



# Pest e-alerts



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## Alfalfa Weevil Egg Populations 2015

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Alfalfa weevil egg populations for January are located in the attached table. In addition, degree days through February 10, 2015 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 were not taken due to low numbers so far this season. Compared to previous sample years (2006-2007, 2012, 2013 and 2014), relatively low numbers of eggs were recovered. However, there is only a slight decrease in comparison to this time last year. In 2015, degree days through February 10, 2015 are averaging 149.44 across ten 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 precipitation and other environmental factors throughout the state. So far this year, most of the state has seen normal or close to normal rainfall. However, Mesonet data continues to show exceptional drought in the southwest and parts of the Panhandle. Fall and early winter has delivered 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. This year's average egg numbers are slightly below last year for the same time period and very few freshly hatched larvae were recovered. Even with the expected warm weather over the past few days more cold weather events are on the horizon within the next month so, hopefully, this will keep weevil populations in check.

Keep in mind, 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. (Degree Day numbers are at or approaching this number many areas of the state, especially in the South). In processing this year's samples, there have been some 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 would aide in the control of insect populations. Adult activity of alfalfa weevil generally peaks in January and February of each year; however, if a warm pattern occurs we may see egg populations increase. If present populations hold through 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, milder temperatures could cause increases in alfalfa weevil and spotted alfalfa aphid activity.

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

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Tale 1. Alfalfa weevil egg populations for January, 2015. Degree Days through February 10, 2015 are presented in the last column.

County	January 2015	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 2015
Alfalfa	61.6	6.0	---	72.4	64.0	198.0	75.0					113.8
Major		15.2	---	77.2	81.5	74.8						155.7
Payne	56.0	42.8	---	4.0		69.6	72.0	56.4	70.0	189.6	45.0	116.1
Kingfisher		20.0	---	36.4		77.6	82.0	48.0		82.0		113.7
Comanche	20.4	69.2	59.0	273.6 (Tillman)	69.0	54.4 (Tillman)		2.0 (Tillman)		40.8 (Tillman)		205.8
Kiowa		53.6	---	31.2 (Washita)		74.4 (Washita)	76.0	3.6 (Washita)		130.0 (Washita)	45.0	149.4
Pottawatomie		59.2	---	22.0		4.8		14.8		134.8	41.0	165.7
Rogers	44.8	78.8	---	26.0		17.6						166.1
Garvin	22.4	28.4	---	59.2		52.4				111.6	76.0	158.8
Grady	48.0	159.6	64.0	401.2	58.0	33.2		.8		56.0		149.3
**Means	42.2	53.28	61.5	100.5		65.68		20.3		104.3		149.44

--- 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.

Unfortunately, due to time restraints, only six counties were utilized in collections this year. With relatively low numbers so far, no Viabilities were taken. Degree day numbers presented represent all the above counties.

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.