

Food Storage Recipes



Using only the ingredients contained in the
One-Month Basic Food Storage Kit

The Church of Jesus Christ of Latter-day Saints
Home Storage Center, Lindon, Utah

November 2005

"Church members can begin their home storage by storing the basic foods that would be required to keep them alive if they did not have anything else to eat. When members have stored enough of these essentials to meet the needs of their family, for one year, they may decide to add other items that they are accustomed to using day to day." ~ First Presidency letter, Jan. 20, 2002

Food Storage Kit
One-Month Basic Food Supply for One Adult

Product	#10 cans	best if used by
Wheat	3 cans	20+ years
White Flour	1 can	3-5 years
White Rice	2 cans	3-4 years
Quick Oats	1 can	4-5 years
Macaroni	1 can	6-8 years
Pinto Beans	1 can	6-8 years
White Sugar	1 can	20+ years
Powdered Milk	1 can	2-3 years
Cooking Oil - or -	1-24 oz bottle	2 years
Shortening*	1-3# can	8-10 years
Salt	2-8 oz shakers	20+ years

* Shortening can be melted and then measured according to the recipe when substituting for oil. It should be allowed to cool slightly before adding to other ingredients.

TABLE of CONTENTS

ABOUT FOOD SAFETY

ABOUT WATER

ABOUT WHEAT

- How to Crack Wheat
- Methods for Cooking Wheat
- 1. Cooked Whole Wheat Kernels
- 2. Cracked Wheat Cereal
- 3. Crispy-Fried Cracked Wheat Cereal
- 4. Pre-Sweetened Cereal Nuggets
- 5. Whole Wheat Pancakes
- 6. Popped Wheat Kernels
- 7. Hot Toastum Drink
- 8. Wheat Breakfast Porridge
- 9. Sweet Wheat Pudding
- 10. Whole Wheat Salty Crackers
- 11. Scottish Bannock Bread
- 11. Pioneer Hoecake
- 12. Popped Wheat Treats
- 13. Sweet Wheat Crackers
- 13. Hardtack
- 14. Stir-Fried Cracked Wheat
- 15. Unleavened Bread Sticks
- 16. Whole Wheat Pie Crust
- 17. Whole Wheat Tortillas
- 18. Soft Flour Tortillas
- 19. Crunchy Wheat Crackers
- 20. Tasty Wheat Wafers
- 21. Noodles/Wheat Crisps
- 22. Whole Wheat Sourdough Bread
- Wheat grass

ABOUT FLOUR

- 23. Unleavened Pancakes
- 24. Brown Gravy/Roux
- 25. Lumpy Dick
- 26. Blonde Pudding/Pie Filling

ABOUT RICE

- 27. Basic Cooked Rice
- 28. Rice Cereal
- 29. Creamy Rice Breakfast
- 30. Rice Cake Treat

- 31. Easy Rice Pudding
- 32. Toasted Rice
- 33. Horchata

ABOUT ROLLED OATS

- 34. Hot Oatmeal Cereal
- 35. Instant Oatmeal Packets
- 36. Oat Gruel
- 37. Basic Granola
- 38. Oatmeal Granola Bar
- 39. Toasted Oat Crumbles
- 40. Norwegian Oatmeal Crackers
- 41. Oat Crackers
- 42. Oatmeal Cookies

ABOUT MACARONI

- 43. Cooked Macaroni
- 44. Sweet Macaroni

ABOUT BEANS

- Cooking and Using Beans
- Methods for Soaking Beans
- Methods for Cooking Beans
- 45. Basic Beans
- 46. Refried Beans/Pureed Beans
- 47. Fat Replacement
- Bean Flour
- 48. Instant Bean Soup/Gravy
- 49. Dips and Sandwich Fillings
- 50. Pinto Bean Paste
- 51. Cream of Bean Soup
- 51. Cream Sauce
- 52. Wheat and Bean Burger

ABOUT SUGAR

- 53. Pancake Syrup
- 54. Almost Caramel
- 55. Bean Ball Candy
- Diastatic Malt

ABOUT DRY MILK

- Quick Reference for Reconstitution
- 56. Evaporated Milk
- 57. Whipped Evaporated Milk
- 65. Essene Bread

- 58. Sweetened Condensed Milk
- 59. Caramel Sauce
- 60. Milk Gravy
- 61. White Sauce
- 62. Graveyard Stew
- 63. Cemetery Stew

ABOUT DIETARY FATS

ABOUT SALT

ABOUT LEAVENING

- 64. Sourdough Starter

TIPS FOR SPROUTING

- Sprouting Wheat
- Sprouted Wheat Bread

- 66. Essene Flat Bread
- Sprouting Beans

EMERGENCY FOODS FOR BABIES

- 67. Baby Formula
- 68. Solid Baby Food
- 69. Creamy Oat Cereal
- 70. Teething Biscuits

COMPLEMENTING PROTEINS

BAKING TIPS FOR WHEAT ALLERGIES

EXPANDING YOUR PANTRY

Pioneer Legacy of Provident Living

ABOUT FOOD SAFETY

In general, don't be paranoid, but do be aware. Even when we know better, it is easy to make mistakes. Bacteria are found on most surfaces. If they have food, warmth, moisture, and time they will multiply and cause food spoilage and/or illness.

Food poisoning is caused by eating foods which have become contaminated by bacteria, viruses or chemicals. Ways to prevent contamination include: proper hand washing and good personal hygiene, laundering dishcloths and dishtowels frequently, replacing sponges often, and sanitizing work surfaces regularly. A supply of paper towels should be considered for the kitchen and bath.

Frequently, emergencies arise with little or no warning. To insure an adequate diet, keep on hand a two week supply of food that does not require cooking or refrigeration. If refrigeration is not available, prepare only the amount of food you need for one meal and discard any perishable leftovers. When left at room temperature meat, eggs, milk, soups, pasta, rice, legumes (beans, peas and lentils), and vegetables provide excellent growing conditions for microorganisms which cause food poisoning.

Do not keep food unrefrigerated between the temperatures of 40°-140°F for more than 2-4 hours. This rule is for the temperature of the food itself, not the temperature around the food. It is important to cool foods quickly. This could include putting the food in small containers to reduce the volume before refrigerating. The colder (above freezing) the refrigerator temperature the safer and longer food can be stored. When reheating food, it is important to reach 165°F. This is hot enough to kill most bacteria and viruses.

ABOUT WATER

Natural disasters such as floods and earthquakes may pollute or disrupt water supplies. Water is more essential than food in sustaining life. Our total body weight is 60-75% water. Never ration drinking water, even when supplies run low. Drink the amount needed and try to find more for tomorrow. However, the body can minimize the amount of water it needs by limiting activity and staying cool. It is wise to have an emergency storage of at least 14 gallons per person. The water must be pure or treated to prevent microbial growth and stored in food-grade containers that will protect both flavor and purity.

In most cases, city delivered drinking water should be potable (bacteria and pathogen free) and suitable for emergency storage purposes. The Environmental Protection Agency (EPA) requires all public water suppliers to regularly test for bacteria and deliver water meeting EPA drinking water standards.

New containers should be labeled for storage of food or beverages as those not labeled for food or beverage storage could release harmful chemicals into the water. Some plastic containers may affect the taste. All containers should be thoroughly cleaned before filling. Most water containers come in 5 gallon, 15 gallon, or 55 gallon sizes. Having a variety of sizes is prudent for when water might need to be transported in the event that the normal water supply is disrupted.

Stored water can be pre-treated in a several ways, if desired. To prevent buildup of bacteria or algae in stored water use household bleach (5% sodium hypochlorite): Add 8 drops (1/2 teaspoon) household bleach per gallon if water is clear, but not chlorinated. Add 16 drops (1 teaspoon) of household bleach (5% sodium hypochlorite) per gallon if water is cloudy. Let water stand for 30 minutes before use. No additional household bleach is needed when water comes directly from a good pre-treated municipal water supply.

For low-cost water storage, soda and juice bottles (those marked with PETE on the bottom) make good containers and cost nothing if cleaned and filled as they are emptied. To economize many people are using empty milk jugs...DON'T...they are biodegradable and will leak.

Purify all questionable water before using it for drinking, preparing food, brushing teeth, or washing dishes. Boil water for 10 minutes to kill any disease-causing bacteria. Add a pinch of salt to each quart of boiled water to improve the taste. Shake stored water to aerate.

ABOUT WHEAT

1 cup dry wheat = about 2 cups cooked
1 cup whole wheat = about 1 3/4 cups flour
1 cup cracked wheat = 2 2/3 cups cooked

It is believed that wheat was first domesticated from wild grasses as long ago as 9,000 B.C. It has been found in the pyramids of Egypt. During Roman times, massive barges sailed from Alexandria to all parts of the Mediterranean. Wheat is mentioned throughout the Bible and has been a food of man throughout recorded history. It is considered the most important grain crop in the world providing 40%-60% of the available energy and protein in developing countries.

A grain of wheat has three distinct parts: The endosperm (83% of kernel) has the greatest amount of protein, carbohydrates, and iron, as well as the major B-vitamins riboflavin, niacin, and thiamine. It also contains soluble fiber. The bran (14.5% of kernel) has a small amount of protein, large amounts of the B-vitamins, trace minerals, and insoluble dietary fiber. The germ (2.5% of kernel) has 10% fat (vitamin E), small quantities of protein, a greater share of B-complex vitamins and trace minerals. The germ is the embryo destined to create a new plant.

Sudden additions of high-fiber whole grains to your diet can cause temporary gastrointestinal distress (bloating, diarrhea, etc). To lessen any problems, begin by rotating wheat with rice, oats, beans, and macaroni in meals or by adding a little at a time to each food or meal cooked.

Rinse whole wheat kernels before sprouting or cooking, but do not wash before grinding or milling.

When starting to use whole wheat flour in place of white in your baking, make the transition gradually by first replacing just half the white flour with the same amount of whole wheat. Over time increase the proportion of whole wheat flour. In baking, replace 1 cup white flour with 1 cup whole wheat flour minus 1 tablespoon. Use a small amount of additional liquid when using whole wheat flour.

People who are allergic to wheat and wheat products are usually reacting to gluten, the sticky, rubbery protein found in wheat, rye and barley and to a lesser degree in oats. Rice and corn do not contain gluten. Most children outgrow the allergy. Some people who are allergic to the whole kernels can eat whole wheat flour, sprouted wheat or wheat grass.

Wheat grass is simply the young wheat plant. At this stage of its growth, the green shoots have the look, taste, and nutrient profile of other leafy green vegetables (no gluten) such as spinach, kale, chard, etc.

Note: Wheat kernels are sometimes called wheat "berries". In baking recipes "ww flour" means whole wheat flour.

"Remember the counsel that is given: 'Store up all your grain,' and take care of it! Prize it above gold and silver, above rich clothing, and fine apparel, and above everything else except the bread of life!"

~ Orson Hyde, JD, vol. 5:17, p. 17

HOW TO CRACK WHEAT

There are numerous flour mills and grinders available from retailers either electric or hand-turned. Most have a way to control the coarseness of the grind, but not all have a range from “fine flour” to “extra coarse cereal”. Determine what the needs of your family are then purchase what will fill that need.

Small amounts of wheat, about 3/4 cup at a time, can be cracked in a blender. Blenders are not made for grinding large amounts of wheat and will not be able to grind enough flour for bread (for very long) without dulling the blades and overheating the motor.

An emergency hand grinder can be made using a tall empty juice or #10 can with one end removed and three 30” lengths of ordinary steel water pipe. Cut pipe ends even, file metal slivers off and duct tape pipes together. Put clean, dry grain 1” deep in can. To prevent blistered hands, wear gloves, or pad upper part of bundled pipes. Place can on a smooth, hard, solid surface, such as concrete. To pound the grain, sit with the can held between your feet. Move the pipes straight up and down about 3”, with a rapid stroke. It’s cheap, it works, and you can have a few going if you have kids that will help!

If no grinder is available, soaked and/or sprouted wheat kernels can be put through an electric or hand-operated food/meat grinder or pounded with a mallet. Chewing a lot of dry wheat makes a mouth sore.

METHODS FOR COOKING WHEAT

Rinse and cook whole wheat using one of the methods below. Soaking wheat cuts cooking time in half but isn’t necessary. Cooked wheat can be eaten as a breakfast cereal, as a snack, sprinkled on a salad, added to soups, casseroles, sandwiches, etc. Cook extra to have on hand as “add-ins”. Add a little in all your foods. This ready-to-use wheat may be safely stored in the refrigerator up to 2 weeks.

Stove Top: Place 3 cups water, 1 cup whole wheat and 1/2-3/4 teaspoon salt in a saucepan. Cover and soak overnight. Do not drain. In the morning stir wheat, heat to boiling in the same water. Simmer 30 minutes, depending on the age of the wheat. Stir occasionally. Remove from heat, leave covered, steam 5 minutes.

Crock Pot: Mix together in pot, 1 cup wheat, 4 cups water, 1/2-3/4 teaspoon salt. Cook overnight or 8-10 hours on low setting. All water should be absorbed.

Oven: Combine 1 cup wheat, 3 cups water, 1/2-3/4 teaspoon salt in a saucepan, bring to a boil. Simmer, covered, 5 minutes. Place pan in 300°F pre-heated oven, shut door, turn heat off. Let sit undisturbed overnight, about 8-10 hours.

Pressure Cooker: Put 1 cup wheat, 2 cups water and 1/2 teaspoon salt in a pressure cooker. Add 1 tablespoon oil. Pressure cook 15 minutes at 15 lbs. pressure. Do not “quick release” lid. Turn off heat, let pressure go down naturally. Do not pressure-cook cracked wheat.

Thermos Wheat: Many cookbooks describe this method as: “place 1 cup wheat in a thermos, add 1/2 salt and 2 cups boiling water, let stand overnight.” To be safe, pre-heat thermos with hot water and do not soak more than 3-4 hours. Bacterial growth can occur when the temperature of the wheat gets below 140°F. This makes a chewy product.

1. Cooked Whole Wheat Kernels

1 cup whole wheat	3 cups water
1/2 teaspoon salt	

Rinse wheat and add to boiling salted water. Reduce heat and simmer 50-60 minutes. Makes about 2 cups.

Serve with sugar and milk as cereal, added to other cooked grains, salads, soups, casseroles, chowder or bread doughs.

Soaked Wheat: Soak wheat overnight in water with salt added. Do not drain. Bring to a boil and simmer 30 minutes.

Note: Cracked wheat cooks faster than whole wheat. White wheat tastes slightly different than red wheat, cooks faster and is also chewier. Soaking wheat several hours cuts down on cooking time.

2. Cracked Wheat Cereal

4 cups water
3/4 teaspoon salt

1-1/3 cups cracked wheat

Bring salt and water to boiling. Slowly add cracked wheat while stirring. Turn down heat, cover and simmer about 20-30 minutes. Makes 3 cups. Can be stored up to 2 weeks tightly covered in refrigerator.

To reduce energy costs : Place all ingredients in heavy saucepan. Bring to a full boil; cover; turn off heat and let sit 15 minutes, or until water is absorbed.

3. Crispy-Fried Cracked Wheat Cereal

Press hot, cooked, cracked wheat cereal into a loaf pan and cool. When cold, unmold and slice in approximately 1/4" widths (wide enough to hold together). Fry in hot shortening, turning to brown on both sides. Serve hot with Pancake Syrup (#53).

4. Pre-Sweetened Cereal Nuggets

Prepare recipe #1. When wheat has cooled, stir in 3/4 cup sugar and 1/2 cup dry milk and put through a hand or electric food/meat grinder. Spread out on a cookie sheet and bake until dry at 300°F. Stir occasionally.

5. Whole Wheat Pancakes

1-1/2 cups ww flour
1/4 c sugar
2 tablespoons dry milk

1 teaspoon salt
4-6 tablespoons oil
1-1/2 cups water

Combine flour, sugar, dry milk and salt. Add water and oil. Stir until all flour is moistened. You may need to thin batter to insure it will cook all the way through. Cook on greased and heated griddle until browned and edges are firm. Turn to brown other side. Makes 6-4" pancakes. Serve hot with sprinkle of sugar or Pancake Syrup (#53). Thin pancakes can be sugared and folded over.

6. Popped Wheat Kernels

1/4 cup uncooked wheat kernels
Salt, sprinkle to taste

1 teaspoon oil

Heat a small amount of oil in skillet. Add uncooked whole wheat kernels. Stir to prevent burning. The wheat pops like popcorn but they don't expand as much. They will pop, if not too old. Season.

7. Hot Toastum Drink

Toast whole wheat kernels under broiler at 300°F until dark brown, about 30 minutes. (May be done in a skillet on top of the stove.) Stir often. Be careful not to burn. Cool. Whirl in a blender until powdered. Use 2 scant teaspoons powder to one cup boiling water. Allow to steep. Strain. Sweeten, if desired.

Note: Barley and wheat or a combination of other grains maybe used for variety. The pioneers even used peas.

8. Wheat Breakfast Porridge

Bring to a boil: 4-1/2 cups water

Mix in a bowl then add to boiling water:

1 cup cold water

1 cup wheat, fine to coarsely ground

1/2 teaspoon salt

1 tablespoon oil

Stir constantly while thickening to prevent lumps. Reduce heat and cook 15-20 minutes.

After cooking stir in: 6 tablespoons dry milk

1/4 cup sugar

Serve warm.

9. Sweet Wheat Pudding

1 cup wheat

1 tablespoon oil

5 cups water, divided

1/2 cup sugar

1/2 teaspoon salt

1/2 cup dry milk

Rinse wheat and soak, covered, 6 hours or overnight in 4 cups water. After soaking, add salt and oil and bring to a boil. Lower heat and simmer about 45 minutes or until soft. Mix milk and sugar together with 1 cup water and stir into wheat. Cook, stirring constantly, about 5 minutes. For creamier pudding use cracked wheat in place of whole wheat and/or thicken by adding 2-3 teaspoons white flour with the sugar and milk. Serve warm or cold.

10. Whole Wheat Saltine Crackers

1 cup ww flour

2 tablespoons shortening

3/4 teaspoon salt

1 cup water

Mix flour and salt together. Cut or rub in shortening. Stir in water until mixture is smooth and runny. Pour onto a very, lightly greased (or teflon coated) cookie sheet with sides. Spread thin. Bake 3-5 minutes at 375°F. Remove from oven, cut to size and shape desired. Return to oven and bake 3-5 minutes longer. Set aside to cool and dry out.

11. Scottish Bannock Bread

2 cups ww flour

1/2 cup shortening

1/2 teaspoon salt

1/2 cup water

Mix dry ingredients together (the Irish add about 2 tablespoons sugar). Cut in shortening. Stir in water to make a thick dough. Knead until very smooth, about 15 minutes. Form a 1/2" thick cake or several small, thin ones to cook faster.

Have a well-greased, heavy skillet pre-heated on very low heat on the stove-top. Place flattened cake in skillet and cover. Watch carefully so it doesn't brown or burn before the center is cooked. When browned, turn the loaf over and continue to cook. The total cooking time will be about 10-15 minutes on each side.

Note: For **Pioneer Hoecake** use 1 cup cornmeal, 1/2 cup flour, 1/2 teaspoon salt and 1 cup boiling water. Bake in skillet as above.

12. Popped Wheat Treats

Soak whole wheat kernels overnight. Simmer until plump, tender and almost ready to split. Drain, rinse and roll in a dry cloth. In a deep pan, heat oil to 360°F. Put a small amount of wheat (about 1/4 cup) in a wire strainer and deep-fry in hot oil for 1-1/2 minutes or until popping ceases. Drain on absorbent cloth or paper towels. Season with a sprinkle of salt or sugar.

13. Sweet Wheat Crackers/Hardtack

1 cup water	2-2/3 tablespoons sugar
4 tablespoons oil	2-1/3 cups ww flour
1 teaspoon salt	

Combine water, oil, salt, and sugar in a bowl. Add flour and stir well. Roll out dough to 1/4 inch thickness on lightly greased cookie sheet. Cut into 1" x 2" rectangles, do not separate. Bake at 325°F for 20 minutes or until lightly browned.

Hardtack: Increase sugar to 1/2 cup. Roll out dough to 1/4 inch thickness on lightly greased or floured cookie sheet. Cut into 1" squares, do not separate. Bake. They are very hard; just suck on them.

14. Stir-Fried Cracked Wheat

1 cup coarsely cracked wheat	1/2 teaspoon salt
2-1/2 cups water	1 tablespoon oil

Sift flour from cracked wheat and set aside for another use. Bring wheat, water and salt to a boil; cook about 20-30 minutes. Drain wheat through a strainer (save liquid for bread). Rinse wheat with water. Press to remove excess moisture. Heat oil in a heavy skillet. Fry cooked wheat in oil and serve hot. Use leftover wheat if available.

Variations: Fry cooked beans, rice or macaroni with wheat.

15. Unleavened Bread Sticks

4-1/2 cups ww flour	1/4 cup dry milk
1 tablespoon salt	1/2 cup shortening, melted
1/4 cup sugar	1-1/2 cups water

Combine 4 cups of the flour, salt, sugar and dry milk. Add melted shortening and water to dry ingredients. Knead dough 5-10 minutes. Use the remaining flour, if dough is sticky. Let rest 5 minutes. Roll into sticks 1/2" by 6" and set on greased baking sheet. Let sit 1 hour. Bake about 20 minutes at 375°F.

16. Whole Wheat Pie Crust

2 cups sifted ww flour	2/3 cup shortening*
1/2 teaspoon salt	1/4 cup cold water

*Omit shortening and use 1/2 cup oil for crispy (not flaky) pie crust.

Combine flour and salt in a bowl. (Stir in water and oil if using) Cut in shortening to a coarse texture. Place 1/3 cup mixture in a separate bowl and add all of the water; mix with a fork. Add to rest of flour mixture and continue mixing. Adjust water amount by teaspoonful, if needed. Press dough into a ball and lightly knead a few times. Avoid handling too much. Divide into 2 pieces. Roll out a little less than 1/4" thick between flour-dusted sheets of waxed paper. (Dampen work surface to keep paper from sliding.) Remove papers. Fit into pan, trim overhang to 1/2". Fold overhang under and flute edge. For unfilled pie crust prick well with a fork. Bake about 15 -18 minutes at 350°F, until golden.

Two-Crust Pie: Use a larger piece dough for bottom crust; roll as above. Trim lower crust even with rim. Do not prick. Roll top, place on filling, trim 1/2" beyond edge of pan. Fold overhang under bottom crust edge and flute. Cut vents in top crust. Bake as filling recipe directs. Cool on rack to avoid a soggy bottom crust.

Pie Crust Tidbits: Roll leftover dough to 1/4" thick on cookie sheet. Dampen lightly with water and sprinkle with sugar. Cut into shapes; no need to spread out. Bake 15 minutes at 350°F. Cool.

17. Whole Wheat Tortillas

4 cups ww flour	1/4 cup oil
1-1/4 teaspoons salt	1 cup warm water

Combine dry ingredients in a bowl. Stir in oil and water. Add more water if needed. Knead 5 minutes. Dough should be stiff. Let rest 30 minutes. Make into 1-1/2" balls. Roll balls into a thin circle. Bake on ungreased medium-hot griddle until dough bubbles and is flecked with brown spots. Flip and cook other side. This does not take very long. Stack them under a barely moist towel (to soften) until all are cooked.

18. Soft Flour Tortillas

1 cup white flour	1/3 cup shortening
1-1/2 cups ww flour	1 cup hot water
1 teaspoon salt	1/2 cup white flour, as needed

In a large bowl, stir together 1 cup white flour, all the whole wheat flour, and salt. Cut shortening into flour mixture. Add water. Knead until dough is smooth and pliable. Finish as in recipe above, except don't roll as thin. These may also be fried in hot oil.

Sweet tortillas: Add 2 tablespoons sugar to flour when mixing or sprinkle sugar on cooked tortilla.

19. Crunchy Wheat Crackers

1-3/4 cups ww flour	1/3 cup oil
1-1/2 cups white flour	1 cup water
3/4 teaspoon salt	

Combine flours and salt. Briskly stir oil and water together. Mix dry and wet ingredients until moistened. Knead as little as possible to make a smooth dough. Roll out very thin on ungreased cookie sheet. Cut to size of cracker desired. Bake about 20 minutes at 350°F. Store in airtight container when cool and crisp.

20. Tasty Wheat Wafers

3/4 cup ww flour	1-1/2 tablespoons sugar
2/3 cup white flour	2-1/2 tablespoons oil
1/4 teaspoon salt, rounded	1/2 cup water
1-1/2 tablespoons dry milk	

Combine dry ingredients. Stir in oil and water. Let sit 2 minutes. Knead dough 1 minute on a lightly floured surface. Roll dough very thin in rectangle on ungreased baking sheet. Cut into cracker-size pieces. Bake 15-20 minutes at 350°F or until lightly browned.

21. Noodles/Wheat Crisps

1/2 cup ww flour	1/4 teaspoon salt
1/2 cup white flour	1/2 cup water

Combine all dry ingredients together. Stir in water. Knead ball of dough several minutes. Set aside to rest 30 minutes for noodles.

Noodles: Divide dough in two pieces. Roll each piece as thin as possible on floured surface. Cut into desired noodle size or cut into small rectangles. Bring 3 cups water and 1 teaspoon salt to a boil. Drop in cut noodles and stir. Cook uncovered 7-10 minutes.

Wheat Crisps: Add 1 teaspoon oil when adding water. Roll dough into rectangle and cut into 1"x3" strips. Deep-fry in hot oil, turning when they start to puff or begin to brown. Turn to lightly brown other side. Remove from oil. Sprinkle with cinnamon-sugar mixture.

22. Whole Wheat Sourdough Bread

2 cups sourdough starter (#64)
1-1/2 cups warm water
4 tablespoons oil
4-1/4 cups ww flour

2 teaspoons salt
2 tablespoons dry milk
3 tablespoons sugar
Flour, as needed

Remove starter from refrigerator and add 2 cups flour and 1-1/2 cups water in a large glass or plastic bowl. Cover and let it sit out all night in warm (70°-80°F) place. Stir before measuring, so starter is measured, not bubbles. Pour 2 cups starter into a bowl with water and oil. Return unused starter to bottle, and refrigerate. In separate bowl, mix together flour, salt, dry milk and soda, if used. (Adding 1/2 teaspoon soda will lessen sourdough taste and help leaven the dough.) Blend all wet and dry ingredients together. Knead in as much flour as dough can absorb, without any effort to force-feed it, adding a little more each time the dough gets too sticky during the course of a thorough kneading. This takes about 12-15 minutes. Dough should be soft and pliable, but still firm enough to spring back when prodded with a finger. Place dough in oiled bowl. Turn over to lightly coat with oil. Cover with a cloth, let rise until doubled in size. (This takes time, especially when starter is new, so be patient.) Gently deflate risen dough and knead well. Shape into 2 small loaves (better small than large). Let rise several times before baking for a more sourdough taste and finer texture. Place in greased loaf pans or on greased cookie sheet. Rise until doubled.

Whole Wheat Bread: Bake 60-80 minutes at 350°F.

White Flour Bread: Bake 10 minutes at 425°F. Reduce heat to 375°F and continue to bake 50-60 minutes. Adjust time and oven temperature according to added ingredients, loaf size and type of flour used.

Variations: 1 cup cooked bean puree or rice can be stirred into the liquid ingredients or 1/4 cup bean or rice flour into the dry ingredients.

Fry bread: Pour oil 1 to 1-1/2" deep, in a skillet and heat until a tiny piece of dough sizzles in the oil. While oil heats, stretch small pieces of dough to make a 3" circle about 1/4" thick. Carefully ease stretched dough into hot oil. Fry until golden around edges, turn over. Lower heat, if scone browns too quickly or before dough is cooked through. Drain on paper towels. Sprinkle with sugar. Best eaten warm.

Bread Sticks: Roll dough into sticks 1/2"x6" with greased hands. Lay together, barely touching, on baking sheet. Rise and bake.

Note: Whole wheat flour may be used in the starter (#64). Using the sourdough starter often increases its ability to rise dough faster. Milk added in bread has been found to improve the cell structure, causing loaves to rise higher and have a finer texture than water. Used in small quantities milk helps bread store longer and softens its texture. The oven is a good draft-free place to rise the dough. If it doesn't heat the oven too hot the light can be turned on but use no other heat.

Wheat Grass

Cereal grasses have been used as human food supplements since the 1930's. All have very similar nutritional value, but wheat is favored for its availability and ease of growing. Wheat grass contains vitamins A, B, C, E and K, calcium, chlorophyll, iron, lecithin, magnesium, pantothenic acid, phosphorus, potassium, amino acids, trace elements, and up to 30% protein.

Plant wheat in a wooden, clay or plastic planting tray or pot. Metal draws heat away from roots and slows growth. Whatever planter is used it must have drainage holes in the bottom. Virtually any soil will do for grass; the amount is up to you. The more soil used...the more water it can hold...the longer time between waterings but heavier if it needs to be moved.

Soak wheat 24 hours in room-temperature water. Spread on thoroughly moistened soil and sprinkle lightly with dry soil. Dampen with water several times a day. Place in a low-light, room-temperature location. After shoots appear, in 2-4 days, keep soil damp by watering at the roots. When still quite small, it is best to keep shoots away from direct light so the soil doesn't get hot and dry out. Wait until shoots are 1-1 1/2" tall to expose to light. The usually yellow plants, which result from growing in the dark, are most often more tender than their green version; they just lack chlorophyll.

To "green up" the grass, water well just before harvest and expose to light. The darker the color, the stronger the taste and weedy texture but with increased nutrients.

Harvest by cutting 1/4"-1/2" above the soil when grass is about 6" tall or any time before. Grass can produce a 2nd and 3rd crop if watering is continued after the first crop is cut. You will get best flavor and nutrition from freshly cut grass. Grass stores about 6 days when blades are dry to the touch and refrigerated in a plastic bag or other sealed container. Grasses are usually juiced but try them in stir-fry, salad, bread, white sauce or soup.

"There is more security in wheat, than in all the political schemes of the world, and also more power in it than in all the contending armies of the nations...

"They have sold themselves for naught, and must be redeemed without money!' It will take wheat to redeem them! ...it will preach the 'gathering' more eloquently, successfully, and extensively than all the missionaries that we can send out to sweep through the nations,.." ~ Orson Hyde, JD, 1:207

"The time will come that gold will hold no comparison in value to a bushel of wheat" ~ Brigham Young, JD, 1943 ed., 1:250, p.29

ABOUT FLOUR

Flour is the ingredient that gives baked goods their shape and texture. When flour is mixed with water proteins in the flour interact to form gluten. Gluten gives dough elasticity and ability to stretch as a leavening agent produces carbon dioxide gas that causes dough to rise.

Different types of wheat flour contain varying amounts of proteins for forming gluten. Hard whole wheat flour has 11.5%-14% protein content. All-purpose white flour is a blend of soft and hard wheat flours with a 9%-10% protein level.

Whole wheat flour is ground from the entire kernel containing the bran, germ and endosperm. Bran in whole wheat flour reduces gluten development. Baked products made from whole wheat flour tend to be heavier and denser than those made from white flour. Whole grain flours are not refined and retain all their nutrients. Flours labeled as "wheat" instead of "whole wheat" are often refined.

White flour is refined whole wheat flour, ground only from the endosperm. Because it contains neither the bran nor the germ, it has less fiber per cup (3.4 grams) than whole wheat (15 grams) flour. The refining process strips away the fiber-rich bran and the germ which contains valuable vitamins and minerals. To replace these nutrients, flour is enriched by the addition of vitamins and minerals.

All-purpose flour is the flour most commonly used in the home. It comes as bleached and unbleached and must be labeled. Nutritionally, bleached and unbleached flour are the same. Both can be readily substituted, one for the other and used in all types of baking.

Bleached: Refers to flour that has been treated with chlorine to whiten and improve its baking qualities. The chlorine evaporates, does not destroy the nutrients, but does reduce the risk of spoilage or contamination. No harmful chemical residues remain. It is a process which speeds up the natural lightening and maturing of flour.

Unbleached: Is aged and bleached naturally by oxygen in the air. It is more golden in color and may not have the consistency in baking qualities that bleached flour does.

Enriched: Is flour that has been supplemented with iron and four B vitamins (thiamine, niacin, riboflavin and folic acid) in amounts equal to what was removed. Compared to the whole grain it is still deficient in fiber, protein value and 18 trace vitamins and minerals. There is no change in taste, color, texture, baking quality, or caloric value.

A small amount of malted barley flour* is usually added to all purpose flour to increase its level of enzyme activity. (* See Diastatic Malt in About Sugar.)

23. Unleavened Pancakes

1 cup flour	1 tablespoon sugar
1 tablespoon dry milk	1 tablespoon oil
1/2 teaspoon salt	1 cup water

Combine in order listed, blend well. Cook on griddle or waffle iron. Serve with Pancake Syrup (#53). For **waffles** add 1 more tablespoon oil.

24. Brown Gravy/Roux

2 tablespoons flour	1/4 teaspoon salt
2 tablespoons fat	1 cup water

In a skillet over medium heat, brown flour in oil (3-5 minutes). Add salt and cold water, stirring with a fork or whisk to prevent lumps. Cook until smooth and thick, stirring constantly. Makes 1 cup.

Note: The color of the browned flour will vary the flavor of the gravy. Bouillon or vegetable stock can be used for liquid.

25. Lumpy Dick

To lightly salted boiling water, slowly add white flour, while whipping vigorously, until it begins to thicken. Cook a minute or two. Sweeten with sugar and serve with milk. A Depression Era recipe.

26. Blonde Pudding/Pie Filling

2 cups water
1/2 cup dry milk
2 tablespoons sugar

1-1/2 tablespoons flour
1/8 teaspoon salt
1 teaspoon oil

Put water in blender and add dry milk, sugar, flour and salt while it is running. Pour milk mixture into pan and cook over med-heat stirring constantly until thickened. Add oil.

Note: For pie filling increase the amount of flour. This pudding may also be thinned and used as a base for making ice cream.

ABOUT RICE

1 cup uncooked rice = 3 cups cooked

Rice is of such antiquity that the precise time and place of its first development will perhaps never be known. The cultivation of rice began as early as 6,000 B.C. making rice one of the oldest grains grown for food. It is a dietary staple for almost half the world's population. Rice has fed more people over a longer period of time than has any other crop. In several Asian languages the words for rice and food are identical. Rice has been produced in the U.S. since the late 1600's.

Rice is gluten-free and non-allergenic. Most people with food allergies are not allergic to rice. Rice cereal is usually the first solid food given to babies.

There are many ways to cook rice. To retain vitamins, do not rinse enriched rice before or drain after cooking. Rice can be cooked in water, juice, milk or bouillon. It can be steamed or boiled, cooked then fried or added to puddings. A bit of oil will help keep the grains from sticking together; a little salt adds flavor. As soon as the cooked grains are tender all the way through but still firm, the rice is done. The easiest way to test for tenderness is to taste it. The grains should have no hardness in the center. A combination of rice with other grains or legumes will increase nutrition and add variety to meals.

How rice cooks changes from variety to variety, even from batch to batch: brown rice cooks longer than white; old rice absorbs more water than new. All cook by the same principles: Add rice to boiling water; stir, cover, reduce heat; cook. Water will be absorbed into rice or evaporate during cooking. Let rice sit off the heat, undisturbed with lid on, at least 5 minutes or as long as 30. This results in a uniform texture, with the bottom layer as fluffy as the top. Cooked rice stores tightly covered in refrigerator up to one week or in freezer 6 months.

27. Basic Cooked Rice

1 cup rice	1/2 teaspoon salt
1-2 tablespoons oil	2-1/4 cups water

Combine all ingredients. Cover pan with lid and bring to a boil over high heat. When beginning to boil, turn heat down to very low and cook about 35 minutes, until the water is almost gone. Remove lid only when necessary. Take pan from heat and leave covered. Let rice steam, for 10-15 minutes before serving. Fluff with fork before serving.

Note: Rice may be soaked 30 minutes in water before cooking to shorten cooking time. When soaked add oil, cover and cook 15-20 minutes. Steam. Eat hot or cold as cereal, add to chili, soups or eat cold in salad. Combine cooked wheat with cooked rice for a pilaf.

28. Rice Cereal

Make Basic Cooked Rice (#27). Use cracked rice for smoother texture. Serve warm or cold with reconstituted dry milk and sugar.

Note: Rice cereal is usually a baby's first solid food. Grind rice to appropriate coarseness before cooking for babies or puree/mash it after it is cooked. Extra water may be needed. Sweeten and add milk.

29. Creamy Rice Breakfast

3-1/2 cups water, divided	1 tablespoon oil
1/2 teaspoon salt	6 tablespoons dry milk
1 cup cracked, uncooked rice	3 tablespoons sugar

Bring 3 cups salted water to a boil. Stir in cracked rice. Add oil, cover and cook on low heat 20-30 minutes. Stir occasionally. Combine dry milk and sugar. Mix with 1/2 cup water. Stir into rice. Continue cooking until rice is done. Remove from heat. Stir, cover and let steam several minutes.

30. Rice Cake Treat

1/2 cup cooked rice
1 teaspoon oil
1/2 cup flour
4 teaspoons sugar

1/2 teaspoon dry milk
1/8 teaspoon salt, scant
6 tablespoons water

Measure rice into a bowl. Stir in oil. Add flour, sugar, dry milk and salt. Stir in water. Batter should make small thin crunchy pancakes. Drop by teaspoonful into med-hot oil or shortening (about 1/4 " deep). Fry until golden on each side. Serve hot.

31. Easy Rice Pudding

2 cups water
1/4 cup uncooked rice
1/4 teaspoon salt

3/4 cup dry milk
1/4 cup sugar
1 cup water

Bring 2 cups water to a boil. Stir in rice and salt. Return to boil and lower heat. Cook covered, 20 minutes. Combine dry milk and sugar (if a thicker pudding is desired add 1 tablespoon white flour). Stir 1 cup water into milk mixture until smooth. Mix milk mixture with rice. Return rice to simmer and cook 10 minutes more until rice is done. Shut off heat. Let sit 30 minutes before serving or chill.

32. Toasted Rice

Toast rice for a pleasing change in color and flavor. Distribute uncooked rice evenly on a baking sheet. Place in a pre-heated 400°F oven for 6-10 minutes or until golden brown, stirring occasionally. It is more energy efficient to toast the rice in a skillet, with or without oil, on the stove top. Cook as preferred recipe instructs.

33. Horchata

1 cup white rice
2 cups water to cover rice

6 cups water
Sugar, to taste

Do not rinse enriched rice. Cover rice with 2 cups water, and soak 2-3 hours. Does not have to be cooked. (or simmer 5-10 minutes then cool.) Whirl rice in blender. Combine with 6 cups water. Allow rice to settle or strain off liquid. Add sugar and a few drops cinnamon oil or vanilla flavoring to strained liquid. Milk may be used for part of liquid. Serve chilled or over crushed ice.

Note: This will not taste good without flavoring. Offer horchata warm or cooled to babies when they are sick and can't keep anything in their tummies. Save strained rice for another use. Cooked rice increases digestibility and available nutrition.

ABOUT ROLLED OATS

Oats are an excellent source of protein, vitamins and minerals such as iron and calcium. Both old-fashioned and quick oats have the same nutritional benefits: no preservatives, artificial ingredients, salt, or sugar.

Before oats are hulled they are dried and toasted. Drying keeps them fresh-tasting longer, toasting gives a nutty flavor. A few oats get over-toasted and darken during the process.

Next the hulls are removed leaving the oat groat. The groats are left whole for old-fashioned or cut into smaller pieces for quick oats. Instant oatmeal is cut into even smaller pieces and processed so no cooking is needed...just boiling water. The groats are steamed to soften, then rolled or "flaked" into desired thickness. The oats are then cooled and screened for consistent quality.

A flavorful breakfast cereal, they are also a popular addition to cookies, meatloaf and other foods. Store at room temperature or below.

34. Hot Oatmeal Cereal

2 cups water
1/4 teaspoon salt

1 cup oats

Bring salted water to a boil. Add oatmeal and stir. Cook 2 minutes, stirring occasionally. Serve with milk and sugar. 2 servings.

35. Instant Oatmeal Packets

In a blender, pulse 1-1/2 cups oats until mixture is powdery. Measure into 10 packets (reusable ziploc-type sandwich bags) the following ingredients:

1/4 cup *unpowdered* oats
2 tablespoons powdered oats

3 pinches of salt
3/4 teaspoon sugar, opt.

Close the top securely. Attach directions below. Store in a cool, dry place.

Microwave Directions: Empty packet into microwaveable bowl. Add 2/3 cup water or milk. Microwave at HIGH about 1 minute. Stir. Serve with milk.

Stove Top Directions: Boil 2/3 cup water. Empty packet into pan. Cook and stir until thickened, about 1 minute. Pour milk over cereal just before serving.

36. Oat Gruel

Cook 1 tablespoon powdered oats with 6 tablespoons water, 1 to 2 teaspoons dry milk, 1/2 teaspoon sugar and a pinch of salt. Cool and serve. Can thin further with milk, fruit juice, or more water. Ideal for babies or sick people.

37. Basic Granola

3 cups uncooked quick oats
1/2 cup sugar
1/8 teaspoon salt
1 tablespoon ww flour

1/3 cup dry milk
3 tablespoons oil
9 tablespoons water

Put dry ingredients in a bowl. Stir oil and water together and pour over dry ingredients. Mix until clumpy. Crumble onto greased baking sheets. Bake at 350° for 10-15 minutes, checking and stirring often to evenly bake until dry and lightly toasted. Store in airtight container. Eat as snack or cereal with milk.

38. Oatmeal Granola Bar

Make one batch Almost Caramel (#54), increasing salt to 1/4 teaspoon. Cook until a 1/4 teaspoon of syrup dropped into a cup of cold water forms a ball, but flattens when picked up with fingers. Stir in 2 cups oatmeal. Remove from heat and press firmly into lightly greased loaf pan. Cut while warm.

39. Toasted Oat Crumbles

2 cups oats	1/4 teaspoon salt
2 tablespoons sugar	1 tablespoon oil
1 tablespoon dry milk	1/4 cup water

Mix all dry ingredients well. Stir water and oil together and drizzle onto oats. Toss to mix. Spread on greased cookie sheet in small crumbles. Bake about 10-15 minutes at 350°F or until oats are lightly browned. Stir for even browning. Eat out of hand.

40. Norwegian Oatmeal Crackers

2 cups warm water	1/2 cup dry milk
1/4 teaspoon salt	2-1/2 cups oats
1-1/2 teaspoons sugar	2 cups ww flour
2 teaspoons oil	

Put first four ingredients in a mixing bowl and stir. Mix oats and milk together, then stir into liquid mixture. Let stand about 10 minutes or until all the water is absorbed. Add flour. Knead on floured board until dough stays together. Roll out thin on greased cookie sheet and cut into shapes. Bake 10-12 minutes at 350°F until lightly toasted and crispy.

41. Oat Crackers

1 1/2 cups oats	1/2 cup water
1 1/4 cups ww flour	1/3 cup oil
1/2 teaspoon salt	

Mix dry ingredients into a bowl. Stir in oil and water. Let sit 5 minutes. Roll dough 1/8" thick on a lightly oiled cookie sheet. Score. Bake at 325°F for 20-25 minutes.

42. Oatmeal Cookies

1/4 cup shortening	3/4 cup oats
1/3 cup sugar	1/2 cup ww flour
2 tablespoons water	1/4 teaspoon salt

In bowl, cream sugar and shortening together. Add water. Combine oats, flour, and salt and stir into sugar mixture. Mix well. Drop by tablespoonful on ungreased baking sheet. Flatten to 3/8". Bake at 375°F for 10-13 minutes or until lightly browned. Crispy when cooled.

Note: For more tender cookies increase shortening. Dough can be patted into a pie pan and baked for a sweetened **pie crust**.

ABOUT MACARONI

1 cup uncooked macaroni = 2 1/4 cups cooked

Macaroni is made by mixing a coarsely ground flour milled from the endosperm of durum wheat called "semolina" and water. American made macaroni and noodle products must contain added vitamins and minerals: thiamine, riboflavin, niacin, folic acid, and iron. Pasta dough is kneaded and forced through a selected metal disc with holes in it which determines what the size and shape will be. Large dryers circulate hot, moist (to prevent cracking) air to slowly dry the pasta.

The secret to making good-tasting pasta is to use continually boiling, well-salted water. A good ratio is 1 teaspoon salt to 2 quarts water. Never use oil in the cooking water and never rinse the pasta after it's cooked. A starchy coating forms on pasta during cooking. If this coating is covered with oil or washed off, the sauce will not stick to the pasta and all the sauce will end up in the bottom of the bowl.

The best way to check pasta for doneness is to lift a piece from the pot and taste it. The ideal state is "al dente" (to the tooth), which means tender, but firm when bitten...with no raw flour taste.

Cooked pasta stores in the refrigerator for up to 5 days in an airtight container. Pasta freezes best when combined with a sauce. Dry uncooked pasta stores on a kitchen shelf for up to one year. It stores longer if kept in a cool, dry and dark area.

43. Cooked Macaroni

1 quart water
1/2 teaspoon salt

1 cup macaroni

Bring water and salt to a boil in a pot large enough to hold three times the volume of macaroni to be cooked. Stir in macaroni and gently boil 10-15 minutes. Drain immediately. Serve with Cream of Bean Soup (#51), in white sauce with beans and/or rice, or toss with beans and oil/vinegar dressing. Salt and pepper to taste.

Note: When cooking pasta, the amount of time needed to bring water to a boil is insignificant between plain water and salted water.

44. Sweet Macaroni

3 cups water
1/2 teaspoon salt
1 cup macaroni

6 tablespoons dry milk
1/2 cup sugar

Bring water and salt to a boil. Add macaroni and lower heat. Cover and simmer 15-20 minutes. Mix rest of ingredients together. Stir into macaroni. Cook until it starts to thicken, stirring constantly. Cool.

ABOUT BEANS

1 cup dry beans = 2-1/2 cups cooked

Beans belong to the group of food called “legumes”, which includes peas, lentils, and peanuts. Next to cereal grains, it is the legume family which contributes most substantially toward feeding the people of the world. The high protein content of beans is an absolute necessity in countries where little meat is eaten. Beans are also high in complex carbohydrates and important vitamins and minerals like folate, calcium, iron and potassium.

A quarter-cup serving of cooked dry beans counts as a one-ounce serving of lean meat in the “meat and beans group” of the USDA food pyramid. Combining beans with wheat, corn, rice, or milk will create a complete protein equal to meat; digestibility is also improved. Eating beans often and/or sprouted can decrease gassy side-effects as will soaking.

Cooked beans can be stored safely at least five days refrigerated or up to one year frozen without quality loss. Uncooked dry beans keep indefinitely if stored in a tightly sealed container in a cool, dark, dry area. Nutrients are not lost with age although the beans will lose moisture and need longer soaking and/or cooking times.

TIPS FOR COOKING AND USING BEANS

Soaking is not an essential step in bean preparation. However, unsoaked beans take longer to cook and require more attention so they won't boil dry. A longer soaking time is recommended to help beans digest more easily. Beans soaked longer than 12 hours can absorb too much water and lose some flavor and texture. Whether beans soak for one hour or several, discard soaking water, rinse beans and pan. A small amount of oil added to beans during cooking reduces foaming and boil-overs. Beans cook best when simmered. Hard boiling and vigorous stirring cause beans to break. If additional water is needed while cooking, add hot water. To test for doneness pinch or bite a few for tenderness. Wait until close to end of cooking time to add tomatoes, lemon juice, or vinegar as these acids toughen beans. In hard water or high altitude areas increase the soaking and/or cooking times. Beans can be cracked or ground into flour for faster cooking.

Beans can be used to enrich soups and thicken gravies. Bean puree can be used as a base for dips and spreads and as a fat replacement in baking when cooked and mashed to consistency of shortening. (Start by replacing half the fat with an equal amount of pureed beans.)

METHODS FOR SOAKING BEANS

Sort and rinse beans, discarding broken or shriveled beans and any foreign matter. In a large pot add 6-7 cups water to each 2 cups of dry beans. After soaking, choose a method to cook beans.

Hot-soak: This is the newest method for soaking beans. It works for hard, old, dry beans but do not use when sprouting beans. Bring beans and water for soaking to a boil. Turn off heat. Cover and let stand at least 4 hours; maximum 12 hours.

Quick-soak: Prepare like hot-soak; soak only 1 hour.

Long-soak: Cover beans with cool water. Soak overnight or 8-10 hours. Keep beans covered with water while soaking. Be sure to soak beans at room temperature. Hot water may cause beans to sour. Cold water slows hydration and beans will take longer to cook.

Whatever method is used, discard soaking water, rinse beans and pan and use fresh water for cooking.

METHODS FOR COOKING BEANS

A bean is fully cooked when it can be easily mashed with a fork. Adding a little oil to beans when cooking helps prevent foaming.

Stock Pot: Cover soaked beans with fresh water. Add oil and salt (depending on saltiness of other recipe ingredients). Heat all ingredients to boiling. Reduce heat, cover, and simmer gently 30-45 minutes. If additional water is needed while cooking, add very hot tap water.

Crockpot: Fill pot half full with soaked beans. Add fresh water to 2" above beans, salt and oil. Cover and cook on low about 6-8 hours.

Pressure Cooker: Pressure cooking shortens cooking time. Soaked pinto beans will cook in about 10 minutes depending on the age of the beans. Remove rack. Cover soaked beans with 1" fresh water; add salt and oil. Seal cooker, bring up to pressure, reduce heat and maintain pressure for required time. Stay close by until heat is shut off. When time is up shut off heat and let pressure go down naturally. Never remove the weight while pressure is still in the cooker. Cooking time increases by approximately one-third if beans are not soaked.

Note: Before using a pressure cooker, read the manufacturer's complete instructions.

45. Basic Beans

After soaking 1 cup dry beans, rinse and cover with 3 cups fresh water. Add 1 teaspoon salt and 2 teaspoons oil. Simmer until tender.

46. Refried Beans/Pureed Beans

Drain cooked beans and save liquid. Mash warm beans with potato masher in heated skillet with a small amount of oil, adding liquid back in as needed for desired texture. Adjust seasoning. Serve with tortilla chips. Can be frozen.

47. Fat Replacement

Cooked beans may be pureed and used in place of part of the fat in baked goods. (Omit oil, salt and any other seasonings when cooking beans). Beans will help provide moisture to the recipe, but since pureed beans will not act the same way as fat in baking, the final product will be changed. Blend cooked beans in a blender (or use *Bean Flour Paste #50*) until they are the consistency of shortening. Do not replace all fat with pureed beans. Begin by replacing 1/4-1/2 and test the quality of the product.

BEAN FLOUR

1 cup dry beans = about 1-1/8 cups flour

Dry beans can be ground to a fine flour using a hand grinder and strong muscles for small quantities or electric mill for larger quantities. A small amount of bean flour added to baked goods increases vitamin and mineral content and contributes towards a complete protein. Bean flour is great to have on hand for making "instant" soups, sauces, dips, gravies, and sandwich fillings, and to add to almost everything you cook or bake. When added to boiling water, bean flours thicken in only 1 minute; cooked 3 minutes they are ready to eat (saves fuel too). This is the quickest way to cook dried beans. Give it a try.

Baby lima and small white beans have mildest taste. Other favorites are pinto, small red and garbanzo. Some varieties of beans require more liquid than others. You will have to experiment. Store flour on cool, dark shelf in an air-tight container. Best used within 3 months.

48. Instant Bean Soup/Gravy

Use 2 T. white bean flour per cup of liquid for thin soups, 3 T. for medium-thick and 4-5 T. for thick soups, stews or gravies. Whisk into soup stock or boiling water with 1 t. bouillon or soup base per cup. Cook 3-5 minutes.

49. Dips and Sandwich Fillings

Stir 1 cup bean flour and 1 teaspoon salt into 2-1/2 cups boiling water. Cook 1 minute, stirring, until mixture thickens. Reduce heat to low, cook 5 minutes. This is fluffy; similar to refried beans. Add spices.

50. Pinto Bean Paste

Firm paste: 1 cup bean flour + 1-1/2 cups boiling water
Fluffy paste: 1 cup bean flour + 2-2/3 cups boiling water

Stir bean flour into boiling water and let sit 3 minutes. This paste can be whipped with seasoning and butter and used in place of mashed potatoes, added to patties, and casseroles. This paste does require further cooking. It should only be added to recipes that will be cooked or baked further (or continue to cook 3-5 minutes).

51. Cream of Bean Soup

1/2 cup bean flour
3 cups boiling water

1-2 teaspoons salt or bouillon

In a saucepan whisk bean flour into boiling water and seasoning. Stir and cook 3 minutes. Puree in blender for a "souper" creamy texture. Serve over pasta or stir in cooked wheat or beans. Use as a gravy over cooked rice. Soup thickens as it cools, and can be refrigerated for up to one week. Use it in place of canned soup.

Cream Sauce: Use reconstituted dry milk for part of water and add a little oil or non-dairy creamer.

52. Wheat and Bean Burger

2 cups cooked whole wheat
2 cups cooked beans, mashed

Seasoned salt
Oil

Put wheat through a food grinder or mash thoroughly. Mix wheat with the beans. Spoon about 1/3 cup of the mixture onto an oiled skillet. Flatten slightly. Sprinkle with seasoned salt. Cook on medium to low heat until browned; turn and brown the other side. Serve plain or with chili sauce. Try cooked rice in place of wheat.

ABOUT SUGAR

1 pound granulated = 2 cups
1 cup honey = 1-1/4 cups granulated + 1/4 cup water

Sugars are carbohydrates which provide fuel for the body. Carbohydrates account for up to 80% of the caloric intake in many countries of the world. Simple or fast-acting carbohydrates include fruit juices, refined white bread and white rice which are digested quickly and easily by the body and provide a quick, but short-lived, burst of energy. Complex carbohydrates which include whole grains, beans, fruits and vegetables take longer to break down in the body and provide a sustained, longer-lasting energy.

Sugars play important roles in foods for many reasons that go beyond the sweet taste they impart. They add taste, texture and color to baked goods and provide energy for yeast used in baking bread. They add body to yogurt, help balance acidity in tomato sauces and salad dressings and act as preservatives. They increase the boiling point or reduce the freezing point of foods and add bulk and density. There are many types of sugars. The most familiar is sucrose: common table sugar.

Table sugar can be caramelized (scorched) to give it a pleasing flavor and darkened color. It is used in candy and soft drinks.

53. Pancake Syrup

Caution: To be safe, read through recipe before making.

1 cup sugar, divided	1/2 cup water
Dash of salt	1 teaspoon shortening
4 teaspoons white flour	1/2 cup hot water

Measure 1/4 cup sugar, salt and flour into a small bowl. Stir in 1/2 cup water until lump-free. Drop in shortening and set aside.

Sprinkle 3/4 cup sugar evenly in bottom of a light colored pan (so you can see it change color). Heat it slowly over med-high heat. As sugar melts, gently push dry sugar to center of syrup. When syrup is apple juice colored (about 338°F) or almost as dark as you like, remove pan from heat. Sugar does not need to completely dissolve. With lid in one hand and pre-measured 1/2 cup hot water in the other, quickly pour hot water over syrup and cover pan with lid. BE CAREFUL...it will sputter and steam. Tilt pan back and forth a few times and return to heat. Uncover when pan has quit steaming. When sugar is liquefied, stir in mixture in bowl and cook until syrup is thickened. It will thicken more as it cools. Makes about 1 cup. Stores in refrigerator 3 months.

Note: Caramelization determines flavor and color. Darker color = stronger burnt flavor. To stretch the sugar, a smaller amount can be used (may need to increase flour) with a decrease in flavor occurring.

54. Almost Caramel

Caution: To be safe, read through recipe before making.

2 teaspoons flour	1/4 cup water
1/2 cup sugar, divided	1-2 teaspoons shortening
Dash of salt	1/2 cup hot water
2 tablespoons dry milk	

Prepare a lightly oiled plate, 5" bowl or similar size heat-safe container and set aside. In a separate small bowl, stir together flour, 1/4 cup sugar, salt, and dry milk. Using a fork, blend in 1/4 cup water. Whisk until lump-free. Set aside. Measure shortening and set aside. For a firmer candy use the lesser amount of shortening.

Sprinkle 1/4 cup sugar in bottom of light colored pan, turn on med-heat and melt sugar. DO NOT LEAVE UNATTENDED. As sugar starts to melt, gently push dry sugar to center. When syrup is apple juice-colored, quickly pour 1/2 cup hot water over syrup and cover. BE CAREFUL. When water has quit sputtering and sugar has liquefied, stir in milk mixture. Turn heat down to medium and stir in 1-2

teaspoons shortening. Continue to stir until candy is firm when a small amount is dropped in cold water. Pour caramel into prepared pan. Cool and cut.

Note: Caramelizing determines color and flavor; the darker the color the stronger the scorched flavor.

55. Bean Ball Candy

1/2 cup bean flour
1/4 cup sugar
3 tablespoons dry milk
1/8 teaspoon salt

1/2 cup water
1 teaspoon shortening,
(butter flavored)

Butter a small flat dish or saucer and set aside. Combine all dry ingredients in a saucepan. Stir in water. Cook on medium-low heat until very thick. Be sure to cook at least 5 minutes to get beans cooked. If they thicken too fast add more water and turn down heat. Stir with a pancake turner to keep bottom scraped. Remove from heat and beat in shortening with a whisk.

When cooked, scrape out on saucer and let cool. Form into balls and roll in Toasted Oat Crumbles (#39).

Diastatic Malt–Sweetener From Sprouted Wheat

Diastatic malt is a healthful sweetener used in just about every loaf of bread baked in Europe. Diastatic malt is simply powdered, dry sprouted wheat or barley; wheat is easier and more readily available. It would be hard to imagine a better substitute for sugar or honey.

Diastatic malt contains active enzymes which help break down starch into sugar. The sugar feeds the yeast in the dough, helping the bread to rise. Diastatic malt adds nutrition, gives the bread a browner crust, helps loaves retain their freshness longer, and when used in proper amounts, it improves both the taste and texture.

To make diastatic malt, soak wheat (use the nutritious soaking water in soup or bread) and follow directions in *Tips For Sprouting*, until sprouts reach about 1/4" long, then finish with these directions:

When sprouts are as long as the wheat kernel itself, spread and dry on a baking sheet at 110°-120° F oven for 8 hours...or until *completely* dry. Grind the sweetener-to-be in a grain mill or powerful blender. The end result will be inexpensive diastatic malt. Store in refrigerator, in an air-tight jar. The basic rule is to use a single teaspoon of malt in place of all (or part) of the sugar or honey that's normally required. Too much will make bread too sweet, dark and sticky. It is said this malt can also be used as a natural sweetener when making cereal, cookies, and other baked products. Use 1/2 to 1 teaspoon per 3 cups of flour.

ABOUT DRY MILK

Non-fat dry milk is a wholesome dairy product made from fresh milk. Only the cream and water are removed. It still contains the calcium and other minerals, the vitamins, natural sugar and high quality protein that make liquid milk such a valuable food.

Dry milk should be stored in a tightly covered container. Dry milk powder will take in moisture and become lumpy and develop off-flavors. It will keep at room temperature for several months. For longer storage it is necessary to store in a cool, dry place.

The dry milk in the kit is non-instant and does not mix easily for drinking purposes. Experience has shown it will mix in easier if the water is slightly warm, but not hot. Measure the powdered milk into a container and add about half of the water needed. Stir, shake, beat with wire whip or blender on slow speed to incorporate milk. Add enough water to make the amount of milk desired. Mix ingredients thoroughly, cover and refrigerate, preferably overnight. Any lumps will soften and can be stirred in the next day. (Or grate dry lumps on a metal strainer). Store in the refrigerator like fresh milk. Use within 3-5 days. To improve the flavor for drinking, chill overnight and/or add a little vanilla or sugar.

When milk is specified in recipes, add dry milk to dry ingredients. The water for reconstitution should be included in liquid ingredients.

Milk is normally the main source of calcium and vitamin D in a child's diet. These nutrients are needed to build strong bones. If your child is on a diet without milk and is not drinking a formula, ask your doctor about calcium and vitamin D supplements. Most kids outgrow a milk allergy within the first 3 years of life, but some never do.

For allergies to cow's milk, your doctor may recommend a soy-based or casein-hydrolysate formula that will provide the nutrients usually found in milk and milk products. These formulas contain milk protein that has been extensively broken down so it isn't as likely to cause an allergic reaction as regular milk. Soy-based infant formulas are fortified with nutrients and can be used as long as the child will drink it.

Quick Reference for Reconstituting Dry Milk

<u>Fluid Skim Milk</u>	=	<u>Dry Milk</u>	+	<u>Water</u>
1 quart		3/4 cup		1 quart
1 pint		1/3 cup		2 cups
1 cup		3 tablespoons		1 cup
3/4 cup		2 T + 1-1/2 t		3/4 cup
2/3 cup		2 tablespoons		2/3 cup
1/2 cup		1 T + 1-1/2 t		1/2 cup
1/3 cup		1 tablespoon		1/3 cup
1/4 cup		2 1/4 teaspoons		1/4 cup

Note: When reconstituting dry milk the amounts given may vary depending on the brand purchased and personal preferences.

56. Evaporated Milk

1-1/2 cups warm water 1 cup dry milk

Mix ingredients thoroughly. Refrigerate, preferably overnight.

57. Whipped Evaporated Milk

Best if prepared just before serving. Thoroughly chill 1 cup evaporated milk. Whip until stiff. Sweeten with sugar. About 3 cups.

58. Sweetened Condensed Milk

3/4 cup dry milk
3/4 cup sugar

1/2 cup hot water

Combine milk and sugar in mixing bowl. Pour hot water into blender; add the milk and sugar mixture and blend until smooth. (A hand mixer may be used.) Use as substitute for canned sweetened condensed milk in recipes. Makes 14 ounces.

59. Caramel Sauce

Pour sweetened condensed milk into top of double boiler; place over boiling water. Simmer over low heat for 1 to 1-1/2 hours or until thick and caramel-colored, stirring occasionally. Beat until smooth.

Note: To make a substitute for buttermilk or sour milk add 1 tablespoon vinegar to 1 cup reconstituted dry milk.

60. Milk Gravy

Milk gravy is the same as white sauce, except that white sauce is usually made with butter or margarine, while gravy is made with other fat. You can use the two interchangeably as long as the fat is pure and the flavor is mild. Use it as the base for cream soups and casseroles, as well as gravy to top biscuits. Add any meat bits to it for a main course and serve over bread.

2 tablespoons fat
2 tablespoons flour

1 cup reconstituted dry milk

Melt fat over medium heat, sprinkle flour in, while stirring. Continue stirring until the mixture barely starts to brown. Add milk all at once. Stir briskly to avoid lumps. Return to boil and cook 1-2 minutes to thicken. Makes one cup.

61. White Sauce

3/4 - 1 cup dry milk
3 cups warm water
3-4 tablespoons flour

1/2 teaspoon salt
1 tablespoon shortening or oil

Reconstitute dry milk with water. Whisk in flour and salt until smooth. Cook over med-heat until mixture is thickened. Add fat, if desired. Serve hot over rice, macaroni, or toast. Thin for use as chowder-type soup with beans, rice and wheat.

62. Graveyard Stew

Salt and pepper toasted and buttered bread. Pour hot milk over and eat. If no toaster is available spread shortening on sliced bread and fry in skillet.

63. Cemetery Stew

1 cup milk
2 slices of bread, torn into bite-sized pieces
Sprinkle of sugar

Pour hot or cold milk over bread and eat like a bowl of cereal.

ABOUT DIETARY FATS

Q. What were the most valuable items in the days of starvation in Germany after World War II?

A. In the *Ensign*, June 1982, F. Enzo Busche shared the following: *"The food item we relied on most was vegetable oil. With a bottle of vegetable oil, one could acquire nearly every other desirable item. It had such value that with a quart of vegetable oil one could probably trade for three bushels of apples or three hundred pounds of potatoes. Vegetable oil has a high calorie content, is easy to transport, and in cooking can give a tasty flavor to all kinds of food items that one would not normally consider as food. For me and my family, a high-quality vegetable oil has the highest priority in our food storage, both in times of daily use and for emergency usage."*

Fat is an important energy-providing nutrient. A small amount of dietary fat is necessary for our bodies to properly absorb fat soluble vitamins like A, D, E and K. Fat also assists in vitamin D absorption, which helps calcium get into the body, especially to the bones and teeth.

Fat is an essential ingredient in almost all baking. The taste, texture and appearance of foods improve even when it is only used in small amounts. Food textures change with the use of different fats because of their individual characteristics. Shortening makes baked goods fluffier and flakier, while oils provide a denser, heavier product. Fats in bread are interchangeable, measure for measure, whether liquid or solid. One tablespoon fat to four cups flour is sufficient for bread. Fat serves as a preservative in bread and other foods.

Pure oil is non-allergenic. To trigger an allergic reaction, a protein must be present. In the case of oils, occasionally a small amount of protein from the grain, nut or seed from which the oil is derived remains. If a person is highly allergic it may be sufficient to trigger an allergic reaction. It would be quite unusual for a person to be so allergic to canola that the oil would cause a severe reaction. It is more common for a person to be intolerant of a preservative in the oil such as benzoates, BHA, or BHT (check labels). Such a person would react to the preservative regardless of the oil itself.

Vegetable shortening is a solid fat made from vegetable oils, such as soybean and cottonseed oil, which have been hydrogenated to create a solid. Vegetable shortening is virtually flavorless.

Vegetable shortening is used in baked goods, to "shorten" the gluten strands in flour by surrounding them with lubricating fat or oil making the baked goods more tender and flaky. "Shorteners" also help to retain moisture, and when creamed with sugar (which incorporates air) helps to leaven a product. A dough can be classified as "lean" or "rich" depending on how much shortening (and/or sugar) is used.

Shortening doesn't contain water. To get the same results when substituting shortening for butter or margarine, add 1 tablespoon water for each half cup of shortening used. A cookie made with shortening and no extra water added is higher and lighter, while a butter cookie is flatter and crispier.

Shortening has a higher "smoke point" than butter and margarine, and is 100% fat, compared to 80% for butter and margarine. The "smoke point" refers to the temperature at which an oil begins to smoke, becomes discolored, and breaks down. Cooking oils should never be allowed to heat to the smoking point. This will cause food to burn and off-flavors to develop in the oil.

When heated fat dimples and then ripples it means it is getting close to the "flash point", which is when the oil can erupt into flames. The smoke point for canola oil is 400°F. It can be used to saute, panfry, sear, deep-fry, stir-fry, grill, broil, and bake. (Shortening is about 370°F.)

Storage conditions that affect the deterioration of fats, oil and food in general are summarized in the acronym **HALT: Humidity, Air, Light, and Temperature**. Reducing exposure to humidity, air, light, and warm temperatures will prolong storage life. Fats and oils vary in their ability to store for prolonged periods. Generally, shortening can be stored for many years; cooking oil must be rotated more frequently.

ABOUT SALT

A body may endure periods of no food, but without salt and water would quickly perish from dehydration. The average person contains about eight ounces of salt. Salt is in every cell of the body. It helps wounds to heal and body fluids to be properly regulated. Salt regulates electrical charges through the nervous system which helps contractions of the heart and other muscles. Salt is necessary for the digestion of food and flow of nutrients. As hunters, humans got all the sodium they needed by eating meat, but with the switch to agriculture came the need to add salt to a grain and vegetable diet.

Salt played an important part in the survival of the human race long before recorded history. Drying or curing with salt was virtually the only known way of preserving food. These practices helped eliminate dependency on the seasonal availability of food and made travel possible over long distances because it inhibited the growth of bacteria. Thanks to canning, drying, freezing and refrigeration, salt is no longer a primary means of preserving food.

Salt is mostly used in the kitchen and on the dining table. Salt accents the flavor of meat, brings out the individuality of vegetables, puts "oomph" into bland starches, deepens the flavor of delicate desserts and develops the flavor of melons and other fruits. No other seasoning has yet been found to satisfactorily take the place of salt.

Iodized salt is standard table salt with iodine added. Iodine is a component of the thyroid hormone, which controls the rate of energy production in all cells. It thereby influences the growth and general activity of every organ. Iodine reduces mental retardation. Iodine deficiency causes a 10%-15% reduction in a population's IQ capability. It was the first nutrient to be added to foods as a supplement. Since an adult only requires about one teaspoonful of iodine over a lifetime, eating fish once a week is enough to fulfill the average iodine requirement.

A question frequently asked is: Does water boil faster if you put salt in the water? Answer: When a small amount of salt is added to water, such as when cooking pasta, the amount of time needed to come to a boil is insignificant between plain water and salted water.

There are about 10,000,000 crystals in a pound of salt.

ABOUT LEAVENING

Yeast is not in the *One-Month Kit*, neither is baking powder or baking soda. So many more things can be made with the addition of these products but allowances can be made if they're not stored.

For example:

- Bread can be made without yeast if allowed 24-48 hours to rise. Grease plastic wrap and cover loaf lightly to keep crust moist. This does not work very well but it may be acceptable to you.

- "Wild" yeast can make sourdough products. A sourdough culture consists of a whole lot of microorganisms. There are many hundreds of different strains of yeast and friendly bacteria in there, some carried in on the air and some via the environment or from the water or flour. The remains of loaves leavened with these ferments have been found in the Pharaoh's tombs in the pyramids in Egypt.

Some yeast spores respond very well in bread while others do not. Making bread with wild yeast is always an adventure. You may have to try several starters before making a satisfactory loaf. When growing a starter (#64) try making one using whole wheat flour and another with white flour. One flour might work better than another in your area.

- Unleavened bread (#65) has been around a long time.

64. Sourdough Starter

2-1/2 cups all-purpose flour or ww flour

2 cups warm water

Mix flour and water together (small lumps will soften) in a glass or plastic bowl and leave out, uncovered, to ferment (3-5 days) in a warm, (70°-80°F) place. Stir several times a day to aerate and mix in any beginning yeast. After 5 days if it doesn't look like it's doing anything, divide starter in half. (Add one half to regular pancake recipe to use up.) Add 3/4 cup water and 1-1/4 cup flour to remaining half and leave out a few more days; still stirring. If mixture thins down, it may be "eating". Try "feeding" it by adding more flour and less water before starting over. Give it time. Small bubbles will come to the top. Add flour and water once more, to strengthen, if needed. The starter gains strength as it gets used and fed again and again (sometimes it takes months).

* When ready to use in a recipe, before adding any additional ingredients, measure out amount needed then return unused starter to original container. A canning jar with plastic wrap separating starter from metal lid works. Return starter to refrigerator if it won't be used anytime soon.

Note: Use no metal utensils, bowls, container or spoons when making or using sourdough. WW flour is said to have more "yeasties" than white flour. One tablespoon commercial yeast may be added, if stored.

When ready to use starter again, remove from refrigerator and feed. Stir in up to 1-1/2 cups water and 3 cups flour, and let sit out uncovered, in a warm place until bubbly; several hours or overnight. Stir down so you measure starter not bubbles for your recipe.

Always replenish the start with amounts equal to what will be used in your recipe: 1 cup out = 1 cup back in. Measurements aren't exact but better too thick than too thin. Replenish with water and flour only. Return to * above.

Best if used and replenished every 2 weeks. If used often, no need to refrigerate.

Note: Sourdough starter microflora requires food, moisture and correct temperature. Flour provides the food. A wholemeal flour is the easiest and quickest to get going. Use only water for liquid. Temperatures close to 100°F will kill your starter. Starter will get stronger and rise dough higher and quicker the more often it is used. If starter turns pink or orange throw it out; green is okay. Stir any clear liquid back in. Can be frozen or dried between uses but is not always successfully restored to activity.

TIPS FOR SPROUTING

Sprouting in a wide-mouth glass jar is the least expensive and best known method of sprouting. It generally requires extra work and more attention to detail. Jars are clear, cleanable, and come in various sizes. Draining is the hardest part of jar sprouting. Limited air-circulation makes the sprouts vulnerable to heat build-up, so rinse often. See Essene Bread (#65) for sprouting in a colander.

Cleanliness: Sterilize sprouter every 3-4 crops by soaking 10-15 minutes in bleach water (1 tablespoon bleach per pint of water). Scrub and rinse thoroughly.

Soaking: Dry seeds and grains are dormant. Soaking ends their dormancy and begins a new life. Sort out any broken or damaged seeds. Rinse well. Large seeds require more water. Soak 24 hours.

Rinsing: Water is used to add moisture to the growing seeds. Use liberally to loosen, clean and oxygenate the sprouts. Rinse 3-4 times a day with cool (60°-70°F) water. For easy rinsing and draining a piece of nylon netting can be positioned on the top of the jar and held with a metal ring or rubber band. A clean nylon stocking can work but restricts air-flow.

Draining: It is essential to drain off as much water as possible. Sitting in a puddle is the most common cause of crop failure. Shake jar vigorously until no more water drains out and tilt upside down at a 45° angle between rinses to drain any remaining water. Let the side of the jar rest on the edge of a dish rack or large pan. If there are a lot of unsprouted seeds, more draining is needed.

Air circulation: Leave sprouts in an open place where they can breathe while they grow but don't let them dry out. Don't crowd seeds or put them in a closed cabinet!

Light/Darkness: Don't hide soaked seeds in the dark! Leave jar on counter top. Sprouts can't take in light until they have leaves so light has virtually no effect. Never sprout seeds in direct sunlight; it can cook them. To prevent sprouts from "greening", after leaves form, place jar in a dark corner or put a paper bag over inverted jar.

Warmth: 70°F is optimal for all seeds. Hot and humid growing conditions require rinsing more often, better draining and good air circulation. A cold water rinse may be needed.

Harvest: Never refrigerate wet sprouts. Give last watering 8-12 hours before harvesting so they will be dry when stored. Transfer sprouts to plastic bag or sealed container and refrigerate. Sprouts are eaten roots and all.

Sprouting Wheat

Two cups dry wheat = about 4-1/2 cups of sprouts

Wheat can begin sprouting in as little as 24 hours after soaking and take about 3-4 days to produce a finished sprout. Soaked seeds are already alive and though not in their most nutritious state they are still very nutritious. Wheat sprouts contain vitamins A, B, C, E and K, calcium, iron, magnesium, pantothenic acid, phosphorus, and protein (15%). Grain sprouts do not store well under refrigeration. Try to grow just what is needed. Grains are cool weather crops and will continue to grow in the refrigerator.

Put 2/3 cup wheat in a clean wide-mouth glass jar and add 2-3 times as much cool (60°-70°) water. Stir to make sure water contacts all seeds. **Soak** for 6-12 hours. **Drain** off soak water. **Rinse** thoroughly with cool water several times. **Drain** completely, set out of direct sunlight at room temperature (70° is optimal) between rinses. **Rinse** and **Drain** again in 8-12 hours. And, perhaps once more in 8-12 hours. *Taste at every rinse, including the first and find out when they are most delicious! If grown for a week grass will be growing as well as roots. Experiment! Have Fun! It's All Edible!* After final rinse drain sprouts as thoroughly as possible. Sprouts can be refrigerated 8-12 hours after final rinse. They will store best if they are dry to the touch. Put sprouts in a plastic bag or sealed container and store in refrigerator. Sprouts can be eaten as is or added to breads, soups, sandwiches, and tacos. Some people with wheat allergies can eat wheat sprouts.

Sprouted Wheat Bread

The size of your loaf depends on the amount of sprouts you use...experiment. No need for yeast, sugar, milk, oil or butter. You don't need to knead the dough, although a few minutes of kneading will

produce a superior loaf. You won't have to wait for the bread to rise. Traditionally, Essene bread was patted thin and baked on hot rocks under scorching sunlight.

65. Essene Bread

3 cups wheat kernels

1 tablespoon cornmeal

Beginning several days before you hope to be eating this bread, rinse wheat kernels and soak in cool water in a large bowl. Allow the wheat to soak at room temperature overnight or for about 12 hours. Rinse and drain wheat in a colander. Set colander on a plate and cover with a cloth to prevent the wheat from drying out. Rinse and drain wheat 2-3 times a day for the next 3-4 days. When most sprouts are about as long as the kernel, they are ready to use.

Grind sprouts in a food mill or food processor. Immediately take it out of the food processor after it forms a ball. Dump the mushed up grain onto a clean work surface. Squeeze and knead the "dough" for about 10 minutes, add nuts or raisins, if desired.

* Form 2 small round, hearth-style loaves with wet hands. Place on a greased baking sheet sprinkled with a little cornmeal. Cover and let rest for 1 hour. Baking time depends on the shape of the loaf. Thick loaves take more time, smaller loaves will take less. It should be moist and chewy inside. Bake for approximately 1 1/2 to 2 hours at 300°F or 3-4 hours at 250° F.

Allow the bread to cool thoroughly on cooling racks for several hours. Because of high moisture content, store in the refrigerator. For best results, slice this bread thinly, or break with hands.

66. Essene Flat Bread

Use same ingredients, amounts and instructions for Essene Bread (#65) until you come to the * above.

Preheat oven to 325°F. Spread dough onto a 11"x17"x1" greased non-stick baking pan. (The sprouted wheat dough from three cups of dry wheat, spread to 1/4" thickness, fits perfectly in this size pan.) Bake no longer than 35 minutes. Spray oven with water to steam dough when you put it in or try placing a small dish of water in the oven. See what works for you. Turn the pan at least once during baking to help the bread bake evenly. Allow bread to cool for several minutes before scoring it into 2"x2" squares. Cool and store in a plastic bag. It can be frozen.

Sprouting Beans

1 cup dry beans = 2 cups sprouts

Sprouted beans will double in size. Some varieties, usually small ones, will taste better than others. Sprouted beans contain vitamins A, B, C and E, calcium, iron, magnesium, niacin, phosphorus, potassium, all essential amino acids and are 20%-30% protein.

Place 1/3 cup of beans in a clean wide-mouth glass jar. Cover with 2" cool (60°-70°F) water. Let the beans soak for 24 hours. Place a nylon screen on top of the jar and secure it with a rubber band. Rinse and drain (and shake) off as much water as possible, until no more water drains out. Be thorough! Place jar upside down and tipped at a 45° angle between rinses to drain any remaining water.

Rinse and drain beans every 8-12 hours, returning to the inverted position each time. Sprouting should begin within 24-36 hours. Grow to where the beans that are sprouted have 1/4"-1/2" tails. Those not sprouted will either never sprout or will take too long. Use at this point or refrigerate. They store best when they are dry to the touch; 8-12 hours after the final rinse. Place sprouts in a closed container or plastic bag and refrigerate. Eat fresh or cook as you would any soaked bean.

Note: Pinto beans are rarely prolific sprouters. They are intended as soup beans. Uncooked sprouted pinto beans are hard for some folks to digest but give them a try.

EMERGENCY FOODS FOR BABIES

67. Emergency Baby Formula

1-1/3 cups boiled water	2 teaspoons sugar
1/4 cup dry milk	1 tablespoon oil

Cool boiled water to warm before adding ingredients. Combine milk and sugar and stir in warm water. Beat until lump-free. (Soaking overnight will soften lumps). Mix in oil. If baby bottles are not available, formula can be spoon fed.

Note: Do not add vitamins to formula. Do not feed honey to a baby; infant botulism can occur any time in the first year of life.

68. Emergency Baby Food

1/4 cup cooked beans	Pinch salt
3/4 cup cooked rice	1 teaspoon oil
Additional liquid, if needed	

Cook beans and rice until very soft. Puree beans and rice together in a blender, adding liquid as needed. Liquid may be reconstituted dry milk, water drained from cooked beans, rice, or tap water. Add salt and oil. Reheat to insure food safety. Sweeten for a flavor change.

This mixture will provide good protein and iron as well as calories. This can be fed to babies under 6 months if adequate milk is not available, but it must be pureed to a fine texture so their body can utilize the nutrients more efficiently. See note for Rice Cereal (#28).

69. Creamy Oats Baby Cereal

4 tablespoons water	1 teaspoon dry milk
Pinch of salt	1 teaspoon sugar
1 tablespoon powdered oats	

Combine water, salt and oats and bring to a boil. Cook 2-3 minutes over medium heat. Mix together dry milk and sugar; stir into oat mixture. Remove from heat, cover and set aside 5 minutes. Can be thinned further with milk, fruit juice, or more water. Ideal for babies or sick people.

70. Baby Teething Biscuits

1 cup water	1 teaspoon salt
4 tablespoons oil	2-1/3 cups ww flour
2-2/3 tablespoons sugar	

Combine water, oil, sugar, and salt. Add flour and mix well. Dust hands with flour and roll dough into rods 3"-4" long by 1/2" around. Bake at 325°F for 20 minutes or until hard and lightly browned. Babies under one year should not be fed wheat if it can possibly be avoided. Rice and bean flours might be added in tiny amounts for increased nutrition.

COMPLEMENTING PROTEINS

Protein is required for growth, body repair, and maintenance. Serious injuries or illness require extra protein. If we do not get enough protein, our bodies will steal it from our muscles.

Our bodies use 22 amino acids to make 50,000 (that's what it said) different proteins we must have to be healthy. Our bodies can make all but eight. These eight are called "essential amino acids" as we must get them from foods we eat. The only foods which contain all eight of these building blocks are meat, fish, poultry, eggs, and milk products. Soy protein is equivalent to animal protein and has all eight (plus one extra) of the essential amino acids needed to make protein in the body.

Planning meals around these complementary food combinations will provide the complete proteins needed by the body. In many cases it will be better than a meat protein. Complementing proteins should be eaten within the same day.

Wheat + Beans
Wheat + Milk
Beans + Milk
Cereal + Milk

Rice + Legumes
Rice + Milk
Rice + Wheat
Cereal + Legumes

BAKING TIPS FOR MANAGING A WHEAT ALLERGY

When baking with wheat-free flours, a combination of flours usually works best. All flours function a little differently in relation to other ingredients in a recipe. Experiment with different blends to find one that will give you the texture you are trying to achieve. Try substituting 1 cup wheat flour with one of the following:

Barley 1-1/4 cups
Oat 1-1/3 cups
Rice 3/4 cup
Soy 1-1/3 cups

Corn 1 cup
Potato 3/4 cup
Rye 1-1/3 cups
Tapioca 1 cup

Potato and soy flours are best used in combination with other flours. They have a strong flavor and soy flour has a darker coloring. Rice flour gives a distinctively grainy texture to baked products. Rye flour is frequently used although it has a dark color and distinctive flavor. Barley, oat, and rye flours all contain slight amounts of gluten. Other grains are available that do not. Here are some suggestions:

Gluten-Free Flour Mix: 1 part white rice flour, 1 part corn starch, 1 part tapioca flour, 1/2 part white bean flour.

Rice Flour Mix: 3 cups brown rice flour, 1-1/4 cups potato starch or cornstarch, 3/4 cup tapioca flour.

Bean Flour Mix: 1-2/3 cups garbanzo/fava bean flour, 2 cups potato starch or cornstarch, 2/3 cup tapioca flour, 2/3 cup sorghum flour. Mix all ingredients together, use in place of wheat flour.

EXPANDING YOUR PANTRY

To Enhance Basic Storage

yeast, baking powder, baking soda, bouillon, cornstarch, cream of mushroom soup, mayonnaise, tomato sauce, onion flakes or powder, dried egg mix, powdered margarine or butter, canned soups, dried vegetables, soy sauce, garlic powder, salad dressings, spaghetti sauce, pepper, mustard, Worcestershire sauce, salsa, vinegar, ketchup, jams, gravy mixes, syrups, vanilla, pasta, pickles, cocoa/carob, vanilla and maple flavoring, canned meats, butter-flavored shortening, dehydrated fruits and vegetables, parmesan cheese.

Commonly Used Spices

cinnamon, pepper, nutmeg, oregano, sage, cloves, bay leaves, chili power, ginger, curry, cumin, poultry seasoning, parsley, celery salt, ethnic seasonings (Italian, etc.).

Varieties of Grains

wheat, corn, oats, rye, barley, triticale, millet, buckwheat, quinoa, rice, spelt, amaranth, etc.

Varieties of Legumes

lentils, split peas, black-eyed peas, kidney beans, other beans: pinto, black, navy, garbanzo, red, lima, soy, etc.

Nutritious Seeds

sunflower, flax, poppy, sesame, pumpkin. sprouting seeds: alfalfa, mung bean, radish, peas, lentils, etc.

Pioneer Legacy of Provident Living

"The Lord is blessing us and such a time of blessing I never saw. Go to the north, to the south, to the east and to the west and you will see the earth matted with vegetation. Go to our gardens and our orchards and you will see our trees even breaking down with fruit and the harvest of vegetables is plentiful."

Such were the words of Heber C. Kimball delivered in a discourse in 1857. All vegetables seemed to thrive in this land of the Saints. They sensed the value of vegetables in their daily diet and were not content until the harvest had been gathered ready for winter use. Nearly every pioneer home had its pit where potatoes, carrots, apples and other produce were stored. Some vegetables were dried such as corn and squash. Everyone had dried fruits.

In Lehi, near the childhood home of Mary E. Fox Hales was a large apple tree, under which a volunteer patch of lettuce, and a small plot of perennial onions came up each year. These were gathered to make greens for the table. The pioneers gathered pig weeds, mustard greens, dandelions, and sometimes even thistles for this purpose.

<http://heritage.uen.org/resources/Wc74bb9130f1e8.htm>

Food Storage

Vaughn J. Featherstone
Ensign, May 1976, 116

I bear my humble witness to you that the great God of heaven will open doors and means in a way we never would have supposed to help all those who truly want to get their year's supply. The Lord will make it possible, if we make a firm commitment,... All we have to do is to decide, commit to do it, and then keep the commitment. Miracles will take place; the way will be opened, we will have our storage areas filled. We will prove through our actions our willingness to follow our beloved Prophet and the Brethren, which will bring security to us and our families. In the name of Jesus Christ. Amen.

"If we could only learn to be self-preserving and self-sustaining, we should then have learned what the Gods have learned before us, and what we must eventually learn before we can be exalted."

~ Brigham Young, JD 9:169

**For additional home storage information call your
LDS Ward or Stake Preparedness Specialist,
the LDS Home Storage Center in your area
or visit the LDS website at:
<http://www.providentliving.org/>**

This information has been collected from many and varied sources: pamphlets, books, videos, web lists, websites, newsletters, handouts, family and friends. Permission is granted to copy or retype for non-profit use compatible with doctrines of The Church of Jesus Christ of Latter-day Saints.