil. Cap tightly and store in a cool and dark place (if your pantry has a window, put the jars in paper bags). If you have lard, you can clarify it by this same method. For both lard and butter, clarifying greatly reduces the cholesterol content of the food without compromising taste. When substituting clarified butter for regular butter or margarine in a recipe, reduce the amount needed by about 20%.

Generally, salt cured/smoked country ham, olive oil, clarified butter, and cheese are not considered second class foods. All are used in gourmet cooking and are important basic ingredients in many recipes. .