INSECTS

Brian Kunkel Ornamental IPM Specialist

PINE NEEDLE SCALES are mature females, eggs or crawlers now. We are close in growing degree days to last year after recent cool weather. Spring crawler activity is between 63 - 1046 [498 peak] GDD₅₀. The photo right shows the pine needle scale cover, eggs and a crawler (upper left, slightly lighter in color than eggs). You see lots of eggs because we are early in the crawler activity period; thus it is a good time to scout for adult scale on susceptible trees. Crawlers are light purple to reddish until they settle and turn a light yellow with a dark longitudinal line down the center. Crawlers spread by crawling, the wind or birds. This scale prefers pines, especially Scotch and mugho, but may also be found on firs, Douglas-firs, and spruces and is found on the needles. Adults appear as white oyster-shaped scales and when populations are large, give plants a frosted appearance. Untreated heavily infested plants may have needles that turn yellow to brownish and twigs or branches may die. Females lay about 40 reddish eggs during the summer around 1622 - 2745 [2053 peak] GDD₅₀. The second generation of crawlers usually begins at 1791 GDD₅₀. Another closely related scale, Chionaspis heterophyllae (commonly called PINE SCALE or PINELEAF SCALE), is known to feed on pines predominately, but has been reported on fir and spruces. The species differences are only noticeable under a microscope.

Natural enemies such as the twice-stabbed lady beetle and parasitoids attack this scale species. Treatment options include: horticultural oil, insecticidal soap, dinotefuran, acetamiprid, pyriproxyfen, buprofezin, acephate, and synthetic pyrethroids such as deltamethrin. In some cases, such as on Christmas tree farms, removal of heavily infested trees reduces the likelihood of other nearby trees becoming infested.

DISEASES

Nancy Gregory Plant Diagnostician

HYDRANGEA has been reported with browning and dieback, and samples have come into the Plant Diagnostic Clinic in the past week. New growth came out early due to warm weather, and has been affected by the frost/freeze that we had in the area April 5, 6, and 10th. Plants will put out new growth when the weather warms. Affected growth could be pruned back, depending on the type of hydrangea, and whether it blooms on new wood or old.

DOWNY MILDEW is favored by cloudy conditions with periodic rain and high humidity, such as we have been having in the region. Downy mildew on coleus has been reported in Maryland, and downy mildew on basil has also been reported in Maryland in

(Continued)

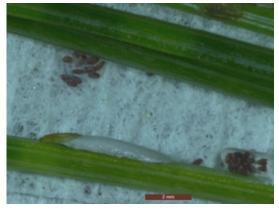
What's

Issue 7

Diseases, in general, are hot. Nancy had a tought time deciding which diseases to include this week.

Spot anthracnose has been observed on dogwood leaves and bracts. No control at this time.

Subscribers have reported huge quantities of eastern tent caterpillar webs on trees along the roadways, especially in New Jersey and in PA woodlands. Obviously no control necessary in those locations. But, for landscape trees, tear open webbing to allow natural enemies to enter and feed. B.t., Conserve or Dimilin (IGR) are options as chemical treatments if necessary.



Pine needle scale. Photo credit: N. Gregory and B. Kunkel

ornamentals/

on pests & practices covered in this newsletter, call your County Extension Office

Helpful numbers to know: Garden Line 831-8862 (for home gardeners only) New Castle County Extension 831-2506 730-4000 Kent County Extension 856-7303 Sussex County Extension View more pictures at http://sites.udel.edu/

UNIVERSITY OF DELAWARE

COOPERATIVE EXTENSION

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Diseases (Continued) potted plants. Watch tomato and potato plants for signs of late blight.

FIRE BLIGHT is also favored by the cool and wet conditions we have had recently. Do not prune apple and pear trees when branches are wet. Monitor for symptoms of fire blight and prune when weather is dry, using good sanitation SOP's.

ANTHRACNOSE is the name for spreading leaf spot that follows the veins and is favored by wet weather as leaves unfurl in the spring. Anthracnose fungi survive in the buds and twigs of trees such as sycamore, poplar, dogwood, maple, and others. Sycamore anthracnose is evident in the landscape now. Trees will put out a new flush of leaves, so leaf drop from anthracnose doesn't affect the long term health of trees. Specimen trees with a history of anthracnose may benefit from a preventative fungicide spray.



Fire blight of pear. Photo credit: N. Gregory



Hydrangea showing frost/freeze damage. Photo credit: M. Walford