

HOME STORAGE: BUILD ON THE BASICS

(*Ensign*, June 1989)

From Brigham Young's time to the present day, latter-day prophets have counseled Church members to store food for times of need. Recently, the First Presidency spoke again on this subject:

"We continue to encourage members to store sufficient food, clothing, and where possible, fuel for at least one year. We have not laid down an exact formula for what should be stored. However, we suggest that members concentrate on essential foods that sustain life, such as grains, legumes, cooking oil, powdered milk, salt, sugar or honey, and water. Most families can achieve and maintain this basic level of preparedness. The decision to do more than this rests with the individual.

"We encourage you to follow this counsel with the assurance that a people prepared through obedience to the commandments of God need not fear" (Letter to priesthood leaders, 24 June 1988).

If families would think in terms of storing only foods basic to survival, or if they would supplement the food storage they already have with the basics to build it up to a year's supply, the task would be simpler than they might think. They would then be prepared for food emergencies.

A year's supply of food storage is beneficial in several ways:

1. It provides peace of mind as we obey the counsel to store.
2. It helps ensure survival in case of personal or natural disaster.
3. It strengthens skills in preparing and using basic foods.

Once you have stored the basic food items, you need to regularly include them in your daily meals.

This article and other suggestions that will be printed in the following months in the Random Sampler department of the *Ensign* will provide information on how to store, prepare, and serve meals based on foodstuffs recommended in the First Presidency letter. Other sources of information include ward and stake priesthood leaders and Relief Society presidencies, Church welfare centers or canneries, local extension agents or agricultural services departments, and public and educational libraries.

The following guidelines will help in purchasing and storing basic food items.

GRAINS—Grains include wheat, rice, rolled oats, dried corn, pearled barley, and other cereal grains. Flour, cornmeal, and pasta products such as macaroni and spaghetti are also included. Each family should store various grain items that suit their individual circumstances. For example, rather than storing three to four hundred pounds of wheat per person a family might choose to store two hundred pounds of wheat, one hundred pounds of flour, twenty-five pounds of rice, twenty-five pounds of rolled oats, twenty-five pounds of dried corn, and twenty-five pounds of macaroni per person. There are numerous combinations. This gives variety to the menu and encourages using and rotating the supply. It also provides choices for those who do not like or cannot eat a particular grain.

Most grains can be dry-pack canned in small containers (see below). This makes them more convenient to use and reduces the possibility of spoilage. Grains may also be stored in tightly sealed metal or heavy plastic containers.

LEGUMES—an inexpensive, nutritious protein food—include beans (soy, pinto, white, kidney, lima, winged, red, navy, pink, and black-eyed), split peas, lentils, and peanuts. They can be stored in clean, dry metal or plastic containers with tight-fitting lids. They may also be dry-pack canned.

POWDERED MILK—Nonfat powdered milk, instant or regular, is an excellent storage item. It contains all the nutrients, except fat, found in fresh milk.

In the past, storing large amounts of powdered milk has been recommended. However, this has often led to spoilage and waste. More recent studies show that smaller quantities of milk are adequate if people store and eat larger quantities of grains.

Powdered milk can be stored in the original sealed packages, or if purchased in bulk, it can be stored in tightly covered metal or plastic containers. It can also be dry-pack canned.

You may also use canned milk as part of the milk storage program, but you must rotate it regularly.

FATS AND OIL—Fat is essential to every diet. Shortening, cooking oil, margarine, and mayonnaise are suggested for storage. Store fats in sealed containers in cool, dry, dark places and rotate them frequently.

SALT—Nutritionists recommend iodized rather than plain salt, when it is available. Store salt in its original container in a cool, dry place.

SUGAR AND HONEY—Whether to store sugar or honey is a matter of personal choice. Sugar may harden; honey may crystallize and/or darken. Neither affects the safety of the product.

Store honey in small containers. Then, if it crystallizes, you can immerse the containers in hot (not boiling) water to reliquefy it.

Store granulated sugar in a tightly covered metal or plastic container or place it on a shelf away from moisture in its unopened cloth or paper bag. Occasionally knead the bag to help prevent the sugar from hardening.

WATER—Water is more essential than food in sustaining life. Store a minimum of seven gallons of water per person for drinking and food preparation. Store an additional seven gallons per person of the same quality water for bathing, brushing teeth, and dishwashing. Use heavy plastic containers with tight-fitting lids. Metal containers, which may corrode, tend to give water an unpleasant taste.

If you have any doubt as to the bacterial safety of stored water, you may purify it by boiling vigorously for one to two minutes or by adding chlorine bleach (5 percent sodium hypochlorite solution). Generally, half a teaspoon of bleach will purify five gallons of clear water, and one teaspoon will purify five gallons of cloudy water. If you store it away from sunlight in clean containers, and if it is safe bacterially at the time of storage, water will remain pure indefinitely.

STORAGE GUIDELINES—

1. Use storage areas that are well ventilated, clean, dark, dry, and cool. If your conditions are less satisfactory, rotate contents more frequently than recommended. Even though space may be limited, there are usually “hidden areas” for storage. Use your imagination!
2. Do not place food storage containers on or against cement or dirt floors and walls. Place pieces of wood between the storage containers and the floor or wall to provide ventilation and protect against moisture.
3. Keep stored food away from products that may affect the flavor of the food.
4. Rotate and use food storage items regularly. Date food items as you purchase or can them, then store new supplies of food at the back of the shelves, moving earlier purchases forward to be used first.
5. Do not go into debt. Acquire food items gradually. At the very least, save a few dollars a week for storage items. Using the basic foods in day-to-day menus can cut food costs and allow you to purchase more supplies. Or, as a family, give up some of the nonessentials for a short time until you can accumulate additional foods. Through prayer and concerted effort, you can work out a food storage plan that will provide you with security and peace of mind.

No single food storage plan will work for everyone. Each family’s needs differ, as does their financial ability to accumulate the storage items. But by working under the direction of the First Presidency “to concentrate on essential foods,” it can be done.

President Ezra Taft Benson has said on at least three different occasions, “The revelation to produce and store food may be as essential to our temporal welfare today as boarding the ark was to the people in the days of Noah” (*Ensign*, Nov. 1980, p. 33).

DRY-PACK CANNING—With the exception of foods containing fats, most of the storage items discussed here can be sealed by a dry-pack method of canning. Dry-pack canning is easy and inexpensive and uses containers that are small enough that they can be easily rotated and handled. In addition to dry-pack canning equipment available for use at some Church canneries, dry-pack canners may be checked out from the canneries for local use. For more information, contact your region welfare agent (your stake president can tell you who it is), welfare cannery, or bishops’ storehouse.

2001 UPDATE—Church canneries now provide foil pouch packaging as well as #10 can dry-pack storage of basic staple food items.

UPDATE ON MILK STORAGE

Ensign, March 1997

Welfare Services

Following are questions often asked about long-term storage of powdered milk for a family's supply of food:

- **What kind of milk is best to store?** Non-fat milk, either regular or instant, stores well when packaged properly and kept at room temperature or cooler. In the past many felt that non-instant milk would store better. There is actually no difference in shelf life between instant and non-instant powdered milk.
- **What are the best containers?** Milk stored in airtight, low-oxygen cans (or foil pouches) has been found to last longer and stay fresher tasting than milk stored in boxes or plastic bags.
- **How long can powdered milk be stored?** Optimal storage life on non-fat dry milk stored in cans at room temperature is two years before noticeable stale flavors begin to develop. However, when stored at cooler temperatures, it can be kept much longer. Rotation of powdered milk can be accomplished through personal use or by giving it to others who will use it promptly.
- **How much powdered milk should be stored?** Guidelines for quantities of dry milk to store are found in the 1979 booklet published by the Church called *Essentials of Home Production and Storage*. The booklet recommends that members store an equivalent of 300 quarts of dry milk, or approximately 75 pounds of dry milk per person per year.

However, since that time, as a result of a U.S. government study on maintaining nutritional adequacy during periods of food shortage, a second option has been recommended that suggests 64 quarts, or 16 pounds, per family member per year. Equivalent to approximately one glass of milk a day, that amount will maintain *minimum* health standards. Keep in mind, however, that the needs of children and pregnant or nursing mothers will require more than the minimum amount of stored milk. It is recommended that families who opt to store only the minimum 16 pounds of milk per person should also increase storage of grains from the recommended 300 pounds per person to 400 pounds per person to compensate nutritionally for this change.

- **How can it be determined if milk is past its prime shelf life?** Milk develops off-flavors as it ages. However, it still retains some nutritional value, and unless spoilage has occurred from moisture, insects, rodents, or contamination, it is still safe to use.
- **What can be done with milk that is too old to drink?** It is important to think of milk in terms of optimal shelf life rather than waiting until it is too old to use. Older non-fat dry milk can be used in cooking as long as it has been protected from spoilage. If powdered milk has spoiled, however, it can be used as fertilizer in the garden.

For information about low-oxygen, dry-pack canning of powdered milk and other food storage items, contact your area's welfare agent, local bishops' storehouse or cannery, or ward and stake canning specialists.

IS DRY-PACK CANNING FOR YOU?

Ensign, August 1996

Random Sampler Section

Church members living near a Church-owned cannery are encouraged to participate not only in welfare canning sessions but also in family canning programs. The focus of the dry-pack canning program is to give greater assistance to families and provide more opportunities for them to obtain and store a year's supply of basic, life-sustaining products.

Members are invited to set up an appointment through their ward or stake-canning specialist (your priesthood or Relief Society leader can tell you who this is) to use the equipment at their local cannery to dry-pack food. Canneries have more than a dozen products available to can at a nominal cost, or you can bring your own food and pay only for the cost of the cans.

Many stakes also have access to dry-pack canning equipment that can be checked out for individual use at home.

Dry-pack canning is an effective method for storing dry foods. Bulk storage foods such as wheat or beans are placed in large metal #10 cans, along with a packet that removes oxygen, then sealed without further processing. Food that is stored this way has an extended storage life and is protected from moisture, insects, and rodents.

The following basic food storage items are available at dry-pack canneries.

Apple slices, dried	Oats, rolled
Beans: pinto, pink, great northern	Onions, dry
Carrots, dry	Puddings: chocolate, vanilla
Cocoa, hot mix	Rice, white
Flour, white	Soup mix
Fruit drink mix	Spaghetti
Macaroni	Sugar, granulated
Milk, non-fat dry	Wheat

Not all food storage items are appropriate for dry-pack canning. The following types of items do not store well in cans because of moisture or oil content. However, their shelf life can be extended by storing them in sealed containers in the freezer.

Barley, pearled	Granola
Cereal, milled grain	Nuts, roasted or raw
Cornmeal	Rice, brown
Flour, whole wheat	Yeast

Additional products that should not be home dry-pack canned included these products, which are best stored in their original containers and rotated frequently.

Baking powder	Baking soda
Bouillon	Mixes w/leavening such as pancake or biscuit mixes
Oil	
Spices	
Sugar, brown	

For more information, contact your regional welfare agent, Church-owned canneries, local bishops' storehouse, or stake and ward canning specialists.

2001 UPDATES

Church canneries now provide foil pouch packaging as well as #10 can dry-pack storage of basic staple food items.

Dehydrated Refried Beans are now available at Church canneries.

FOOD STORAGE and CHILDREN

Ensign, March 1998

Kay Franz

Determining the appropriate quantities for food storage can be challenging for families with children of various ages. Because children are still growing, they need more food in proportion to their size than do adults. It's helpful to add two years to a child's current age when calculating adequate food storage amounts. Then, by knowing the number of children in a family and their ages, parents can estimate food needs as a percentage of an adult portion.

Age

3 and under
4 to 6
7 to 10
11 and up

Percentage of Adult Portion

50%
70%
90%
100%

Infants who are nursing share in their mother's portion. Keep in mind that young children, as well as pregnant and nursing mothers, need more milk than other family members (see "Update on Milk Storage," *Ensign*, March 1997, p. 70).

Food storage needs for large families probably should be reassessed yearly.