

WASHINGTON GROWN

HARVEST OF THE MONTH

COOKING IN THE CLASSROOM

Bean and Corn Salad

Prep: 15 minutes;

Makes: 20 - ¼ cup servings

Ingredients:

1 can black beans, drained and rinsed

1 can corn, drained and rinsed

4 green onions, thinly sliced

¼ bunch cilantro, chopped

Juice of 1 lime

Salt and pepper to taste (may not need any salt since canned vegetables are typically salted)

Directions:

1. Gently mix ingredients.
2. Serve.

April 2011

Beans



DID YOU KNOW?

Washington dry beans come in an exciting variety of colors, shapes, sizes, and flavors.

Use these dried bean tips to enjoy this healthful local food:

Look for dried beans, peas, and lentils that are bagged, as well as in the bulk section, of your grocery store. Fresh beans and peas are kept under refrigeration in the produce section.

Store dry beans in a sealed container in a cool, dry place for 6-12 months.

To ease digestion, soak beans overnight, then discard the soaking water before cooking.

Beans triple in size during cooking, so use a big pot with lots of water.

The adaptable bean adds great flavor and texture to soups, salads, main dishes, and even desserts.

For more information, see:

<http://agsyst.wsu.edu/NicheMarket/beanbroc.pdf>

HOW IT'S GROWN

The bean seed is planted in the spring and harvested in the fall. Beans typically grow on a small bush above the ground (instead of under the ground like a potato). Once the plant has matured to about 12 to 18 inches, it begins to develop small flowers. The flowers are followed by pods, within which the small beans begin to take shape. 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.

For more information, see:

<http://centralbean.com/>



SCHOOL GARDEN

SPRING FOCUS: BEAN SPROUTS

Teach students about plant parts by sprouting dry beans in the classroom. Dry beans, like seeds, are asleep or dormant. To wake them up, all you need to do is give them water or plant them in the ground at the right time of year. After you soak some beans or lentils, you can pull the seed apart into two halves that look just alike. These bean halves are called cotyledons. Cotyledons (also called seed leaves) contain all the food that the seed needs to begin growing into a plant. And although they don't look like it yet, those two halves will become two leaves—the first two leaves on the young plant.

DIRECTIONS FOR SPROUTING BEANS:

1. Add dry beans (i.e. garbanzo, black, yellow peas, and/or lentils) to a clean glass jar and pour cool water in the jar to several inches above the beans. Secure a lid with a mesh top or cheesecloth. Let sit overnight.
2. Leaving the mesh top secure, drain beans and rinse several times. Make sure you shake all the excess water out.
3. Place on your kitchen counter or somewhere away from direct sunlight. It doesn't have to be dark but it needs to be open to air.
4. Every morning and night for several days, continue rinsing with cool water and shaking all the excess water out. This is an important step. In order to allow the beans to sprout, make sure all of the water is out; otherwise the beans may not sprout.
5. When they have sprouted for 2-3 days they are ready to be examined by your students and/or planted in dirt.

For more information, see:

<http://www.kids-cooking-activities.com/bean-facts.html>

JUST THE FACTS

- The most common bean varieties in the U.S. are the Pinto, Navy, Great Northern, Red Kidney and Black Beans.
- Dried beans have been grown for about six thousand years in the Americas.
- People living in the U.S. eat approximately 7.5 pounds of beans every year.
- Approximately 20% of American-grown beans are shipped to international markets. Therefore, we eat about 80% of the beans we grow.
- Each year, U.S. farmers plant from 1.8 to 2 million acres of dry beans.
- The United States is the sixth-leading producer of dry edible beans, behind Brazil, India, China, Burma, and Mexico. Washington State is 8th on the list of top U.S. growers.

For more information, see:

<http://www.usdrybeans.com/facts/dry-bean-production/>

LITERATURE LINKS

K-2

One Bean, by Anne F. Rockwell (Walker and Company, 1998) is a book that teaches young children about plant cycles. The charming illustrations show exactly what happens to a bean throughout the growing process. Activity suggestions included.

3-5

Spill the Beans and Pass the Peanuts, by Meredith Sayles Hughes (Lerner Publications Co, 1999) presents information ranging from where these plants originated; early cultivation; how they're currently grown, processed, and sold; to how they're eaten around the world. Includes recipes.

BOTANICAL FACTS

Family:

Leguminosae

Genus:

Phaseolus

Species:

Phaseolus vulgaris

Dry beans are an annual crop of the Legume family. Legume plants have seedpods that split along the sides when they are ripe. Dry beans are the seeds that grow inside the pods. 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.

The *P. vulgaris* species has the most varieties, which are differentiated by their decorative swirls of color and level of maturity at harvest.

Reprinted from:

http://www.harvestofthemoonth.com/download/Winter/DryBeans/DryBeans_Edu.pdf

STUDENT ADVOCATES

Have students advocate for more nutritious and economical dry beans as a protein source in school meals.

- Ask students to research how many plant protein choices (dry beans or peas, lentils, nuts and seeds) are available in school meals on a weekly basis.
- Do a cost comparison of two meals (cost from a dollar-and-cents perspective) or conduct a comparison from an ecological or food chain perspective. Use the data to support the request for more plant protein options.
- Invite school nutrition staff to review student findings and discuss ways they use beans on the school menu, when they are offered, and why.
- Have students brainstorm ways to integrate more plant-based proteins into school meals.

For more information, see:

<http://www.californiaprojectlean.org/>

ADVENTUROUS ACTIVITIES

SCIENCE

Beans are full of starch and fiber, including some that do not digest easily. Eating beans can produce gas, giving rise to the rhyme “beans, beans, the musical fruit...” Why do beans cause gas? How can this be prevented?

Resources:

<http://agsyst.wsu.edu/NicheMarket/beanbroc.pdf>

<http://digestive.niddk.nih.gov/ddiseases/pubs/gas/>

RESEARCH

Dried beans, peas and lentils have similar nutritional value but different names and appearances. Compare the great variety in color, shape, and cooking application. Do the names have something to do with how the bean looks?

Resource:

<http://www.usdrybeans.com/resources/varieties/>

MATH

Go grocery shopping with your family and compare the price of dried beans to other proteins like meat, fish, poultry, nuts and seeds. (Hint: write down the price per pound.) Develop a graph with the collected data.

STUDENT SLEUTH

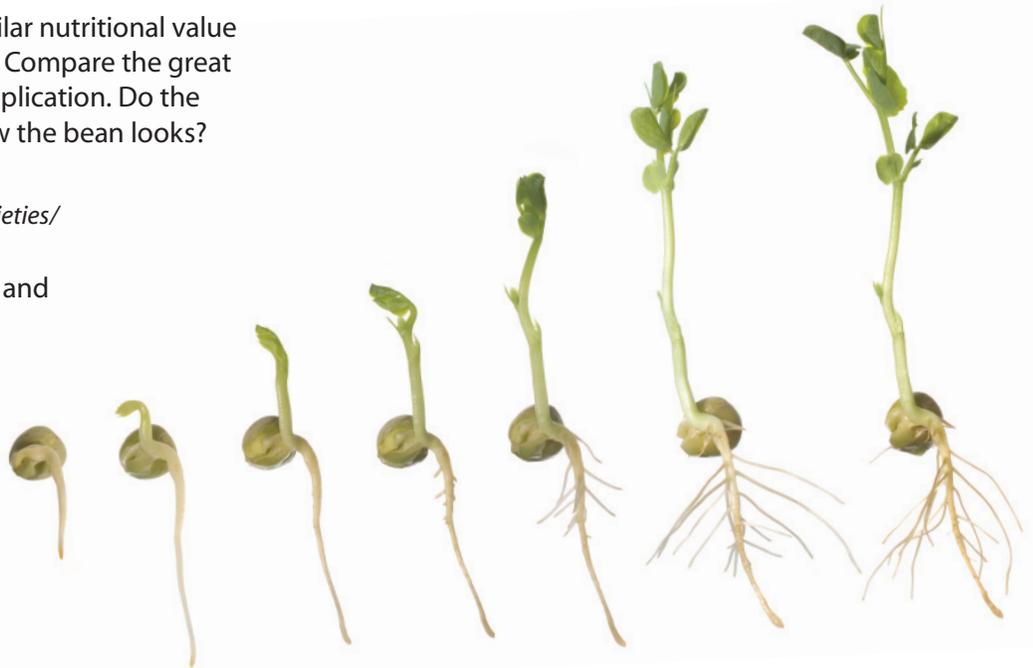
1. Beans contain plant proteins that are important for growth. What other plants are good sources of protein? (dried peas, lentils, nuts and seeds)
2. In addition to protein, dry beans are a good source of what other nutrients? (fiber, folate, iron and zinc)
3. Beans belong to 2 foods groups. Can you name them? (meat and beans, vegetable)
4. How many servings of beans per week should we consume for good health? (3 cups or 6 servings)

For more information, see:

http://www.mypyramid.gov/pyramid/meat_beans_print.html

GOOD NUTRITION

- Beans are a good source of protein. Protein helps us grow and maintain muscles.
- Make meals more satisfying by adding a scoop of beans. Their high fiber fills you up!
- Beans also contain folate, a nutrient that influences growth. Folate is an important part of a healthy pregnancy.
- Low in calories (~100) and low in cost (~20 cents) a ½-cup serving of beans is a smart alternative to meat.
- USDA Dietary Guidelines for Americans recommend beans, stating: “diets including beans may reduce your risk of heart disease and certain cancers.”



HEAL IS A collaboration between Seattle Public Schools nutrition services, health education, physical education and risk management departments.

