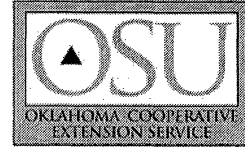




PLANT DISEASE AND INSECT ADVISORY

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Welcome to the inaugural issue of the new and improved Plant Disease and Insect Advisory. We will strive to get you late breaking plant disease and insect pest information on a more timely basis, so don't be surprised if you see more than one newsletter in a single week or no newsletter for a few weeks. Issues will be e-mailed immediately via the DASNR Intranet, followed by a hard copy through the mail. If you have any suggestions please contact the Plant Disease and Insect Diagnostic Lab at (405) 744-9961.



Digital Diagnostics @ OSU Richard Grantham

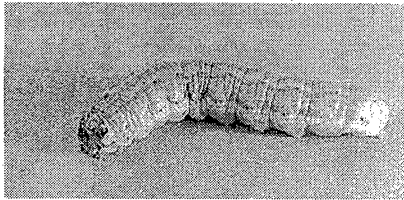
This month marks the third anniversary of the digital diagnostics system at OSU. The service offers a rapid method, extension educators can use to get a quick identification of an insect or plant disease problem. During this three year period, insect ID requests almost tripled from 47 in 1999 to 119 in 2001! Great job of using this resource! At the same time plant disease requests have fallen from 49 in 1999 to 2 in 2001. Why? During this period, we found image quality and symptom similarity to be the biggest problems. If you use the system for plant disease, please use a scanner to acquire images (300-600 dpi quality). Digital cameras just can't get close enough to accurately represent the damage. We will continue to work on improving this part of the system. Whether insect or plant disease, the system has enabled us to rapidly communicate with extension educators around the state, reducing what normally took several days, to answering in as little as 30 minutes.

Alfalfa weevil egg population up in 2002 Phil Mulder and Kelly Seuhs

On January 8-9, 2002 alfalfa samples were taken at 11 sites across the state to ascertain egg populations of alfalfa weevils. In light of the type of winter we have experienced thus far, we may continue to see an increase in these already high numbers. Numbers presented in Table 1 reflect weevil eggs per square foot during the January sampling. These numbers may not indicate the severity of the upcoming alfalfa weevil larval infestation, since most of the egg-laying by adult weevils typically occurs during the warm periods of January and February. Early numbers obtained during this first sampling date indicate the amount of oviposition (egg laying) that has taken place so far, including that from October and November of last year. If you recall conditions during this time, most of the state saw an open, warm fall. These conditions are conducive to mating and oviposition by adult alfalfa weevils. Alfalfa weevil egg populations and viabilities for the last three years are located in Table 2. In addition, the degree days through January 28, 2002 are presented in the last column of this table. Viability of the eggs counted so far reflect above



average percentages. If we have 93% hatch of 1500 eggs that is going to be a tremendous larval population. Remember, the magic number for hatching is 150 degree days. Egg populations and viabilities will be assessed again in February. Remember the magic number for egg hatch is 150 degree days and it appears we could get there sooner than normal and with greater than normal egg numbers if present conditions persist. We always see some early hatch of those eggs that were deposited in the fall of the previous year, but the majority of the populations and scouting can generally be postponed until we reach 150 degree day. Don't be surprised if you wait till then to scout that the threshold may be attained quickly or even in the first week, particularly if the warm weather persists. I realize this is difficult after last year, but we need to ask for colder, wetter weather. While populations were relatively light and very late in 2001, we have already set record-breaking egg counts for 2002. Hopefully, some cold weather will help us out and we may be able to avoid the earliness of 2000 when we were spraying many fields in February.



In addition to this already depressing news, we are also finding high numbers of army cutworms already present in alfalfa and wheat fields in southwest Oklahoma. One report from the Okarche area has cited infestations reaching from 2-3 larvae per square foot and up to 12 larvae per square foot in another field of alfalfa. These are extremely alarming

numbers and the present conditions are not on the grower's side. We need some moisture to help combat these problems. We'll continue to keep you posted on what we're finding around the state.

Table 1. Alfalfa weevil egg populations at select sites across the state in 2002 compared to the previous four years.

COUNTY	2002	2001	2000	1999	1998
Grady	396.8	58.8	184.0	101.0	32.0
Kingfisher	190.0	8.4	122.4	----	----
Muskogee	235.6	14.0	31.2	282.8	----
Payne (2-14)	57.4	37.6	241.0	----	295.0
Pittsburg	802.8	----	----	----	----
Pottawotamie	170.0	21.6	----	----	----
Rogers	189.2	14.4	28.8	----	160.0
Stephens	1487.2	80.8	32.0	194.8	12.4
Tillman	95.2	95.6	174.0	----	----
Washita	139.2	26.4	188.0	178.8	12.0
Woods	65.2	74.8	37.2	141.2	220.0
Mean*	348.0	45.6	114.5	155.7	100.4

*Means derived from all areas sampled, each year, not simply those depicted.

Table 2. Alfalfa weevil egg populations and viabilities for the last three years across Oklahoma. The last column depicts the current degree days for 2002 in each of the counties sampled (Through Jan. 28, 2002).

COUNTY	2002	% Viable	2001	% Viable	2000	% Viable	Degree days (2002)
Grady	396.8	67	58.8	68.7	184.0	90	82
Kingfisher	190.0	90	8.4	----	122.4	91.7	85
Muskogee	235.6	80	14.0	----	31.2	----	81
Payne (2-14)	57.4	79.6	37.6	82.7	241.0	77.9	82
Pittsburg	802.8	87	----	----	----	----	94
Pottawotamie	170.0	64	21.6	----	----	----	82
Rogers	189.2	87	14.4	----	28.8	----	69
Stephens	1487.2	93	80.8	76.6	32.0	----	96
Tillman	95.2	88	95.6	84.5	174.0	96.3	114
Washita	139.2	89	26.4	----	188.0	94.7	92
Woods	65.2	53	74.8	82.3	37.2	----	87
Mean*	348.0	79.8	45.6	78.1	114.5	90.6	87.6

*Means derived from all areas sampled, each year, not simply those depicted.

Unwelcome Guests Invading Residences Across Southwest Oklahoma Miles Karner



The poor condition of this year's wheat crop has forced army cutworms (ACW) to search for "greener pastures" elsewhere. Surprisingly the greener pastures have been area yards. Questions concerning this mass invasion continue to surface as homeowners try to keep the unwelcome guests from entering their premises. Worm activity and development is directly related to temperatures. Currently most of ACW are between 1/2 to 3/4 inch long about half grown. ACW will begin to pupa once they reach 1 1/2 inch long. Normally pupation occurs in late March. However, the mild winter has accelerated development. Unfortunately, the worm's appetite increases with size.

Perimeter sprays around the foundation of the house will help keep the worms from entering. However more widespread measures may be needed to keep the infestation from consuming

your grass and prize ground cover. Insecticides available to homeowners include Malathion and Sevin. Homeowner not equipped to apply insecticides need to consult a pest control operator for spray options.

Sweeping and vacuuming invaders are required to remove these unwanted guests. For more information contact your County Extension Office.

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