**Iowa’s Mighty Soybean Lifecycle Skit-**

The small, but mighty soybean! Today we are going to learn how one little soybean seed grows up to be a big mighty soybean plant- one of Iowa’s #1 crops!

**Presenter:** Do you think that soybeans are important to Iowa?

**Answer:** YES

Farmers in Iowa are the country’s greatest producers of corn and soybeans. Soybeans are used to make many products that we eat or use every day. Some of these products include feed for animals, food products, biodiesel, vegetable oils, cleaning products, and crayons!

Let’s go on a journey to see how one soybean seed can grow up to be one mighty soybean plant. In order to do that I am going to need some volunteers to help me show the lifecycle of a soybean! Who would like to help me up on stage?

*SELECT 8 STUDENTS TO COME ON STAGE- Have them stand in a line across the stage*

\*\*\*Ask for first students name – This student should be older as they will become the farmer for the skit- They will pass out the props to each student as the skit goes on.

**The Story of Farmer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’s Mighty Soybean**

Our story begins with an Iowa farmer named \_\_\_\_\_\_\_\_\_\_\_\_\_\_. Farmer \_\_\_\_\_\_\_\_\_\_\_\_\_\_ needs some things to start growing his/ her soybeans!

**Presenter:** Can anyone tell me what a farmer needs to plant their soybeans?

**Answer:** SEEDS

Yes, first farmers need soybean seeds to plant in their fields to grow a crop of soybeans! In the spring, the soil is starting to warm up after the cold Iowa winter. They start to plant their seeds in late April and early May. Farmers buy soybean seed in 50-60-pound bags that hold up to 140,000 seeds! There are also very large bulk seed boxes that are over four feet tall and weigh about 3,000 pounds that they can buy.

Farmer \_\_\_\_\_\_\_\_\_\_\_\_\_\_, you need your own bag of soybean seeds!

\*\*\*Hand student soybean seed bag

**Presenter:** Do you know what kind of machine that farmers use to plant soybean seeds?

**Answer:** Tractors and planters

Farmers use tractors and machines called planters. Many tractors have computer systems that help keep very careful records. They track where seeds have been planted, where fertilizer has been applied and more using GPS technology! The planter places each seed in an evenly spaced row in the field. That way they have enough room to grow! Iowa soil is rich and fertile which is perfect for soybeans to grow.

Farmer \_\_\_\_\_\_\_\_\_\_ will you show us what a soybean seed looks like?

\*\*\* Hand next student seed (Can also have a baggie of real soybean seeds)

**Presenter:** After the soybean is planted in the rich fertile soil, do you know what it needs to grow?

**Answer:** Water and warmth

Water and warmth from the sun help the soybean start to grow. This is called germination.

Farmer \_\_\_\_\_\_\_\_\_\_\_\_ show us a germinating soybean seed please!

\*\*\* Hand next student germinating seed

**Presenter:** After the leaves push through the soil and a tiny plant appears above ground, does anybody know what that is called?

**Answer:** A sprout!

Yes! This little plant is called a sprout. A few days after planting the seed sprouts and begins growing.

Farmer \_\_\_\_\_\_\_\_\_\_\_ show us a soybean sprout.

\*\*\*Hand next student sprout

It needs sunlight, nutrients from the soil, and water to grow into a mighty soybean plant. The roots are getting bigger now. They help the plant get all the food they need. They also help anchor the plant into the ground so the wind doesn’t blow the plant over or a rain storm doesn’t wash it away. The sprout has two leaves called cotyledons. They are formed from the two halves of the soybean seed. The plant is going to keep growing taller and taller!

**Presenter**: Do you know what it is called when the leaves absorb sunlight to help the plant grow?

**Answer:** Photosynthesis

Yes, photosynthesis! Plants like soybeans use sunlight, carbon dioxide and water to make food that they need to grow. Photosynthesis also changes carbon dioxide into oxygen that people and animals need to live.

**Presenter:** How tall do you think soybean plants grow?

**Answer**: 3-4 Feet tall

Soybean plants grow to be 3-4 feet tall. That’s almost as tall as some of you! As the soybean plant keeps getting bigger, so do the roots. The plant needs more water and nutrients as the plant grows so the roots get bigger and begin to go deeper into the soil. The center of the plant that the leaves are attached to is called the stem. From the main stem there are petioles that hold each three leaves called trifoliate leaves. After the plant has grown and many stems and leaves have formed, flowers start to form!

Farmer \_\_\_\_\_\_\_\_\_ show everyone your soybean plant.

\*\*\* Hand next student growing soybean plant

**Presenter:** Can anybody tell me what color soybean flowers are?

**Answer:** Purple or White

Soybean plants have white or purple flowers. The color of the flower is all controlled by a single gene. They are really small, only about the size of your pinky fingernail. Each flower contains pollen. Soybean plants are special, they are self-pollinating plants so they don’t need insects to carry pollen to each plant.

Farmer \_\_\_\_\_\_\_\_, what does your flower look like? Will you show us?

\*\*\*Hand next student flower

**Presenter:** Does anybody know what forms after the flowers?

**Answer:** Small green bean pods

After the flower is pollinated, small green bean pods start to form on the plant. These pods will hold the beans as the soybean plant continues to grow!

Farmer \_\_\_\_\_\_ show everyone your small green pod.

\*\*\*Hand next student small green pod

**Presenter:** Does anyone have an idea of how many seed are usually in each pod?

**Answer:** 3!

There are 3 soybean seeds in each pod on average. At this stage the pods are green and the soybean seeds inside are light green. They keep growing more each day!

We are almost there, Farmer \_\_\_\_\_\_\_\_, show us your large green pod!

\*\*\*Hand next student large green pod

The seeds are round and flat during this stage. As the plant continues to grow the soybeans become spheres and the pods turn brown.

**Presenter:** But why do the soybean pods turn brown?

**Answer:** They dried up and stopped growing

In the fall, when the soybeans have finished growing they turn brown and the leaves fall off. They start to dry out so they can get harvested. Now the soybean pods are brown and the seeds inside are tan and hard. Just like in the spring, when farmers are preparing to plant their crop, they prepare their machines for harvest. Farmers use a big machine called a combine to harvest the soybeans. The combine combines 3 jobs all into one machine- reaping, threshing, and cleaning. The reaper starts by cutting the soybean plant from the ground, then then thresher separates the soybeans from the plant. The last step is to clean the beans from all the plant debris by using an air blower.

Wow! Farmer \_\_\_\_\_\_\_\_\_, we made it through the lifecycle of the mighty soybean, can you show us your large brown soybean pod?

\*\*\*Hand next student large brown pod

The state of Iowa averages 57 bushels per acre of soybeans. Each bushel of soybeans weighs 60 pounds. That’s 3,420 pounds of soybeans for every acre! Did you know that one acre is about the size of a football field? That’s a lot of soybeans!

Once the soybeans are harvested the farmer will store the soybeans in big bins or sell them to make many products that we use every day like livestock feed, cooking oils, candles, ink, glue, and fuel called biodiesel. Either way we started with one soybean seed and it grew to be one mighty soybean plant that produced lots of soybeans to be made into many products that we use every day!

Thank you everyone for helping me see the life cycle of Iowa’s mighty soybean plant!