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Determining the potential use of Impact in fall sweet corn.

Trial ID: Veg67-06
 Location: Ponder farm

Study Dir.: Andrew MacRae
 Investigator: Stanley Culpepper

Reps: 4 Plots: 12 by 25 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.9292)

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Grow Unit	Stg	Appl Code	Amt Product to Measure	Plot No. By Rep			
										1	2	3	4
1	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	101	202	307	403
2	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	102	206	309	401
	Impact	2.8	LB/GAL	SC	0.0165	LB A/A	2-4"weed	C	0.7962 ml/mx				
	Atrazine	4	LB/GAL	L	0.5	LB A/A	2-4"weed	C	16.89 ml/mx				
	MSO				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
3	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	103	207	304	405
	Impact	2.8	LB/GAL	SC	0.033	LB A/A	2-4"weed	C	1.592 ml/mx				
	Atrazine	4	LB/GAL	L	1.0	LB A/A	2-4"weed	C	33.78 ml/mx				
	MSO				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
4	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	104	208	301	402
	Impact	2.8	LB/GAL	SC	0.0165	LB A/A	2-4"weed	C	0.7962 ml/mx				
	Basagran	4	LB/GAL	L	0.5	LB A/A	2-4"weed	C	16.89 ml/mx				
	MSO				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
5	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	105	201	306	407
	Callisto	4	LB/GAL	SC	0.094	LB A/A	2-4"weed	C	3.175 ml/mx				
	Basagran	4	LB/GAL	L	0.25	LB A/A	2-4"weed	C	8.445 ml/mx				
	COC				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
6	Bicep Lite II Magnum	6	LB/GAL	SC	2.25	LB A/A	PRE	A	50.67 ml/mx	106	203	305	408
	Callisto	4	LB/GAL	SC	0.188	LB A/A	2-4"weed	C	6.351 ml/mx				
	Atrazine	4	LB/GAL	L	0.5	LB A/A	2-4"weed	C	16.89 ml/mx				
	COC				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
7	Non-treated									107	210	303	404
8	Atrazine	4	LB/GAL	L	1.5	LB A/A	PRE	A	50.67 ml/mx	108	209	302	410
	Prowl	3.3	LB/GAL	EC	0.825	LB A/A	Spike	B	33.78 ml/mx				
9	Atrazine	4	LB/GAL	L	1.5	LB A/A	PRE	A	50.67 ml/mx	109	205	310	409
	Prowl	3.3	LB/GAL	EC	0.825	LB A/A	Spike	B	33.78 ml/mx				
	Impact	2.8	LB/GAL	SC	0.033	LB A/A	2-4"weed	C	1.592 ml/mx				
	MSO				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 ml/mx				
10	Atrazine	4	LB/GAL	L	1.5	LB A/A	PRE	A	50.67 ml/mx	110	204	308	406
	Prowl	3.3	LB/GAL	EC	0.825	LB A/A	Spike	B	33.78 ml/mx				
	Callisto	4	LB/GAL	SC	0.188	LB A/A	2-4"weed	C	6.351 ml/mx				
	COC				1	% V/V	2-4"weed	C	20.0 ml/mx				
	UAN 28%				2.5	% V/V	2-4"weed	C	49.99 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
380.027	ml	Bicep Lite II Magnum	6	SC	
5.972	ml	Impact	2.8	SC	
274.464	ml	Atrazine	4	L	
99.989	ml	MSO			

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Reps: 4 Plots: 12 by 25 feet
 Spray vol: 14.8 gal/ac Mix size: 2 liters (min 1.9292)

Trt No.	Tr> N>	Form Conc	Form Unit	Form Type	Rate	Plot No. By Rep
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Product quantities required for listed treatments and applications in one trial:

Amount*	Unit	Treatment Name	Form Conc	Form Type	Lot Code
437.454	ml	UAN 28%			
31.669	ml	Basagran	4	L	
19.846	ml	Callisto	4	SC	
74.992	ml	COC			
126.676	ml	Prowl	3.3	EC	

- * 'Per area' calculations based on spray volume= 14.8 gal/ac, mix size= 2 liters (mix size basis).
- * Product amount calculations increased 25 % for overage adjustment.
- * 'Per volume' calculations use spray volume= 14.8 gal/ac, mix size= 2 liters.

Trial Comments

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

VISUAL INJURY:

- 1) No treatment injured sweetcorn.

SMALLFLOWER MORNINGGLORY CONTROL:

- 1) Bicep Lite II Magnum PRE provided 70% control.
- 2) Atrazine PRE followed by Prowl at spike provided 75% control.
- 3) Bicep Lite II Magnum PRE followed by POST treatments containing atrazine provided 99 to 100% control.
- 4) Bicep Lite II Magnum PRE followed by POST treatments containing basagran provided 97 and 98% control.
- 5) The addition of Impact and Callisto did not improve control.

WILD MUSTARD CONTROL:

- 1) Bicep Lite II Magnum PRE provided 65% control.
- 2) Atrazine PRE followed by Prowl at spike provided 68% control.
- 3) Bicep Lite II Magnum PRE followed by POST treatments containing atrazine provided 95 to 100% control.
- 4) Bicep Lite II Magnum PRE followed by POST treatments containing basagran provided 85 and 92% control.
- 5) The addition of Impact and Callisto did not improve control.

GENERAL COMMENTS

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

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Trial ID: Veg67-06
 Location: Ponder farm

Study Dir.: Andrew MacRae
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Weed Code		SINAR	IAQTA	SINAR	IAQTA				
Crop Code		ZEAMS		ZEAMS					
Rating Data Type		Injury	Control	Injury	Control				
Rating Unit		%	%	%	%				
Rating Date		Oct-13-06	Oct-13-06	Oct-21-06	Oct-21-06				
Crop Stage		fruiting		fruiting					
Weed Stage			cot-6lf		cot-6lf				
Weed Density, Unit			4 sq ft		3 sq ft				
Trt-Eval Interval		9 DA-B	9 DA-B	17 DA-B	17 DA-B				
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6
1	Bicep Lite II Magnum	2.25	LB A/A	0 a	65 c	70 c	0 a	70 c	83 b
2	Bicep Lite II Magnum	2.25	LB A/A	0 a	97 a	99 a	0 a	96 a	100 a
	Impact	0.0165	LB A/A						
	Atrazine	0.5	LB A/A						
	MSO	1	% V/V						
	UAN 28%	2.5	% V/V						
3	Bicep Lite II Magnum	2.25	LB A/A	0 a	100 a	100 a	0 a	99 a	100 a
	Impact	0.033	LB A/A						
	Atrazine	1.0	LB A/A						
	MSO	1	% V/V						
	UAN 28%	2.5	% V/V						
4	Bicep Lite II Magnum	2.25	LB A/A	0 a	92 ab	97 a	0 a	93 ab	97 a
	Impact	0.0165	LB A/A						
	Basagran	0.5	LB A/A						
	MSO	1	% V/V						
	UAN 28%	2.5	% V/V						
5	Bicep Lite II Magnum	2.25	LB A/A	0 a	85 b	98 a	0 a	86 b	99 a
	Callisto	0.094	LB A/A						
	Basagran	0.25	LB A/A						
	COC	1	% V/V						
	UAN 28%	2.5	% V/V						
6	Bicep Lite II Magnum	2.25	LB A/A	0 a	95 ab	99 a	0 a	96 a	99 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 d	0 d	0 a	0 d	0 c
8	Atrazine	1.5	LB A/A	0 a	68 c	75 bc	0 a	70 c	83 b
	Prowl	0.825	LB A/A						
9	Atrazine	1.5	LB A/A	0 a	73 c	81 b	0 a	70 c	88 b
	Prowl	0.825	LB A/A						
	Impact	0.033	LB A/A						
	MSO	1	% V/V						
	UAN 28%	2.5	% V/V						
10	Atrazine	1.5	LB A/A	0 a	73 c	78 bc	0 a	75 c	85 b
	Prowl	0.825	LB A/A						
	Callisto	0.188	LB A/A						
	COC	1	% V/V						
	UAN 28%	2.5	% V/V						
LSD (P=.05)				0.0	9.3	7.7	0.0	6.5	5.3
Standard Deviation				0.0	6.4	5.3	0.0	4.5	3.6
CV				0.0	8.61	6.68	0.0	5.97	4.35
Bartlett's X2				0.0	20.859	15.572	0.0	17.043	26.157
P(Bartlett's X2)				.	0.008*	0.029*	.	0.03*	0.001*

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Weed Code		SINAR	IAQTA		SINAR	IAQTA
Crop Code	ZEAMS			ZEAMS		
Rating Data Type	Injury	Control	Control	Injury	Control	Control
Rating Unit	%	%	%	%	%	%
Rating Date	Oct-13-06	Oct-13-06	Oct-13-06	Oct-21-06	Oct-21-06	Oct-21-06
Crop Stage	fruiting			fruiting		
Weed Stage		cot-6lf	cot-6lf		cot-6lf	cot-6lf
Weed Density, Unit		4 sq ft	3 sq ft		4 sq ft	3 sq ft
Trt-Eval Interval	9 DA-B	9 DA-B	9 DA-B	17 DA-B	17 DA-B	17 DA-B

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

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	Previous Crops	Previous Pesticides	Year
1.			

MAINTENANCE

Field Prep./Maintenance: Land was left fallow for the current year and contained a high population of weeds (crowfootgrass, Palmer amaranth, Florida pusley, morningglories, Texas panicum). Land was disked twice and rototilled 5 times within a period of two weeks to cut up the heavy level of trash left from the weeds. Sweet corn was planted directly into a freshly rototilled field. 500 lbs/A of 5-10-15 fertilizer was incorporated into the field. 8-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: 1.2 Texture: Sand
 % Silt: 2 pH: 6.2 Soil Name: Tifton Sandy Loam
 % Clay: 4 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:	Aug-14-06	Aug-20-06	Oct-04-06
Time of Day:	16:30	8:00	17:00
Application Method:	Broadcast	Broadcast	Broadcast
Application Timing:	PRE	SPike	PostDirec
Applic. Placement:	Soil	Soil	4 inches
Air Temp., Unit:	94 F	84 F	88 F
% Relative Humidity:	67	71	56
Wind Velocity, Unit:	4 mph	1 mph	3 mph
Dew Presence (Y/N):	N	N	N
Water Hardness:	N/A	N/A	N/A
Soil Temp., Unit:	98 F	85 F	83 F
Soil Moisture:	Moist	Moist	Moist
% Cloud Cover:	25	0	45

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ZEAMS	ZEAMS	ZEAMS
Stage Scale:	Not emerg	Spike	tassel
Height, Unit:	0	2 inch	5 ft
Crop 2 Code, Stage:	ZEAMS	ZEAMS	ZEAMS
Stage Scale:	Not emerg	Spike	tassel
Height, Unit:	0	2 inch	5 ft

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WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	SINAR	SINAR	SINAR cotyl-6lf
Stage Scale:	No weeds	No weeds	1-3 inch
Density, Unit:			4 sq ft
Weed 2 Code, Stage:	IAQTA	IAQTA	IAQTA 2 to 8-lf
Stage Scale:	No weeds	No weeds	2-5 inch
Density, Unit:			3 sq ft

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	Backpack	Backpack	Backpack
Operating Pressure:	23 psi	23 psi	18
Nozzle Type:	TeeJet	TeeJet	Flat fan
Nozzle Size:	11002XR	11002XR	TK 2
Nozzle Spacing, Unit:	18 in	18 in	36 inch
Nozzles/Row:	2	2	1
Band Width, Unit:	6 ft	6 ft	3 ft
Boom Length, Unit:	54 in	54 in	
Boom Height, Unit:	15 in	15 in	15 in
Ground Speed, Unit:	3 mph	3 mph	3 mph
Incorporation Equip.:	Irrigatio		
Hours to Incorp.:	3		
Incorp. Depth, Unit:			
Carrier:	water	water	water
Spray Volume, Unit:	14.8 gpa	14.8 gpa	14.8 gpa
Spray pH:			
Propellant:	CO2	CO2	CO2
Tank Mix (Y/N):	N	N	N

Trt No	Treatment Application Comment