AgriLIFE EXTENSION
Texas A&M System

Applied Research Report

Effect of Thrips (*Caliothrips phasiolii*) on Soybeans at Pod Fill

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Summary

A trial was conducted with the purpose of evaluating the effect thrips populations had on drought stressed soybeans. Acephate and Dimethoate insecticides were applied and thrips population was assessed 3 days after application (DA-A) and damage ratings were made 11 DA-A. The thrips caused significant damage but additional studies should be conducted to further evaluate this effect and determine best management practices.

Materials and Methods

A trial was established on 27 July 2009 for the purpose of determining the effect of thrips on Soybeans. The trial was laid out as a randomized complete block with four replications. Plots were 6 rows wide and 50 feet long.

Treatments were as follows:

1. Untreated
2. Acephate (0.75 lb/Acre)
3. Dimethoate (8 oz/Acre)

The thrips species was determined to be *Caliothrips phasiolii*. Insect counts were made by placing three trifoliates in a jar of soapy water from each plot. In the lab, the leaves were rinsed to dislodge thrips into the soapy water solution which was then filtered on coffee filters. Thrips were counted under magnification using a stereoscope.

Results and Discussion

Thrips control of 91% was obtained with the Acephate application but dimethoate application did not result in satisfactory population control (Table 1). Eleven days after application, damage ratings indicate that insect control provided some level of benefit. However, the drought conditions combined with the thrips populations resulted in the trial being abandoned after 11 days, thus, no yield data were obtained.

Table 1. Thrips populations at 3 days after application and damage rating at 11 days after application for insecticide applications (Victoria County, 2009).

		7/27/2009 thrips/leaf 3 DA-A		8/4/2009 Damage Rating* 11 DA-A	
Untreated Check		60.9	a	4.1	a
ACEPHATE	0.75 LB/A	5.3	c	3.1	b
Dimethoate	8 OZ/A	29.2	b	3.4	b
LSD (P=.10)		23.37		0.38	
Standard Deviation		17.01		0.28	
CV		53.51		7.8	
Treatment Prob(F)		0.0104		0.005	

Means followed by same letter do not significantly differ (P=.10, LSD)
*Damage Rating: 1=good, 5=poor.