

WHAT AM I?

A FEW AMAZING SOYBEAN FACTS

PLANTING

Most soybeans are planted in May or June, in rows that are 7 to 30 inches apart. Seeds are planted 1 to 1-1/2 inches apart and 1 to 2 inches deep. Fertilizers are used to provide additional nutrients to those of the soil. Herbicides and pesticides also are used to control weeds and bugs that could harm the tender seedlings. Farmers use fertilizer, herbicides and pesticides sparingly due to their expense and the risk that excess application of these chemicals poses to the environment.

CULTIVATION

Soybean sprouts need fertile soil and plenty of rain alternating with periods of sun. The American Heartland provides ideal conditions for soybean cultivation. The United States produces nearly half of the world's soybeans. Most of the soybeans are grown in the Heartland – Iowa, Illinois, Indiana, Minnesota, Missouri, Nebraska and Ohio. Other countries in South America, Asia and Europe also produce soybeans.

MATURATION

It takes about 75 to 80 days for soybeans to fully mature. At maturity, the soybean plant may reach a height of three feet or more. Flowers appear 6 to 8 weeks after planting and develop for two weeks before producing pods. These flowers can be pink, purple or white. Beans take 30 to 40 days to develop and mature as the plant's leaves turn yellow and drop to the ground. The beans are found in hairy pods that grow in clusters of 3 to 5. Each pod contains 2 or 3 beans.

HARVESTING

In the Midwest, soybeans are generally ready to harvest in September or October. When the seeds are mature, the upright vine and foliage begin to

shrivel and the leaves fall away. Harvest must be completed before the pods shatter and “spill the beans.” All harvesting is done by machine. Farmers use a combine that cuts the stalk, threshes the plant residue and separates and cleans the beans in one operation.

FROM THE FARM TO THE MARKET

After harvesting the beans, farmers either sell their crop directly to a commercial grain elevator or store the crop in their own bins until they are ready to sell them. After the soybeans are sold, they are transported to a processing plant or they are exported to another country.

PROCESSING AND PRODUCTS

In processing, soybeans are cleaned, cracked, dehulled and rolled into flakes. Rolling allows the beans' oil to be extracted. Soybean oil is refined and then used in margarine, salad dressing and cooking oils. It also has numerous industrial applications, including biodiesel, printing ink and paints.

Lecithin, extracted from soybean oil, is used in pharmaceuticals and as an emulsifier in foods. In candy bars, for example, it keeps the chocolate and cocoa butter from separating.

The dry portion of the bean is processed into soy flours, fiber, bran and grits used in baking, and to produce animal feed. Soy hulls are used as a high-fiber ingredient for breads, crackers and snacks.

