

Lady Beetle Food Consumption

Questions:

- How many aphids can a lady beetle consume during its larval stage?
- How many aphids can an adult lady beetle consume?
- Do lady beetles prefer dead or living aphids?

Materials:

- Lady beetles
- aphids (living and dead)
- small, shallow container with cover (petri dishes are ideal)
- camel hair brushes to manipulate aphids and beetles

Methods:

- Divide students into groups of 2 to 4 students per group
- Scatter living aphids over the bottom of each container (initially you will need to experiment to determine how many aphids to add)
- Add one adult lady beetle to each container
- Count the number of aphids consumed or remaining in the container each day. The experiment can be terminated after 24 hrs or can be continued for as long as appropriate.
- At the termination of the experiment calculate the number of aphids consumed per day and the total number of aphids consumed over the course of the experiment.
- It is important to add aphids as they are consumed
- Be sure to replicate your inquiry

Additional Notes:

- This inquiry can be modified to determine how many aphids an immature lady beetle can consume by using immature lady beetles rather than adults. The overall procedure is the same.
- A choice study can also be conducted in which living and dead aphids are placed in the same container to determine if aphids prefer living or dead aphids.