

# University of Georgia

**Determining the potential use of Impact in sweet corn.**

Trial ID: Veg51-06  
Location: Ponder farm

Study Dir.: Andrew MacRae  
Investigator: Stanley Culpepper

Reps: 4                      Plots: 6 by 30 feet  
Spray vol: 14.8 gal/ac      Mix size: 1.5 liters (min .92602)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
1	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	101	205	301	402
2	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	102	204	305	407
	Impact	2.8		SC	0.0165	LB A/A	2-4"weed	C	0.5972 ml/mx				
	atrazine	4		L	0.5	LB A/A	2-4"weed	C	12.67 ml/mx				
	MSO			L	1	% V/V	2-4"weed	C	15.0 ml/mx				
	UAN 28%			L	2.5	% V/V	2-4"weed	C	37.5 ml/mx				
3	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	103	202	304	406
	Impact	2.8		SC	0.033	LB A/A	2-4"weed	C	1.194 ml/mx				
	atrazine	4		L	1.0	LB A/A	2-4"weed	C	25.34 ml/mx				
	MSO			L	1	% V/V	2-4"weed	C	15.0 ml/mx				
	UAN 28%			L	2.5	% V/V	2-4"weed	C	37.5 ml/mx				
4	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	104	203	306	401
	Impact	2.8		SC	0.0165	LB A/A	2-4"weed	C	0.5972 ml/mx				
	Basagran	4		L	0.5	LB A/A	2-4"weed	C	12.67 ml/mx				
	MSO			L	1	% V/V	2-4"weed	C	15.0 ml/mx				
	UAN 28%			L	2.5	% V/V	2-4"weed	C	37.5 ml/mx				
5	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	105	201	307	403
	Callisto	4		SC	0.094	LB A/A	2-4"weed	C	2.382 ml/mx				
	Basagran	4		L	0.25	LB A/A	2-4"weed	C	6.334 ml/mx				
	COC			L	1	% V/V	2-4"weed	C	15.0 ml/mx				
	UAN 28%			L	2.5	% V/V	2-4"weed	C	37.5 ml/mx				
6	Bicept Lite II Magnum	6.0		SC	2.25	LB A/A	PRE	A	38.0 ml/mx	106	207	308	404
	Callisto	4		SC	0.188	LB A/A	2-4"weed	C	4.763 ml/mx				
	atrazine	4		L	0.5	LB A/A	2-4"weed	C	12.67 ml/mx				
	COC			L	1	% V/V	2-4"weed	C	15.0 ml/mx				
	UAN 28%			L	2.5	% V/V	2-4"weed	C	37.5 ml/mx				
7	Non-treated									107	208	303	405
8	Atrazine	4		L	1.5	LB A/A	PRE	A	38.0 ml/mx	108	206	302	408
	Prowl	3.3		EC	0.825	LB A/A	Spike	B	25.34 ml/mx				

Sort Order: Treatment

Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
285.021	ml	Bicept Lite II Magnum	6.0	SC	
2.986	ml	Impact	2.8	SC	
110.841	ml	atrazine	4	L	
56.244	ml	MSO		L	
234.350	ml	UAN 28%		L	
23.752	ml	Basagran	4	L	
8.931	ml	Callisto	4	SC	
37.496	ml	COC		L	
31.669	ml	Prowl	3.3	EC	

\* 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 1.5 liters (mix size basis).

\* Product amount calculations increased 25 % for overage adjustment.

\* 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 1.5 liters.

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## Determining the potential use of Impact in sweet corn.

Trial ID: Veg51-06  
Location: Ponder farm

Study Dir.: Andrew MacRae  
Investigator: Stanley Culpepper

### Trial Comments

**OBJECTIVE:** Evaluate Impact's weed efficacy in spring planted sweetcorn weed control systems.

**VISUAL INJURY:**

1) No treatment injured sweetcorn.

**WEED CONTROL:**

1) Very few weeds germinated in the plots so weed control was not rated.

**GENERAL COMMENTS**

Two cultivars were planted. BSS0977 was placed in the left hopper while GSS0966 was placed in the right hopper. Rows 1 and 3 of the plot are BSS0977 while rows 2 and 4 of the plot are GSS0966. Force 3G was placed in furrow at 4oz/1000ft.

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Crop Code		Corn Injury %	Corn Injury %	Corn Injury %	Corn Injury %	Corn Injury %		
Rating Data Type								
Rating Unit								
Rating Date		Apr-12-06	Apr-26-06	May-13-06	May-20-06	May-27-06		
Crop Stage		spike	3 leaf	8 leaf	11 leaf	13 leaf		
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5
1	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
2	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
	Impact	0.0165	LB A/A					
	atrazine	0.5	LB A/A					
	MSO	1	% V/V					
	UAN 28%	2.5	% V/V					
3	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
	Impact	0.033	LB A/A					
	atrazine	1.0	LB A/A					
	MSO	1	% V/V					
	UAN 28%	2.5	% V/V					
4	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
	Impact	0.0165	LB A/A					
	Basagran	0.5	LB A/A					
	MSO	1	% V/V					
	UAN 28%	2.5	% V/V					
5	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
	Callisto	0.094	LB A/A					
	Basagran	0.25	LB A/A					
	COC	1	% V/V					
	UAN 28%	2.5	% V/V					
6	Bicept Lite II Magnum	2.25	LB A/A	0 a	0 a	0 a	0 a	0 a
	Callisto	0.188	LB A/A					
	atrazine	0.5	LB A/A					
	COC	1	% V/V					
	UAN 28%	2.5	% V/V					
7	Non-treated			0 a	0 a	0 a	0 a	0 a
8	Atrazine	1.5	LB A/A	0 a	0 a	0 a	0 a	0 a
	Prowl	0.825	LB A/A					
LSD (P=.05)				0.0	0.0	0.0	0.0	0.0
Standard Deviation				0.0	0.0	0.0	0.0	0.0
CV				0.0	0.0	0.0	0.0	0.0
Bartlett's X2				0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)				.	.	.	.	.

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)

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Study Dir.: Andrew MacRae  
Investigator: Stanley Culpepper

## GENERAL TRIAL INFORMATION

Study Director: Andrew MacRae  
Affiliation: University of Georgia  
Postal Code: 31794

Title: Post Doc

Investigator: Stanley Culpepper  
Affiliation: University of Georgia  
Postal Code: 31794

Title: Ext. Weed Science

## TRIAL LOCATION

City: TyTy      Trial Status: Completed  
State/Prov.: GA      Trial Reliability: Good  
Postal Code: 31794      Initiation Date: Mar-31-06  
Country: USA      Planned Completion Date: \_\_\_\_\_  
E-Longitude of LL Corner °: \_\_\_\_\_      N-Latitude of LL Corner °: \_\_\_\_\_  
Altitude of LL Corner: \_\_\_\_\_ Unit: \_\_\_\_\_      Angle  $\gamma$ -axis to North °: \_\_\_\_\_  
Directions: \_\_\_\_\_

## COOPERATOR/LANDOWNER

Cooperator: \_\_\_\_\_      Country: \_\_\_\_\_  
Org: \_\_\_\_\_      Phone No: \_\_\_\_\_  
Address 1: \_\_\_\_\_      Fax No: \_\_\_\_\_  
Address 2: \_\_\_\_\_  
City: \_\_\_\_\_  
State/Prov: \_\_\_\_\_  
Postal Code: \_\_\_\_\_

Conducted Under GLP (Y/N): N      Conducted Under GEP (Y/N): N

Guidelines: \_\_\_\_\_      Guideline Description: \_\_\_\_\_

Objective:

Conclusions:

## CROP AND WEED DESCRIPTION

Weed	Code	Common Name	Scientific Name
1.			

Crop 1: ZEAMS CORN, SWEET      Variety: BSS0977  
Planting Date: Mar-31-06      Planting Method: SEEDED  
Rate: 24455 S/A      Depth: 2 IN      Perennial Age: \_\_\_\_\_  
Row Spacing: 3 ft      Spacing Within Row: 7.12 IN      Seed Bed: MEDIUM/TRASHY  
Soil Temperature: 60 F      Soil Moisture: Good      Emergence Date: Apr-05-06

Crop 2: ZEAMS CORN, SWEET      Variety: GSS0966  
Planting Date: Mar-31-06      Planting Method: SEEDED  
Rate: 24455 S/A      Depth: 2 IN      Perennial Age: \_\_\_\_\_  
Row Spacing: 3 ft      Spacing Within Row: 7.12 IN      Seed Bed: MEDIUM/TRASHY  
Soil Temperature: 60 F      Soil Moisture: Good      Emergence Date: Apr-05-06

## SITE AND DESIGN

Plot Width, Unit: 6 FT      Plot Length, Unit: 30 FT      Reps: 4  
Site Type: Research Station  
Tillage Type: Strip-tilled      Study Design: RANDOMIZED COMPLETE BLOCK

Trial Initiation Comments:

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	Previous Crops	Previous Pesticides	Year
1.			

### MAINTENANCE

**Field Prep./Maintenance:** Land was strip-tilled and sweet corn planted. 500 lbs/A of 5-10-15 fertilizer was incorporated into the field. 12-leaf corn was sidedressed with 200 lbs of 34-0-0.

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.							

### SOIL DESCRIPTION

% Sand: 94	% OM: 1.3	Texture: Sand	
% Silt: 4	pH: 6.2	Soil Name: Tifton Sandy Loam	
% Clay: 2	CEC: _____	Fert. Level: _____	

### ADDITIONAL MEASURED ELEMENTS

Element	Quantity	Unit

### MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.							

Overall Moisture Conditions: Irrigated

Closest Weather Station: \_\_\_\_\_ Distance: \_\_\_\_\_ Unit: \_\_\_\_\_

### APPLICATION DESCRIPTION

	A	B	C
Application Date:	Apr-01-06	Apr-12-06	May-13-06
Time of Day:	07:00	09:00	09:00
Application Method:	Broadcast	Broadcast	Broadcast
Application Timing:	PRE	Spike	POST-Dire
Applic. Placement:	Soil	Soil	2 inch
Air Temp., Unit:	63 F	62 F	70 F
% Relative Humidity:	70	65	53
Wind Velocity, Unit:	2 mph	2 mph	1 mph
Dew Presence (Y/N):	Y	N	N
Water Hardness:	N/A	N/A	N/A
Soil Temp., Unit:	64 F	62 F	78 F
Soil Moisture:	Dry	Slight	Moist
% Cloud Cover:	5	35	30

### CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMS	ZEAMS	ZEAMS 8 leaf
Stage Scale:	Not emerg	spike	6-10 leaf
Height, Unit:		4 inch	16 inch
Crop 2 Code, Stage:	ZEAMS	ZEAMS	ZEAMS 8 leaf
Stage Scale:	Not emerg	spike	6-10 leaf
Height, Unit:		4 inch	16 inch

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## WEED STAGE AT EACH APPLICATION

	A	B	C
<b>Weed 1 Code, Stage:</b>			
<b>Stage Scale:</b>	No weeds	No weeds	No weeds
<b>Density, Unit:</b>			

## APPLICATION EQUIPMENT

	A	B	C
<b>Appl. Equipment:</b>	CO2 Spray	CO2 Spray	CO2 Spray
<b>Operating Pressure:</b>	23 psi	23 psi	23 psi
<b>Nozzle Type:</b>	TeeJet	TeeJet	TeeJet
<b>Nozzle Size:</b>	11002XR	11002XR	11002XR
<b>Nozzle Spacing, Unit:</b>	18 in	18 in	18 in
<b>Nozzles/Row:</b>	2	2	2
<b>Band Width, Unit:</b>	6 ft	6 ft	6 ft
<b>Boom Length, Unit:</b>	54 in	54 in	54 in
<b>Boom Height, Unit:</b>	15 in	15 in	15 in
<b>Ground Speed, Unit:</b>	3 mph	3 mph	3 mph
<b>Incorporation Equip.:</b>	Irrigatio	Irrigatio	
<b>Hours to Incorp.:</b>	3	3	
<b>Incorp. Depth, Unit:</b>			
<b>Carrier:</b>	water	water	water
<b>Spray Volume, Unit:</b>	14.8 gpa	14.8 gpa	14.8 gpa
<b>Spray pH:</b>			
<b>Propellant:</b>	CO2	CO2	CO2
<b>Tank Mix (Y/N):</b>	N	N	N

Trt No	Treatment Application Comment