

Alfalfa Weevil Egg Populations January 2021

Kelly Seuhs, Associate Extension Specialist
Department of Entomology and Plant Pathology Oklahoma State University
127 Noble Research Center, Stillwater, OK 74078
405-744-6456



Figure 1 Alfalfa Weevil Eggs

On January 21-22, 2021, alfalfa crown samples were taken at 6 sites across the state to ascertain egg populations of alfalfa weevils (Figure 1). Considering the type of winter we have experienced thus far, we may continue to see numbers remain low. Numbers presented in the attached table reflect weevil eggs/ft². These numbers may not indicate the severity of the upcoming alfalfa weevil larval infestation, since most of the egg-laying by adult weevils typically occurs during the warm periods of January and February. Numbers obtained during this sampling indicate the amount of oviposition that has taken place so far, including that from October and November of last year. Conditions during this time throughout most of the state saw a cool and wet fall. These conditions are not conducive to mating and oviposition by adult alfalfa weevils.

So far, throughout January we have seen temperatures averaging below 50° F. It appears that most of the populations are still in winter diapause. Presently, all but one of the locations in the attached table (Table 1) have degree day totals below 30 (thru 01-28-2021).



Figure 2 Alfalfa Weevil Larva

Remember the magic number for egg hatch is 150-degree days. We are likely in store for some additional winter weather with continued low egg populations in most locations. Alfalfa weevil egg collections have been trending lower during our January or early February sampling periods over the past several years. In previous collection years (2004), numbers approaching 500 eggs/ft² have been observed. Changes in weather patterns during the fall oviposition time-frame and winter weather events like

extreme freezing temperatures, into the teens and single digits, and moisture like the snow we had in December can have a great impact on eggs and early larval development. If cold weather conditions persist, we could experience a similar pattern with egg hatch being delayed. However, if a warmer weather system develops and degree day numbers begin to increase, larval populations could appear sooner (Figure 2).

Table 1. Alfalfa Weevil Egg populations for January 2021. Degree Days through January 28, 2021 are presented in the last column.

County	February 2020	January 2021	Degree Days through 1-28-2021
Alfalfa		3.6	20
Blaine	2.8	4.8	15
Payne	0.0	3.6	22
Kiowa		2.0	24
Grady	26.4	4.8	28
Garvin	3.2	.8	47
Pottawatomie	0.0		
*Means	6.5	3.2	
With low numbers observed, no viabilities were taken.			

I saw a few aphids during our sampling for weevil eggs, but they should become more common in late February and early March depending on what the weather does. We'll keep you posted on what we're finding around the state as information becomes available.