



TESTING THE EFFECTIVENESS OF DIFFERENT NATURAL PESTICIDES



Natural pesticides come from plants or other natural sources. In this experiment, you will test how effective different natural pesticides are at controlling aphids on plants.

QUESTION

Which natural pesticide is most effective at reducing the number of aphids?

HYPOTHESIS

I think _____
will be the most effective because _____

MATERIALS

- 5 small potted plants with aphids (same type of plant)
- Natural pesticides to test (choose 3–4):
 - Neem oil (diluted)
 - Garlic spray
 - Soap spray (mild dish soap diluted)
 - Chili pepper spray
- Spray bottles (one for each pesticide)
- Water (for control group)
- Magnifying glass (optional)
- Label or tape and marker
- Notebook and pen



PROCEDURE

1. Set up 5 plants with similar size and number of aphids.
 2. Label the plants as follows:
 - Control (water only)
 - Neem oil
 - Garlic spray
 - Soap spray
 - Chili pepper spray
 3. Count the number of aphids on each plant. Record the numbers in the data table (Day 0).
 4. Spray each plant with its assigned treatment until leaves are lightly covered. (Use water for the control plant.)
 5. Place all plants in the same location with the same light and temperature.
 6. Wait 24 hours.
 7. Count the number of aphids on each plant again.
 8. Repeat steps 4–7 for 3 more days (Days 2, 3, and 4).
- ⚠ Do not mix up the plants or treatments. Spray at the same time each day.

DATA TABLE

Number of Aphids					
Treatment	Day 0 (Before)	Day 1	Day 2	Day 3	Day 4
Control (Water)					
Neem Oil					
Garlic Spray					
Soap Spray					
Chili Pepper Spray					

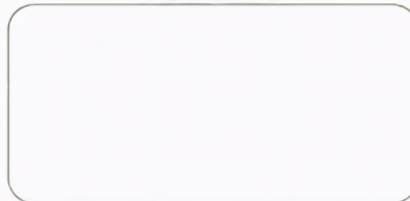
ANALYSIS QUESTIONS

1. Which treatment reduced the number of aphids the most by Day 4? _____
2. How did the control plant change over time? _____
3. Which natural pesticide worked the least? _____
4. What do you think makes one natural pesticide more effective than another? _____
5. If you were to use a natural pesticide in your garden, which one would you choose and why? _____

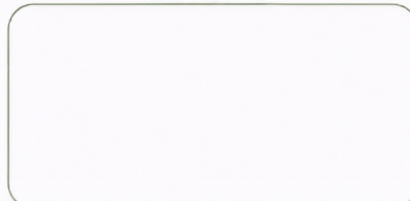
DRAW & OBSERVE

Draw your plants or what you observed at the beginning and at the end.

Day 0 (Before)



Day 4 (After)



CONCLUSION

What did you learn from this experiment? _____

