Texas Cooperative EXTENSION
The Texas A&M University System

Applied Research Report

Insecticidal Control of Adult Red-Banded Stink Bugs (*Piezodorus guildinii*) in Soybeans

Stephen Biles, Extension Agent - IPM for Calhoun, Refugio and Victoria Counties
Zan Matthies, County Extension Agent - AG

Cooperator: Louis Neil, Calhoun County

Summary

A trial was conducted with the purpose of evaluating various insecticides for the control of red-banded stink bugs in late planted soybeans. Orthene, Karate, Baythroid XL and Mustang Max reduced the numbers of red-banded stink bugs while Vydate did not different from the untreated plots.

Objectives

The objective of this project was to evaluate insecticides for the control of red-banded stink bugs in late planted soybeans.

Materials and Methods

A soybean field was scouted for insect pests and when stink bug populations exceeded economic thresholds, insecticide efficacy trials were initiated. The pretreatment stink bug population was 70 red-banded stink bugs (*Piezodorus guildinii*) per 100 sweeps.

The soybeans were grown on 38 inch rows. Plots were 12 rows, 25 feet long. Insecticide applications were made with a 6-row boom, used with the following parameters:

Operating Pressure:	35 psi
Nozzle type, size:	Hollow cone, TX-6
Nozzle spacing:	20 inches
Spray volume:	6.5 gallons per acre
Ground speed:	3 miles per hour
Propellant:	CO_2

Treatments were as follows:

1) Untreated
2) Karate Z 1.7 oz/A
   Centric 1.48 oz WT/A
3) Karate Z 2.1 oz /A
   Centric 1.84 oz WT/A
4) Karate Z 1.92 oz /A
5) Bidrin 8 oz /A
6) Vydate 17 oz /A
7) Baythroid XL 2.6 oz /A
8) Diamond 9 oz /A
9) Bidrin 8 oz /A
   Diamond 9 oz /A

Evaluations were conducted 1, 3, 6 and 9 days after treatment (DAT). Sample size was 20 sweeps per plot with a standard 15 inch sweep net.

Results and Discussion

The lower rate of Karate Z (1.7 oz /A) + Centric (1.48 oz WT/A) and Diamond (17 oz /A) was not different from the untreated plots during this trial. Insecticides which provided control of the adult red-banded stink bug were: Karate Z (2.1 oz/A) + Centric (1.84 oz WT/A); Karate Z (1.92 oz/A); Bidrin (8 oz/A); Vydate (17 oz/A); Baythroid XL (2.6 oz/A); Bidrin (8 oz/A) + Diamond (9 oz/A). The insecticide treatments were not different at 7 DAT.

Comparisons of particular interest indicate the pyrethroids Karate and Baythroid XL provided adequate control of the red-banded stink bug in this trial. It is important to note that Bidrin and Vydate are not labeled for use in soybeans and should not be applied to soybean crops.

The treatment of Diamond was not different from the control at any time during this trial. However, all captured insects were adult stink bugs, thus due to it's mode of action, Diamond was not expected to perform at the same level as the contact insecticides. Diamond is an insect growth regulator and should be tank mixed with another insecticide to control adult insects.

Table 1. Comparison of foliar insecticides 3 and 7 days after treatment for control of red-banded stink bug on soybeans (bugs captured per 100 sweeps), Louis Neil Farm, Calhoun County, TX 2006.

				8/21/2006		8/25/2006	
	Treatment	Rate		3 DAT		7 DAT	
1	Untreated			48.8	ab	36.3	a
2	Karate Z	1.7	OZ/A	23.8	bc	20	a
	Centric	1.48	OZ WT/A				
3	Karate Z	2.1	OZ/A	15	c	37.5	a
	Centric	1.84	OZ WT/A				
4	Karate Z	1.92	OZ/A	11.3	c	17.5	a
5	Bidrin	8	OZ/A	5	c	26.3	a
6	Vydate	17	OZ/A	15	c	35	a
7	Baythroid XL	2.6	OZ/A	1.3	c	13.8	a
8	Diamond	9	OZ/A	52.5	a	21.3	a
9	Bidrin	8	OZ/A	10	c	17.5	a
	Diamond	9	OZ/A				
	LSD (P=.05)			28.67		23.35	
	Standard Deviation			19.64		16	
	CV			96.86		64	
	Replicate F			2.585		0.723	
	Replicate Prob(F)			0.0767		0.5479	
	Treatment F			3.499		1.294	
	Treatment Prob(F)			0.0081		0.293	

Means followed by same letter do not significantly differ (P=.05, LSD)

Trade names of commercial products used in this report are included only for better understanding and clarity. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Texas A&M University System is implied. Readers should realize that results from one experiment do not represent conclusive evidence that the same response would occur where conditions vary.