

Integrated Pest Management

Mechanical Controls



Integrated Pest Management (IPM) is a practical, environmentally sound approach to managing pests in the home landscape. It relies on a combination of techniques to prevent and control pests, reducing the need for chemical treatments. IPM focuses on long-term prevention by emphasizing healthy plant care and thoughtful landscape design. The five main control strategies used in IPM are cultural, genetic, mechanical, biological, and chemical. Mechanical control, the focus of this article, is a straightforward and often highly effective way to reduce pest populations without the use of chemicals.

Mechanical Control: Physical Methods That Work

Mechanical control involves using physical actions or devices to prevent, remove, or reduce pest populations. This method is especially useful in home landscapes, where small-scale interventions can make a big impact. Mechanical control strategies include hand removal, barriers, traps, pruning, and other tactics that directly interfere with pests.

One of the simplest and most effective mechanical techniques is **hand-picking** pests. For example, gardeners can remove tomato hornworms, Japanese beetles, or slugs by hand and drop them into a bucket of soapy water. While labor-intensive, this method is ideal for small gardens and spot treatments. Additionally, for aphids, try a powerful stream of water from a hose to keep them at bay.

Barriers can also prevent pests from reaching plants. Row covers made of lightweight fabric protect vegetables from insect pests like cabbage loopers and squash vine borers without harming beneficial insects. Copper tape or collars placed around garden beds can deter crawling pests such as snails and slugs.

Traps are another useful mechanical control. Yellow sticky traps attract and capture flying pests like whiteflies and aphids, helping monitor and reduce populations. Pheromone traps are often used for moth species, luring males to disrupt mating cycles.

Pruning infested plant parts, such as leaves with aphid colonies or branches harboring scale insects, can prevent further spread. Removing these parts early reduces pest pressure and can often stop an infestation before it becomes serious. Remember to adopt proper sanitation practices by clearing infested plant material from the site.

Mechanical control is best used in combination with other IPM strategies. It provides immediate results, is generally low-risk to people and the environment, and helps reduce reliance on chemical pesticides.

Looking Ahead: Biological Control

While mechanical control provides hands-on, immediate solutions to pest problems, biological control offers a natural way to manage pests using their own enemies. In the next article in this IPM series, we'll dive into **biological control**, exploring how predators, parasites, and pathogens can be allies in your garden pest management plan. Stay tuned to learn how nature's own systems can help protect your landscape!

Resources

[Oklahoma State University: IPM Issues](#)

[Plant Disease and Insect Diagnostic Laboratory](#)

[Insects, Pests and Diseases](#)

[Arthropod Pest Management in Greenhouses and Interiorscapes](#)