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W289-E IPM QuickFacts Series: Calico Scale

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Calico Scale

Eulecanium cerasorum



Host Plants

- Buckeye
- Crabapple
- Dogwood
- Elm
- Hackberry
- Hawthorn
- Honeylocust
- Magnolia
- Maple
- Oak
- Pear
- Redbud
- Sweetgum
- Tulip poplar
- Yellowwood
- Zelkova
- Many other trees

Description

Calico scale is a type of soft scale insect. Adult female calico scale are about the size of a pencil eraser, round, and mottled white and dark brown to black. They are named after the calico pattern on their shell. Adult males can look so different from females that identifying them as the same scale species can be difficult. Newly hatched crawlers are very small and start out a pinkish color, later turning yellow.

Life Cycle

In the spring, adult female calico scale swell as their underside becomes concave and fills with several hundred eggs. They turn brown and die just before egg hatch. Eggs hatch into crawlers that migrate up the trunk and onto foliage in the canopy of the host plant and even neighboring plants. Crawlers settle near leaf veins and begin feeding. Later in the season, they move back to the bark to overwinter as flattened, grayish nymphs. One generation is produced per season.

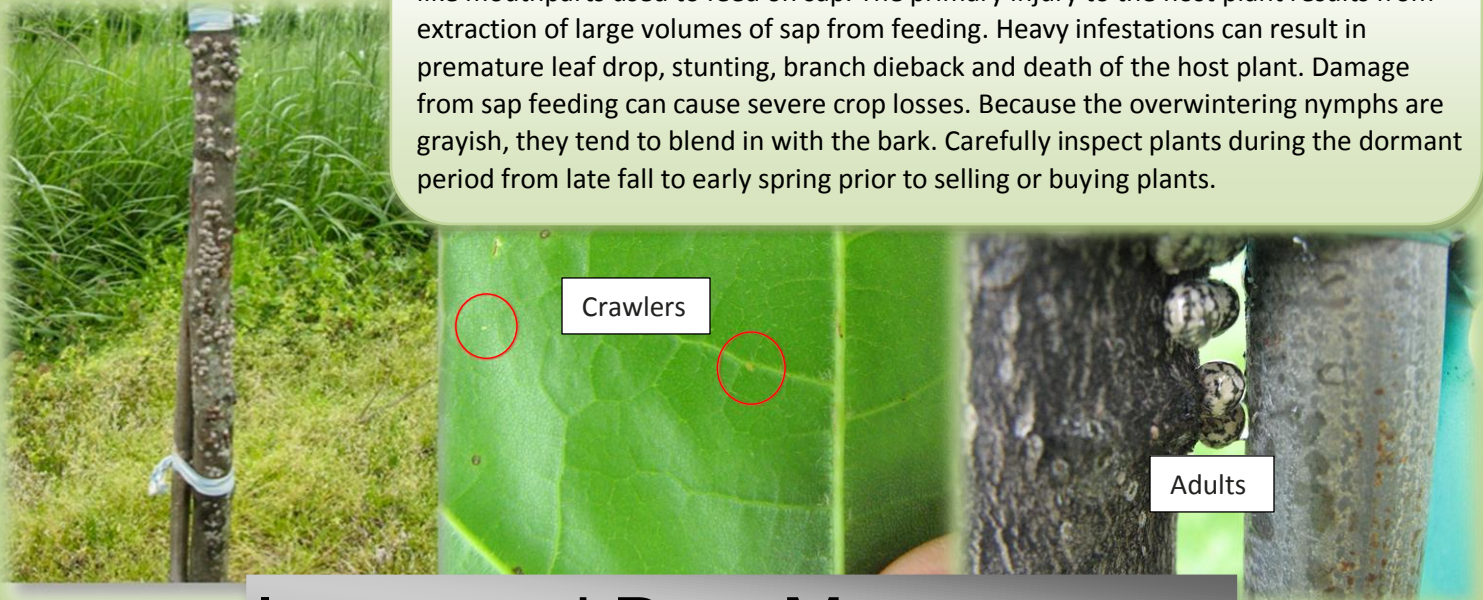
Monitoring

In April and May, wrap double-sided tape or electrical tape coated with a thin layer of petroleum jelly around the trunk (or branch) above swelling females in order to detect crawler movement. The presence or absence of crawlers can also be used to determine the effectiveness of insecticide applications targeting the adult female before eggs hatch. Look for scale-excreted plant fluids, called honeydew, on leaves and branches below the pests. Ant activity is also a good indicator of scale pests because ants feed on the honeydew produced by soft scale. Another indicator is black sooty mold resulting from a fungus that grows on the honeydew. Monitor downwind of existing infestations and check for scale on the branch collar, stem nodes and behind tree stakes. In May and June, look for crawlers on the undersides of leaves along the veins.



Damage Symptoms

Common symptoms include black sooty mold or the excreted plant carbohydrates (honeydew) on leaves or objects below. Calico scale insects have needle-like mouthparts used to feed on sap. The primary injury to the host plant results from extraction of large volumes of sap from feeding. Heavy infestations can result in premature leaf drop, stunting, branch dieback and death of the host plant. Damage from sap feeding can cause severe crop losses. Because the overwintering nymphs are grayish, they tend to blend in with the bark. Carefully inspect plants during the dormant period from late fall to early spring prior to selling or buying plants.



Integrated Pest Management

BIOLOGICAL CONTROL

Ladybird beetles (Coccinellidae) feed on eggs, crawlers, young nymphs and adults. Several parasitic wasp species and even birds can aid in controlling population outbreaks.

CULTURAL CONTROL

Keep trees growing vigorously by properly planting and providing balanced fertilization and adequate irrigation during drought periods. This promotes healthy plants and reduces attack by these and other pests.

CHEMICAL CONTROL

Please refer to http://eppserver.ag.utk.edu/redbook/sections/trees_flowers.htm for the most up-to-date recommendations.

Resources

Photo credits: Amy Fulcher, University of Tennessee

Klingeman, W., P. Lambdin, and F. Hale. 2002. Pests in the spotlight top tips for managing scales and mealybugs on ornamentals. Tennessee Green Times 34-37. <http://plantsciences.utk.edu/pdf/ManagingScalePests.pdf>

Potter, M. and D. Potter. Calico scale alert. Kentucky Pest News Newsletter (1128). http://www.uky.edu/Ag/kpn/kpn_07/pn070521.htm

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