

**Project Code:** N/A

**Project Title:** Helio. Non-Bt

#### **GENERAL TRIAL INFORMATION**

Study Director: Gus Lorenz  
Investigators: Gus Lorenz, Kyle Colwell, Heather Wilf, Nichole Taillon  
Location: Jefferson Co., AR

#### **CROP AND PEST DESCRIPTION**

Pest: Bollworms  
Crop: Cotton  
Variety: DPL 434  
Planting Date: May 13, 2008  
Plot Width, Unit: 12.5 ft.  
Plot Length, Unit: 50 ft.  
Replications: 4  
Site Type: field  
Study Design: Randomized Complete Block

#### **APPLICATION DESCRIPTION**

Application Date: July 10, July 21, and July 29, 2008  
Application Method: Spray  
Application Placement: Foliar

#### **APPLICATION EQUIPMENT**

Appl. Equipment: Hi-Cycle (John Deere 6500)  
Operating Pressure: 40 psi  
Nozzle Type: conejet  
Nozzle Size: Tee-Jet TXVS 6  
Nozzle Spacing, Unit: 19in  
Ground Speed, Unit: 3 mph  
Carrier: water  
Spray Volume, Unit: 10  
Propellant: air pressure

#### **MATERIALS AND METHODS**

The trial was located in Jefferson County Arkansas, 2008. Plot size was 12.5ft. By 50ft. Insecticide treatment were applied with a John Deere 6500 Hi-Cycle. The boom was fitted with TX6 hollow cone nozzles at 19in nozzle spacing. Spray volume was 10 gal/a, at 40 psi. Insect density was determined by sampling 25 terminals, squares, blooms, and bolls per plot. Samples were taken on July 14, 18, 21, August 1, and 5, 2008. Data was processed using Agriculture Research Manager Version 8, AOV, and Duncan's New Multiple Range Test (P=0.10).

## RESULTS

**Table 1. Helio Non-Bt Seasonal Total Damage and Larvae**

Application Date: July 10, July 21, and July 29, 2008

Rating Date: July 14, 18, 21, August 1, and 5, 2008

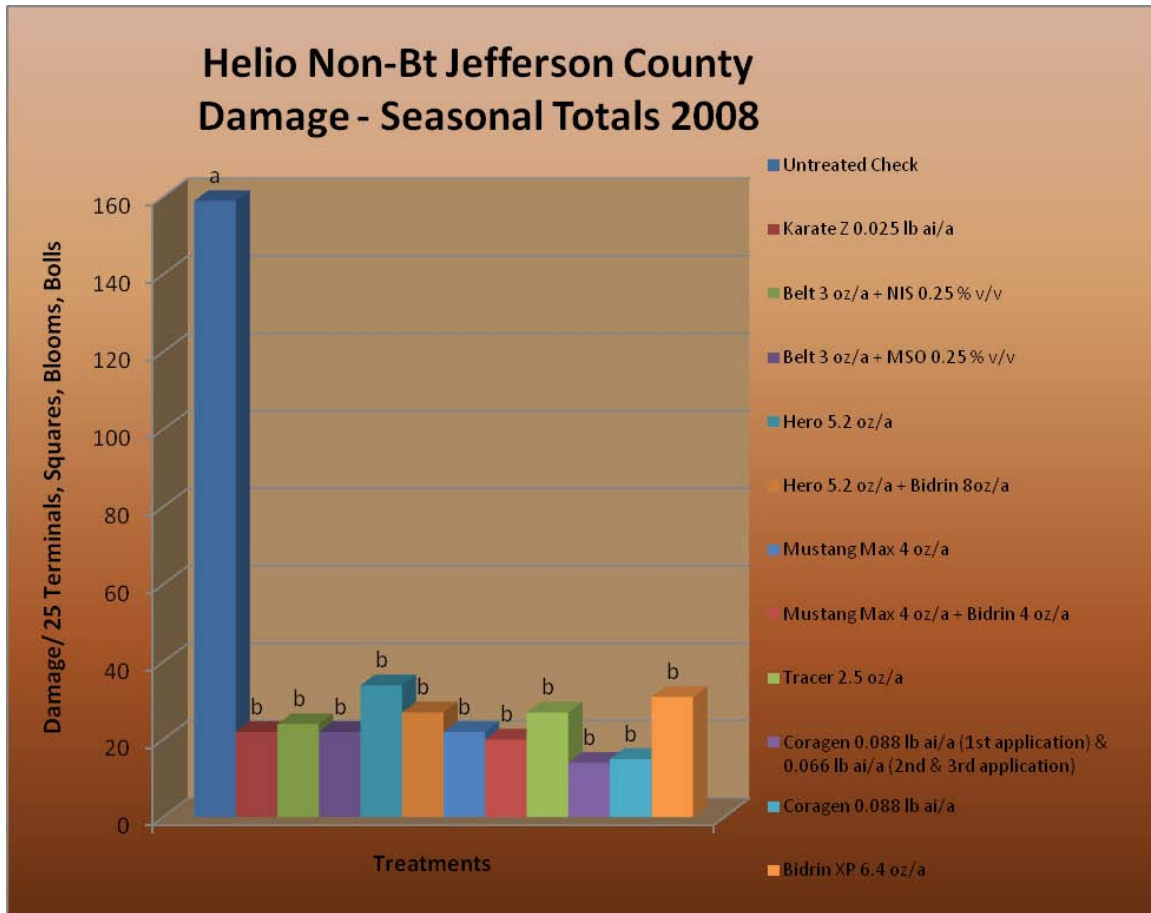
<b>Helio Non-BT Trial - 2008</b>						
<b>Treatment</b>	<b>Rate</b>	<b>Rate</b>	<b>Seasonal Total Damage Fruit</b>	<b>Seasonal Total Damage</b>	<b>Seasonal Total Larvae in Fruit</b>	<b>Seasonal Total Larvae</b>
<b>Name</b>	<b>Rate</b>	<b>Unit</b>				
Untreated Check			131 a	159 a	54 a	50 a
KARATE Z	0.025	lb ai/a	18 b	22 b	6 b	6 b
BELT	3	oz/a	20 b	24 b	7 b	7 b
NIS	0.25	% v/v				
BELT	3	oz/a	19 b	22 b	8 b	8 b
MSO	0.25	% v/v				
HERO	5.2	oz/a	28 b	34 b	13 b	12 b
HERO	5.2	oz/a	23 b	27 b	11 b	10 b
BIDRIN	8	oz/a				
MUSTANG MAX	4	oz/a	19 b	22 b	9 b	9 b
MUSTANG MAX	4	oz/a	17 b	20 b	6 b	5 b
BIDRIN	8	oz/a				
Tracer	2.5	oz/a	25 b	27 b	6 b	7 b
Coragen	0.088	lb ai/a	12 b	14 b	5 b	5 b
Coragen (FB)	0.066	lb ai/a				
Coragen	0.088	lb ai/a	13 b	15 b	7 b	7 b
Coragen (FB)	0.088	lb ai/a				
Bidrin XP	6.4	oz/a	27 b	31 b	12 b	12 b
Application Dates : July 10, July 21, and July 29, 2008						

\*Means followed by same letter do not significantly differ (P=.10)

**Chart 1. Helio Non-Bt Seasonal Total Damage**

Application Date: July 10, July 21, and July 29, 2008

Rating Date: July 14, 18, 21, August 1, and 5, 2008

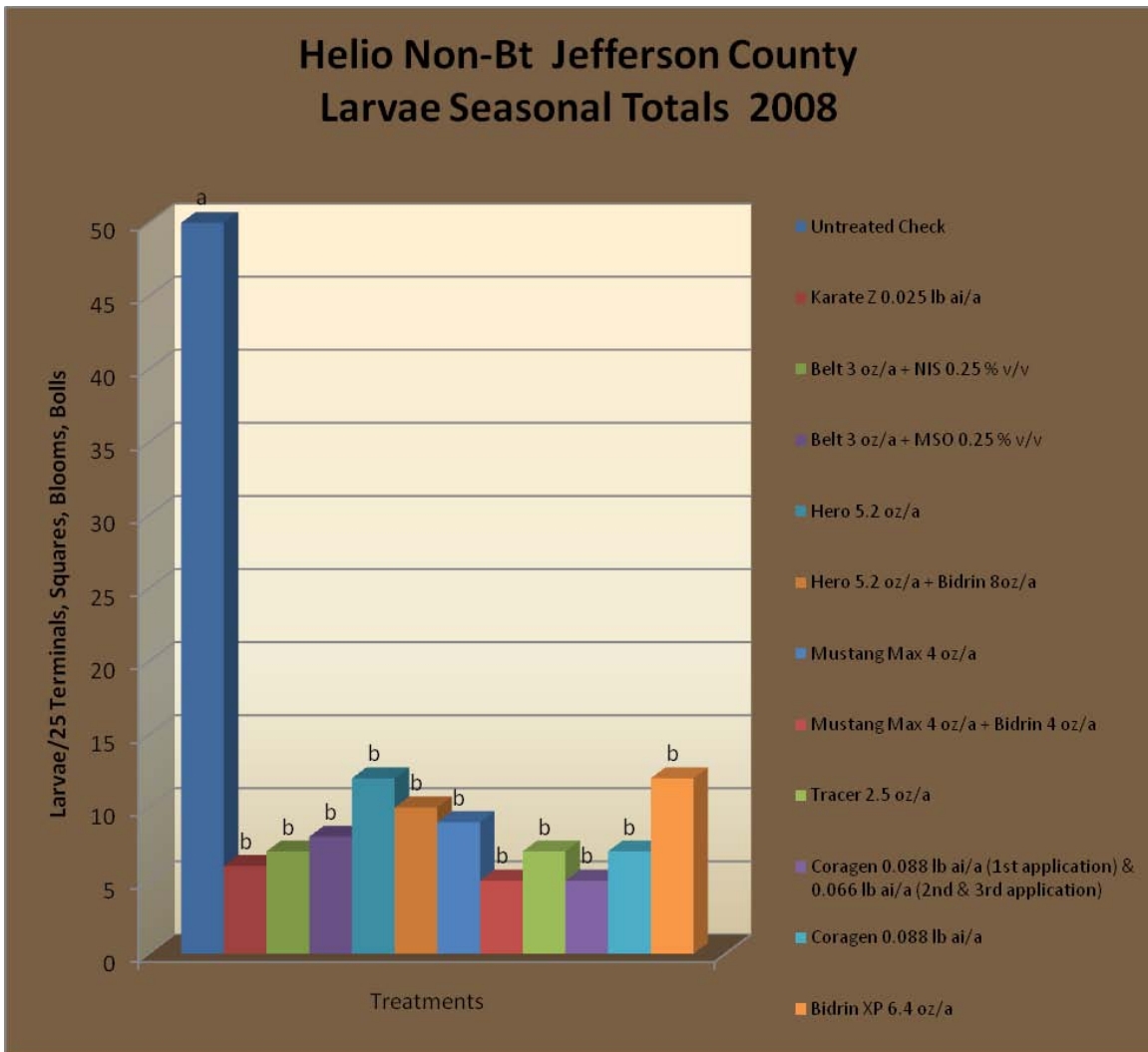


\*Means followed by same letter do not significantly differ (P=0.10)

**Chart 2. Helio Non-Bt Seasonal Total Larvae**

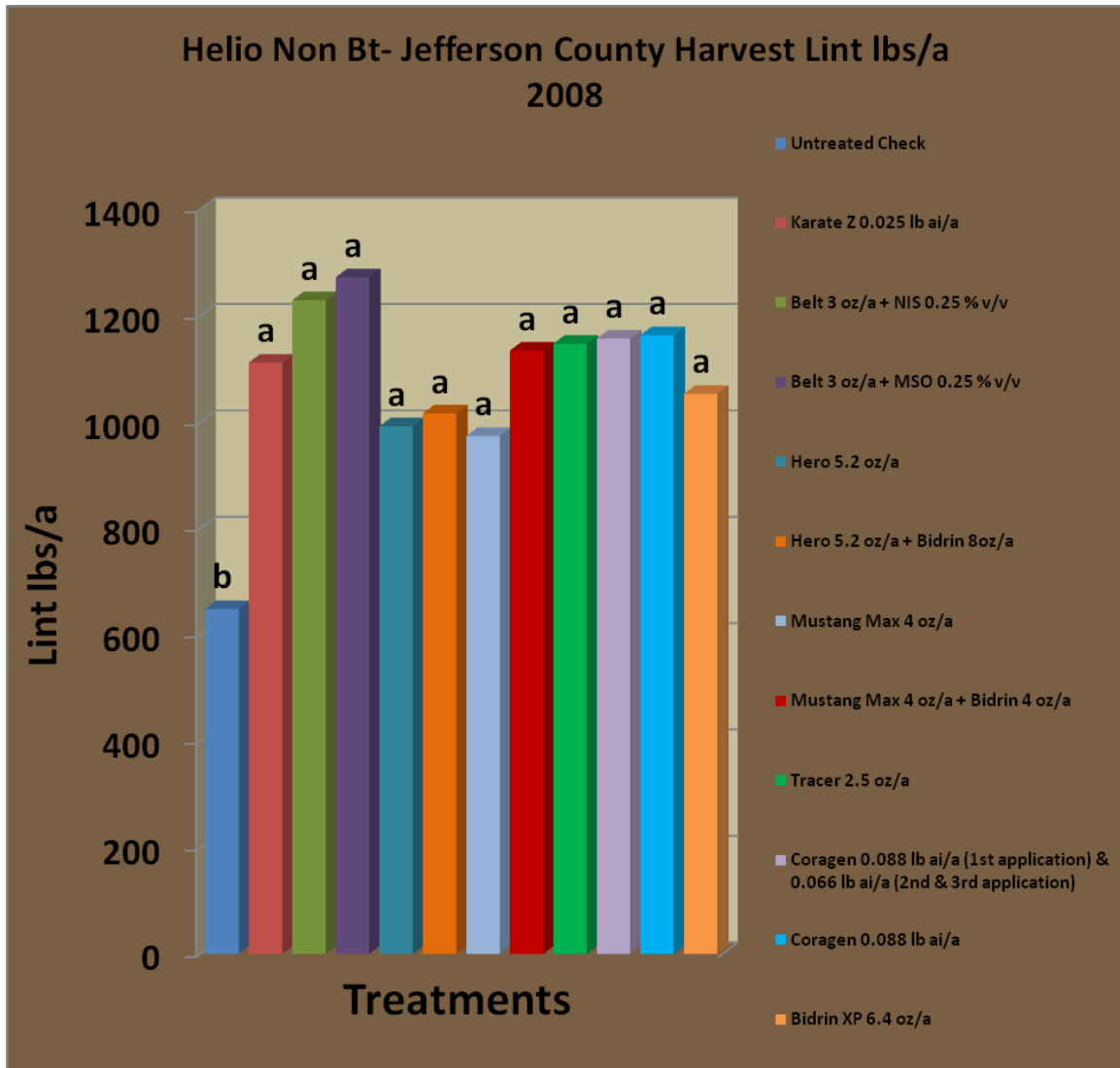
Application Date: July 10, July 21, and July 29, 2008

Rating Date: July 14, 18, 21, August 1, and 5, 2008



\*Means followed by same letter do not significantly differ (P=.10)

**Chart 3. Helio Non-Bt Harvest Lint Lbs/a**  
 Planting Date: May 13, 2008  
 Harvest Date: Oct 15, 2008



\*Means followed by same letter do not significantly differ (P=.10)