



Pest e-alerts



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Alfalfa Weevil Egg Populations 2016

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On January 27-28, 2016, alfalfa samples were taken at seven sites across the state to determine egg populations of Alfalfa Weevil. In light of the type of winter we've had thus far, numbers in most areas remain relatively low. Alfalfa weevil egg populations for January are located in the attached table (**Table 1**). Numbers presented reflect weevil eggs per square foot. In addition, degree days through February 4, 2016 are presented in the last column. For the purpose of comparison, January egg populations and viability of those eggs for previous collection years are also depicted in the table. Viability measurements for this year's samples are being processed and will be available in about a week. Compared to previous sample years (2007, 2012, 2013, 2014, and 2015), relatively low numbers of eggs were recovered. There is a slight increase in average numbers across the sites, from this time last year, but well below previous sample years where average eggs/ft² were in excess of one hundred. Degree days through February 4, 2016 are averaging 72.4 across ten sites around the state.

Keep in mind, these numbers may not indicate the severity of the upcoming season's infestation since most of the egg laying by adult weevils occurs during warm periods of January and February. Early numbers obtained in this sampling indicate oviposition that has taken place thus far, including last fall (October and November), when conditions coming out of summer aestivation were conducive for mating and oviposition. In processing this year's samples we have seen some early (suicidal) emerging larvae. In "normal" years, early emerging larvae will likely not survive subsequent cold weather events. If the normal winter pattern continues at least through February and early March, cold temperatures, ice, and freezing rain will help in controlling both weevil and aphid

populations. If a warm pattern occurs, we could see populations increase.

In an ongoing effort to identify weather effects on alfalfa weevil and aphid populations over the current year, we continue to look at weather and other factors that could contribute to increased or decreased populations of these pests. So far this year, and toward the end of last year, we experienced fairly cold temperatures. Daily averages for most of the state have not been above 500 for the past month or longer. Cool rain or freezing precipitation has also been present.

As always, keep in mind as the season progresses and daytime temperature increase, scouting will be needed to accurately determine weevil and aphid population levels leading up to first harvest. Regarding alfalfa weevil populations, 150 degree-days represents the level that serves as an indicator for growers and consultants to begin scouting for larvae. Throughout the state, degree day numbers are averaging 72.4, but those numbers can go up quickly if a warming trend occurs.

We'll keep you posted as the season progresses.

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

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Table 1. Alfalfa Weevil Egg populations for January, 2016. Degree Days through February 4, 2016 are presented in the last column.

County	January 2016	January 2016 % Viable	January 2015	January 2014	January 2014 % Viable	January 2013	January 2013 % Viable	January 2012	January 2012 % Viable	January 2007	January 2007 % Viable	Degree Days 2015
Alfalfa	23.6	--	61.6	6.0	---	72.4	64.0	198.0	75.0			40.1
Major		--		15.2	---	77.2	81.5	74.8				52.4
Payne	95.6	???	56.0	42.8	---	4.0		69.6	72.0	56.4	70.0	61.5
Kingfisher		--		20.0	---	36.4		77.6	82.0	48.0		50.7
Comanche	40.4 (Stephens)	--	20.4	69.2	59.0	273.6 (Tillman)	69.0	54.4 (Tillman)		2.0 (Tillman)		109
Kiowa	37.6	--		53.6	---	31.2 (Washita)		74.4 (Washita)	76.0	3.6 (Washita)		71.8
Pottawatomie	13.2	--		59.2	---	22.0		4.8		14.8		94.3
Rogers		--	44.8	78.8	---	26.0		17.6				63.6
Garvin	34.8	--	22.4	28.4	---	59.2		52.4				109.6
Grady	129.2	???	48.0	159.6	64.0	401.2	58.0	33.2		.8		71.3
**Means	53.4		42.2	53.28	61.5	100.5		65.68		20.3		72.4

--- 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 seven counties were utilized in collections this year. With relatively low numbers so far, two 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. No other insect activity was observed during collection. The cold weather in previous weeks and yet to come will likely have some detrimental effects.