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## Annoying Swarms Of "Bees" And Mystery "Worms" On Corn!

(Christian Krupke), (Elizabeth Long), (Laura Ingwell) & (John Obermeyer)

Increasingly, we are getting inquires of swarms of "bee-like" flies around Indiana fields, farmsteads, and rural environments, and wanted to take the opportunity to tell you a bit about this curiosity. Adult hover flies (aka syrphid flies) can sometimes be mistaken for bees or wasps, because they look a lot like them! Some people refer to hover flies as "corn flies" or "sweat bees," but these insects are actually quite different from bees.



Hover (Syrphid) flies on a corn tassels. (Photo Credit: John Obermeyer)

Hover flies belong to the Order Diptera, or the true flies. The most noticeable group at this time of year belong to the genus *Toxomerus*, which feed on pollen. There are many other syrphid flies present throughout the season that are beneficial, as their larvae feed on soft-bodied insects like aphids.

Compared to sweat bees, hover flies have black and yellow markings, are able to fly in place yet dart away quickly, have a characteristic abdomen-bobbing behavior, and are unable to sting – in fact, they are harmless. Sweat bees, on the other hand, are typically dark or metallic in color, smaller than common honey bees and do have stingers. Both hover flies and sweat bees can be a minor nuisance, as they are attracted to us for moisture and salts they get by lapping up our sweat.

Sweat bees will sting if accidently squished against our skin while they are feeding.



Sweat bee feeding on sweaty skin. These can sting if you accidently press on them.

(Photo Credit: John Obermeyer)



Harmless hover fly feeding on sweaty skin. (Photo Credit: John Obermeyer)

In cornfields and other flowering crops, you will likely find the larval form of this insect, a small, rather plain-looking maggot, feeding in leaf axils and other areas where pollen collects. We have received pictures and videos of high-boy equipment "alive" with these maggots after spraying fungicides in cornfields. The maggots look very much like the spent pollen anthers. Be advised that the larvae are not pests, as they do not damage the crop. Rather, they are taking advantage of an

abundance of pollen. This holds true for other flowering crops as well. You may continue to see these insects for a couple more weeks. Just remember they are not pests and cannot sting you, they just might be a bit bothersome *hovering* around you in large numbers!



Two hover fly larvae (maggots) next to corn anthers. Can you see them? (Photo Credit: John Obermeyer)



Dead hover fly and live larva feeding on pollen in corn leaf axil. (Photo Credit: John Obermeyer)

# Much Yet To Be Done In Late Summer With Forage Management

(Keith Johnson)

There is much that can be done for the wellbeing of forages in the late summer. What follows are some management practices that should be considered as the 2023 growing season continues and as preparation for the 2024 happens. Unlike corn and soybeans that are nearing physiological maturity as they edge into September, perennial legumes and cool-season grasses continue to grow well into the fall, and all perennial species are in preparation of protecting themselves against cold winters. What follows are some bullet point "best management practices" to consider as the growing season continues.



The summer sunset is a reminder that much can be done in late summer with forage management. (*Photo Credit: Keith Johnson*)

#### **August**

- Southern Indiana: If tillage occurs in preparation for an August seeding, do so by mid-month.
   Incorporate recommended fertilizers prescribed by soil test.
- Northern Indiana: Seed new pasture or hay fields early in the month. Southern Indiana: Seed new pasture or hay fields by late month. Remember, a firm seedbed is essential and seed at the recommended depth. Do not bury the seed!
- Adjust soil pH (if necessary) by adding limestone to pastures where legumes will be sown during late winter.
- Continue to rotate pastures, scout for potato leafhopper, and harvest hay when it is a proper maturity and projected weather conditions are rain free.
- If dry weather conditions return, implement precautionary measures to prevent nitrate toxicity.
- Purchase small grain, annual ryegrass, and/or forage turnip seed and sow for fall grazing where land was used for wheat grain harvest and early corn silage harvest. Check herbicide labels used in 2022 and 2023 for plant back restrictions.
- Late in the month, apply approximately 50 pounds of nitrogen fertilizer per acre to cool-season grass paddocks that will not be grazed for the rest of the growing season so growth can stockpile for late fall and early winter grazing.

### September

- Complete the final perennial legume and cool-season grass harvest of the growing season so there is at least one month between harvest and a killing freeze. This practice increases the winter survivability of the forages.
- $\circ$  After hay harvest, fertilize (if needed) to keep stands productive. A good rule of thumb: Apply 15 pounds of  $P_2O_5$  and 60 pounds of K<sub>2</sub>O per year for each ton of alfalfa hay harvested.
- Graze grass-legume pastures lightly for the remainder of the season or rest them so legume crown reserves can replenish.
- Provide poloxalene supplements to ruminant livestock grazing bloat-causing legume pastures, especially during lush growth periods.
- Soil test fields intended for spring forage seeding and apply amendments (lime and fertilizer) as soon as possible (if recommended).
- o Harvest corn silage when moisture is appropriate for the silo

- type and size being used. A moisture level of 65 percent works well for most silo types.
- Scout new alfalfa fields for potato leafhopper. The insect can be especially harmful to young alfalfa seedlings.
- Prepare for grazing corn residues after grain harvest if the residues meet the nutritional requirements of the livestock.
   Check the exterior fence for any needed repairs. Strip graze the corn residues, if significant ear drop occurs.
- Apply a herbicide in late September/early October that is highly
  effective on controlling
  actively growing weeds if they are a concern in perennial grass
  pastures. Read the labels for
  complete details about the possible herbicide choices before
  making a final selection.
- Purchase winter small grain or annual ryegrass seed where it can be grazed, hayed, or ensiled the following spring. Broadcast seeding by aircraft into soybeans and corn as the crops senesce can be successful provided moisture is sufficient during germination and seedling development.
   Check herbicide labels used in 2022 and 2023 for plant back restrictions. Seed winter wheat after the Hessian fly-free date.

### Seasonable Temperatures Expected To Continue

(Beth Hall)

There seem to be a few counties – particularly along the western border – that have not been getting as much rain as elsewhere. Those areas are still at least abnormally dry through August 8, 2023. However, additional rain events over the past several days and over the weekend should help those few remaining areas that are on the drier side. The climate outlooks for precipitation continue to favor a relatively weak probability for above-normal rain. This seems to have been the ongoing trend for the past month and is expected to continue for the foreseeable future.

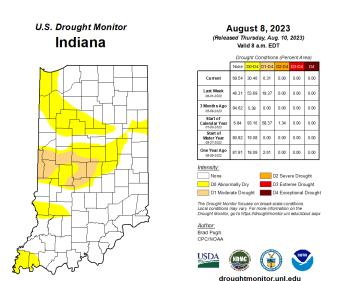
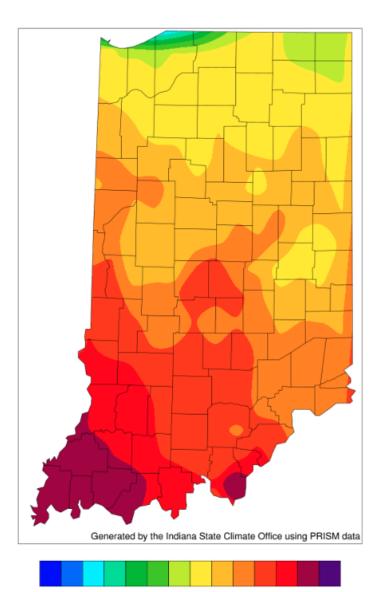


Figure 1. U.S. Drought Monitor status for Indiana based upon conditions through Tuesday, August 8, 2023.

Temperatures have been much more seasonable, lately. Most of August typically has high temperatures in the low-to-mid 80s and we can continue to expect that for this year for at least another week. After that, climate outlooks are slightly favoring above-normal temperatures but it is too soon to know how extreme this might be and for how long. With these seasonal temperatures, accumulated modified growing degree days continue to be between 50-160 units below average for the April 15 through August 9<sup>th</sup> period (Figures 2 and 3).



1200 1400 1600 1800 2000 2200 2400 Figure 2. Modified growing degree day (50°F / 86°F) accumulation from April 15-August 9, 2023.

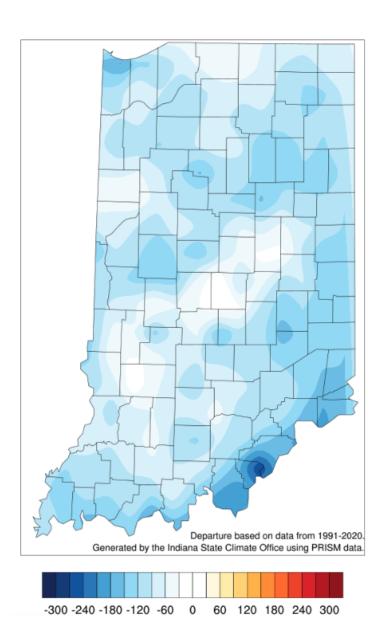


Figure 3. Modified growing degree day (50°F / 86°F) accumulation from April 15-August 9, 2023, represented as the departure from the 1991-2020 climatological average.

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