



DRY BEANS TALKING POINTS

2. A Pod in Bean History

- **Beans have been around for thousands of years all over the globe**, perhaps as early as pre-historic times in Europe, Asia, and South America.
- Beans are one of the longest-cultivated plants. The common bean has been grown for about six thousand years in the Americas.
- Beans were found in Egyptian pyramids that were built more than 4,000 years ago.
- Prior to the Civil War, black-eyed peas and other beans were used as food for livestock and were a staple in slaves' diets. As a result, black-eyed peas and corn fields were spared by Union troops during the war.
- World War II increased the demand for beans, as they became a staple in the C-rations used by US servicemen around the world. After the war, as the US food relief efforts around the world intensified, so did dry bean production
- Large and baby lima beans originated in Peru, thus the name "lima." Around 1900, merchant ships from Peru brought beans to California.
- In the late 1920s, beans became a valuable crop to use in rotation with other non-legumes because they add nitrogen to the soil.
- In 2004 there were upwards of 13,000 Acres of field peas, chickpeas and lentils grown in South Dakota.

3. & 4. How do Dry Beans Grow?

- Dry beans **grow on plants**. 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, after pollination usually by insects, within which the small beans begin to form.** The warm summer days ripen the beans inside the pods. Dry beans are the seeds that grow inside the pods.
- One or two weeks before harvest, the plants change color from green to golden yellow, signaling they are ready for harvest. **The American bean harvest begins in August and continues in various parts of the country until late October.**
- Dry beans are warm-weather crops that are usually planted in spring or early summer and harvested in fall. They are sensitive to cold temperatures and should be planted after any danger of frost.
- Most seed varieties tend to crack and germinate poorly if the soil's moisture content is too high. The soil needs to drain well. Water beans after planting or plant right before a heavy rain.
- Dry beans are an annual crop of the Legume family. Legume plants have seed pods that split along the sides when they are ripe.
- The *P. vulgaris* species has the most varieties, which are differentiated by their decorative swirls of color and level of maturity at harvest. For example, kidney beans (*P. vulgaris*) are harvested when the pods and seeds are completely mature and dry. Lima beans (*P. lunatus*) are harvested from immature pods.

5. Why should we eat beans?

- They are an excellent source of **fiber and folate**.
- A good source of plant **protein**.
 - Beans currently fit into the protein group in the USDA MyPlate program.
- A good source of **iron, potassium**, and phosphorus.
- Phosphorus:
 - Forms the structure of teeth, bones and cell membranes
 - Acts as a cofactor for many enzymes and activates the vitamin B complex
 - Forms RNA and DNA
 - Increases endurance
 - An imbalance between phosphorus and calcium can lead to problems in bones and teeth. For instance pop has a lot of phosphorus in it and by consuming too much phosphorus calcium does not perform its job well and bones begin to weaken.

What is Protein?

- Protein is found in the bones, muscles, hair, skin, and most tissues and organs in our bodies.
- Proteins also form enzymes and hormones that help regulate bodily functions.
- Some proteins form antibodies that keep us healthy by fighting disease and infection.
- Others build connective tissues that hold our muscles and joints in place.
- Proteins are formed from amino acids, which are like “building blocks.”
- Our bodies use 20 different amino acids. Our bodies make 11 of these, and they are called “nonessential.” Nine are “essential” amino acids, meaning the body cannot make them and the foods we eat must supply them.
- When our bodies need something that is made up of protein (e.g., new cell, hormone), our bodies create it from both nonessential and essential amino acids.
- Beans are a source of incomplete protein meaning it lacks the essential amino acids that complete proteins do. By combining two or more different incomplete plant proteins, one can achieve the benefits of a single complete protein food, like meat which assists in growth and maintenance of the body. This is the basis for vegan diets; they are still getting their protein by combining incomplete protein to make a complete protein.

How Much Do I Need?

A ½ cup of dry beans is about one cupped handful. A ½ cup of dry beans makes about 1½ cups of cooked beans.

5. How do you pick dry beans?

- If you buy dried beans in bulk, **examine the beans and throw away any foreign particles or beans that are discolored or shriveled.**
- **Rinse** the beans with water and then drain the water. Put the beans in a large pot and **add fresh water to cover them.**

- **Heat beans** and water to boiling, then turn the heat to LOW and cover the pot. Since beans soak up water, you may need to add more water during cooking.
- NOTE: Some dried bean types require pre-soaking before cooking.
- Add seasonings to the beans while they cook. Many people believe that the taste of beans improves with salt, but be aware that adding salt during cooking can extend cook times and possibly toughen the bean.
- When the beans are tender but firm, they're ready to eat!
- Always check for suggested cooking times for different bean varieties.

Difference between Beans and Peas

Peas and beans are both members of the same families i.e. *Fabaceae* or *leguminosae*, and are also sometimes referred to as pulses. The major difference between peas and beans is that peas have a hollow stem and beans have a solid stem. Another difference is that beans climb by wrapping their stems around their support whilst peas have little tendrils which do the twining.

Just the Facts

- Although they are called a "pea," blackeye peas are actually a bean and were once called *mogette* (French for "nun"). The black "eye" in the center of the bean was associated with a nun's head attire.
- Garbanzo beans are also called "chickpeas" because each bean has a small beak that looks like a chick's beak.
- Kidney beans are named because they are shaped like a kidney. They are native to Central and South America.
- Lima beans (LEE-muh) originated in Peru in 6000 B.C. and are named after the capital city of Lima (**lee**-mah).

Why do beans cause gas?

- Beans cause gas due to the sugars and soluble fiber contained in the beans. As the beans move through the intestines, gas is produced when bacteria living in our large intestines begin to breakdown the sugars and soluble fiber.
- Gas can be prevented by soaking dry beans prior to cooking them in a fresh pot of water. Soaking beans helps break down some of the sugars that eventually cause gas. Other options to prevent gas include adding more beans to your diet on a regular basis or switching to canned beans since some of the gas-producing substances are eliminated in the canning process (rinse canned beans to wash off excess salt).

Healthy Serving Ideas

1. Dry beans are usually cooked by boiling. You can also use canned and frozen beans.
2. Add lima or kidney beans to salads.
3. Mix lentils into your favorite casseroles instead of meat.
4. Add navy beans to soups for protein.
5. Sprinkle black beans on top of pizza or tacos for added flavor and fiber.
6. Make a tasty dip or hummus using your favorite beans.

References:

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