Class Starters & Enders

Making the Most of Instructional Time
Five Minute Lessons

Class Starters and Enders help utilize the last minutes of class when a lesson ends but there is not enough time to start another, or for an interest approach at the beginning of class. Mini-lessons correlate to GPS in the programs areas below.

Those Aren't Spider Webs

Program Areas: Agricultural Science, Forestry, Horticulture, Entomology

Instructions: Read the material and make notes of important points, answer questions, and be ready to discuss this topic.

The fall webworm is actually moth larvae that emerges in late August and, as its name suggests, spins silk webs around the foliage of trees. Within the silk, tent like webs, are the leaves on which the larvae will feed on for four to six weeks. After feeding, the caterpillars continue to the next metamorphic stage, pupating in silken cocoons in leaf litter or under tree bark. By the next summer, they emerge as adult white moths that will lay their eggs on the undersides of leaves of trees. When these eggs hatch the cycle starts all over again.

A webworm web may look like spider's web but it is actually a colony of moth larvae that feed on trees in the fall. Webworms are not a serious threat to the health of a forest, but they can be a nuisance if they strip expensive trees of their leaves or reduce their fruit production.

Although colonies of these caterpillars are known to strip entire trees of their leaves, they do not pose a serious threat to the forest. This is because of the time of year they begin their feast. Since the caterpillars do not hatch until late August or later, a tree's leaves have already served their yearly purpose in the life cycle of the tree. For example, leaves are needed to use sunlight to turn water and carbon dioxide into oxygen and glucose by performing the process of photosynthesis. By the time the caterpillars begin to devour the foliage, the leaves would have already changed color and fallen to the ground anyway. In fact, a tree can survive being stripped of all its foliage by the webworm year after year.

The fall webworm is usually only a minor economic consideration as a forest pest, but when the caterpillars prefer to strip expensive shade trees or ornamentals their presence is not exactly welcomed. Another possible risk of webworms is limb dieback due to persistent infestation because there can be as many as four generations produced per year. Although a tree can usually survive, webworms can reduce nut and fruit production and create a potential economic problem for many agricultural industries.

Review Questions

1. What exactly is the fall webworm?
2. Why do webworms usually not kill the host tree?
3. Why are the leaves of a tree needed until the fall?
4. In what metamorphic stage are the webworms in when they spin their webs?
5. In what ways can the webworm be concerned a pest?
6. How many generations can hatch in one year?
7. How can the webworm impact agricultural industries economically?

Science Connection

Students can further research the process of photosynthesis and the lifecycle processes of insect metamorphosis.

Math Connection

Students can research different economic issues associated with pests in agriculture.

Georgia CTAE Resource Network - Written by Lauren Woodliff and Shannon R Lawrence