Entomology & Plant Pathology Weekly Review, June 12

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Weekly Review for June 12, 2024

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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Will Drews (Nursery Inspector & Compliance Officer) - WDrews@dnr.IN.gov

Kudzu is up and noticeable here in Southern Indiana. Be on the lookout for trifoliate (three leaflets) leaves that are usually lobed and a dense, smothering growth habit. We've had a positive kudzu report this year already as well as a couple of mistaken identity reports (e.g., bur cucumber and poison ivy). If you do see kudzu, please email me with site location and pictures. Also, if you're attending the annual Indiana Invasive Species Conference at Brown County State Park this Thursday, you can learn more about kudzu at my session at 10:10 a.m.

Below are some photos I took during a recent kudzu site visit last week.



Photo 1 – Kudzu growing over and smothering a young tree.



Photo 2- Typical kudzu leaves. Note the three leaflets per leaf. The terminal leaflet usually has three lobes, while the lateral leaflets usually have just two lobes. The degree of how pronounced the lobes are varies.



Photo 3 – Mature kudzu vine starting to smother a large pine tree. Note how kudzu vines grow over the branches and are not appressed on the trunk with aerial rootlets, like poison ivy.

Diane Turner (Nursery Inspector & Compliance Officer) – <u>DTurner2@dnr.IN.gov</u>

While out on a routine group inspection, members of our division came across a very interesting find this week, a swamp white oak infested with galls created by wasps in the genus *Neuroterus*.

These galls are caused when the tiny, native, stingless wasp lays eggs in leaf buds. As the leaf develops, small galls form on the underside of the leaves. Each gall contains a single larva that develops inside a chamber in the center of the gall.

Leaves with these types of gall may show brown spots with yellow halos on the upper surface that are often mistaken for a foliar disease, especially after the galls dry up and fall off the underside of the leaf.

Damage may be severe for a year or two, then the population will decline as natural controls become effective. Although infected trees may be defoliated, the problem is rarely fatal for healthy trees. The primary host species are trees in the white oak group.



Photo 4 – Underside of a swamp white oak (Quercus bicolor) leaf showing disc-like galls (Neuroterus spp.) and scars where mature galls have detached and fallen to the ground.

Angela Rust (Nursery Inspector & Compliance Officer) - ARust@dnr.IN.gov

I thought I would share a couple of insect pests this week. The first is cherry lace bug *Corythucha* sp. I'm not sure if this is *C. pruni* or *C. associata* as they are all still in the nymph stage and I don't have adults to help confirm the species. Lace bugs feed using piercing-sucking mouthparts on the underside of leaves where they leave black shiny spots of excrement. Feeding damage will result in pale flecks (or stipples) showing up on the upper side of the leaves. Lace bugs can thrive and reach high populations during hot and dry conditions. Lace bug damage is mostly aesthetic and does not do significant harm to the plant. There are several management options available for those situations where nurseries or homeowners may want to limit the damaged appearance of the leaves. Lace bugs are a common plant pest in the landscape.

Oak slug sawflies *Caliroa* sp. are my other insect pest of the week. The larva of this insect is slug-like in appearance. Larvae feed on the lower surface of the leaves eating the leaf material between the veins. This results in skeletonized patches of only thin white material left. In my photo of the upper surface damage, you can actually see the shadow of the larva through the thin layer of material. Sawfly adults are a type of non-stinging wasp. The damage from this pest is entirely aesthetic and does not warrant treatment. Oak slug sawflies are common in the landscape.



Photo 5 – Close-up photo of cherry lace bug nymphs.



Photo 6 – Cherry lace bug nymphs and excrement on the underside of a black cherry leaf



Photo 7 – Cherry lace bug damage on the upper surface of black cherry leaves



Photo 8 - Oak slug sawfly damage on leaf lower surface



Photo 9 - Oak slug sawfly damage on leaf upper surface

Kallie Bontrager (Nursery Inspector & Compliance Officer) - KBontrager@dnr.IN.gov

Last week I saw quite a bit of potato leafhopper damage, which includes curling of leaves and browning of leaf tips. The plants I saw the damage on included red maples, red oaks, and crabapples. A couple of other interesting things I came across were crown rust on Fine Line buckthorn and witch

hazel gall-making aphids on river birch.



Photo 10 - Crown rust on Fine Line buckthorn



Photo 11 - Witch hazel gall-making aphids on river birch



Photo 12 - Galls on river birch caused by witch hazel gall-making aphids

Kristy Stultz (Nursery Inspector & Compliance Officer) - KStultz@dnr.IN.gov

June is here and that can only mean one thing... that's right! Spongy moth mating disruption treatments. Treatments are tentatively planned for the beginning of the week of June 17. Check out on.IN.gov/spongymoth for updates. Follow us on X for up-to-the-minute updates on when treatments

start and are completed. Larva are still active but getting ready to pupate. The female pheromone is placed in the environment prior to adult emergence to ensure the greatest effect.

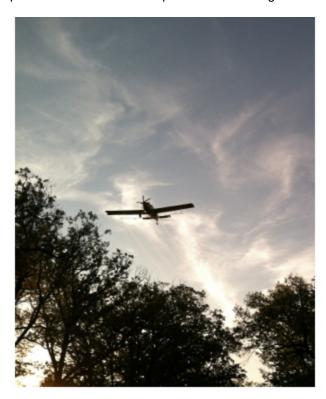


Photo 13 - Spongy moth aerial treatment

While doing regular nursery grower and dealer inspections this past week, I was thinking about how sometimes it can be difficult to determine what your threshold of management should be.

There are a lot of questions to answer – what is the damage to the plant? Are there natural enemies present? What's the lifecycle of the pest in question? One thing is for certain, the picture of the spider mite infestation is beyond that threshold. If 2023 was the year of the aphid, I'm declaring the spring of '24 as the year of the spider mite.



Photo 14 - Spider mite infestation

Eric Biddinger (Nursery Inspector & Compliance Officer) - EBiddinger@dnr.IN.gov

Our weird summer continues. We are somewhere between 10-14 days ahead of normal. Some of my Asiatic lilies are way ahead of schedule. I have received a report of Japanese beetle adult emergence. This leads me to the conclusion that we need to be on our toes for scouting this year and not rely on the calendar.

In nurseries, I have seen a fair bit of leaf bronzing from spider mite injury starting up on bur oak, serviceberry, and 'Winter King' hawthorn. There also seems to be a higher-than-normal occurrence of the various galls on oaks. Oak petiole gall was particularly numerous on bur oaks at one nursery this week. Fire blight and cedar apple rust have also been occasionally found on pears and apples.



Photo 15 – A three-in-one photo – oak petiole gall (red arrow), spider mite damage (blue arrow), and a green lacewing egg (a predator, green arrow) all on one leaf.

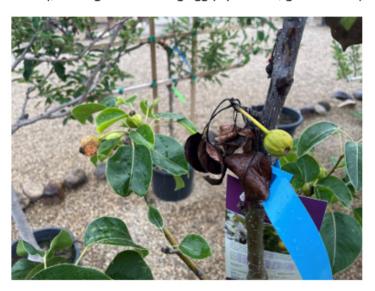


Photo 16 - Fire blight and cedar apple rust on Asiatic pear

Finally, I have received a fair number of spongy moth calls from my northern counties. The good news is I am seeing an abundance of caterpillar mortality caused by *Entomophaga maimaiga* and NPV, a fungus and a virus, respectively. These diseases are especially prevalent in wetter seasons. You can tell the difference between the pathogens by the position of the deceased caterpillars: NPV will leave the caterpillars hanging in an upside-down V *while Entomophaga maimaiga* infected caterpillars hang head down.



Photo 17 – Spongy moth caterpillars killed by NPV (left) and *Entomophaga maimaiga* (right)

No reports this week

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