

Euonymus Scale (*Unaspis euonymi*)**Order:** Hemiptera; **Family:** Diaspididae**Author:** Brian A. Kunkel and Kayla Krenitsky**Date:** 4/2015**Hosts:**

Euonymus scale is an armored scale is thought to have originated in China and has now established in the United States and Canada. This scale species feeds on *Euonymus*, *Pachysandra*, and *Celastrus*. Euonymus is the most frequent host for this pest. Winged euonymus is resistant to this species of armored scale but is susceptible to the winged euonymus scale, a different species.

**Identification**

The females are pear shaped and grey-brown to brown in color, approximately 1/16 inch in size. The males are elongated, white, and smaller than females. Crawlers are yellow-orange in color. They have piercing-sucking mouthparts and feed on fluid from non-vascular plant cells. Females are often found on the stems or twigs of the plants, versus the males are often found on the foliage. Stippling or spotting of the foliage is a symptom of euonymus scale. Female populations can become dense enough to girdle branches; thus

Biology

Females begin laying eggs in late April to May around 139—1267 (569 peak) GDD₅₀ for the first generation in the mid-Atlantic. Crawler activity may also correspond to the full bloom of *Magnolia stellata*. Growing degree days or plant phenological indicators can be used to suggest when it is a good time to scout. Adult stage of development is reached four to six weeks after crawlers have emerged. The second generation of crawlers usually emerges in mid-July around 1,351—2371 (1848 peak) GDD₅₀. This scale has at least a

Management Strategies

Proper timing is critical for insecticide applications and should target newly emerged crawlers when using contact insecticides. Contact insecticides are not efficacious against adult scale insects because they are protected by their waxy cover. Over-fertilization and plant stress often contribute to higher scale populations. Branches that are highly infested should be pruned, and an application should be made to protect the new growth. Horticultural oil and insecticidal soaps are able to provide control of euonymus scale but require multiple applications. Systemic insecticides such as dinotefuran should be applied as a soil drench a few weeks before crawler emerge to allow time for the product to move into the plant. Some products available for use are listed in the table that follows.

| Insecticide Common Name | Product name (professionals) | Product name (homeowners) |
|----------------------------|------------------------------|---|
| Acephate | Orthene | Bonide Systemic Insect Control |
| Abamectin | Avid | |
| Carbaryl | Sevin | Sevin, Bonide Fruit & Tree Spray, etc... |
| Pyrethroids | Talstar, Scimitar, others | Active ingredients end in “-thrin”; e.g. Bayer Advance Complete Insect Killer, Bonide Beetle Killer, etc... |
| Dinotefuran | Safari | Green Light Tree & Shrub Insect Control with Safari |
| Pryiproxyfen Buprofezin | Distance Talus | |
| Insecticidal Soap | M-Pede | Garden Safe Insecticidal Soap Insect Killer Bonide Insecticidal Soap Multipurpose Insect Control |
| Horticultural Oil | Many options | Bonide All Seasons Spray Oil |
| Acetamiprid | Tristar | Ortho Rose Pride Insect Killer |

Sources:

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Townsend, L. (March 2005). Euonymus Scale. University of Kentucky College of Agriculture.

Shetlar, David. (May 2002). Euonymus Scale. <http://entomology.osu.edu/bugdoc/Shetlar/factsheet/ornamental/EuonymusScale.pdf>

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