

# Henrico Horticulture Corner



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## IPM for Spring Insects in the Garden

Submitted by Stephanie Feaser, Horticultural Technician

### What is IPM?

IPM stands for Integrated Pest Management. It uses a combination of techniques to keep pests from ruining your garden and landscape. The basic steps include prevention, monitoring for pests and learning their biology, researching options for control, and implementing least toxic methods first to manage pest populations.

### 1) Prevention:

Prevention methods are designed to keep pests out of your yard and garden in the first place. Inspect plants for insects before purchasing. Till the soil before planting to expose insects. Protect beneficial insects such as ladybugs, preying mantis, lacewings, and parasitic wasps that prey on insect pests. Maintain plant health and vigor by meeting the plant's cultural requirements – light, water, nutrients, etc. Weak, stressed plants are more susceptible to insect damage.



### 2) Monitor the garden weekly:

Even if you attempt to prevent pest problems, insects can crawl, fly, and drop in at any time. Tiny eggs are easily hidden under leaves and in soil. Monitoring the yard and garden weekly helps catch insect problems early, when they first appear and are easier to control. Inspect plants carefully. Turn over leaves, look for egg masses and larvae. Look for signs of insect damage - chewed leaves, curled leaves, color changes, holes, webbing, etc.

### 3) Identify the insect and learn its life cycle:

Identify the insects you find and determine if they are beneficial insects or pests. Learn about the insects life cycle, behavior, and signs of damage.

[www.ext.vt.edu](http://www.ext.vt.edu)

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(IPM continued)

#### 4) Research potential control methods and implement least toxic first:

Information on control methods can be found on the web, at the Extension Office, and in various garden books.

List your options such as handpicking, weeding, natural predators, insecticidal soap, horticultural oils, and synthetic chemicals. Rank options in order from least toxic to most toxic. Begin by implementing the least toxic methods first. Evaluate the results and continue with your list until the problem is managed. If you get to the level of using chemicals, use caution. Read the label thoroughly and follow directions exactly. The label is the law. Chemicals work best if timed correctly. Call the Extension Office for assistance on chemical selection and timing or consult this year's Pest Management Guide online at [www.ext.vt.edu](http://www.ext.vt.edu).

### IPM for a Few Insect Pests:

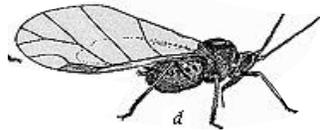
#### Aphids



Wingless



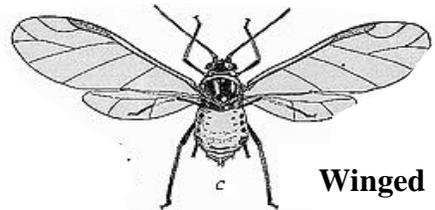
Newborn nymph



Winged



Nymph



Winged

#### ID:

- ◆ Aphids, or plant lice, are small, soft-bodied insects. All have two tubes on the back end of their bodies that secrete defensive substances.
- ◆ Aphids feed in clusters and suck out plant juices with piercing/sucking mouth parts.
- ◆ Light infestations are usually not harmful, but in abundance they can cause leaves to curl or wilt and contribute to a general decline in plant vigor.
- ◆ Ants may be seen traveling up and down the stem of an infested plant, farming aphids for the sweet, sticky honeydew that is expelled from their abdomen.
- ◆ Black sooty mold may grow on the honeydew and cover stems and leaves.

#### Life Cycle:

- ◆ Most aphids over winter as fertilized eggs stuck to stems or other plant parts.
- ◆ They can build up tremendous populations in relatively short periods of time. A dozen or more generations are typical in Virginia.

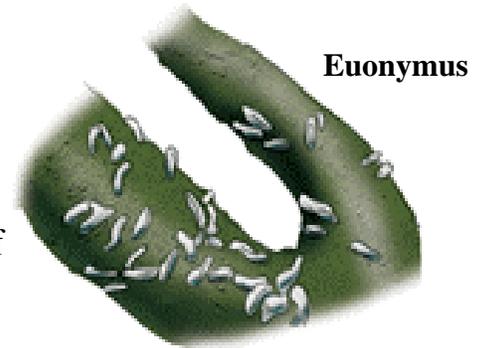
### **Control of aphids:**

- ◆ Natural enemies such as lady bugs, lacewings, parasitic wasps, birds, and fungal diseases aid in controlling aphid populations.
- ◆ Control small populations by pinching off infected leaves.
- ◆ Organic options such as insecticidal soaps and horticultural oils kill on contact.
- ◆ Other insecticides are registered for spot treatment. Apply when aphids are first seen.

### **Scale Insects**

#### **ID:**

- ◆ Adult scale insects are small and immobile. They resemble fish scales. There are over 150 different kinds of scale in Virginia. They feed in groups on plant sap and slowly reduce plant vigor.
- ◆ It is very important to identify the specific type of scale insect encountered, because adult scale insects are protected by a waxy covering that resists insecticides. Treatment is therefore aimed at the unprotected, immature crawler stage of the insect.



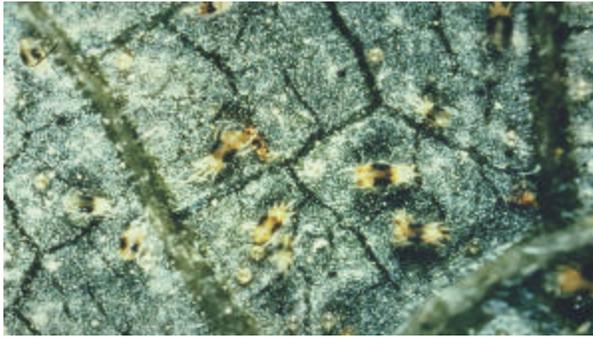
#### **Life Cycle:**

- ◆ Adults lay eggs beneath them where they will be protected. Eggs hatch into tiny, soft-bodied crawlers that migrate to new feeding spots.
- ◆ There may be one or more generations per year depending on the type of scale.

#### **Control of euonymus scale:**

- ◆ To smother adults and eggs, horticultural oils can be applied in late March and early April, before new growth develops and while temperatures are mild. (Some plants are sensitive to oil sprays, read label directions carefully). Oils can also be used as summer sprays if indicated on the label.
- ◆ Insecticidal soap works on the crawlers, but not on the adults and will not effectively control severe infestations.
- ◆ Have the scale identified to determine when to treat the crawlers and what chemical to use.

*The information given in this publication is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Virginia Cooperative Extension is implied.*



## Spider Mites

European Red Mite



### **ID:**

- Spider mites are tiny, almost microscopic. They are not insects, but are related to spiders and have eight legs. They feed in large groups, drawing out sap from plants with their needle-like mouth parts. Damage appears as stippling or fine flecking.
- If you suspect spider mites, hold a piece of white paper under the plant. Shake the plant and look for tiny specks to drop down on the paper and begin to move. With a hand lens you can see eggs, skin casts, and the adult mites.

### **Life Cycle:**

- There are different kinds of spider mites. Some over-winter as adults in soil; others over-winter as eggs on plants.
- They feed in clusters. Large infestations can cause serious damage.

### **Control:**

- Just because the stippling damage is seen does not mean spider mites are currently active. (Make sure mites are present before treating.)
- Insecticidal soaps and horticultural oils kill on contact.
- Standard insecticides are not effective on mites. Registered miticides can be purchased for severe infestation.



### Pest Management Guide

[www.ext.vt.edu/pubs/pmg/](http://www.ext.vt.edu/pubs/pmg/)

### Factsheets on the Web

[www.ext.vt.edu/](http://www.ext.vt.edu/)

[pubs/entomology/444-220/444-220.html](http://pubs/entomology/444-220/444-220.html)  
[departments/entomology/factsheets/scalein.html](http://departments/entomology/factsheets/scalein.html)  
[departments/entomology/factsheets/smites.html](http://departments/entomology/factsheets/smites.html)