Pest e-alerts

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Vol. 10, No. 6 http://entoplp.okstate.edu/Pddl/ **Apr 8, 2011**

Wheat Disease Update

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Oklahoma: Not much new to report over the last 7-10 days regarding wheat diseases in Oklahoma as the drought has limited their spread and development. Barley yellow dwarf appears to be the most prevalent disease. I have seen only sparse aphids this spring, so aphids that were abundant last fall most likely are responsible for the BYD symptoms now being seen. Powdery mildew remains fairly prevalent in many plots and fields around Stillwater but is mostly on the lower leaves. Dr. Art Klatt (OSU Wheat Breeder/Geneticist) reported seeing severe powdery mildew and low (>5%) incidence of leaf rust on susceptible varieties near Perkins, OK (about 10 miles south of Stillwater). Wheat around Stillwater is basically around GS 9 (flag leaf fully emerged) but heads are quickly moving up the tillers. The Plant Disease & Insect Diagnostic Lab has had a few samples come into the lab – a couple tested positive for wheat streak mosaic virus, indicating that WSM is present in western, northwestern Oklahoma.

Arkansas (Dr. Gene Milus (Small Grains Pathologist, University of Arkansas): The most serious disease at this time is stripe rust on susceptible and very susceptible varieties where the disease overwintered and formed hot spots. Fields with hot spots should be sprayed with a fungicide as soon as possible. Fields of varieties with a susceptible reaction type (abundant yellow sporulation surrounded by green leaf tissue, see photos below) but without hot spots at this time should be the next highest priority for being sprayed. Fields of varieties with only resistant to moderately resistant reactions (little or no yellow sporulation surrounded by yellow or tan leaf tissue) are not likely to have significant losses from stripe rust, and applying a fungicide may not be necessary to control stripe rust.

There have been no new reports of leaf rust since the previous newsletter. Recent dry weather is keeping Septoria leaf blotch and Stagonospora blotch confined to the lowest leaves that were infected last fall or earlier this spring. Frequent rains will be needed for these diseases to move to upper leaves.

The overall incidence of barley yellow dwarf appears to be low. If symptomatic plants are scattered and not stunted, then the infection likely occurred during the spring, and yield losses should be insignificant. If symptomatic plants are in stunted patches, then infection occurred last fall and yield losses likely will be significant in the stunted areas.

The risk of scab remains low across Arkansas south of I-40 where wheat has flowered or is approaching flowering. Flowering is the most favorable time for scab infection, and dry conditions are not conducive for spore production or infection. Given the recent dry conditions, several rainy periods will be needed to elevate the risk of scab.

Syngenta recently registered Alto 100 SL fungicide (Cyprocanazole) for use on wheat and it has been used this season on wheat in southwest Arkansas. Recommended rates are 3 to 5.5 fl oz per acre. It likely is effective on rusts, Septoria leaf blotch, Stagonospora blotch, and powdery mildew but not effective for scab.

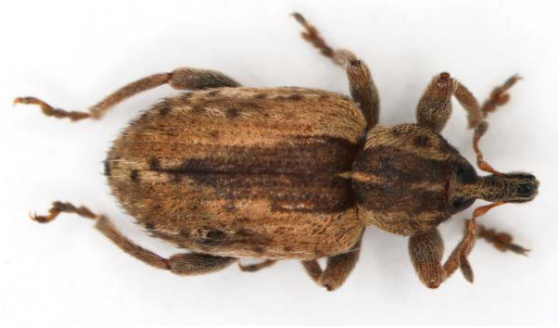
Alfalfa Situation Becoming a Serious Concern

Phil Mulder – Department Head and Extension Entomologist

With the continued drought, the status of alfalfa production is becoming seriously threatened this year. We began the season with severe limitations in soil moisture, which continue to deteriorate and then cowpea aphid populations exploded onto the scene. Many growers elected to control these aphid populations early and hoped that alfalfa weevils would be simultaneously managed. In some cases this occurred; however, many growers have made multiple applications for weevils and/or aphids. Unfortunately, these multiple applications have eliminated beneficial organisms (ladybird beetles, parasitic wasps, etc.) at the same time. With

the continued mild, extremely dry weather the more threatening spotted alfalfa aphid has now arisen. This pest is potentially more devastating than the other aphids that occur in Oklahoma alfalfa and populations are rapidly expanding across south central portions of the state. Growers who made a single, thorough application (20 gpa or more at slower speeds) may have saved an application or two, but the alfalfa took a serious hit from heavy weevil and aphid feeding. Similarly, growers who made two applications about 14 days apart took a less serious hit to the alfalfa and now the beneficial organisms are starting to rebound. In the Chickasha area, with two applications, there are noticeable spots of stunted alfalfa but relatively light aphid populations; however, adult weevils are beginning to emerge. In the Pauls Valley area, where multiple applications (3 or more) have been made, beneficial organisms are less common and spotted aphids are increasing rapidly. The question at this point concerns our approach to these dangerous spotted aphid populations and what if anything should be done about the adult alfalfa weevils?

Because of the threat to beneficial organisms, the continued drought, and exploding spotted aphid populations, I feel strongly that multiple applications should be avoided. For growers who have managed to preserve their first cutting and see damaging spotted aphid populations increasing, I suggest they consider an early harvest. Once the hay is baled and removed from the field then serious consideration should be made for a stubble treatment with Lorsban, Dimethoate or Lannate. Do not assume that the harvest operation is going to control the aphids. With the continued threat of a prolonged drought, and spotted aphids in the field we are seriously anticipating some stand loss. If you are one of the fortunate that have avoided the spotted aphid problem, but now have adult weevils emerging, then you might also consider an early harvest and stubble treatment. In most years, adult weevils will emerge and go into a summer aestivation period, where they are not laying eggs or harming the alfalfa; however, this inactive period is triggered by more than warm temperatures. The daylength that the earlier larval stage was exposed to can affect how soon the adults go into aestivation. Many of our weevil populations this year were early emerging and prolonged for two reasons; a relatively mild fall, suitable for early, heavy oviposition activity, and an equally mild late January and February when peak oviposition generally occurs. Adult weevils will continue to feed on the remaining foliage thereby decreasing quantity, but in addition, they will also



feed on the epidermal tissue of stems, creating a very woody final product. This feeding scenario decreases quality as well as quantity.

We are certainly exploring some new territory in alfalfa insect management this year, as the drought, heavy early insecticide use and spotted aphids have created some new challenges for growers and/or applicators to confront. With the advent of spring rains, which may not occur, many of these challenges would be less formidable; however, we must try to manage the situation we have and not simply hope for help from the elements. HOPE is not a plan! We must plan for the worst case scenario and continue to hope and pray for relief.

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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, Robert E. Whitson, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural.