



Alfalfa Weevil ALERT: Scout 2nd Crop Alfalfa Regrowth

Eileen Cullen, Extension Entomologist, UW Entomology Department

In general, both the alfalfa weevil and the alfalfa plant respond to favorable spring temperatures. At lower spring temperatures however, like those in much of Wisconsin early to mid May, alfalfa develops more quickly than the weevil. That was good for first crop, as long as rains did not delay first cutting. ***Increased temperatures over the last week mean that late instar alfalfa weevil development is accelerating more quickly than earlier instars. Additionally, we are seeing and receiving reports of heavy alfalfa weevil larval populations. It is critical to scout 2nd crop regrowth for late instar (3rd-4th instar) alfalfa weevil, even if previous first crop scouting assessment did not present a treatment threshold situation.***

Depending on what part of the state you are in, weevil larvae have entered 4th instar, are pupating, or will reach 3rd and 4th instar over the coming week (this alert written Monday June 5). I encourage you to refer back to the May 4th, 2006 Wisconsin Crop Manager Vol. 13, No. 9 article *Alfalfa Weevil Egg Hatch and Larval Development* <http://ipcm.wisc.edu/wcm/insects.html> for links and instructions to the WI-MN Cooperative Extension Agricultural Weather website where you may view accumulated alfalfa weevil degree days for WI. The DD map, updated daily through mid-June, displays color-coded isolines depicting accumulated alfalfa weevil degree days by region.

Alfalfa weevils cumulatively complete 3rd instar at 504 DD, 4th instar at 595 DD, and complete pupation (adults emerge) at 814 DD (accumulated above a base 48F). Checking alfalfa weevil accumulated degree days on the map will allow you to determine how much longer weevil larvae should feed, when to expect cocoons in the field (no longer causing damage), and when adults are expected to emerge.

Fourth instar alfalfa weevil larvae (the last instar before pupation) are about 3/8 inch long, green with a white stripe down the back and a black head. As larvae grow, the amount of foliage consumed increases. Fourth instar larvae consume about 80 percent of the total foliage eaten in all the larval stages (Cornell, 2001). (Alfalfa weevil larvae may be confused with clover leaf weevil larvae which are larger, have a light brown head, and usually have a white stripe lined with pink. Clover leaf weevil rarely causes economic yield loss.)

Two possible scenarios where late instar alfalfa weevils are present and feeding:

1. 2nd crop regrowth
2. First crop still in field (delayed cutting schedule due to rain or other factors)

Marvin Baker (Bakersfield Consulting, Lafayette, Green and Rock Counties in southern Wisconsin) reported June 5th that within the past several days, alfalfa weevil larval pressure on 2nd crop regrowth is as high as he has ever observed in his 20 years of experience in southern WI. Marvin reports fields where first crop was cut May 22nd/May 23rd and 2nd crop is now at 8-inch height with 40% to 60% of stems with weevil feeding. Also on June 5th, Bill Stangel, UW Arlington Agricultural Research Station Asst. Superintendent and Dan Undersander, UW Madison Forage Agronomist reported significant alfalfa weevil larval pressure.

In the northwest, west central, southwest and southern regions of WI check 2nd crop alfalfa stubble and regrowth now for signs of weevil feeding (leaf feeding, live larvae). In central, east central, northeast and far northern areas of the state the same rule applies. If first cutting has yet to come off, be prepared to scout 2nd crop regrowth within 4 days of harvest. Check the stubble carefully for signs of damage to new growth. Fields may fail to green-up because late instar larvae and adults can consume new crown buds as fast as they are formed.

Look for larvae on the soil surface, under leaf litter and around alfalfa crowns. It is difficult to make control decisions based on the number of larvae or adults found. If new growth has started, a better method is to take another stem sample, as recommended for first crop (WCM Vol. 13, No. 9, May 4th 2006 <http://ipcm.wisc.edu/wcm/insects.html>), and treat the field when 50% of the stems have feeding injury. If alfalfa weevil populations are heavy and plants show no sign of regrowth within 3 to 4 days after harvest, treat the stubble as soon as possible (Undersander et al., 2000). If alfalfa weevil larvae or adults are not present, lack of regrowth is likely due to other factors. Remember that dry weather will often delay growth of the new crop. Additionally, alfalfa weevil infestations can vary significantly between adjacent fields. Even in heavily infested regions, some fields will remain below treatment threshold, so close scouting of 2nd crop regrowth in each recently harvested field is important under current conditions of high alfalfa weevil densities.

There are a number of insecticides registered for alfalfa weevil larval control. However, if after pupation (814 accumulated DD) adult weevils are causing damage to 2nd crop regrowth at threshold; select an insecticide that is labeled for adult control. For more information regarding insecticides labeled for alfalfa weevil control, consult UW-Extension bulletin A3646 *Field Crop Pest Management in Wisconsin*, pp. 160-161. From the UW-Extension publications website <http://cecommerce.uwex.edu/> follow the "Agriculture" link at the top left of the page and click on "Crops and Forages".

References

Boerboom, C.M., Cullen, E.M., Doll, J.D., Flashinski, R.A., Grau, C.R., Jensen, B.M. 2006. Pest Management in Wisconsin Field Crops. A3646. UW Extension. [<http://cecommerce.uwex.edu/>].

Undersander, D., Martin, N., Cosgrove, D., Kelling, K., Schmidt, M., Wedberg, J., Becker, R., Grau, C., Doll, J. and Rice, M. 2000. Alfalfa management guide. North Central Regional Extension Publication NCR547. pp. 36-37.

University of Wisconsin-Extension Integrated Pest Management Program. 2001. Field Crop Scouting Manual. University of Wisconsin-Extension. [<http://ipcm.wisc.edu/green/>]

Cornell Guide for Integrated Field Crop Management. 2001. Management of insects in forage crops [<http://www.css.cornell.edu/forage/recommends/foragebugs.html>]