IPM Tips

IPM stands for Integrated Pest Management, or as I like to say, Intelligent Pest Management. In the past, if you had a pest problem, be it insect or disease, the first thing most homeowners would do is buy a bottle of chemicals and spray away until the whole neighborhood smelled.

Homeowners today understand the balance of nature, and that by spraying all those chemicals, you were not only hurting the harmful pests, but also the beneficial ones as well. IPM is a series of steps that a homeowner can use to diagnose and treat a pest problem, and in turn, "catch" the problem before it turns into a bigger problem.

1). LOOK - The first step is to become familiar with your plants and understand what a healthy plant looks like. It is from this point that when a problem arises, YOU will be the first to know that there is a problem, and control is that much simpler. An inexpensive magnifying glass will do the trick. Don't worry about the number of pests that are about. Many pests require a specific plant as a host, so identification is that much easier.

2). THINK - a). Do I have a problem & b).why? Many organisms live in a coexistence with your plant (such as monarch butterfly catepillars feed on the foliage of milkweed, and do not seriously harm the plant), and plants have adapted to this, especially if the pests are in small numbers. Also, most plant problems are from improper plant selection or placement(the right plant for the right place). Check to make sure when purchasing a plant to check its cultural habits and conditions. This will help you in the future.

3). TREAT - Use an appropriate treatment and dosage. Many homeowners just grab whatever pesticide they have on their shelf and use that. Be specific with what you spray, and use the manufacturer's suggested amounts. They have spent a lot of money on research, and they know more about the product then you, so take heed! Even better, if the infestation is small, use your hands to remove the pests...it is even safer than chemicals!

IPM For the Winter Months

During November, December, January and February, the garden lies dormant, waiting for the warm rays of sunlight in spring (sort of like me!). Instead of hibernating yourself, now is a good time of year to go out into the garden and take a careful look at the shrubs and trees of your garden. The only insect I know of that you can identify in the winter is the Hemlock Wooly Adelgid, which coats the green needles of hemlocks with a cottony substance. During a warm winter day (above freezing), you can spray a dormant oil on the hemlocks to help control wooly adelgid. Otherwise, check the form of the trees and shrubs, noting any broken branches and twigs and pruning the same. Remember, these cracks are cracks in the plants defenses, and you can eliminate the enemies entrance with sound pruning. Also if a plant's branch structure seems too condensed, thin out some of the branches. This will increase air flow, decreasing the probability of disease. Finally, if you did not get to the final clean up, please do it before spring. Keeping a clean, tidy garden breaks the life cycle of many diseases and some insects, so get a head start on this IPM approach.

IPM Tips For March and April

The following are some problems to look for in March and April.

**Dogwood Anthracnose** - Check lower branches for dead twigs. Dead leaves from the previous growing season may be attached. Prune and destroy dead twigs and branches. When the weather is cool and wet the spores are splashed onto young twigs and leaves causing brown spots. Apply fungicide during bud break to protect new flowers, twigs and foliage. Further applications may be needed if weather remains cool and wet.

**Euonymus Scale** - Fertilized adult females have black oyster-shell shaped 1/8 inch long scale covers. These can be found over wintering on bark. Horticultural oil treatments are effective for light infestations.

**Pine Sawflies** - Look for rows of yellow spots in needles indicating the presence of eggs. With light infestations on small pines, handpick and destroy. With heavy infestations, use horticultural oil. Later, check for half eaten needles indicating the presence of larvae, and spray with oil. Stressed plants may attract sawflies, so improving cultural conditions will help.

**Hemlock Woolly Adelgid** - The females, covered in a fluffy white wax, are producing eggs found at the base of hemlock needles. Apply dormant oil in March/April. There are two generations a year, so a second application may be needed in September.

IPM Tips For May and June

The following are some problems to look for in May and June.

**Azalea Bark Scale** - In May/June look for sooty mold on leaves and yellowing leaves. Also look for white egg sacs in twig forks and for reddish crawlers that settle on twigs in June and July. Use a summer oil spray in July after crawlers are out of the egg sacs.

**Pine Sawflies (Pines and other conifers)** - In early May look for rows of yellow spots in needles indicating the presence of eggs. If a light infestation occurs on small pines, hand pick and destroy. If needles are yellow, curled or half-eaten, look for clusters of larvae near defoliated twigs and branches. Use horticultural oil or systemic insecticide for control.

**Pine Spittlebug** - This native spittlebug prefers Scotch pine, but also attacks many other pines. Look for spittle on twigs in May and June. Check again in July and August for adults feeding without spittle. In light infestations on small pines, remove manually. Heavy infestations may kill Scotch pines. Spray with a residual insecticide in May.

**Lace Bugs (Azalea, Rhododendron, Andromeda)** - In early May look for signs of newly stippled leaves and black fecal spots on undersides of leaves. Horticultural oil and contact insecticides will give control only if lower sides of leaves are sprayed. Systemic insecticides will give excellent control.

**Hemlock Woolly Adelgid** - Look for fluffy, white wax on twigs from March through June and again in late summer into fall. Use dormant oil from November to early March. Use foliar oil or horticultural soap sprays from July through October to kill immature adelgids.

IPM Tips for July and August

The following are some problems to look for in July and August.

**Black Vine Weevil** - Adults, which are broad-nosed and flightless, are active at night notching leaves. Larvae eats roots and may girdle crowns of broad-leaved evergreens, particularly rhododendrons, azaleas and yews. Look for notched leaves beginning in June. If plant has notched leaves and is wilting, look for larvae on roots. Use a foliar systemic spray when damage begins. Entomopathenogenic nematodes sprayed on the ground help to control larvae. Drenching beds with chemical to kill larvae is not effective.

**Japanese Beetles** - Adults feed on fruits, flowers and leaves of many plants. Larvae may seriously damage lawns and the roots of small plants. Flowers such as roses may be destroyed by large adult populations. Look for adults from late June through early August. In late summer roll back dead patches of lawn to determine the number of grubs present. Milky spore disease can be disseminated against grubs. Weekly sprays in July with bendiocarb will provide only partial adult control. Traps are counterproductive unless used over a community-wide area.

**Euonymus Scale** - This armored scale attacks and frequently kills most species of evergreen euonymus. Light infestations on bark cause no obvious damage. In heavy infestations, leaves are covered mostly with white male covers and develop yellow spots. Dormant oil sprays should control light bark infestations. In heavy infestations, use a systemic insecticide. Spray crawlers in May through July and August through September with horticultural oil or other insecticides. Do not spray if black lady beetles with two red spots are present. They are the good bugs!

IPM Tips for September and October

The following are some problems to look for in September and October.

**Pine Sawflies** - Check pines for second generation sawfly eggs. Look for rows of yellow spots on needles, which indicate the presence of eggs. Look for yellow, curled, half-eaten needles indicating the presence of larvae. Light infestations on small pines may be hand picked and destroyed. Use horticultural oil on larvae. Improve cultural conditions. Stressed plants may attract sawflies.

**Fall Webworm** - More than 100 species of deciduous forest and shade trees may be attacked by the native tiger moth caterpillar, particularly mulberry, walnut, hickory, elm, sweetgum, poplar, willow, oak, linden, ash, apple and other fruit trees. The caterpillars produce a web over terminal growth in which they feed. Prune out webbed terminals as detected, or use Bacillus thuringensis var. Kurstaki, horticultural oil or horticultural soap to control young larvae in large infestations.

**Magnolia Scale** - This native soft scale feeds only on magnolia, preferring cucumber, star, lily and saucer magnolias. Oil sprays in the dormant season or residual insecticides in spring or early summer should reduce the populations. In August and September, eggs are present under females and sprays are ineffective. A residual insecticide in October should eliminate most crawlers.

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