

INSECTS

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Ornamental IPM Specialist

WHITE GRUBS may be found feeding on grass roots or in flower beds now so scout areas with previous problems. Rainfall has been sufficient for scarab eggs to develop and hatch and there are many scarabs that contribute to the white grub complex. Japanese beetle numbers were high in some areas of Delaware and other scarabs that contribute to the white grub complex include: masked chafers, green June Beetles, oriental beetles, and *Phyllophaga* spp.

Damage from white grub feeding often starts mid-August to early September but varies depending on conditions. Areas of turf with high grub populations may appear greasy or drought-stricken due to root feeding. Investigate lawns that feel spongy underfoot for white grubs. Scout sunny locations, irrigated turf appearing drought-stressed, turf with grub history, and locations with high adult activity. A knife, shovel, or standard golf cup-cutter can be used to sample a square foot of turf. White grubs are found at the soil-thatch interface and 8 - 10 grubs or more per square foot should be treated.

White grubs are attacked by predators, parasitoids, entomopathogenic nematodes, and other entomopathogens. Traditional rescue products include products such as Sevin or one of the many pyrethroids. Imidacloprid and other neonicotinoids are also frequently used as a curative product with some success if applied before mid-September. Imidacloprid can also be applied to areas with historical grub problems during the middle of June until mid-July as a preventative measure. Chlorantraniliprole is a relatively new product that may be applied as early as May. These preventative treatments target scarab larvae when they are smallest and easiest to control.

DISEASES

Nancy Gregory Plant Diagnostician

MISCANTHUS FUNGAL BLIGHT. The fungus Leptosphaeria (Stagonospora) affects these popular ornamental grass species. Signs of infection include purplish or rust colored spots and streaks on the leaves, especially on the white sections of the variegated leaves. Spots gradually coalesce into large brown areas, resulting in the death of most or all of the foliage. The symptoms can give the grass a rusty appearance and therefore miscanthus fungal blight is commonly mistaken for a rust disease. Prune out the worst affected foliage, usually fungicides are not necessary.

DOLLAR SPOT. Active this season, dollar spot appears as white or (Continued)

UNIVERSITY OF DELAWARE

Issue 20

What's Hot!

Tomato leaf spot diseases are very prevalent on backyard tomatoes this season, favored by humidity and rainfall. Fungal leafspots and bacterial leaf spots require slightly different management strategies. See the fact sheet at:

http://extension.udel.edu/blog/leaf-spotdiseases-in-garden-tomatoes/

On July 27, 2017 PBI-Gordon Corporation announced a nationwide recall of all Azatrol products, specifically Gordon's Azatrol EC insecticide and Azatrol Hydro Botanical Insecticide. Both of these products can be identified by the EPA Registration Number 2217-836. PBI Gordon initiated this national recall in part due to the result of a June 2017 decision by Oregon Department of Agriculture to issue a Stop Sale, Use, or Removal (SSUR) of these products after (Continued)



Septoria leaf spot on tomato. Photo credit: N. Gregory

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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 |
| Kent County Extension | 730-4000 |
| Sussex County Extension | 856-7303 |
| View more pictures at http://ex edu/ornamentals/archive/ | tension.udel. |

COOPERATIVE EXTENSION

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Diseases (Continued)

tan spots of dead turf about the size of a silver dollar. The fungus, Sclerotinia homoeocarpa, survives in the thickwalled crusts of mycelium and therefore can be carried by wind, water, or equipment. Affected areas initially show yellow-green blotches, progressing to a light straw color with a reddish-brown margin. The disease will begin to appear in early to late summer, reaching its peak activity in high humidity and high temperatures. Dollar spot is more severe in nitrogen deficient turf, so late spring nitrogenfertilizer applications can sometimes be used to help mitigate dollar spot severity.

> Editor: Susan Barton Extension Horticulturist

What's Hot (Continued)

- discovering the presence of five synthetic pesticide active ingredients
- that were not listed on the labels of these two registered organic
 - pesticide products. While the five conventional active ingredients
- found in these two products can be used on a variety of ornamental,
- food, and feed crops safely, because they were not identified on the
- labels of the Azatrol products this constitutes misbranded and
- adulterated product. The non-declared conventional pesticide active
 ingredients found in the two organic pesticide products are:
- quantifiable levels of permethrin, bifenthrin, cypermethrin,
- cyfluthrin, and chlorpyrifos. Malathion was not detected at a
- quantifiable level. PBI-
- Gordon is asking
- distributors to return
- any unused Azatrol in
- their inventories, as well
- as any unused Azatrol
- returned to distributors
- by their customers.
- Dollar spot on turfgrass. Photo credit: G.Clouser



Swarthmore College (Delaware County, PA) = 2165 ('16 = 2159) rischer Greenhouse (New Castle County) = 2171 ('16 = 2167) Fischer Greenhouse Research & Educ. Center, Georgetown (Sussex County) = 2413 ('16 = 2267) AS OF August 1, 2017



White grubs. Photo credit: UGA entomology; Bugwood.com