Plant Disease and Insect Advisory

Entomology and Plant Pathology
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Stillwater, OK 74078

Vol. 3, No. 19 Website: http://entoplp.okstate.edu/Pddl/advisory.htm Oct 29, 2004

Africanized Honey Bee Update

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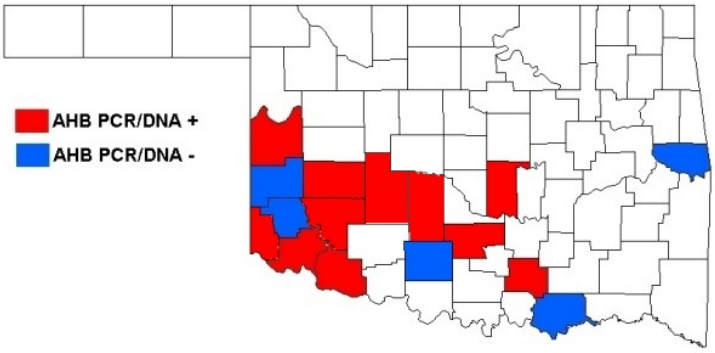
Since the last update, two new counties have been added to the list of confirmed locations with AHB (see map at below). The number of samples being submitted to the lab for identification has dropped significantly in the last month. While this is good news, every effort should be made to get a good picture of current AHB distribution in Oklahoma. This will allow us to focus educations efforts on those counties that are in hot zones. Bookmark the AHB website (http://entoplp.okstate.edu/ahb/index.html) so you can stay up to date on the latest statewide distribution.



Alfalfa Aphid Season is Not Over

Phil Mulder, Extension Entomologist

Many alfalfa growers are often under the conception that as cold weather approaches the threat from alfalfa aphids is over. Nothing could be further from the truth, in particular, as it relates to the spotted alfalfa aphid. This aphid can be particularly devastating to new stands planted just recently. Even light populations of 1-3 spotted aphids per stem can cause death of young seedlings.

Feeding by spotted aphids causes a severe toxic reaction in susceptible alfalfa, resulting in a characteristic discoloration or yellowing along the leaf veins, near the plant terminals. This symptom is often referred to as “veinbanding”. Heavily infested plants will turn yellow or even white and during cooler conditions leaves may have a reddish discoloration. When infestations are thick, aphids can create a massive amount of honeydew and cause the alfalfa to mold.

The spotted alfalfa aphid is a tiny insect with a tan to yellow background color and several rows of dark spots along the top surface of the body. In appearance, it is one of the most unique looking aphids found on alfalfa. The small size and cryptic habits (often hiding on the undersides of leaves) of this insect make it difficult to see. Sampling for this insect should involve two approaches, using a sweep net and taking stem samples. Using a sweep net will help determine if the aphid is present and provide some appreciation for the level of infestation. Using a standard 15 inch sweep net, simply take 20 sweeps at each of 5 locations, counting the number of aphids at each stop. Stem sampling should involve taking a 30 stem sample across the field then shaking those stems inside a large plastic bucket. Aphids can then be carefully sorted and counted to arrive at a more precise measure of infestation levels. When picking the stems, carefully cup the stems in your hand and place them immediately into the bucket. Also, avoid sampling under extremely windy conditions or too soon (24 hours) after a rainfall event. This approach will insure a more accurate sample without a great deal of lost aphids. If numbers approach the thresholds listed in the following table then treatment should be considered. Remember, this aphid is mild weather pest. It does not go away as conditions get cold. Buildup of spotted aphids is generally rare in wet weather, however, anytime during the dry, mild winters that we sometimes experience, these insects can be a problem.

	Pea Aphid	Blue Aphid	Spotted aphid
Seedling alfalfa	5	1	1
Established alfalfa (<10” tall)	40 (300)*	10 (100-200)*	10 (100-200)*
Established alfalfa (>10” tall)	75 (400)*	30 (300)*	30 (300)*

*Numbers in parentheses indicate numbers of aphids per sweep needed to reach threshold level when using a 15 inch sweep net.

These thresholds are fairly accurate guidelines, however, some variations may be tolerated if seedling alfalfa has grown well after planting and if good growing conditions exist.

In terms of chemical treatments any of the newer pyrethroids would work fair for aphids but the standard for aphid control still remains to be Lorsban 4E. Even with light aphid infestations, and especially under mild, dry weather conditions, it becomes increasingly important to make applications with a minimum amount of spray mixture. We recommend as a minimum, 10 gallons/acre if treating by ground, and a minimum of 2 gallons/acre if treating by air.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Ed Miller, Interim Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of Agricultural Sciences and Natural Resources.