



# Pest e-alerts



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Vol. 13, No. 2

<http://entopl.okstate.edu/Pddl/>

Feb 10, 2014

## Alfalfa Weevil Egg Populations 2014

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Alfalfa weevil egg populations for January are located in the attached table. In addition, degree days through February 10, 2014 are presented in the last column. For the purpose of comparison, January egg populations and viability of those eggs for the previous collection years are also depicted in the table. Viability measurements for this year's samples have been processed; with two locations (Grady and Comanche Counties) having sufficient egg numbers for testing. An average of 61.5 % viability was obtained. Compared to previous sample years (2006-2007, 2012, and 2013), relatively low numbers of eggs were recovered. However, there is a slight decrease in comparison to this time last year. In 2014, degree days through February 10, 2014 are averaging 75.3 across the ten sample sites.

In an ongoing effort to identify effects on alfalfa weevil and aphid populations over the current and previous years, we continue to look at the percentages of normal precipitation and other environmental factors throughout the state. Until recently, most of the state had seen normal to above normal rainfall in the summer and fall months to facilitate growth of the alfalfa and allow for more opportunity for weevil development. However, early winter has delivered us some unusually cold temperatures (single digits to negatives) in some parts of the state. These extremely cold temperatures have the ability to kill eggs as well as larvae that may be present. This year's average egg numbers are about half of what we seen last year at this time and very few larvae were seen in the samples. More cold weather events appear to be on the way in the next few days and more than likely the next month or so, hopefully, keeping numbers for this year relatively low.

Keep in mind, however, later in the season as days start to warm scouting will need to be done to determine what might develop before first harvest. 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. In processing this year's samples, there have been many early (suicidal) emerging larvae that were present. In a normal season, these early emerging larvae are likely killed by subsequent cold weather events. Continued and persistent cold with ice and/or rainfall will further enhance mortality for both weevils and aphids. Any upcoming coming cold weather events with ice and freezing rain, while not agreeable to us would aide in the control of insect development. Adult activity of alfalfa weevil generally peaks in January and February of each year; however, if a warm pattern would start to occur we may start to see egg populations increase. If present populations hold through to February, and oviposition remains low between now and then due to cold weather events, we could get lucky and experience a lower and/or later infestation of alfalfa weevil than normal. However, with milder temperatures alfalfa weevil and spotted alfalfa aphids could end up being a concern.

We will continue to monitor conditions and developments closely throughout the state in the coming months and forward any new information as it arises.

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**Table 1.** Alfalfa weevil egg populations for January, 2014. Degree Days through February 10, 2014 are presented in the last column.

County	January 2014	January 2014 % Viable	January 2013	January 2013 % Viable	January 2012	January 2012 % Viable	January 2007	January 2007 % Viable	January 2006	January 2006 % Viable	Degree Days 2014
Alfalfa	6.0	---	72.4	64.0	198.0	75.0					53.8
Major	15.2	---	77.2	81.5	74.8						84.3
Payne	42.8	---	4.0		69.6	72.0	56.4	70.0	189.6	45.0	61.2
Kingfisher	20.0	---	36.4		77.6	82.0	48.0		82.0		47.9
Comanche	69.2	59.0	273.6 (Tillman)	69.0	54.4 (Tillman)		2.0 (Tillman)		40.8 (Tillman)		116.4
Kiowa	53.6	---	31.2 (Washita)		74.4 (Washita)	76.0	3.6 (Washita)		130.0 (Washita)	45.0	65.6
Pottawatomie	59.2	---	22.0		4.8		14.8		134.8	41.0	92.8
Rogers	78.8	---	26.0		17.6						82.2
Garvin	28.4	---	59.2		52.4				111.6	76.0	111.0
Grady	159.6	64.0	401.2	58.0	33.2		.8		56.0		80.3
<b>Means **</b>	<b>53.28</b>	<b>61.5</b>	<b>100.5</b>		<b>65.68</b>		<b>20.3</b>		<b>104.3</b>		<b>75.3</b>

--- No viabilities in a specific county means that egg numbers recovered were insufficient to conduct an assessment.

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

During sampling, we keep our eye out for any additional insect activity, such as army cutworm or aphid. Minimal numbers of other insect activity was observed during collection. The cold weather in previous weeks and yet to come will likely have some detrimental effects.