UNIVERSITY OF MARYLAND EXTENSION

TPM/IPM Weekly Report

for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture **October 30, 2026**

In This Issue...

- Nancy Harding Retirement
- Crapemyrtle bark scale
- Request for redheaded flea beetles for project
- Stiletto fly larvae (predator)
- End of season report

Beneficial of the Week:
How insects overwinter

Weed of the Week: Sericea lespedeza

Plant of the Week:
Agastache 'Black Adder'

Pest Predictive Calendar
Degree Days
Conferences

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 sklick@umd.edu

Coordinator Weekly IPM Report:
Laura Nixon, IPM Specialist in Entomology, University of Maryland Extension, Lnixon1@umd.edu, and Paula Shrewsbury, Professor and Extension Specialist in Ornamental and Turf IPM, Department of Entomology, pshrewsbury@umd.edu

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Pest and Beneficial Insect Information: Laura Nixon and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
Disease Information: David Clement (Extension Specialist) and Ana Cristina Fulladolsa (Plant Pathologist and Director, UMD Diagnostic Lab)
Weed of the Week: Kelly Nichols and Nathan Glenn, (UME Extension Educators) and Dan Buonaiuto, (Assistant Professor), Dept. of Plant Sciences and Architecture
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)

Nancy Harding Retirement



With the end of the season, we want to acknowledge and thank **Nancy Harding** for her numerous contributions to the IPM Newsletters and the green industries over the years. Nancy will be retiring early next year. Nancy has worked as a Faculty Specialist in the Department of Entomology with Dr. Paula Shrewsbury since 2010 (almost 17 years!). Nancy has been a major contributor to the IPM Newsletter through her contributions of timely information on Degree Day (DD) accumulations and pest predictions, along with other articles. Over the years, Nancy has diligently worked on applied research projects, and planning and coordination of Extension education activities to support the green industries. The UME IPM team would like to thank Nancy for all her efforts and dedication. You will be greatly missed!

Crapemyrtle Bark Scale is Still Active in October

By: Sheena O'Donnell, UME



Crawlers and settled nymphs are on the stem of this crape myrtle. Photo: Sheena O'Donnell, UME

It's almost the end of October and CMBS is still active, though it seems to be slowing down. Our research shows that CMBS has at least two distinct crawler peaks in Maryland - one in late May or early June (966-1076 DD), and another clear one somewhere between 2568-2627 DD (late July into August). This year, the data show a little bit clearer a third peak around 3262 DD, but things were still all over the place by that point this year as in past years. Even though crawlers were still pretty abundant this week, the most abundant life stage now is the settled 2nd instar, which is consistent with other research which reports that it is the life stage in which they overwinter. Interestingly, some of the early crawlers will settle on the leaves at the end of the season, which seems funny because the leaves are about to senesce and fall off, and these individuals are never viable for long.



Clusters of crapemyrtle bark scale on leaves at the end of the growing season (Oct. 26, 2026). Photo: Sheena O'Donnell, UME

There are a couple of things to note about this insect and its ecology. First, *Hyperaspis bigeminata* is still present on all of these trees and very clearly predates on CMBS. During the height of activity, it is easy to see with the naked eye the ovisacs that have been chewed, and when we break them open and check inside under a dissecting microscope it is not uncommon to find an early *H. bigeminata* larva in there, snacking away. On a couple of these trees, CMBS is very hard to find now despite evidence of an extremely heavy population earlier in the season. It's also not the only thing that seems to be feeding on CMBS. Lacewings have been laying plenty of eggs all over these trees as well, though their larvae seem to be harder to find when surveying. I have also found several Hymenopteran pupae inside of (what used to be) adult females, and these seem to occur later in the season. *H. bigeminata* is almost always found feeding on CMBS, though, and we have successfully reared larvae to adults in our lab with CMBS as a food source. All trees at this study site with crashed CMBS populations had very heavy *H. bigeminata* populations earlier in the season. This native Coccinellid, though understudied, seems to be doing a good job of keeping CMBS populations in check.

An important characteristic of CMBS is that it is great at hiding. The trees that have heavy sooty mold build-up seem to be holding onto their bark that would otherwise be exfoliating. The reduction of exfoliating bark and the sooty mold allow for more effective hiding spots for CMB. If you are scouting a population that you think may have crashed, be sure to peel away some bark or sooty mold to check underneath. Research out of Mississippi shows that CMBS is able to establish a plant-wide infestation from just one female ovisac 92% of the time, and being able to hide like this really helps their case.

Treatment should be timed to align with that first very clear and very high crawler peak around 966 DD (Late May or early June). Using 'softer' insecticides like insecticidal soaps or 1-2% horticultural oil can be effective without severely crashing the natural enemies population. In this way, you can keep the CMBS population down enough to avoid heavy sooty mold build-up while still supporting the natural enemies that will do the rest of the work for you.

Do You Have Adult Redheaded Flea Beetles?

I am looking for some redheaded flea beetle (*Systena frontalis*) adult specimens from nurseries for a study; if you are observing the adults in your nursery, please reach out to me (Lnixon1@umd.edu) and I can either come and collect some or guide you through the collection process. Thanks so much!

Predacious Stiletto Fly Larvae – Predators of peach tree borers

By: Paula Shrewsbury, UMD

On October 13th, April Filipiak (Treeology, LLC) brought in a sample of **peach tree borer** (Lepidoptera: Sessiidae: *Synanthedon exitiosa*) frass from a peach tree. Peach tree borer caterpillars bore and feed at the crown of plants in the Rosaceae family (Cherry laurel, *Prunus* spp.) often girdling and killing their hosts. Their frass is heavy in sawdust and often moist from plant sap (see image). April brought the sample in because she saw tiny, thread-like, white larvae wiggling in the frass (see images). Suzanne Klick (UME) took some great close-up images of the larvae and sent them to Mike Raupp and I (UMD). Based on the larval characteristics and that they were active in the frass of a caterpillar borer, we are pretty sure these are larvae of stiletto flies. This was very cool because stiletto fly larvae are not something we see very often. Taxonomically, **stiletto flies** are in the Order Diptera; Superfamily Asiloidea; and Family Therevidae. Robber flies are relatives of stiletto flies as they are in the same order and superfamily, although a different family (Asilidae). You are probably familiar with **robber flies** which are predacious as adults (see the IPM Newsletter Beneficial of the Week, July 19, 2024) and larvae (larvae feed on a diversity of soil dwelling insects).



Image of a peach tree at the soil line demonstrating damage (frass / sawdust and girdling) from peach tree borer. Note multiple small, white larvae, likely Stiletto fly larvae, in the frass.
Photo: April Filipiak, Treeology, LLC

There are about 1,600 species of stiletto flies worldwide. Stiletto fly adults look similar to robber fly adults at first glance; hairy with a tapered abdomen and long raptorial legs. Extensive knowledge on



Close image of predacious Stiletto fly larvae in the frass and plant matter from peach tree borer. Note the different instars as indicated by their size.
Photo: Suzanne Klick, UME

stiletto flies is lacking. Adults are known to feed mainly on nectar, honeydew, and pollen. Stiletto fly larvae are predators of insect larvae in soil with some species being found in decomposing organic matter and under the bark of trees. They are known to feed on larvae or pupae of Diptera (flies), Coleoptera (beetles) and Lepidoptera (caterpillars). *The stiletto fly larvae found in the tree borer frass were possibly feeding on peach tree borer larvae or pupae*.

When you find peach tree borers and others, be sure to look for these tiny stiletto fly larvae that may be feeding on insect borer pest larvae.

For more information go to:
iNaturalist – Stiletto flies, Family Therevidae



Close-up image of a predacious Stiletto fly larva showing the distinct head capsule and legless body (maggot). Photo: Suzanne Klick, UME

End of the Season for the Weekly UME Landscape and Nursery IPM Alerts

By: Laura Nixon

Today's IPM Alert is the last for the 2026 season. We (UME Green Industry IPM Team and all of you) have had a great season. Thirty weekly IPM Alerts were published between the end of March and today, with two additional Special Issues. The IPM Alert is emailed to a subscribership of 5,896, which has grown steadily by 5% since last year.

We started with an odd Spring (snow in April!), which resulted in an unprecedented amount of cold damage to landscape and nursery plants. The up and down temperatures also led to decreased and/or late pest pressure. For some growers, this meant reduced pesticide applications, for others, treatment timings were "out-of-whack" with the timing of pests. The headline invasive insect for the year was box tree moth (*Cydalima perspectalis*), which has led to nine Maryland counties quarantined and with compliance agreements. Beech leaf disease continued to spread throughout Maryland in both managed and wild landscapes; treatment plans are available and we co-hosted a successful beech leaf disease workshop with the Maryland Arborists" Association and Bartlett Tree Company this June. In brighter news, this was my (Laura Nixon – IPM and Entomology Specialist) first year in the job, and I'd like to thank everyone for making it wonderful! I continue to welcome invitations to talk, tour, and check out your pest issues.



The freeze on the morning of April 21, 2026 caused damage on plants throughout the area. Since it was early the in the season, many plants were able to produce more foliage and survive Photo: Suzanne Klick, UME

As Winter meeting season kicks in, we will continue to learn about new treatments and approaches for plant management. I encourage you all to attend any educational events that you can in order to learn about new issues and new solutions for old issues! If you face any major problems during the coming season, don't hesitate to contact us (Lnixon@umd.edu and sklick@umd.edu – insects, clement@umd.edu and acfulla@umd.edu – diseases, aristvey@umd.edu – nutrient management).



Demonstration of an injection application for beech leaf disease by a Bartlett Tree Experts representative.
Photo: Suzanne Klick, UME



Beech leaf disease was the topic at the June Maryland Arborists's meeting.
Photo: David Clement, UME

Our IPM Team wants to know if the IPM Alerts help all of you in your plant management, and how we can improve the IPM Alerts to better serve your needs. **Watch out for the IPM Alert Survey that Suzanne will send out in mid-November**. Please respond to the on-line survey as your input and ideas help us to improve the Alert and its use as a plant management tool.



A) Box tree moth adult alighting on a boxwood. B) Box tree moth caterpillar amongst fresh frass (bug poop). Often frass build up is a sign of infestation before you look closer and see the caterpillars feeding. C) A boxwood which has been completely defoliated by box tree moth caterpillars.
Photos: Laura Nixon, UME

Beneficial of the Week

By: Paula Shrewsbury, UMD

How do insects survive the winter weather?

Fall is here and the onset of winter and colder weather is not far away. This often brings the question of how beneficial and other insects survive the freezing cold of winter. Insects are cold-blooded animals and their development and body temperature are strongly influenced by environmental temperature. Insects survive the winter in a diversity of ways. For example, insects vary in the life stage in which they "overwinter". They may overwinter as adults, pupae, immatures (larvae or nymphs), or eggs. Predatory wheel bugs spend the winter in the egg stage (see image). Praying mantids are another predatory species that overwinter as eggs within the styrofoam-like ootheca (egg case). Lacewings (predators) overwinter in their larval stage and some species of butterflies (pollinators), wasps (predators), and bees (pollinators) overwinter as adults, while some species overwinter as immatures (ex. the invasive box tree moth overwinters as caterpillars). There are multiple strategies used by various insects to get through the winter. Some of which are *physiological* where insects go into a state of dormancy which is characterized by slowed metabolic activity and development. Other strategies are *behavioral* where the insect tries to avoid dangerously cold temperatures. Some insects use a combination of both.

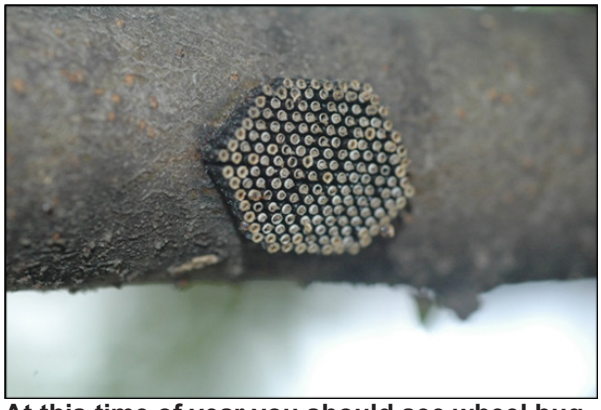


Woolly bear caterpillars survey the winter by producing "anti-freeze" like compounds that prevent the formation of ice crystals when temperatures drop below freezing.
Photo: Michael Raupp, UMD



Monarch butterflies migrate south in the winter to escape the freezing temperatures of the north.
Photo: Michael Raupp, UMD

Dormancy occurs in many forms used by different species of insects. *Quiescence* is a short period of dormancy that is directly induced by adverse conditions, and it can be quickly reversed when conditions become favorable again. Many insects will *diapause* (similar to hibernation in vertebrates) during the winter. Diapause is regulated by hormonal processes that are genetically determined to occur during a certain life stage of the insect. Diapause is defined as an inactive stage of arrested development. Diapause results in the reduction of the insect's metabolic rate to 1/10 or less its normal rate. There are two types of diapause. *Facultative diapause* is initiated by environmental cues, and *obligatory diapause* occurs regardless of the environmental cues. Insects that undergo facultative diapause may move in and out of diapause if environmental conditions become favorable or unfavorable over the winter months. Whereas insects that undergo obligatory diapause will remain in diapause regardless of environmental conditions. In the spring, the onset of warmer temperatures will break or stop an insect's diapause, and they begin to develop at "normal" or seasonal rates.



At this time of year you should see wheel bug egg masses on the trunk of trees. Wheel bugs will spend the winter in the egg stage.
Photo: Paula Shrewsbury, UMD

Freeze tolerant insects survive winter's cold through a process called *supercooling*. If no particle is present in the body to allow crystallization, water can cool to -36.5°F without freezing. Supercooling is when water cools below its freezing point without turning to ice. Because insects are relatively small, their bodies contain

little water, so supercooling is not too much of an issue. As temperatures drop in autumn and early winter many species of insects produce cryoprotectants, antifreeze-like compounds including sugar alcohols like glycerol and sorbitol, which prevent the formation of lethal ice crystals in the bodies of overwintering insects. This "antifreeze" allows insects to survive even when ambient temperatures dip well below freezing. Woolly bear caterpillars and many of their relatives use this strategy. Insects may use avoidance measures to avoid or stop the freezing of their bodies. *Freeze avoidance* insects may completely empty their guts before they go into diapause to reduce the likelihood of ice crystallization.



Some insects, such as brown marmorated stink bug adults, find protected locations to overwinter that include rocky outcroppings. Unfortunately, houses or other human-made structures appear similar to rocky outcroppings for these and other insects. Photo: Paula Shrewsbury, UMD

Migration to warmer climates is a behavioral strategy some insects use to escape the freezing temperatures. Monarch butterflies are one of the most magnificent examples of a beneficial that migrate to warmer temperatures (Oyamel fir Forest in Mexico for Eastern monarchs; coast of California for Western monarchs). As temperatures warm in the spring, the overwintering monarch butterflies start their northward migration. Potato leafhoppers are known to migrate north to Maryland in the spring, and it has been found that some portion of potato leafhopper populations from Maryland migrate south for the winter.



White grubs move deeper in the soil, below the frost line, to survive winter temperatures. Photo: Miri Talabac, UME

Other insects *tolerate* the cold by hiding in protected, warmer habitats or micro-niches. Ladybird beetles move up to rocky outcroppings and hide amongst the rocks. If you have been hiking this past month, you may have noticed large numbers of lady beetles (and other insects like stink bugs) in certain rocky areas. While some of these insects' mistake homes and other structures for rocky outcroppings. Some beetles, like the overwintering white grubs of scarab beetles, burrow deeper in the soil to stay below the frost line and escape the freezing temperatures. Other insects hide in leaf litter, and under dead plant material or stones such as hawthorn lace bug, grasshoppers, and some butterflies. Many wasps and hornets have annual colonies where only the queen overwinters. Queens of European hornets, bald faced hornets, yellow jackets and others will hunker down in piles of wood (ex. firewood) or vegetation, under tree bark, in tree holes, or other protected locations. Others such as bark beetles and checkered beetles hide under bark flakes, lose bark, or in bark cracks of certain tree species. The nymphs of dragonflies and mayflies live in water of ponds and streams where they are active below any ice layer that forms. Some insects overwinter as larvae in protected locations such as emerald ash borer under the bark of their host trees, or boxwood leaf miner within the leave tissue. Other insects find completely dry locations to overwinter where ice crystallization is less likely to occur.

Other factors that may influence an insect's ability to survive the winter include: how cold the temperatures get, fluctuations in temperatures and how rapidly they fluctuate, how long temperatures stay cold, and if there is snow cover or not. Snow cover forms a protective "blanket" keeping warmth below it.

The reasons insects, as a group, are so successful is their ability to adapt and evolve. So, don't worry too much about beneficial or other insects. Insects have been surviving freezing temperatures for millions of years and have become very good at it.

Weed of the Week

By: Dr. Dan Buonaiuto



Figure 1: Sericea lespedeza stems and growth habit.
Photo: Rachael

Sericea lespedeza (*Lespedeza cuneata*), also known as Chinese bushclover, is a warm-season legume that can become problematic in pastures, roadsides and other disturbed environments. Unlike its more familiar relative, *Kummerowia* (*Lespedeza*) *striata* (the lawn weed Common Lespedeza) sericea lespedeza is a tall, upright perennial with a deep taproot.

Sericea Lespedeza Identification

Stems: Erect, semi-woody stems with numerous, straight, slender branches standing 2-5 feet tall. Stems are grooved and pubescent, with small bristles or spines (Figure 1).
Leaves: Alternately arranged compound leaves with three leaflets. green to ashy green in color with dense, flattened hairs. Leaves have parallel veins, making a feather or fishbone pattern (Figure 2).
Flowers: Flowers are up to ⅜ of an inch long, and borne in clusters of m 2–3 in upper leaf axils. Petals are cream colored with purple or pink markings (Figure 2).
Fruit: Ovular pods.



Figure 2: Sericea lespedeza flowers and leaflets.
Photo: Ken Clark

Lookalikes:

We do have some native lespedeza species that could be easily confused for Sericea lespedeza. Most native lespedeza's do not have the dense branching structure that Sericea lespedeza does. The native Lespedeza virginia has netted leaf veins and pink flowers when compared to the parallel, "fishbone" leaf veins and cream-colored flowers of sericea lespedeza.

Sericea Lespedeza Ecology

Sericea lespedeza is a prolific seeder, with individual branches able to produce up to 1,000 seeds that can remain viable in the soil seedbank for up to 20 years. This highly drought tolerant plant also rapidly draws down soil moisture, increasing water stress on surrounding plants. That, combined with its dense and rapid growth form and ability to produce allelopathic chemicals, allows it to rapidly outcompete desirable vegetation

Sericea Lespedeza Control

Mechanical: Mowing Sericea lespedeza is a viable control method, especially when mowing is timed to the start of flowering, when the plant's root reserves are at their lowest and seed production can be prevented. It may take 2-3 years of consecutive mowing at the flower bud stage to weaken this species significantly. Another study reports that cutting seedlings before branching occurs (approximately 7-8 weeks after stems appear) can also be effective.

Chemical: Glyphosate and triclopyr are both reported to be effective for spot treating Sericea lespedeza, and studies show that a mix of triclopyr and fluoxypyr is highly effective. The best time to spray is late summer during budding and early flower formation.

The best results may be achieved by combining chemical and mechanical management techniques, but in all cases, it will usually take several years to get this species under control.

Plant of the Week
By: Ginny Rosenkranz

Agastache 'Black Adder' is a hybrid of the native Agastache from a cross between *A. rugosum* and *A.foeniclum* which helped give it its dark smoky red-violet flowers. It is an upright herbaceous perennial that is clump forming and grows 2-3 feet tall and 1 ½ - 2 inches wide. 'Black Adder' prefers to grow in moist but very well drained soils in full sun. Once established, it can tolerate both high heat and dry soil. This beautiful hybrid begins to flower in early June and continues to bloom to late October and often to the first frost. The tiny, two-lipped, tubular flowers begin as nearly black buds and are displayed in densely packed false whorls. The bottle-brush aromatic terminal spikes can stretch out to 6-8 inches long. Bees, hummingbirds, and butterflies with their long tongues decorate the landscape as they enjoy the nectar from the flowers. Because of the licorice scent, deer tend to avoid these boldly colored perennials. No insects are listed as pests, rust, powdery mildew, leaf spot can sometimes be problematic and poorly drained soils will often result in root or crown rot.



Once established, *Agastache* 'Black Adder' can tolerate both high heat and dry soil.
Photos: Ginny Rosenkranz, UME

Degree Days (as of October 28, 2026)

Annapolis Naval Academy (KNAK)	4397
Baltimore, MD (KBWI)	4279
Belcamp (FS836)	4249
Clarksville (001MD)	3540
College Park (KCGS)	4395
Dulles Airport (KIAD)	4300
Ft. Belvoir, VA (KDA)	4476
Frederick (KFDK)	3869
Gaithersburg (KGAI)	4074
Greater Cumberland Reg (KCBE)	3801
Martinsburg, WV (KMRB)	3911
Millersville (MD026)	4292
Natl Arboretum/Reagan Natl (KDCA)	4821
Perry Hall (C0608)	3974
Salisbury/Ocean City (KSBY)	4294
St. Mary's City (Patuxent NRB KNHK)	4551
Westminster (KDMW)	4164

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

Maryland Turfgrass Conference
December 15, 2026
Location: Turf Valley Resort, Ellicott City, MD

December Integrated Pest Mangement Conference
Date and location will be posted when confirmed.

2027 Advanced Landscape IPM PHC Short Course
This is a recertification short course for arborists, landscapers, IPM consultants, horticulturalists, professional gardeners, and others responsible for urban plant management. The course lectures will be held over four days at the University of Maryland, College Park, MD. In addition, there will be a hands-on lab following lecture (available to a limited number of course attendees). Coordinators: Drs. Paula Shrewsbury and Mike Raupp, Dept. of Entomology, University of Maryland
Lecture dates: Monday, January 4 - Thursday, January 7, 2027 from 8:00 am – 3:00 pm
Lab dates: Monday, January 4 - Thursday, January 7, 2027 from 3:30 pm – 5:30 pm (space limited)
Course information: https://landscapeipmphc.weebly.com/
Registration: https://www.eventbrite.com/e/2027-advanced-landscape-ipm-phc-short-course-tickets-1992372702386?aff=oddtdtcreator
Questions contact: Amy Yaich, 301-405-3911, umdentomology@umd.edu

Maryland Arborists' Association Conference
January 12, 2027 (snow date in January 13, 2027)
Location: Howard Community College, Columbia, MD

FALCAN Pest Management Conference
January 22, 2027 (snow date is March 12, 2027)
Location: Frederick Community College, Frederick, MD

LCA Pest Management Conference
January 28, 2027
Location: Turf Valley Resort, Ellicott City, MD

2027 Manor View Farm & Perennial Farm Education Seminar
February 2, 2027. Valley Mansion, Cockeysville MD
Laura Nixon is speaking at this event.

Chesapeake Green Horticultural Conference
February 11 and 12, 2027
Location: Maritime Institute and Conference Center, Linthicum Heights, MD

Eastern Shore Pest Management Conference
February 16, 2027
Location: Wicomico Civic Center, Salisbury, MD

2027 Precision Agriculture Technology Conference
February 25, 2027
Location: Crowne Plaza in Annapolis, Maryland.
This year's theme, Plowing Through the Hype: What Happens When AgTech Meets the Field?, will focus on the practical applications and profitability of agricultural technology. Topics include artificial intelligence, robotic weed management, drones for nutrient management and prescription mapping, and the economics of adopting these tools.

If you need recertification in Maryland Catetory 3b (interior ornamentals), here is on option:

Course Name: Interiorscape Commercial Applicator Training
Course Subtitle:
Course Number: 20270225
Course Dates: From 12/09/2026 to 12/09/2026
Course Time: From 9:00AM To 12:00PM
Course Description: Training for Interiorscape -
In-house: No
Internet: No
Course Syllabus: Interiorscape Training (1).pdf
Course Location: Zoom Webinar, 600 West Woodside, McPherson, KS 67460
Course Website: https://extension.k-state.edu/pesticides-ipm/pesti

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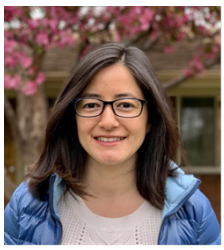
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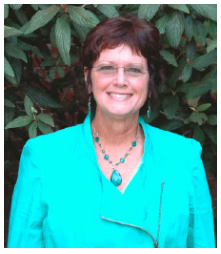
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