



Integrated Pest Management (IPM) For Home Gardens

Integrated Pest Management (IPM) is a science-based approach to managing pests using a variety of safe, sustainable, and effective tactics. In this context, pests are organisms that damage desirable plants or impact human or animal health. Pests may transmit disease or may be just a nuisance. A pest can be a plant (weed), vertebrate (bird, rodent, or other mammal), invertebrate (insect, tick, mite, or snail), nematode or pathogen (bacteria, virus, or fungus) that causes disease. However, there is no universal definition for pest. Clover may be a pest to the gardener seeking a 'perfect' lawn while valued for its nitrogen-fixing contributions to the owner of an eco-lawn.

IPM focuses on the long-term prevention of pests or their damages by managing the garden environment. It uses an overall strategy that goes beyond controlling one type of pest.

While each pest situation is different, five major components are common to all IPM programs:

1. Identifying Pest

Correctly identifying the pest is key to knowing whether a pest is likely to become a problem so you can determine the best management strategy. Learn about the pest, its biology, and environmental factors that affect it. Oregon gardeners may use this resource:

Oregon State University Insect Identification

<https://extension.oregonstate.edu/pests-weeds-diseases/insects/insect-identification>

2. Monitoring and assessing pest numbers and damage

Monitoring means checking your landscape for pests. The purpose of monitoring is twofold:

1. You can catch pest problems in their earliest stages, when they are easiest to solve.
2. You can gather information that will help you time your management actions when they will be most effective.

Sticky traps, pit fall traps with soapy water, or pheromone traps will help you determine the number of pests present.

2. Setting a threshold for when management action is needed

Determine what level of damage is acceptable to you. A few holes in some leaves may be acceptable, but if pest damage has skeletonized the leaves, then action may be required. If the problem warrants control, select the most effective management methods and the best time to use them. If the damage is not bothersome to you, letting the problem play out for the season is a viable management strategy.

3. Using a combination of biological, cultural, physical, and chemical management tools

Biological Controls are the use of beneficial insects, also called natural enemies, to reduce insect pest numbers. You can attract beneficial insects to your garden with food such as

nectar and pollen provided by plants. Water and nesting sites are also key to providing beneficial insects with a habitat. You can purchase predatory mites or the eggs of green lace wings. They will stay close to where they are released if food is available. Avoid using any insecticides that may harm them.

Supporting Biocontrol with Garden Plants

https://gardenecology.oregonstate.edu/sites/agscid7/files/gardenecology/gel_brief_2_biocontrol.pdf

Beneficial Insects in the Home Garden

<https://cmastergardeners.files.wordpress.com/2022/02/beneficial-insects.pdf>

Cultural Controls are practices that emphasize modifying the natural environment to reduce the potential for pest problems. Examples include optimizing plant health by giving them proper plant care and choosing plant varieties that are resistant to insect damage.

Physical Controls remove or block a pest from your plants. It is best to use these controls when pest populations are low. Examples include using insect traps, spraying plants with water to dislodge pests, and using barriers such as row covers or nets.

You can also control pests that build nests or feed in aggregations with physical removal. Pruning out the branches containing tents made by web building caterpillars, or sawflies that feed in groups on isolated branches of a plant, can reduce pest populations and damage. This strategy works best in early stages of infestation.

Chemical Controls can be used after other options have been exhausted. Many pesticides kill natural enemies along with the pest, and pest populations tend to rebound more quickly than their natural enemies.

Consider the use of insecticidal soaps or horticultural oils before selecting more toxic methods.

Understanding the pest's life cycle and knowing where the pest is living and feeding is vital for successful chemical control. Proper placement, timing and effective application methods will save time and money and more effectively control the pest. For help with pesticide selection, contact your local Extension office.

4. Assessing the result after action is taken

Did the steps you employed work effectively? What would you do differently?

Resource

Solve Pest Problems <https://solvepestproblems.oregonstate.edu/>

Master Gardener™ advice

Contact local OSU Extension office for Master Gardener advice.

For 10-Minute University™ handouts and class schedule, visit <https://cmastergardeners.org>.

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