## **Entomology Weekly Review - April 5, 2023**

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## Weekly Review for April 5, 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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## Kristy Stultz (Nursery Inspector & Compliance Officer) - KStultz@dnr.IN.gov

Spring made a huge entrance over the weekend with severe storms that caused a large amount of damage and loss of life. We wish the best for those who suffered greatly from this storm system.

In the light of those storms, it's hard to think about what's going on at the garden center. They are a reminder weather is extremely variable throughout the Midwest in the spring, so it's important to stay aware. Heavy wind events can throw pots all over, dislodge soil, and cause damage to material. Garden centers should have a way to secure small pots in some way or be able to move them out of the wind. Even though temperatures are going to reach 80 in some parts of the state this week, it's still April. We're going to get another cold spell that will wreak havoc on young tender plants or outright kill annuals. It's critical to have a plan in place now to provide cover for these plants and just as important to constantly keep up with weather changes.

It's also very important to check material as it's delivered. Don't let suppliers send you subpar material. Pots with roots growing out of the bottom, insufficient growing media exposing roots at the top of pots, damaged stems, and dead leaders can cause stress and effect long-term viability of your investment.



Photo 1 - A dead leader will need to be properly pruned for the plant's overall health and aesthetics.



Photo 2 - If plants aren't properly secured, even the smallest breeze can cause damage.

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I wanted to touch on something that Eric Biddinger brought up in our last Weekly Review, but in a beekeeping context. Growing degree days (GDD) are a measure of heat accumulation calculated using the maximum and minimum temperatures for a 24-hour period. If you want more information on

how calculations are made, see this <u>Penn State Extension site</u>. For some insect species this is an extremely precise measurement and I have used it very effectively working with growers to help control scale infestations. But I want to offer a word of caution on using GDD as it relates to beekeeping.

When I use GDD to time spraying for scale insects it's a very simple relationship. Scale insects are sedentary. The overwintering stage of the insect is usually found on the bark of trees fully exposed to the elements. Bees live in a colony which modifies the environment to facilitate growth, regardless of the outside conditions. This goes directly against the GDD model. Really what you're looking at is guessing how the bees are going to react to floral developments, which you can get a some idea of based of GDD.

Previously I have heard beekeepers want to know at what GDD should I super my colonies, or I have heard people say you should split your colonies at X amount of growing degree days. Currently, I have colonies across a range of strengths from very strong to weak. I am kidding myself if I think those colonies are all going to react to environmental cues in the same manor. A strong colony with abundant stores boiling over with bees is going to swarm early, while a weak colony with other stressors is going to have to build up before swarming if it can swarm at all. This is really going to throw a wrench in your management if your just making decisions based off GDD.

What I can tell you about GDD is that this year in southeast Indiana we got several warm days in February. We were ahead of 2022 by almost three weeks. I was in my colonies early and noticed the uptick in egg laying and I was comparing notes to last year when swarming started. If that trend continued, I would have to adjust my management strategy. But as luck would have it, we went through a cold snap where we did not get any GDD accumulation for almost three weeks. As of writing this April 3 we are basically right back to the same GDD levels we saw in 2022. Now what does that mean for the bees that had already started building up? I don't know. That's why I'm going to keep an eye on them by doing in-hive inspections. In short there is no shortcut for getting into your hives and knowing their strength. The statistics collected by the Bee Informed Partnership (BIP) bear that out. Statistically, those individuals who do regular colony inspections have much higher survival rates and so I am going to encourage you to get into them often.

I also want to encourage you to fill out the <u>2023 BIP Survey</u> which just went live on April 1. The more information we collect about colony losses and management practices, the better picture we will have about the state of the beekeeping in Indiana. Please share this survey with other beekeepers and your clubs.

## No reports this week

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