Entomology & Plant Pathology Weekly Review, July 31, 2024

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Weekly Review for July 31, 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.

Our Website
Inspector Territories

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

A couple of administrative things. Please welcome Gary Moughler as he replaces Vince Burkle as nursery inspector in the northeast area. Some of you with a really long memory might remember Gary from his days as a USDA officer working on the emerald ash borer program and before that as a nursery inspector with us in the very area, he will be taking over again.

Welcome back, Gary! This transition will allow Vince to fully move into his role as assistant director and survey coordinator. The territory map and contact information on the website will be updated shortly.

Second, the Indiana State Fair starts this weekend and once again DEPP will be hosting the State Fair Butterfly Garden and invasive species booth in the DNR Building. Please stop by and say hello. The DNR Building is open from 9 a.m. to 8 p.m. The State Fair runs Aug. 2-18 (closed Mondays).

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

Those of you up here in the northwest corner of the state might be noticing flagging/dead tips on trees scattered around the area. This damage is from the periodical cicada brood 13 that emerged in LaPorte, Porter, and Lake counties earlier this summer. It is caused by the female cicada laying eggs

in the limbs.



Photo 1 - Flagging/dead tips caused by cicada damage



Photo 2 - Damage to twigs caused by cicada oviposition

Japanese beetles have been patchy but where I have found them but are more concentrated than in the last few years. Other problems I saw included flea beetle damage on weigela and hawthorn, oak slug sawfly on white oak and red oak, psyllid nipple gall, and potato leafhopper on several varieties of red maple.

A problem that I see with *Sedum* and other succulents in the nursery is powdery mildew. This pathogen thrives in high humidity conditions. You may notice scab-like lesions that appear white, gray, or brown on leaves. Keep plants separated with sufficient distance to maintain good air circulation and keep them in sunny areas. Neem oil or copper-based fungicides can work well for the management of this problem. Be sure to follow all label instructions, especially in hot conditions, so leaves are not burned.

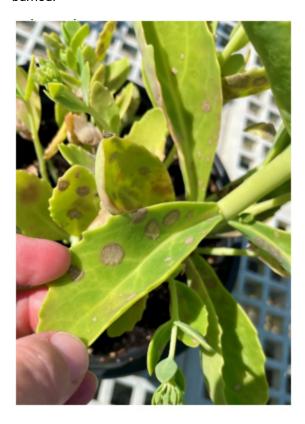


Photo 3 - Powdery mildew on Sedum

False oleander scale is an armored scale insect that I see frequently on *Magnolia* nursery stock. This pest has around 100 known host species. For management guidance on armored scales see this <u>link</u>.



Photo 4 - False oleander scale on Magnolia

$\textbf{Diane Turner (Nursery Inspector \& Compliance Officer)} - \underline{\texttt{DTurner2@dnr.IN.gov}}$

Bagworms, *Thyridopteryx ephemeraeformis*, are known to feed on many species of plants; however, evergreens are very commonly attacked throughout Indiana this time of year. The larvae live inside the spindle-shaped bags they construct from the host plant. These bags serve as protection from predators.

Eggs of this insect that have overwintered in last year's bags begin to hatch in early June. As the larvae feed on the host plant and grow, they spin their bags and continue to enlarge them as they grow. The primary harm to the host plant is defoliation leading to it becoming weakened and unsightly.

The dark-colored larva crawls part-way out of its protective home to feed and quickly retreats inside when disturbed. Management of this defoliator includes hand-picking bags from plants with light infestations to using a biorational or synthetic insecticide on the foliage with heavier populations. For more information see this publication from Purdue Extension.



Photo 5 – Bags created from insect silk and pieces of the host tree Douglas fir, *Pseudotsuga* menziesii



Photo 6 - Close-up of bagworm on Douglas fir, Pseudotsuga menziesii



Photo 7 - Bagworm larva is dark in color with a mottled head cap

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

While performing some tree of heaven (*Ailanthus altissima*) surveys recently, I've noticed some damage to them that thankfully isn't spotted lanternfly. There's one other insect in our area that has been around for much longer and considers the invasive tree of heaven a host plant, and that is the

ailanthus webworm moth (Atteva aurea).

Originally more of a Central American species (up to Mexico and southern Florida), the ailanthus webworm moth expanded its range northwards to feed on tree of heaven, once it was introduced to the U.S. in the late 1700s. Before that, the ailanthus webworm moth mostly was found on paradise tree (*Simarouba glauca*) and a couple of other species in the Simarouba family. However, once tree of heaven was introduced and its range quickly expanded all the way to Florida, the ailanthus webworm moth learned to use this new species—which is also in the Simarouba Family—as a food source, and the moth's range expanded quickly to most of the invaded range of tree of heaven.

Unfortunately, the ailanthus webworm moth tends to not do enough damage to the invasive trees to cause any mortality. However, on some small seedlings, the damage can be quite extensive and cause the tree to lose most or all of its new growth for a season.

Here are some of the pictures I have taken recently of most of the life stages of ailanthus webworm moth on a small patch of tree of heaven.



Photo 8 – Webbing of ailanthus webworm moth on tree of heaven with some caterpillars and pupa.



Photo 9 – Ailanthus webworm moth caterpillars in their webbing.



Photo 10 – Ailanthus webworm moth pupae.



Photo 11 – Ailanthus webworm moth adult on a tree of heaven leaflet.



Photo 12 – Ailanthus webworm moth damage to young tree of heaven seedlings. Note the major damage to three of the four tree of heaven seedlings, which are circled in red. While this won't kill the trees, it will set them back a bit.

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

Leaf galls are typically not considered to be detrimental to a plant's overall vitality. In most cases, they are aesthetically unpleasing but aren't going to cause long-term harm. This is especially true when considering the overall percentage of affected tissue versus healthy tissue over the entirety of the plant.

This is the case with oak flake galls, *Neuroterus quercusverrucarum* family Cynipidae. These tiny, non-stinging wasps cause small fuzzy white galls on the underside of leaves of several species of oaks including white oak (*Quercus alba*), swamp white oak (*Q. bicolor*), bur oak (*Q. macrocarpa*). The wasps lay eggs on the underside of leaves in the spring and white, fluffy galls form in summer. As the season progresses, the galls will slowly turn various shades of brown.

When in high numbers, the galls can look pretty gnarly and be very concerning to homeowners.



Photo 13 – Oak flake gall



Photo 14 – Underside of an oak leaf covered in oak flake gall



Photo 15 – Oak flake gall damage on upper surface of the leaf No reports this week

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