

ORNAMENTALS

• H O T L I N E •

June 19, 2020

Issue 13

INSECTS

Brian Kunkel

Ornamental IPM Specialist

BAGWORM egg hatch is happening throughout the state (364 – 710 GDD50; peaks at 580); so look at host plants closely to see the early instars. Egg hatch is much later this year because we had a such a cool spring. Bagworms are caterpillars (Lepidoptera: *Pschidae*) preferring to feed on juniper, arborvitae, and Leyland cypress, but will eat a variety of other deciduous and coniferous plants. First instars feed in the “dunce cap” stage, getting its name because the bag is carried in an upright position relative to the caterpillar. Scout for this life stage throughout June. There is one bagworm generation per year, but egg hatch typically occurs over three or four weeks. Smaller bagworms are more susceptible to products do less damage to generalist arthropod predators.

Larvae feed 519 – 3041 GDD50 (1453 peak) or when *Viburnum dentatum* is in full bloom and begin to pupate around mid-August to early September. Search plants closely when looking for this stage and be sure to search interior sections of trees. Early instar has the ‘dunce-cap’ appearance whereas older larvae have bags that hang down. Hatchlings disperse by ballooning on the wind to nearby plants so be sure to scout plants near plants that were infested last year.

Applications in mid- to late-June target both early and late hatching larvae and provides enough control often with little damage. The amount of damage caused by small bagworms can vary depending on their ability to disperse away from their hatch site and the quantity of early instars. Scout and monitor trees of

(continued)

DISEASES

Jill Pollok

Plant Diagnostician

NEEDLECAST DISEASES on evergreen trees in the landscape and on Christmas tree farms can lead to death and are caused by fungi very specific to their host trees. Blue spruce is affected by *Rhizosphaera* needlecast, causing needle drop and thinning of inner and lower branches. Douglas fir has suffered from needlecast caused by the fungus *Rhabdocline*, although there are some cultivars with resistance. Recently, swiss needlecast caused by the fungus *Phaeocryptopus* has become more common, and all cultivars of Douglas fir are susceptible. Swiss needlecast symptoms include brown tips on second- and third-year needles on lower portions of trees, causing trees to appear off-color from a distance. Wind born spores infect newly expanding needles during wet weather. Apply fungicides when new needles are ¾

(continued)

What's Hot!

Japanese maple scale are in the egg stage or may have crawlers active at this point --scouting with double-sided tape around infestations helps monitor crawler activity.

Many soft scale species can have crawlers active at this time...cottony camellia/taxus scale, fletcher scale, oak lecanium scale, European fruit lecanium scale, Indian wax scale - to name a few.....

Emerald ash borers are flying.



Bagworm hatching from eggs in bag. Photo credit: T. Wootten

For more information

on pests and 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
Kent County Extension	730-4000
Sussex County Extension	856-7303

View more photos at <http://extension.udel.edu.ornamentals/>

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COOPERATIVE EXTENSION

Insects (continued)

concern to be sure to control bagworms at an early stage when most have hatched.

Physically removing bagworms is one method of control; however, this can get too labor intensive or impractical depending on the size of the plant or population. Companion plants encourage parasitoids to remain in the area to attack bagworm pupae. Pesticide applications targeting early instars are generally more effective than targeting larger bagworms. Products available for control include Acelepryn, Dipel, Confirm, Orthene, Tempo, Permethrin Pro, or other pyrethroids. Dinotefuran and clothianidin (less than dinotefuran) have demonstrated some bagworm mortality when applied as a soil application.

Diseases (continued)

of an inch (late April) and again ten days later. Up to four applications may be needed. Spray time frames are almost over now, but a late spray could still be applied. Fruiting bodies appear along rows of stomates on undersides of needles, and spores are produced the following spring on infected needles. Mow with a bag attached to remove affected needles. It will take two years of protective fungicide treatments for good disease control. Recommended fungicides include chlorothalonil with good coverage and a spreader/sticker added. New systemic fungicides are much more expensive and not more effective. Chlorothalonil can affect the color of blue spruce, so mancozeb may be another option for spruce.

Editor: Susan Barton
Extension Horticulturist



UNIVERSITY OF DELAWARE
COOPERATIVE
EXTENSION

**GROWING
DEGREE DAYS**
AS OF June 16, 2020

- Swarthmore College (Delaware County, PA) = 790 ('19 = 1096)
- Fischer Greenhouse (New Castle County, DE) = 741 ('19 = 1134)
- Research & Education Center - Gorgetown (Sussex County, DE) = 860 ('19 = 1297)



Duncecap stage of bagworm Photo credit: T. Wootten



Rhabdochloa on douglas fir. Photo credit: N. Gregory



Swiss needle cast on douglas fir. Photo credit: N. Gregory



Adult bagworm Photo credit: D. Quigley