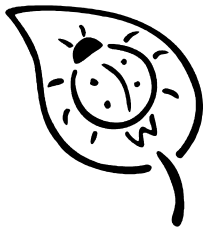
Unit 10 - Insect and Plant Interaction
Study Guide

Unit Objectives:

1. Describe how plant and insect relationships evolved together.
2. Using examples, explain how insects can protect, and help propagate plants.
3. Describe the ways plants protect themselves from insects.
4. Describe an insect gall.
5. Describe how plant/insect interactions are similar to the Cold War.



In the beginning

What insects are thought to be the first pollinators?

What is the difference between nectar and pollen and on which do insects feed?

Which orders are the most common pollinators?

Why do some plants put nectar deep within the flower?

Why is it beneficial for a plant to attract specific pollinators?

Mutualism

Seed Dispersal:

What part of the seed does the ant eat? How does this help the seed?

Protection:

What does the cecropia plant give to the ants?

How is the plant benefited by having ants live inside it?

Reproduction/pollination:

Where is the pollen glued on to the butterfly?

Which position must a butterfly assume in order to suck nectar out of the flower?

Why is the hover fly the only insect that can get nectar from the small iris in South Africa?

What is the purpose of the flower's white arrows?

Describe the relationship between fig trees and the fig wasp you read about.

Describe the relationship between the yucca plant and moth you read about.

The Iowa Agriculture Research Service were not always able to use bees to pollinate their plants. They have only used bees since 1970. **Before this time, how did they get their plants pollinated?**

Insect Galls

What is an insect gall?

Are galls harmful to plants? Why or why not?

What is the best way to control an insect gall?

Plant defenses

Name the two general categories of plant defenses.

List three ways plant use chemicals to fight off insect predators.

Give an example of an insect that has overcome a plant's chemical defenses.

List three physical defenses plants employ to ward off insects.

Notes: