

POD TO PLATE

THE LIFE CYCLE OF SOYBEANS



ILLINOIS
SOYBEAN
ASSOCIATION

BY: JULIE D. BLUNIER

WINTER IN THE MIDWEST IS COLD AND SNOWY.

The soil rests, waiting for spring. Soon the snow will melt, the air will warm, and it will be time to plant the soybeans.



THE FARMER WILL USE A TRACTOR

and planter to plant the soybean seeds. The seeds need to be planted at the right depth and spacing. Farmers use settings on the planter and computers in the **tractor** to plant them correctly.



SOYBEAN PLANTS GROW VERY QUICKLY.

In the heat of summer, they can grow an inch a day. The plants will be three to four feet tall when they are done growing. Plants need four things to grow: water, air, sunshine and nutrients from the soil.



IN THE SUMMER,

small flowers called blossoms bloom on the plants. When pollinated, these blossoms will turn into pods. A soybean plant will have 60-80 pods, and there will usually be three soybeans inside each pod.



AS THE SOYBEANS GROW,

farmers watch for pests that can hurt the plants. Insects can eat the leaves, stems and roots. Weeds steal nutrients and water away from the soybeans. Plants can get diseases, too.



TO KEEP PLANTS HEALTHY,

farmers can use **insecticides**, **herbicides** or **fungicides** to control the insects, weeds or diseases. A healthy plant produces more soybeans.





IN THE FALL,

the soybean plants are at the end of their life cycle. They turn from green to brown and the leaves fall off. The beans inside the pod begin to dry and become hard. When this happens, the soybeans are ready to harvest. Farmers use large machines called **combines** to cut the stems and separate the soybeans from the pods.

ONCE THE SOYBEANS ARE HARVESTED,

semi-trucks or wagons take them to large grain bins that hold the beans. These bins can be on the farm or at a **grain elevator**. From there, the soybeans are sold to companies that will make them into things we use every day.



MANY OF THE SOYBEANS

grown in the United States are sold and **exported** to other countries. Trains, **barges** and ships carry soybeans from where they are grown to countries all over the world. The rest of the soybeans are used here in the United States.

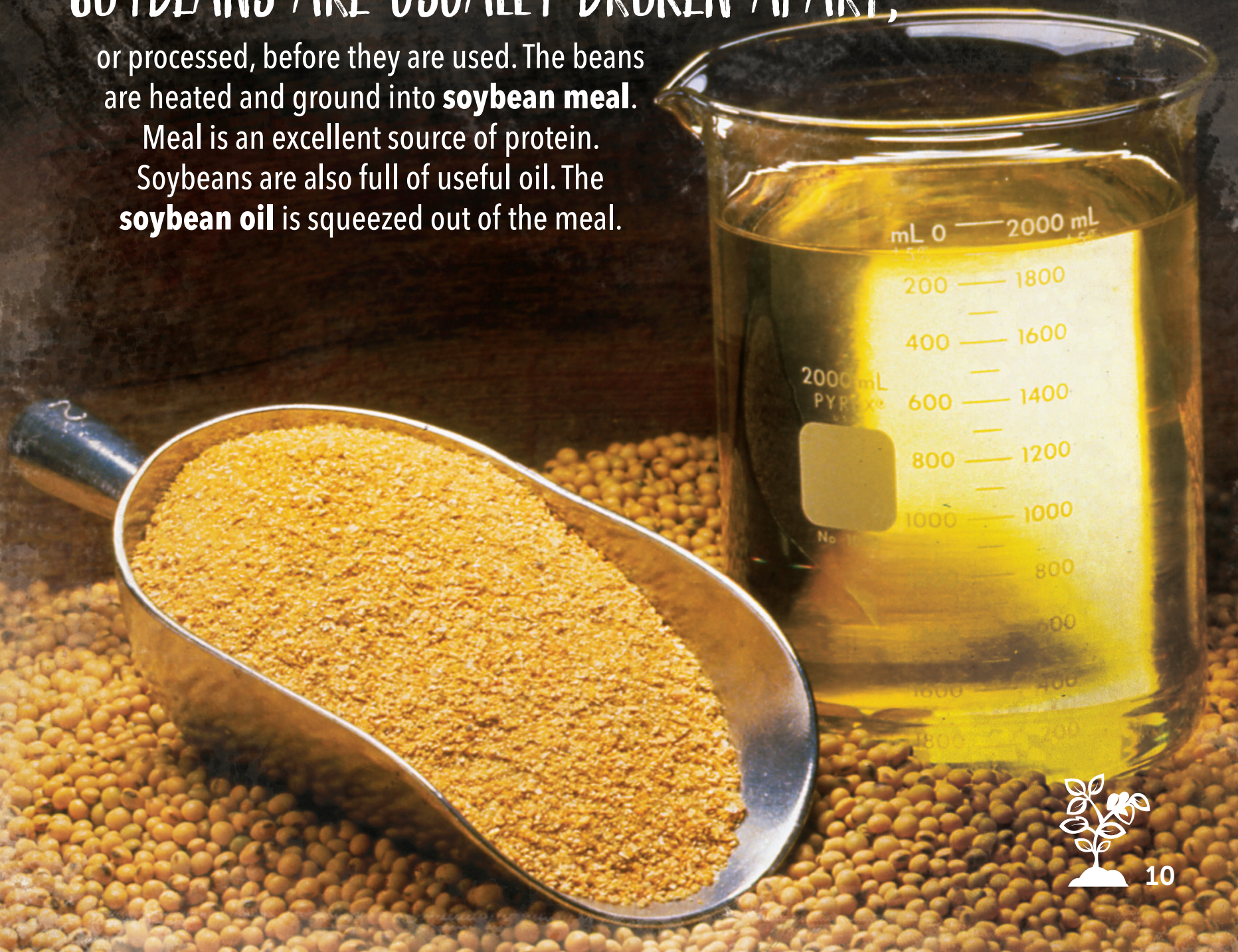


SOYBEANS ARE USUALLY BROKEN APART,

or processed, before they are used. The beans are heated and ground into **soybean meal**.

Meal is an excellent source of protein.

Soybeans are also full of useful oil. The **soybean oil** is squeezed out of the meal.





SOYBEAN MEAL

is a wonderful food for farm animals. Pigs, beef and dairy cows, chickens and even fish eat soybean meal. The protein in the soybean meal helps the animals grow and be healthy. These animals make food for you to eat like bacon, hamburgers, milk, chicken, eggs and fish.



SOYBEAN OIL, PROTEIN, FLOUR AND LECITHIN ARE IN FOODS WE EAT EVERY DAY.

Soy can be found in soup, bread, yogurt, cheese, peanut butter, salad dressing, snacks and even chocolate. You may also eat it in **tofu, soy milk, soy burgers** and **soy sauce**.





LARGE TRUCKS, BUSES, TRACTORS AND COMBINES

use a fuel made from soybean oil called **biodiesel**. Biodiesel is better for the air because it burns cleaner than regular diesel. Soybeans also can be used to make crayons, paints and the ink used to print books and newspapers.



SOYBEANS ARE RENEWABLE AND ENVIRONMENTALLY FRIENDLY.

Building materials like insulation, plastic, countertops and glue can be made from soybeans. You have many products made with soybeans in your home. Lotion, make-up, pet food and car seats are just a few of the things we make with soybeans.



THIS FAMILY GROWS SOYBEANS

and the fields surround their backyard. They take pride in growing food for other people. They work hard to protect the land and water around them for their family and yours.



GLOSSARY

Barge: A barge is a boat with a flat bottom which is used to move soybeans, grain or other products on rivers or canals.

Biodiesel: Biodiesel is a fuel that is often made from soybean oil.

Combine: A combine is a machine used to harvest soybeans and grains.

Export: To export an item means to sell it to another country.

Fungicide: A fungicide is a chemical that kills fungi.

Grain elevator: A grain elevator is a place where soybeans and grain crops are stored.

Herbicide: An herbicide is a chemical that kills unwanted plants.

Insecticide: An insecticide is a chemical that kills insects.

Lecithin: Lecithin helps hold ingredients in food together. For example, soy lecithin holds cocoa and milk together in a candy bar.

Soy burgers: Soy burgers are made from ground-up soybeans that are formed into a burger shape.

Soy milk: Soy milk is a drink made from soaked and pressed soybeans. People who are allergic to cow's milk may drink soy milk instead.

Soy sauce: Soy sauce is a condiment made of soybeans. It is often used in Asian foods.

Soybean meal: Ground soybeans are known as soybean meal.

Soybean oil: Soybean oil is the oil of a soybean seed. It is often used in food or for making ink or paint.

Tofu: Tofu is a cheese-like curd made from soybeans. It can be eaten in place of meat.

Tractor: A tractor is a vehicle that farmers drive in their fields. A tractor can move large pieces of equipment to where the farmer needs them to go.

ADDITIONAL INFORMATION

podtoplate.org helps children and adults learn more about soybeans and soybean farmers through classroom resources, nutritional information and much more!

ilsoy.org is dedicated to promoting and supporting soybean production and use.

agintheclassroom.org seeks to improve agriculture literacy through classroom resources, activities, teacher workshops and local coordinators.



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MAIN OFFICE
Illinois Soybean Association
1108 Trinity Lane
Bloomington, IL 61704

LOMBARD OFFICE
Illinois Soybean Association
100 22nd St., Suite 102
Lombard, IL 60148

