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Update on 2015 Degree Day Accumulation and Insecticide List for Alfalfa Weevil and Aphids

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In an earlier news release (Vol. 14, No. 2) we discussed alfalfa weevil egg populations for January (located in the attached table) and reported that numbers so far this season are relatively low with no viabilities taken. An update on degree days through February 27, 2015 is presented in the last column of Table 1, with an average of 186.5 degree days across the ten sites. In spite of current colder conditions, the warmer weather we had a week or so ago have resulted in most of the locations being above the 150 degree day point. Any early hatch of eggs during this time should have been taken care by the cold weather. While cold and or wet weather will help to suppress alfalfa weevil and aphid populations for now, when the weather starts to warm we must remain vigilant in scouting for larvae. If present conditions and populations hold, and oviposition remains low due to cold weather events, we could get lucky and experience a lower and/or later infestation of alfalfa weevil than normal. Hopefully, any moisture we receive in the next couple weeks will kick start the spring growth allowing the alfalfa to get ahead of insect development.



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

In addition, please find attached to this release (Table 2.), the latest insecticide list and price estimates obtained from Winfield Solutions in Oklahoma City and various other agricultural chemical dealers around the state. The information is provided strictly as a guide to help in

making insecticide choices in alfalfa. Prices will undoubtedly vary around the state, and rebates or other special offers are not considered. Information of residual control will vary depending on environmental conditions, infestation levels and application.

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

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Table 1. Alfalfa weevil egg populations for January, 2015. Degree Days through February 27, 2015 are presented in the last column.

County	January	January	January	January	January	January	January	January	January	January	January	Degree
	2015	2014	2014	2013	2013	2012	2012	2007	2007	2006	2006	Days
			% Viable		% Viable		% Viable		% Viable		% Viable	2015
Alfalfa	61.6	6.0		72.4	64.0	198.0	75.0					136.0
Major		15.2		77.2	81.5	74.8						190.3
Payne	56.0	42.8		4.0		69.6	72.0	56.4	70.0	189.6	45.0	146.8
Kingfisher		20.0		36.4		77.6	82.0	48.0		82.0		149.6
Comanche	20.4	69.2	59.0	273.6	69.0	54.4		2.0		40.8		269.7
				(Tillman)		(Tillman)		(Tillman)		(Tillman)		
Kiowa		53.6		31.2		74.4	76.0	3.6		130.0	45.0	210.9
				(Washita)		(Washita)		(Washita)		(Washita)		
Pottawatomie		59.2		22.0		4.8		14.8		134.8	41.0	192.9
Rogers	44.8	78.8		26.0		17.6						189.7
Garvin	22.4	28.4		59.2		52.4				111.6	76.0	216.3
Grady	48.0	159.6	64.0	401.2	58.0	33.2		.8		56.0		163.6
**Means	42.2	53.28	61.5	100.5		65.68		20.3		104.3		186.5

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

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.

^{**} Means within each year, represent all areas sampled not simply those depicted.

Table 2. Insecticides for Weevil and Aphids in Alfalfa

Insecticide & MOA	2015 Retail Cost Per/Gal	Rate(s)/A (ai/A	2015 \$/A	Residual Effect Weevil	Residual Effect Aphids	Waiting Period to Harvest	Signal Word Human Toxicity	
Lorsban 4E (1B)	\$51.20	1pt-1qt .5-1.0lb ai	6.40-12.80	Short- Mod	Moderate-Long	7to21	Warning	
Methomyl-Lannate LV (1A)	\$80.00	1.5-3.0 pts 0.45-0.90lb ai	14.83-29.67	Mod	Not Recommended	7	Danger	
Malathion 5E (1B)	\$48.00	1.5-2.0 pts 1.0-1.25lb ai	9.0-12.0	Short- Mod	short-mod	0	Warning	
Sevin XLR Plus (1A)	\$53.60	1.5 qt, 1.5lb ai	20.1	short	Not Recommended	7	Caution	
Steward (22)	\$250.00	11.3 oz, 0.11 lb ai	22.00	moderae-long	Not recommended	7	Caution	
Synthentic Pyrethroids Baythroid (3)	\$290.00	1.6-2.8 oz 0.025-0.044 ai	3.62-6.34	Long	moderate	7	Warning	
Warrior (3)	\$100.00	3.84 oz, .06 ai	3.00	Long	moderate	7 hay, 1 forage	Warning	
Pounce 3.2 EC (3)	\$80.00	2-8 oz, .0520 ai	1.25-5.0	short	moderate	<.10lb= 0 days >.10lb= 14 days	Caution	
Mustang Max (3)	\$151.00	2.24-4.0 oz 0.014-0.025 ai	2.64-4.72	Long	moderate-long	7	Warning	
Proaxis (3)	\$275.00	3.84	8.26	moderate	moderate	7 Hay, 1 forage	Caution	
<u>Mixtures</u>								
Besiege (3) (28)	\$256.00	10 oz, .04&.06 ai	20.00	moderate-long	moderate	1 forage, 7 hay	Warning	
Stallion (3) (1B)	\$110.00	11.75 oz. (.01785 & .1875 ai)	9.5	moderate-long	moderate-long	7	Warning	
Cobalt (1B) (3)	\$50.00	16-38 oz (.31016)-(.7504 ai)	6.25-14.84	moderate-long	moderate-long	13oz=7 days 26oz=14 days >26oz=21 days	Danger	

Lower rates for aphid control and higher rates for weevil; Lower rates not recommended for effective weevil control.

Prices depict Retail Cost (Dealer Price + 15 % markup); Does <u>not</u> include application cost.

Price indicated reflects cost per gallon.

Number in parenthesis in first column represents MOA group, in case resistance has become an issue.