

# PLANT DISEASE AND INSECT ADVISORY

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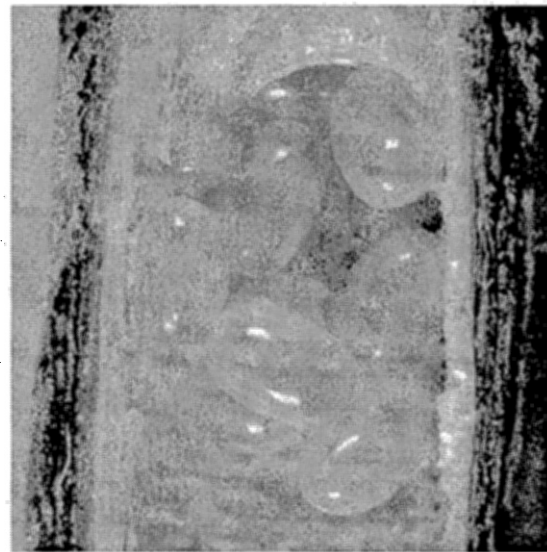
Jan 20, 2009

## Alfalfa Weevil Egg Populations in 2009????

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Alfalfa weevil egg populations for January are located in the attached table. In addition, degree days through January 16, 2009 are presented in the last column. For the purposes of comparison, January egg populations and viability of those eggs for the previous four years are also depicted in the table. Viability measurements for this year's samples are currently being processed; however, only two locations (Tillman and Washita Counties) had sufficient egg numbers for testing. Moderately low numbers of eggs were recovered in all counties (sampling took place January 9 through January 12, 2009). In 2009, degree days through January 16 averaged 45.2 across the nine sample sites. This represents a ten point drop in accumulated degree days compared to this time last year while egg numbers are similar to last years, except in the two counties that yielded sufficient eggs to conduct viability evaluations (Tillman and Washita). In addition, nearly one week after sampling on the evening and morning of January 15 and 16, temperatures in some locations dropped below 10° F, which can affect egg mortality if these conditions are prolonged.



In an attempt to decipher what may have happened to alfalfa weevil populations over the last couple of years, we looked at the percentage of normal precipitation in each of the nine counties sampled this year. While 2007 had above average rainfall, from January 2008 through January 2009, three of the nine sample counties which were located in southern Oklahoma experienced 60% normal precipitation, the rest of the state recorded 80% or above. Hard freezes in late December 2008 and thirty four hours below freezing with lows near 10° F so far in 2009 may result in decreased numbers.

Remember, as far as alfalfa weevil populations are concerned, 150 degree-days represent the level that serves as an indicator for growers and consultants to begin scouting for larvae. So far this year, very few early (suicidal) emerging larvae were present in our samples. Any of these early emerging larvae were likely killed by cold weather events. Continued and persistent cold

with ice and/or rainfall will further enhance mortality. In contrast, blankets of snow may provide insulation for both weevils and aphids. This last spell of weather, with freezing conditions did not provide protection to insects exposed to these conditions and heavy insect casualties are likely. Adult activity of alfalfa weevil generally peaks in January and February of each year; however, if cold conditions persist we may continue to see egg populations stay below normal. If present populations hold through the February sampling period, and oviposition does not increase between now and then due to warm weather events, we could experience an extremely light and/or later infestation of alfalfa weevil than we experienced last season. The nice part about that is populations were relatively light last year; however, aphids were a significant concern. Cold, wet weather conditions will help keep aphid populations in check.

During sampling, we often keep our eye out for any additional insect activity, such as army cutworms or aphids. Low numbers of spotted alfalfa aphids were observed in some fields; however, cold, wet weather will likely have a detrimental effect on these insects. We will keep you posted in a later release about the egg viabilities for the January 2006 samples and for those that we hope to take in February. Currently, the outlook for this coming season is optimistic for low and late populations.

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

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County	January 2009	January 2009 % Viable	January 2008	January 2008 % Viable	January 2007	January 2007 % Viable*	January 2006	January 2006 % Viable*	January 2005	January 2005 % Viable*	Degree Days (2009)
Grady	32.0		16.4		.8	---	56.0	---	43.6	---	45.9
Kay	4.8		63.2	94	19.6	---	58.8	---	124	84	21.3
Kingfisher			8.0		48.0	---	82.0	---	162	94	
Payne	27.2		156.8	91	56.4	70	189.6	45	338.8	90	35.1
Pottawatomie					14.8	---	134.8	41	218	82	
Tillman	210.0		16.4		2.0	---	40.8	---	54	---	62.2
Washita	191.6		157.2	89	3.6	---	130.0	45	57.2	93	43.1
Woods			37.6		22.0	---	208.8	58	88	85	
Garvin	14.8		67.2		0.0	---	111.6	76	113.2	87	66.6
Rogers/Tulsa	35.6		23.6		40.0	---	30.4	---	105.6	86	42.5
Stephens	9.2				5.6	---	56.0	---			69.0
Alfalfa	19.2		34.8		31.6	---	58.8	---			21.4

\*\* Means            60.4                            58.10                            20.3                            104.3                            130.4

Degree Days total through 1-16-2009.

\* No viability in a specific county means that egg numbers recovered was insufficient to conduct an assessment.

\*\* Means, within each year, represent all areas sampled, not simply those depicted.