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Increasing Pea Aphid numbers in Alfalfa

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We have received several reports from Extension Educators around the state stating that producers are starting to see increasing numbers of pea aphids in their fields and are curious about their options as harvest time nears. It is not uncommon to see increasing numbers before first harvest since many of the insecticides are starting to lose their efficacy two to three weeks after application. The majority of threshold sprays applied in late March to early April are in this time frame or beyond. In many instances, insecticide applications will provide enough residual to last until first harvest; however, if threshold happens early enough in the season the residual effects of the chemical may not last until first harvest prompting management decisions. As with the other alfalfa aphids, pea aphids can be present in alfalfa the entire summer to fall, but

reproduction is dramatically slowed down when temperatures exceed 90° F. Colonies prefer to feed on stems and newly expanding leaves and are more prevalent in early spring when temperatures are cooler and dryer.

At this point, the concern is what can be done before first harvest?

Evaluating plant vigor is often the key to determining the need to treat for this insect. Closely monitor fields during the early part of the season (March, April, and May) during periods of

slow growth. Hopefully the current rains will help to alleviate some of the problem allowing for more growth and dislodging aphids from plants.

Control decisions should be based on maturity of the alfalfa, the size of the aphid population, and the number of natural control agents present. Alfalfa can tolerate low numbers of aphids without much sign of injury due to natural parasitism and crop growth. However, high numbers of aphids can cause yellowing, wilting, and stunting of plants. Fifty pea aphids or more per stem on 10 inch tall alfalfa would be cause for alarm and beneficial insects would be challenged to keep up (We are seeing numbers in the 100+/stem).

Producers might want to consider early cutting as an option when heavy infestations develop close to harvest time.

If conditions warrant, another insecticide application may be needed. However, data on efficacy of insecticides for pea aphid control indicates that some products may provide effective control of pea aphids even at the lowest recommended rates. Keep in mind the decision to make another application of insecticide must be carefully considered due to harvest restrictions even at the lower rates. For example: Depending on the rate, Lorsban[®] (Chlorpyrifos) at 8oz/A has a 7 day pre-harvest restriction (PHI) and up to 21 days PHI when applied at 1 pint or more per acre. In addition, Lorsban[®] can only be applied once per cutting (at any rate).

Producers must look at their own circumstances and determine the best management strategy for their operation.

I also wanted to note, in a previous Pest e-alert we included a table with current year pricing and rates for products for use in alfalfa weevil and aphid control. I failed to include the lower rate of Lorsban in the table as listed above. I apologize for any confusion it may have caused.

Dr. Richard Grantham - Director, Plant Disease and Insect Diagnostic Laboratory

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