



Storing Food in Your Home

Storing extra food in your home can help your family be prepared for emergencies such as accidents, illness and unemployment, or disasters such as earthquakes and floods. Many people are also interested in storage to cut their food dollar — either by purchasing larger quantities of food, or by storing home garden produce. However, careful planning is necessary to make home food storage a saving and not a financial disaster. Money is poorly spent when food must be discarded because it has been contaminated or spoiled.

How Much to Store?

The amount of food that a family should store will vary depending upon the age, sex or physical needs of family members. Also consider storage space available and how far ahead you feel you need to plan for. Whatever is stored should enable each person to maintain present dietary habits with only minor variations.

Store foods that will provide a balanced diet. A balanced diet must include a variety of foods because no

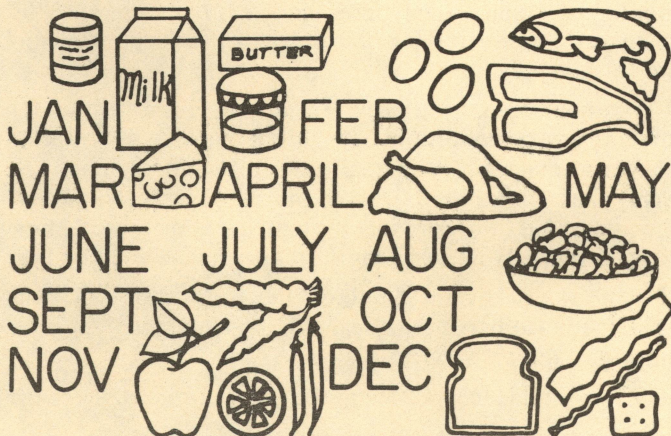


Table 1. Recommended daily food plan.

Milk products	adults, 2 cups children and teens, 3 to 4 cups
Meats, fish, eggs, beans, peas or nuts as alternatives	2 servings
Vegetable-fruit group	4 or more servings one serving of citrus fruit, one serving of dark green or yellow vegetables at least every other day
Cereal and bread group	4 or more servings of whole wheat enriched product or restored grain products

one food, or group of foods, contains all the essential nutrients (protein, fats, carbohydrates, vitamins, minerals and water) needed for good health. Nutrients in various foods work with each other to help the body maintain health and to aid growth and development in children.

Use the Basic Four food group plan as a guide for deciding how much of what foods to store. For each family member, plan to allow at least the recommended number of servings each day from each of the four food groups (Table 1). You may also need other foods to supply calories to complete energy needs. This requirement can be met by additional servings from the food groups or from foods such as butter, fat and oils, sugar, syrups, preserves and jellies.

To interpret the recommended daily diet plan to a plan for storing food for an extended period of time, you may use Table 2 as a guide. Table 3, which lists common sizes and their equivalents in servings, may also help you figure amounts of food required to provide adequate servings.

What to Store

Select foods that will maintain their quality for the amount of time you intend to store them. Store only those canned or dried foods your family will eat, because a sudden emergency is no time to introduce untried novelties. Under stress and strain, people tend to reject unfamiliar and disliked foods, even more than under normal conditions, and will go without foods rather than eat those they find unacceptable. For example, then, if you intend to store nonfat dry milk or simulated protein foods, use them in regular meals so that family members become accustomed to them. Table 4 compares the estimated shelf-life of foods stored under various conditions.

Where to Store

When selecting a storage place, keep in mind that the principle causes of food spoilage are: (1) high temperature; (2) sunlight or strong light; (3) moisture, and (4) rodents and insects.

Store food in your home, where you can control and supervise it. The storage place for canned and dried foods should be well-ventilated, dark, cool and dry. Select an

area to which rodents do not have easy access. Garages and outbuildings that are frequently opened are easily entered by rodents and insects, for example. Maintain temperature between 40 and 60°F (4.4 to 15.6 Celcius). Food will maintain its quality best at the lower end of this temperature range.

Store the food on easy-to-get-at shelves so you can easily rotate your stocks. All shelves should be out from walls and lowest shelves should be off the floor to allow air circulation and to prevent moisture and condensation.

Don't count on using food from freezers or refrigerators during natural disasters, because power failures may be prolonged. However, frozen foods would be available during personal emergencies, such as periods of unemployment.

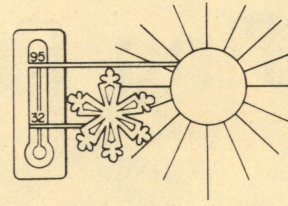


Table 2. Guideline to extended planning for food needs.

	Approximate amount for one person	
	for one month	for one year
Milk Products: Milk — one quart for children, two or more cups for adults	30 ½ qts.	365 qts.
Meat and Eggs: Two servings per day, may come from the following:		
Eggs — four per week	2 ½ doz.	30 doz.
Meat, including fish and poultry — one 4-ounce serving per day	12 ½ lb.	150 lb.
Dried beans, peas and nuts	1 ¼ lb.	15 lb.
Vegetables and Fruits: Four servings per day, as follows:		
Vegetables — two servings, one green or yellow		
Carrots and cabbage	3 lb.	35 lb.
Other vegetables	12 ½ lb.	150 lb.
Potatoes — one or more servings	12 ½ lb.	150 lb.
Fruits — two servings, one citrus or tomato		
Tomatoes and citrus fruits	10 lb.	120 lb.
Apples	6 lb.	75 lb.
Other fruits	17 ½ lb.	200 lb.
Cereals and Breads: Four or more servings half of which are whole grain or enriched (count ½ lb. bread as 1 lb. flour)	17 ½ lb.	200 lb.

Table 3. Servings in common can sizes.

Can Size	Contains	Servings
#2 (303)	2 cups	4
#2 ½	3 ½ cups	7
#5	about 6 cups — 46 ounces	12
#10	12 cups — about 3 quarts	25

How Should You Store

To keep food from spoiling, follow the four primary considerations of storage: rotation, temperature, packaging and sanitation.

ROTATION: Incorporate stored foods into daily menus, then replace what has been used. This continual use and replacement helps (1) to prevent spoilage and to keep foods from losing flavor or nutritional value; (2) to keep foods consistent with family likes; and (3) to make sure foods are free from weevils and other contaminants.

TEMPERATURE: Three temperatures are critical to food storage: (1) freezing, when ice forms or melts; (2) 48°F (8.9C), when insects become active; (3) 95°F (35C), when fat melts. Store all foods at the lowest possible temperature short of freezing. Always store below 70°F (21C).

PACKAGING: Use airtight, plastic or metal containers whenever possible. Jars are also acceptable. Use sizes that hold amounts your family can eat in a fairly short time.

Large quantities of dry milk, flour, rice or other grains should be repackaged into smaller containers. This decreases the possibility of moisture or insects getting into the total supply.

Canned foods have been tested and found safe under many disaster conditions, including nuclear conditions. They also maintain their quality for a long time. The U.S. Army has found that canned meat, vegetables, bread, chocolate and jam were in excellent states of preservation after 46 years. However, long storage is not recommended.

Corrosion-resistant paint on the outside of cans will keep them from rusting. Seal lids of cans and jars with masking tape or paraffin.

Chlorine bleach bottles make excellent containers for water.

SANITATION: Use containers that are insect-proof and rodent-proof. Sterilize all containers before putting in

food and sterilize again during the rotation cycle. Sterilize containers (including flour bins and drawers) by: (1) getting all food out from edges and corners; (2) washing thoroughly with warm, soapy water and rinsing with scalding water; (3) drying in air and sun.

Check the storage area for signs of rodents or insects. Keep this area free of spilled food and food particles. Good housekeeping often helps prevent insect infestations.

Safe Drinking Water

Storms, earthquakes and other emergency situations may make water unsafe to drink. If this happens, you can get safe drinking water from your hot and soft water tanks (but be sure you turn off the water supply valves **before** you draw out any water).

you can also get safe drinking water by:

- boiling river, pond or canal water for 20 minutes; or
- adding chemicals to suspect water. Use 2 halazone tablets, 2 to 3 drops tincture of iodine, 2 to 3 drops of 2 percent hypochlorite bleach or 1 to 2 drops of 5 percent chlorine bleach for each quart of water; triple these amounts if water is cloudy. After adding chemicals, let water stand 10 minutes before drinking.

Keep Track of What You Store

To help you keep track of stored food, date each container put into storage and maintain an up-to-date inventory list. Correct the inventory every time you add to or use from the food storage.

Other Sources of Information

Among other booklets dealing with aspects of food storage are these:

Keeping Food Safe to Eat, USDA Home and Garden Bulletin #162.

Storing Vegetables and Fruits in Basements, Cellars, Outbuildings and Pits, USDA Home and Garden Bulletin #119.

Home Care of Purchased Frozen Foods, USDA Home and Garden Bulletin #69.

What to Do When Your Home Freezer Stops, USDA Leaflet #321.

Controlling Insect Pests of Home-Stored Foods, University of Idaho Current Information Series No. 269.

Copies of these publications may be obtained from County Extension Offices, if they are currently in print. Information on canning, freezing and drying foods is also available from your County Extension Home Economist.

Table 4. Storage life of foods under different conditions.

Food	50-70°F (10-21°C)	50-70°F (10-21°C)	32-50°F (0-10°C)	0°F (-17.8°C) or Below
	Dry or Fresh	Canned	Refrig.	Frozen
Eggs and Dairy Products				
butter	2-4 days		2-3 weeks	1 year
cheese (natural)	1-2 weeks		2-8 months	1 year
cheese (proc.)	2-3 weeks		6-8 months	1 year
ice cream				1 month
milk		1 year	3-5 days	
nonfat dry milk	6-12 months		2 years	
dried eggs	6 weeks		1 year	
fresh eggs			1 week	1 year
Meat Products				
bacon	3-5 days	18 months	1-2 weeks	3 months
beef		18 months	2-7 days	1 year
ground beef		18 months	2-3 days	2-3 months
chicken		18 months	2-5 days	3 months
fish		1 year	1-3 days	3-5 months
ham	3-5 days	18 months	2 weeks	5-6 months
jerky	6 months		indef.	
lamb		18 months	2-7 days	1 year
lunch meat		18 months	3-7 days	3 months
pork		18 months	3-7 days	3-6 months
sausage		18 months	2-5 days	1-3 months
turkey		18 months	2-5 days	3-6 months
Meat Alternates				
dry beans and peas	indef.			
peanut butter		12-18 months		
nuts	1 year			
shelled nuts	6 months	1 year	12-18 months	
Fats and Oils				
cottonseed oil	6-12 months		1 year	
olive oil	6-12 months		1 year	
veg. shortening	1 year			
lard	6-12 months		1 year	
margarine	6 months		1 year	2 years

Food	50-70°F (10-21°C) Dry or Fresh	50-70°F (10-21°C) Canned	32-50°F (0-10°C) Refrig.	0°F (17.8°C) or Below Frozen
Soups				
dehydrated (sealed)	indef.			
bouillon	1 year	2 years		
Vegetables				
beans	1-3 days	18 months	3-5 days	8-12 months
beets	1-3 days	18 months	3-7 days	8-12 months
cabbage	2 months	18 months	2-3 months	8-12 months
carrots	1 week	18 months	1-3 weeks	8-12 months
corn	1 day	18 months	2-3 days	8-12 months
onions	6-12 months	18 months		8-12 months
peas, green	1 day	18 months	2-3 days	8-12 months
potatoes	6-8 months	18 months		8-12 months
sweet potatoes	6-8 months	18 months		8-12 months
french fries		12 months		6 months
spinach		18 months	2-5 days	8-12 months
tomatoes	4-6 weeks	18 months	4-6 weeks	8-12 months
tomato puree		18 months	2-5 days	8-12 months
all dehydrated vegetables	indef.			
Fruits				
apples	1-4 months	12-18 months	1-6 months	1 year
applesauce		12-18 months		1 year
apricots	3-5 days	12-18 months	3-7 days	1 year
berries	3-6 days	6 months	3-7 days	1 year
citrus fruits		6-8 months	1-3 days	1 year
citrus slices		12-18 months	2 weeks	
cherries	3-5 days	6-12 months	3-7 days	1 year
cranberry sauce		1 year		
figs	2 weeks	12-18 months	1 year	
grapes	2-4 weeks	12-18 months	2-4 weeks	1 year
peaches	3-5 days	12-18 months	7-10 days	1 year
pears	1-3 weeks	12-18 months	4-6 weeks	1 year
pineapple	3-5 days	1 year		1 year
plums	2 weeks	12-18 months	4-6 weeks	1 year
raisins	indef.			
all dried fruits	6-12 months	indef.		
Sugars, Jams and Spreads				
sugar and honey	indef.			
jams and jellies		indef.		
hard candy	indef.			
Cereal Products				
rice and wheat	indef.			
cornmeal	2 months			
degermed cornmeal	indef.			
white flour	1 year			
whole wheat flour	4 months			
soybean flour	3-6 months			
macaroni				
uncooked in metal	2 years			
uncooked, in plastic film	1 year			
commercially canned		1 year		
baked goods	1 week	1 year		2-9 months
Miscellaneous				
baking soda	indef.			
baking powder	indef.			
cocoa	18 months			
yeast	2 months	indef.	6 months	
salt and spices	indef.			
gelatin and gelatin desserts	2-3 years			
instant pudding	1 year			
water		indef.		

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