

1-2000

Food Storage - "Use It or Lose It"

Utah State University

Follow this and additional works at: http://digitalcommons.usu.edu/extension_histall

Warning: The information in this series may be obsolete. It is presented here for historical purposes only. For the most up to date information please visit [The Utah State University Cooperative Extension Office](#)

Recommended Citation

Utah State University, "Food Storage - "Use It or Lose It"" (2000). *All Archived Publications*. Paper 1565.
http://digitalcommons.usu.edu/extension_histall/1565

This Factsheet is brought to you for free and open access by the Archived USU Extension Publications at DigitalCommons@USU. It has been accepted for inclusion in All Archived Publications by an authorized administrator of DigitalCommons@USU. For more information, please contact dylan.burns@usu.edu.



FOOD STORAGE - "Use It or Lose It"

Many people desire to maintain a 12-month supply of food in their homes. People store foods for convenience, for security and for thrift's sake. Having food on hand when you need it, saves you time and energy. It helps you avoid unplanned shopping trips and unexpected dips into your budget. In a financial crisis, stored food is like money in the bank. Buying in bulk or by the case allows you to take advantage of low prices. In times of rising costs, you will be eating tomorrow at yesterday's prices.

THE GOLDEN RULE . . .

Draw from your stored foods every day and replenish them regularly. Rotation is the key to maintaining an EDIBLE inventory of stored foods. Every individual does not like the same foods. We basically eat what we like, and a sudden emergency is no time to introduce untried foods. Each person who is going to eat the stored foods should have some input into planning what foods to store.


As stored items are purchased and brought home, use a grease pencil to mark the purchase date (month and year) on cans, boxes, etc., then use the oldest foods first. This procedure will insure that a shelf-life can be established for each food item. Sometimes you need to know how old the food item was when it was purchased. Almost every food produce sold must carry on the label the name and address of the manufacturer and a number code identifying when the product was packed for sale and/or a suggested shelf-life expiration date. A written request to the manufacturer will provide an interpretation of the number code. Commercially canned foods must be used within one to three years.

When you rotate stored foods, you will always be sure of high quality and flavor. When you buy new items, push previously purchased ones to the front of the shelf or storage area. Place the new items behind them. Do not let containers of food gather in your cupboard corners, on the bottom shelves or in back rows. Keep a written inventory so that use levels for each food item can be established. Then as items are used, stored foods can be replenished when they go on sale.

HOW TO BEGIN

There are several methods of stocking food. The easiest for most people is to buy two (bags, boxes, cans, etc) for storage when you buy one for current use. This way you know you'll be buying foods that you routinely eat. Another method is to investigate warehouses, wholesalers and supermarkets to find where you can get special prices for food bought by the case. Then buy to fill your storage space as your budget allows. This way you won't have to buy any more of that item until it goes on sale again.

Still another method is based on the premise that if you're going to store food, you should immediately store the most nutritionally valuable foods that sustain life ie. whole grains, sugar and/or honey, salt and powdered milk. With the addition of a good multivitamin, you would probably be able to stay alive AND healthy in a crisis.



**STORE WHAT YOU
EAT AND EAT
WHAT YOU
STORE!**

MEAT STORAGE

One of the major problems in a long-term storage plan is how to store the meat you expect to consume over the course of several months. If you have a freezer supply of bacon, link sausages and ground pork, they will come in handy for breakfast or for flavoring. Use a portion of bacon to season a pot of beans, a stew or a casserole. Cook and crumble bacon to make omelets or muffins. You can also sprinkle bacon on top of a salad or casserole.

Canned beef is very tasty - especially if it's used in casseroles and skillet dishes. Commercially canned beef comes with and without gravy. Canned ham can be purchased whole for baking, chunked, or ground for sandwich spreads, salads, scrambled eggs and casseroles. Before you buy, read the labels carefully. Some canned meats require refrigeration.

Hamburger can be purchased in bulk and then divided to make meat balls, burger patties and casseroles. Teens particularly like a goulash made of hamburger, cheese, macaroni, tomatoes or tomato sauce, and corn.

Commercially canned chicken can be purchased whole, ground and chunked, boned and chunked, and pieces in gravy. Whole chickens or turkey packed in a broth that can be used in the same recipe or in a separate soup or sauce are easy to prepare at home. When chickens are on sale, pressure cook them in a broth made from chicken bouillon, onion, celery and salt. This chicken can be used in casseroles, crepes, tetrazzini, salads, etc.

Tuna fish is a universally popular food storage item. It has many uses ie. sandwich fillings, salads, skillet dishes, casseroles and chowders. Clams can be used for chowders, linguine or sauces which are delicious.

PEANUT BUTTER

One of the most delicious, nutritious and satisfying foods you can store is peanut butter. It will keep on a cool, dark shelf for six months and in your refrigerator for over one year. Creamy peanut butter stores better than the crunchy kinds. "Old-fashioned" peanut butter is not hydrogenated and may contain few or no additives but it also separates and leaves an oily layer on top. If you want to store the old-fashioned kind, keep it in the refrigerator.

SUGAR AND/OR HONEY



White granulated sugar can be stored for years, but it will absorb moisture and harden if it is not stored carefully. All varieties of sugar (white, brown, powdered) must be stored in airtight containers in a cool, dry place. In most recipes, you can use honey to replace a fourth of the sugar called for without changing amounts of other ingredients. Store honey in glass or plastic airtight containers to preserve its flavor and color. To melt honey crystals, stand the container of honey in a pan of hot water - do not apply heat directly to the container. If water is added to honey before storing, the honey will ferment.

SPICES AND CONDIMENTS

Adventurous cooks need a variety of herbs, spices and special ingredients to make mealtime an exciting and creative experience. These ingredients take up a minimum of space but do need to be rotated.



Most spices begin to lose their flavor after 12 months. To keep yours fresh, make a chart of all the spices in your cupboard and replace them within 12-18 months. Extracts such as vanilla and almond lose their potency when exposed to air, so recap them as soon as possible.

Mayonnaise and salad dressings (after opening), ketchup, and mustards store best in the refrigerator. Butter-flavor granules can be stored at room temperature because they have not fat. They are a good substitute for butter or margarine in soups or on vegetables. When a recipe calls for sautéing vegetables, you can use oil and stir in butter-flavor granules a few minutes before serving. Butter or margarine bought in bulk when on sale can be frozen for longer-term storage.

USING YOUR FOOD STORAGE

When planning a food storage program, the kind that is usable and ongoing, is one that is geared to the individuals using it. This requires some evaluation and tracking of your family's current eating practices. It can be very helpful to plan actual menus. This not only helps you determine quantities of food to have on hand but also helps you actually use and thus rotate your supply.



The menus below are intended to serve as ideas to get you going in the planning process. They are not necessarily intended to be eaten in the exact order or combinations, but simply to serve as catalysts for you to start actually using your stored items. Fresh fruits and vegetables present the most challenging problems when living strictly on stored foods. If you have a garden and fruit trees, incorporating the fresh produce into these menus is encouraged. When purchasing fresh produce from the supermarket to supplement, watch for specials and utilize produce in season. Use this menu worksheet to create even more of your own menus based on your family favorites. Start collecting and modifying recipes that will use more wheat, beans and dry milk. This bulletin is intended to help give you ways to eat and enjoy some of the foods typically found in a food storage program.

FOOD STORAGE WEEK OF MENUS

DAY	BREAKFAST	LUNCH	DINNER
1	CORNMEAL MUSH CANNED FRUIT JUICE MILK	ORANGE JUICE WHIP BREAD W/PEANUT BUTTER & HONEY	BURRITOS, SPANISH RICE CANNED GREEN BEANS MILK
2	WHOLE WHEAT MUFFINS CANNED PEARS MILK	MACARONI SALAD W/TUNA SPICED TOMATO JUICE CHOCOLATE CHIP WHEAT COOKIES	WHEAT CHILI * CORNBREAD VANILLA PUDDING * MILK
3	HOT COCOA * TOAST	TOMATO SOUP * GRILLED CHEESE SANDWICH SNACK: RAISINS	WHOLE WHEAT MEATLOAF * BAKED POTATO W/YOGURT SOUR CREAM
4	APPLESAUCE SCRAMBLED EGGS W/CHEESE CINNAMON TOAST MILK	WHEAT SEAFOOD SALAD * CANNED PEACHES MILK	BAKED HERB CHICKEN BARLEY PILAFF * JELLO FRUIT SALAD
5	CRACKED WHEAT WAFFLES ORANGE JUICE MILK	FRUITED YOGURT WHOLE WHEAT MUFFINS	SLOPPY JOES/WHOLE WHEAT BUNS COOKED CARROTS (FROZEN) WHOLE WHEAT CHOCOLATE CAKE *
6	SOURDOUGH PANCAKES CANNED JUICE BACON	ORIENTAL FRUIT SALAD CRACKERS MILK	EASTERN CORN CHOWDER * WHOLE WHEAT BREAD STICKS LEMON WHEAT FLUFF *
7	GRANOLA W/MILK PEACH NECTAR	EGG SALAD SANDWICH CANNED CHERRIES MILK	CHICKEN STEW W/RICE, WHEAT OR BARLEY FRENCH BREAD BERRY FROZEN YOGURT *

** Recipes to follow in handout*

FYI: Remember, all foods are subject to deterioration as time passes. The time depends upon the particular food, the container used for storage, and especially on it's environmental temperature. Usually approximately 2%-5% of food value is lost each year. It's just a matter of time before all food value is lost, so rotation is essential to prevent spoilage, minimize loss of food value and flavor and to eliminate waste.

FOOD STORAGE CONTAINERS

Storage containers should protect food from heat, air, insects, moisture, light and rodents. You can adapt many containers to meet these requirements. Evaluate storage containers to be certain they will really do the job.

CONTAINER	ADVANTAGES	DISADVANTAGES
METAL CANS	PROTECT FOOD FROM OXYGEN, LIGHT, INSECTS AND RODENTS	CONTAINER WILL RUST IF USED IN A DAMP PLACE
SHORTENING CANS W/LIDS	NO ADDITIONAL COST, PROTECT FORM INSECTS & RODENTS	LID MUST BE TAPED TO MAKE AIRTIGHT. MAY RUST IF USED IN DAMP AREA. COVER LID TO KEEP LIGHT OUT.
JUICE BOTTLES	NO ADDITIONAL COST. PROTECTS FROM OXYGEN, MOISTURE, INSECTS AND RODENTS.	ALLOWS LIGHT TO PASS THROUGH.
CANNING JARS	USE WHEN EMPTY.	BREAKABLE. MAY SEPARATE W/OLD LIDS.
GARBAGE CANS	LARGE SIZE, REASONABLE PRICE, PROTECTS FOOD FROM LIGHT & RODENTS	NOT SAFE FOR DIRECT CONTACT WITH FOOD. SHOULD BE LINED. LID MUST BE TAPED.
PLASTIC GARBAGE BAGS	DO NOT USE!	NOT DESIGNED FOR FOOD - TREATED WITH INSECTICIDES OR DEODORANTS.
FOOD GRADE PLASTIC	USED FOR FOOD OR WATER STORAGE/NO CHEMICALS/VARIOUS SIZES & OPTIONS.	HARD TO FIND. COST FACTOR.
PLASTIC MILK CONTAINERS	EASY TO ACQUIRE. NO ADDITIONAL COST.	LEAK, DAMAGE EASILY, ALLOWS LIGHT TO PASS THROUGH.
WHITE BLEACH CONTAINERS	DO NOT USE!	NOT FOOD SAFE. CHEMICAL USED TO MAKE WHITE.
2 LITER BOTTLES	EASY TO ACQUIRE. NO ADDITIONAL COST.	CLEAR ONES LET IN LIGHT. GREEN ONES PREFERRED. TAKES MORE STORAGE SPACE.

SHELF LIFE (in months)

Apples/Applesauce	36	Asparagus	36 plus
Apricots	36	Beans, lima	96 plus
Blackberries	12 plus	Beans, stringless	36 plus
Blueberries	12 plus	Beets	48 plus
Cherries	12 plus	Brussel sprouts/cabbage/cauliflower	48 plus
Cranberry sauce	12 plus	Carrots	36 plus
Fruit cocktail	36	Corn/hominy/peas	96 plus
Grapes	12 plus	Pickles/sauerkraut	12 plus
Grapefruit	36	Pumpkin/squash	48 plus
Peaches/Pears	36	Spinach	26 plus
Pineapple	36	Sweet potatoes	48 plus
Plum	12 plus	Tomatoes	24 plus
Rhubarb	12 plus	Meat/poultry/fish	18

- ** Cans can be protected from humidity and rust by immersing them in warm vegetable oil. Place on newspaper to drain.
- ** Bottled Fruit may store longer than canned fruit if the initial quality is high and the storage temperature is accurate.

CONTAINER SIZE AND FOOD WEIGHT

CONTAINER SIZE (gallons)	WHEAT, BEANS, RICE, SUGAR	POWDERED MILK, FLOUR	MACARONI	POTATO FLAKES, INSTANT MILK, OATMEAL
1	7 Lbs	5 Lbs	4 Lbs	3 Lbs
2	15 Lbs	10 Lbs	8 Lbs	6 Lbs
4	30 Lbs	20 Lbs	15 Lbs	13 Lbs
5	35 Lbs	25 Lbs	20 Lbs	15 Lbs
6.5 (50 LB. CAN)	50 Lbs	30 Lbs	25 Lbs	20 Lbs
13 (100 LB. CAN)	100 Lbs	60 Lbs	50 Lbs	40 Lbs
30	225 Lbs	150 Lbs	120 Lbs	90 Lbs
55	400 Lbs	275 Lbs	225 Lbs	160 Lbs

CANNED GOODS - Excellent Food Storage

- ' Canned goods provide excellent nutrition and variety to your food storage plan. For **optimum** nutrition and quality, it is recommended that canned goods be rotated and used up within 12-18 months.
- ' When purchasing commercially canned goods, be sure to check cans for bulging or dents. Purchase fresh canned goods (check the bottom) to insure quality.
- ' When home canning, inspect each jar before putting away. Examine the lids to make sure the center of the lid is depressed and not loose. Remove ring for storage.
- ' Store canned foods in dry, clean, dark areas. These conditions reduce the chance of rusting and molds developing on the containers and eventually contaminating foods. Try to avoid light that can change the food's color and nutrient content.
- ' Store canned goods in cool temperatures (40-60°) and low humidity. Avoid places near a heat source such as a furnace or hot water heater. Studies show that cans stored at 46 degrees F. for a year have insignificant nutrient loss while those stored at 85 degrees F. have 30% or greater nutrient loss.
- ' Don't store food anywhere it might freeze. Freezing makes the foods expand and break the seal which leads to food contamination. It is therefore recommended that you do NOT consume canned goods that have been frozen.

FOOD STORAGE NEEDED FOR ONE YEAR

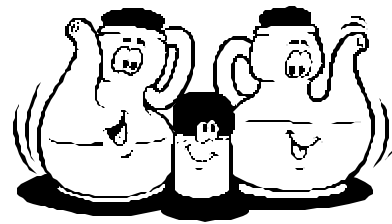
FOOD STORAGE ITEM	Quantity in lbs required for each family member (rounded to nearest 5 lbs)										TOTAL AMOUNT NEEDED FOR FAMILY
	ADULTS		CHILDREN				TEENAGERS				
	Male	Fem.	1-3	4-6	7-9	10-12	13-15 yrs		16-20 yrs		
							Girl	Boy	Girl	Boy	
Wheat	300	200	70	100	160	210	220	280	200	335	
Nonfat dried milk	85	65	100	100	100	100	100	100	100	100	
Sugar and/or honey	45	30	15	20	25	30	30	40	30	50	
Salt	5	5	5	5	5	5	5	5	5	5	
Vitamin supplements	Check with your physician for advice on this storage item										
Vegetable shortening/salad oils	30	25	25	20	20	30	30	40	25	45	
Variety of grains (rice, oats, corn, barley, millet, etc)	90	75	55	45	65	85	90	115	85	140	
Variety of dried beans, peas, soy beans, lentils, etc)	25	20	5	10	20	25	25	35	25	45	
Peanut butter	10	10	10	15	15	15	15	15	15	15	
Variety of vegetables (fresh equivalent)	35	30	20	25	25	35	35	45	35	55	
Potatoes (fresh equivalent)	50	50	25	25	50	50	50	75	75	100	
Variety of canned fruit juices	25	20	15	20	20	25	25	35	25	30	
Variety of fruits (fresh equivalent)	100	100	50	75	75	100	100	100	100	150	
Variety of gelatin, jello, tapioca, chocolate, margarine, butter, powdered eggs, etc	15	10	5	10	10	10	10	15	10	20	
Variety of canned meats	15	10	5	5	10	15	15	20	15	25	
Water for emergency use	1 gallon per day per person										

**Courtesy of "Making the Best of Basics"*

STORING FATS AND OILS

COMMON QUESTIONS???

- * *How much fat should I store?*
Recommendations will vary on the amount per adult for a year. Generally the recommendations range from 20-30 lbs per adult per year (1 gallon weighs approximately 7 lbs).
- * *What fats should I store?* Having a variety of fats will allow for variety in your cooking and meal preparation. Usually for dry shelf storage, shortening and vegetable oil are selected. However, margarine or butter, mayonnaise, peanut butter, and/or powdered butter or shortening should also be considered.
- * *How long will fats keep?* Fats do not have as long a shelf life as many other food items. They oxidize and turn rancid fairly quickly. The general recommendation on shelf life is 9 months to a year. This will vary depending on storage temperature, packaging, and fat form (powdered generally keep longer).



OTHER CONSIDERATIONS

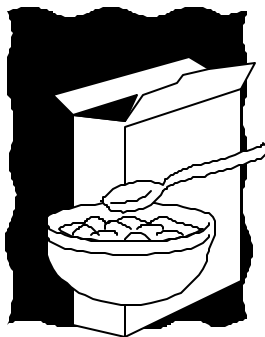
- * Fats are an important food source to include in your food storage program. It is an essential nutrient and provides us an excellent source of energy as well as a source of important vitamins (A, D, E, K). Fat is important because it aids in the cell membrane structure important in helping cushion our bodies vital organs.
- * Besides its important nutritional contribution to our diet, fats make our food more palatable. Its addition of body, texture, and flavor is important to us in making our food more acceptable to eat.

RECIPES TO TRY . . .

HIKER'S SNACK SQUARES

½ cup peanut butter
½ cup honey
3 tablespoons margarine
½ cup instant nonfat dried milk
2 ½ cups cereal*

Combine peanut butter, honey, and margarine in a saucepan. Stir over low heat until blended. Remove from heat. Stir in milk powder until well blended; mix in cereal. Press in an 8" square baking pan. Cool for 1 hour; cut into squares. Store in refrigerator.



PEANUT BUTTER-HONEY BALLS

½ cup peanut butter
¼ cup honey
½ -1 cup instant nonfat dried milk
½ cup cereal*

Mix together peanut butter and honey in a bowl; stir well. Slowly add milk powder; mix well. Add cereal to desired thickness; stir until mixed. Shape into small balls. Ready-to-eat! Store in refrigerator.

* Uncooked oatmeal, oat flakes, corn flakes, bran flakes, etc.

Featuring . . . W H E A T

Wheat is probably the most basic of all food storage items. It is generally the item we have the most of but use the least. While it is considered an "indefinite" food storage item in terms of its storing ability, it is one that should not be neglected. Wheat is an excellent source of nutrition and fiber. It is also versatile and low cost. Because wheat and other whole grains are an excellent source of fiber, the body must adapt to increases in its use in the diet. Do not try to start using wheat all at once! Start slowly and build as you and your family become accustomed to it. Start using wheat by mixing half white flour with half wheat flour for use in baking. When fixing rice dishes, substitute half wheat for the rice.

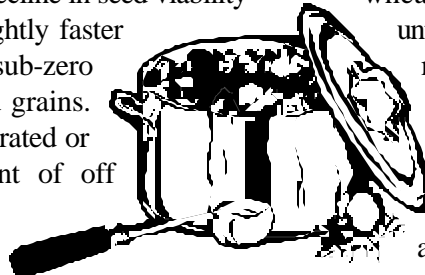


Whole wheat flour may be substituted cup for cup for white flour. However, the product will have a different texture and quality.

The following conversions may be helpful:

1 cup uncooked wheat	=	2 cups cooked
2 cups whole wheat	=	3 cups ground flour
1 pound whole wheat	=	2 1/4 cups

What temperature do I store wheat? The best temperature is 40-60 degrees F. Storage at higher temperatures causes a more rapid decline in seed viability (ability to germinate) but only a slightly faster loss in food value. Freezing or sub-zero temperatures do not damage stored grains. Whole wheat flour should be refrigerated or frozen to prevent the development of off flavors and rancidity.



How do I cook whole wheat?

Combine 1 cup of whole kernel wheat (clean), 2 cups of cool water, and 1 teaspoon salt. Allow to soak for 12 hours or overnight. Place in pan; bring to a boil (may need more water). Simmer for 1 hour or until tender (all water should be absorbed). May keep in refrigerator for about two weeks or may be frozen.

Are there other ways to cook whole wheat? The slow or deep well cooker can be used. The pressure saucepan can also be used but the time is shortened. Process 1 cup wheat in 2 cups water at 15 lbs pressure for 15 minutes.

How do I make Bulgur Wheat? Wash whole kernel wheat in cool water; discard water. For each cup of wheat add 2-3 cups water plus ½ teaspoon salt. Steam until water is absorbed and wheat is tender (35-40 minutes) or may use previous methods to cook the wheat. Spread the cooked wheat thinly on cookie sheets and place in a warm oven (200 degrees F.) to dry thoroughly. Remove chaff by rubbing kernels between the hands (add a little moisture to assist in the removal of the chaff).

How do I rehydrate Bulgur Wheat?

Boil in water for 5-10 minutes or until soft. Wheat will double in volume.

What are some uses for Bulgur Wheat? It can be substituted for mashed potatoes or baked to make a nutritious crunchy snack. It can be added to muffins, soups, stews, salads or desserts.

SPANISH WHEAT

3 strips bacon
1 medium onion, chopped
1 green pepper, diced
3 cups cooked whole wheat
2 ½ cups canned tomatoes
Salt & pepper

Cook bacon; remove from pan. Add onion & peppers; sauté until tender. Add wheat and tomatoes; cover and simmer 5 hours. Top with crumbled bacon.

CHICKEN CASSEROLE

2 cups cooked wheat
1 4-oz. can pimentos, chopped
1 ½ cups diced cooked chicken
½ cup canned mushrooms
½ cup blanched almonds (opt)
1 ¾ cup chicken broth
1 ½ tablespoons flour

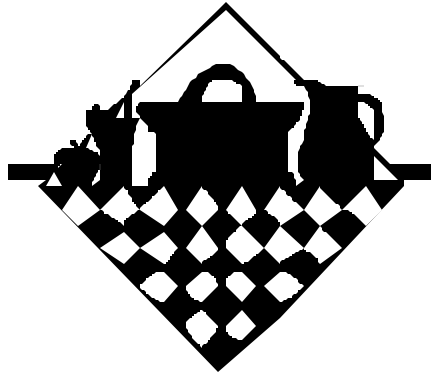
Combine wheat and pimento. Place 1/3 of this mixture in greased casserole. Alternate layers of remaining wheat, chicken, mushrooms and almonds. Combine chicken broth, salt and pepper and flour; pour over top. Bake at 350 degrees F. for 1 hour.

WHOLE WHEAT MEAT LOAF

1 ½ pounds ground beef
1 cup whole wheat, cooked
2 beaten eggs
1 cup milk
¼ cup onion, chopped
2 ½ teaspoons salt
¼ teaspoon pepper
a teaspoon sage
1 teaspoon Worcestershire sauce
1 teaspoon prepared mustard

Combine all ingredients thoroughly and pack into a loaf pan. Top with *sauce*. Bake at 350 degrees for 1 hour. Serves 6-8.

SAUCE: Combine 5 tablespoons brown sugar, 1/4 cup catsup, 1/4 teaspoon nutmeg and 1 teaspoon dry mustard.



WHEAT AND BEAN CHILI

1 cup uncooked dry beans
1 cup uncooked wheat
1 quart water
3 tablespoons fat
1 onion, chopped
1 pound ground beef
1 clove garlic
2 cups tomatoes
1 teaspoon chili powder
Salt & paprika to taste
2 teaspoons brown sugar
½ tablespoon catsup (opt)
½ teaspoon cumin seed (opt)

Cook beans and wheat together in one quart of water (may be soaked overnight before cooking). Add more water if necessary. Cook until almost tender. Beans & wheat may be cooked in pressure saucepan at 10 lbs. pressure for 35 minutes after soaking. Sauté meat, onions and garlic; drain. Combine meat mixture, beans, and rest of ingredients. Simmer for 1 hour.

BROCCOLI WHEAT BAKE

2 lbs. broccoli, cooked slightly and chopped (or 20 oz. frozen, thawed)
½ cup onion, chopped
1 tablespoon butter, melted
1 can cream of chicken soup
¼ cup dairy sour cream
1 cup grated carrot
½ cup milk
1 cup cheddar cheese, grated
2 cups cracked wheat, soaked



Sauté onion in butter; add soup and heat to boiling. Reduce heat and stir in remaining ingredients. Turn into 2-quart casserole. Bake at 350 degrees F. for 30 minutes.

CHICKEN/TURKEY PILAF

½ cup butter or margarine
2 cups cooked chicken or turkey
¼ cup onion, diced
2 teaspoons salt
½ teaspoon pepper
½ teaspoon oregano or thyme
2 cups cooked whole wheat
½ cup chicken/turkey stock
½ cup tomatoes, drained & chopped
½ cup walnuts, chopped (opt)



Melt the butter in large saucepan. Add the chicken (cut into 1 ¼ inch long strips) and onion; cook until it browns lightly. Add salt, pepper, oregano and wheat; cook, stirring occasionally for 5 minutes. Slowly add stock, tomatoes, and walnuts. Bring to boil and cover and simmer 15 minutes (**do not stir**). Serve hot. Serves six.

Variation: ½ cup uncooked rice may be used instead of wheat. Increase stock to 2 ½ cups; cover; simmer 25 minutes or until rice is tender.

WHEAT CASSEROLE

1 cup wheat kernel, cooked
1 pound hamburger, browned
2 cups celery, sliced
2 large onions, diced
1 can cream of mushroom soup
1 can cream of chicken soup
1 can bean sprouts
1 large can Chinese vegetables
2 tablespoons soy sauce
½ cup water

Combine all ingredients; pour into large greased casserole dish or cake pan. Bake covered at 350 degrees F. for 2 hours. Top with crisp chow mein noodles and bake the last half hour uncovered.

TABOULEH

½ cup bulgur wheat (cracked wheat)
2 cups cold water
3 medium sized tomatoes, diced
½ cup parsley, chopped
¼ cup chopped green onions
2 tablespoons fresh mint, chopped
2 tablespoons olive or salad oil
2 tablespoons lemon juice
1 teaspoon salt
¼ teaspoon ground allspice
¼ teaspoon pepper

In large bowl, combine bulgur and water. Let stand 1 1/2 hours; drain well. Add tomatoes and remaining ingredients; mix well. Cover and refrigerate at least 1 hour. Serves six.

WHEAT SEA FOOD SALAD

1 can tuna or other seafood
½ cup green pepper, chopped
½ cup celery, chopped
¼ cup green onion, chopped
¼ cup salad dressing
2 cups wheat, steamed or sprouted

Combine all ingredients; mix well. Serve cold with crackers, etc. for lunch or a healthy dinner.

TURKEY-AVOCADO-WHEAT SALAD

2 tablespoons lemon juice
1 ½ cups diced avocado
1 cup cooked turkey, diced
1 cup cooked wheat
1 cup celery, finely chopped
2 tablespoons green onion, chopped
4 tablespoons salad dressing
4 tablespoons sour cream
1 teaspoon salt
¼ cup nuts, chopped (opt)
Lettuce leaves

Pour lemon juice over avocado. Combine remaining ingredients except lettuce; mix well. Add avocado mixture and toss lightly; chill. Serve on lettuce leaves.

WHOLE WHEAT "MASTER MIX"

6 cups whole wheat flour
3 cups white flour
1 ½ cups nonfat dry milk
1 teaspoon salt
1 cup sugar
½ cup wheat germ
4 tablespoon baking powder
2 cups vegetable shortening

Put all ingredients except shortening into a large bowl; mix with a spoon. Cut in shortening; mix until resembles cornmeal. Store *Master Mix* in covered container.

Makes 14 cups.

***MUFFINS:** Mix 2 tablespoons sugar with 3 cups *Master Mix*. Beat 1 egg in small bowl and add 1 cup water. Combine and stir 15-20 strokes. Fill muffin pans 2/3 full. Bake at 400 degrees F. for 15-20 minutes. Makes 12.

***PANCAKES:** Beat 1 egg slightly; add 1 ½ cups water. Stir in 2 ¼ cups *Master Mix* just until moistened. Makes 15.

***WHOLE WHEAT COFFEE CAKE:** Beat 1 egg slightly with ¾ cup water. Add 2 ¼ cups *Master Mix* and stir just until moistened. Spread half into greased 9x13" pan. Sprinkle with 1 cup raisins and a brown sugar, cinnamon and butter crumble. Drop spoonfuls of remaining batter on top. Bake at 400 degrees F. for 25 minutes.



CHOCOLATE CHIP WHEAT COOKIES

1 cup shortening	2 eggs
¾ cup browned sugar	1 tsp. vanilla
¾ cup sugar	1 ½ cups whole wheat flour
1 teaspoon salt	2-3 cups oats
1 teaspoon baking soda	
Chocolate chips	

Cream sugars and shortening. Add eggs and remaining ingredients. Bake at 375 degrees F. for 10 minutes. Makes 2 dozen cookies.

WHEAT BERRY PUDDING

¾ cup cooked whole wheat
¾ cup milk
¾ cup seedless raisins
1 egg yolk
2 tablespoons honey
1 teaspoon vanilla
¼ teaspoon cinnamon
C teaspoon salt
1 egg white

Combine cooked wheat, milk and raisins in a 2-quart saucepan. Blend together egg yolk, honey, vanilla, cinnamon and salt; add to wheat mixture. Cook over medium heat, stirring constantly until mixture boils. Reduce heat and cook stirring constantly until mixture is thick and creamy, about 5 minutes. Remove from heat and cool pan in ice water for 10 minutes. Beat egg white until stiff peaks form; fold into wheat mixture. Spoon into dessert dishes and chill.

Serves four.

GOLDEN HARVEST MUFFINS

2 a cups all-purpose flour
2 cups whole wheat flour
2 cups sugar
4 tsp. baking soda
4 tsp. cinnamon
1 teaspoon salt
½ teaspoon cloves
4 cups (5 med) apples, shredded
1 cup each carrots, coconut, raisins & nuts
1 ¼ cups oil
½ cup milk
4 teaspoons vanilla
3 eggs, beaten



Combine flours, sugar, baking soda, salt and cloves. Add apples, carrots, raisins and nuts; mix well. Add the rest of the ingredients; stir until moistened. Fill muffin cups ¾ full. Bake at 350 degrees F. for 20-25 minutes. Makes 36.

WHEAT FOLD-OVERS

1 ½ cups whole wheat flour
1 teaspoon baking powder
¼ teaspoon salt
½ cup margarine or butter
½ cup brown sugar
1 egg
1 teaspoon vanilla

Cream butter; beat in sugar until fluffy. Add the egg and vanilla and beat well. Add dry ingredients and blend well. Cover and chill for two hours. Roll dough to 1/8 inch thickness and cut in 2 1/2 inch circles. Place 1 teaspoon *filling* in center of each circle and fold in half; seal edges with a fork. Bake on ungreased baking sheet at 375 degrees F. for 10-12 minutes; cool on rack. Drizzle with icing (optional). Yield: 24 cookies.

FILLING: Combine 1/2 cup bulgur wheat and 2 tablespoons of your favorite jam.

WHEAT APPLESAUCE CAKE

2 cups whole wheat flour
1 cup sugar
1 teaspoon baking soda
1 teaspoon cinnamon
½ teaspoon nutmeg
½ teaspoon cloves
1 cup applesauce
½ cup oil
Nuts, dates, raisins

Mix all dry ingredients. Stir in applesauce, oil, nuts, dates and raisins. Bake in large greased cake pan at 350 degrees F. for 35 minutes or until done. Top with hot applesauce.

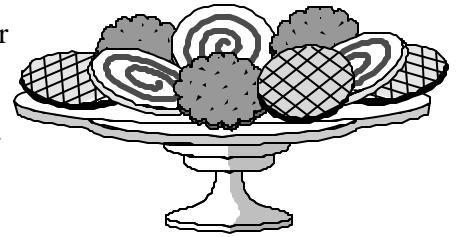
WHOLE WHEAT MUFFINS

1 C. flour	1 C. milk
½ tsp. salt	¼ C. vegetable oil
4 tsp. baking powder	2 eggs, beaten
1 C. brown sugar	½ C. nuts
1 C. wholewheat flour	

Mix all dry ingredients. Add combined milk, eggs and oil. Stir until just moistened; add nuts. Bake in greased muffin tins at 425 degrees F. for 15 minutes. Makes 1 1/2 dozen.

MEAL IN A COOKIE

¼ cup molasses
1 cup margarine
1 cup peanut butter
2 eggs
1 cup sugar
1 cup brown sugar
1 teaspoon vanilla
2 cups oatmeal
2 cups whole wheat flour
¼ cup powdered. milk
½ cup wheat germ
2 teaspoons baking soda
2 teaspoons water
Raisins, dates, nuts, chopped (opt)



Blend molasses, margarine, peanut butter, eggs, sugars, and vanilla. Add the rest of the ingredients. Press flat in two greased 10x15 inch pans. Bake at 350 degrees F. for 15-20 minutes. Cool and cut into bars.

WHOLE WHEAT CHOCOLATE CAKE

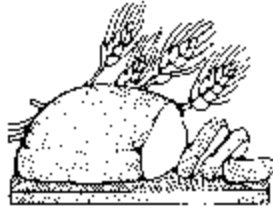
3 cups whole wheat flour
2 cups sugar
¾ cup powdered chocolate or carob
1 tablespoon baking soda
1 teaspoon salt
2 eggs
1 cup cooking oil
1 cup buttermilk
1 cup hot water

Lightly grease and flour a 9x12 inch baking dish. Combine flour, sugar, chocolate, soda and salt. Combine eggs, oil and buttermilk in mixer; blend. Add the dry ingredients and mix well. Stir in 1 cup hot water and blend once more. Pour into prepared pan and bake at 350 degrees F. for 45 minutes or until done. Frost with your favorite icing.



WHOLE WHEAT BREAD

2 tablespoons yeast
½ cup warm water
5 cups hot tap water
2 tablespoons salt
b cup oil
b cup honey
12 cups whole wheat flour



Sprinkle yeast into 1/2 cup warm water. Let stand 15-20 minutes. Combine hot water and 7 cups of the flour in bowl. Mix on low speed until blended. Add salt, oil and honey; continue to mix until well blended. Add 1 more cup of flour and yeast mixture; blend. Add the rest of the flour; knead for 10 minutes longer. (Mixture will be consistency of cookie dough) Oil hands; mold dough into loaves; place in oiled pans. Cover and let rise until dough increases one-third in bulk. Place in cold oven and bake at 350 degrees for 30-40 minutes. Yield: 4 large loaves.

GRAHAM CRACKERS

2 teaspoons lemon juice
½ cup evaporated milk
1 cup oil
½ cup honey
2 tsp. vanilla
2 eggs
1 cup brown sugar
6 cups whole wheat flour
1 teaspoon salt
1 teaspoon baking soda

Mix together evaporated milk and lemon juice. Add oil, honey, vanilla, eggs and sugar. Combine dry ingredients; add to milk mixture and mix well. Divide into 4 equal parts and place on greased and floured cookie sheet. Roll to edges with bottle or pizza roller until 1/4 inch thick. Bake at 350 degrees for 15 minutes or till brown. Cut into squares while hot.

APPLE COBBLER

1 qt. canned apple pie filling OR 1 qt. sliced apples
½ cup sugar
½ teaspoon cinnamon
¼ teaspoon nutmeg
2 tablespoons flour

TOPPING:

1 cup wheat flour 1 tsp. sugar
1 tsp. baking powder ¼ cup margarine
½ tsp. baking soda ¼ tsp. salt

Place apple mixture in bottom of 9x9" pan. Mix dry ingredients together; cut in margarine. Add to top of apple mixture. May moisten with 1/2 cup milk or leave as plain crumb topping. Bake 350 degrees F. for 30 minutes.

WHEAT SQUARES

1 cup whole wheat flour
1 cup all purpose flour
¼ cup wheat germ
¼ cup brown sugar, packed
1 teaspoon salt
½ teaspoon baking soda
½ cup water
¼ cup butter or margarine, softened
Coarse salt



Mix dry ingredients well; stir in water and butter until smooth dough forms. Divide in half; cover and let stand at least 10 minutes. Place half the dough on lightly oiled 17x14" baking sheet; flatten into 4" square; roll out until dough is 16x13" rectangle. Cut into 1 1/2 inch squares. Prick all over with fork; brush with water then sprinkle with coarse salt. Bake at 400 degrees F. for 7-8 minutes or until crisp but not over browned. Remove to racks to cool. Repeat with remaining dough. Makes approximately 200 crackers.

Featuring . . . D R Y M I L K

For many of us dry milk is the most difficult food storage item to use up. Many people do not like it for drinking, and haven't discovered other ways to use it. While it is the hardest to use, it is one of the foods that should be rotated with frequency because it does develop off flavors over time. The cooler the storage temperature on dry milk the longer the flavor will last.

Dry milk is found in two forms: *INSTANT AND REGULAR* (either may be whole or nonfat). Each has its advantages. *Instant* dry milk reconstitutes very easily, but is more expensive and more difficult to find in large quantities. *Regular* dry milk is less expensive and is easy to find in large quantities but is difficult to reconstitute. Maybe some of each would be an option. Either way milk is a very important food group which should not be left out of a food storage program!

Many foods and meals can be made using nonfat dry milk. Add the dry milk to the other dry ingredients, then add water for the milk called for in almost any recipe. Also, it is convenient to have a gallon jug of milk mixed up in the refrigerator and ready for use in baking. Cream soups and sauces can be prepared quickly by using a master mix that uses dry milk. Another way to use dry milk is in homemade yogurt. Yogurt can then be used in place of sour cream or buttermilk when baking, or making dips or sauces.

The following conversions may be helpful in recipe preparations:

1 cup water + 1/3 cup instant dry milk	= 1 cup liquid milk
1 cup water + 1/4 cup regular dry milk	= 1 cup liquid milk
1 cup water + 2/3 cup nonfat dry milk	= 1 1/4 cups evaporated milk
1 pound regular whole dry milk	= 3 1/2 cups
1 pound regular nonfat dry milk	= 3 1/4 cups

*** (For richer flavor add more dry milk to taste)**

HOT CHOCOLATE MIX #1

1/2 pound instant chocolate drink
5 cups instant powdered milk
3/4 cup non dairy creamer
1/4 cup powdered sugar

Mix together. Stir 1/3 cup of mix into 1 cup hot water.

HOT CHOCOLATE MIX #2

2 cups sugar
2 1/2 cups instant powdered milk
3/4 cup cocoa
1 1/2 cups non dairy creamer

Mix together. Stir 2 tablespoons of mix into 3/4 to 1 cup of hot water.



SWEETENED CONDENSED MILK

2 cups dry powdered milk
1 cup hot tap water
2 cups sugar
2 tablespoons butter

Put milk and water into blender; mix well. Add sugar and butter and blend well; refrigerate.



1 can sweetened condensed milk = 1 1/4 cups

BUTTERMILK

1/2 cup buttermilk
3 cups warm water
1 cup nonfat dry milk OR
1 1/2 cups instant nonfat dry milk

Put buttermilk, water and dry milk in a large clean jar and stir or shake until milk is dissolved. Cover the jar with a lid or clean cloth. Let stand in a warm room until mixture clabbers (about 10 hours in the winter or 5 hours in the summer). After it clabbers, store in the refrigerator. Save 1/2 cup to mix buttermilk next time. Buy commercial buttermilk occasionally for a fresh "start".

MOCK PEANUT BRITTLE

1/2 cup corn syrup
1/2 cup sugar
1/2 cup powdered milk
1 cup peanut butter
8 cups corn flakes

Combine corn syrup and sugar in small sauce pan. Over medium heat, stir to dissolve sugar. Add peanut butter and bring to boil. Remove from heat, add powdered milk and mix well. Add corn flakes; put in pan. Cool and cut into squares. Yield: 60 pieces

PEANUT BUTTER CHEWS

1/2 cup peanut butter
1/2 cup corn syrup
1 cup powdered sugar
1 cup dry milk (or more)

Mix peanut butter and corn syrup; gradually add powdered sugar. Stir until smooth. Then add dry milk a little at a time and mix well until mixture is stiff enough to handle. Roll into your choice of shapes.

PUDDING MIX

1 1/2 cups sugar
1 tsp. salt
2 1/2 cups nonfat dry milk
3/4 cup cornstarch

Mix all ingredients together, store in tightly covered container in a cool place.

***VANILLA PUDDING:** Combine 1 1/4 cups pudding mix and 2 1/2 cups warm water in top of double boiler. Place over boiling water; cook until thickened, stirring constantly. Add 1 tablespoon butter, remove from heat. Beat half the mixture into 1 beaten egg. Blend slowly into remaining hot mixture. Stir in 3/4 teaspoon vanilla. Chill. Serves 4-6.

***CHOCOLATE PUDDING:** Add 3/4 cup cocoa and an additional 1/4 cup sugar to vanilla pudding recipe.

***CAMEL PUDDING:** Substitute 1 1/2 cups packed brown sugar for granulated to vanilla recipe.

***FRUITED LEMON PUDDING:** Add 1/2 cup fruit of choice and miniature marshmallows to vanilla recipe.

CITRUS CRUSH

1/4 cup lemonade concentrate
Juice of 1 orange
1/4 cup powdered sugar
1/2 cup nonfat dry milk
1 cup crushed ice

Put all ingredients into blender. Cover; blend 10 seconds. Serves two.



WHITE SAUCE MIX

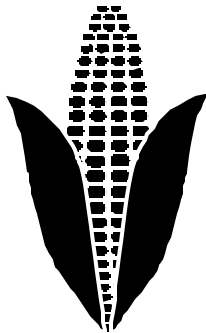
2 cups instant nonfat dry milk OR
1 ½ cups regular nonfat dry milk
1 cup all-purpose flour
2 teaspoons salt
1 cup butter or margarine

In a large bowl, combine dry milk, flour and salt; mix well. Cut in butter until mixture resembles fine crumbs. Store in airtight container in refrigerator. Use within 2 months. Makes 1 quart.

***WHITE SAUCE:** Combine 1/2 cup *white sauce mix* and 1 cup water in saucepan. Cook over medium heat, stirring constantly, until sauce is thickened and simmering. Makes 1 cup. (For richer sauce may substitute milk for water)

EASTERN CORN CHOWDER

5 slices bacon
1 medium onion, thinly sliced
2 medium potatoes, pared and diced
Water
2 cups milk
1 cup above *white sauce mix*
17 oz. can cream-style corn
1 teaspoon salt, dash pepper
1 tablespoon butter or margarine



In large frying pan, cook bacon until crisp. Crumble and set aside. Reserve 3 tablespoons bacon drippings in pan. Add onion and cook until light brown. Add potatoes and enough water to cover. Cook over medium heat 10-15 minutes, until potatoes are cooked. Combine milk and *white sauce mix* in small saucepan. Cook over low heat until thick and smooth. Stir in corn, salt and pepper. Add to potato mixture and heat through about 10 minutes. Top with crumbled bacon and butter.

Serves six.

TOMATO SOUP

3 - 4 cups (or 1 qt. home canned) crushed tomatoes
¼ cup onion, chopped
1 bay leaf
½ tsp. basic, crushed dried
Salt & pepper to taste
2 cups milk (reconstituted)
½ cup white sauce mix

In saucepan combine first 5 ingredients. Simmer 5 minutes; remove bay leaf. In another saucepan, combine milk and *white sauce mix*; thicken over medium heat. Slowly add hot tomato mixture to white sauce stirring constantly. Serve immediately.

HOMEMADE "CREAM" SOUP MIX

2 cups powdered nonfat milk
¾ cup cornstarch
¼ cup instant chicken bouillon
2 tablespoons dried onion flakes
1 teaspoon basil leaves
1 teaspoon thyme leaves
½ teaspoon pepper

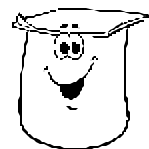
Combine all ingredients, mixing well. Store in air-tight container until ready to use. Yield: 9 cans of soup.

***CREAM OF CHICKEN SOUP:** Combine 1/3 cup of dry mix with 1 1/4 cups of cold water in saucepan. Cook and stir until thickened. Add to casserole as you would the canned product. Substitute for 1 can.

***CREAM OF MUSHROOM SOUP:** Add a 4 oz. can of mushrooms, undrained, as part of liquid in *Cream of Chicken Soup* above for cream of mushroom (10% fat)

YOGURT

2 cups warm water (100 degrees)
1 cup non-instant powdered milk
2 tablespoons plain yogurt

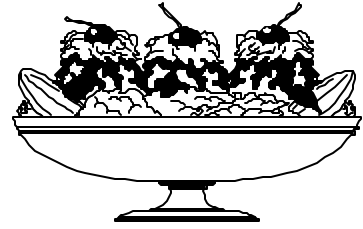


Pour warm water in blender. Add milk and blend well. Add yogurt and blend. Pour into jars or glasses. Place jars, neck deep in warm water. Cover with a lid. Maintain temperature 100-120 degrees for 3-4 hours. Mixture should clabber or set up. Chill immediately. Sweeten to taste; use in dips, dressings, in place of sour cream. May also be used in desserts.

GRANDMA'S SECRET ICE CREAM

2 cups sugar
¾ tsp. salt
¼ cup flour
1 ½ cups dry instant milk
4 cups water
4 eggs, beaten

13 oz. evaporated milk
2 tablespoons vanilla
2 teaspoons lemon extract
4 ½ cups whole milk
Rock salt
Crushed ice



In large saucepan, combine sugar, salt, flour and instant milk. Gradually stir in water and eggs until blended. Cook, stirring constantly over low heat until mixture thickens enough to coat a metal spoon (15-20 minutes). Pour into a large bowl; refrigerate 1 hour or until chilled. Stir in evaporated milk, vanilla and lemon extract. Pour into ice cream canister. Stir in enough whole milk to raise mixture to fill line. Freeze according to manufacturer's instructions. Yield: 1 gallon.

***STRAWBERRY ICE CREAM:** Purée 2 cups strawberries. Stir into chilled egg mixture before freezing in ice cream maker. Reduce vanilla extract to 1 tablespoon.

***CHOCOLATE SWIRL ICE CREAM:** When ice cream is frozen, remove lid and dasher. Insert a long wooden spoon. Pour cooled *Choc-P-Nutty Sauce*, below into ice cream next to spoon. Draw spoon back and forth through ice cream several times to distribute sauce. If sauce is too thick to swirl, stir in 2-3 tablespoons evaporated milk before adding to ice cream.

***CHOC-P-NUTTY SAUCE**

1 C. sugar
1 T. flour
Pinch salt
2 T. cocoa powder
¾ C. evaporated milk

¼ C. margarine
2 rounded tablespoons chunky peanut butter
¼ tsp. vanilla

In small saucepan, combine sugar, flour, salt and cocoa powder. Blend mixture thoroughly. Stir in evaporated milk; add margarine. Stir over medium-high heat until comes to boil. Reduce heat to medium. Continue cooking until slightly thickened, about 3 minutes. Remove from heat. stir in peanut butter and vanilla. Makes about 1 1/2 cups.



BERRY FROZEN YOGURT

1 envelope unflavored gelatin
½ cup cold water
4 cups berries
2 cups sugar
4 teaspoons lemon juice

4 teaspoons vanilla
2 quarts vanilla yogurt, lowfat
2 T dry egg white pwd + ¾ C water (3 whites)
¼ tsp. cream of tartar

In small saucepan, combine gelatin and water; let stand 1 minute. Cook over medium heat, stirring constantly, until dissolved. Remove from heat. Mash berries; add sugar, lemon juice and vanilla. Add yogurt and gelatin mixture. Combine dry egg whites, water and cream of tartar and beat until stiff; fold into yogurt-berry mixture.

Transfer to a gallon ice cream freezer and follow manufacturer's directions. Use about 8 parts ice to 1 part rock salt. When yogurt is done, remove dasher and pack with more ice or transfer to your freezer to allow further hardening. (6.6% fat)