UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture — November 13, 2020

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Announcements

Pest Predictive Calendar

IPMnet
Integrated Pest Management for Commercial Horticulture

extension.umd.edu/ipm

If you work for a commercial horticultural business in the area, you can report insect, disease, weed or cultural plant problems **(include location and insect stage)** found in the landscape or nursery to sgill@umd.edu

Coordinator Weekly IPM Report:
Stanton Gill, Extension Specialist, IPM and Entomology for Nursery, Greenhouse and Managed Landscapes, sgill@umd.edu. 410-868-9400 (cell)

Regular Contributors:
Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)
Weed of the Week: Chuck Schuster (Retired Extension Educator)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
Design, Layout and Editing: Suzanne Klick (Technician, CMREC)

Horticultural Oil in November

By: Stanton Gill

It has been unusually warm this November. Early this week, we put out an announcement that it was a good time to apply 2– 4% horticultural oil. We need to add some precautions in using horticultural oil. Back in 1990 and 1991, we did extensive testing of horticultural oils. We published the results in a refereed journal.

One thing we found is that firs, spruces, and sugar maples were all adversely impacted by oil applications above 2% rates. A 2% oil rate or above actually killed fir trees. Even 1% oil turned blue spruce green but, fortunately, did not burn the foliage. We also have had reports of injury on azaleas at 4 % rates but not at 1 – 3 % rates., as long as the humidity is low and the oil can evaporate off the foliage rapidly.

Rick Snell called in to report that he has seen damage on yellowwood, Amelanchier, and Stryax from 4% horticulture applications. He felt that yellowwood and Styrax that had 4 % oil applied were more susceptible to damage from ambrosia beetles the following season. He generally uses 2 - 3% without problems on these plants.

Generally, for the November application, you want to make the 2 -3% rate applications after the plant has gone dormant. We had cold weather for 10 days in late October so most plants have started the dormancy phase. We need the temperatures to be generally about 50 – 55 °F during the day and not go

down to freezing at night for most efficacious results on the insects.

Our national entomological society meetings are being over the next 2 weeks, online. I just sat through an online presentation by Brett Blaauw of University of Georgia and Clemson University. Brett presented on control of the armored scale, San Jose scale in Georgia on peach trees. In their study, they found the amount of coverage is critical for efficacy of horticultural oil. This is no surprise. They found at 50 gallons per acre rate that the oil applied was not overly efficacious. At 100 gallons per acre the oil applications was pretty thorough and effective. At 200 gallons per acre, the coverage improved significantly over both the 50 gallon and 100 gallon per acre rate. Increasing to 400 gallon per acre did not really provide any additional improvement in control. In all cases they found just oil along will not completely take out this armored scale. It needs to be combined with insect growth regulators (IGRs) applied at crawler periods during the season. A combo approach is the best approach.

Red-shouldered Bug, Goldenrain Tree Bug or Soapberry Bug

By: Stanton Gill

Scott Diffenderfer, Mead Tree and Turf, sent in an interesting bug picture. It shows the nymph stage of *Jadera haematoloma.* This bug has at least three common names - red-shouldered bug, goldenrain-tree bug, or soapberry bug. The nymphs were found on a Sophora in Rockville. Much like their close relative, the boxelder bug, this bug overwinters as adults and may show up in your customers' houses this fall. The bug is flattened on the back and about 1/2 inch long and 1/3 inch wide. They are black, bluish-black or brownish-black with red coloring on the eyes, eye orbits, shoulders, and borders of the abdomen. The segment behind the eyes has three red lines running lengthwise. Adults and nymphs, during the growing season, feed by sucking the sap from seeds, flowers, leaves, and fruits of trees including plum, cherry, apple, peach, grape, chinaberry, western soapberry, ash, maple, and golden raintree. There is nothing you, or your customers, need to do for control other than use a portable vacuum to vac them up and dispose of them when they move into the house.

Red-shouldered bug nymphs are clustered at the base of a Sophora tree
Photo: Scott Diffenderfer, Mead Tree and Turf

Plants Blooming Out of Season

Linda Barker, Halcyon, reported that witchhazel 'Arnold Promise' is blooming along with lilacs again this fall. She noted that 'Arnold's Promise' usually blooms in February. We have also seen blooms on crabapples and flowers of common blue violets popping up. In the fall of 2018, we also received sporadic reports of plants blooming out of season. This fall's extended warm weather seems be doing the same thing again. Be prepared next spring to see some plants with few or no blooms depending on how many flowers open this fall.

Witchhazel 'Arnold's Promise' is blooming now, but usually blooms in February
Photo: Linda Barker, Halycyon

Pruning Peaches This Winter

By: Stanton Gill

With Covid-19, many of your customers planted peach and nectarine trees. They will be asking you to help prune them this winter. Below is information on issues with pruning when Leucostoma cankers are present.

From: Norm Lalancette, Extension Specialist in Tree Fruit Pathology, Rutgers Agricultural Research and Extension Center

Yes, Leucostoma is present in the Mid-Atlantic region. Many large perennial cankers on branches or scaffold limbs are the result of infections by the Leucostoma pathogen. These cankers weaken the branch, resulting in breakage when under the weight stress from a load of fruit. Orchards with many cankers can start to look a bit shabby when they start losing their limbs.

The pathogen only invades plant tissue through wounds or dead tissue. Also, the pathogen is more active than the tree at cooler temperatures. So, if a grower prunes too early (e.g., Feb-March), then infection can occur through the wounds and the plant will not be able to wall-off the infection (form callus). When warm weather arrives, the callus will form but too late – the pathogen is already present. When cool weather arrives, the pathogen will once again grow, enlarging the canker. Subsequent warm weather once again allows the tree to produce callus … and so on. This is why Leucostoma (cytospora) canker is also called "Perennial Canker".

So, by pruning during warm, dry weather, the tree will be able to react to the infections. At 41F, it takes 78 days for a pruning cut to fully heal, while at 59F or 68F, it takes only 26 or 19 days to heal. Finally, pruning is only one factor that can lead to infection. Insect injury, cold injury (southwest injury), blossom blight cankers, rodent damage, etc … can result in wounds that can become infected.

Fungicide sprays are generally not applied for control of leucostoma canker. However, if one prunes just prior to or during bloom, the fungicides applied for blossom blight probably help protect the pruning cuts from infection. An earlier bud-swell spray for leaf curl would probably also provide some protection. I haven't seen any data on this, but it makes sense.

Fleas and Ticks

By: Stanton Gill

With the Covid-19 pandemic, there has been a dramatic increase in people adopting and purchasing cats and dogs. Cats and dogs that wander about outdoors tend to pick up ticks and fleas. The University of Maryland Extension just had a Cornerstone online seminar this week in which we had a keynote speaker who is a nationally known veterinarian, Dr. Cheryl Stroud. In her presentation, she covered an interesting disease call *Bartonella quintana.* During World War 1 it was given the common name of trench fever.

Symptoms and Signs Humans are the only reservoir of this *Bartonella* infection. *B. quintana* is transmitted to humans when feces from infected lice, deer tick, and fleas, are rubbed into abraded skin or the conjunctiva.

Trench fever is endemic in Mexico, Tunisia, Eritrea, Poland, and the former Soviet Union. It is reappearing, especially in the homeless populations, in the US. Since fleas and ticks have been found to carry this disease the concern is that cat and dog owners need to be aware of a potential problem and check their animals for these parasites.

After a 14- to 30-day incubation period, onset of trench fever is sudden, with fever, weakness, dizziness, headache (with pain behind the eyes), conjunctival injection, and severe back and leg (shin) pains. Fever may reach 40.5 ° C (104.9 °F) and persist for 5 to 6 days. In about half the cases, fever recurs 1 to 8 times at 5- to 6-day intervals. Relapses are common and have occurred up to 10 years after the initial attack.

Get a Diagnosis

Number one is working closely with your physician if you show symptoms. Work with your vet if your animal shows symptoms**.**

- Blood cultures are used in the diagnosis process.
- Serologic tests and polymerase chain reaction (PCR) testing

The organism is identified by blood culture, although growth may take 1 to 4 weeks.

Serologic testing is available and can provide support for the diagnosis. High titers of IgG antibodies should trigger evaluation for endocarditis PCR testing of blood or tissue samples can be done.

I asked my friendly local medical doctor to comment on this disease. Here are his comments: Unless the patient were to volunteer that they had recently adopted a dog or cat, or the doctor were to ask, "Oh, by the way, have you recently adopted a dog or cat?", I think given the wide extent of COVID and flu at present, the diagnosis of *Bartonella quintana* would almost always be missed. The good news is that the organism is highly sensitive to most common antibiotics, so the baffled doctor might still "accidentally" cure the person with a Z-pack or doxycycline given just because they weren't feeling better.

Damage to Trunks of Trees

By: Stanton Gill

I received in this email from Pam Phillips, PLMS Inc., on Monday: "On the National Institutes of Health campus in Bethesda, we are proud to be the home of a state champion golden larch tree native to China: *Pseudolarix amabilis*. This is our only larch tree on site. In performing some tree inspections, we have found boring activity and are very concerned with the health of the tree at this time. We would like to save this tree from any further infestation and damage and are requesting your expertise."

Yellow-bellied sapsucker damage on golden larch
Photo: Pam Phillips, PLMS Inc.

My Response:
What they are seeing is sapsucker damage to the larch. We reported back in mid-September that sapsuckers were active and have been hitting several species of trees this fall. Larch and Deodora cypress appear to be two of their favorites to peck on. If you look at the holes, besides being in somewhat of a line, they are funnel-shaped with the wide end on the outer part of the bark and the small center part of the hole.

Turf Damage

Email From William Miller:

In recent years, I've had some inexplicable digging going on, but I was never able to identify the digger. You mentioned recently in the TPM/IPM report that the consensus was or there was evidence that it was raccoon behavior. You can add red fox to your list of perpetrators. The two links below show a red fox digging in a neighbor's front yard. The time stamps are early in the morning of 10-14-20. The fox is almost out of the frame, but it's still pretty clear that it's digging and eating. By the way, noting the bird feeders, I thought to ask. Suet was not involved.

https://ring.com/share/514adcf0-ceb5-4f4b-9695-77d771f0c630
https://ring.com/share/a883991d-0c68-47d3-b421-9b7919c526e5

Fall Management of Flowering Cherry Shot Hole

D.L. Clement, Extension Specialist

We have experienced severe flowering cherry defoliation throughout this 2020 growing season. The symptoms included leaves with many holes, yellowing leaves, and early defoliation. The two pathogens that commonly cause these symptoms on flowering cherries are caused by the bacterium, *Xanthomonas pruni*, and the fungus, *Blumeriella jaapii*.

Management strategies for the fall should include collection and removal of old infected leaves to reduce overwintering pathogens. If removal isn't possible, then thorough mulching of the leaves with lawn mowers can speed up leaf decomposition. On high value trees, or trees with a history of severe foliar disease, the use of fungicides may help manage the fungal disease. A fall treatment with a copper products should help reduce the survival of overwintering fungal spores or bacterial pathogens. Prompt spring treatments with fungicide products at bud break should reduce disease severity. Be aware however, that these treatments will need to be applied on regular intervals during rainy periods. Also remember that these treatments only provide preventative disease management, or slow down the rate of disease development and will not cure already infected leaves.

Fungicides for landscapes include Orkestra Intrinsic, Eagle (myclobutanil), Protect DF (mancozeb) and Cleary's 3336 (thiophanate methyl). Be Sure to Check all Label Instructions. Also, note that commercial orchards have different fungicide labels for edible cherries and these are not interchangeable with landscape usages.

Deer Damage

Deer have been feasting on these mums
Photo: Mark Schlossberg, ProLawn Plus, Inc.

Spotted Lanternfly

Continue to keep an eye out for spotted lanternfly eggs on trees this fall. Jay Chaffin, J&J Landscape Solutions, found adults on November 6 in Conowingo (Cecil County).

If you see eggs on trees, please report your finding to DontBug.MD@ maryland.gov.

Spotted lanternfly adults were active in Cecil County on November 6, 2020 Photo: Jay Chaffin, J&J Landscape Solutions

Look for egg masses on tree trunks at this time of year Photo: Lawrence Barringer, PA Dept. of Agric. Bugwood.org

Community College of Baltimore County (CCBC) Winter and Spring Sessions

CCBC Winter Session 2021
SUSTAINABLE HORTICULTURE PROGRAM
Session begins January 4, 2021 and ends January 28, 2021

HUNT VALLEY CAMPUS
HORT 107 - 3 credits, 3 billable hours - Basic Landscape Graphics
Introduces the basic principles of landscape graphic design, covers line weight and lettering techniques, graphic symbols, color rendering techniques, one and two point perspectives, and techniques of landscape sketching.
Hunt Valley Campus - Day

CMNS 101- 3 credits, 3 billable hours – Fundamentals of Communication
Contextualized for Sustainable Horticulture Majors
introduces the study of human communication. Students develop an understanding of the theoretical principles of verbal and non-verbal interaction by analyzing and applying these principles in a variety of communication contexts. Areas of study include intrapersonal, interpersonal, cross-cultural, small group, and public speaking.
Hunt Valley Campus - Day
NOTE: This section is reserved for students majoring in Sustainable Horticulture. Written permission is required. Attention will be focused upon communication in horticulture careers.

CCBC 2021 SPRING - Sustainable Horticulture
Classes Begin February 1, 2021

FOR MORE INFORMATION:
https://www.ccbcmd.edu/Programs-and-Courses-Finder/program/sustainable-horticulture,
Bradley Thompson, SSustainable Hortiiculture Program Director, 443-840-3754, bthompson3@ccbcmd.edu

CCBC BASIC HORTICULTURE TECHNICIAN CERTIFICATE

12 Credits, Spring 2021

Program Requirements:	Credits
HORT 127 – Introduction to Sustainable Horticulture	3
HORT 115 – Soils and Fertilizers	3
HORT 111 – Herbaceous Plants Materials	2
HORT 181 Cooperative Education: (work experience)	1
HORT 117 Integrated Pest Management	3

Total Number of Credits Required for Certificate: 12

The Certificate is being offered Spring Semester 2021.
Classes are every Thursday and Friday, all day, at the CCBC Dundalk campus.
The co-op work experience can be fulfilled on the job or in a volunteer position.
Tuition is free to the first 10 students that qualify. This a work force development program. Applicants should be new to the Horticulture industry.

To apply please contact Martha Pindale, Horticulture Outreach Assistant mpindale@ccbcmd.edu or call 410-688-5115. Students may not self-register for this special certificate. Registration is done by CCBC staff.

Urban Tree Summit - December 2, 2020 (On-line Event)

Presented by Montgomery Parks, Montgomery County, MD and Casey Trees, Washington D.C.
Registration: https://www.eventbrite.com/e/montgomery-parks-and-casey-trees-tickets-121720670803?aff=ebdssbonlinesearch. Presentations will focus on the health and welfare of trees in our increasingly developed landscapes. Learn from some of the country's leading experts about innovative efforts to plant, protect and preserve trees in urban and suburban settings. We encourage all arborists, landscape industry and environmental/green industry professionals, engineers, designers, housing developers, and interested citizens to take advantage of this opportunity to learn new techniques and concepts on what can be done to ensure the survival of trees in our built environment

UMD Extension Solar Energy Webinars

Wednesdays, 1:00 p.m. to 2:00 p.m. until December 2. Find out more details on the UMD Extension web page.

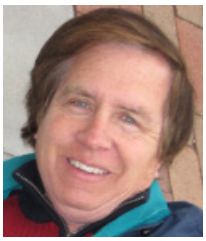
2021 Virtual Advanced Landscape IPM PHC Short Course

This is a recertification short course for arborists, landscape managers, IPM consultants, professional gardeners, and others responsible for urban plant management.
Dates: Tuesday, Wednesday, and Thursday; January 5, 6 and 7 AND January 12, 13, and 14, 2021 (This is one course, so you can NOT register for individual days. Re-certification credits are based on attendance all six days.). Lecture times are 7:45 am – 11:00 am
Location: This is a **VIRTUAL** (online) short course offered by the Department of Entomology, University of Maryland. Attendees must have a computer with video and audio capabilities to participate.
Contact: Amy Yaich, Admin. Assist. II, 301-405-3911, umdentomology@umd.edu
Registration Information: https://landscapeipmphc.weebly.com/

Late 2020 and 2021 Conferences

There will be a mix of in-person and virtual pesticide recertifications conferences over the winter. We will include information in future reports or send out as a separate email.

CONTRIBUTORS:



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