

# Beneficial Insects

Not all insects harm plants. Some insects called beneficial insects kill harmful insect species. Adult lady beetles, lady beetle larvae, adult lacewings, and larvae of syrphid flies all eat aphids and are examples of such beneficial insects. The larvae of several lacewings, called "aphid lions," suck body juices from aphids and are therefore beneficial.

## Suggestions for doing this exercise

Collect a colony of aphids, count them, then place in a container with one of the above mentioned beneficial insects; observe and record what happens.

## What you will need

1. A wide-mouth quart jar.
2. A piece of cheesecloth or other porous material to cover the jar.
3. A string or rubber band to fasten cheesecloth to top of the jar.
4. An aphid-infested rose twig or other infested plant sprig.
5. A beneficial insect—lady beetle larva or adult, syrphid fly larva, or lacewing adult or larva (aphid lion).

Each member should bring an aphid-infested rose twig to the meeting. Collect this aphid colony sample shortly before the meeting starts and examine it closely. Also have each member collect a sample containing any of the above mentioned beneficial insects. Place this sample in a closed container to avoid beneficial insects from escaping.

## How to do it

1. Take an aphid-infested rose twig or other aphid infested plant material and count the aphids on the twig. Place the twig in the jar.
2. Place a lady beetle or one of the other beneficial insects on the aphid-infested twig.
3. Cover the mouth of the jar with the cheesecloth or other porous material so the insects can't escape.
4. Examine the infested twig at least daily and count the number of aphids present.

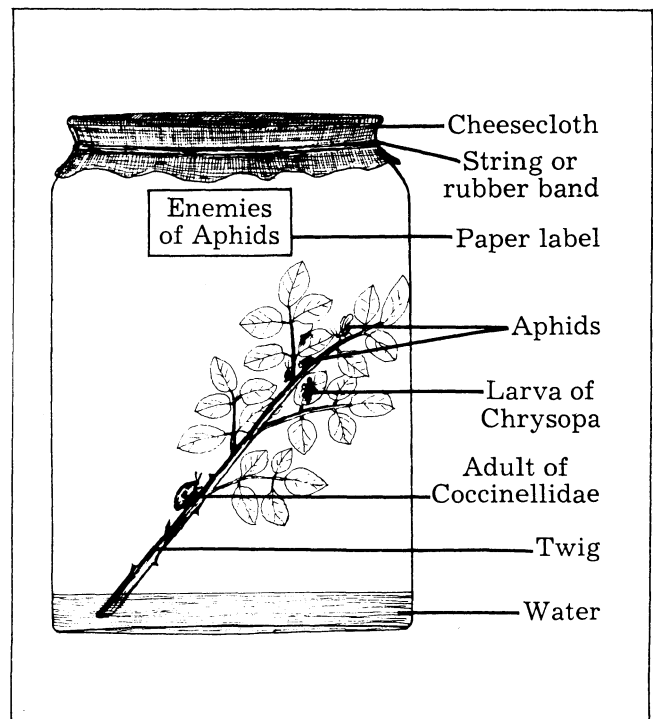
## Complete the following

1. How many aphids were on the twig when you first placed it in the jar? \_\_\_\_\_
2. How long did it take for the aphids to disappear? (hours, days, etc.) \_\_\_\_\_
3. Did your beneficial insect eat the aphid? \_\_\_\_\_
4. Did you observe the beneficial insect eating the aphids? \_\_\_\_\_
5. Describe what you saw. \_\_\_\_\_

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### Information for leaders

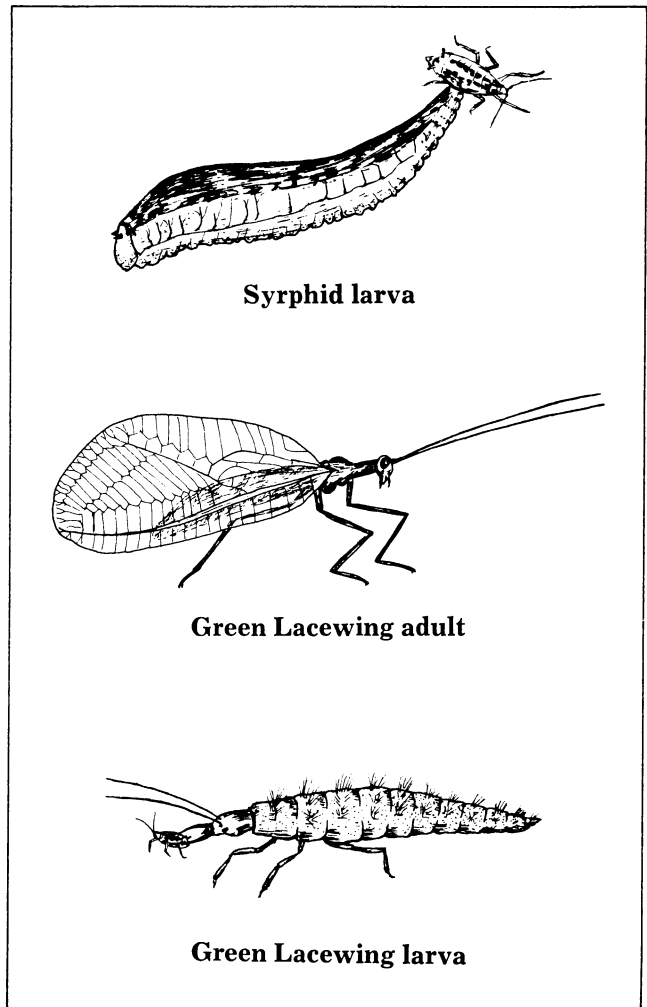
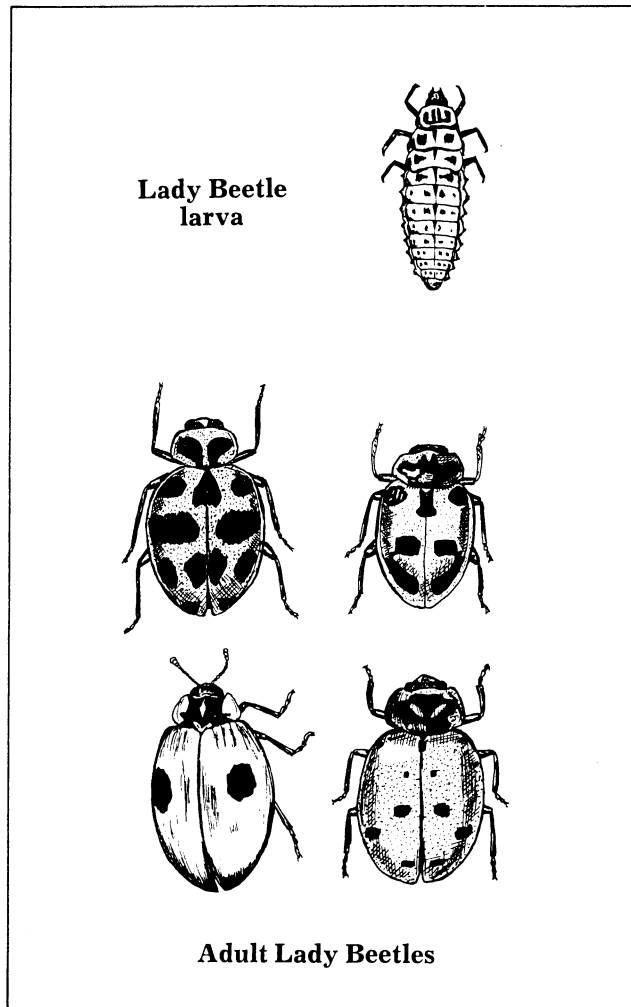
The best time to run this exercise is during June or July when aphids and beneficial insects are most available. The exercise can be conducted in about 30 minutes with a group of 15 to 30 individuals. It will take one to four days to complete depending on the number of aphids used and the beneficial insect selected. Example, one lady beetle species eats about 200 green peach aphids a day. It would be advisable to locate aphid-infested twigs and collect these colonies plus some beneficial insects mentioned above and bring them to the meeting. This assures having plenty of material available for members.

When setting up these exercises make sure only one predaceous adult or larva is added in each sample. Results will be erroneous if such precautions are not followed. A little water (one-

half inch) should be added to the jar containing infested twigs when the member reaches his home. Water will help keep the sample fresh and healthy.

Adult lady beetles, lady beetle larvae, and adult lacewings eat the aphids. Syrphid fly larvae (aphid lion) suck the body juice from the aphids. Members should observe the beneficial insects feeding on the aphids. The aphid lion larva holds the aphid in the air with its big "tusks" while sucking the fluid from the body. The aphid is unable to use its legs to escape when held in this manner.

Prepared by Lloyd E. Adams, former Extension entomologist.



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Penn State College of Agricultural Sciences research, extension, and resident education programs are funded in part by Pennsylvania counties, the Commonwealth of Pennsylvania, and the U.S. Department of Agriculture.

Issued in furtherance of Cooperative Extension Work, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T. R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

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D0210G R2M10/01ps