

Just Add Water...Cooking with Dried Foods

October 2009

Presented by Debbie Kent

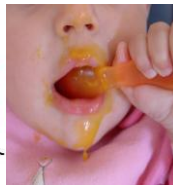
peaceofpreparedness.com



President Ezra Taft Benson has urged each of us to be productive and to store what we produce: "Plan to build up your food supply just as you would a savings account. Save a little for storage each paycheck. Can or bottle fruit and vegetables from your gardens and orchards. Learn how to **preserve food through drying** and possibly freezing. Make your storage a part of your budget...We urge you to do this prayerfully and *do it now.*" (*Ensign*, Nov. 1980, p. 33.)



"Once again I express pleasure with the response that has come from our urging the planting of fruit trees and gardens. Surely as the harvest season comes to a close, there is satisfaction as we **garner and preserve and store the bounty** with which the Lord has blessed our efforts." Spencer W. Kimball, "We Need a Listening Ear," *Ensign*, Nov 1979, 4



The World of Dried Foods: Dried foods are now used a large variety of ways. They are used in trail mix, fruit roll-ups, baby food, cereals, MRE's, soup mixes and many other foods including meals aboard the Space Shuttle. They retain most of nutrients and just by adding water you can return them to their pre-dried state. So let's get started and discover how fun and easy it is to use dried foods in our everyday lives as well as in our long term food storage program.

Drying Food Past and Present



Drying food began thousands of years ago and was originally done by hanging meat from poles and trees. Now there are electric dehydrators, which can be used quickly and easily in the comfort of your own home. On a larger scale there are companies which dry everything from fruits, vegetables and meat to the most popular dried foods potatoes and powdered milk.

No matter which methods are used, they produce the same result: harvesting good, fresh food and preserving it in a way that it will store on your shelf for a long, long time.

We learned from the Dehydrating Class that there are many benefits for drying food:



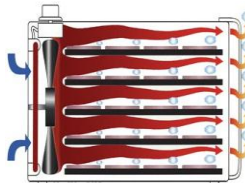
- It's a quick and easy way to preserve food;
- It saves money to buy on sale and dry;
- Dried food takes up much less space than fresh or canned food;
- It is a great way to add variety to your family's long term food storage
- When you dehydrate foods you are able to maximize the shelf life,
- It is a great way to use the zucchini that is taking over your backyard and all the other yummy fruits and vegetables during the winter months.
- They are shelf stable...Unaffected by power outages.
- It saves so much time when you cook with dehydrated foods. (tonight's class)

Nutritional Value of Dried Foods



Dehydrated foods are usually dried with low heat thus having minimal affects of the nutritional value of the food. This produces a high quality product, which when compared with the extreme temperatures involved when canning or freezing, is the least damaging form of food preservation. Fresh food dried from your own garden and commercially dehydrated or freeze-dried foods may even contain more nutritional value than fresh foods you buy from the grocery store because they are usually dried within hours of being picked, at their peak of freshness and then processed to preserve their nutritional benefits.

Dried, Dehydrated and Freeze-Dried...What's the difference?



Whether, dried, dehydrated or Freeze-dried they are all top-quality foods that have been picked at the height of ripeness, cleansed and trimmed to leave only the best parts.

The water, pits, and peelings have been removed and you pay only for the product, not excessive or unnecessary waste material. Because their bulk and weight have been greatly reduced, dehydrated foods are more compact and convenient for storing and require very little space.



Dried foods are usually not dried to the crisp stage but remain pliable. These would include: home dried with no dehydrator and also foods that don't break when you bend them like: fruit leathers and store bought dried fruit such as: apples, pears, prunes, mangos, cranberries, etc. They do not store as long as DH or FD foods and can mold if not stored properly. **Stores 1 year.**



Dehydrated Foods or DH: These are dried fruits and vegetables with 98% of their moisture removed by a combination of moderate heat and moving air. Dehydrated foods are usually wrinkly in appearance, hard, and much smaller than their original size. For this reason, they take up much less space. DH foods take longer to re-hydrate than either of the other drying methods. But they will rehydrate back to full size with some loss of texture in some foods. **Stores 10+ years.**



Freeze-Dried or FD: Freeze dried foods include: fruits, vegetables, cheese, meat or "entrees", containing multiple items for a complete meal. The difference is freeze-dried vs dehydrated is in the process Freeze dried foods maintain their original shape and texture, unlike dehydrated or air dried foods which shrink and shrivel due to high temperature processing. Like Dehydrated they are 98% dry. FD foods are lighter in weight than dehydrated foods and rehydrate faster than dehydrated foods. Many fruits and vegetables are delicious just popped in your mouth. (**warning:** be sure to drink lots of water if you are eating non-reconstituted FD foods). Recently we are seeing more and more freeze-dried foods on the market; an example of these are breakfast cereals with berries. I like to eat FD fruits, but find the fruits and vegetables a little mushier than the dehydrated varieties when used in cooked foods. I do love the FD Cheeses; the mozzarella on pizza is wonderful! And the FD meats, hold up pretty well, although like all Freeze-dried foods they are very expensive, \$30 for meal for 5 people... **Stores 25+ years.**



Here's how freeze drying works.



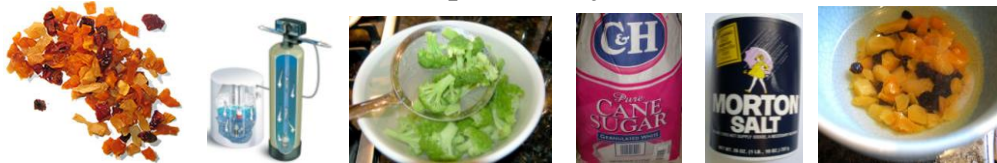
Getting the Most for your Money



Pound for pound, and dollar for dollar, dehydrated food costs less than freeze dried food. Nothing comes close to the value of dehydrated food, not even store bought canned food. For instance: 24-1 lb cans of peas, cost \$38 and weigh 27 pounds. when dehydrated would only weigh about 4 pounds and could be stored in 1-#10 can which costs \$22. A #10 can of freeze dried green beans, at a cost of \$18 (or \$37 for 2) will make 24 servings on average where as a #10 can of dehydrated green beans, contains 48 servings.

Using And Cooking Dried Foods

General Tips for Rehydration



- If rehydrating several different kind of foods together, make sure that sizes are uniform so that they will rehydrate at the same rate.
- Soft water will reconstitute your fruits and vegetables more quickly than hard water.
- Blanching vegetables prior to drying will shorten rehydration times.
- Fruits to which sugar has been added will take longer to reconstitute (about 5 minutes).
- Do NOT add salt until after re-hydration has taking place.
- **Practice:** some will like cool water-longer RH, some Hot-short RH times

Fruits

Dried fruits make tasty snacks and are very handy for taking on camping or hiking trips. Dried fruits can also be chopped up and used dry with breakfast cereal, granola, or cookies. Reconstituted fruit is especially good in breads, cakes, pies, and other desserts. It can also be used to make jams.



- To reconstitute, pour just enough boiling water over it to cover and let sit for 10 minutes. Or pour cool water over it to cover, then soak for a few hours.
- Soak only until the fruit is plump because soaking too long makes the fruit mushy and less flavorful.
- To retain nutrients, cook the fruit in the same water used for soaking.
- If the recipe calls for water, use the water in which the fruit was soaked and/or cooked.
- Most dried fruit needs no extra sugar because some of the starch in the fruit turns to sugar during the drying process. If you wish to sweeten the fruit, do so after cooking; otherwise the fruit will become mushy.

Vegetables

Dried vegetables can be used in a variety of ways, in fact you can use them pretty much the same way you would use fresh vegetables. They can be used in: soups, salads, casseroles, breads, sauces, as a seasoning salt or broth and even as chips.



- Reconstituted vegetables nearly the same size they were when fresh.
- Add 1-2 cups of boiling water to 1 cup of dried vegetables. Or fill jar ½ with veggie, add cold water to top. Let sit in frig. Overnight.
- Vegetables can take anywhere from 15min -3 hours to reconstitute, depending on the size and type of vegetable.
- If you are using in soups, stews, etc. No need to rehydrate first, just add to liquid before it is hot and cook as usual.
- Dried vegetables taste best if used in soups, stews, or other dishes cooked with liquid and seasonings
- Dehydrated food should be seasoned for best taste.

Other DH Vegetable Uses

Vegetable Chips



Dehydrated, thinly sliced vegetables or vegetable chips are a nutritious low-calorie snack. They can be served with a favorite dip. Vegetables to try are zucchini, tomato, squash, parsnip, turnip, cucumber, beet or carrot chips. NOTE: Vegetables should be thinly sliced with a food processor, vegetable slicer or sharp knife before drying.

Vegetables Flakes



Vegetable flakes can be made by crushing dehydrated vegetables or vegetable leather using a wooden mallet, rolling pin or one's hand. They can be added to soups, stews, rice and pasta dishes.

Vegetable Powders



Powders are finer than flakes and are made by using a food mill, food processor or blender to pulverize the dried vegetables into powder. This is great for people on reduced or no salt diets. The most common powders are onion, celery and tomato. Add them to boiling water for instant vegetable broth, or put in a shaker and use at the table as a seasoning. These are a great way to add a punch of flavor to dishes.

Freeze-Dried Foods



- Fruits-great for snacking dry. (drink water!)
- Soak in 2x water for 5-10 minutes, drain, then eat. Do not over-soak or soggy.
- For cheese: soak in cool water, then squeeze gently remove excess water.

Dairy Powders and More



Butter Powder: Add 1/3 cup water to 1/2 cup powder. May need to adjust amount of water added. For added flavor, add 1 tsp. of vegetable oil. Mix. When used in baking, it is not necessary to reconstitute. Just add to dry ingredients and increase liquid. When used in baking keep batter moist as it will dry during baking process. Excellent when sprinkling over hot vegetables.



Cheese Powder: makes a terrific sauce and coating for popcorn. The powder can be stirred into a white sauce for a terrific cheese sauce for your favorite pasta.



Margarine: Blend 1/2 cup Margarine Powder and 1/4 cup warm water. For added flavor, add 1 tsp. vegetable oil. Mix until creamy. Chill. Use as a spread or as a margarine substitute in cooking. Store as cool as possible without freezing.



Peanut Butter Powder: This is a wonderful product! It has 1/3 the calories and fat of normal peanut butter -- and no added anything! As far as taste, it is very peanuty, and is best when reconstituted with milk instead of water, for a little more flavor. Add 1 tsp. of water to 1 Tbsp. Add small amount of sugar for taste. A small drop of vegetable oil may be added for texture and flavor. For use in baking, it is not necessary to reconstitute. Simply increase liquid according to the amount of Peanut Butter Powder used.



Shortening Powder: To obtain optimum texture: Add 1/3 cup water to 1/2 cup Shortening Powder. Mix well. For moistness, add small amounts of water until desired texture is reached. For added flavor and texture, add about 1 tsp of vegetable oil. "Powdered shortening and powdered butter work very well for batter items like brownies and bar cookies. But when using this item for dough (i.e. drop cookies), the results were not satisfactory. There was not substance to them and they cookies came out thin and lacy".



Sour Cream: This is a great product when used for what it was intended. It is not made to use as fresh sour cream on potatoes and the like. It is intended for baking or recipes like dips. It does not mix well straight into water, you add it with the powdered or dry part of your recipe and add the water with your other wet ingredients.



Whole Eggs: Powdered Whole eggs are an alternative to fresh eggs that are convenient to use and store. To reconstitute one egg, mix 2 T. of *powdered whole egg* with 4 T. of water. Use for any recipe that calls for eggs. When using with other dry ingredients, it is not necessary to reconstitute egg. Simply add to other dry ingredients and increase water measurements in mixture to necessary amount. Powdered egg products are pasteurized and do not require refrigeration.

Breads



You can add dried fruits or vegetables to your quick breads or even raised breads for variety and flavor. Simply mix up your quick bread recipe as usual. Just before baking gently stir in the pre-soaked fruit or vegetables. If making kneaded breads add in at the end of the kneading stage, just before baking. If you don't want to pre-soak, then simple add some additional liquid to the batter (see middle photo), then bake as usual. The possibilities are endless: pineapple carrot, chocolate zucchini, cranberry, blueberry, strawberry banana, sun-dried tomato basil, mixed vegetable, etc. Experiment, live dangerously...how about: Chocolate Banana Strawberry Bread?

Quick Bread Demonstration

(see Just Add Water Recipes for Amounts and Directions)



(1)

Mix up Bread Mix



(2)

Store in jar or seal-a-meal bag. Label



(3)

Pour bag in bowl.



(4)

Add eggs, water, oil.



(5)

Mix until smooth.



(6)

Looks like this.



(6a)

Grease pan good.

For Apple Bread:



(7)

Break up apples.



(7a)

Add 1/4 c. water. Mix.



(8)

Add dry apples.

(When adding dry foods, need thin batter.)





(9)



Pour into pan.

For Pumpkin Bread:

- (10)  (11)  (12)  (13) 
- Soak DH pumpkin in Boiling water, stir. Mix pumpkin In batter. Add CC chips. Ready to bake.

For Raspberry Bread:

- (14)  (15) 
- Use $\frac{1}{2}$ -1 c. nuggets. Mix in batter. Bake.

- (16)  (17) 
- Bake at 325°, 50 min. Beautiful Breads!!!

Dinner as Easy as 1-2-3

Who says homemade meals have to take hours to make? Following are three different ways you can use dehydrated foods in making quick and easy meals.



One Pot Meals

One Pot meals are so easy to make. All the ingredients can be dumped into a crock pot (or stock pot on stove or solar oven or ice box oven) and simmered for 5 hours and eaten. So fast, so easy so delicious. These are perfect for your 90-Day Food Supply plan but also great for everyday and Long Term storage. A perfect way to USE your DH foods in your meals.

Assembling your Meal



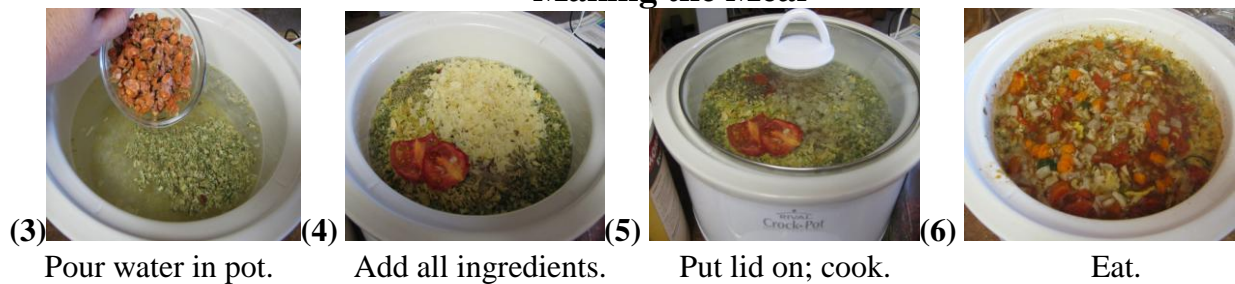
(1)

Assemble all the ingredients.
Make several at a time to save time.

(2)

Can store in jars or
Food saver bags. Label.

Making the Meal



(3)

Pour water in pot.

(4)

Add all ingredients.

(5)

Put lid on; cook.

(6)

Eat.

Dehydrated Meals



Did you know that many meals can be cooked and then dehydrated for later use? That is right. Soups, sauces, mashed potatoes, pasta meals and even desserts can be: assembled and cooked; dehydrated on sheets in your dehydrator until they dry up into “bark”; stored in jars or bags; and then in later added to boiling water for a delicious hot meal. Have some left over split pea soup? Dry it, and then have it for lunch months later. It will still taste as fresh as the day it was made. This is a great way to make your favorite meals and instead of storing them in your freezer you can store them on your shelf. There are several websites that discuss this. One of my favorites is backpackingchef.com.

The Making of a Dehydrated Meal



(1) Make and cook chili.



(2) Spread out on dehydrator.
Dry at 125°, 8-10 hrs.



(3) At 5 hours, break-up pieces
When dry; break small piece



(4) Seal up in bags.



(5) To make boil 1 c. water
For each cup food. Pour on.



(6) Rehydrates in about 5 min.
Stir and Eat.

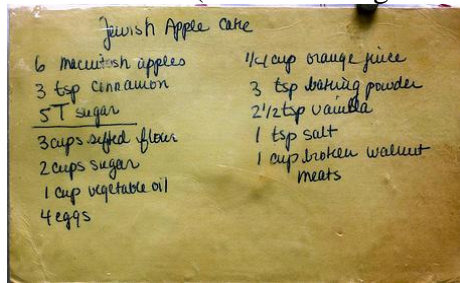
Backpacking and Meals for Singles



Dried, Dehydrated and Freeze-dried foods are perfect for backpacking meals and for singles. There are several dehydrating websites and cookbooks that have recipes in them for making meals for backpacking (usually for 1-2 people). These not only sound wonderful, but would be perfect for meals for a single person for their 90-Day supply or everyday meals. A great website for this is backpackingchef.com, which I mentioned above. It has meal planning, recipes and step-by-step pictures for making meals for breakfasts, suppers and even desserts. A great book which has a whole section on this is the Dehydrator Bible.

Converting Recipes

(see converting chart at end of handout)



	Water	Product	Makes
• Applesauce	1 c.	1/2 c.	1 c.
• Apple Slices	1 c	1 1/2 c.	1 1/2 c.

Many of you probably do not have a shelf of food storage cookbooks which you can pull down and find a soup recipe using dried vegetables. Well, guess what you don't need one! All you need to do is use some of your favorite family recipes which use fresh vegetables and convert it into using dried foods. This isn't difficult, but does take some time, especially when you are first starting to use DH foods in cooking. Now, not all recipes will be able to be converted. Some are so full of fresh ingredients, salads for instance, that they just wouldn't be the same if using dried ingredients. Included at the end of this handout is a converting chart which you can use to make the switch. If your recipe calls for one can or cup of corn, you would use 1/2 c. of dried corn. If you are making soup, you just need to throw it in with the cold water (adding 1/2 c. more) and cook. It is just that easy. Another great thing about using dried foods is that they are already washed, prepped, and cut up, allowing you to just throw them in the pot. Less fuss, less mess, less time. And just think of the time you can save if they were already pre-measured also!

Packaging Dried Foods



- Store dried foods in clean, dry home canning jars (use Food Saver Jar Sealer), plastic freezer containers with tight-fitting lids or in plastic freezer bags.
- Vacuum packaging using Food Saver or Seal-a-Meal is also a good option.
- Pack foods in amounts that can be used all at once. Each time a package is re-opened, the food is exposed to air and moisture that lowers the quality of the food and results in spoilage.
- Distributor of food saver bags: dcprocessingequipment.com
- Tilia FoodSaver **Jar Sealer** for reg. and wide mouth jars, can be found at: amazon.com

Storing Dried Foods



The taste and quality of all stored food is affected by HALT: humidity; air; light and temperature. The drier; less oxygen; darker and cooler it is the longer the food will taste good. Dehydrated foods should be stored in a cool, dry area. Use your imagination: under beds, in closets or in the basement, if dry. Never place the cases directly on a concrete floor or against a concrete wall, as concrete will sweat and the moisture may cause the cans to rust. The shelf life of Freeze-Dried and Dehydrated foods is, kept cool and dry is reported by companies to be 10-25+ years.

After Opening The Can...How Long does it Store?



After you have opened your can of dehydrated or Freeze-Dried foods, you have exposed it to: air and humidity. Both of these will soften and begin to change the flavor of the foods. It is said that dehydrated and Freeze-dried foods will store 9 months to 3 years after the seal on the can has been broken. I have found that Freeze-Dried foods really need to be repackaged as they very quickly absorb moisture which changes the taste and texture of the foods. There is no need to refrigerate, simply store in a relatively cool place. Remember to reseal the opened cans with a plastic lid or better yet re-package into mason jars. This will help to maximize the storage/shelf life.

Sources



Dehydrate at Home: See the All Dried Up... Dehydrating Made Easy handout for details
Food Storage Companys

Walton Feed: To Order: 800-847-0465 or waltonfeed.com (local group orders)

Honeyville Grain: To Order: (888) 810-3212 or store.honeyvillegrain.com

Emergency Essentials: To Order: 1-800-999-1863 or beprepared.com (monthly group specials)

Locally

WinCo Foods: has a bulk food section that is full of dried foods.

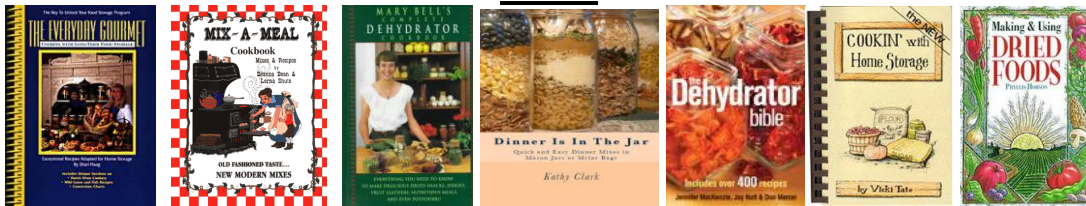
Resources

On the Web



Dehydrate2Store.com
Survialacres.com
Yourfoodstorage.com
YouTube.com
BackPackingChef.com

Books



The Everyday Gourmet by Shari Haag (standeyo-cart.com)

Mix-A-Meal by Deanna Bean & Lorna Shute (mix-a-meal.com or Waltons)

Mary Bells' Complete Deydrator Cookbook by Mary Bell

Dinner is in the Jar by Kathy Clark

The Dehydrator Bible by Jennifer McKenzie, Jay Nutt and Don Mercer

Cooking'with Home Storage by Vicki Tate

Making and Using Dried Foods by Phyllis Hobson

Now What?



Plan: What kind of “dried” foods can you add to your food storage to make meals. Which recipes can you convert. How

Gather: Recipes, ingredients and supplies like dehydrators, canning jars, etc. to make your menus complete, delicious and easy.

Do: What are you waiting for the sky to fall or the rains to start. Do it now, so you can learn and make it a part of your life. So it's no longer food storage meals but simply meals.

Don't Be Afraid to Experiment: Things almost never turn out right the first time. Practice now so that you don't over dry your peaches or turn your broccoli black and no one wants to eat them. Then share what works and what doesn't with us, your family and friends.

In Closing



"More than ever before, we need to *learn and apply the principles of economic self-reliance*... Food production is just one part of the repeated emphasis that you store a provision of food which will last for at least a year...The Church has not told you what foods should be stored. This decision is left up to individual members.

I bear you my testimony that President Heber J. Grant was inspired of the Lord in establishing the Church Welfare program. The First Presidency was inspired when they made the first public announcement in 1936 and declared the prime purpose of Church welfare was "to help the people help themselves" (in Conference Report, Oct. 1936, p. 3).



I bear witness to that *inspired counsel* from 1936 to the present day that the Saints lay up a year's supply of food.

When President Spencer W. Kimball persistently admonishes the members to plant gardens and fruit trees and *produce our own food*, he is likewise inspired of the Lord.



Be faithful, my brothers and sisters, to this counsel and you will be blessed. You are good people. I know that. But all of us need to be better than we are. Let us be in a position so we are able to not only feed ourselves through home production and storage, but others as well.

May God bless us to be prepared for the days which lie ahead, which may be the most severe yet."

Ezra Taft Benson, "Prepare for the Days of Tribulation," *Ensign*, Nov 1980, 32



This has been a really fun subject for me to learn about and practice. I am **LOVING dehydrating and canning. It is so satisfying to see the fruits of my labors and know that I am putting up good food for my family. I too, testify of the inspired counsel from the Lord through his servants to lay up a year supply of food, learn to produce our own food and learn how to preserve it through canning and drying. I believe that by doing this we truly **WILL** be blessed; that we will be in a position to not only be able to help our families but others as well. I believe we have been sent here for such a time as this. This is such an exciting time in the history of the world. Some think it is scary. I think it is exciting. I know that if we are prepared we will not fear. So keep moving on the Path to Preparedness.**

**Thank you all for your Support,
Debbie**

Reconstituting Dehydrated Foods

<u>Dried Food</u>	<u>Makes</u>	<u>Amount</u>	<u>Water</u>	<u>Instructions</u>
Applesauce	1 c.	½ c.	1 c.	Add boiling water and let set for 15 min.
Apple Slices	1 c.	1 ½ c.	1 ½ c.	Add boiling water and let set for 15 min.
Bell Peppers	1 c.	½ c.	¾ c.	Add water and let soften.
Bouillon	1 c.	1 t.	1 c.	Dissolve bouillon in hot water.
Broccoli	1 c.	½ c.	1 c.	Soak for 15 minutes, heat.
Butter	½ c.	½ c.	2 T.	Mix together to make paste. Chill
Buttermilk	1 c.	¼ c.	1 c.	Mix cold water into milk with whisk. Let stand several hours in frig.
Cabbage	1 c.	1/2 c.	1 ¼ c.	Add water and let set for 30 min or till soft.
Carrots	1 c.	1/2 c.	1-1/2 c.	Simmer carrots in water for 15 min. or until tender. Add ½ t. sugar.
Celery	1 c.	½ c.	1 c.	Soak in warm water, 20 minutes, drain.
Corn	½ c.	¼ c.	¾ c.	Bring to boil, cover, simmer 30-35 min.
Green Beans	1 c.	½ c.	1 c.	Bring to boil, cover simmer, 15-12 minutes.
Hashbrowns	2 c.	1 c.	3 c.	Bring to boil, simmer 10 min., drain, Fry.
Instant Milk	1 c.	¼ c.	1 c.	Stir and dissolve milk in cold water.
Margarine	¾ c.	1 c.	.	Add 2 T. oil, stir till smooth.
Morn. Moo	1 c.	2 T.	1 c.	Dissolve milk in warm water, cool bef. drink
Mushrooms	¼ c.	¼ c.	½ c.	Cover with water, set 1 hour, drain.
Onions, chop	2 T.	1 T.	1 ½ T.	Add water, let set until soft.
Potato Buds	2 c.	1 c.	2 c.	Stir into hot water, cover, let stand 5 min.
Potato Dices	2 ½ c.	1 c.	3 c.	Bring to boil, simmer 10 min, drain.
Peaches	2 c.	1 c.	2 c.	Add water let set until soft.
Peas	1 ¼ c.	½ c.	1 ¼ c.	Add ½ t. sugar to hot water & peas/set 30 min
Peanut Butter	1 T.	1 T.	1 t.	Add 1 t. oil, mix thoroughly.
Pudding	2 c.	1 c.	2 c.	Whip together, 3 minutes, cool 30 minutes.
Refried Beans	4 c.	2 c.	2 c.	Bring water to boil, stir in beans, cook til soft
Reg. Milk	1 c.	2 T.	1 c.	Dissolve milk in warm water, cool bef. drink
Shortening	½ c.	½ c.	½ c.	Mix together until desired constancy,
Sour Cream	1 c.	6 T.	1 c.	Mix together until desired constancy.
Spinach	1 c.	1 c.	1 ½ c.	Add spinach to boil water cook til soft, 3 min
Sweet Potatoes	1 c.	1 c.	1 c.	Boil water, add potatoes. Let stand, 20 min.
Tomato Pdr.	1 c.	½ c.	1 c.	Sauce: mix together, use less water for paste