

Integrated Pest Management Activity

When you have plants.... you have insects. The two naturally go hand in hand. Even though not all insects are bad, they can be bad when they destroy the crops, flowers, or plants you are trying to grow for food or landscaping purposes. It is best to create a plan that will prevent insects from ever entering the greenhouse as well as a plan for controlling them when they do. These plans are called Integrated Pest Management Plans.

Each group will be assigned two insects to research:

Groups 1 – Aphids and Fungus Gnats

Groups 2 – Leaf Minor and Mealy Bugs

Groups 3 – Scale and Slugs

Groups 4 – Thrip and Whiteflies

Groups 5 – Spider mites and Leaf Hoppers

Your task is to create an Integrated Management Plan in Microsoft Word. **You will work in groups!** This typed plan should include the “how’s” and “why’s” of your plan. Include the following information in your project:

- Cover Page (include title, date, photos, group members’ names, class, class period)- 10 pts
- Page 1: Pest Description, includes what Mouthparts the pests have- 5 pts
- Page 1: Why do these pests damage our crop? - 5 pts
- Page 1: Life Cycle of the Pests- 5 pts
- Page 2: Chemical Treatment Method- 5 pts
- Page 2: Chemical Control Type- 5 pts
- Page 2: Chemical Control Details- 5 pts
- Page 3: Biological Control Type 5 pts
- Page 3: Biological Control Details- 5 pts
- Page 4: Cultural Control Type- 5 pts
- Page 4: Cultural Control Details- 5 pts
- Page 5: Overall Cost to implement this plan and an itemized summary of that cost- 10 pts
- Page 6: Works Cited Page- 5 pts

PROJECT TOTAL: 75 Points

****Do not plagiarize! Save it electronically and print 1 copy to turn in when finished.***

Information to help you:

- **Biological control**

Biological control is the use of natural enemies—predators, parasites, pathogens, and competitors—to control pests and their damage. Invertebrates, plant pathogens, nematodes, weeds, and vertebrates have many natural enemies.

- **Cultural controls**

Cultural controls are practices that reduce pest establishment, reproduction, dispersal, and survival. For example, changing irrigation practices can reduce pest problems, since too much water can increase root disease and weeds.

- **Chemical control**

Chemical control is the use of pesticides. In IPM, pesticides are used only when needed and in combination with other approaches for more effective, long-term control. Also, pesticides are selected and applied in a way that minimizes their possible harm to people and the environment. With IPM you'll use the most selective pesticide that will do the job and be the safest for other organisms and for air, soil, and water quality; use pesticides in bait stations rather than sprays; or spot-spray a few weeds instead of an entire area.

Integrated Pest Management Project Rubric

Student Names: _____

Project Requirement:	Points Earned:					
Cover Page: Includes All Information	0	2	4	6	8	10
Page 1: Students describe the pests by providing a detailed definition that includes information about the part of the insect (specially the mouthparts).	0	2	4	6	8	10
Page 1: Students explain, in detail, how these pests cause damage to the crop.	0	1	2	3	4	5
Page 1: Students explain what the steps of the pests' life cycles are and a short description of each. Diagrams are also welcomed, if possible.	0	1	2	3	4	5
Page 2: At least one option for a chemical control method for each pest is listed and an explanation of how the chemical treatment works is provided.	0	1	2	3	4	5
Page 2: A detailed explanation is given on how to apply each chemical, the amount to apply, and how frequently to apply it.	0	1	2	3	4	5
Page 3: At least one option for a biological control method for each pest is listed and an explanation of how the biological treatment works is provided.	0	1	2	3	4	5
Page 3: A detailed explanation is given on how to apply the biological control, the amount to apply, and how frequently to apply it.	0	1	2	3	4	5
Page 4: At least one option for a cultural control method for each pest is listed and an explanation of how the cultural treatment works is provided.	0	1	2	3	4	5
Page 4: A detailed explanation is given on how to implement the cultural control, and how frequently to implement it.	0	1	2	3	4	5
Page 5: An itemized cost of each supply is listed out like a receipt. An overall projected cost to implement this plan is also provided.	0	2	4	6	8	10
Page 6: A Works Cited page is provided that correctly aligns to MLA format.	0	1	2	3	4	5

TOTAL SCORE: _____/75