

EVERYTHING UNDER THE SUN

Food Storage for the Solar Oven

by Wendy DeWitt

“What’s for dinner?” is an age old question. But in times of crisis, that question becomes even more important. Experience has shown that when people are in emergency situations, food and water become the focus of everyone’s attention. But it doesn’t take a natural disaster to need food storage. Personal economic disasters happen every day in this country. Food storage can be life saving in many different situations.

We all have questions and concerns about food storage. What should I buy? What will it cost? Where do I store it? How do I cook it? What about rotation? There are hundreds of answers to these questions and the following information isn’t right or wrong, it’s just the way I do it.

Most of the recipes in previous versions of this book were “made from scratch” recipes. This version includes a “user friendly” section for meals that are more easily prepared. These recipes have been given only to show you the kind of things can be stored and how to cook them in a solar oven. Your family will appreciate it if you use your own favorite recipes.

THE SOLAR OVEN It’s not uncommon in emergency situations for the power to be out. With a solar oven, it doesn’t matter where you live; as long as the sun is shining, you’ve got power. Have backup sources of fuel, such as wood or propane, but most of the time your solar oven will be your main source of cooking. Solar cooking is clean, it keeps the heat out of your kitchen, it’s delicious and, best of all, it uses a free source of energy. It’s a good idea to practice cooking with your food storage now, so you know what you’re doing. You don’t want to be wasting precious food when times are bad. Every recipe in this book was made in my solar oven.

There are other uses for your solar oven such as pasteurizing water, killing infestations in grain or dried foods, sanitizing dishes, drying firewood, sprouting foods, and decrystallizing honey or jams. A good rule of thumb is: germs can’t grow at 120 degrees, water is pasteurized at 150 degrees, foods will cook at 180 degrees and water boils at 212 degrees.

Using a solar oven is a matter of practice. Experiment with it. Learn where to place your oven for the best cooking, how to adjust the angles and how often to reposition it to maintain the highest temperatures. There are many solar ovens on the market ranging in price from \$20 to \$200. There are also books in the library on how to make your own. I have the Global Sun Oven (\$170) which has 4 reflector panels that surround the oven, a thermometer and a tight fitting glass door that fits on top of a heavy rubber gasket. Inside is a rocker arm the food sits on which provides good circulation and keeps the food level when the oven is tilted. A good solar oven will reach almost 350 degrees. Your goal is to face the oven directly at the sun so there are little or no shadows inside. Check your foods often. Never leave your oven in the cooking angle without food or water in it. It can destroy the inside finish. Preheat your oven by slightly propping up the lid and facing it in the direction of the sun.

COOKWARE Check the size of your oven before buying any pots or pans. Use dark pots with tight fitting lids.

Dark cookware will absorb the heat and your cooking will go faster. Smoked glass is also good because it lets you see how the cooking is going without opening the oven. Cast iron is great on partially cloudy days because it holds the heat. Don't use stainless steel or shiny aluminum pans... they reflect the heat instead of holding it in. (If it's all you have, cover them with a dark cloth.) Canning jars painted black work well too. Put a strip of masking tape from the top of the jar down to the bottom and up the other side...paint and remove the tape. This allows you to see inside the jar while cooking. Always use pot holders and it's a good idea to wear sun glasses to avoid the glare of the reflectors..

COOKING TIPS FOR SOLAR COOKING Start early in the day to be sure you'll have a dinner that night! (You might want to do what our ancestors did; eat your big meal in the afternoon and have a light snack before bed.) Foods cook in approximately twice the amount of time as in a normal oven. If you cover your pots and pans with tight fitting lids, your oven won't steam up and your food won't need to be stirred as often. This is important because opening your oven drops the temperature by 50 to 100 degrees in just seconds. Grains and beans need about 1/4 less liquid because very little moisture escapes in solar cooking. Cloudy days are good times to cook foods that just need a gentle simmer. The intermittent sun will provide enough heat to simmer soups and stews. Do your baking on bright sunny days. I have two solar ovens so I can be cooking dinner in one and baking breads or desserts in the other. Cooking times are always approximate and will depend upon how your oven is placed, the time of day and cloud cover. Don't try to cook too much at one time. Larger amounts of food will cook faster if you divide it up and put it into smaller pots. Cut foods into smaller pieces for faster cooking.

Remember, no matter how you do your cooking, there is a danger zone for foods. Some foods left at a temperature between 50 and 125 degrees for 3 or 4 hours can grow harmful bacteria and can carry a risk of food poisoning. Watch your food and don't let it fall to these temperatures for extended periods of time!

THE SYSTEM

I've based this system on a "worst case scenario," meaning, if there were no stores, gardens, city water or electricity, I could still feed my family. This scenario also assumes that each family will be on their own, that we won't be "banding together" at churches or schools. There are dozens of scenarios that would require isolation from other people. Please don't put your family at risk by assuming that you will be eating someone else's food! No one else is storing food for your family. Your neighbors aren't, the government isn't and the church isn't.

How much food is a year's supply? This system answers that question right down to the last teaspoon of salt. You choose 7 breakfasts and 7 dinners that you would want to have once a week for one year. There are 52 weeks in the year, you're having this meal once a week, so you'll have it 52 times. Make these meals things that you eat all the time, things that you like! You are going to multiply everything (including the amount of water) in each of your recipes by 52. An example would be if you used 1 jar of Ragu and 1 pound of spaghetti to feed your family, you'd buy 52 jars of Ragu, 52 pounds of spaghetti and include the water to cook the noodles. My personal food storage has 14 dinners (multiplied by 26) 7 breakfasts (x 365) and a variety of breads and desserts. If we're in a "worst case scenario" your big meal of the day is going to be in the afternoon before the sun goes down. So, you would have breakfast, a big dinner and maybe a sandwich or a snack in the evening. This is a very simple system that saves time and money because you only store what you really need and will eat. Another plus is the individuality you can give your food storage. I like Malt-o-meal, my husband likes oatmeal, so I store according to our likes.

Once you've made up your menus and have multiplied everything in them by 52 or 26 (or whatever you decide you want) make up a chart or table that alphabetically lists all the foods in your recipes....almonds to yeast, and keep this in a notebook. It might look like this: under "rice" you list all the meals that have rice in them and how many cups you need for each meal. Mine says "salmon & rice = 35 cups, Sweet & sour = 35 cups, rice pudding = 70 cups." A little further over on the page have a column for "Need" which is how much rice you'll need for the year, 140 cups. The next column will say "Have" which is what you already have in your home and the last column is "Buy" which is what you need to buy. The item, the meals, need, have and buy. I also list on this page when the food was purchased and what room it's in. Carry this folder whenever you go shopping and shop the sales.

The equivalencies page gives you most of the information you'll need to do your own menus. Things like "a #10 can will hold 12 cups of rice, there are 59 tablespoons in one pound of baking powder and 1 cup of uncooked rice makes 3 cups cooked."

COST The cost of using this system depends on your menus. Using the least expensive menus, if you shop wisely and bottle your own meats, it can cost as little as \$350 per person per year. This would include 2 cups of breakfast, 2 cups of dinner and ½ loaf of bread daily.

STORAGE One person's year supply will usually fit into 10 cannery boxes. (The kind that 6 #10 cans fit into.) This will fit under a regular twin size bed. In desert areas you must store your food in the house. Heat will destroy your food storage. Water can be stored in the garage or on the north side of the house.

ROTATION Most people have a hard time with rotation because it's difficult to keep track of all that food. I purchase my meals all at once, meaning within a reasonable amount of time. Everything is logged in my notebook; how much food I have, when it was purchased, what room it's stored in. Since I'm all about long shelf life, the shortest shelf life I have is 3 years...the powdered milk. Once a year I check my notebook to see if anything is expiring that year. I check my vacuum sealed foods at the same time to make sure they're still sealed. If anything is close to expiration, I take it out, put it in my kitchen pantry for daily use and immediately replace it with fresh food. With this system, food storage is a once a year event and I always have a full year's supply on hand. Have a food storage slush fund. If you put even \$10 a month away, after those 3 years you'll have \$360 to purchase your new food. And the food that goes into your pantry is going to cut your grocery bill because it's food that you like and use.

BOTTLING MEATS

(Caution: If you have a glass-top stove, you MAY want to use a propane camp stove or other means to bottle meats. I have a glass top and have had no problems, but I still need to caution you.)

Item	Meals	Need	Have	Buy
Rice	salmon & rice=35 c Sw&sour=35 rice pudding =70 c	140c= 12can s	6 cans-2/05-mst 6 cans-12/06-mst	0
Salmon	salmon and rice=26 pints	26 pts	26 pts-2/06-bd3	0

Bottling your own meats is so easy and it's what makes this food storage system REAL food. It's real chicken soup and real beef stew. The meat is tender, juicy, ready to eat and needs no freezing or refrigeration...just like your tuna fish in the store. But because it's in a glass jar and not a metal can, the shelf life is extraordinary. (I've eaten bottled chicken that was 10 years old and it was delicious!) But this process is so easy. You may want to rotate your meats more often to be sure the nutritional quality is high. You can bottle any kind of meat; chicken, turkey, beef, fish, ham, moose...you name it.

Pressure Canners (canningpantry.com) You will need a pressure canner. (Pressure cookers don't generate enough pressure to safely can meats.) Canners come in quart sizes, meaning they hold a certain amount of liquid quarts. Model #921 is 15 ½" tall, holds 21.5 liquid qts. = 7 qts jars or 17-19 pint jars. (\$148) The model #930 is 19" tall, holds 30 liquid qts. = 14 qts or 17-19 pints (\$241). This is a very tall canner and won't fit under most microwaves installed over the stove.

If you're interested in a used canner, I've purchased 5 of them on E-Bay and they've all been great, costing between \$50 and \$70 including the shipping. **Be sure to have the gauge tested at the Extension Center at 4341 E. Broadway Rd in Tempe (602-470-8086).** This will ensure that you are cooking at the right pressure and your food will be safe. Requirements for a good used canner are: metal to metal lid (no rubber gasket,) a pressure gauge, a pressure release valve, wing nuts to hold down the lid, a tray inside and at least a 15 quart capacity, which holds 7 quart jars. A canner is a great investment even if you're not doing food storage because you will save time (no more defrosting chickens) money (you buy everything on sale) and a good canner will last forever. I have one that is 70 years old that still works.

Canning Meats Most books will tell you to cook the meat before you bottle it, but, with the exception of ground meats, I prefer the raw pack. Make your own choice on this matter. A pint bottle will hold 1 pound of meat, a quart will hold 2. You can put spices in before cooking. Questionable jars (those from DI or yard sales) are ok for sealing dry foods and jar cakes, but don't use them for bottling meats. Old jars might crack under the pressure. Invest in some new jars when you first start and you can reuse them.

Pour water into your canner to 2" deep. Put your meat and 1/4 to ½ tsp of salt in a clean jar (it does not need to be sterilized.) Fill jars up to ½" from rim. With the exception of ground meats, no water is added to the meats ...they make their own juices. In a small pan, boil the lids for about 2 minutes to soften the rubber seal. Make sure the rim of the jar is completely clean from grease or food before you put the heated lid and ring on. Tighten down the ring, but not too hard. Put your jars into the canner, screw down the canner lid, making sure the top is even, and turn your stove on to high. Don't put the weight on the pressure valve until water has spouted out of it for about 3 minutes. This expresses the air out. Now put the weight on the pressure valve. In the desert, put it at the 10 pound mark. If you have an older canner, there may not be a weight but there will be some kind of pressure release mechanism. Keep this open until water spits out for 3 minutes and then close it up to begin your pressure. When the gauge gets to 10 pounds of pressure, begin timing...75 minutes for pints and 90 minutes for quarts (Fish is 15 min longer!). This is the formula for all meats in the desert. When it hits 10#, you will need to immediately turn down the heat and keep turning it down over the allotted time, **keeping the gauge at 10 pounds**. (If the pressure drops or increases, a vacuum effect causes the liquid in the jar to be pulled out.) **DO NOT LEAVE YOUR CANNER!** At the end of the 75 or 90 minutes your heat should be at a very low level and you will then turn the heat completely off. Don't touch the canner, just let the pressure go down on it's own. When it's back to zero, release the pressure valve (or remove the weight) take off the lid, put the jars on the counter (away from cool drafts) and wait for them to seal. You'll hear a

“plink” when the lids seal correctly. If a jar doesn’t seal, you can either refrigerate it for later use or re-bottle it using a new lid. After several hours, wipe the bottles clean, remove the ring and put them back in the box for storage. Use your own judgment as to how often to rotate your meats. Don’t waste the juices of your meats. Use them in your recipes whenever possible. Don’t worry if the juice doesn’t cover all the meat. Ground meats have a better texture if you brown them first, pack loosely in the jars, cover with water and process. If you’re canning pre-cooked meats, like left over turkey, add a soup broth before canning. Don’t bottle spiral cut hams, use a shank type cut. Ham makes very little juice. Don’t add salt to ham. Don’t bottle turkey, ham or other processed meats like bologna or hot dogs....the texture is horrible.

FOOD HINTS

Baking powder, baking soda, sugar, salt, cocoa These are SOME of the items you don’t need to (or shouldn’t) can. Keep them in their original containers or you can place them in buckets with lids.

Brown sugar 2 Tbs. Molasses + 1 cup white sugar. Mix with pastry blender until blended. Also, vacuum seal regular brown sugar to keep it fresh for years.

Butter or margarine...almost!

1 pound shortening (butter flavored works well) ½ tsp salt
1 2/3 c condensed milk

Whip the shortening and the salt until light. Add the condensed milk a little at a time and blend.

Butter bottled (Google “bottled butter”) Real butter is best but margarine works too. Heat pint jars in the oven @ 250 for 20 minutes. Heat lids in boiling water for 3 minutes. Slowly stir and melt the butter in a pan. After it has boiled for 5 minutes, stir and then scoop the butter into the hot jars. Use a funnel to keep butter off the rims. Place the hot lid and ring on the jar and wait for the “plink.” Shake jars several times over the next 15-20 minutes. The separation will stop. While still slightly warm, put the jars in the refrigerator. Check every 10-15 minutes, shaking jars each time. Eventually the butter will harden. Leave in refrigerator for one more hour. Bottled butter can store on your shelf for at least 3 years.

Cheese Canned cheese. (Go to internet-grocer.com for details on this cheese.) It’s a Kraft Velveeta type cheddar that comes in a can. \$3 for an 8 oz can. Minimum 5 year shelf life. Call Phyllis @ 1-903-356-6443

Corn syrup 1 c sugar + 2 c water Cook in canning jar in solar oven about an hour or until thick.

“Eggs” from unflavored gelatin (Knox) Buy in bulk at bulkfoods.com

In all the recipes in this book I have substituted unflavored gelatin for the eggs. The gelatin is less expensive than powdered eggs (as little as 3 cents per “egg”) has an indefinite shelf life and works well in all the recipes I’ve tried. I used unflavored gelatin that was over 20 years old and it worked perfectly. 1 tsp gelatin= 1 egg 1 oz gelatin=12 tsp 1 pound gelatin=192 eggs.

Making one egg: Combine 1 teaspoon of unflavored gelatin with 3 Tablespoons of cold water and stir until dissolved. Then add 2 Tablespoons plus 1 teaspoon of hot water and stir. When using your own recipes, decrease the liquid called for in your recipe by about 1/4 cup to compensate for the added water from the “egg.” I have already done this for the recipes in this book.

Eggs (storing fresh eggs for up to 1 year) Rub warmed mineral oil on your hands and coat the entire surface of the fresh egg with the oil. Replace egg in the egg carton with the point down. In cold climates they can be stored in a cool, dark place, but I keep mine in the refrigerator and rotate once a year.

Jar cakes & breads Breads, cakes, muffins, cornbread, brownies, cookies, cinnamon rolls sealed in jars.

This is a great idea for food storage and the solar oven, but you must be very sure to boil all your jars and lids to be sure they are free from bacteria! They can also be washed and then sanitized in your solar oven. Jar Foods are cooked in canning jars WITHOUT THE LIDS in your solar oven or a regular oven. The food will slip out of the jars easily if you use the straight sided "jelly jars" but any kind of mason jar will work. Using a pastry brush, grease the insides with shortening (no Pam or Baker's Secret) fill it 1/2 to 2/3 full with your batter or dough and bake as usual. (Let your breads rise in the jars and then bake.) Some foods rise more than others, so practice with these amounts so you don't waste space in your jars. If it bakes too high, cut the top of your bread or cake off before sealing the jar. Just be sure your jar edge is clean and your lids are hot! Immediately after the food is cooked, place your heated lid on the hot jar and tighten with the ring. (Use hot pads!) Within a few minutes, the lid will "plink" and the food will be sealed. This food can sit on your shelf with no refrigeration or freezing for several months. (The more moist the recipe, the better. Applesauce cakes are great.) With this method, you can cook jar foods on your bright sunny days and have fully cooked foods waiting on your shelves for that occasional rainy day. It's also great for those cloudy days when there's not enough sunshine to bake but it's perfect for simmering soups and stews. You can simmer your chili in the solar oven all day and before dinner, pop in a jar of precooked cornbread to warm it up. Try warming up a jar of chocolate cake for dessert!

This method of baking has been done for years, but lately there has been some discussion as to it's safety. Because the eggs were exchanged with unflavored gelatin in all of these recipes, it is unlikely that the ingredients used could support bacteria if prepared and cooked properly. If you feel at all uncomfortable with this method, don't use it.

Magic heat/magic stove There are a few things that just can't be cooked in a solar oven, so this may come in handy. It's similar to Sterno. The Magic Heat is the fuel cell and comes in small (200 ml) which burns 4-6 hours and large (300) which burns for 6-8 hours. I ended up ordering mine from a company in Canada and the cost was around \$78 for a case of 24 small cells and \$99 for a case of 24 large cells. (Remember to ask for prices in US dollars and ask about any extra charges!!) The Magic Stove is a little metal X fixture that fits over the fuel cell (around \$5) and you can place a small pot or pan on it to cook. My experience has shown it takes 5 minutes to bring 1 cup of cold water to a boil...almost 10 minutes for 2 cups. A 15 oz can of beans heated up in just under 5 minutes, soup took 4 minutes. Pancakes took 2 minutes to heat up the pan, then 3 minutes per pancake. It took 10 minutes to heat up oil but even then it wasn't really hot enough to fry foods. This is great for singles or even couples but I'm afraid it would take too much fuel to serve a family. If you plan to use this as your only fuel source, you will need 26 large fuel cells (averaging 7 hours per cell) to have 1/2 hour of cooking per day for a year. (That's 3 meals a day at 10 minutes per meal.) I found limited supplies of this product at Kmart, so I went to scientificutility.com and ordered from the manufacturer. If you want the large fuel cells (the better deal) you may not find them online. Call the company and ask for Jim Stewart at 1-877-432-8548.

Milk Powdered milk: If you have electricity, powdered milk is best if you use warm water, mix with a blender and chill overnight.

Buttermilk 1 c water + 1/3 c dry milk + 1 Tbs vinegar or lemon juice. Let it sit 5 min.

Condensed milk 1/2 c hot water, 1 c sugar, 1/4 c dry milk, + 1 c water

Place in canning jar with lid and shake until thoroughly blended.

"Eagle Brand" 1 c hot water, 1/3 c corn syrup, 1 2/3 c sugar, 1/4 tsp vanilla, pinch of salt, 1/2 c butter, 2 c dry milk.

Place all ingredients except "butter" in canning jar with lid and shake until well blended. Gradually add the butter and shake each time until well blended.

Evaporated 1 c water + 2/3 c dry milk, **Skim** 1 c water + 1/4 c dry milk, **Whole** 1 c water + 1/3 c dry

Milk on the shelf Technology has now given us the opportunity to buy real milk that sits on the shelf. It has at least a 1 year shelf life. One brand is Parmalat. It comes in quart containers and is available in whole and 2% for \$1.44. (I only drink skim, so it tasted like canned milk to me.) The shelf milk I like is vanilla soy milk @ about 90 cents/qt.at CostCo. Rice milk is good too.

Peanut butter 2 c peanuts and 4 Tb honey OR 2 ½ c peanuts and 2 Tb butter - salt to taste
Blend until smooth. This really needs an electric blender but it can still be done without one.

Rice RANCID RICE? = AIR OUT 2 DAYS & RINSE WITH WATER

Shortening I have substituted shortening for the oil in all my recipes because it has a longer shelf life. Oil has about a 2 year shelf life, unopened shortening has 10 years. If you can still find the hard lid shortening (not foil lids) they have an indefinite shelf life. Store shortening in a cool, dark place. Opened shortening has a one year or less shelf life. After opening a can of shortening, you may want to transfer it to mason jars and vacuum seal it for a longer shelf life. Remove the air pockets in the jar or melt it, then vacuum.

Tomato powder ½ cup powder mixed with 1 cup water = 1 c tomato sauce. Less water makes tomato paste and more water makes tomato juice.

Vacuum sealed foods (Sealing foods in your old jars using the Deni JarVac or Food Saver)

Many high oil or high sugar foods cannot be stored in the regular #10 cans because they eat away at the metal. (Chocolate chips, nuts and raisins for example.) You can significantly increase the shelf life of many foods by using a JarVac or a Food Saver to vacuum out the air. The JarVac can seal any glass jar with its' original metal lid but canning jars work best. (If a jar won't seal, try heating the lid in boiling water.) Put your ingredients in a jar, put the lid and ring on (don't tighten the ring too much) place the dome of the JarVac over the jar and press the button. The jar can be opened and resealed over and over . If you take the lids off carefully, the lids can be reused many times. We have sealed nuts, raisins, chocolate chips, brown rice, cornmeal, candy bars, egg noodles, poppy seeds, dried apricots, malt-o-meal, cookies, granola bars...just about anything and they last for years. We have raisins that were a little sugary but still edible after 20years. It's difficult to give an exact shelf life of these foods because, so far, nothing we've sealed correctly has gone bad. Don't vacuum fine powders. They gum up the works of your machine. If you want to seal powders, put them into a plastic bag, express all the air out, place it in the jar and seal. We've been using the Food Saver for more than 20 years and recently started using the Jar Vac. The Food Saver appears to be a sturdier machine and will probably last longer than the Jar Vac. But, the Jar Vac will reseat any glass jar with its' original lid...spaghetti jars, hot sauce jars, baby food jars. I resealed all the bottled foods in my refrigerator and nothing has gone bad in 6 months. **(Do not put resealed items that belong in the refrigerator on your shelves.)** The best price I've found for the Jar Vac was at QVC.com (\$65) A Food Saver will cost at least \$100 in stores. Try E-Bay for a much better deal. Be sure it has the port on top of the machine that uses the jar sealer attachment.

Water I store mine in the 55 gallon plastic barrels and add 1 tsp of household bleach for every 5 gallons of water. 2 - 3 of these barrels per person will fill most water needs for cooking.

Yeast Yeast has an indefinite shelf life in your freezer...one year on the shelf. **ALWAYS** test your yeast before adding it to your dry ingredients. Warm the water, add the yeast and wait.....it should bubble up.

RECIPES

Using your own recipes is the best way to use this system, but I've included a list of recipes to show you the wide variety of meals there are and how to cook them in a solar oven. Use your imagination....a year's supply of food doesn't have to be boring! The amounts and costs are approximates.

BREADS

The question asked most often about solar cooked bread is, "Does it brown?" The answer is yes. It bakes and browns beautifully. As with all other foods, breads take almost twice as long to cook in a solar oven. They will bake in a cooler oven (200 degrees) but hotter ovens are best.

Cinnamon and raisin bread Makes 1 loaf @ \$.60 / loaf or 2-3 pints @ \$.24 / pint

1 recipe white wheat bread, 1/8 c "butter," 2 tsp cinnamon, 2 Tbs sugar, 1/4 c raisins

Make the bread recipe and before you roll it into a loaf, spread the butter on the dough, sprinkle on raisins and a mixture of sugar and cinnamon. Roll it up, place in loaf pan or jars and bake.

Cornbread Makes one 8x 8 pan @ \$.71 / pan or 3-4 pints @ \$.18 / pint

1 2/3 c flour, 1 2/3 c yellow cornmeal, 2/3 c sugar, 2 "eggs" (2 tsp unflavored gelatin + 1/2 c water)

5 tsp baking powder, 1/4 c dry milk, 1 tsp salt, 1/3 c melted shortening (reg or butter flavored), 1 1/4 c water

Heat 4 Tbs plus 2 tsp water until it's very hot. Make your "eggs." Melt 1/3 c shortening. Mix the flour, sugar, baking powder, salt and dry milk in a large bowl. Stir in the cornmeal until well blended. Add "eggs" and water and stir until the batter is smooth. Gently stir in the melted shortening just until blended. Do not over-stir. Pour into your pan or greased jars and bake for 60 to 80 minutes or until browned.

Oatmeal Raisin Muffins Makes 12 muffins @ \$.08 ea or 2 pints @ \$.51 / pint

1 "egg" (1 tsp gelatin + 1/4 c water), 3 tsp baking powder, 1/2 c milk (1/8 c dry + 1/2 c water), 1/2 tsp salt

1/2 c raisins, 1/4 tsp ground nutmeg, 1/2 c shortening - melted, 1/2 tsp cinnamon, 1/3 c sugar, 1 c white or whole wheat flour, 1 c rolled oats

Melt the shortening. Make your "egg." Mix "egg", milk, raisins and shortening. Stir in remaining ingredients and stir just until moistened. Fill muffin cups 3/4 full or mason jars just over half full. Bake 60 minutes or until browned.

Wheat Muffins Makes 12 muffins @ \$.07 ea or 2 pints @ \$.46 / pint

2 c whole wheat flour, 1/2 c regular or butter flavored shortening melted, 1 c sugar (or brown sugar),

1 "egg" (1 tsp gelatin + 1/4 c water) 1/4 tsp salt, 1 tsp vanilla, 1 tsp baking soda, 3/4 c water

1/3 c dry milk, 1/4 c raisins

Melt shortening. Make your "egg." Mix dry ingredients in a bowl. Mix liquid ingredients, raisins and "egg" and pour over the dry mixture. Stir just until moistened. Spoon into greased muffin tins or fill mason jars to just over half full. Bake 30 minutes or until browned.

Whole Wheat Bread Makes one loaf @ \$.42 / loaf or 2-3 pints @ \$.16 / pint

2 tsp yeast, 1 c water, 2 c wheat (turkey red or white wheat. I prefer the white) ground into 3 c flour,

1 1/2 tsp salt, 2 Tbs (1/8 c) applesauce or shortening, 1/4 c sugar or honey.

Solar oven: Warm 1/4 c of the water, stir in the yeast and set aside. Mix 2 c of the flour, melted shortening, sugar, salt and the rest of the water in a large bowl. A little at a time, add the rest of the flour, kneading until smooth and

elastic. Let raise until doubled. Shape into loaf, place into greased pan or jars, cover and let it raise again until doubled. Bake for 45-60 minutes or until browned. (**Oven**= 25-30 min)

365 loaves of bread White wheat bread - 1 loaf per day
 2 c white wheat (= 3 c flour) x 365 = 730 c divided by 12 c /#10 can
 1 c water x 365 = 365 c divided by 16 c/gal
 1 1/2 tsp salt x 365 = 547 tsp divided by 117 tsp/container
 2 Tb melted shortening x 365 = 730 Tb (17 Tb/c, 2 1/4 c/#)
 (or applesauce: 2 Tb x 365 = 730Tb = 308 oz = 23 qts)
 1/4 c sugar x 365 = 91 c (2 c = 1#)
 (or honey = 91 c (13 oz = 1c = 74# honey)
 2 tsp yeast x 365 = 730 tsp = 243 Tbs (48 Tb/#)

Total for One Year
 61 #10 cans white wheat
 23 gal of water
 4 2/3 containers of salt
 19 # shortening
 46# of sugar
 5# of yeast

Warm the water and add the yeast. Set aside. Mix flour, salt and sugar. Add the yeast and melted shortening and knead until smooth and elastic. Shape into a loaf, place in greased pan or jars, cover and let raise until doubled. Bake in solar oven 45 min. or until browned. In an oven, 350 degrees 25-30 min.

CEREALS

These recipes do **not** include the separate serving of 1/2 c water, 1/8 c dry milk and 1 Tbs. sugar. You will need to add them to your lists. The total price **does** include the milk and sugar.

Granola Makes 5 cups or 3 pint jars @ \$.33 / cup + 1/2 c milk @ \$.06 = **\$.39 / cup**

3 c rolled oats, 1/3 c honey
 1 c sliced almonds, 1 tsp cinnamon
 1/4 c melted shortening, 1/2 tsp salt
 1/2 c raisins

Melt the shortening. Place all the ingredients (except raisins) in a large bowl and mix well. Spread onto a shallow pan (or put into 3 uncovered pint jars) and bake until browned (60 minutes or longer) It shouldn't have to be stirred but you can turn the jars half way through. Watch it closely so it doesn't get too dark! For jars, add the raisins and place a lid and ring on the jar as soon as you remove it from the oven. That will seal the jar and keep the granola fresh for weeks. For pans, add the raisins and cool and store in airtight containers. Serve with milk (no sugar needed!)

Grape Nuts Makes 4 cups @ \$.29 / cup + 1/2 c milk and 1 Tbs sugar @ \$.07 = **\$.36 / cup**

6 c whole wheat flour (4 c wheat), 1 c brown sugar
 2 c water + 2/3 c powdered milk + 2 Tbs vinegar or lemon juice (2 c buttermilk)
 1 tsp baking soda, 1 tsp salt

Mix everything in a bowl and press onto 2 cookie sheets and bake until dry (1-2 hours) Grind with a meat grinder to the size of grape nuts and bake again until golden brown. Watch that it doesn't burn! Cool and store in airtight container. Serve with milk and sugar.

Oatmeal Makes 1 cup @ \$.07 / cup + ½ c milk and 1 Tbs sugar @ \$.07 = **\$.14 / cup**

½ c rolled oats (or quick), 1 c water

pinch of salt

Place the salted water and the oats in separate canning jars or covered pots and heat. When water is hot, add warmed oats and cook to desired consistency. Serve with milk and sugar. Add raisins or apples too!

Rice cereal Makes 4 cups @ \$.07 / cup + ½ milk and 1 Tbs sugar @ \$.07 = **\$.14 / cup**

(With opts. = **\$.18 / cup**)

1 ½ c rice, 4 c water

1 tsp salt, 2-3 Tbs sugar

optional rice pudding: 2 “eggs”, ½ c raisins, 1/4 tsp nutmeg, 1/4 tsp vanilla

Place water, rice and salt in either canning jars with lids or a covered pot and place in solar oven. Cook for 40 to 50 minutes or until rice is done. Add milk and sugar. For rice pudding, add 2 “eggs” to the hot rice, the sugar, raisins and nutmeg, stir well and return to the oven for about 15 minutes or until the rice is thick like a pudding. Stir and add vanilla. Add 1/2 c milk if desired.

Wheat cereal Makes 1 1/4 cups @ \$.08 / cup + ½ c milk and 1 Tbs sugar @ \$.07 = **\$.15 / cup**

½ c wheat + 1 c water. Soak overnight. (1 or 2 more c of water will be needed to cook.) Place water, soaked wheat and pinch of salt in a jar or pot with tight fitting lid. Cook 2 hours. Add water as needed.

MAIN DISHES

Beef and Beans Makes 8 cups @ **\$.27 / cup** (Start early....beans take a long time)

1 pound (2 ½ c) pinto beans (washed), 7 c water

1 pint bottled beef (undrained), 2 tsp salt

2-3 Tbs dried onion, ½ tsp thyme

1/4 tsp garlic powder, 1/4 tsp basil

1 tsp parsley, 1/4 tsp pepper

1 bay leaf

Place water in covered pot and heat to as close to boiling as possible. Add beans. Cover and soak out of oven for 1 hour. Do not drain. Add all other ingredients and simmer for 4 -5 hours or until done.

Beef soup Makes 12 cups @ **\$.16 / cup**

1 pint bottled beef (undrained)

4 - 8 tsp (according to taste) beef soup base + 8 c water

1 c dried carrots, 2 - 3 Tbs dried onion

½ tsp salt, 1/4 tsp pepper

1 bay leaf, ½ - 1 tsp thyme

Optional: ½ c dried celery

Mix all ingredients in large covered pot and simmer for several hours until blended and hot.

Beef stew Makes 8 cups Cream style @ **\$.30 / cup** Tomato style @ **\$.37 / cup**

Chicken fricassee 6 cups of broth and 8 cups potatoes @ **\$.17 / cup total**

4 tsp chicken soup base + 4 cups water

4 tsp dry onion, ½ tsp salt

1/4 tsp pepper, ½ c white flour and water as needed

1 pint bottled chicken(undrained) 3 c potato pearls + 5 ½ c water

Combine the 4 cups of water, soup base, chicken and it's broth, onion, salt and pepper in a large covered pot. Place the 5 ½ c of water in another covered pot (or jars) and heat both pots in solar oven until hot. Take out the broth and slowly add flour and water mixture. Return to the oven to thicken. Take out the pot of hot water and stir in potato pearls. (Make sure they're nice and thick) Place the potatoes on a plate, scoop the center to the sides, making a "bowl" and spoon the broth mixture into the "bowl".

Chicken soup Makes 12-14 cups @ **\$.11 / cup** (w/opts. **\$.12 / cup**)

8 tsp chicken soup base + 8 c water

4 tsp dried onion, 1 c dried carrots

½ tsp salt, 1/4 tsp pepper

1 pint bottled chicken (undrained)

Optional: ½ c dried celery, ½ c dry rice

Mix all the ingredients in a large covered pot and simmer 2-3 hours or as long as you like.

Chicken and rice casserole Makes about 12 cups @ **\$.15 / cup** (W/ opts **\$.18 cup**)

1 recipe cream of mushroom soup

1 Tbs lemon juice, ½ tsp salt

2 c rice, 4 c water +1 tsp salt (Don't add salt if broth is used)

2 Tbs dried onion, 1 pint bottled chicken

1/4 tsp pepper, 1/3 tsp paprika

Optional: 1/3 c dried celery and ½ c sliced toasted almonds (toast in hot shortening)

Add broth and water to make 4 cups. Add the rice to the liquid and cook in solar oven about 40 minutes or until done. In a large covered dish, mix the cream of mushroom soup, lemon juice, onion, paprika, pepper, salt, chicken and cooked rice. (And optional celery and almonds) Cover and bake 45 min or until done.

Chili Makes 12 cups @ **\$.27 / cup**

1 pound (or 2 ½ c) washed pinto beans, 7 c water

1 - 2 tsp salt, 1/4 c dried onion

½ - 1 tsp garlic powder, 3 - 4 Tbs chili powder

3 tsp cumin, 1/4 tsp cayenne pepper

1 Tbs sugar, 1 pint ground beef

2 c tomato powder + 5 c water

Place water in a large covered pot and heat to as close to boiling as possible. Add beans. Cover and soak beans out of the oven for 1 hour. (Use soaking water to cook beans) Cook beans in covered dish 4-5 hours. Add rest of the ingredients and simmer another 1 - 2 hrs.

Chili-Mac Makes 10 cups (add more water or broth if too dry) @ **\$.30 / cup**

2 c macaroni, 2 Tbs dried onion
1/4 tsp garlic powder, 2 Tbs chili powder
1 ½ c tomato powder + 3 c water = 3 c tomato sauce

½ tsp salt, 1/4 tsp pepper

1 pint bottled ground beef

Add beef broth and water to equal 3 cups of liquid. Add water and tomato powder to make tomato sauce. Add liquid, tomato sauce, macaroni, garlic, chili powder, salt, pepper and ground beef. Cook in solar oven 30 min. or until macaroni is done.

Goulash Makes 14 cups @ \$.28 / cup

1 pound macaroni, 2 c water

2 c tomato powder + 6 c water = 6 c tomato juice

2 tsp dried onion, 1/4 tsp garlic powder

1 tsp salt, 1/4 tsp salt + 1/8 tsp pepper

1 pint ground beef (drained) 1 can of corn (undrained)

Heat the 4 c water and salt in solar oven until very hot. Cook the macaroni in the water about 15 min or until done.

Do not rinse. Add the rest of the ingredients to the macaroni, return to oven and cook until heated through.

Macaroni and cheese Makes 10 cups @ \$.13 / cup

4 c macaroni, 8 c water

10 Tbs mac + cheese powder, 1 tsp salt

1/3 c dry milk + 1 ½ c water, 2 Tbs "butter" ½ tsp salt + 1/8 tsp pepper

Heat the 8 c of salted water and the macaroni in separate containers. When the water's hot, add the macaroni and cook for 15 - 20 min or until done. Drain. Mix in butter, cheese powder, salt, pepper and milk.

Rice-a-roni Makes 8 cups @ \$.07 / cup w/opts. (\$.29 / cup)

2 c rice, 1/4 - 1/3 pound spaghetti (1 cup broken into 1" pieces)

1 Tbs dried onion, 2 tsp dry parsley

½ tsp dry ginger, ½ tsp garlic powder

½ tsp salt, 1/4 tsp pepper

4 Tbs shortening, 4 tsp chicken soup base + 4 c water

optional: 1 pint jar chicken, ½ c sliced toasted almonds and ½ c each dried carrots and celery.

In the solar oven, heat the shortening in a large pot. Dutch ovens are great but this can also be done in several canning jars with lids. Break the spaghetti into 1" pieces. When the shortening is hot, stir in the rice and broken spaghetti and cook for about 10 to 15 min. or until browned. (Jars can cook on their sides for this) Add the rest of the ingredients, cover and cook for 40 - 50 min. or until done.

Shepherd's pie Makes 12 cups @ \$.28 / cup

1 can corn (drained), 1 can green beans (drained)

½ recipe tomato soup, 2 Tbs dried onion

½ tsp salt, 1/4 tsp pepper

1 pint bottled ground beef (drained), 2 c potato pearls + 4 c water

Make your tomato soup. Place the 4 c water in a painted canning jar or a covered pot in solar oven until very hot. While this is heating, mix the ground beef, corn, green beans, tomato soup, onions, salt and pepper into a covered pot. Take the water out of the oven and wrap it in a dark cloth or other insulation to keep it hot. Place the meat mixture in the oven and bake 45 min. or until hot. When it's done, mix the potato pearls and the hot water and spread on top of the meat mixture.

Spaghetti Makes 10 cups @ **\$.35 /cup**

1 pound spaghetti noodles, 1 recipe marinara sauce
1 pint bottled ground beef (drained) 6 c water
1 tsp salt

Make marinara sauce and add drained hamburger. Heat the water and salt in a large covered pot (or use canning jars) add spaghetti and cook 15 - 20 min. Mix sauce and noodles.

Sweet and Sour Chicken Makes 7 - 8 cups

1 pint chicken, 1 1/3 c rice, 2 2/3 c water, 1 can pineapple, 2/3 c vinegar, 1 1/3 c sugar, 4 Tb cornstarch, 4 Tb soy sauce, 1 tsp. Molasses, 1 Tb dried onion, (opt. 1/2 c sliced almonds, 1/4 c dehyd. celery.)

Cook the rice in the water in a qt jar or covered pot. (Heat the chicken in it's jar at the same time.) Put the pineapple juice, vinegar, sugar, cornstarch, soy and molasses into a qt jar. Shake well and cook in solar oven. Shake occasionally and cook until thickened. On the bed of cooked rice place the chicken, almonds, pineapple, and hydrated celery. Pour sauce over the top.

Taco soup Makes 12 cups @ **\$.25 / cup**

1 pint bottled ground beef or sausage, 1 can corn, 1 can kidney beans, 1 29 oz can stewed tomatoes, 2 c water (OR 1 c water , 1 c tomato sauce) 2 - 3 Tbs taco seasoning, 1 Tb. onion and 1/4 tsp garlic
Place all ingredients in covered dish and let simmer.

Tamale pie Makes 10 cups @ **\$.33 / cup**

1 pint bottled beef or ground beef (drained), 1 c tomato powder + 2 c water = 2 c tomato sauce

1/2 pound (1 1/4 c) pinto beans + 3 c water + 1 tsp salt (3 c cooked beans)

2 Tbs dried onion, 1/2 tsp salt

1 tsp garlic powder, 1 tsp oregano

2 Tbs chili powder, 1/4 tsp pepper

Topping:

1 2/3 c cornmeal, 1 2/3 c white flour

2/3 c sugar, 2 "eggs"

5 tsp baking powder, 1/2 c dry milk + 1 c water

1/3 c melted shortening (butter flavored is good)

1 tsp salt

In large covered pot heat 3 c water to as close to boiling as possible. Add beans. Cover and soak out of oven 1

hour. Add 1 tsp salt to beans and cook in oven 4 -5 hours or until done. Melt the 1/3 c shortening and set aside in the sun. Put the beef, tomato sauce, cooked beans, onion, garlic, oregano and chili powder in a covered baking dish and bake 20 - 30 min. While it's cooking, make the topping by stirring together the flour, sugar baking powder and salt. Stir in the cornmeal until well blended. Add "eggs" and milk and stir to a smooth batter. Stir in melted shortening just until blended. When meat mixture is done, remove from oven, spoon topping over meat and bake again about 30 - 40 min. or until cornbread is done.

Tomato soup (Condensed) Makes 2 cups @ \$.20 / cup

2 Tbs dried onion, 1 c tomato powder + 2 c water = 2 c tomato sauce, 3 Tbs melted butter flavored shortening, 6 Tbs white flour, 1/4 tsp pepper, milk if needed, 1/2 tsp seasoned salt, 1/2 tsp soda, 2 tsp sugar

Melt 3 Tbs shortening in a canning jar in the solar oven. Place the flour, milk, salt and pepper together in another jar, shake to mix well (no lumps!) And heat. Add heated flour mixture to the melted shortening and stir or shake well. Heat another 10 -15 min. Continue to shake and cook until thickened. Add the onion, soda and sugar to the tomato sauce and slowly blend the two sauces together. Add milk if needed to attain consistency of condensed tomato soup. Return to solar oven and gently heat. Do not boil. (For soup, add 3-4 cups of milk then stir and heat)

PASTAS

To keep pasta from getting pasty, use 2 pans or jars. Heat the dry pasta with a little oil or shortening in one; heat the water in another. When the water is hot, combine the two. Cook pastas in a pot with a tight fitting lid or in the painted canning jars.

Macaroni Makes 5 c cooked @ \$.06 / cup

2 c macaroni, 2 - 3 c water 1/2 tsp salt

Heat water and salt until very hot. Add the macaroni to the water and cook for 15 to 20 minutes.

Spaghetti makes 4 c cooked @ \$.05 / cup

1/2 pound spaghetti (break noodles to fit cookware) + 1-2 tsp shortening, 3 - 4 c water, 1/2 tsp salt

Heat water and salt until very hot. Add heated spaghetti and cook 15 to 20 minutes.

SAUCES

Heat juices and flour in separate containers, then combine and stir

Alfredo sauce...almost Makes 2 1/2 cups @ \$.53 / cup

1/2 c water + 1/3 c dry milk = 1/2 c evaporated milk

3/4 c Parmesan cheese, 1/8 tsp white or black pepper

pinch of nutmeg, 1/2 c dry milk + 2 c water = 2 c skim milk

Place the 2 cups of regular milk in a canning jar and cook in the solar oven until hot (20 min) While the milk is cooking, place the 1/2 c of evaporated milk, Parmesan, pepper and nutmeg in another canning jar and shake to mix. When the milk is hot, slowly add a little of the evaporated milk mixture to the hot milk and shake. Repeat until it's all mixed together. Return the jar to oven for 15 to 20 min. to thicken. (You may have to add 1/2 - 1 tsp cornstarch and a Tbs water if it doesn't thicken)

Cream of mushroom soup (without the mushrooms!) Makes 4 cups @ \$.11 / cup

1/2 c dry milk + 2 c water, 1 c white flour

3 Tbs shortening, 3/4 tsp seasoning salt
1/8 tsp pepper, 1 tsp onion powder
1/2 tsp thyme, 1/4 tsp garlic powder
2 tsp chicken soup base + 1 1/2 c water

Melt the shortening in a canning jar, add the milk and heat. Heat flour and seasonings in a second jar. Combine the two and shake well. Put chicken broth in a jar and place both jars in the solar oven. After 10 min. take the milk jar out and shake it well. Return to the oven for another 10 minutes. Repeat until thickened. Remove both jars from the oven and slowly begin to add the hot broth to the thickened milk mixture, stirring or shaking until you have the consistency that you desire...either as condensed or as soup.

Marinara sauce Makes 4 cups @ \$.53 / cup

2 c tomato paste + 4 c water = 4 c tomato sauce, 1 tsp garlic powder, 1-2 Tbs dried onion
1 1/2 tsp dried basil, 1/2 tsp oregano, 1/4 tsp salt, 1/4 tsp crushed red pepper, 1 tsp sugar. Or use 2 - 3 tsp Italian seasoning in place of other spices. Mix all ingredients in 1 or 2 canning jars and let it simmer.

SNACKS AND DESSERTS

Apple crisp Makes 1 9x12 pan @ \$.19 / cup

2 c dry apples, 3 c water
2 Tbs + 1 tsp cornstarch, 3/4 c sugar
1/3 tsp salt, 1 tsp cinnamon
1/3 tsp nutmeg
optional: 2 Tbs lemon juice

topping:

1 c rolled oats, 1 c brown sugar
1 c white flour, 1/4 tsp salt
1/3 tsp baking powder, 1/2 c shortening (butter flavored opt)

Mix dry ingredients for apple crisp in large covered pot, add water and mix well. Bake in covered dish 1 - 2 hours or until done. Mix the topping with pastry blender or fork, spread over cooked apples and return to oven for 30 - 40 min (uncovered) until browned.

Brownies Makes 1 8x8 pan @ \$1.25 / pan + \$1.09 w/ frosting or 4 pint jars @ \$.31 / jar

1 c butter flavored shortening, 2 c sugar
2 c white flour, 1 tsp vanilla
4 "Eggs" (4 tsp gelatin + 1 c water), 2/3 c baking cocoa
1/2 tsp baking powder, 1/2 tsp salt
Optional: 1/2-1 c chopped walnuts

Optional Frosting:

6 Tbs butter flavored shortening, 6 Tbs cocoa
2 Tbs corn syrup, 1 tsp vanilla
2 c powdered sugar, 2-4 Tbs milk

Make your "eggs" Mix shortening, sugar, and vanilla. Add eggs and mix. Add flour, cocoa, baking powder, salt and vanilla and mix. Bake in 8x8 pan (or jars) about 45 min or until done.

Chocolate cake Makes 1 9x12 pan @ **\$1.01 (w/ opts.\$1.59)** or 6 pints @ **\$.17 ea or \$.26 ea**

3 1/4 c white flour, 2 tsp baking soda

1 tsp salt, 1 1/2 c sugar

1/2 c cocoa, 1/2 tsp baking powder

2 c water, 2 Tbs vinegar

2/3 c melted shortening, 5 tsp vanilla

optional: 1/2 c chocolate chips and 1/2 cup chopped walnuts

Melt shortening in solar oven. Combine dry ingredients in large bowl. Mix together melted shortening, water, vinegar and vanilla and stir into the dry mixture until smooth. Pour into 9x12 greased and floured pan (or greased jars) and bake for 30 - 40 min or until done.

Chocolate chip cookies Makes 3 dozen @ **\$.05 ea w/opts. \$.06 each**

1 c butter flavored shortening, 3/4 c sugar

3/4 c brown sugar, 1 tsp vanilla

2 "eggs" (2 tsp gelatin + 1/2 c water) 2 1/2 c white flour

1/2 tsp water, 1 tsp salt

1 tsp baking soda, 1 c chocolate chips

optional: 1 c nuts

Mix shortening, sugars, vanilla, water, soda and salt til creamy. Add "eggs," flour and chips. Bake in solar oven on cookie sheets or in jars until done. (15-20 min)

Chocolate pudding or pie Makes 7 cups @ **\$.30 / cup**

3 c pudding mix, 5 1/3 c water (1/4 to 1/3 ratio)

In a container with a tight lid, combine mix and water and shake until blended. Let sit for 5 - 10 min until set. Use as a pudding or make a graham cracker crust and have pie.

To make a pie crust, crumble enough crackers to equal 1 cup of crumbs. Add 1/3 c brown sugar and 1/4 cup melted butter flavored Crisco and press into a pie pan. Use it this way or you can bake the crust in the solar oven for 10 -15 min or until browned.

Graham crackers \$1.08

1 1/2 c white flour, 3/4 c wheat flour

1/2 tsp salt, 1/3 c brown sugar

1/3 c butter flavored shortening

1/3 c honey, 3 Tbs water

2 tsp cinnamon, 2 tsp sugar

Combine all dry ingredients except cinnamon and sugar. Cut in shortening to consistency of cornmeal. Stir together the honey and water and mix into dry ingredients. Divide in half and roll each half out onto ungreased cookie sheet to 1/4" thickness. Cut into desired shapes and prick with a fork. Sprinkle with cinnamon and sugar and bake 15 - 25 min. Store in airtight container.

Grapefruit and Oranges - bottled 1 pint holds 1#, 1 Qt holds 2# of fruit

Boil water and sugar at a 6 to 1 ratio to make a syrup. (6 water to 1 sugar) Cut fruit from the peel. Tightly pack grapefruit and oranges OR grapefruit only (don't do oranges alone) into canning jar. Pour syrup (1 - 1 1/2 c per qt) over fruit up 1/2" from top. Exhaust 10 min. Cook @ 10# pressure - 8 minutes.

Spice cake Makes 1 9x12 pan @ **\$1.04 /pan (w/ opts \$1.50) or 6 pint jars @ \$.17 or \$.25 ea**

3 cups white flour, 2 c sugar, 1 tsp salt, 2 tsp baking soda, 1 1/2 tsp ground cloves, 2 1/2 tsp cinnamon
2 1/2 tsp nutmeg, 2/3 c melted shortening, 2 Tbs vinegar, 1 1/2 c water, 2 "eggs", 2 Tbs vanilla
(grease pan with 1 tsp shortening + 1 tsp flour)

optional: 1/2 c raisins and 1/2 c walnuts

Melt the shortening in solar oven. Mix dry ingredients in a bowl. In another bowl, mix the melted shortening, water, vinegar, "eggs" and vanilla and stir into the dry mixture until smooth. Pour into a greased and floured 9x12 pan or greased jars and bake about 1 1/2 hours or until done.

Tapioca pudding Makes 9 cups @ **\$.20 / cup**

1 c sugar, 9 Tbs minute tapioca

2 1/4 c dry milk + 7 1/2 c water 3 "eggs" (3 tsp gelatin + 3/4 c water)

1 Tbs vanilla

Put all ingredients except vanilla into your painted canning jar. Cook in solar oven for about 30 min. Remove, shake well and return to oven. Continue cooking and shaking jar every 15 - 20 min until tapioca swells up (total time is about 60 -75 min) Add vanilla, shake and pour into dishes. Pudding thickens as it cools.

Wheat thins

1/2 c wheat flour, 1/2 c white flour

1/2 tsp salt, 1/4 c melted shortening

1 Tbs dry milk + 1/4 c water, 1 tsp molasses

Melt shortening. Mix dry ingredients in large bowl. Combine milk and molasses and stir into dry mixture. Place a ball of dough the size of a tennis ball in the middle of a greased cookie sheet and cover with a sheet of waxed paper. Roll out thinly, covering sheet. Peel off the waxed paper and cut with pizza cutter into desired shape. Bake 30 - 40 min or until browned. Salt while hot.

USER FRIENDLY FOODS (May not be suitable for the solar oven and may need electricity.)

Breakfasts (Remember to add the milk, sugar and dash of salt to your breakfasts if needed.)

Try cold cereal, Pop Tarts, granola bars, flavored instant oatmeal. Descent shelf life, kids love them.

Malt-o-meal (1 cup, once a week) 1/4 c Malt-o-meal = 1 cup cooked. One box = 23 cups cooked.

1/4 c x 52 = 13 c =

2 1/4 boxes Malt-o-meal

1 c water per 1/4 c malt-o-meal = 52 c =

3 1/4 gal. water

Oatmeal (two cups, once a week) 1 c raw oats = 2 c cooked. #10 can = 24 c cooked

1 c oats x 52 = 52 c =

4 1/3 #10 cans oats

2 c water x 52 = 104 c =

6 1/2 gal water

Pancakes (5-6 pancakes, once a week) 1 c Krusteaz = 7-8 pancakes. 1- 10 lb bag Krusteaz = 40 c.

1 c Krusteaz x 52 = 52 c =

1 1/3 bags Krusteaz

3/4 c water x 52 = 39 c =

2 1/2 gal water

1/2 c syrup x 52 = 26 c =

9 - 24oz bottles syrup

Scrambled eggs and sausage (or ham) (4 eggs, twice a month)

4 fresh eggs x 26 = 104 eggs

8 - 9 doz eggs

1 pint sausage (or ham) x 26 =

26 pints sausage

Dinners

Chicken and rice (makes 6 cups, once a week)

1 pint chicken x 52 =

52 pints chicken

1 can cream of chicken or mushroom soup x 52 =

52 cans soup

1 1/2 c rice (makes 4 1/2 c cooked) x 52 = 78 c =

6 1/2 #10 cans rice

3 c water x 52 = 156 c =

9 3/4 gal. water

1 Tb onion x 52 = 52 Tb =

3 1/2 c dry onion

Cook the rice in the water. Add the rice, chicken, soup and onion and bake. Top with cheese?

Chile and fry bread (6 fry breads covered with chile, once a week) or Chile and cornbread.

1 - 15oz can chile x 52 =

52 cans chile

1 1/2 c flour x 52 = 78 c =

6 1/2 #10 cans flour

1/2 tsp salt x 52 = 26 tsp =

26 tsp salt

1 Tb shortening x 52 + 4 Tb for frying x 52 = 260 Tb =

7 # shortening

1/2 Tb baking powder x 52 = 26 Tb =

1/2 # baking powder

3/4 c (+ or -) water x 52 = 39 c =

2 1/2 gal water

Mix the flour, salt, 1 Tb shortening, baking powder and most of the water together and knead. (Add more water as necessary.) Let this dough sit for 10 min. Pull off pieces of dough, flatten into disks and fry in melted shortening.

Cover with the heated beans.

Hamburger pie (makes 5-6 cups, once a week)

1 pint bottled beef or hamburger x 52 =

52 pints beef

1 can corn x 52 =

52 cans corn

1 can green beans x 52 =

52 cans green beans

1 can tomato soup x 52 =

52 cans tomato soup

2 Tb dried onions x 52 = 104 Tb

7 cups dry onion

1 1/2 c potato pearls x 52 = 78 c =

6 1/2 #10 cans potato pearls

3 c water x 52 = 156 c =

9 3/4 gal. water

Mix everything except the water and potato pearls in a casserole dish and heat in the solar oven. Heat the water at the same time. When the mixture is hot and the water is hot, add the potato pearls to the hot water and top the mixture with the potatoes.

Parmesan chicken (makes 7-8 cups, once a week) Add Italian bread crumbs for extra flavor.

1 pint chicken x 52 =

52 pints chicken

½ pound spaghetti(4 c cooked) x 52 = 26 pounds =

6 #10 cans spaghetti

1 jar Ragu x 52 =

52 jars Ragu

½ c Parmesan cheese x 52 = 26 c =

5 # Parmesan cheese

3 c water x 52 = 156 c =

9 3/4 gal water

Cook the spaghetti in the water. Layer spaghetti, chicken, Ragu, bread crumbs, cheese and bake.

Salmon and rice (makes 6-7 cups, once a week)

1 pint salmon x 52 =

52 pints salmon

1 1/2 c rice (makes 4 ½ c) x 52 =

6 ½ #10 cans rice

1 Tb lemon pepper x 52 = 52 Tb =

13 oz lemon pepper

1 can corn or other vegetable x 52 =

52 cans corn

Cook rice

in the water and serve salmon over the rice. Corn is a side dish.

Sweet and Sour Chicken (Makes 7 - 8 cups)

1 pint chicken x 52 =

52 pints chicken

1 1/2 c rice x 52 = 78 c =

6 ½ #10 cans rice

3 c water x 52 =156 c =

9 3/4 gal. water

1 can pineapple x 52 =

52 cans pineapple

2/3 c vinegar x 52 =35 c =280 oz

2 gal. vinegar

1 1/3 c sugar x 52 =70 c =

35 # sugar

4 Tb cornstarch x 52 =208 Tb =

4 ½ # cornstarch

4 Tb soy sauce x 52 = 208 Tb =

1 gal. soy sauce

1 tsp. Molasses x 52 =

12 oz molasses

1 Tb dried onion x 52 = 52 Tb =

4 c dried onion

(opt. ½ c sliced almonds, 1/4 c dehyd. celery.)

Cook the rice in the water in a qt jar or covered pot. (Heat the chicken in it's jar at the same time.) Put the pineapple juice, vinegar, sugar, cornstarch, soy and molasses into a qt jar. Shake well and cook in solar oven. Shake occasionally and cook until thickened. On the bed of cooked rice place the chicken, almonds, pineapple, and hydrated celery. Pour sauce over the top.

Taco soup (makes 9-10 cups, once a week)

1 pint ground beef or sausage x 52 =

52 pints meat

1 can kidney beans x 52 =

52 cans kidney beans

1 can corn x 52 =

52 cans corn

1 29 oz can stewed or reg. tomatoes x 52 =

52 cans tomato

2 c water x 52 = 104 c =

6 ½ gal. water

3 Tb taco seasoning x 52 = 156 Tb = 9 3/4 c =

2 ½ # taco seasoning

Other ideas:

Bottled meat and barbeque sauce over rice, potatoes or bread.

Bottled meat with green chiles, onions and Mexican spices on fry bread or tortillas.

Bottled meat with canned ranch style beans. (Add barbeque sauce?)

Bottled meat over mashed potatoes (potato pearls)

Chicken, tuna or beef sandwiches on homemade bread. (Use individual mayo and pickle packets?)

Chicken or tuna mixed with cooked noodles and cream of chicken soup.

Hamburger Helpers. Add a pint meat and the water it calls for.

Peanut butter and jelly on homemade bread.

Ragu and bottled sausage over spaghetti or on a homemade pizza crust. Top with cheese.

Soup: Tomato soup and oyster crackers with a toasted cheese sandwich. Ramen soup, Cup-a-soup, Campbell's soups, dry packaged soups.

SOURCE LIST

Shop around for your best prices. Use the internet...ebay, amazon.com Google etc.

A Bite of Independence: (Phipps) \$25 + shipping 1-800-955-7772. Great cookbook. 100's of recipes for "made from scratch" foods. Also check Waltonfeed.com, Amazon.com, e-bay or used bookstores.

Bulkfoods.com: Find things like unflavored gelatin, powdered molasses, dried vegetables, tapioca.

CostCo/Sams Club: Good prices on chocolate chips, flour, sugar, nuts, Parmesan cheese and yeast.

countrylivinggrainmills.com: One of the largest wheat grinders available and is attachable to a stationary bike....but it's \$350. E-mail the makers for bike instructions

Deni JarVac: QVC.com (Around \$65)

Food Saver: Most stores carry this. Ebay is a good place for inexpensive ones.

Food Source: 480-829-0886 440 W. Fairmont Dr. Tempe. Good local place for bulk foods such as baking powder, corn meal, cocoa and raisins. Price list can be faxed.

Internet-grocer.com: This is where I order my cheddar cheese in the can. Call Phyllis@ 1-903-356-6443.

Maricopa County Extension Center: 602-470-8086 ext. 340. Ask for Susie to check pressure canners.

Mesa Cannery: 480-967-8551 They used to carry quart and pint canning jars/ lids/ rings...call. Order food from the cannery through your ward canning specialist. Generally speaking, they have the best price but always shop the sales. You can bring in your own items to the cannery and can them there. Their Basic Food Storage Cookbook is only \$2.

Sahuaro Spice Co.: 602-272-8557 West Phx. Spices sold by the pound. (\$3 for a pound of cinnamon) Price list can be faxed. Store spices in mason jars to preserve freshness, but don't vacuum seal fine powders...it can clog the works.

Solar ovens: There are new ideas out every day. Do a little research on the internet or at the library. I like the Global Sun Oven. For prices around \$190 inc.s/h check survivalunlimited.com/solar aimdiscount.com/SOven kansaswindpower.net/solarcookers

Walton Feed: Lots of bulk food items (dehydrated celery, sweet peas, sour cream, etc) 1-800-847-0465.

EQUIVALENCES and APPROXIMATE PRICES

APPLE SLICES	\$.46/C dry, 10 CUPS IN A #10 CAN, = 1 1/4#, 1 c dry + 1/2 c water = 2c fresh
BAKING POWDER	\$.01/TB, 59 TB = 1#
BAKING SODA	\$.01/TB 38 TBS = 1#
BEANS	\$.19 /C (.48 /#)dry 1 # = 2 1/2 C dry = 6 c cooked 12 c = #10 can
CARROTS	\$.39 /C dry 12 C IN A #10 CAN = 2.5 # 1/2 C DRY = 1 C CARROTS
CELERY	\$.44 /C dry 2 oz = 1 C 12 C in #10 CAN 1/2 C DRY = 1 C CELERY
CHEESE POWDER	\$.03/TB 4 C IN 1 # OF POWDER 96 TBS = 1 # 1 Tb to 1 c cooked macaroni
COCOA	\$.24 /C 90 TBS = 1# (20+ years shelf life. Store in jars. Don't vacuum pack
CORNMEAL	\$.06 /C 4 c = 1 #
CORNSTARCH	\$.01 /TB 45 TBS = 1#
CRISCO	\$.42 /c 227 TB = 6# CAN 17 TB = 1 C 2 1/4 C = 1# 13 1/2 c in 6# can 1 C CRISCO + 6 TSP WATER = 1 C "BUTTER"
EGGS (powdered)	32 EGGS = 1# 2 EGGS = 1 OZ
FLOUR	\$.12 /C 18 3/4c = 5# 12 c in a #10 can
UNFLAVORED GELATIN	\$.03 /tsp 1 Tsp gelatin+3tbs cold water+ 2tbs and 1tsp hot water=1 egg 1 oz gelatin = 12 tsp = 12 "eggs" 1#=192 "eggs"
HONEY	\$1.67 /C 20 TBS = 1 C 13 oz = 1 cup 6 C = 5#
HOT CHOCOLATE	\$.10 / liquid C 12 C in #10 can #10 can = 56 liquid cups
MACARONI	\$.22 /C dry 12 C IN A #10 CAN 18 C = 5# 2 c dry = 5 c cooked
MEATS	\$1.00- 1.50 /# 1 pint holds 1# of meat 1 qt holds 2#
MILK	\$.48 /C dry 1/4 c dry milk + 1 c water=1 c milk 12-13 c dry in a #10 CAN .38# DRY=1 C DRY #10can = 58 liquid cups
MUSHROOMS	\$1.25 /C (dry) 4 C DEHYDRATED = 3 OZ 20 C = 1 #
NOODLES	\$.07 /C dry 4 C = 8 OZ 2 c dry = 2 c cooked

NUTS	avg \$.63 /C
REGULAR OATS	\$.14 /C dry 12-13 C IN A #10 CAN 1 C = 4 OZ
ONION	\$.02 /TB dry ½ ONION = 1 TBS DRY 16 TBS DRY = 1 C 12 C = #10 CAN = 192 Tbs.
PARSLEY	\$.01/TB 30 TBS = 1 OZ
PEPPER	\$.01 / tsp 6 TBS = 1 OZ
PIZZA SPICE	\$.01 /tsp 42 TB = 1#
POPCORN	12 C IN A #10 CAN 1 C POPCORN = 16 C POPPED
POTATO PEARLS	\$.41/C dry 12 C IN A # 10 CAN, 4.5 oz = 1 C DRY 1 C DRY = 2 ½ -3 C POTATOES
PUDDING MIX	\$.69 / C dry 12 -13 C MIX IN A #10 CAN
RAISINS	\$.38 /C 4 c = 1#
RICE	\$.16 /C dry 12 C IN A #10 CAN 2 1/3 C = 1# 1c raw = 3 c cooked
SALT	\$.01 / TB 1.5 TB =1 OZ 1 CONTAINER = 26 OZ = 39 TB = 117 tsp
SOUP BASE	\$.03/TB 1/8 - 1/4 C DRY MAKES 6 C BROTH
SPAGHETTI	\$.50 /# dry 4 - 5 # IN A # 10 CAN 8 OZ = 4 C. COOKED
SPICES	\$.01 / tsp 1 C = 4 OZ = 16 TBS 64 TBS = approx. 1#
SUGAR (white)	\$.12 /C \$.006 / TB 12 C IN A # 10 CAN 2 C = 1# 1# = 32 TBS = 96 tsp
SUGAR (brown)	\$.37 /C 1 1/3 C = 1#
TAPIOCA	\$.06 /TB dry 40 TB = 1# 1 TB = 1 C cooked
TOMATO POWDER	\$1.03 /C dry 1 C POWDER + 2 C WATER = 2 C TOMATO SAUCE
WHEAT	\$.16 / C (flour .11 /C) # 10 can = 5.8 lbs = 12c =18c flour 1 C wheat =1 ½c flour, 1# = 2 1/4 C wheat = 3.37 c flour
YEAST	1# compressed = 8 oz = 24 Tb Shelf life: indefinite in freezer...1 year out of freezer

APPROXIMATE FOOD FROM ONE MONTH KIT + WATER
 (All these foods may be cooked in a solar oven)

ONE MONTH KIT CONTENTS	YIELD	WATER REQUIRED
WHEAT - 17.4# or 36 cups	72 cups of cooked wheat	96 cups
RICE - 11.4# or 24 cups	72 cups of cooked rice	66 cups
OATS - 2.8# or 13 cups	26 cups of cooked oats	35 cups
MACARONI - 3.4# or 12 cups	30 cups of cooked macaroni	16 cups
BEANS - 5# or 12 cups	30 cups of cooked	36 cups
SUGAR - 6.1#	Only 3.5# needed for all of the above	
DRY MILK - 12 cups dry	All 12 cups will be used for the above	included in above
SALT - 26 oz.	Only 9 oz. used for the all of the above	
		Total water - 16 gallons

This is a very simple estimate of the food included in a one month kit. I didn't include any oil or white flour in this estimate. There is a total of about 230 cups of cooked food in each kit. Divided by 30 days, this is 7 ½ cups of food per day for one person.

If I were to begin adding items to the one month kits, they would be:

1. Yeast and a wheat grinder. The wheat can then be used to bake bread in your solar oven. Instead of 72 cups of cooked wheat, you could have 36 loaves of homemade wheat bread.
2. Basic pantry items: Baking powder, unflavored gelatin, dried onions, cocoa, vinegar, vanilla and spices (garlic powder, chili powder, oregano, crushed red peppers, seasoning salt, cinnamon, cloves, nutmeg, pepper) Now the flour can be used to make things like wheat and oatmeal muffins, cinnamon bread, spice and chocolate cakes, and rice pudding.
3. Bottled meats
4. Dehydrated or canned fruits and vegetables
5. Soup bases

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