

The Importance of Dry Beans in Your Diet

August 2005



The purpose of this lesson is to:

- Learn more about the nutritional value of dried beans
- Learn ways to stretch food dollars with dried beans
- Learn ways to incorporate dried beans, peas, and legumes in family meals

**Walworth County Association for
Home and Community Education**

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What is a dry bean?

Dry beans are produced in pods and belong to the family of called legumes. A legume is a plant that produces seeds in a pod (fruit). The physical shape of the seed helps distinguish beans peas and lentils. Usually, beans are kidney-shaped or oval, peas round, and lentils are flat disks. Most dry beans grown in this country belong to the species *Phaseolus vulgaris*, or common bean.



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The term "dry beans" refers to beans that are dry-packaged in sealed bags and sacks or rehydrated and pre-cooked in cans. Dry beans include popular beans like pinto, navy, kidney (dark and light red), and black beans. Green beans, string beans or soybeans are not considered dry beans.

What is the history of the dry bean?

Beans have been a staple food for thousands of years. Beans were first domesticated over 7,000 years ago in Peru and southern Mexico. Both centers of domestication have a wide array of colors. In fact, in Mexico, the Indians developed white beans, black beans, and all other colors and color patterns. In the Andes, the same is true, but very lively and bright colors were developed. The tribes in Mexico started cultivating small-seeded varieties, while at the same time, the natives in Peru were developing large-seeded types. Since Indian tribes crisscrossed the American continent, these beans and native farming practices spread gradually all over North and South America, as Indian groups explored, migrated, and traded with other tribes.

By the time Portuguese and Spanish explorers discovered the New World, several varieties of beans were already flourishing. The early European explorers and traders from Portugal and Spain discovered new types of beans when they discovered the New World. They brought them back to Europe and shared American beans with other nations. By the early 1700s, beans had become a popular crop in Europe, Africa, and Asia. Today, beans exist in hundreds of classes with a wide array of color, taste, and texture variations.

How do I know how many beans I need?

- One 15-ounce can of beans equals 1½ cups of cooked beans.
- One cup dry beans = three cups cooked beans, drained.
- One pound dry beans = six cups cooked beans, drained
- One pound of dry beans makes about 9 servings of baked beans or 12 servings of bean soup.

At the grocery store, what should I look for in dry beans?

- Look for clean, firm, whole beans.
- Buy the amount of dry beans you will use within six months.

How should I keep my dry beans safe?

- Store dry beans in an unopened package or a covered container in a cool, dry place.
- Refrigerate soaked or uncooked beans until you are ready to use them.
- Use refrigerated beans within 2-3 days.
- For longer storage, freeze cooked beans. Use within one year.
- To use frozen cooked beans, thaw in the microwave or in the refrigerator.
- Canned beans may be stored in their original sealed cans indefinitely.
- Uncooked dry-packaged beans can be stored in a tightly sealed container in a cool, dry area. If kept for more than 12 months, dry-packaged beans will lose moisture and may require longer cooking times. Nutrient value is not lost with age.
- Cooked beans may be refrigerated, in a covered container, for up to five days.

Do I need to sort or rinse my dry beans?

- Inspect beans before soaking and discard any foreign objects -- like small stones or twigs -- as well as any broken beans. Throw away any dry beans that are discolored or shriveled.
- Place beans in a sieve or colander and rinse thoroughly in cold water.

Why should I soak my dry beans?

Soaking before cooking helps to soften and return moisture to dry-packaged beans, and reduces cooking time; it also makes beans easier to digest. Since beans will rehydrate to at least 2-3 times their dry size, be sure to start with a large enough pot.

What are the methods of soaks?

Hot Soak

The Hot Soak is the recommended method for soaking beans, as it reduces actual cooking time and produces consistently tender beans.

- Step 1 - Place beans in a large pot and add 10 cups of water for every 2 cups of beans.
- Step 2 - Heat to boiling and boil for an additional 2 to 3 minutes.
- Step 3 - Remove beans from heat, cover and let stand for 4 to 24 hours.
- Step 4 - Drain beans and discard soak water.
- Step 5 - Rinse beans with fresh, cool water.

Traditional Soak

- Step 1 - Pour six cups of cold water over one pound of dry beans.
- Step 2 - Soak beans for 8 hours or overnight.
- Step 3 - Drain beans and discard soak water (cold water starts the rehydration process slowly so beans will appear wrinkled after soaking).
- Step 4 - Rinse beans with fresh, cool water.

Quick Soak

- Step 1 - Place one pound of dry beans in a large pot and add 6 cups of water.
- Step 2 - Bring to boil and boil for an additional 2 to 3 minutes.
- Step 3 - Remove beans from heat, cover and let stand for 1 hour.
- Step 4 - Drain beans and discard soak water.
- Step 5 - Rinse beans with fresh, cool water.

How should I cook my beans?

- Drain soaking water and rinse beans; cook in fresh water. In general, beans take 30 minutes to 2 hours to cook depending on variety. Check bean packaging for specific cooking times and instructions.
- Spice up beans while they cook. Seasonings such as garlic, onion, oregano, parsley or thyme can be added while beans are cooking. Add acidic ingredients, such as tomatoes, vinegar, or citrus juices, only at end of cooking, once beans are tender.
- Add salt only after beans are cooked to tender. If added before, salt may cause bean skins to

become impermeable, halting the tenderizing process.

- To test for doneness, bite-taste a few beans. They should be tender, but not overcooked. When cooling, keep beans in cooking liquid to prevent them from drying out.

Other tips include:

- A tablespoon of oil or butter added during cooking reduces foaming and boil-overs.
- To prevent split skins, simmer and stir beans gently. Avoid over-cooking.
- Because acidic ingredients can prevent beans from becoming tender, be sure to add these after beans have been soaking and fully cooked: lemon juice, vinegar, tomatoes, chili sauce, ketchup, molasses, or wine.
- After soaking, rinse beans and cook beans in fresh water.
- Since beans expand as they cook, add warm water periodically during the cooking process to keep the beans covered.
- Stir beans occasionally throughout the cooking process to prevent sticking.
- Bite test beans for tenderness. Beans should be tender, but not mushy.
- Drain beans immediately after they reach the desired tenderness to halt the cooking process and prevent over-cooking.
- Onions may be added at any time during the cooking process. For a stronger onion flavor, add them during the last half-hour of cooking.
- Herbs and spices may be added at any time during cooking.
- Add salt only after beans are cooked to tender. If added before, salt may cause bean skins to become impermeable, halting the tenderizing process.
- Do not add baking soda to beans at any time. Baking soda robs the beans of the B-vitamin thiamin and may affect the flavor of the cooked beans.
- Cook more beans than you need. Freeze for future meals.
- To make refried beans, mash cooked beans. Pinto beans usually work best. Heat mashed beans using just enough fat to keep beans from sticking.

What are the benefits of cooking with canned beans?

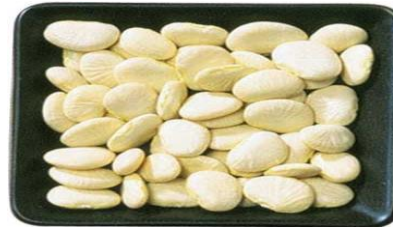
Canned beans are a great convenience since they are already presoaked and precooked. Always drain and thoroughly rinse canned beans before adding them to a recipe. It is not necessary to recook canned beans, just heat them if a recipe calls for it. Canned beans, like dry-packaged beans, absorb flavors from other ingredients in a dish because their skins are completely permeable.

What are the different varieties of beans?

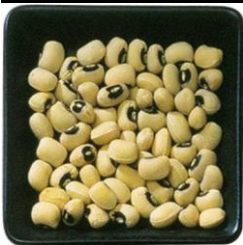
- **Adzuki Bean, Red Beans** Small, deep red, and oval shaped
- Skins are tough, inside is smooth
- Sweet bean Often used in desserts



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- **Baby Lima**
 - Flat-shaped, white-colored beans
 - Smooth, creamy texture
 - Popular as a side dish or added to soups and casseroles



Cooking Time: 1 hour



Black-eyed (Black-eyed peas)

- Medium-sized, oval-shaped, with black dot on white colored skin
- Distinct, savory flavor and light, smooth texture
- Popular in Southern cooking in recipes such as Hoppin' John, traditionally served in the South on New Year's Day to bring luck
- **Cooking Time:** 30 minutes to 1 hour



Turtle Beans, Frijoles Negros, Black Beans

- Medium-sized, black-skinned ovals, a small white eye or spot (called a "keel,")
 - Glossy black color is actually a dark purple and is retained even when cooked
 - Creamy white interior
 - Pleasant mushroom-like flavor (some cooks have described as earthy or meaty)
 - A favorite in South and Central American and Caribbean cuisine
 - Widely used in salads, dips, and stews, and in thick soups, especially in Cuba, Puerto Rico, Brazil, and Spain.
 - **Cooking Time:** 1 to 1 1/2 hours
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- **Cranberry, Roman Bean**

- Medium-sized, mottled tan/creamy white and red speckles and streaks, oval
- Earthy flavor
- Becomes tender easily and absorbs flavors of spices very well
- A favorite in Italian dishes

Cooking Time: 45 to 60 minutes



Dark Red Kidney

- Large, deep reddish-brown and kidney-shaped the name is derived from its shape
 - Retain shape even when cooked in dishes that require a long-simmering time
 - Famous in Red Beans and Rice
 - Thicker skins may require increased cooking time
 - Found in a variety of dishes including chili, soups, salads, sandwiches, and dip
 - **Cooking Time:** 1 1/2 to 2 hours
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Garbanzo, Chick Pea

- Round, medium-sized, beige color
- Nut-like flavor and firm texture
- Popular in soups and salads; main ingredient in Middle Eastern dishes hummus and falafel
- ***Cooking Time:*** 1 to 1 1/2 hours



Great Northern

- Medium-sized, white oval
- Often used in soups, stews, and the French dish Cassoulet or mixed with Pintos
- Popular throughout North America and bring slightly nutty flavor to dishes
- Can be substituted for the smaller Navy Bean in any recipe
- ***Cooking Time:*** 45 to 60 minutes



Light Red Kidney

- Large, light red and kidney-shaped (derived from its shape)
 - Famous in Red Beans and Rice
 - Popular in chili, soups and salads
 - Thicker skins may require increased cooking time
 - Retain shape even when cooked in dishes that require a long-simmering time
 - Found in a variety of dishes including soups, salads, sandwiches, and dip
 - ***Cooking Time:*** 1 1/2 to 2 hours
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Large Lima, Butter Beans

- Flat-shaped, white-colored beans
 - Smooth, creamy, sweet flavor
 - Popular as a side dish or added to soups and casseroles
 - ***Cooking Time:*** 1 to 1 1/2 hours
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Navy, Boston Bean, Pea Bean

- Small white ovals
 - Navy beans get their name because of the frequency they were served to sailors at sea
 - Often used in baked beans, soups and salads
 - Often used by commercial baked bean manufacturers because the Navy Bean is flexible
 - Could easily show up in your next batch of baked beans, soups, salads, casseroles, or ethnic dishes
 - **Cooking Time:** 1 1/2 to 2 hours
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Pink

- Small, pale, pink-colored that turns reddish brown when cooked
 - Often used in South American recipes and "Old West" recipes like chili
 - **Cooking Time:** 1 hour
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Pinto

- Medium-sized, mottled beige and brown ovals, means "painted" in Spanish
 - When cooked, turns brown
 - Staple in Latino cooking
 - Often found, whole or refried, in favorites like burritos and tacos
 - Pintos can be found in chili, refried beans, and many dips
 - **Cooking Time:** 1 1/2 to 2 hours
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Small Red, Small Red Mexican Bean

- Dark red color, with flavor similar to Dark Red Kidney bean, only smaller
- Holds shape and firmness when cooked, more tender with a milder flavor
- Often used in soups, chili, Creole dishes, baked beans, spicy Cajun recipes, or any recipe that calls for a Kidney Bean
- *Cooking Time:* 1 to 1 1/2 hours

What do other countries do with beans?

Beans have long been a familiar food and part of trademark dishes in cultures throughout the world. Here are some traditional cultural dishes that feature beans and have inspired chefs to create menu items to satisfy customers around the world:

In **Cuba**, beans and rice are combined with tropical spices and flavors in dishes like Moros Y Christianos, a classic Cuban dish featuring Black beans and rice seasoned with bacon, cumin, cayenne and lime.

In **Mexico**, beans are part of the everyday diet. Common preparations include refried Pinto beans, which can be served as a side dish at lunch or dinner, or even atop eggs and tortillas at breakfast.

Traditional **French** Cassoulet is a rich one-dish meal with many possible variations, but always including white beans, often with chicken, pork, duck confit and sausage, with white wine, garlic, and thyme.

Pasta E Fagioli Alla Venezia is a Venetian version of a classic **Italian** bean soup often served as a pasta course. Ingredients like fettuccine, tomatoes, kidney beans, and vegetables are combined with pancetta, herbs, and Parmesan cheese for a hearty, comforting meal.

Dfina, a popular main dish in **Egypt**, is a rich beef stew featuring White beans and Chickpeas

married with fresh sorrel and allspice. Hidden in each serving is a hard-boiled egg in its shell.

In **Greece**, beans are enjoyed in flavorful spreads and are often pureed with olive oil, garlic, onion, oregano, and thyme.

What does the new USDA My Pyramid say about dry beans?

In the new My Pyramid, dry beans are found in the vegetables and meat & beans group. A serving would be ¼ c. of dry beans including black beans, kidney beans, lima beans, navy beans, pinto beans, and others.

Are beans nutritious?

As part of a balanced diet, beans make sense for anyone looking for better overall nutrition in their diets. Beans are one of the most nutritionally complete foods available. A daily intake of two cups of cooked dry beans, when part of a low-fat diet, has shown to significantly reduce cholesterol levels in men, and to improve glucose control in diabetics.

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

Beans are:

- High in complex carbohydrates
- High in protein
- High in dietary fiber
- High in folate
- Low in fat
- Low in sodium
- Cholesterol-free
- Rich in vitamins and minerals
- Low in calories

The calorie content of one cup of cooked beans is equal to one cup of cooked rice, pasta, or a 7-ounce baked potato. Yet beans are substantially higher in dietary fiber. 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.

Protein

Beans are an excellent, non-fat source of protein. Just one cup of beans provides as much as 16 grams of protein. One cup of cooked dry beans provides between 21 percent and 27 percent of the U.S. D. A. Recommended Daily Allowance of protein. (Adults generally need to eat between 50-60 grams of protein a day.)

Protein makes up and helps to repair muscle and bone tissue, fights infections, helps heal wounds, and regulates enzymes and hormones. Dry beans are the only vegetable high enough in protein, an important nutrient for maintaining muscle health, to be listed as both a vegetable and a protein on the USDA Food Guide Pyramid. A single half-cup serving of cooked dry beans counts as one, one-ounce serving of lean meat and as a full serving of vegetables in the Vegetables group in the USDA Food Pyramid Meat and Beans group.

Carbohydrates

Beans are loaded with complex carbohydrates - the nutrient that provides energy to the muscles and brain. Just one cup of beans can provide 15 percent of the carbohydrates needed daily. They are absorbed more slowly than simple carbohydrates, such as sugar and candy, so beans easily satisfy hunger for longer periods of time.

Beans are high in complex carbohydrates, which are necessary for sustained physical activity, and also are low in calories. This makes beans an excellent source of energy for health-conscious consumers.

Fiber

Beans are one of the best sources of dietary fiber, containing both insoluble and soluble fiber. A half-cup serving of cooked dry beans provides about 25-30% of the Daily Value of dietary fiber. About 75% of the fiber is insoluble. Insoluble fiber, generally thought of as "roughage", moves quickly through the digestive system. This is important in our diets because it helps promote a healthy digestive tract and can help to reduce the risk of some types of cancer such as colon cancer. The remaining 25% of the fiber is soluble fiber. During digestion, soluble fiber forms a gel-like substance, which helps the body handle fats, cholesterol, and carbohydrates. Soluble fiber plays a role in helping to lower cholesterol levels.

Like any source of fiber, beans should be added gradually to the diet. Consumption should be increased over a four- to eight-week period, even if it's a bite or two per day, with a goal of one-half cup beans per day. It is also important to drink plenty of liquids when adding more fiber to your diet, because fluids help reduce the natural side effects of digesting fiber-rich foods. The key is to continue eating beans once the body's system is adjusted. Beans are an excellent source of soluble fiber. Soluble fiber dissolves in water and plays an important role in metabolic functions. Soluble fiber also has been shown to help regulate blood glucose levels in people with diabetes.

Minerals

One half-cup serving of cooked dry beans contains large amounts of iron, phosphorous, magnesium, manganese, potassium, copper, calcium, and zinc. One half-cup serving of salted beans provides nearly 20% of the Daily Value for sodium on a 2,000-calorie diet. Most commercially prepared canned and dried beans contain added sodium for flavor. Check the label to determine sodium content.

Potassium

Beans contain an abundance of potassium, which may help reduce your risk of high blood pressure and stroke. According to a health claim recently approved by the Food and Drug Administration, "diets containing foods that are good sources of potassium and low in sodium may reduce the risk of high blood pressure and stroke."

Folate

Our bodies do not produce folate, an important B vitamin that provides many health benefits, so it is important to get it from the foods we eat. Foods containing folate include dry beans, leafy green vegetables, fruit, and fruit juices. Of all these foods, dry beans are the best source of folate.

What are some recipes recommended by UW-Extension?

Full of Beans Hot Dish

Makes 8 Servings

347 calories and 13 grams of fat per serving

1 pound ground beef

1 large onion, chopped

¼ cup brown sugar

½ cup catsup

2 Tablespoons vinegar

½ teaspoon pepper

1 can (15 ounces) or 2 cups cooked kidney beans

1 can (15 ounces) pork and beans

1 can (15 ounces) or 2 cups cooked lima beans, or butter beans, or great northern beans

1. Cook ground beef and onions. Drain fat.
1. Add remaining ingredients and mix.
2. Place in casserole dish.
3. Bake in the oven at 350 degrees for one hour.

Terrific Bean Burritos

Makes 8 Servings

200 calories and 9 grams of fat per serving

1 small onion

2 teaspoons vegetable oil

2 cups refried beans

8 taco shells or flour tortillas

¼ head lettuce, chopped

2 tomatoes, chopped

1 cup (4 ounces) cheese, shredded

taco sauce

1. Stir-fry chopped onion in vegetable oil.
1. Stir in refried beans. Heat thoroughly.
2. Spread refried bean mixture in taco shell or one tortilla.
3. Sprinkle with shredded cheese, lettuce, chopped tomatoes and taco sauce, as desired.

Delicious Lentil Stew

Makes 8 Servings

267 calories and 4 grams of fat per serving

2 Tablespoons butter or margarine

1 cup chopped onion

6 cups water

1 pound dry lentils, washed (no need to soak)

1 teaspoon Worcestershire sauce

½ teaspoon oregano

¼ teaspoon garlic powder

6 large carrots, cut into ½ inch pieces

4 large stalks celery, cut into 1-inch pieces

1 teaspoon salt

1 can (16 ounces) tomato pieces or 3-4 fresh tomatoes cut in wedges

1. Melt butter in a large skillet.
2. Saute onion until tender.
3. Add water, lentils, Worcestershire sauce, oregano, and garlic powder.
4. Cover, bring to a boil. Reduce heat, and simmer for 45 minutes.
5. Add the carrots, celery, and salt.
6. Cover and simmer 30 minutes more or until the vegetables are tender.
7. Add tomatoes. Heat thoroughly and serve.

Additional FREE resources can be obtained through:

Meatless Monday Campaign, Inc. www.MeatlessMonday.com

215 Lexington Avenue

Suite 1001

New York, NY 10016

Ask for: Calendar “Don’t Meat Me on Monday,” A Weekly Start for a Healthier America, and “Search Your Heart Sunday – Go Healthy Monday!”

Northarvest Beans

50072 E. Lake Seven Road

Frazee, MN 56544

Ask for: Spilling the Beans brochure, Spoon Up Healthy Beanefits brochure, Get Smart...Eat More Dry Beans cookbook marker, Black Bean Fiest! Award Winning black bean dishes, and 5 Bean Posters.

References:

UW-Extension. [Beans: What You Need to Know & Favorite Recipes](#). 2002.

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www.michiganbean.org . The Michigan Bean Commission.

www.beansforhealth.org . Beans for Health Alliance.

www.meatlessmonday.com . Meatless Monday.

www.nebraskadrybean.org . Nebraska Dry Bean Commission.

www.bushbeans.com . Bush Brothers.

www.calbeans.com . California Dry Bean Advisory Commission.

www.northarvestbean.org . Northarvest Bean Growers Association.