

Edible Uses of Soybeans

Human Consumption

Cooking Oil	Baby Food
Mayonnaise	Batters and Breading
Candy	Breads
Salad Dressing	Cakes
Bakery Products	Cheeses
Tofu	Soy Flour
Margarine	Grits
Coffee Creamer	Noodles
Cereal	Peanut Butter
Soymilk	Snack Foods

Animal Consumption

Fish Foods
Poultry Feeds
Bee Foods
Cattle Feeds
Pet Food
Swine Feeds
Dairy Feeds



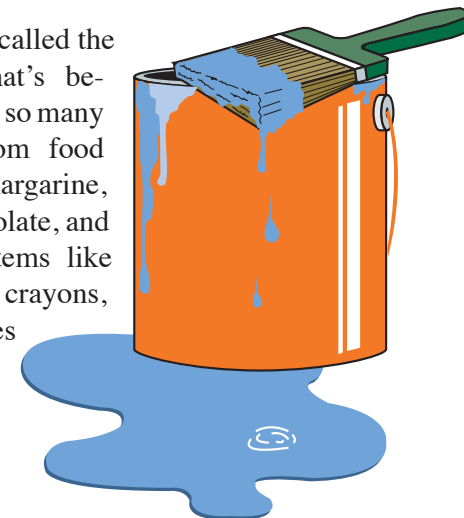
Consumer and Industrial Uses of Soybeans

All-Purpose Lubricants	Body Lotion
Auto Care Products	Cosmetics
Animal Care Products	Rubber
Building Products	Furniture
Medicine	Engine Oils
Sunscreen Lotion	Insulation
Carpet Backing	Paint Strippers
Car Wax	Fire Extinguisher Foam
Table Tops	Weed & Insect Killer
Candles	Soy Biodiesel
Cleaning Products	Plastics
Paint	Glue
Crayons	Ink
	Soap



Have you ever wanted to paint your room? What color would you choose? Did you know there are probably soybeans in that paint?

The soybean is often called the "Miracle Bean." That's because it can be used in so many different ways - from food products like oil, margarine, salad dressings, chocolate, and flour, to everyday items like soap, shampoo, paint, crayons, and ink. Soy continues to make a splash, as more uses are being found everyday.



Just What Are Soybeans

Soybeans are small round seeds, each with a tiny, brown spot. They are made up of three basic parts.

Hilum – brown spot.

Seed Coat – outside cover that protects the seed.



Cotyledon – first leaf or pair of leaves within the embryo. A part of the seed that stores food.

Embryo – part of a seed that develops into a new plant, including the stem, leaves and roots.



This Farmer Ben Bulletin is sponsored by the Virginia Soybean Board
For more resources visit Virginia AITC on the web at www.agintheclass.org



In Our State

Soybeans consistently rank at or near the top of Virginia's cash crops. In fact, Virginia farmers raise more than a half-million acres of soybeans annually. The vast majority of these are east of the Blue Ridge Mountains. Most Virginia soybeans are crushed for oil and soymeal. Soymeal is used in animal feed, while the oil has many different uses and can be found in a wide range of products from food to soap to paint. Some Virginia soybeans are even exported whole and ready to eat.



On the Farm

Soybeans grow on a farm. Farmers plant seeds in the spring and harvest soybeans in the fall. Farmers fertilize the plants as they grow to give them necessary nutrients and to prevent insects and weeds from harming them as they grow. And, oh boy, do they grow!



In Your Home

After harvest, soybeans are brought to the processing plants, where they are cleaned and cracked. The hull, which is the outer shell of the bean, is removed. The hulls will be used as additives for breads, cereals, snacks, and livestock feed.



After the hull is removed, the soybeans are rolled into flakes. Some of the flakes are used to make food for animals. Some are crushed and the natural oil is removed. The flakes without oil can be ground up into soy flour. Soy flour is high in protein, helps foods like cookies and cakes stay fresher longer, and is used just like wheat flour.

The oil taken from the beans is purified and made into industrial oil, used for soaps, candles, crayons, paint, and fuel, or into oil used for cooking.

1904

1904 – George Washington Carver began studying soybeans at the Tuskegee Institute in Alabama. Carver discovered a method of extracting soybean oil and also invented a process for making paints and stains from soybeans. Farmers in the South were encouraged to plant soybeans to keep the soil fertile for their cotton crop.

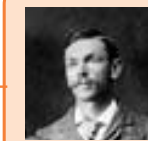


1907



1907 – William J. “Bill” Morse joined the USDA and devoted his life to studying soybeans. He was also the founder of the American Soybean Association and wrote more than 80 publications about soybeans.

1920s



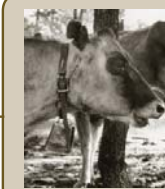
1920s – Palemon Howard (P.H.) Dorsett and William Morse traveled to China and Korea collecting varieties of soybeans. Over 10,000 varieties were sent back to the United States from their excursions.

1940s

1940 – Henry Ford took an ax to a car trunk made with soybean plastic to demonstrate its durability. This increased the popularity of soybeans and the United States became a net exporter of soybeans and soybean products.



1950s



1950s – Soybean meal became available to use as a livestock feed ingredient. It was high in protein and low-cost. This prompted a large increase in livestock and poultry production in the United States.

Today – Farmers in more than 30 states produce 2.959 billion bushels of soybeans, each year. Farmers in Virginia harvest about 570,000 acres annually.



Beanie Baby

Materials Needed:

- jewelry size clear plastic bag (found in the craft aisle)
- water
- cotton ball
- hole punch
- soybean seed (you may use any type of seed as well)
- yarn

Directions:

1. Wet the cotton ball.
2. Place inside the jewelry bag.
3. Put one or two seeds on top of the cotton ball.
4. Seal the bag.
5. Punch a hole at the top of the bag, above the zipper.
6. Thread yarn through the hole to make a necklace.
7. Wear your Beanie Baby close to your heart!
8. Check for growth each day and record the rate of germination.
9. Once your Beanie Baby has germinated, you can remove it and the cotton ball from the bag and replant in a container.



Farmers in China began growing soybeans more than 5,000 years ago.



1765

1765 – Soybeans or “Chinese vetches” as they were known, were introduced to North America.



1804

1804 – James Mease, a physician and amateur horticulturalist, reported that soybeans had adapted to Pennsylvania.



1829

1829 – Soybeans were thriving in Massachusetts.



1861-1865

1861-1865 – Soybeans were used to brew a hot drink for soldiers during the Civil War.



1898

1898 – The United States Department of Agriculture (USDA) introduced several varieties of soybeans from Asian countries and set up a system to keep track of the different kinds of seeds.

