UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture | Special Report | March 2, 2023

In This Issue...

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) and Kelly Nichols (Extension Educator, Montgomery County)
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)

Careful With Plant Material Being Installed With This Warm-cold Swinging Weather

By: Stanton Gill

Several of the re-wholesale nurseries are telling me demand for plant material in February has been strong. Since no one is putting down ice melt or plowing snow, they are installing plants. This is fine except a lot of plant material is being shipped in from the south where the early warm weather is forcing out new growth on the plants. We are not yet done with winter and when the low temperatures come back, they will kill back this tender new growth. Just a fact of life. Take the risk if you dare.

Early blooming trees, like star magnolia, are starting to flower in the region.

Boxwood Leafminers

By: Stanton Gill

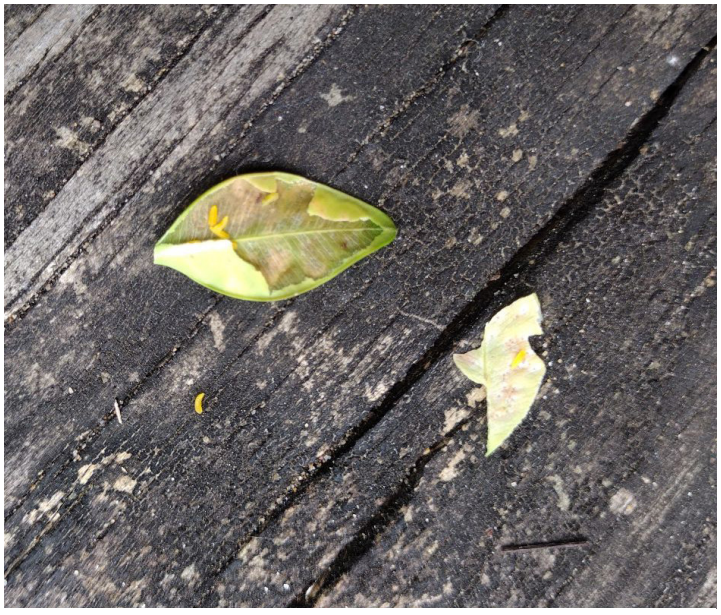
Marie Rojas reported that when you crack open a boxwood leaf infested with boxwood leafminer, they are large, yellow and moving about between the leaf surfaces in late February. They are feeding during these early warm spells and causing leaf tissue to turn brown in the process.

Kyle Shirkey, Blades of Green, reported that two technicians found active leafminers in Gambrills and Crownsville on February 16. Katie Grant found some boxwoods with active leafminers in Snow Hill (Worcester County) on February 16. Katie reported that daffodils, quince, ogon spirea, and snowdrops were all in bloom there. There was also a row of cherry trees outside Wor-Wic Community College in Salisbury, Wicomico Co, beginning to bloom.

They generally pupate in April with emergence in late April to early May. For 2023, we may see an early emergence of adults. If you see pupal cases sticking out of the bottom of foliage or see the yellow bodies adults active above your boxwood, let me know the location in the state and send in an electronic picture.

Boxwood leafminer activity as of February 16 in Snow Hill (Worcester County). Photo: Katie Grant

We are getting in reports that systemic applications of imidacloprid and dinotefuran were not giving as effective control from 2022. Let me know at sgill@umd.edu what is working for you and what is not. Make sure you let me know what time of year you applied and rates and size of the plants treated.



Boxwood leafminer larvae were already feeding within the leaves in Anne Arundel County on February 16. Photos: Blades of Green

Boxwood Mites

By: Stanton Gill

With so many boxwoods being grown in nurseries and used in the landscape, boxwood mite appears to be a growing problem. The mite overwinters as eggs on stems and foliage and appears pale green at this time of year. They will hatch shortly after spruce spider mite starts its activity. Boxwood mites feed in a different manner than most mites. Boxwood mite feeds on the upper as well as lower surfaces of the leaves. Most spider mites,

like twospotted spider mite and southern red mite, only feed on the lower surface of leaves. Their feeding causes whitish spots to form on the leaf as they suck out the cell contents. Most spider mites feed here and there, but boxwood mites tend to feed in a line so that the injured plant surface has tiny pale lines that resemble minute scratches. I am getting a lot of emails with inquires about why the boxwood foliage looks like it has been scratched or etched. The damage is apparent on the older foliage at this time of year. When new growth starts they move up onto the new foliage to feed. This is the point at which you need to take control actions.

You can use a 3% horticultural oil at this time of year. The mite growth regulators Hexagon and Tetrasan work well on this mite. Monitor for egg hatch to treat the young larvae.

Boxwood mite feeding causes a scratched or etched appearance on foliage.

Some Hope on the Hemlock Wooly Adelgid Front

By: Stanton Gill

The nursery industry lost one of the best evergreen trees that did fairly well in shaded situations when the hemlock wooly adelgid (HWA) was introduced from Asia back in the 1980s. HWA was first detected in New York State in the early 1980s (Souto et al. 1995). It spread across the United States rapidly and basically wiped out most stands of hemlocks in forests and landscapes. It crashed nursery hemlock production in Maryland in the early part of the 21st century. This left a giant gap for a native evergreen plant that transplants well and provides screening in residential neighborhoods.

For the last 25 years, the U.S. National Arboretum team, Sue Bentz spear-heading much of this work with the plant breeders at USDA, has been working on developing hybrid hemlocks that are resistant to this tree killing insect. In 2020, we had a diagnostic IPM session for the industry held at Brookside Gardens. On this tour, Phil Normandy showed us some of the hybrid hemlocks from the USDA breeding program that were planted as demonstration plants in their shady garden sections. These are hybrids between the native (susceptible) Carolina hemlock and a resistant Asian species, *Tsuga chinensis.*

USDA is releasing two cultivars to the nursery industry ‘Crossroads’ and ‘Traveler’. Propagating nurseries interested in these cultivars should contact usna.comments@usda.gov for more information.

Long Eared Bats and Timber Harvests

If you have customers doing select cuts of large forested areas, this news may impact them. Since May 1 though July 31 are the dry months to harvest wood, this is likely going to create a shortage of timber with potential rising prices of timber. Details are included in a December 14, 2022 USDA Memo. The following information for Maryland is included.

The current guidance for implementing NRCS tree removal practices in the state of Maryland is below:

1. Avoid tree removal activities within 1⁄4 mile of a known occupied hibernaculum.
2. Avoid tree removal within a 150-ft radius of known maternity roost trees from June 1 to July 31.
3. Avoid all tree removal above 15 acres during May 1 to July 31.

Consult with USFWS if you cannot avoid activities in 1, 2, and 3. If tree removal must be completed during the time of year stated above, bat surveys can be completed in coordination with USFWS.

Lone Star Tick and Heartland Disease

By: Stanton Gill

Several years ago, I had an unpleasant experience with a disease transmitted by a lone star tick that I picked up at a nursery field day. The disease was ehrlichiosis. Let me tell you, if you get this, it is "no fun". Fortunately, a quick diagnosis and antibiotics treatment took care of it.

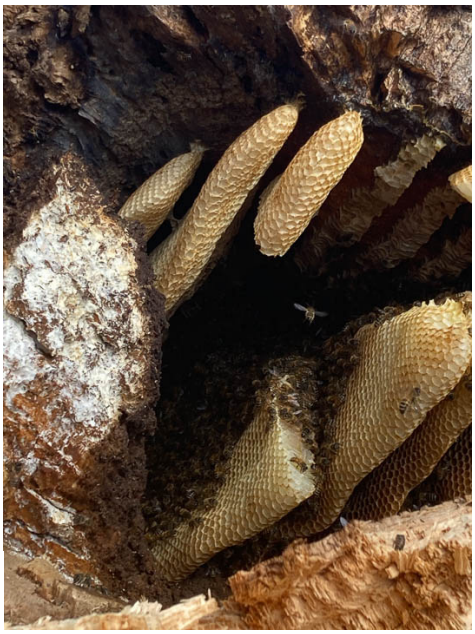
After being outside, be sure to check yourself for ticks, including checking for lone star ticks like this one.
Photo: Gerald Holmes, Strawberry Center, Cal Poly San Luis Obispo, Bugwood.org

The lone star tick is mainly found in the southeastern and eastern U.S. It's responsible for spreading ehrlichiosis, Heartland virus disease, southern tick-associated rash illness (STARI), Bourbon virus disease and tularemia. Lone star tick has also been associated with people who develop an allergy to certain meats. Danielle Bauer-Farace sent me an email alerting me to a case in VA/MD involving a death from Heartland disease. Here is the article that Danielle sent along on the heartland disease: https://news.yahoo.com/u-mans-death-suggests-deadly-205500119.html?soc_src=yahooapp

As I mentioned in the last IPM Alert a couple of weeks ago, make sure if you are outside hiking or at edges of woodlands check yourself regularly for lone star and blacklegged ticks which are active with the early warm weather. Consider wearing tick-proof treated clothing.

Bee Activity

Eric ONeal, Good's Tree and Lawn Care, found an active beehive in a storm damaged silver maple this week in Harrisburg, PA. It was noted that a beekeeper was contacted to relocate the bees.



An active beehive found in Harrisburg, PA this week.
Photo: Eric O'Neal, Good's Tree and Lawn Care

Why are Eggs so Expensive?

By: Stanton Gill

Farm supply stores are stocking up on young chickens and ducks in 2023. The demand is very high right now for home chicken production. The high price of eggs is tied to the large loss of chickens to Avian flu. Egg prices have soared to $5 to $6 a dozen with prices being as high as $10/dozen at some farm markets. All of the chicken suppliers are raising their prices for young chickens. In 2020, the price was $5 for a 16-week old Poulet. In 2022 the price was $8.00. In 2023, it is now $10/poulet.

Dr. Tim Uyeki, Chief Medical Officer of the Influenza Division at CDC, answers common questions about highly pathogenic avian influenza A(H5N1) viruses, which have been detected in the United States in wild birds since late 2021 and commercial and backyard poultry since February 2022. The discussion includes what is the extent of the current outbreak of influenza A(H5N1) in birds and information on H5N1 virus among humans.

Spruce Spider Mites

By: Stanton Gill

One of the earliest mites to show activity in the growing season is the spruce spider mite which overwinters as eggs on stems and foliage. They damage hemlocks, junipers, Leyland cypress, spruce and Fraser, Canaan, and balsam firs.

Spruce spider mite eggs on cryptomeria.

Check the foliage for the eggs. Just before they hatch, the eggs turn from opaque to an amber brown-red color. The earliest stage that hatches out is called a protonymph, which is a six-legged stage. It then has two eight-legged nymphal stages. When they become an adult, they will have the typical 8 legs found on most Tetranychid mites.

With this warm weather (temperatures above 50-55 °F and not going below freezing), you can use a 3 % horticultural oil applied as a fine mist. If you can catch the protonymph or deutonymph stage, Hexagon or Tetrasan are two mite growth regulators we have used in trials with good success. It works very well on the early stages of development of mites in providing excellent control. These two products have low impact on beneficial organisms. After the first generation, overlap of generations is common and all stages are present at any given time.

Phenology

PLANT	PLANT STAGE (Bud with color, First bloom, Full bloom, First leaf)	LOCATION
Forsythia	First bloom (March 2)	Columbia
Magnolia, star (*Magnolia stellata*)	First bloom (March 1)	Centreville
Persian/Bird's eye speedwell (*Veronica persica*)	First bloom	Ellicott City
Purple deadnettle *(Lamium purpureum*)	First bloom (March 2)	Ellicott City

IPM Report Indexes for 2022

The subject indexes (left column on the web page) for the 2022 Landscape and Nursery IPM reports are now updated.

Degree Days (as of March 1)

Abingdon (C1620)	24
Annapolis Naval Academy (KNAK)	44
Baltimore, MD (KBWI)	70
College Park (KCGS)	64
Dulles Airport (KIAD)	70
Ft. Belvoir, VA (KDA)	65
Frederick (KFDK)	41
Gaithersburg (KGAI)	53
Gambrils (F2488, near Bowie)	66
Greater Cumberland Reg (KCBE)	30
Perry Hall (C0608)	24
Martinsburg, WV (KMRB)	24
Natl Arboretum/Reagan Natl (KDCA)	89
Salisbury/Ocean City (KSBY)	86
St. Mary's City (Patuxent NRB KNHK)	106
Westminster (KDMW)	68

Important Note: We are using the Online Phenology and Degree-Day Models site. Use the following information to calculate GDD for your site: Select your location from the map Model Category: All models Select Degree-day calculatorThresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

Conferences

Go to the IPMnet Conference Page for links and details on these programs.

36TH ANNUAL LAHR NATIVE PLANTS SYMPOSIUM
Saturday, March 25, 2023, 9:30 a.m.–3:45 p.m.
Native Plants: From the Wild to the Garden
Location: Administration Building Auditorium, U.S. National Arboretum
Reserve your spot now! $100 (FONA members $80)
View the full program here.

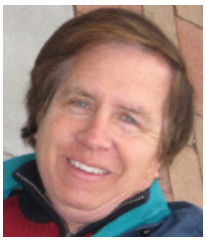
April 4 - 7, 2023
IPM Scouts Diagnostic Program
Location: CMREC, 11975 Homewood Road, Ellicott City, MD
Registration information coming soon.
There is no individual day sign-up for this training.

May 10, 2023
MAA Arborist Walk
Contact: Danielle Bauer Farace

June 20, 2023
Cut Flower Program
Location: Castlebridge Farm, Ellicott City, MD

Commercial Ornamental IPM Information
extension.umd.edu/ipm

CONTRIBUTORS:



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