FOOD STORAGE



WHERE DO I BEGIN?

WHY STORE FOOD?

- **■** EMERGENCIES
- WEATHER
- JOB LOSS
- **ILLNESS**
- SAVE \$\$

THREE MONTH SUPPLY



LONG TERM STORAGE



WHAT IS A THREE MONTH SUPPLY?

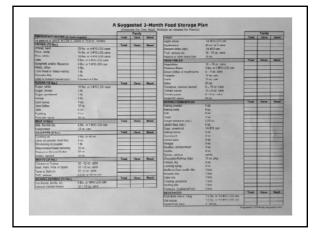
A small supply of food that is part of your normal, daily diet.

- Store your basic pantry items
- Store foods you regularly eat
- Store refrigerator and freezer foods
- Don't forget to include non-food items toilet paper, toothpaste, batteries, soap, medicines
- Water
- Fuel

HOW DO I DO IT?

- Purchase a few extra items each week
- Pick some favorite meals and stock three months worth
 - o Make a list of foods you eat on a regular basis & determine how much you would go through in 3 months.
 - o Gradually purchase these foods in bulk as they are on sale
 - o Combine sales with coupons to save \$\$
 - o Use and rotate in daily cooking
 - o Replenish as they go on sale

GET ORGANIZED!



WHAT IS LONG TERM STORAGE?

- For longer-term needs, and where permitted, gradually build a supply of food that will last a long time and that you can use to stay alive, such as wheat, white rice, and beans.
- These items can last 30 years or more when properly packaged and stored in a cool, dry place. A portion of these items may be rotated in your three-month supply.

SHELF LIFE

FOOD	"LIFE SUSTAINING" SHELF LIFE ESTIMATES
WHEAT	30+
WHITE RICE	30+
CORN	30+
SUGAR	30+
PINTO BEANS	30
ROLLED OATS	30
PASTA	30
POTATO FLAKES	30
APPLE SLICES	30
NON-FAT POWDERED MILK	20
DEHYDRATED CARROTS	20

HOW MUCH DO I STORE?

- CHURCH RECOMMENDATIONS
- PURCHASING PLANS
- FOOD STORAGE CALCULATORS

CHURCH RECOMMENDATIONS

(PROVIDENTLIVING.ORG)

QUANTITY FOR ONE MONTH	RECOMMENDED PRODUCTS	LONG-TERM STORAGE LIFE
11.5 kg./ 25 lbs	Wheat, white rice, corn, and other grains	30+ years
2.5 kg. / 5 lbs	Dry beans	30+ years

You may also want to add other items to your longer-term storage such as sugar, nonfat dry milk, salt, baking soda, and cooking oil. To meet nutritional needs, also store foods containing vitamin C and other essential nutrients







PURCHASING PLANS

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FOOD STORAGE CALCULATORS

http://lds.about.com/library/bl/faq/blcalculator.htm

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Grains			
Wheat	825 lbs		
Flour	137 lbs		
Corn Meal	137 lbs		
Oats	137 lbs		
Rice	275 lbs		
Pasta	137 lbs		
Total Grains	1648 lbs		
Fats and Oils			
Shortening	22 lbs		
Vegetable Oil	11 gal		
Mayonnaise	11 qts		

Salad Dressing 6 qts
Peanut Butter 22 lbs

72 lbs

.about.com/library/bl/faq/				
Sugars				
Honey	16 lbs			
Sugar	220 lbs			
Brown Sugar	16 lbs			
Molasses	6 lbs			
Corn Syrup	16 lbs			
Jams	16 lbs			
Fruit drink powdered	33 lbs			
Flavored Gelatin	6 lbs			
Total Sugars	329 lbs			
Milk				
Dry Milk	330 lbs			
Evaporated Milk	66 can			
Other	71 lbs			
Total Dairy	412 lb			

Cooking Essentials				
Baking Powder	6 lbs			
Baking Soda	6 lbs			
Yeast	3 lbs			
Salt	28 lbs			
Vinegar	3 gal			

Legumes	
Beans, dry	165 lbs
Lima Beans	26 lbs
Soy Beans	55 lbs
Split Peas	26 lbs
Lentils	26 lbs
Dry Soup Mix	26 lbs
Total Legumes	324 lbs

WHERE TO PURCHASE SUPPLIES

	COSTCO	CASH & CARRY	WINCO	WALMART	DRY PACK
WHEAT RED 25LB				\$12.48 (in bucket)	\$11.45 (NO bucket .45/lb)
WHEAT WHITE 25LB			\$13.55 (NO bucket)	\$13.96 (in bucket)	\$11.45 (NO bucket)
ROLLED OATS 25 lb		\$14.98	\$14.25	\$11.37 (10lb in bucket)	\$15.35
POWDERED MILK (BULK)		\$124.37 (55lb=\$2.26/lb)			\$47.20 (25lb=\$1.88/lb)
POWDERED MILK (#10 can)				\$9.36	\$8.60
WHITE RICE 25LB	\$10.29 (.41/lb)		\$12.60 (.50/lb)	\$10.98 (20 lb=.54/lb)	\$13.00 (25lb=.52/lb)
WHITE RICE SOLB	\$24.99 (.50/lb)	\$20.19 (.40/lb)			
BROWN RICE 25LB		\$11.57 (.46/lb)	\$13.30 (.53/lb)		
FLOUR 25LB		\$8.77 (.35/lb)	\$8.39 (.36/lb)	\$9.48 (.37/lb)	\$13.30 (.53/lb)
FLOUR SOLB	\$14.79 (.29/lb)	\$13.29 (.27/lb)			
SUGAR 25LB	\$15.97 (.64/lb)	\$17.62 (.70/lb)	\$13.98 (.56/lb)	\$13.98 (.56/lb)	\$15.00 (.60/lb)
PINTO BEANS 25LB	\$19.89 (.79/lb)	\$18.87 (.75/lb)	bulk (.92/lb) 4lb \$4.22		\$18.55 (.74/lb)
PINTO BEANS SOLB		\$36.29 (.72/lb)			
KIDNEY BEANS 25LB		\$25.09 (\$1.00/lb)	\$1.05/lb (bulk bin)		
PASTA		\$9.74 (10lb box=.97/lb)	\$1.03/lb (bulk bin)		\$20.25 (20lb=\$1.01/lb)

GALLON MYLAR BAGS: LDS CANNERIES OR LDS ONLINE STORE
5-6 GALLON MYLAR BAGS: BEPREPARED.COM, SORBENTSYSTEMS.COM
BUCKETS: WINCO, BEPREPARED.COM, BOBS RED MILL

PACKAGING

- #10 CANS
- PETE BOTTLES
- FOIL POUCHES
- **■** BUCKETS
- OXYGEN ABSORBERS

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#10 CANS

- Cans and oxygen absorbers are for sale to Church members at home storage centers
- Store foods that are dry, shelfstable, and low in oil content
- .82 gallons
- Cans should be protected from moisture to prevent rust
- Store best in a cool, dry area not in direct contact with floors or



PETE BOTTLES

- PETE bottles are identified on the container with the letters PETE or PET under the recycle symbol
- PETE (polyethylene terephthalate) plastic can be used with oxygen absorbers to store products such as wheat, corn, and dry beans
- Other types of plastic bottles typically do not provide an adequate moisture or oxygen barrier for use with oxygen absorbers. Do not use containers that | were previously used to store nonfood items.

FOIL POUCHES

- Use to store foods that are dry (about 10% moisture or less), shelf-stable, and low in oil content
- Do foods react with the aluminum in

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the pouch?		
Pouches are not rodent proof		
]	

FILLING POUCHES

- Fill a pouch with one gallon (4 liters) of product. (Overfilling will result in a poor seal.) A two-quart (2liter) pitcher, cut off at the two-quart (2-liter) line, is a good measure to use in when you are filling pouches. Fill with two level measures, tapped down.
- Place an oxygen absorber packet on top of the product in each pouch.
- For powdered products, wipe product dust from inside the seal area using a dry towel
- Follow sealer directions



BUCKETS

- Plastic buckets may be used to store food commodities that are dry (about 10 percent moisture or less) and low in oil content. Only buckets made of food-grade plastic with gaskets in the lid seals should be used. Buckets that have held nonfood items should not be used.
- To prevent insect infestation, dry ice (frozen carbon dioxide) should be used to treat grains and dry beans stored in plastic buckets. Treatment methods that depend on the absence of oxygen to kill insects, such as oxygen absorbers or nitrogen gas flushing, are not effective in plastic buckets
- Do not stack plastic buckets over three high. If buckets are stacked, check them periodically to ensure that the lids have not broken from the weight

DRY ICE TREATMENT

- Use approximately one ounce of dry ice per gallon (7 grams per liter) capacity of the container. Do not use dry ice in metal containers of any kind or size because of the potential for inadequate seals or excessive buildup of pressure.
- Wear gloves when handling dry ice. Wipe frost crystals from the dry ice, using a clean, dry towel.
- Place the dry ice in the center of the container botto
- Pour the grain or dry beans on top of the dry ice. Fill the bucket to within one inch (25 mm) of the top.
- Place the lid on top of the container and snap it down only about halfway around the container. The partially sealed lid will allow the carbon dioxide gas to escape from the bucket as the dry ice sublimates (changes from a solid to a gas).
- Allow the dry ice to sublimate completely before sealing the bucket. Feel the bottom of the container to see if the dry ice is all gone. If the bottom of the container is very cold, dry ice is still present.
- Monitor the bucket for a few minutes after sealing the lid. If the bucket or lid bulges, slightly lift the edge of the lid to relieve pressure.
- It is normal for the lid of the bucket to pull down slightly as a result of the partial vacuum caused when carbon dioxide is absorbed into the product.

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"SUPER PAILS"

■ This is a combo of 2 storage methods. It is a sealed Mylar bag in a bucket.



OXYGEN ABSORBERS

- Oxygen absorbers protect dry foods from insect damage and help preserve product quality. They are used when dry foods are packaged in sealed containers.
- Oxygen absorbers are small packets that contain an iron powder. The packets are made of a material that allows oxygen and moisture to enter but does not allow the iron powder to leak out.
- Moisture in the packaged food causes the iron in the oxygen absorber to rust. As it oxidizes, the iron absorbs oxygen. Oxygen absorbers rated for 300 cubic centimeters (cc) of oxygen work well for properly packaged dry food in containers of up to one-gallon capacity (4 liters).
- Oxygen absorbers remove oxygen more effectively than vacuum packaging. Air is about 20 percent oxygen and 80 percent nitrogen. Absorbers remove only the oxygen. The air left in the container is mostly nitrogen and will not affect the food or allow the growth of insects.

Quantity of 500 CC	#10 can weight
0-2.5 lbs	2
2.5+ lbs	1

Quantity of 2000 CC				
	0-15 lbs	3		
	16-35 lbs	2		
	35+ lbs	1		

HOW TO USE OXYGEN ABSORBERS



- Cut open the top of the bag of absorbers. Do not open the individual absorber packets.
- absorber packets.

 Remove the number of absorbers from the bag that you will use in the next 20 to 30 minutes, and spread them out on a tray. Remove additional groups of absorbers from the supply as you need them during the packaging process, but do not open and close the bag repeatedly to get only a few absorbers at a time.

 Reseal the remaining supply of absorbers by one of the following methods. Do not store absorbers in Ziploc bags.

 Seal the bag of absorbers with the special blue clamp provided by the home storage center.

 Seal the bag of absorbers with an impulse heat sealer.
- - Seal the bag of absorbers with an impulse heat sealer.
 For longer storage when an impulse sealer is not available, remove the absorbers from the bag and place them into a glass canning jar that has a metal lid with a gasket. A one-pint jar (500 ml) will hold 25 absorbers.
- Place one absorber into each container of food as it is packaged.

STORAGE CONDITIONS

- TEMPERATURE
 - Store products at a temperature of 75°F/24°C or lower whenever possible. If storage temperatures are higher, rotate products as needed to maintain quality.
- MOISTURE
 - Keep storage areas dry. It is best to keep containers off of the floor to allow for air circulation.
- LIGHT

 - Protect cooking oil and products stored in PETE bottles from light.
 Light and heat can destroy not only the taste and texture of your food, but also the <u>nutritional</u> content
- INSECTS AND RODENTS
 - Protect products stored in foil pouches and PETE bottles from rodent and insect damage.
- DO NOT STORE DIRECTLY ON CONCRETE
 - Store plastic buckets off the floor by at least ½ inch (1.3 cm) to allow air to circulate under the bucket.

STORAGE SOLUTIONS

Under Beds and Other Furniture

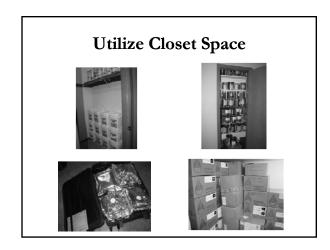


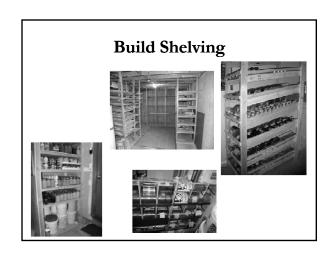












Garage & Basements







ROTATING YOUR FOOD

- Gamma Lids
- Small Buckets
- Plastic Containers
- Food Storage Cook Books

FOOD STORAGE MISTAKES

- Variety
- Extended Staples
- Vitamins
- Quick & Easy & Psychological Foods

Balance Containers	
Use Your Storage	

FOOD ITEMS NOT SUITABLE FOR LONG TERM STORAGE

- Botulism poisoning may result if moist products are stored in packaging that reduces oxygen.
- Some dry products are not suitable for long term storage due to moisture content, oils, or other reasons.

Barley, pearled	Meat, dried (such as jerky)	
Eggs, dried	Nuts	
Flour, whole wheat	Rice, brown	
Granola	Vegetables,& fruits (dehydrated, unless dry enough to snap when bent)	

MY FAVORITE SITES

- EverydayFoodStorage.NET
- FoodStorageMadeEasy.NET
- EmergencyEssentials.COM
- ProvidentLiving.ORG

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