



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Hardin County Extension News Release

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Alfalfa Weevil – It's Closer Than You Think

Hardin County – Though the current cold snap has caught our attention, we are actually ahead on heat units compared to this time last year, and we've accumulated enough degree days to see potential outbreaks of alfalfa weevil in some locations. Weevils have already been spotted in northwest Ohio. Overwintered adults begin laying eggs when temperatures exceed 48°F. Peak larval activity and feeding damage occur between 325 and 575 heat units (based on accumulation of heat units from January 1 with a base of 48°F). Current (Jan. 1 – Apr. 15, 2021) heating units range from around 200 in northeastern Ohio, over 200 across much of the state, and over 300 units in central and southeast Ohio.

In short, now is the time to start scouting. Alfalfa fields should be scouted weekly for weevils until at least the first harvest, which is approximately 3 to 5 weeks away at this point. Don't let your guard down with the recent turn to cooler weather! We've seen significant weevil infestations in past years when early warm weather pushed weevil development earlier than normal, followed by cooler weather later that slowed alfalfa growth. The result was weevil larvae reaching stages when a lot of feeding occurs and the slowed alfalfa growth not staying ahead of their feeding damage. Follow-up scouting may be needed after the first harvest in heavily infested fields.

Spot problem fields early by checking alfalfa tips for feeding damage – small holes and a tattered appearance. Fields that have a south facing slope tend to warm up sooner and need to be checked for weevil earlier. Here is a video about scouting weevils in alfalfa:

<https://forages.osu.edu/video>.

Scout for alfalfa weevils by collecting a series of 10 stem samples from various locations. Place the stems tip down in a bucket. After you've collected 10 stems, shake the stems vigorously into the bucket and count the larvae. Divide this number by 10 to get the average number of larvae per stem. Do this procedure at least 3 times (for a grand total of 30 stems, in 10-stem units). Alfalfa weevil larvae go through four growth stages (called instars). The shaking will dislodge the late 3rd and 4th instar larvae which cause most of the foliar injury. Close

inspection of the stem tips may be needed to detect the early 1st and 2nd instar larvae. Also record the overall height of the alfalfa. The treatment threshold is based on the number of larvae per stem, the size of the larvae and the height of the alfalfa. When alfalfa is around 12-16 inches in height, growers can consider an early harvest rather than spraying, if they feel the current growth is sufficient to justify the cost of harvest or if spraying can't be done for some reason (e.g. organic production). When alfalfa stem height is over 16 inches, we would always recommend an early cutting. In those fields which are cut early for alfalfa weevil, the regrowth should be checked closely to make sure weevils that are still alive do not prevent good regrowth.

For more information about alfalfa weevil, visit our factsheet at <https://ohioline.osu.edu/factsheet/ENT-32>. If you are interested in a more detailed treatment of how growing degree days can be used in management decisions for alfalfa weevil, visit this website from the University of Kentucky at <https://entomology.ca.uky.edu/ef127>.

*Photo caption: Alfalfa weevil larvae feeding on alfalfa plants found in northwest Ohio (4/28/21).
Photo credit – Greg LaBarge*

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