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The Versatile Bean

Jana Darrington, USU Extension Assist. Professor/FCS Agent

Marie Anderson, Staff Assistant

Utah State University Extension/ Utah County
100 East Center Street, L600 Provo, UT 84606

801-851-8460

<http://extension.usu.edu/utah>

Using Your Beans

What food is high in protein, has virtually no fat, and has more fiber than more whole grain foods?

*The answer is **BEANS!***

A new U.S. dietary guidance messages says, “diets including beans may reduce your risk of heart disease and certain cancers.” Other studies suggest beans are useful in managing diabetes, may cut risk for high blood pressure, and may aid in losing weight.¹

The Nutritious Bean

Beans and peas are an excellent and inexpensive source of protein (average 22% protein in the seed²), iron, thiamin, & riboflavin.³ MyPyramid.gov indicates that beans also contain zinc, dietary fiber and nutrients such as folate that tend to be low in most American diets. Although beans are often thought of as a vegetarian alternative for meat, bean consumption is encouraged for everyone including those who eat meat, poultry and fish regularly. Beans can be counted either as vegetables (dry beans and peas subgroup) or in the protein group. The Food Guide Pyramid encourages frequent consumption of beans – several cups a week.⁴ Dry beans contain all essential amino acids except methionine. Methionine can be found in corn, rice, and meat.⁵ For a nutritious meat-less meal pair dry beans with rice or corn to provide a high quality complete protein.⁶

¹ *Using your beans.* (2007). Utah State University Fact Sheet FN/Weber/2007-04.

² *Dry beans.* (n.d.). Utah State University Extension. Retrieved May 13, 2009 from <http://extension.usu.edu/foodstorage/> ³ *Cooking and using dried beans and peas.* (2006). Michigan State University Extension.

³ *Inside the Pyramid: Dry beans and peas in the Food Guide.* (n.d.). Retrieved May 13, 2009 from http://www.mypyramid.gov/pyramid/meat_beans.html

⁴ *Dry beans.* (n.d.). Utah State University Extension. Retrieved May 13, 2009 from <http://extension.usu.edu/foodstorage/>

⁵ *Cooking and using dried beans and peas.* (2006). Michigan State University Extension.

⁶ *Cooking and using dried beans and peas.* (2006). Michigan State University Extension.

⁷ Lauritzen, G. (n.d.). *Dry beans and peas.* Utah State University Extension Fact Sheet FN 207.

⁸ Herbst, S. T. (1995). *The Food Lover's Companion.* Barron's Educational Services: Hauppauge, NY.

⁹ Elliot, R (2000). *The Bean Book.* Thorsons: London.

¹⁰ <http://www.recipetips.com/glossary-term/t--38270/mayocoba-bean.asp>

¹¹ *Cooking and using dried beans and peas.* (2006). Michigan State University Extension.

¹² Lauritzen, G. (n.d.). *Dry beans and peas.* Utah State University Extension Fact Sheet FN 207.

¹³ *Dry beans.* (n.d.). Utah State University Extension. Retrieved May 13, 2009 from <http://extension.usu.edu/foodstorage/>

¹⁴ *Dry beans.* (n.d.). Utah State University Extension. Retrieved May 13, 2009 from <http://extension.usu.edu/foodstorage/>

¹⁵ Lauritzen, G. (n.d.). *Dry beans and peas.* Utah State University Extension Fact Sheet FN 207

¹⁶ *Cooking dry beans from scratch CAN be quick!* (n.d.) University of Nebraska Lincoln – Lancaster County Extension. Retrieved May 13, 2009 from <http://lancaster.unl.edu/food/cig-scratch-beans.shtml>

Wendy's Chili Knock-off Recipe

SERVES 12

- 2 pounds ground beef
- 1 (29 ounce) can tomato sauce
- 1 (29 ounce) can kidney beans (with liquid)
- 1 (29 ounce) can pinto beans (with liquid)
- 1 cup diced onion (1 medium onion)
- 1/2 cup diced green chili pepper (2 chilies)
- 1/4 cup diced celery (1 stalk)
- 3 medium tomatoes, chopped
- 2-3 t. cumin powder
- 3 T. chili powder
- 1 1/2 t. black pepper
- 2 t. salt
- 2 cups water

Brown the ground beef in a skillet over medium heat.
Drain off the fat.

In a large pot, combine the beef plus all the remaining ingredients, and bring to a simmer over low heat.

Cook for 2 to 3 hours.

Or, 4 to 5 hours using a crock-pot on high.

Types of Dried Beans

Beans are a versatile food and can fit into a variety of recipes.

Here are some suggestions:^{7,8,9,10,11}

Navy Beans (small white pea beans)	Baked beans, soups, casseroles, ethnic dishes
Kidney Beans (large, red color, kidney shaped)	Baked beans, chili and other Mexican dishes, salads, dips, casseroles
Pinto Beans	Chili, refried beans and other Mexican dishes
Black Beans (or turtle beans)	Soups, Oriental & Mediterranean dishes, casseroles
Great Northern Beans (large white)	Soups, salads, casseroles, baked beans
Garbanzo Beans (or chick peas; nut-like flavor; hold shape well when cooked)	Salads, casseroles, soups, hummus
Lima Beans (or butter bean)	Casseroles, main dishes, vegetable side-dish
Black Eyed Beans (black-eye peas or cow peas, small, oval-shaped, creamy white with black spot on one side)	Baked beans, soups, vegetable side-dish
Split Peas (green or yellow)	Soups
Lentils (small flat disk in browns, green, yellow)	Soups, salads
Adzuki Beans (A small, dried, russet-colored bean with a sweet flavor.)	They are popular in Japanese cooking & are usually cooked to a red soft consistency & served with such ingredients as coconut milk.
Mayocoba (Peruano) Bean (An oval-shaped dried bean common in Latin American cooking. Medium in size and ivory-yellow in color.)	Mild flavored with a buttery taste and texture, this bean is used as an ingredient in soups, salads and refried bean dishes.

Storing Your Beans

Beans should be stored in an airtight container in a cool, dry location. They do not need to be refrigerated and can keep 1 to 2 years if stored in this manner.¹² Older beans will require longer soaking and cooking times than freshly harvested beans.¹³ A BYU study also found that when beans were packaged in #10 cans or mylar bags with an oxygen absorber, they have a shelf life of 10 years or more. Since oxygen can lead to rancidity of bean oils and light can fade the bean color, storage of beans using #10 cans or mylar bags with an oxygen absorber is recommended.¹⁴

Preparing to Eat Your Beans

1. Sort through dry beans or peas and discard any that are discolored or shriveled.
2. Rinse the beans and drain well.
3. Soak the beans using one of the following methods

(NOTE: Lentils and peas do not require soaking):

👉 Overnight soak: Soak beans at room temperature or in the refrigerator 8 hours or overnight in a pan containing approximately 6 to 8 cups of water for each pound of beans. Drain and discard the water. *Beans soaked using this method will keep their shape better, have a more uniform texture, and cook more quickly than those prepared by the quick-soak method (see below).*

👉 Quick soak: Bring 1 pound of beans or peas and 6 to 8 cups of water to a gentle boil. Boil 2 minutes. Remove pan from heat and let stand 1 hour. Drain, discarding the soaking water.

👉 **NOTE:** *It is important that beans are not allowed to stand for more than 1 to 2 hours. The heat can activate bacterial spores and the warm temperatures during cooling can favor their growth causing the potential for food-borne illnesses.*¹⁵



Creamy Bean Pie (Tastes like pumpkin!)

3 eggs	2 cups warm water
2/3 cup dry milk	1/4 t. cloves
3/4 cup honey	1/8 t. soda
1/4 t. nutmeg	1/2 t. cinnamon
2 T. molasses	1 t. salt
1/2 t. ginger	2 cups cooked white beans

Pie crust

Mash beans. Blend all ingredients in the order listed. When smooth, pour into pie crust. Bake at 425° F. for 10 minutes, reduce heat to 350° F. and bake for 1 hour or until a knife comes out clean.

Moist Cocoa Lentil Cake

2 cups boiling water	1/4 t. salt
2/3 cup washed lentils	

1 cup oil	4 large eggs
1 t. vanilla	2 cups sifted flour
4 T. cocoa	1/2 t. salt
1 1/2 t. soda	

Add lentils and salt to boiling water. Cover and simmer for 40 minutes. Drain, reserving liquid. Add 1/4 cup liquid back to lentils. Make puree in blender or food processor. Preheat oven to 350° F. Grease and flour a 9x12-inch pan. Mix sugar, oil, eggs and beat well for 2 minutes. Add vanilla and pureed lentils to creamed mixture. Sift and add remaining ingredients. Beat for an additional 2 minutes. Pour into prepared cake pan. Bake for 30-35 minutes. Cool and frost.



Coconut Rice and Peas

- 1 T. olive oil
- 2 ½ cups chicken stock
- 1 T. garlic, minced
- 1 ½ cups light coconut milk
- 1 t. red chili flakes
- 1 can black eyed peas
- 2 cups long grain or basmati rice
- 2 T. freshly minced cilantro leaves
- Salt and pepper to taste



In a medium saucepan, heat oil, garlic and red pepper flakes, sauté until soft, about 2 minutes. Add the rice and stir to coat. Add the chicken stock and coconut milk. Give the rice a good stir and bring to a gentle boil. Once the rice begins to boil, lower the heat and let simmer for about 20 minutes, until the rice is cooked and all the liquid has evaporated. Fluff with fork and stir in the black eyed peas and the cilantro. Season with salt and pepper to taste. Serves 8.

4. Cook your re-hydrated beans using one of the following methods¹⁶:

- 👉 **Stove-top:** Place the soaked beans in a large pot, cover with hot water, add 1 tablespoon of oil and simmer with the lid slightly ajar until the beans are tender. The oil will cut down on the amount of foam produce during cooking. Do not bring to a rolling boil or stir frequently as this will cause the bean skins to break. Add additional water if needed. Most beans will tenderize within 2 hours; however, beans which have been stored for long period will require a longer cooking time.
- 👉 **Pressure Cooker:** A pressure cooker will save time and energy when cooking beans. Never fill the cooker more than one-third full to allow for expansion of the beans. Add water and oil as above and cook at 15 pounds pressure for approximately 10 to 15 minutes.
- 👉 **Slow Cooker:** Since crock-pots can vary in terms of wattage, follow your manufacturer's instructions for cooking beans. In general, you will cover your beans with 3 times their volume of unsalted water and bring to a boil. Boil 10 minutes, reduce heat, cover and allow to simmer 1 1/2 hours or until beans are tender. Discard water after cooking.

Bean Cooking Tips

- 👉 Do not add salt or acidic ingredients like vinegar, tomatoes or juice until after beans are fully cooked. These types of ingredients will slow the cooking process.
- 👉 Cooking times vary with the types of beans used, but also vary with their age.
- 👉 Beans are done when they can be easily mashed between two fingers or with a fork. Always test a few beans in case they have not cooked evenly.

Be a Bean Counter!¹⁷

- 👉 Two cups dry beans = one pound dry beans
- 👉 One pound dry beans = six cups cooked beans, drained
- 👉 One cup dry beans = three cups cooked beans, drained
- 👉 One 15-ounce can of beans = one and one-half cups cooked beans, drained

Let's talk about the Gas!

Why do beans cause gas? To get technical, beans contain fiber and complex sugars (known as oligosaccharides) which our bodies find difficult to process. The digestive enzymes in the gastrointestinal tract are not capable of breaking these sugars apart into simple sugars for absorption. In the lower intestine, the sugars are metabolized by bacteria and form carbon dioxide, hydrogen and methane gas. So, what can you do about it?

It has been proven that if you gradually increase your consumption of beans, your system will adjust and be able to digest them more easily. While some information says that the longer beans are soaked, the more sugars are dissolved into the soak water, we cannot recommend that you allow your beans to sit in hot/warm water for longer than 2 hours because of the risk of food-borne illnesses. However, we can recommend that you do a quick soak, allow to stand for up to 2 hours, then drain, rinse and immediately refrigerate. You can also take commercial natural enzyme products such as Beano® which help break down the complex sugars and make them easier to digest.

RECIPES

The Versatile Bean

Beans are a standard in most chili and are easily found in soups and on salads. However, did you know that there are other ways to use your beans? In fact, cooked, mashed beans can be substituted in many baking recipes for shortening. See the following recipes for traditional and unique ways of incorporating beans into your weekly diet.

Consider All the Ways to Use Your Beans:

Appetizers (*hummus, roasted & seasoned chick-peas*)

Main Dishes (*chili, soup, and casseroles*)

Vegetable Sides (*refried beans, bean patties, salads, and seasoned boiled beans*)

Fillings (*tacos, burritos, etcetera*)

Breads (*muffins, cakes, bread, brownies, cookies, pie*)

Chili-Roasted Chickpeas

Preheat oven to 425°.

Combine:

2 (16-oz.) cans chickpeas, rinsed and drained

3 T. olive oil

1 ½ t. chili powder; 1 t. pepper;

¾ t. ground cumin; and ½ tsp salt in a medium bowl.



Transfer mixture to a lightly greased 17x12-inch jelly roll pan. Bake 45 to 50 minutes or until crispy and dry, stirring every 10 minutes. Let cool 20 minutes. Makes about 2 ½ cups.
