

## Entomology Weekly Review - April 19, 2023

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## Weekly Review for April 19, 2023

This informal report by the Division of Entomology & Plant Pathology is a commentary on insects, diseases, and curiosities division staff encounter on a week-to-week basis. Comments and questions about this report are welcome and can be sent to your respective Inspector.

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**Jared Spokowsky (Nursery Inspector & Compliance Officer) - [Jspokowsky@dnr.IN.gov](mailto:Jspokowsky@dnr.IN.gov)**

Last week I mentioned my honeybee/pollen vacuum I was working with for collecting pollen samples. I got quite a few emails regarding the apparatus so I thought I would show a few photos of the setup.

I use a DeWalt battery powered vacuum as the suction source. The bee collection box started with a 6.5-quart container with two holes in each end. One hole was cut to fit a 2-inch PVC pipe and the other for a half-inch PVC pipe. I drilled numerous other holes in each pipe and ran them all the way through the container. One end of each pipe is capped and the other end is open. The vacuum is attached to the open end of the 2-inch PVC pipe and the open end of the half inch pipe is connected to a half inch tube for collecting bees. The PVC is not cemented together so it allows me to take it apart and clean it. Originally, I had placed a double screen mesh on the side of the container as a pollen trap with a self-sealing flap. The idea was to collect the bees and let them leave through the reverse pollen trap to self-harvest the pollen, but I decided it was more time efficient to just collect the bees and freeze them because you still don't get 100 percent pollen stripping with a 4.5 mm screen.

The second part of the apparatus was a pollen vacuum, which is also built out of PVC. I used a 2-inch piece of PVC necked down to a half inch and then collected to three half inch plumbers unions. At each union I cut a piece of nylon mesh measuring approximately 2 inches by 2 inches which were then sandwiched in between the two pieces of the union. I used three different screen sizes including 90-

micron, 36-micron and 5-micron. The first 90-micron screen was used to filter out debris that might be sucked up. The 36- and 5-micron screens were the ones used to collect the pollen. I found that the 5-micron screen reduced the airflow so much that it was hard to get much suction, so I switched it to a 10-micron screen, which seemed to catch the majority of the pollen while allowing a decent amount of suction. In this case the PVC is cemented together to give it some rigidity, but it is still pretty easy to clean.



Photo 1 – Bee/pollen vacuum apparatus



Photo 2 – Interior of bee chamber



Photo 3 – Pollen vacuum disassembled

**Caydee Terrell (Nursery Inspector & Compliance Officer) - [CTerrell@dnr.IN.gov](mailto:CTerrell@dnr.IN.gov)**

We had our first group inspection of the year, which was exciting! Nine out of our 12 inspectors were present.

This was also the first time I have seen a long-tailed mealybug (*Pseudococcus longispinus*). It can be

found on every continent except Antarctica. They are typically found in greenhouses but can also be found outside in warmer climates. They feed on many economically important crops, especially tropical fruits and ornamentals. Long-tailed mealybugs are usually identified by the two long, waxy filaments on the last abdominal segment of the female. They are sexually dimorphic, meaning males don't look the same. Males are more slender, darker, and have wings, but are seen less frequently as they don't feed on the host plant. I only saw this one female, but she is very cute! It's a shame she is a pest.



Photo 4 – Long-tailed mealybug

**Kristy Stultz (Nursery Inspector & Compliance Officer) - [KStultz@dnr.IN.gov](mailto:KStultz@dnr.IN.gov)**

As promised Indiana's spring weather has shifted, creating the possibility for frost and even a good freeze in some areas this week. While all the sun and warm weather last week had many of us out getting plant crazy, it's important for sellers and buyers to remember to keep an eye on weather and be prepared to cover up those annuals. The next couple of weeks are likely to be a lot more spring like and a lot less summer like.



Photo 5 – Tarps for frost protection ready to go at a nursery

With Indiana now having two known spotted lanternfly (SLF) populations, there has been a lot of discussion about egg mass scraping in an effort to reduce populations. But before you can scrape an egg mass, you need to know what it looks like.

Spotted lanternfly egg masses can be laid on just about any surface. The females look for protected and out of the way surfaces to lay them. Each egg mass contains up to 50 eggs. They are typically oblong about 1-inch long and one-half inch wide. Again, they may be longer or shorter, thinner or wider depending on the number of eggs under the protective coating. They can look like a smear of mud or splash of concrete mix; usually light gray in color and smooth in appearance though as they age, cracks will appear in the coating. Egg masses can be visible year-round since even after hatch, there will be egg casings and some coating left behind. New egg masses are laid in late September through the first freeze and will not hatch until the following spring, typically in May.



Photo 6 – Spotted lanternfly egg masses can be highly variable – note the partially uncovered eggs in the middle photo.

There are several other insect egg masses that may be confused with spotted lanternfly. Spongy moth egg masses are roughly the same size and can be laid on just about any surface. They will be light tan or buff in color and have a hairy or cotton-ball like texture. Like SLF, spongy moth overwinters in the egg mass.



Photo 7 – Spongy moth egg masses – note the pupal case in the upper left photo

We've gotten lots of folks asking about praying mantis egg cases. Also known as oothecae, they can be similar in shape and size. Praying mantis egg cases look a little bit like foam and are glued primarily around twigs. They are variable in size and shape depending on which species of praying mantis laid the egg mass.



Photo 8 – Praying mantis egg cases from two different species – Chinese mantis (left), Carolina mantis (right)

If in doubt, send a picture to [DEPP@dnr.IN.gov](mailto:DEPP@dnr.IN.gov). Include your name, contact information and the location where the photo was taken. We're happy to help you figure out what you've got. If you think you've spotted SLF, we definitely want to know of possible new populations.

**Eric Biddinger (Nursery Inspector & Compliance Officer) - [EBiddinger@dnr.IN.gov](mailto:EBiddinger@dnr.IN.gov)**

I had a greenhouse call me to get some geraniums shipped to the Purdue University Plant and Pest Diagnostic Lab. Long story short, it was bacterial leaf blight (*Xanthomonas* sp.). As the greenhouse received infected stock last year and there has been no indication that diseased plants were shipped from the supplier this year, it probably carried over in the greenhouse. Here's the lesson – they acted fast so they have a chance to get out in front of it this year. Don't hesitate to send things to the lab.



Photo 9 – Confirmed bacterial leaf blight on geranium

**No reports this week**

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