

ORNAMENTALS



• H O T L I N E •

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Issue 23

INSECTS

Brian Kunkel
Ornamental IPM Specialist

SPRUCE SPIDER MITES: Spruce spider mite feeding typically occurs heaviest during autumn (which was stressful last year) and damage is seen the following summer after trees are stressed from conditions of the current growing season. The end of spring and much of this summer were drier than recent years; consequently, trees experiencing drought stress are now showing spruce spider mite damage from last fall. Wait for temperatures to cool and spruce spider mite activity feeding to resume before treating. But, scout susceptible trees and shrubs now.

Spruce spider mites feed on fir, arborvitae, spruce, Douglas-fir, and other conifers, feeding on older foliage first. Spruce spider mites are olive-dark red with reddish-yellow legs and under a microscope, two reddish eye spots can be seen along with a pale stripe down the back. Their eggs are orange with ridges along the sides of the sphere and have a "thread" at their top. Their entire life-cycle may take only 12-19 days in optimum conditions. Spruce spider mites nymphs start feeding in the fall around 2301 - 3957 [3094 peak] and mature to adults, which feed from 2694 - 3957 [3143 peak] GDD50. Our range and peak for fall mite activity for nymphs may be slightly later due to our hot weather into September; thus the need for scouting. Mite feeding usually continues until there is a hard frost. In the summer, damage appears as bleaching, yellowing, stippling or bronzing of the older needles.

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DISEASES

Jill Pollok
Plant Diagnostician

FOLIAR NEMATODE INFECTIONS (*Aphelenchoides* spp.) are showing up in herbaceous perennials right now, especially in fern and Huechera. Foliar nematodes are microscopic roundworms that have a large host range of ornamental plants grown in greenhouses, nurseries, and in the landscape. Early in the season during wet weather, these nematodes migrate up the plant in a water film and enter leaves through natural plant openings (stomata). They feed on leaf tissue and reproduce within the leaves. The characteristic symptom of a foliar nematode infection is vein-delimited dark leaf lesions, as the nematodes aren't able to cross main leaf veins from inside the leaf. Lesions eventually become necrotic. Infection is favored by dew, rain, or irrigation. Splashing water during irrigation allows nematodes to move from plant to plant. The nematodes can swim out of stomata and enter new areas on the leaf during wet periods. In monocots, leaf damage appears in stripes, following the veins.

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What's Hot!

Search vehicles for hitchhiking SLF adults.

Caterpillars with stinging hairs are feeding or wandering to pupation locations.

TURF

John Emerson
Nutrient Management Agent

FALL SEEDING. Cooler temperatures are coming so it is time for fall cultural practices (aerification, verti-cutting, and seeding). Now is the time to start seeding as it allows for faster germination, and a longer window of maturation in our last stretch of warm weather, allowing plants to be well established before winter. Select fresh seed because germination % will decline with age. Select cultivars that fit your site, level of expectation and future maintenance plans. Be aware of "weed seed" % on the label. Zero is ideal, but never select a bag that has more than 0.5% and no "noxious weeds" present. Seeding has a higher success rate when conditions are dry. If there is considerable leaf moisture, the seeds can stick to the leaves, or get hung up in the thatch of existing plants. Aerify first, then seed with a verti-seeder. Aerifier holes create a cavity for seed and the verti-seeder make an extra channel for seed, as well as break up the aerifier cores. Breaking up the cores helps improve seed to soil contact, improving germination.

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/>

COOPERATIVE EXTENSION

Diseases (continued)

In dicots, symptoms can appear patchy with angular lesions. Many hosts are susceptible, including fern, Huerchera, peony, begonia, anemone, African violet, geranium, baptisia, orchid, anthurium, and many more. Azaleas are also susceptible. If you suspect an infection, cut up leaf lesions in a few drops of water in a transparent dish. Wait 4-24 hours and check with a hand lens or microscope for nematodes swimming in the water (you might have to play with lighting and a dark background). The best control options are to discard infected plants, limit overhead watering, and space plants apart to shorten drying time and limit irrigation splash. In the landscape, symptoms are usually not of much concern. Prune and dispose of affected shoots.

Insects (continued)

Monitoring with a clipboard and a white sheet of paper. The mites will be the size of the period at the end of the sentence. Watch for predatory mites and small lady beetles; both are predators of the spruce spider mite and should be conserved. Miticides available for control include hexythiazox (Hexygon, Savy), bifenthrin (Talstar), abamectin (Avid), spiromesifin (Forbid) and others. Broad spectrum insecticides such as bifenthrin (Talstar) can cause mite 'resurgences' because natural enemies are killed; thus mite eggs are able to hatch without threat of predators.



Foliar nematode damage on cinnamon fern. Photo credit: N. Gregory

Editor: Susan Barton
Extension Horticulturist



**GROWING
DEGREE DAYS**

AS OF September 1, 2020

- Swarthmore College (Delaware County, PA) 2952 ('19 = 3163)
- Fischer Greenhouse (New Castle County, DE) = 2868 ('19 = 3392)
- Research & Education Center - Georgetown (Sussex County, DE) = 3066 ('19 = 3395)



Core of soil from turf. Photo credit: J. Emerson



Spruce spider mite. Photo credit: T. Wooten



Foliar nematode damage on sensitive fern. Photo credit: N. Gregory



Spruce spider mite. Photo credit: T. Wooten