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Earliest Alfalfa Weevil and Worst Aphid Season on Record

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If you or someone you know has an alfalfa stand in Oklahoma it may be past time to look it over carefully. Alfalfa weevil season has begun, and aphid populations have already reached damaging levels throughout the state. While early season egg populations for January may have looked promising (somewhat lower numbers and not as viable as in year's past) the warmer weather and lack of moisture have not helped. The mild weather and lack of moisture has brought on a severe aphid population. Heavy populations of cowpea and spotted aphids have been noted across the state. In addition, blue and pea aphid populations have also become a problem. Initially, we were seeing this problem in seedling stands; however, even established stands have reached threshold levels for aphids in several locations throughout the state. While this news is not bad enough, now weevil populations are beginning to hatch throughout the state and the growth of established alfalfa is inadequate to tolerate these pressures. In the attached table, we depict the egg numbers collected in January and the degree days through January 31, 2006. For the purposes of comparison, January egg populations and viability of those eggs for the previous two years are also depicted in the table.



Viability measurements for this year's samples were the lowest we had seen in several years; however, the warm weather and lack of rainfall are hampering alfalfa growth and allowing the weevils and aphids to flourish. In 2006, degree days through January 31 are averaging 170.9 across the ten sample sites. This represents a record level for this time of year in Oklahoma. Historically, we have had economic populations of alfalfa weevil as early as mid-February. Presently, weevil populations are not at economic levels, but if current conditions hold then we could see a similar scenario for 2006.

Remember, as far as alfalfa weevil populations are concerned, 150 degree days represents the level that serves as an indicator for growers and consultants to begin scouting for larvae. So far

this year, many early (usually suicidal) emerging larvae were present in our samples. In the past, any of these early emerging larvae would likely be killed by ensuing cold weather events. However, this year, your guess is as good as mine whether this will occur. With warm weather conditions continuing, it is likely that more adult activity will begin, larval numbers will rise and larvae will continue to grow. This year is not looking optimistic for alfalfa growers, particularly in light of weather conditions. I hate to paint such a bleak picture; however, unless we experience relief in the form of wet, colder weather, the damage from these insects could potentially become the worst and earliest we have ever experienced across the state. In contrast, if we receive some relief from the drought with colder temperatures, then early emerging weevil larvae and some aphids may decline, depending on the severity of the cold and amount of rainfall. If we continue to experience these mild conditions and the drought, then it is likely that pressure from both weevils and aphids will be further enhanced. Growers should be carefully monitoring their alfalfa stands each week to anticipate potential and existing problems.

County	January 2006	January 2006 % Viable*	January 2005	January 2005 % Viable*	January 2004	January 2004 % Viable*	Degree Days (2006)
Grady	56.0	---	43.6	---	206	34	171
Kay	58.8	---	124	84	94.8	49	131
Kingfisher	82.0	---	162	94	207.2	75	158
Payne	189.6	45	338.8	90	241.2	79	178
Pottawatomie	134.8	41	218	82	118.4	79	177
Tillman	40.8	---	54	---	26.8	---	207
Washita	130.0	45	57.2	93	486	69	168
Woods	208.8	58	88	85	496	72	149
Garvin	111.6	76	113.2	87	38	---	208
Tulsa	30.4	---	105.6	86	115.2	90	162

** Mean 104.3 53.0 130.4 87.6 203 68.4 170.9

* 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.

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