Alfalfa Weevils: The Early Alfalfa Pest

By: Mike Hunter, CCE-NCRAT

May is the month to look for alfalfa weevils in your fields. Alfalfa weevils are not always a problem but in some years can reduce forage yield and quality. In most years, by the time the population reaches any significant level the alfalfa is ready harvest and this serves as the management control method without the need to apply an insecticide. However, there are times when the development of the weevil is ahead of the alfalfa growth and insecticide treatments are warranted.

This alfalfa insect pest overwinters as adults in our area and shows up every year in the field. The adults are only about 3/16" long, tan colored with a dark band down the center of the back. The larvae are light green with white stripes down their back with a dark brown head. The 1st instar larvae are 1/16" when they hatch and reach 3/8" when they are fully grown at the 4th instar stage.

The arrival and development of this pest is tied closely to temperatures. Using growing degree days (GDDs), we can predict the arrival of the alfalfa weevil. The females will lay their eggs in April and the eggs hatch after approximately 280 GDDs (Base 48°F) has accumulated. We can expect this to happen in mid to late May in NNY. The 4th instar larvae will coincide with the occurrence of 550 GDDs (Base 48°F). Begin scouting fields in early to mid-May and recheck the alfalfa every 7 days and if there is a potential problem developing in the field, scout more frequently. You should always check the alfalfa after first cutting to make sure the larvae are not present in the stubble and not feeding on the regrowth.

The proper method to scout for alfalfa weevil is to pick 50 alfalfa stems randomly throughout the field and look closely at the terminal buds and leaves. The feeding damage will appear as pinholes or skeletonized leaves. If 40% of the stems collected have feeding damage (count the stems with tip feeding, not the percentage of leaves with feeding damage) in the top three inches of the plant, control methods are necessary. The larger the larvae, the more they eat. An easy way to assess the size of the larvae is to put the collected alfalfa stems in a white bucket and shake the stems against the side to knock the larvae off the stems. The 4th instar larvae will do 80% of the leaf feeding damage.

If the field is within 10 days of harvest, consider early cutting as the control method. If the damage occurs early and harvest is not an option or if harvest is delayed for some reason, apply an insecticide to control the alfalfa weevil. There are several registered insecticides for the control of alfalfa weevil. Remember that there are "days to harvest restrictions" with these insecticides and you should read the label carefully before application.

If you have any further questions about the alfalfa weevil or would like more information contact Mike Hunter (315)788-8450 or Kitty O'Neil (315)854-1218.