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Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants, and Extension Personnel

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Potential Insect Problems on Alfalfa Regrowth

On Alfalfa, it is sometimes important to watch the regrowth following the first cutting for signs of insect feeding. Growers may need to put some additional emphasis on this, this year, because it looks increasingly like we may experience some insect damage on the regrowth. Since we have not experienced too many problems on regrowth in recent years, it may take many growers by surprise.



Adult Damage

Why are regrowth problems anticipated this year? The main reason is because we are finding lots of adult weevils in certain fields. In the Emporia area, fields treated around the first of April recovered from the initial damage and have grown well with all stages of the insect apparently are under control. In contrast, fields treated around mid-April have exhibited good growth, but also produced huge populations of adult alfalfa weevils. Without being in the fields early on, it is hard to tell exactly what happened, but in those we examined, it looks like a portion of the population was at or near pupation and perhaps on the ground at time of treatment. Within a matter of days most of the residual effects of an insecticide begins to wear off, so adults emerging from pupation a week to 10 days after application could probably survive.



Alfalfa weevils

The best timing this year may have varied from field to field, as well as from region to region. In fact, larvae still may be actively eating in some fields, along with adults. And larvae can do significant damage to any growth stage of alfalfa. Except where numbers are extremely high, adults may not cause noticeable damage prior to cutting, but we know from experience that they can delay the development of the regrowth. As a point of reference, we begin to get concerned when we start finding in the range of 25 to 50 adults per 10 sweeps with a standard 15" diameter sweep net. In one field at Emporia, we were getting in excess of 500 adults in 10 sweeps where growth was 14 to 15 inches in height. As you walked, without bending over, you could easily see adults on the terminals of most plants. Damage in the tips of the terminals was becoming visible as you walked through it (May 8). As larvae feed, they tend to skeletonize the foliage, this was more of a shredding type of injury, the nature of the injury is just enough different to be noticeable. Here treatment prior to cutting appeared to be justified. In other fields we also found lots of adults, maybe not enough to cause serious damage to the first cutting, but enough to possibly damage the regrowth (100-300/10 sweeps).



Alfalfa weevils

There is a need to watch the stubble closely following harvest. It will help to get the hay out of the field promptly. Visit the field frequently; look for injury to the remaining foliage, developing buds, and for signs of feeding on the bark of the older stems in the

stubble. If injury is observed, or there appears to be a delay in the development of the regrowth, look for insects in the stubble in the debris that remains.

Certainly, not all fields are like this, many growers have obtained good results, and in those, the regrowth should come back without much of a delay. Even in fields with high numbers of adults prior to cutting there is a good chance that the field may not need treating after harvest, as adults often quickly leave the fields after cutting. However, if conditions are just right the beetles can linger in the fields after harvest and damage the regrowth. So growers just need to be aware that there can be a problem and be alert to signs of feeding soon after harvest.

Growers should stay in contact with their local Extension office and commercial applicators about the results they're getting to determine what they should use to control the beetles if they do stay around to feed on the regrowth. Our last real outbreak of adult weevils occurred during the 1970s. So while we now have a number of controls for the larvae, they are not well tested against large adult infestations. We know of only three products that showed promise the last time we had this kind of problem with adults, these are: phosmet (Imidan) (which isn't commonly available in the state) and methyl parathion and carbofuran (Furadan 4F) which are restricted-use products, best applied by commercial applicators. Local K-State Research and Extension agents can provide information on the recommendations for all three. If the problem becomes significant we expect that other chemicals labeled for alfalfa weevil control will be tested against the adult weevils and thus other products could be added to this list of recommended products fairly quickly, thus the emphasis to stay in contact with local applicators and extension offices.

Some questions have been received about rigging up a swather to spray the stubble while cutting the alfalfa. This is something that has received some success in the past, but is not something that we feel comfortable recommending at this time. Most insecticides have a preharvest waiting interval of 7 days or more and thus it would probably be a violation of the label to spray the stubble and harvest the hay prior to waiting the required interval, even though technically the hay was not sprayed. Some formulations of malathion have a zero day harvest interval, but it is not known if they would be very effective against the adult weevils. In addition, there is a good chance that the weevils could leave the field during the harvesting period and thus not really need spraying. There would also be the issue of making sure the person running the swather had the proper pesticide applicators license if they were using a restricted use chemical or cutting (spraying) for hire. This is in addition to making sure that the spraying system was designed to spray the correct rate of insecticide. For these reasons, at this time, we would recommend waiting until after the hay is baled to treat the stubble for alfalfa weevil adults.

Growers, applicators and consultants should be reminded of the need to be very careful about following label directions exactly – including those on waiting intervals and cutting restrictions.

Adult Alfalfa Weevil Control - 2002

**Brian Creager, Lyon County Extension & Alan Kimmel, Ag Choice
In Cooperation with Leroy Brooks, K-State Entomologist; Bob Hooton,
FMC; & Greg Hudec, Bayer**

Adult alfalfa weevil pressure was extremely high in some alfalfa fields in Lyon County in the spring of 2002. The fields that had high adult weevil pressure that we looked at had one thing in common, they had all been sprayed for alfalfa weevil larvae in the April 15-17 time frame. Fields that had been sprayed for alfalfa weevil larvae in the April 4-11 time frame had only a few (1-2/sweep) adult weevil present. An adult alfalfa weevil control plot was put out May 10, 2002 and the data is presented in Table 1. No one knows for sure why adults were found in the later sprayed fields and not in the early sprayed fields. Speculation is that we had an early and/or extended egg hatch. It is possible that by mid-April, some of the alfalfa weevil larvae had pupated and the adults we were finding in May emerged after the mid-April treatments had been applied.

Table 1 - Adult Alfalfa Weevil Control Creager/Kimmel Emporia 2002

| Treatment/Rate All applied at 20 GPA | Pre-Spray Adult Weevil Pressure | % Control - 3 Days | % Control - 10 Days |
|---|--|-------------------------------|--------------------------------|
| Furadan 4F - 1 pint/acre | 59.8/sweep | 94% (3.8/sweep) | 90% (5.7/sweep) |
| Mustang - 4 oz./acre | 44/sweep | 79% (9.325/sweep) | 0% (50+/sweep) |
| Baythroid - 2.4 oz./acre | 31/sweep | 62% (11.95/sweep) | 0% (50+/sweep) |

Reference to specific products is provided solely for informational purposes. Experiments with pesticides on non-labeled crops or pests is part of the insecticide registration process, it does not imply endorsement or recommendation of non-labeled uses of pesticides by Kansas State University. All pesticide use must be consistent with current labels.

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Sincerely,

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