

IPM

Integrated Pest Management



INTELLIGENT PEST CONTROL!

Many home-owners are overwhelmed by the variety of pests on their plants and the dozens of chemicals offered to control them. In desperation, they spray the strongest chemicals that they can Bud over their entire properties. Unfortunately, this method does not work, the pests come back stronger than ever and another gallon of poison is released into the environment.

The Solution: IPM!

IPM is not a single chemical, but a pest control strategy used to determine the best treatment for pest infestations. The general principles of IPM are simple: look at your yard and become familiar with the plants and pests that are there, evaluate the pest situation and then treat appropriately This thoughtful strategy ensures that you only treat pests when they are a problem, in a way that is effective, without using excessive chemical controls. In short, IPM is an effective pest control method that is safer for your family and the environment.

LOOK!

The first principle of IPM is to look carefully at the plants in your yard and become familiar with the pests that live on them. Knowing your pests is important for effective pest management because many organisms are not pests; some of them are beneficial and all of them require different control strategies.

A Nature Preserve In Your Backyard

Looking for pests can be a fun and educational project for your entire family When you look closely at plants, you will discover that your yard supports a varied and complex ecosystem. Best insects quietly munch on the plump new growth of your azaleas, and predator insects hunt for aphids feeding on your roses. Bacteria cause young seedlings to wilt while microscopic nematodes control pest infestations on your dogwoods. Finding these different organisms and learning about their survival techniques is like discovering a fascinating nature preserve in your own backyard. Don't be discouraged by this diversity of life on your plants, because it demonstrates that your yard is a healthy ecosystem which is already controlling many pests through a complex system of checks and balances.

What To Do

To identify pests and other organisms, you will need a book that describes common yard and garden pests and a small hand lens. The Arboretum library has an extensive collection of books with pictures and descriptions of pests that are found in New Jersey.

Get close to the plants to get a good view of the small critters. Look under leaves, on stems and in the crevices of bark. Looking closely, you can identify organisms by appearance, the droppings that they leave and the effect that they have on plants. Try to identify the pest in each of its life stages, from egg through adult.

Don't be discouraged by the number of pests that you have to identify Many pests require specific host plants for feeding and reproduction. This will narrow down the potential pest that you will look for on a particular plant. If you don't know the name of one of your plants compare it to the Arboretum's labeled selections.

EVALUATE!

The second principle of IPM is to evaluate the pest situation in your yard. Ask yourself two questions: (1) do I have a pest problem; and (2) why?

Do I Really Have a Pest Problem?

In order to use IPM you must first accept that you will always have a variety of organisms, and even pests, in your yard. The key is to know which organisms are pests and when they have reached a level of infestation that requires a response.

Many organisms, like butterflies in their adult stage, do not seriously harm your plants. You shouldn't waste time and money trying to eliminate these beautiful, fascinating components of the backyard ecosystem.

Other organisms, although pests, are not harmful to your plants in small numbers. For example, a small infestation of scale will not prevent azaleas from flourishing. Therefore, these pests should only be monitored to ensure that they don't bloom into a legitimate infestation.

Finally, some organisms are "beneficial" because they consume pest species. If beneficials are present, you shouldn't apply a pesticide that might kill them or disrupt their feeding. Azalea scale is successfully controlled by beneficial parasites. If you treat the scale you may disrupt the beneficial parasites which feed on them.

Why Do I Have a Pest Problem?

If you do have a pest infestation, you need to find out why Pests are not always the cause of a plant's decline but are sometimes only a symptom of improper plant selection or placement. Certain varieties of plants, like roses, are particularly pest prone. If you want a low maintenance yard that requires less pest control, these plants should be replaced with pest resistant varieties. Plants that are placed in an unsuitable location for their needs will also be unhealthy and susceptible to pest problems. For example, azaleas, planted in a location exposed to winter winds, will become weak and unable to survive a pest infestation. Visit the Arboretum's library to learn which plants are pest resistant and the proper cultural conditions for your favorite plants.

TREAT!

The third principle is appropriate treatment An appropriate treatment controls the pest infestation with the least harm to the environment. To achieve the best control, use treatments that are specifically targeted to the pest that you have identified, at the point in the pest's life cycle when it is most vulnerable.

To avoid unnecessary environmental damage, be conservative. Use the safest treatment for controlling the pest first. These treatments have low toxicity, are applied directly to the affected plant and have a short effective life span. The safest treatments are usually non-chemical, so try these before turning to chemical controls.

Non-Chemical Treatments

***physical removal** - Some pests are large enough to pick off by hand or can be removed by pruning damaged branches.

***pheromone and sticky strip traps** - These traps control pests in their flying stage.

***beneficial organisms** - You can purchase beneficial organisms like ladybugs and nematodes.

Chemical Controls

***insecticidal soap and horticultural oil** - These chemical controls are applied directly to the affected plant.

For more information about IPM visit the **Reeves-Reed Arboretum library** or call about our IPM tours. See how well IPM is working for us!

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