

COOL BEANS

Seed Saving & Swapping Project

THANK YOU FOR PARTICIPATING IN THE SCHOOL GARDEN NETWORK'S COOL BEANS PROJECT!

BECOMING A SEED STEWARD.

One of the most compelling reasons to save seeds is that they provide a living connection to history. Gardeners from around the world have been tending and saving seed for generations. The bean family does not easily cross pollinate making this an ideal school garden seed to steward. Many of these heirloom seeds have journeyed far to arrive here in Sonoma County. Beans are also very beautiful and will elicit that coveted WOW factor in the garden when students open up a dry dull bean pod and find the jewel-like bean inside.

We hope that you will have a large enough harvest to save some of your seed for replanting, sample some with your students and share some with another school that is saving seeds. Over the years your collections of beans can grow! SGN will link you up with other bean stewards in the fall of 2020 interested in swapping bean seeds.



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GROWING BEANS

1. Choose a Planting Location: Dry shelling beans are incredibly easy to grow. All you need is a sunny spot with good drainage. Shell beans are not particular about soil type, and they fix their own nitrogen through a symbiotic relationship with soil bacteria.

2. Wait for the Warmer Weather: Beans germinate poorly in cold soils, so don't plant them until the ground warms to 50 degrees or about the time of the last spring frost, when daytime temperatures are regularly in the 70s.



3. How to Plant: Beans seeds are large, so this is one crop your three-year-old can help plant.

- **Pole Beans:** If you have a pole bean variety. Plan your supports and plant about 1 inch deep and 2 to 3 inches apart. You may want to plant 2 beans per hole to increase germination probability. The spacing of rows will depend on your supports and the eventual size of the plant. Thin pole beans to 4 inches,

- **Bush Beans:** All beans should be planted 3 inches apart. Rows should be 18 to 24 inches apart. Thin bush plants to 6 inches apart. It may sound heartless, but it's vital. Otherwise, you'll have many scrawny plants growing into each other, which decreases yield and ease of harvesting.

4. Cover bean plantings with either seed flats or frost cover until first true leaves emerge. Birds like to nibble on the newly sprouting plants (they kind of look like a worm)

5. Harvest beans when pods are completely dry in the fall. Save some seed aside for replanting and sharing.

These seeds should be dried in a paper bag for a month

after harvest. Store dried seeds in jar in a cool dark place. It's recommended to put seeds in freezer for a couple days to kill any pests that may be present.



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BEAN VARIETIES: (READ ABOUT THE BEANS YOU RECEIVED)

PAPA DE ROLA BEAN:

aka "Dove's Breast") This Portuguese bean is one of the most beautiful -large and plump, half pure white, the other half speckled beige and burgundy. They make a wonderful and hearty soup bean.

HIDATSA SHIELD FIGURE BEAN:

Gets its name from the Hidatsa American Indians of the Missouri River Valley of North Dakota. It is planted as part of the three sister cropping (corn, beans, and squash) because its natural inclination is to climb poles and thus corn stalks.

CHEROKEE TRAIL OF TEARS (POLE-DRY):

Cherokee ancestors carried this bean over the Trail of Tears, the infamous, tragic winter death march that natives took from the Smoky Mountains to Oklahoma back in 1838-1839. Beautiful, shiny jet black pole beans are great harvested fresh or dried. The vigorous vines of this prolific pole bean grow to 8 feet or longer in length and produce purple flowers, an abundance of plump, purple/green 6-8" pods holding gorgeous shiny jet-black bean seeds. Good for fresh eating as snap beans and a wonderful dry bean.

TIGER EYE (BUSH-DRY):

Also known as Pepa de Zappalo, this heirloom comes originally from Chile and Argentina. For those who value dry beans for their aesthetic beauty as well for their taste, tiger's eye is practically without peer. The large flat beans are mustard yellow with burgundy swirls. Worth growing for their beauty alone, the rich flavor seals the deal. Good as shelly beans, in soups, and for refried beans. Great bean to substitute for Pintos in Southwest inspired cooking.

EYE OF THE GOAT (POLE BEAN):

The lengthwise brown stripes that some of the seeds exhibit are certainly reminiscent of the vertical pupil of a goat's eye. There are a number of native varieties of this name; ours appears to be the Tarahumara Indians landrace type, since it throws a few dark purple beans. A favorite variety in Baja California and northern Mexico, this unusual bean cooks up firm and sweet and keeps its rich color.

APPALOOSA (SPRAWLING BUSH-DRY):

kidney-shaped seeds mottled purple and white, with many variations occurring in the mottling - like the rump of an Appaloosa pony. Can be snapped when young, but usually dried and shelled.

RIO ZAPE (BUSH BEAN):

Supposedly discovered in the ruins of the Anasazi cliff-dwelling people in the Southwestern area of the US. They are similar to a pinot with a hint of chocolate and coffee according to Rancho Gordo's description! Beautiful purple coloring!



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VACQUERO (BUSH-DRY):

These beans have intriguing black and white markings like an appaloosa horse might don. Cooked beans taste slightly like potatoes and release an inky black pot liquor which has great flavor.

TANYA'S PINK(BUSH-FRESH):

A remarkable bean in growing habit, taste, and appearance. Large (6"), flat and wonderfully tasty pods of a uniquely beautiful iridescent hot pink color that remind us quite a bit of magentaspreen. The bushy plants are very productive over a long period. You need not fret if you miss the fresh eating stage as they also make a tasty cooked dry bean.



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WHY SAVE SEEDS IN A SCHOOL GARDEN?

There are many reasons to save seeds with children, but one of the most compelling is the pure magic of a seed!

Inside this small, inert, lifeless object might slumber the potential for a mighty oak or a graceful poppy. Activating the life force of this plant by applying warmth and moisture is a spell out of fairy tales. One tiny poppy seed will give us so many blooms, and each bloom will form a seed pod with hundreds of tiny seeds. Share the wonder of abundance with your students!

Seeds are a living link to our ancestors. Humans have a rich culture of seed saving that goes back thousands of years to the beginning of agriculture. Today, when we grow our heritage, non-hybridized seeds, we continue a story that began many generations in the past. We can all take part in adding a chapter to that story.

Seed stories are captivating. Take, for example, the Cherokee Trail of Tears bean. This bean carries the sad legacy of a people who had to leave their homeland in the Smoky Mountains to be relocated to Oklahoma. They carried with them this piece of their history over the arduous and deadly walk that is now known as the Trail of Tears.

Growing our own seeds in our educational gardens lets students experience first hand the full cycle of a plant. "What?! Lettuce has a flower?" they might wonder. We build resiliency when we select healthy plants that have adapted to our unique growing conditions and gardening style from which to save seed. We promote self sufficiency as we save our own seed rather than purchasing.

Planting beans, eating beans, and sharing beans is exactly what we hope this project will inspire your class to do! Believe me, your students will be very excited when they open up the dull, dried bean pods in the fall and find these colorful beans. They will be thrilled to taste these beans in simple tacos or chili. We hope that they will be inspired to share the seeds they have stewarded with other students. In a few years your bean collection will grow like mine has to encompass dozens of varieties!

Perhaps this sparks a seasonal fall supper that features your heirloom beans and raises money for your garden program...just thinking!

SEED LESSON IDEAS:

Introduce the planting with a Seed Riddle as you pass around a bowl of bean seeds.

*I appear dead before I am alive
Although often quite small, inside my skin a tree can live
I can survive hundreds of years without food or water
I can be as small as dust or as large as a football
Humans and animals eat me
I can fly, swim and hitch a ride
I can survive freezing, fires and intense droughts
What am I?*



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SEED LESSON IDEAS CONTINUED:

SEED JOURNEYS: Discuss the journey the bean seeds may have taken to arrive in your garden. Have students write and illustrate a story about an imaginary seed and its journey to a garden. Check out [A Handful of Seeds](#) by Tina M. Poles for tried and true multi-grade lessons that link to California Educational Standards

SEED ANATOMY AND GERMINATION:

Lesson Title: Seed Power found in the book *The Growing Classroom* (4th edition) on pg. 131

LESSON TITLE: It's Getting Stuffy in Here found in the book *The Growing Classroom* (4th edition) on pg. 132

[Here](#) is a link to supporting materials geared for ages 3rd-5th (great follow up to the Seed Power lesson)

[Here](#) is another link with a labeled drawing of bean seed anatomy

SEED PLANTING SONG: The Seed Planting Song, sung to the tune of Row, Row, Row Your Boat

First, first, first you dig a hole

Then you plant a seed

A gentle rain and bright sunshine

Will help your seed to grow

[No Glue Seed Envelope Instructions](#)

Explore bean nutrition- Bring in cooked beans and tortillas for a snack. Discuss their nutritional components.

SEEDY LITERATURE BOOKS:

[A Packet of Seeds](#) by Deborah Hopkinson

[A Seed is Sleepy](#) by Diana Hutts Aston

[The Bad Seed](#) by Jory John and Pete Oswald

[The Dandelion Seed](#) by Joseph Anthony

[Seeds: Time Capsules of Life](#) by Rob Kessler and Wolfgang Stuppy

[The Carrot Seed](#) by Ruth Krauss



[Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners](#) by Suzanne Ashworth and David Cavagnaro and the Seed Savers Exchange website.

[Heirloom Beans: Great Recipes for Dips and Spreads, Soups and Stews, Salads and Salsas, and Much More from Rancho Gordo](#) by Steve Sando and Vanessa Barrington Who would have thought a simple bean could do so much? Heirloom bean expert, Steve Sando, provides descriptions of the many varieties now available, from Scarlet Runners to the speckled Rio Zape beans. Beautiful photographs and delicious recipes entice you to flip through each page.

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