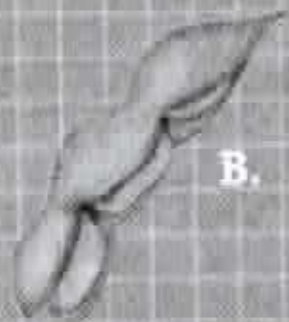


A.



B.

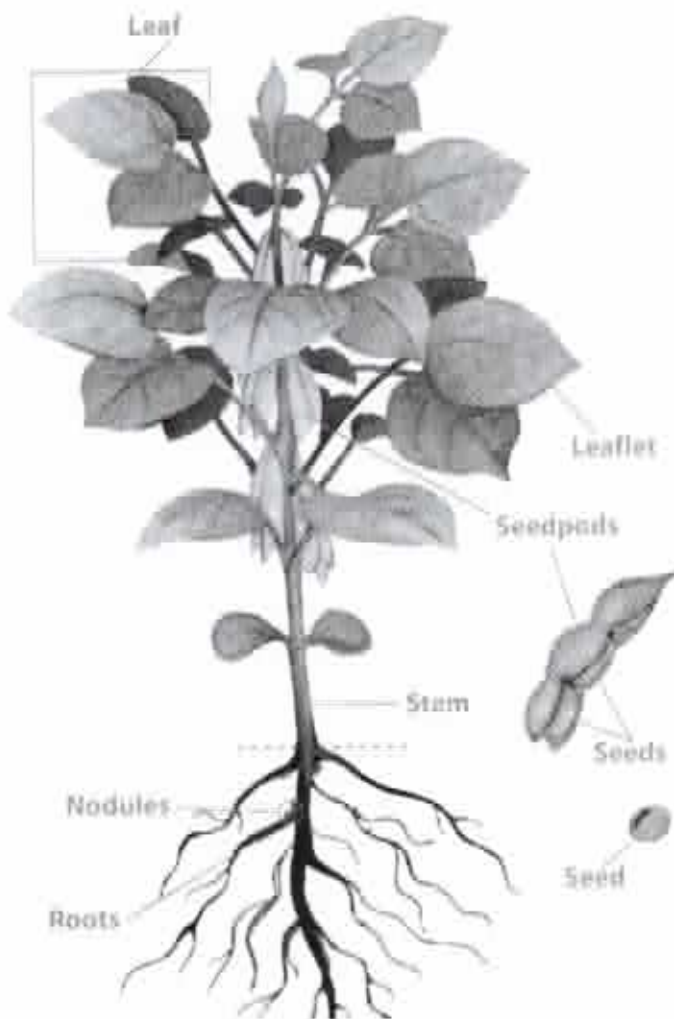


C.

SOYBEANS

Wm. Linn

SOYBEANS



**Top 10 Minnesota Counties
Producing Soybeans in 2007:**
Redwood, Polk, Faribault, Nobles, Martin, Renville,
Mower, Jackson, Blue Earth and Murray

On The Front

A. Soybean Plant

The soybean plant is called a legume. Legume plants have the ability to use soil bacteria to form a nodule by pulling nitrogen from the air and using it for its growth. This is important for growing healthy crops and maintaining soil quality.

B. Soybean Seedpod

Soybeans grow in pods similar to peas. During the summer, the soybean plant flowers and produces an average of 30-40 pods. Soybean pods range in color from very light yellow to shades of gray, brown or black.

C. Soybean Seed

Two to four pea-sized beans grow in each soybean pod. Commercial seeds grown in the United States are yellow.

Soybeans

More soybeans are grown in the United States than anywhere else in the world. Minnesota ranks third in production. Soybeans were used primarily to feed livestock until the early 1900s, when scientist George Washington Carver discovered that soybeans provided valuable protein and oil.

The soybean provides many nutrients to both people and animals. It is especially high in protein. Many countries use soybeans as their main source of protein instead of meat, eggs or cheese. Soybeans are the #1 vegetable oil crop in the world and are often called the "miracle crop." First records of the plant date back to China at 2838 B.C.

Planting

Farmers plant soybeans in the spring when the soil temperature is above 55°. The soybean plant has nodules that are attached to the root system and contain nitrogen for the next crop. This makes the soybean a valuable plant in crop rotation.

Processing

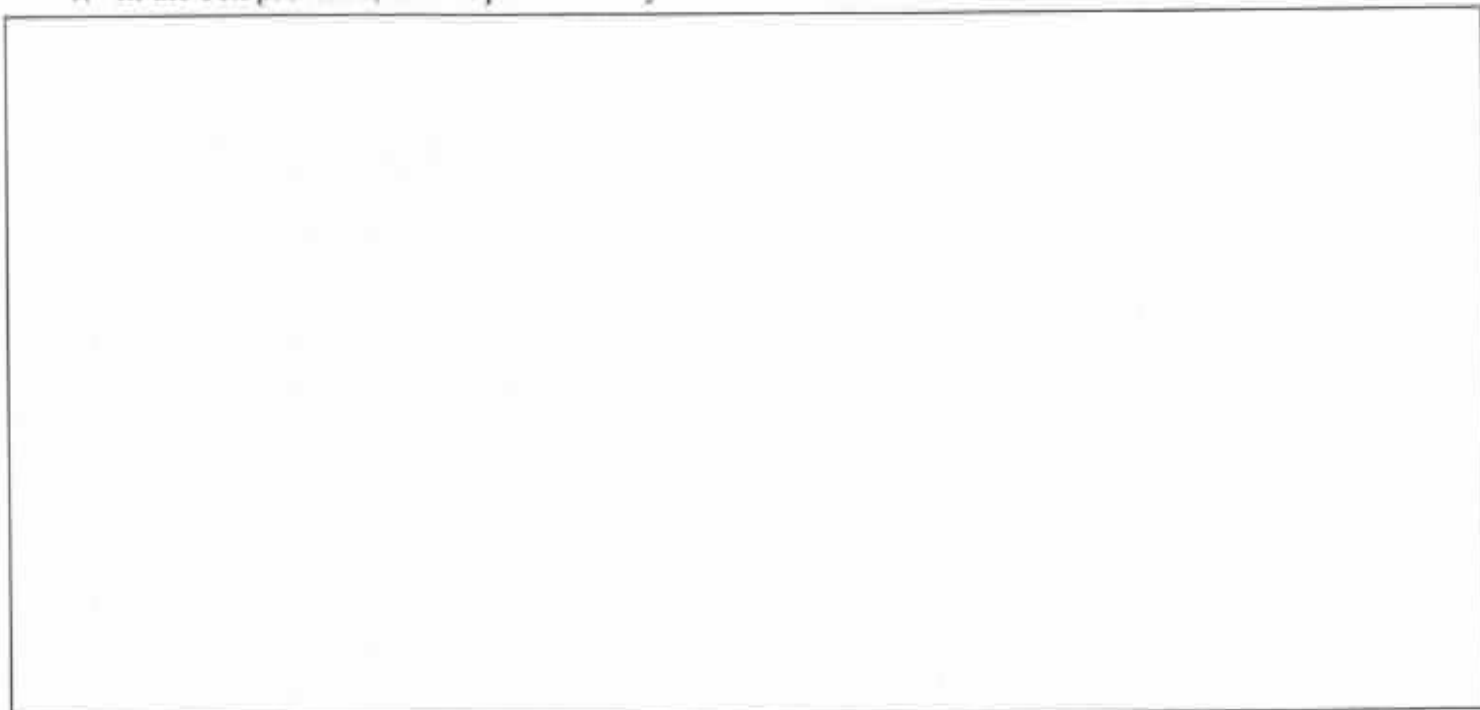
Soybean oil is a popular vegetable oil in the United States. When crushed and pressed, soybeans produce an oil that is used in margarine, cooking oils, salad dressings, mayonnaise and many prepared foods. Soybean oil contains no cholesterol and is low in saturated fat so it is popular with health-conscious people.

Soybean oil also is used to make paints, varnishes, soaps, cosmetics, plastics and crayons. Soybean oil is even used to make ink for printing newspapers and magazines. In fact, this commodity card is printed with soy ink! Soy biodiesel is another product made from soybean oil. This fuel is used in cars, trucks and buses, which reduces pollution and increases engine performance. Soy biodiesel is a renewable resource and lessens U.S. dependence on foreign oil which is not a renewable resource.

After soybean oil is removed in processing, the remaining flakes are processed into food products or protein meal for animal feed. Soybean meal is an important protein source for livestock and poultry.

SOYBEANS

1. In the box provided, draw a picture of soybeans.



2. Where does Minnesota rank in soybean production?
3. What are soybeans mainly used for and what do they provide?
4. Crushed and pressed soybeans produce what and is used in what?
5. What non-eatable products in soybean oil used for?
6. Why is soy biodiesel a useful environmentally good product?
7. Using your map of Minnesota counties, create a symbol for soybeans and mark the top 10 counties where they were produced in 2007.