

Commercial Horticulture

September 16, 2022

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**No Report Next Week on September 23, 2022**

Stanton Gill

Sorry to say, we will not have an IPM alert release on September 23rd. We are shutting down for one Friday for repairs.



**Cut Flower Tour  
September 27, 2022**

**Locations: Zekiah Ridge Farm, La Plata, MD, and Hertzler Farm, Charlotte Hall, MD**

[Schedule and Registration](#)

IPMnet  
Integrated Pest  
Management for  
Commercial Horticulture  
[extension.umd.edu/ipm](http://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](mailto:sgill@umd.edu)

**Added Attraction for the Cut Flower Tour in Southern Maryland**

When the group tours Hertzler Farm, there will be a live demonstration of soil steam sterilization device that is being used to rid soil of weed seed, insects and disease before planting of cut flower plants. This will be a good chemical free way of dealing with pests in cut flower production fields.

## White Prunicola Scale

By: Stanton Gill

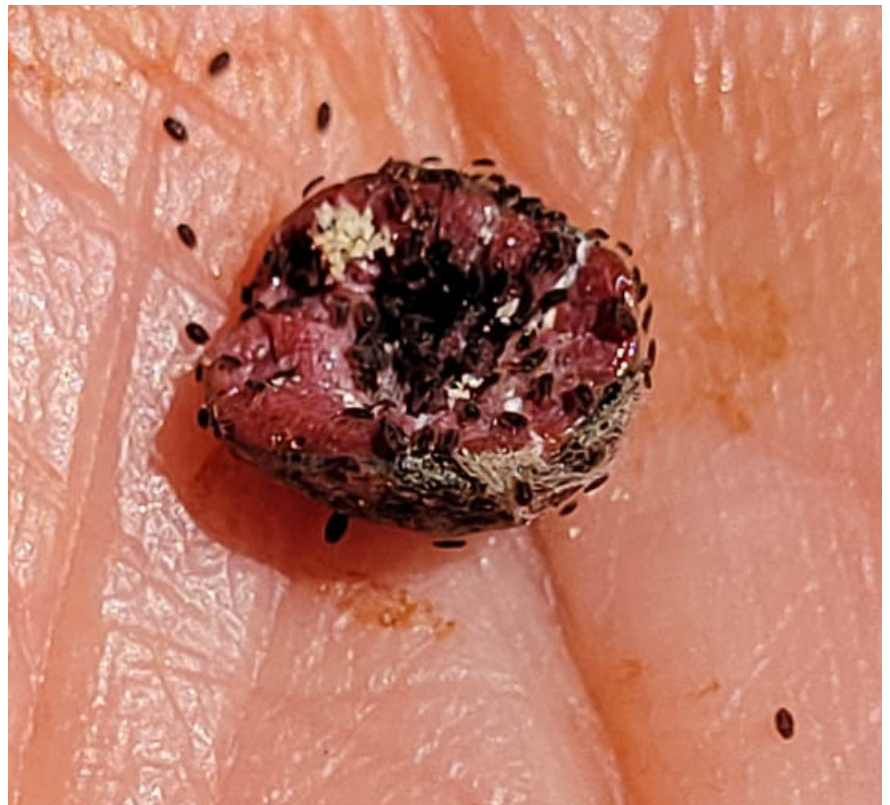
We examined cherry laurel this week with a great population of white prunicola scale. This is the 3<sup>rd</sup> generation of this scale this season. There were several settled crawlers present and active crawlers moving around on the plant. The plants were from a nursery in the Burtonsville area. This is an excellent time to apply Talus or Distance.



**Third generation crawlers of white prunicola scale are active with some starting to settle this week.**

## Tuliptree Scale

Marie Rojas, IPM Scout, reports that tuliptree scales were just hatching out in Gaithersburg on September 14. Tuliptree scale can also be found feeding on magnolias. Second instar nymphs overwinter. Talus or Distance can be used for control of crawlers.



**Tuliptree scales are hatching out this week in Gaithersburg.  
Photo: Marie Rojas, IPM Scout**

## European Hornets

Marie Rojas, IPM Scout, found European hornets stripping the bark off of Heritage birch this week in Gaithersburg. Lilac is another woody plant that European hornets damage by stripping the bark for their nests. They also feed on fruit. They can be aggressive, so keep your distance when doing work around these woody plants.



European hornets are active this week on birch. Also look for them on lilac.  
Photos: Marie Rojas, IPM Scout

### Below is a Link to an Aquaponic Method Interest Questionnaire

We are inviting farmers to complete the survey. This survey is aimed at assessing interest areas in future aquaponic method education and training. The deadline for responses is Oct. 7th. Responses are confidential and will support research and future training. Thank you for your support.

<https://go.umd.edu/aquaponics>

Andrea Franchini  
University of Maryland Extension--Baltimore City

## Spotted Lanternfly Update

By: Paula Shrewsbury, UMD

In Hagerstown where spotted lanternfly (SLF) populations are quite high, we continue to see adult male and female SLF flying around buildings and settling on tree trunks by the hundreds. They are actively feeding and producing lots of honeydew (messy!). [The honeydew is definitely an attractive food resource for many sugar-loving insects such as yellow jackets, bald faced hornets, European hornets, honey bees, ants and more.](#) Last week when I was working on the SLF research plots where we have SLF adults in cages on the trunks of tree-of-heaven, a yellow jacket stung my ear – ouch! I guess she thought I was going after her food. This week, there were a few European hornets and bald-faced hornets flying around the cages. I was extra careful to give them space.

The next adult phase, mid-phase characterized by mating and a major flight event, should start at any time. Following that phase is the late-phase which is indicated by egg laying (oviposition) and reported to start in early October. If you are in areas with high numbers of SLF, be sure to apply controls to knock back the populations soon BEFORE egg laying occurs.

To learn more about SLF, and in particular about management options, Penn State Extension has put out a helpful online guide, [Spotted Lanternfly Management Guide](#). Be sure to review the section on Management for adult SLF.



Spotted lanternfly adults feeding on phloem sap on a large tree-of-heaven, *Ailanthus altissima*, in a park in Hagerstown MD.

Photo: P.M. Shrewsbury, UMD

## Follow-up to Daikon Radish and Soil Improvement

By: Stanton Gill

It surprised me how many emails I received about daikon radish after last week's article. I think daikon seed orders just shot up. I did want to follow up. If you put down daikon radish seed during a dry period and do not rake it into the top of soil just about everything including ants, birds, and slugs love the seeds. The best thing is to seed just before a rain storm. I planted seed on September 9 in the afternoon. The rains came in Saturday night and most of Sunday morning (Sept 11 and 12<sup>th</sup>). By late in the day on Sunday, I found most of the seed had germinated and the tap roots were penetrating into the soil. So, a good rain really helps with rapid germination and very little loss to hungry creatures that like to feed on seeds. It should be a good September for daikon germination with the rains that have shown up in the last 10 days.

## Pawpaw, *Asimina triloba*, - Popular in 2022

By: Stanton Gill

*Asimina triloba*, the deciduous tree or shrub of the custard-apple family, Annonaceae (order Magnoliales), has been growing in popularity with the general public. It is interesting to note that the English name pawpaw is supposedly from the Spanish name for the tropical fruit called papaya, which has a similar-looking, though is an unrelated fruit. However, the scientific name for the pawpaw, *Asimina triloba*, comes directly from the Powhatan tribe's name for the fruit, Assimina. *The Washington Post* published an article on the native fruit and several radio stations have aired programs on pawpaws in the last week. With the height of the pawpaw harvest, several pawpaw festivals are being held in Maryland and Ohio.

A couple of Maryland nurseries have been paying attention to this interest and are growing this popular native fruit in the nursery. One thing, the plant does have a large tap root and there appears to be some benefit from cutting off the tap root on 1 – 2-year old trees to get a more branched root system.

One other thing, it is being said that it is insect and disease free. We are finding an increasing number of pawpaws being damaged by *Omphalocera munroe*, commonly called the pawpaw webworm. The caterpillar webs the leaves together and feeds on tip growth on the trees.

The other thing is with wet summers, like we have experienced for the last 3 summers, saprophytic fungi form ugly black blotches on the skin of the fruit making it unappealing in appearance. The saprophytic fungi just feed on the skins of the fruit and does not damage the flesh inside. Still, it makes for an unattractive looking piece of fruit. This can be prevented by a few simple fungicide sprays in late July and August.

## Check for Allium Leafminer in Leeks and Any Ornamental Alliums This Fall

By: Jerry Brust, UME

If you grow leeks or onions or other *Allium* species, now and for the next month or two is the time to watch for the tell-tale marks left by Allium leaf miner. Allium leaf miner *Phytomyza gymnostoma* tell-tale marks consist of many linear small white dots (made by the female's ovipositor) that appear in leaf blades (fig. 1) of their preferred hosts of leeks, onions, garlic and other *Allium* species. If you had some infestation last year you will especially want to be looking for the signs of this pest.

Figure 2 shows an ornamental planting of Alliums in downtown Bethesda. As you can see it is not doing too well, probably because of several different reasons. But upon close inspection you can find active oviposition marks of Allium leafminer on the leaves (fig. 3), which will lead to larvae in the bulb of these plants opening them up to pathogens.

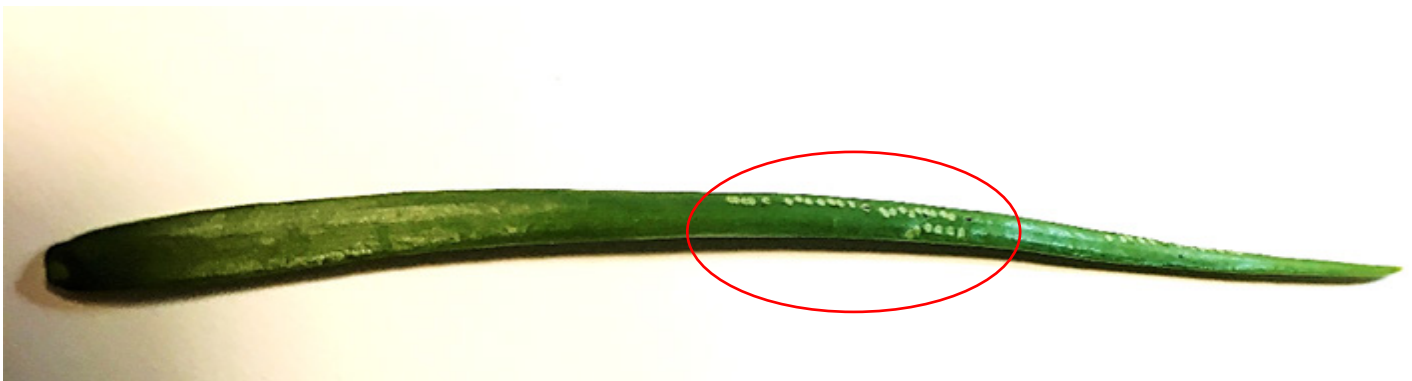


Fig. 1 Onion leaf blade showing linear white dots made by female Allium leafminers  
Photo: G. Brust, UME

To go over recommendations for this pest: New transplants or seedlings of onions, leeks or garlic should be watched closely for the tell-tale signs of the fly's damage. When eggs hatch the larvae at first mine leaves and then move down to the bulbs and leaf sheathes where they feed and eventually pupate. You can cover any just-transplanted *Allium* planting with a row cover to keep the flies off or if needed treat with insecticides. Research out of Cornell University has found using just two applications of spinosad (Entrust, which is OMRI-labelled) two weeks after oviposition marks are **first** found and then another application 2 weeks after this will give adequate control of the pest. But the oviposition marks must be watched for carefully and discovered very soon after they are made. A penetrant adjuvant also is recommended to be used when treating for the larvae.



Fig. 2 An ornamental *Allium* planting not doing well  
Photo: G. Brust, UME



Fig. 3 Tell-tale *Allium* leafminer oviposition marks on ornamental *Alliums*  
Photo: G. Brust, UME

## Coming in 2023

By: Stanton Gill

We have been through several false starts but our new Central Maryland Research and Education building and labs has started the first phase of building. It is planned that it will be up and running sometime in late 2023. This new Center will have a large education conference in which we will be able to conduct education seminars. David Clement and I will be getting a very well-equipped lab for insect and disease diagnosis. We will be better able to serve the commercial horticulture industry with this new facility.

## Beneficial of the Week

By: Paula Shrewsbury

### It's a good time to be a cricket hunter

I have been observing lots of Pennsylvania field cricket activity this year and more recently these noisy insects have started to move into basements of homes. It's a good time to be a cricket hunter with all the available prey there is to hunt. I am referring to a beautiful blue-black wasp known as steel-blue cricket hunters, *Chlorion aerarium*. Steel-blue cricket hunters belong to a family of wasps referred to as thread-waisted wasps (Family Sphecidae) because they have a constriction at the upper end of their abdomen. Cricket hunters occur throughout the United States, southern Canada, and into Mexico. They are about 1.5" long and have several color forms over their range. The cricket hunters I have seen in my yard have bluish wings often held flat over their black body, big eyes, long spiny legs that assist in digging, and rather large pointed mandibles used for holding on to prey. Oh – and the females have stingers. As adults, these wasps feed on nectar resources from flowering plants and are important pollinators. They are commonly found feeding on short toothed mountain mint (*Pycnanthemum muticum*) and threadleaf milkweed (*Asclepias verticillata*) in addition to other flowers. I frequently see [steel-blue cricket hunters feeding on the nectar of the spotted bee balm, \*Monarda punctata\*](#), in my yard. The larvae live in the ground, are carnivores and feed on what else – crickets.



**This cricket wasp has just captured and paralyzed a field cricket and is holding it under her body.**

**Photo: M.J. Raupp, UMD**

Adult female wasps are frequently seen actively foraging on the ground in fields, meadows, lawns, and garden beds for crickets. Cricket hunters are solitary hunting wasps and have a very interesting biology. A female adult will make a burrow in the ground that consists of multiple egg chambers, although it is not uncommon for a female to use the ground burrows of its relative, cicada killer wasps. [Female cricket hunters move really fast as they forage for prey](#), and are challenging to observe and photograph. The female hunts, catches, stings her prey several times, paralyzing but not killing it – to provide live food for her young. She straddles her captive and grabs ahold its antennae with her strong mandibles and then she brings the prey to the nesting tunnel. The wasp first drops it at the entrance, goes inside, and inspects the tunnel. The hypothesis is that she enters the tunnel

“hands-free” so that she is free to defend her home against potential intruders. Once she determines it is safe, she reemerges and drags the paralyzed prey down a tunnel to one of several egg chambers. Each egg chamber receives up to 9 crickets or prey items. When a chamber is adequately provisioned, the female wasp lays an egg on the underside of the thorax of one of her victims and then closes off the chamber with stones, twigs, or other debris, and eventually, the whole tunnel is closed off with soil. After an egg hatches, it takes the wasp larva only up to 10 days to consume all the prey (hungry little guys), and then it pupates in the tunnel where it remains through the winter. Adult males are territorial and like to hang out near a good nesting area. Their major functions are to eat and mate (keep his genes in the gene pool). Males do not have ovipositors so they cannot sting. Males spend most of their time in flight, chasing off other males and trying to hook up with females. Sperm is the only contribution males make towards reproduction of young. In addition to consuming numerous crickets, the steel-blue cricket hunter and other members of the sphecid family, also consume caterpillars. Steel-blue cricket hunters provide biological control and pollination services. There is also another family of wasps, Pomipilidae, that similarly hunt spiders.



With a cricket securely held beneath her, and her mandibles tightly holding onto her prey, this cricket hunter was walking up the brick on my house, likely to gain some height for her flight to her ground nesting site. It is not unusually for natural enemies with heavy prey to use altitude to increase their flight abilities at takeoff.

Photo: P.M. Shrewsbury, UMD



The cricket wasp is approaching the entrance to her burrow where she will drag her paralyzed, but live, prey into to provide food for her young.

Photo: P. M. Shrewsbury, UMD



## Degree Days (as of September 14)

Aberdeen (KAPG)	3315
Annapolis Naval Academy (KNAK)	3646
Baltimore, MD (KBWI)	3714
College Park (KCGS)	3458
Dulles Airport (KIAD)	3521
Ft. Belvoir, VA (KDA)	3520
Frederick (KFDK)	3305
Gaithersburg (KGAI)	3334
Gambrils (F2488, near Bowie)	3536
Greater Cumberland Reg (KCBE)	3193
Martinsburg, WV (KMRB)	3129
Natl Arboretum/Reagan Natl (KDCA)	4005
Salisbury/Ocean City (KSBY)	3696
St. Mary's City (Patuxent NRB KNHK)	4037
Westminster (KDMW)	3826

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 calculator Thresholds in: Fahrenheit °F Lower: 50 Upper: 95 Calculation type: simple average/growing dds Start: Jan 1

## Pest Predictive Calendar “Predictions”

By: Nancy Harding and Paula Shrewsbury, UMD

In the Maryland area, the accumulated growing degree days (**DD**) this week range from about **3129 DD** (Martinsburg, WV) to **4037 DD** (St. Mary's City). The [Pest Predictive Calendar](#) tells us when susceptible stages of pest insects are active based on their DD. Therefore, this week you should be monitoring for the following pests. The estimated start degree days of the targeted life stage are in parentheses.

- White prunicola scale – egg hatch / crawler (3<sup>rd</sup> gen) (**3238 DD**)
- Banded ash clearwing borer – adult emergence (**3357 DD**)
- Tuliptree scale – egg hatch / crawler (**3519 DD**)

See the [Pest Predictive Calendar](#) for more information on DD and plant phenological indicators (PPI) to help you better monitor and manage these pests.

## Conferences

### September 27, 2022

#### Cut Flower Tour

Location: Zekiah Ridge Farm, La Plata, MD, and second site TBD

[Schedule and Registration](#)

### September 28, 2022

MAA and MOSH Annual Day of Safety and Health

Location: Howard County Fairgrounds, West Friendship, MD

[For details and to register](#)

**September 29, 2022** (9:00 AM to 3:30 PM)

Operator Certification (FTC) for Writing Nursery Nutrient Management Plans for Nurseries, Greenhouses and Controlled Environments

Location: Wye Research and Education Center, 124 Wye Narrows Drive, Queenstown, MD 21658

**If you wish to register**, please do so before September 23rd, 2022 by emailing Dr. Andrew Ristvey (aristvey@umd.edu). Add your business name and phone contact number. If you have questions please send an email to me or call me at 410-827-8056 x113.

**October 19, 2022**

FALCAN's Truck & Trailer Safety Seminar

Location: Urbana Fire Hall

[For details and to register](#)

### **September and October Solar Workshops**

Registration is required for these free workshops  
[go.umd.edu/Solar2022](http://go.umd.edu/Solar2022)

**Winter 2022 to 2023 programs will be listed soon.**

**Commercial Ornamental IPM Information**  
**extension.umd.edu/ipm**

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