

LEAFY SPURGE BONANZA LESSON DETAILS

Leafy Spurge Bonanza

(50 minutes)

STEP ONE. Begin the activity by asking the students to read pages 11 and 12 (Leafy Spurge) in their *What's in Your World?* booklet.

STEP TWO. Once everyone has finished reading, ask the students what they have learned about leafy spurge from the reading.

STEP THREE. Next, tell the students that they are going to participate in a game that demonstrates how leafy spurge takes over an area and how a biological control is used to help stop the spreading of this noxious weed.

STEP FOUR. Leafy Spurge Bonanza Game Part 1:

Line all participants on one side of the playing field. Explain that they represent native Montana plants/grasses such as: bitterroot, heart-leaf Arnica, blue grama, and Idaho fescue. Select on person to be the noxious weed “leafy spurge”. Explain that when the instructor yells “leafy spurge” the native plants and grasses must quickly walk to the other side of the field and avoid being tagged by the leafy spurge. If they are tagged the native grasses become the leafy spurge and they can also tag the remaining native plants as they cross the field. All the native plants will quickly become leafy spurge

after a few rounds. After everyone has become leafy spurge again line the participants up on one side of the field. ***Keep track of how many crossings it took until all the native plants became leafy spurge. Bring the rapid rate of change from native to non-native to the group's attention.*

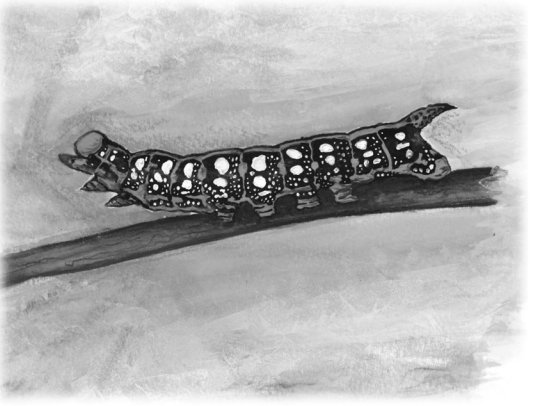
Leafy Spurge Bonanza Game

Part 2:

Begin the next round with a quick discussion about noxious weed control (pesticides, pulls, and biological controls). Introduce one bio-control for Leafy Spurge called the Spurge Hawk Moth (SHM) larvae (caterpillar), and select one person to be the SHM.

Explain that the SHM will eat leafy spurge and as the leafy spurge crosses the field they must avoid being tagged by the SHM. If they are tagged, they become part of the SHM by putting their hands on the shoulders of the SHM or the shoulders of the last person on the growing caterpillar. Only the head or initial person can tag leafy spurge as they migrate from one side of the field to the other, and the tag only counts if the chain of people forming the SHM is unbroken.

Play for multiple rounds and typically not all the leafy spurge will be consumed by the SHM because it is difficult to catch all the Leafy Spurge players with a long caterpillar of players. Ask the group to again line up on one side of the field and discuss their observations (not all the leafy spurge was consumed, and it took a long time for the SHM to consume just a portion of the leafy spurge).



*****Fun note:** Leafy spurge is very bitter and has few predators here in Montana. Many animals and insects cannot consume leafy spurge. As the Spurge Hawk Moth larvae consume the leafy spurge they store up poisons from the plant. When predators attack the SHM the larvae barf a toxic green slime.*

Create a Fantasy Plant

(30 minutes)

Tell students that they are now going to take what they have learned about leafy spurge and its unique adaptations to create their own fantasy plant.

Hand out sheets of white paper, scissors, glue sticks, and sheets of colored paper or construction paper.

Have students create a plant by cutting the different parts of a plant out of different colored paper, and then glue the plant parts to the white paper in proper arrangement for their fantasy plant.

Note that each plant should have the parts it needs to survive; i.e. ways to obtain the basic needs. Share creations with the class, explaining how the basic needs were met with each fantasy plant and any special adaptations the plant has.