

Naturally Occurring Pesticides Student Sheet

Instructions: (you should wear gloves)

Group Materials: 4 weighboats, 2-1 ml pipettes, sack with pre-weighed spices/plant, 4 empty vials, 1 vials containing drosophila flies, labels

1. Make the extract.
 - a. Add 10 ml (pipette = 1 ml) of acetone to one of the weighboats
 - b. Do not remove the spice or plant from the gauze sack.** Pour the acetone through the gauze sack containing the spice or plant into the second weighboat.
 - c. Squeeze the liquid out of the spice/plant sack.
2. Take 1 ml (1 pipette) of the spice/plant extract and add to one of the empty vials. Label the vial with the type of spice/plant. Take the second empty vial to a neighboring group and add 1 ml of their extract to your empty vial – be sure to use their pipette, you don't want to contaminate your sample. (This way you will have 2 spices/plants to experiment with.)
3. Add 0.5 ml (1/2 a pipette) of oil/acetone mixture to the two vials containing the extract.

Do Steps 4-7 Simultaneously:

TWO STUDENTS:

4. Twirl the vials in the hood to evaporate the acetone. The oil/extract mixture should coat the sides of the jar.
5. Add the dry drosophila food so that it just covers the bottom of the jar. Carefully add water **by using a pipette** until the food has been hydrated. **DO NOT** dump water carelessly into the vial.

TWO STUDENTS:

6. Get ~ 20 flies by gently tapping the bottom of the vial on the table to knock the flies away from the entrance. Pour and tap ~ 20 flies into an empty vial.
7. Count exactly how many flies you placed in the vial & record that number on your data sheet.

AS A GROUP:

8. Add the 20 (or so) *Drosophila melanogaster* to each coated vile and stopper with cotton.
9. Record the number of dead flies after 5, 10, 15, and 30 minutes.

Naturally Occurring Pesticides Data Sheet

Date: _____

Group Members: _____

Spice/Plant(s): _____

Flies: _____
Flies: _____

Observation Times	Time of Day (hr.)	Dead Flies		% Dead Flies	
		Spice/Plant:	Spice/Plant:	Spice/Plant:	Spice/Plant:
0 minutes					
5 minutes					
10 minutes					
15 minutes					
20 minutes					
30 minutes					

Visual Symptoms or Comments: _____

