

# LANCASTER PERSONAL AND FAMILY PREPAREDNESS CLASS

## "BEANS, BEANS, THE MAGICAL FRUIT"

Presented by Saran Owen

Compiled By Debbie Kent avfoodstorage@gmail.com



### A MAN WITH A PASSION

Once upon a time, there lived a man who had a terrible passion for baked beans. He loved them, but they always had an embarrassing and somewhat lively effect on him. One day he met a girl and fell in love. When it became apparent that they would marry, he thought to himself, she'll never go through with the marriage with me carrying on like this, so he made the supreme sacrifice and gave up beans. Shortly after that they were married.

A few months later, on the way home from work, his car broke down and since they lived in the country, he called his wife and told her that he would be late because he had to walk. On his way home, he passed a small cafe and the wonderful aroma of baked beans overwhelmed him. Since he still had several miles to walk he figured he could walk off any ill effects before he got home. So he went in and ordered, and before leaving had 3 extra large helpings of baked beans. All the way home he putt-putted. By the time he arrived home he felt reasonably safe.

His wife met him at the door and seemed somewhat excited. She exclaimed, "Darling, I have the most wonderful surprise for you for dinner tonight!" She put a blindfold on him, and led him to his chair at the head of the table and made him promise not to peek. At this point he was beginning to feel the effects of the beans coming on. Just as his wife was about to remove the blindfold, the telephone rang. She again made him promise not to peek until she returned, and away she went to answer the phone.

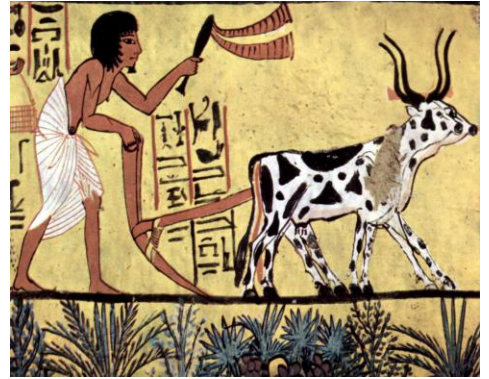
While she was gone, he seized the opportunity. He shifted his weight to one leg and released a little toot and waved his hands to fan it away. He had just started to feel better, when another urge came on. This one was more potent. Then he got another urge. This was a real blue ribbon winner, the windows shook, the dishes on the table rattled and a minute later the flowers on the table were dead. While keeping an ear tuned in on the conversation in the hallway, and keeping his promise of staying blindfolded, he carried on like this for the next ten minutes. When he heard the phone farewells he neatly laid his napkin on his lap and folded his hands on top of it.

Smiling contentedly, he was the picture of innocence when his wife walked in. Apologizing for taking so long, she asked if he had peeked at the dinner table. After assuring her he had not peeked, she removed the blindfold and yelled, "SURPRISE!!!" To his shock and horror, there were twelve dinner guests seated around the table for his birthday party.



We are hoping to not only teach you how to make some wonderful bean recipes but teach you some tricks so they won't have embarrassing and lively effects on you or your family.

**A Little History:** Beans have been an important part of the human diet for over 6000 years. In fact, the Bible makes reference to bean consumption, and beans have even been found in pre-Columbian tombs and the Egyptian pyramids. It's been said that the Egyptians had temples dedicated to beans, worshipping them as a symbol of life. Most historians agree that beans are probably native to ancient Peru. From there, they were no doubt introduced throughout the world by soldiers who carried them as a staple of their diet as they fought ancient wars. The American bean story begins long before Columbus discovered America. In fact, maize, squash and beans were probably all cultivated in North America centuries before Columbus saw his first field of beans. (Centralbean.com)

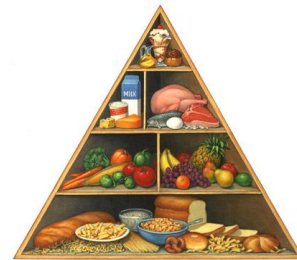


**Growing Beans:** America is by far the world leader in quality bean production. Each year, U.S. farmers plant from 1.8 to 2 million acres of dry beans. Beans are planted in May and take about 12-14 weeks to grow to full height. Once the plant has matured, it begins to develop small flowers that vary in color depending on the bean variety. The flowers give way to pods, within which the small beans begin to form. The warm summer days ripen the beans inside the pods. One or two weeks before harvest, the plants change color from green to golden yellow, signaling they are ready for harvest. Americans consume approximately 7.5 pounds of beans per person.

**Really Good For You:** Beans are one of the most nutritionally complete foods available. In fact, no other foods comes close to beans in providing protein, iron, magnesium, zinc, potassium and soluble fiber together in high amounts.

Following are some of the reasons why beans are a key ingredient in a healthy diet of all ages:

- High in complex carbohydrates
- High in protein (1c. beans = 1/2 calories, more protein than steak)
- High in dietary fiber (1 c. beans = 3 doses laxative)
- High in folate
- Low in fat (only 2-3% fat)
- Low in sodium
- Cholesterol-free
- Rich in vitamins and minerals



Beans are very low in sodium and offer many of the same nutrients as meat, but without the fat and cholesterol. They also provide more nutrients than a serving of oatmeal or oat bran.

As part of a balanced diet, beans make sense for anyone looking for better overall nutrition in their diets. Beans are the *only food that is in two groups* on the USDA Food Pyramid: vegetable and protein.



**Recommended amount to store, per person:**

**60 lbs (can be offset by meat)**

**Storage: 30 years at 70° only but about 5 years in garage.**  
(still can be used for flour)

## Types of Beans



**Adzuki** - These small, dark red beans, native to the Orient, are thought to be useful in treating kidney ailments and other ills. They are a good source of calcium, phosphorus, potassium, iron and vitamin A. Great for meals and sprouts.



**Anasazi** - Similar to pinto beans, these red and white speckled beans were originally grown by Native Americans. Try them tossed with noodles as a cold side salad or mixed with rice or quinoa as a complement to any meal.



**Black turtle** - These small, compact black beans are especially popular in Mexican and Southwestern cooking. Fresh cilantro, crushed garlic, and a little hot sauce are all you need to transform a pot of black beans into a distinctive side dish or quick lunch.



**Black-eyed peas** - Also known as cow peas, they are a southern staple. They are medium-sized, oval-shaped, with black dot on white colored skin. They have a distinct, savory flavor and light, smooth texture. They are popular in Southern cooking in recipes such as Hoppin' John. They are rich in potassium and phosphorus and loaded with fiber.



**Cannellini:** These white Italian kidney beans have a mild flavor and tender texture. They are used in soups, stews and salads.



**Cranberry or Roman:** Medium-sized, mottled tan and red ovals. They become tender easily and absorbs flavors of spices very well. They are a favorite in Italian dishes.



**Garbanzo** (chickpeas) - Garbanzo beans, or chickpeas are a staple food in the Middle East and are high in potassium, calcium, iron and vitamin A. These round, pale yellow legumes are traditionally used to make hummus - a thick mixture of chickpeas and tahini used as a dip or spread - and they are also great with grains.



**Great Northern:** Medium-sized, white oval. They are often used in soups, stews and Casseroles. Because of their mild flavor they are perfect for flour gravys.



**Kidney Beans** - These medium-sized red beans get their name from their distinctive shape. Kidney beans are a mainstay in Mexican meals, and they work equally well in soups. Stews, chili and salad.



**Lentils** - A member of the pea family, these are small and disk. They are high in calcium, magnesium, potassium, phosphorus, chlorine, sulfur and vitamin A and are available in brown, red, and green varieties. No soaking. Great for soups, breads and sprouts.



**Lima Beans** - Flat-shaped, white-colored beans with smooth, creamy texture. They are popular as a sidedish or added to soups and casseroles. Lima beans have a distinctive flavor and are loaded with potassium, phosphorus and vitamin A. They take a little longer to cook, but they are worth the wait.



**Mung Beans** - These small, dark green beans are grown in India and the Orient. Sprouted, they are the mainstay of stir-fries and make a wonderful addition to salads. Try tossing a handful of sprouted mung beans in soups just before serving, or mix them with millet and a little ground cumin for a savory side dish.



**Navy Beans** - The hearty texture of these flavorful white beans makes them the perfect bean for soups, stews, baked beans and salads. Their mild flavor makes them perfect for bean butter and flour.



**Pink:** Small, pale, pink-colored. They turn reddish brown when cooked. They are often used in South American recipes and “Old West” recipes like chili.



**Pinto Beans** - Along with black turtle and kidney beans, pinto beans are a favorite from the Southwest. They are rich in calcium, potassium, and phosphorus, and they make great soups.



**Red:** Dark red color, with flavor and properties similar to Dark Red Kidney bean, only smaller. They hold shape and firmness when cooked. They are often used in soups and Creole dishes.



**Split Peas** - These flavorful members of the legume family come in both yellow and green varieties and make a wonderfully substantial soup that is easy to make and loaded with nearly any grain and are especially delicious with buckwheat or wild rice.



**Soybeans** - The soybean has been a major source of food and oil in the Orient for thousand of years, but it was unknown in Europe and America until 1900. The soybean is the only legume that's a complete protein by itself, and it is the most versatile bean around - you will find soybeans in a variety of forms, from dried or toasted soybeans to tofu, miso, tempeh and tamari.

### Bean Arithmetic

- 1 pound of beans = 2 cups dry = 6 c. cooked
- One pound of dry beans ground = 5 c. flour
- 3 cups of water to 1 cup beans for soaking
- 1 lb. beans makes @ 9 servings.
- 1-16 oz can beans = @ 1 1/2 cups cooked beans



### Buying Beans

Good beans: smooth and bright.  
 Old bean: cracked seams, dull, wrinkled.  
 The older the bean, the longer the cooking time.

*Old Beans:* cracked, wrinkled, broken

## Soaking Dry Beans



All beans need to be soaked except: Lentils and split peas.

Pick out all stones and debris and rinse beans before soaking.

**HINT:** If the inside of bean is opaque when cut open, soak longer.

- ❖ Overnight (preferred): Wash and sort. Place in large sauce pan with 3 cups of water per cup of dry beans. Let stand overnight in frig if possible (keeps them from souring). In morning drain and rinse.
- ❖ Quick Soak: Follow above instructions but bring beans and water to a boil and cook 2 minutes. Remove from heat, cover and let stand 1-2 hours. Rinse and drain.
- ❖ Cracked Bean Quick Soak: to 2 c. cracked beans add 4 cups boiling water. Cover and let stand 5 minutes, rinse and drain.

## Cooking Methods

Beans are fully cooked when you can easily mash with a fork.



**Stovetop Method:** for each cup of dried beans dissolve 1 t. salt in 3 c. hot water, add 1 T. oil, bring to a boil. Add soaked beans (drained and rinsed), boil gently, uncovered, adding water if needed to keep beans covered, until tender. Drain, yields 2-3 cups.



**Crock Pot-** Soak beans overnight. Rinse and drain. Then place beans in crock pot and add enough water to cover beans by 2". Add seasonings to taste. Cook on low 12 hours.



**Pressure Canning:** Homecanning only costs about \$.30 for one quart of beans. Soak beans overnight, rinse and drain. Put in quart jar, filling 1 1/2 " from top, fill will with water to 1/2", then process in a pressure canner, at 15 lbs pressure for 90 minutes. Complete directions in "Canning...Putting Up the Harvest".



**Pressure Cooker:** Pressure cooking is safe and easy and saves a lot of time and work, if you just follow the few simple instructions. Read the instructions that come with your pressure cooker. There are some differences with different cookers. After a couple tries, you will get over your fear (if you have any) and you will see how easy it is.

**Soaked:** Place previously soaked and rinsed beans in pressure cooker, filling no more than 1/3 full to allow for expansion Add water to cover and 1 T. oil to reduce foaming. Cover and cook at 10 pounds pressure 10-20 minutes, depending on size and color of bean. (darker beans take longer to cook)

**Unsoaked:** place washed and sorted beans, in pressure cooker with 3 times as much water as beans and 1 T. oil or butter. Cover; cook at 15 pounds pressure for 30 minutes for small beans, 40 for large beans.



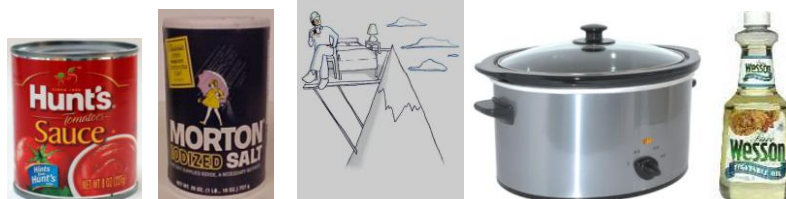
**Microwave-** Boilovers are common using the microwave, makes beans tough and it does not save any cooking time. Other methods are better.

## Stovetop Cooking Times (after Soaking)



Black Beans	1-1 ½ hours
Black-eyed peas	1-1 ½ hours
Garbanzo beans	2-2 ½ hours
Great Northern	1-1 ½ hours
Kidney beans	1 ½ - 2 hours
Lentils	30-45 min. (no soaking)
Lima, baby	1 – 1 ½ hours
Navy (white) beans	1 – 1 ½ hours
Pink beans	1 ½- 2 hours
Pinto beans	1 ½ - 2 hours
Red beans	1 ½ - 2 hours
Soybeans	3-3 ½ hours
Split peas	35-45 min. (no soaking)

## Cooking Tips



- If a recipe calls for lemon juice, vinegar, salt or tomato products, wait until beans are almost tender before adding or it will really slow the softening process.
- At high altitudes or in hard water areas increase both soaking and cooking times.
- Slow cooking beans prevents them from bursting and makes them easier to digest.
- 1 T. oil added during cooking reduces foaming and boil-overs.
- Beans can also be cooked in a crock pot, but may need a longer cooking time.

## Ways to Reduce Gas



- Use beans 2-3 times per week (work up to - this forms enzymes to digest )
- Discard soaking water, rinse and replace before cooking, remove foam when cooking
- Add ¼ t. baking soda per cup of dried beans **during soaking** to reduce gas and to soften beans (more if really hard). *Be sure to rinse and replace water before cooking.*
- Sprout before cooking
- Use Beano (Call 1-800-257-8650 for sample and information)

## Other Uses For Beans

### Bean Flour



Bean flours are nothing more than ground up beans, ground in your grain grinder. (see grinders-below). They can be added to baked goods increase vitamins and minerals and provide a source of complete protein. *Great way to use old beans.* Bean flour stores up to 6 mo. at room temperature, 1 yr in freezer.

- **Replace up to 25% of flour in recipes with bean flour.** (2 c flour = 1 ½ wheat flour + ½ c. bean flour)
- Baby Lima or Navy make mildest tasting flour.
- Sort beans, checking for broken, dirty beans or rocks (Unnecessary if “triple cleaned”)

**Grinders:** (Use impact or burr grinders **NOT** stone grinders)

- ❖ Set Mill to grind on medium-fine.
- ❖ Stir beans, if necessary, so they don't get stuck.
- ❖ With all grinders, when done grinding beans, grind 1 c. of hard grain to clean out internal parts.
- ❖ Thoroughly brush away any remaining flour residue.
- ❖ Store flour in air tight container.

### Bean Butter



Replace fats in baked goods with mashed white beans.

“Bean Butter” can be any white bean that has been soaked and cooked. 1 cup of mashed or blended cooked beans = 1 cup of butter, shortening, oil or margarine. You can also use 1 can beans(1 1/3 c. of whole cooked beans) which will also replace 1 cup of butter and either blend them in a blender with the sugar (as you're making the cookies) or add them directly in your mixer to cream with the sugar (depending on how “chunky” you want your cookie). Replacing only half the fat will give you a better consistency. You can also use black bean puree, to replace 1/2 of the fat in brownies.

### Sprouting Beans *(This takes the place of the soaking process-cook as normal)*



Wash and sort beans. Place in large bowl with 3 c. of water per cup of beans. Let stand overnight (12 hours). Drain and rinse, then put beans into sprouting container.

*In quart Jar:* measure 1 c. soaked beans and cover with a piece of nylon secured with a rubber band or jar ring or use commercial sprouting lid. *In sprouting tray:* cover with a layer that is 2-3 beans thick.

For both, cover and place in a warm area (@70 degrees), rinsing and draining at least 2 times per day with warm water (VERY IMPORTANT). Tip jar upside down or tilt trays and drain until no water drips out. Within 2 days most will have sprouted as long as the seed. Older seeds may take up to 5 days. **Be sure to rinse and drain thoroughly.**

## Storing Beans



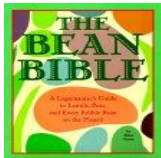
- ❖ Store dry beans in dry, airtight container.
- ❖ Store in covered container in refrigerator 3-5 days (spoil easily)
- ❖ Freeze cook beans in 1-2 c portions in zip-lock bags. Flatten bag, squeezing out air, then seal and lay flat in freezer. Will keep 3-6 months. Thaw for salad or dips.
- ❖ Dry beans can be bottled using a pressure canner and have a shelf life of at least 1 year.

### Places to Find Dry Beans:

Can yourself: Bishop's Storehouse, Costco, Sam's, Smart and Final, Win Co Foods, Grocery Stores  
Already Canned: LDS Distribution Center (pinto), Walton Feed (group buys), Emergency Essentials

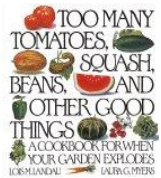
### Resource Recommendations

Beanbible.com  
Americanbean.org  
USdrybeans.com



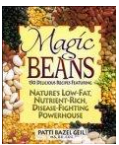
#### The Bean Bible

by Aliza Green  
Running Press, May 2000  
Trade paperback, 320 pages, \$19



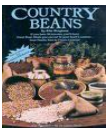
#### Too Many Tomatoes, Squash, Beans, and Other Good Things: Cookbook for When Your Garden Explodes

by Lois M. Landau and Laura G. Myers  
HarperCollins, March 1991  
Trade paperback, 304 pages, \$16.00



#### Magic Beans

by Patti Bazel Geil  
ChronimedPublishing,  
November, 1996 Trade paperback, 208 pages,  
\$125



#### Country Beans

by Rita Bingham



**My Two Cents:** Beans are a very important part of our long term food storage. When they are combined with whole grains, they create a complete protein. Protein is needed to keep us healthy and active. There are **MANY** ways to hide beans in your family's diet, bean flour being one of the easiest. Instead of looking for excuses as to why your family won't eat beans, find creative ways to use this important component in your everyday meals and start **NOW** in finding recipes that your family really enjoys, and add the "extra" ingredients to your food storage and put the recipe in your Family Food Storage Cookbook.