

## Saving Money with Beans Helps Stretch Family Budget

By Lynda Zimmerman, MS, RD, LD and Tammy Roberts, MS, RD, LD

The Consumer Price Index (CPI) for grocery store prices increased 6.4% between October, 2010 and October, 2011.<sup>1</sup> The United States Department of Agriculture (USDA) predicts 2012 food price inflation will taper from 2011 levels but remain slightly above the average of 3–4% seen in the past two decades. Macroeconomic factors such as weather conditions, fuel prices, and the value of the U.S. dollar will influence food prices.<sup>2</sup>

With CPI for other consumer goods expected to increase as well, it is increasingly important—and challenging—for consumers to be prudent in grocery store purchases. Adding beans as the protein source for family meals can be a first line of defense in keeping the food budget in check.

### Important for Today's Low-cost Meals

During the recession of 2007–09, families helped make ends meet by choosing less expensive food at the grocery store and eating out less often.<sup>3</sup> Consumers today have the advantage of many web sites and books with tips on being thrifter. Google “frugal meals” or “depression era cooking” and hundreds of thousands of hits appear.



The use of dry beans continues to be a common cost-saving tactic, for good reason. Despite the ups and downs of food prices and inflation, dry beans still rank

as one of the most economical sources of protein.<sup>4,5</sup> It is hard to beat the value of an ounce equivalent (1/4 cup) of beans: 6 cents for cooked dry beans and 18 cents for canned beans.<sup>6</sup> A family of four who makes just one weekly meal using dry beans can save \$2.40 a week or \$124.80 a year.

The advantages and disadvantages of canned vs. dry beans are often debated. When comparing purchase price alone, a cup of canned beans costs about twice that of a cup of cooked dry beans. Some people believe the preparation time required before using dry beans is worthwhile because they have more flavor and firmer consistency. Dry beans also are

## Dry Beans A Good Fit In Two Food Groups

By Alice Henneman, MS, RD

“Use your bean” is a common phrase that encourages people to think or use their brain. The Smithsonian Institution’s “Food and Think” blog muses whether this has to do with the brain being bean-shaped.<sup>1</sup>

The U.S. Department of Agriculture (USDA) Choose MyPlate dietary guidelines recommend dry beans for everyone, because of their high nutrient content. USDA’s Food Patterns classify dry beans as belonging to both a subgroup of the Vegetable Group and as part of the Protein Foods Group.<sup>2</sup>

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low in sodium; however, using no-salt-added canned beans or rinsing can significantly reduce the sodium content. Dry beans can be soaked and cooked ahead of time and refrigerated or frozen so they are ready for quick meals, although this does require advanced planning. Consequently, some busy families feel canned beans are most practical. Energy costs for cooking the beans also may weigh in the equation, but it really comes down to personal choice. Canned or dried beans are a good staple to purchase when on sale, further stretching the food dollar, and they have a shelf life of 2–3 years for best quality and vitamin retention.<sup>7</sup>

The Continuing Survey of Food Intakes by Individuals (CSFII) measures foods actually eaten by individuals in the U.S. In the most recent CSFII, low-income Americans consumed

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References  
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more dry beans than those in higher income brackets. Additionally, the survey showed that the type of dry beans typically eaten varied by income level: families with the lowest incomes consumed more pinto beans (33%) and limas (30%), while those with the highest incomes consumed more black beans (57%) and garbanzos (74%).<sup>8</sup> The preference for different dry beans appears to be influenced by more than cost, as the average retail prices in 2011 per pound were lowest for pinto beans (\$0.81), followed by black beans (\$1.07), and limas (\$1.33).<sup>6</sup>




During the Great Depression, families survived on what they were able to grow and raise, hunt, barter, or purchase with what little money they had. For many families, meals consisted largely of bread, beans, rice, potatoes, or pasta. Adults who grew up during the depression often remember eating a lot of beans:<sup>11</sup>

*“I lived through the Great Depression and can remember eating beans for breakfast, lunch, and dinner when I was four years old, but at least we had something to eat.”* —Marty Bryan, age 82

*“Grandma would make an Italian dish called ‘minestra’—made with the cut up left over bread, beans, ham hocks and dandelion greens.”*  
—Mary Rose DeMaria, age 83

*“We had a lot of beans and cornbread too. Grandma used to make huge kettles of vegetable or bean soup.”* —Dolores L. Younger, age 79

## Putting Knowledge into Practice

Cost is one important factor that influences food purchases and using beans for family meals can add up to significant savings. Dietitians have the opportunity to help individuals stretch limited food dollars by encouraging meal preparers to try bean recipes that fit with their tastes, special dietary needs, culture, and lifestyle. 

### About the Authors

Tammy Roberts, MS, RD, LD and Lynda Zimmerman, MS, RD, LD are registered dietitians and nutrition and health education specialists with University of Missouri Extension. They help Missourians lead healthier lives by teaching a variety of classes, from home food preservation to stretching food dollars to diabetes management, and by providing news stories for local newspapers and other media.

## Historically an Essential Foodstuff

Dry beans have been a staple food of humans for over 10,000 years. From the black bean to the Great Northern, nearly every populace on earth cultivated its own bean species which was paired with a grain that literally allowed the growth of civilization. Beans have been and continue to be extremely popular with different cultures throughout the world.<sup>9</sup>

In *Beans: A History*, author Ken Albala explains the significance of beans for people in many parts of the world, especially when animal protein sources were not viable:

*“Beans are indeed a cheap and economically efficient way to meet nutritional requirements, and for this reason, regions with a high population density or sparse grazing land came to depend on beans. In many places, China and India in particular, beans retain a central role in the diet to this day.”*<sup>9</sup>

Beans have provided U.S. families an affordable source of nourishment, whether enduring national economic downturns, regional disasters, or individual hard times. Dating back to April 27, 1919, a *New York Times* newspaper column encouraged readers to “cut the high cost of eating” by trying featured bean recipes: baked beans and a bean loaf.<sup>10</sup>

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## Beans and Flatulence: Fact or Fiction?

By Julianne Curran, PhD

Dry beans and other pulses, like chickpeas and lentils, have tremendous nutritional benefits like fiber, protein, folate, and iron and they also promote good health. Some people experience bloating and gas as a result of eating beans and this is often said to be a reason why people do not consume beans more often.

However, recent evidence suggests that people may develop a tolerance to flatulence produced or gastrointestinal symptoms associated with consumption of pulses. In 2010, the *Food Research International Journal* reported the results of a study that looked at whether flatulence, abdominal comfort, bowel movements, and overall GI function improved over time as pulses were consumed every day for a one-month period. Healthy adult males between the ages of 18 and 40 were given soups made from either chickpeas, lentils, or dry peas versus a potato control every day for a period of 28 days. They were asked about their GI symptoms at different times throughout the study using a questionnaire. Pulse consumption was not associated with significant changes in participants' perception of the occurrence or severity of flatulence. There were also no significant differences in abdominal discomfort over time or between any of the treatments.

The primary flatulence-producing compounds in pulses are the oligosaccharides including raffinose and stachyose which are carbohydrate compounds that are not readily digested by humans because of their chemical structure. Soaking and rinsing dry beans before cooking, as well as rinsing of canned beans, can reduce the levels of these hard to digest sugars. It is also important to note that gas production is a normal physiological process that, to some extent, aids in digestion by softening and helping to move stools through the colon.

### About the Author

**Dr. Julianne Curran** is Director of Nutrition, Scientific, and Regulatory Affairs at Pulse Canada. She is also a member of the Bean Institute's editorial board.

## Dry Beans a Good Fit in Two Food Groups *continued from pg. 1*

As a high-protein vegetable, dry beans can provide the nutrition of a vegetable and the protein needed for a healthy diet.<sup>3</sup> One half cup of cooked dry beans weighs in at approximately 115 calories and 8 grams of protein. You just can't count dry beans toward recommendations for both food groups at the same time.

Susan Raatz, PhD, MPH, RD, provides an excellent overview of dry bean benefits.<sup>4,5</sup> According to Raatz, dry beans pack a nutritional punch with these attributes:


- Complex carbohydrates and fiber
- Good source of dietary protein
- Low in fat
- Plentiful vitamins and minerals

In the Dietary Guidelines for Americans, 2010 (DGA2010), dry beans were also recognized because of their nutritional profile in relation to sodium and potassium.

USDA cites "Reduce sodium intake" and "Increase potassium intake" in its list of "Key Consumer Behaviors and Potential Strategies for Professionals."<sup>6</sup> The report of the Dietary Guidelines for Americans Committee (DGAC) explains this recommendation, "Excessive sodium intake, especially when accompanied by inadequate potassium intake, raises blood pressure, a well-accepted and extraordinarily common risk factor for stroke, coronary heart disease, and kidney disease . . ."<sup>7</sup>

Excessive sodium and insufficient potassium likely have other health consequences besides their effect on blood pressure, according to the DGAC. Sodium intake has been linked with an increased incidence of gastric cancer while inadequate potassium intake may increase the risk of kidney stones and perhaps osteoporosis.<sup>7</sup>

Dry beans, cooked from scratch or frozen, without added salt, average less than 5 milligrams of sodium per 1/2 cup.<sup>8</sup> "No-salt-added" forms of canned dry beans are also negligible in sodium content. Draining and rinsing regular canned beans reduces sodium by approximately 41 percent.<sup>9</sup>

At the same time that dry beans provide a food rich in vitamins and minerals that helps individuals meet the DGA2010 recommendation to lower dietary sodium, they also help meet the recommendation to increase dietary potassium intake. USDA identifies dry beans as one of the foods it considers an "excellent" source of potassium.<sup>10</sup> 

### About the Author

**Alice Henneman, MS, RD**, and extension educator with University of Nebraska–Lincoln Extension, has spent her career helping people eat healthy in a way friendly to their health, waistline, pocketbook, and, most importantly—taste buds. Most recently, she helped develop, coordinate, and is the main contributor to the food.unl.edu web site, which receives close to 1.5 million hits annually.



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## Smart Choice Recipe

# Country Chili Mix

*Recipe reproduced with permission from Julie Garden-Robinson, PhD, RD, LRD, North Dakota State University Extension Service*

Gift someone this holiday season with a beautiful jar of dry bean soup mix. It will not only warm their heart but be good for it, too!



Photo by Alice Henneman, MS, RD,  
University of Nebraska-Lincoln Extension

### Ingredients

1 lb. kidney beans	1 teaspoon oregano
3 tablespoons chili powder	3/4 teaspoon salt
2 tablespoons dehydrated onions	1/4 teaspoon cayenne pepper (optional)
1 tablespoon garlic salt	

\* To reduce sodium, substitute garlic powder for some of the garlic salt.

Pour the kidney beans into a clean quart-sized jar. In a small bowl, mix the remaining ingredients. Pour mixture into a clear sandwich bag and place it on top of the beans. Cover the jar tightly with a lid, decorate, and attach a copy of the recipe card.

## Country Chili

Makes eight servings.

1 container Country Chili Mix

### Additional ingredients:

10 c. water (for soaking beans)	1 lb. ground beef or turkey
1 (8-oz.) can reduced-sodium tomato sauce	6 cups water (for cooking beans)
1 (24-oz.) can diced tomatoes	

1. Remove bag of seasoning from jar and rinse beans. In a stockpot, bring 10 cups of water to a boil. Add beans and return to a boil; let boil two to three minutes. Cover and set aside at room temperature for one hour. Drain and rinse the beans.
2. Fill a pot with 6 cups of water and add the beans. Cook beans until soft, about one hour; simmer gently with lid tilted. Brown meat; drain and add to the beans with tomatoes and sauce. Add in seasonings, stir and simmer, covered, for one hour. Add a little more water if needed to thin the broth. For best flavor, use mix within one year.

Each serving (about one cup) has 240 calories, 6g fat, 21g carbohydrate and 290mg sodium.

### Recipe Card

Copy these directions on a 3 x 5-inch index card, punch a hole in the upper corner and attach to the jar of mix

More recipes available at  
[www.beaninstitute.com](http://www.beaninstitute.com)

