

# 7 Factors That Prolong Your Food Storage Supply

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Getting in the habit of storing food has many benefits. These benefits range from financial savings to having a balanced diet throughout the year. Above all, learning how you can get the most out of your food storage will help eliminate stress and ensure peace of mind.

Storing food is a traditional domestic skill that has been used for thousands of years in time of plenty to prepare for times of famine or when food is in short supply. Wheat found stored in vessels in the tombs of Egypt was still edible after 4000 years. Regularly, food is preserved and stored to be eaten from harvest to harvest as families strive to be self sustainable. It is interesting to note that food is stored by almost every human society and by many animals. Maintaining a food supply often insures savings of time and money and provides safety and security in time of need. Storing of food has several main purposes:

- Preserves harvested and processed food products for later use
- Provides a balanced diet throughout the year
- Preparedness for catastrophes, emergencies and periods of food scarcity or famine
- Religious reasons
- Peace of mind
- Self sustainability

## Factors that affect food storage:

**Temperature:** The temperature at which food is stored is very critical to shelf life. United States Department of Agriculture, USDA, states that for every 10.8 degrees in temperature rise you decrease the shelf life of stored food by half. The best range for food storage is a constant temperature between 40-60 degrees. Avoid freezing temperatures.

**Moisture:** It is recommended to remove moisture when storing foods. For long term storage foods should have a 10% or less moisture content.

**Oxygen:** Foods store best when oxygen free. Removing oxygen will prevent oxidation of compounds in foods. Ways to remove oxygen:

- Displacing oxygen – Purge air from product with an inert gas (nitrogen). Dry ice is often used giving off carbon dioxide gas which displaces oxygen.
- Oxygen absorber – Air contains about 78% nitrogen and 21% oxygen, leaving about 1% for the other gasses. If the oxygen is absorbed, what remains is 99% pure nitrogen in a partial vacuum.

**Light:** Light, a form of energy that can degrade the food value of foods. Store food in dark areas.

**Container:** Store foods in food grade plastic, metal or glass containers indicating that the container does not contain chemicals that could be transferred to food and harmful to your health. For best storage life, use containers with a hermetic (air tight) seal. Containers with air tight seals are:

- #10 cans
- Sealable food storage buckets
- Sealable food quality metal (lined) or plastic drums
- Foil pouches
- PETE bottles (for dry products such as wheat, corn, and beans)

The containers listed above, used with oxygen absorber packets, eliminate food-borne insects and help preserve nutritional quality and taste.

**Warning** – Botulism poisoning may result if moist products are stored in packaging that reduces oxygen. When stored in airtight containers with oxygen absorbers, products must be dry (about 10% or less moisture content).

**Infestation:** Several common insects infest home-stored dried foods. To control with cold treatment, put infested items in a deep freeze (0 degrees) for three to four days which will kill any live insects, larva and eggs.

**Shelf date** is the “best if used by” date meaning that you are getting most of the original taste and nutrition. The “life sustaining shelf life” date means the length of time that food is still edible.



Carolyn Washburn is a family consumer sciences agent for Utah State University Extension. Her responsibilities include financial management education, food safety and nutrition, healthy family relations, emergency preparedness and working with youth. Her goal is to help individuals and families become self-sustaining and resilient by being financially prepared and healthy for any emergency. She serves on the National Disaster Education Network and has just completed the new food storage manual for USDA. Her most cherished award is America's Promise, awarded by Colin Powell.

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