

Commercial Horticulture

March 28, 2014

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IPMnet

**Integrated Pest
Management for
Commercial Horticulture**

extension.umd.edu/ipm

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conferences, archived
reports, articles, and
fact sheets**

If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems found in the landscape or nursery to sklick@umd.edu

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Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)

Weed of the Week: Chuck Schuster (Extension Educator, Montgomery County)

Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)

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White Pine Weevil

By: Stanton Gill

White pine is making a small comeback in the nursery trade. With the increase in planting of white pine, we are seeing additional damage showing up in nurseries from white pine weevil. The white pine weevil often spills over and damages Colorado blue and Serbian spruces. This weevil is one of the early active pests in the growing season. Adults overwinter and crawl or fly to new growth with the first warm weather. In many years, this activity occurs in mid-March, but with the extended cold AND LATE SNOW it will probably be April before adult flight occurs this year.

From April through early May, females mate and deposit one to five eggs in feeding wounds. Hundreds of eggs may be deposited in one terminal leader. The eggs hatch in about seven days. In a heavy infestation, larvae feed side by side in a ring encircling the stem. They feed downward on the inner bark of the leader. Larvae reach maturity in mid- to late July and pupate in the infested terminal.

In April, look for glistening droplets of resin on terminal leaders of the host plant. The resin is the result of punctures made by adults in the process of feeding and cutting egg-laying sites.

Injury to eastern white pine and some species of spruce is usually confined to the previous year's terminal leader. Damage on Scots pine and Colorado blue and Serbian spruces often extends downward through two or three year's

growth. The good news is infested trees are seldom killed. Most damage is done by the larval stage. Look for larvae just under the bark of infested terminals from May through July. Larvae chew and burrow completely around the stem causing the current year's growth to wilt, droop, and eventually die.

Resin droplets on the leader in early spring may be an indication that adults are feeding. Directed sprays, applied when you first see the resin droplets, to the tip growth with a material such as Oynx (bifenthrin) will give good control. The other choice would be to use the insect growth regulator Dimilin (diflubenzuron) for white pine weevil control. It has less impact on beneficial organisms and it is fairly effective.



White pine weevil damage on spruce, larva, and adult

Vehicle Identification for Pesticide Business Name and Nutrient Management for Turfgrass By: Jo Mercer, Nutrient Management Program, Maryland Department of Agriculture

Vehicle Identification Requirement. The pesticide business name and license number shall appear on each motor vehicle transporting pesticides or devices used in pest control. The license number, which shall be preceded by the abbreviation for the Maryland Department of Agriculture, namely, "MDA", and the business name, shall be:

- (1) In bold print not less than 2 inches high; and
- (2) Displayed on both sides of the vehicle.

NOTE: The fertilizer business licenses number will be different from the pesticide number and will start with the letter "F," followed by 4 digits.

Sawfly Control

With all of the bush type roses being planted in commercial landscape there is plenty of food sources for the rose sawfly, *Arge ochropus*. We received an inquiry as to whether imidacloprid applied as a soil drench will control rose sawfly. Imidacloprid has sawfly listed on the label, but we have not seen efficacy data on the effectiveness of this material for control of rose sawfly. Researchers in Ohio and Colorado report they obtained good control of European pine sawfly control, hawthorn leafminer sawfly, and elm leafminer sawfly using imidacloprid. A soil application in early April should provide protection by the time sawfly activity starts in May and June. This should also provide protection from Japanese beetle adults feeding on foliage in mid to late June.



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Dusky birch sawfly larva

Beneficial of the Week

By: Paula Shrewsbury

What was first? A parasitic Ichneumonid wasp

The unusually cold weather seems to be slowing down the start of insect activity this season. I am not sure if it is because I am not going outside in the cold or the insects just aren't active that much. It is likely a combination of the two. I did see my first natural enemy this week at the light outside my house. It was a large parasitic wasp in the family Ichneumonidae and subfamily Ophioninae. Wasps in this group are usually large (~1- 2" in length), slender with very narrow "waists" (where the abdomen and thorax meet), have long thin antennae and legs, and are an orange brown color. Ophioninae are usually nocturnal and attracted to lights. Adult wasps feed on nectar from plants. Most Ophioninae wasps parasitize caterpillars, many of which are herbivores of ornamentals and turf. The wasp I saw was likely *Ophion flavidus* which is a parasitoid of armyworms, key pests in turfgrass systems. Ophions have a very interesting life cycle and are referred to as solitary koinobiont endoparasitoids. In translation, this means that the adult wasp oviposits a single egg into a caterpillar, the newly emerged larva hangs out inside the body of the caterpillar without killing the caterpillar. As the caterpillar reaches its later immature stages and begins to pupate, the wasp larva then proceeds to consume all the body tissue and fluids of its host, killing the caterpillar. The wasp larva spins its cocoon while inside the cocoon of its host. The adult wasp then emerges from the cocoons and starts the cycle all over again. Ophion wasps are one of numerous groups of parasitic wasps that help to keep armyworms and other caterpillars from causing economic damage to ornamental plants and turf.



Note the typical characteristics of the Ophion wasp adult. It has long thin antennae and legs, and the very narrow "waist".
Photo: Johnny N. Dell, Bugwood.org

Weed Management

Is spring ready to start yet? While the calendar tells us we should have started, soil temperatures and even the recent snow tell us otherwise. Applicators can rest assured that pre-emergent grass herbicides can still be applied at this point. Understanding crabgrass control is an important part of spring weed control. This is also a good year to consider using split applications to lengthen the effectiveness of the products considered for use.

Products containing dithiopyr (Dimension) prodiamine (Barricade) and pendimethalin (Pre-M) inhibit shoot and root development. Pendimethalin is also an early post emergent product that inhibits certain steps in plant cell division. Both of these products can be used on established turf, but not sites that will be seeded with new seed. Siduron (Tupersan) is the only product that can be used in a turf setting when overseeding is considered. Time the application when soil temperatures reach 55-60 °F and there is adequate moisture to activate the process. We have had plenty of moisture, but soil temperatures are only slowly increasing. The forecast for the next week is looking very promising. It is important to remember that any soil disturbance after application will decrease the effectiveness as the barrier will be damaged. If site aeration is desired, do it several weeks prior to the herbicide application. Moisture is available and rainfall has been timely, but be aware that rain events which produce heavy downpours will decrease some of the positive desired results. Dithiopyr also provides early post-emergent control of crabgrass and some other annual grasses which allows for applications to be done over a longer period of time to have good results. Control of crabgrass is not only achieved through herbicide applications. Good soil fertility, proper mowing height, and proper pH are other components in crabgrass management.

Plant of the Week

By: Ginny Rosenkranz

Despite the long cold winter, there are still signs of spring in the landscape. ‘Tete a Tete’ daffodils (narcissi) are among the first to emerge from the chilly soil and snow to open their golden trumpets and announce spring. As the daffodil bulbs are poisonous to voles, squirrels and other herbivores, once they have been planted in a full sun to part shade location with good soil drainage, they should brighten the spring landscape for at least a decade before needing to be separated and thinned out. ‘Tete a Tete’ daffodils grow as short at 5 inches in extreme cold weather to 8 inches high in warmer spring temperatures. The miniature flowers are a butter yellow with a long narrow center trumpet surrounded by slightly reflexed petals. They often emerge in bouquets of 2-3 flowers per bulb, creating a fuller flower garden from the first year. ‘Tete a Tete’ daffodils can be planted in containers, window boxes or in formal or informal planting beds in the USDA zone 4-8. They should be planted to take advantage of their tendency to turn toward and follow the sun from morning till late afternoon. Like most of the narcissi family, they prefer slightly acidic, well drained soils and should be planted about 4-5 inches into the soil in autumn. After the flowers bloom, leave the foliage to turn yellow before cutting both the leaves and stems back to the ground. The perfect time to dig up and separate the bulbs is when the foliage turns yellow, as it is easy to find the bulbs, then plant again into the landscape. It is often a good idea to plant another boarder perennial plant in front or just behind the ‘Tete a Tete’ daffodil to camouflage or hide the fading foliage. There are no serious insect or disease that bother the ‘Tete a Tete’ daffodil.



Daffodil ‘Tete a Tete’
Photo: Ginny Rosenkranz, UMD

Degree Days (As of March 27)

	2014	2013	2012
Baltimore, MD (BWI)	13	7	192
Dulles Airport	8	18	212
Frostburg, MD	2	14	120
Martinsburg, WV	18	12	181
National Arboretum	38	23	254
Reagan National	38	23	254
Salisbury	47	42	224

To check degree day (DD) accumulations in your local area go to:

<http://www.weather.com/outdoors/agriculture/growing-degree-days/USMD0100>

Note: degree days reported in this newsletter for various pests use the Weather.com web site, a base temperature of 50 °F, a start date of January 1st, and the date of monitoring as the end date.

For information on using degree days, see [Paula Shrewsbury’s article](#).

Upcoming Conferences

2014 Interstate Ornamental Plant Management Conference

April 7, 2014

Location: Maritime Institute, Linthicum Heights, MD

Contact: Avis Koeiman, 301-405-3913

Maryland Arborist Association Pest Walk

May 28, 2014 (afternoon to early evening)

Location: Stevenson University

Procrastinators' Pesticide Applicators Program

June 6, 2014

Location: Montgomery County Extension Office,

Derwood, MD

Procrastinators' Pesticide Applicators Program - Eastern Shore

June 13, 2014

Location: Wye Research and Education Center,

Queenstown, MD

MGGA Field Day

June 19, 2014 (afternoon through early evening)

Location: Tidal Creek Growers, Davidsonville, MD

MNLA Field Day

June 26, 2014

Location: Roseland Nurseries, Sudlersville, MD

Greenhouse Biocontrol Conference

August 6, 2014

Location: Maritime Institute, Linthicum, MD

Stormwater Management Program

August 20 and 21, 2014

TWO Locations:

August 20 - Montgomery County Extension Office,
Derwood, MD

August 21 - Robinson Nature Center, Columbia, MD

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Photos are by Suzanne Klick or Stanton Gill unless stated otherwise.

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