

LSU Northeast Research Station

Evaluation of Callistol in dry-seeded rice.

Trial ID: SJ05R027
Location:Study Dir.:
Investigator: Bill Williams**GENERAL TRIAL INFORMATION**

Investigator: Bill Williams

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

Conclusions: Callisto applied alone did not control barnyardgrass. Combinations of Callisto plus Command were effective at controlling both barnyardgrass and sesbania. However, Callisto did increase bleaching when applied delayed preemergence and caused severe injury when applied postemergence.

CROP AND PEST DESCRIPTION

Weed 1.	ECHCG	Barnyardgrass	2.	SEBEX	Hemp sesbania
Weed 3.	CNPPA	Texasweed	4.	CYPIR	Flatsedge, rice

Crop 1:	ORYSA	Rice	Variety:	Cypress	Planting Date:	5/16/05	
Planting Method:	DRILLED		Rate:	90	LB/A	Depth:	0.25 IN
			Row Spacing:	8 "	Seed Bed:	MEDIUM	
			Soil Moisture:	DRY	Emergence Date:	5/25/05	

Plot Width, Unit: 6.67 FT Plot Length, Unit: 15 FT Reps: 3

Site Type: RICE PADDY

Tillage Type: CONVENTIONAL-TILL Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

Texture:	Clay	% OM:	2.07	% Sand:	25.2	% Silt:	32.8	% Clay:	42
pH:	7.87	CEC:	21.9	Soil Name:	Sharkey clay	Fertility Level:	EXCELLENT		

MOISTURE CONDITIONS

On: Date	Time	Amount	Unit	Type	Interval	Unit
1.5/17/05	10:00	0.78	in	Flushed	0	na
2.5/21/05	10:00	0.63	in	Flushed	0	na
3.5/25/05	8:00 PM	1.51	in	Rainfall	0	na
4.5/29/05	1:00 AM	0.26	in	Rainfall	0	na
5.5/30/05	11:00 A	0.04	in	Rainfall	0	na
6.5/31/05	8:00 PM	0.39	in	Rainfall	0	na
7.6/2/05	4:00 PM	0.42	in	Rainfall	0	na
8.6/6/05	7:00 PM	0.06	in	Rainfall	0	na
9.6/17/05	11:00 A	1.6	in	300 lb Urea - Permanent flood	0	na
10.6/18/05	6:00 PM	0.93	in	Rainfall	0	na
11.7/3/05	1:30 PM	0.04	in	Rainfall	0	na
12.7/6/05	1:45 PM	0.44	in	Rainfall	0	na
13.7/8/05	1:00 PM	0.04	in	Rainfall	0	na
14.7/10/05	2:00 PM	0.25	in	Rainfall	0	na
15.7/14/05	10:00 P	0.05	in	Rainfall	0	na
16.7/16/05	1:00 PM	0.15	in	Rainfall	0	na
17.7/17/05	7:00 PM	0.27	in	Rainfall	0	na
18.7/18/05	2:30 PM	0.45	in	Rainfall	0	na
19.7/22/05	3:30 PM	0.25	in	Rainfall	0	na
20.8/4/05	8:00 PM	1.31	in	Rainfall	0	na
21.8/5/05	6:00 PM	0.05	in	Rainfall	0	na

Overall Moisture Conditions: NORMAL

Closest Weather Station: Northeast Research Station

Distance: 0.25 **Unit:** MI

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APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	5/18/05	5/23/05	5/27/05	6/9/05		
Time of Day:	3:00	1:00	11:00	2:00		
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY		
Application Timing:	PRE	DPRE	2-3 LF	4-5 LF		
Applic. Placement:	BROSOI	BROSOI	BROFOL	BROFOL		
Air Temp., Unit:	91 F	92 F	85 F	90 F		
% Relative Humidity:	63	48	33	57		
Wind Velocity, Unit:	5 S	0 O	2.5 E	3 E		
Soil Temp., Unit:	97 F	93 F	94 F	99 F		
Soil Moisture:	dry	dry	moist	dry		
% Cloud Cover:	50	0	0	40		

CROP STAGE AT EACH APPLICATION

	A	B	C	D	E	F
ORYSA		n/a	2-3 lf	4-5 lf		
Stage Scale:	n/a	n/a	2-3 "	4-5"		

WEED STAGE AT EACH APPLICATION

	A	B	C	D	E	F
Weed 1 ECHCG Stage:	n/a	n/a	3-4 lf	5 lf		
Stage Scale:	n/a	n/a	2 in	2 in		
Weed 2 SEBEX Stage:	n/a	n/a	1 lf	5 lf		
Stage Scale:	n/a	n/a	1 in	4 in		
Weed 3 CNPPA Stage:	n/a	n/a	1 lf	n/a		
Stage Scale:	n/a	n/a	1 in	n/a		
Weed 4 CYPPIR Stage:	n/a	n/a	1 lf	2 lf		
Stage Scale:	n/a	n/a	0.5 in	1 in		

APPLICATION EQUIPMENT

	A	B	C	D	E	F
Appl. Equipment:	Backpack	Backpack	Backpack	Backpack		
Operating Pressure:	34	34	34	34		
Nozzle Type:	Ven.	Ven.	Ven.	Ven.		
Nozzle Size:	11002	11002	11002	11002		
Nozzle Spacing, Unit:	20 "	20 "	20 "	20 "		
Nozzles/Row:	2	2	2	2		
Carrier:	Water	Water	Water	Water		
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA		
Propellant:	CO2	CO2	CO2	CO2		

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				ECHCG	ECHCG	ECHCG	ECHCG	ECHCG					
				PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P					
				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL					
				%	%	%	%	%					
				6/4/05	6/16/05	6/30/05	7/14/05	8/10/05					
				8 DA-C	7 DA-D	21 DA-D	35 DA-D	62 DA-D					
Trt	Treatment	Rate	Grow										
No.	Name	Rate	Unit	Stg	1	2	3	4	5				
1	Check			0	e	0	f	0	d	0	f		
2	CALLISTO	0.094	LB A/A PRE	60	d	0	f	0	e	0	d	0	f
3	CALLISTO	0.156	LB A/A PRE	60	d	0	f	0	e	0	d	0	f
4	CALLISTO	0.188	LB A/A PRE	83	c	47	e	0	e	0	d	0	f
5	CALLISTO	0.094	LB A/A DPRE	92	ab	63	d	0	e	0	d	0	f
6	CALLISTO	0.156	LB A/A DPRE	87	bc	70	c	0	e	0	d	0	f
7	CALLISTO	0.188	LB A/A DPRE	90	abc	70	c	0	e	0	d	0	f
8	CALLISTO	0.156	LB A/A PRE	93	ab	82	b	80	b	80	b	70	c
9	CALLISTO	0.156	LB A/A DPRE	95	a	80	b	67	c	57	c	47	e
	PROWL	1.0	LB A/A DPRE										
10	CALLISTO	0.156	LB A/A DPRE	90	abc	80	b	60	d	53	c	53	d
	FACET	0.5	LB A/A DPRE										
11	COMMAND	0.5	LB A/A PRE	95	a	82	b	80	b	80	b	80	b
	CALLISTO	0.094	LB A/A 2-3 lf										
	COC	1.25	% V/V 2-3 lf										
12	COMMAND	0.5	LB A/A PRE	95	a	95	a	92	a	90	a	90	a
	CALLISTO	0.094	LB A/A 4-5 lf										
	STAM M-4	3.0	LB A/A 4-5 lf										
13	COMMAND	0.5	LB A/A PRE	95	a	92	a	90	a	90	a	90	a
	CALLISTO	0.094	LB A/A 4-5 lf										
	COC	1.25	% V/V 4-5 lf										
LSD (P=.05)				6.8	4.0	3.0	3.7	3.7					
Bartlett's X2				3.6	2.204	0.876	0.0	0.0					
P(Bartlett's X2)				0.608	0.698	0.349	1.00	1.00					

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code				SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	
Crop Code									
Part Rated				PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit				%	%	%	%	%	
Rating Date				6/4/05	6/16/05	6/30/05	7/14/05	8/10/05	
Trt-Eval Interval				8 DA-C	7 DA-D	21 DA-D	35 DA-D	62 DA-D	
Trt Treatment	Rate	Grow							
No. Name	Rate Unit	Stg		6	7	8	9	10	
1	Check			0	e 0	f 0	e 0	e 0	e
2	CALLISTO	0.094 LB A/A PRE		73	d 60	e 60	d 60	d 60	d
3	CALLISTO	0.156 LB A/A PRE		80	c 82	bcd 72	c 70	c 67	c
4	CALLISTO	0.188 LB A/A PRE		93	a 88	a-d 92	a 92	a 92	a
5	CALLISTO	0.094 LB A/A DP	PRE	95	a 92	abc 92	a 92	a 92	a
6	CALLISTO	0.156 LB A/A DP	PRE	95	a 88	a-d 92	a 92	a 92	a
7	CALLISTO	0.188 LB A/A DP	PRE	95	a 90	a-d 92	a 92	a 92	a
8	CALLISTO	0.156 LB A/A PRE		95	a 92	abc 92	a 92	a 92	a
	COMMAND	0.5 LB A/A PRE							
9	CALLISTO	0.156 LB A/A DP	PRE	95	a 78	d 82	b 82	b 82	b
	PROWL	1.0 LB A/A DP	PRE						
10	CALLISTO	0.156 LB A/A DP	PRE	95	a 92	abc 92	a 92	a 92	a
	FACET	0.5 LB A/A DP	PRE						
11	COMMAND	0.5 LB A/A PRE		95	a 80	cd 92	a 92	a 92	a
	CALLISTO	0.094 LB A/A 2-3 lf							
	COC	1.25 % V/V 2-3 lf							
12	COMMAND	0.5 LB A/A PRE		93	a 95	a 92	a 92	a 92	a
	CALLISTO	0.094 LB A/A 4-5 lf							
	STAM M-4	3.0 LB A/A 4-5 lf							
13	COMMAND	0.5 LB A/A PRE		88	b 93	ab 92	a 92	a 92	a
	CALLISTO	0.094 LB A/A 4-5 lf							
	COC	1.25 % V/V 4-5 lf							
LSD (P=.05)				5.0	13.2	5.1	5.4	5.8	
Bartlett's X2				2.638	17.486	16.232	13.382	13.011	
P(Bartlett's X2)				0.451	0.042*	0.093	0.146	0.223	

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

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Weed Code									
Crop Code		ORYSA	ORYSA	ORYSA	ORYSA	ORYSA			
Part Rated		PLATOT C	PLATOT C	PLATOT C	PLATOT C	PLATOT C			
Rating Data Type		PHYBLE	PHYBLE	PHYBLE	PHYBLE	PHYBLE			
Rating Unit		%	%	%	%	%			
Rating Date		5/25/05	5/30/05	6/4/05	6/16/05	6/23/05			
Trt-Eval Interval		7 DA-A	7 DA-B	8 DA-C	7 DA-D	14 DA-D			
Trt No.	Treatment	Rate	Unit	Grow Stg	11	12	13	14	15
1	Check				0	a 0	c 0	d 0	d 0 c
2	CALLISTO	0.094	LB A/A	PRE	0	a 0	c 0	d 0	d 0 c
3	CALLISTO	0.156	LB A/A	PRE	0	a 0	c 0	d 0	d 0 c
4	CALLISTO	0.188	LB A/A	PRE	0	a 0	c 0	d 0	d 0 c
5	CALLISTO	0.094	LB A/A	DPRE	0	a 18	b 12	c 0	d 0 c
6	CALLISTO	0.156	LB A/A	DPRE	0	a 20	a 10	c 0	d 0 c
7	CALLISTO	0.188	LB A/A	DPRE	0	a 20	a 12	c 0	d 0 c
8	CALLISTO	0.156	LB A/A	PRE	0	a 0	c 0	d 0	d 0 c
	COMMAND	0.5	LB A/A	PRE					
9	CALLISTO	0.156	LB A/A	DPRE	0	a 20	a 15	b 0	d 0 c
	PROWL	1.0	LB A/A	DPRE					
10	CALLISTO	0.156	LB A/A	DPRE	0	a 20	a 0	d 0	d 0 c
	FACET	0.5	LB A/A	DPRE					
11	COMMAND	0.5	LB A/A	PRE	0	a 0	c 18	a 8	c 0 c
	CALLISTO	0.094	LB A/A	2-3 lf					
	COC	1.25	% V/V	2-3 lf					
12	COMMAND	0.5	LB A/A	PRE	0	a 0	c 0	d 85	a 60 a
	CALLISTO	0.094	LB A/A	4-5 lf					
	STAM M-4	3.0	LB A/A	4-5 lf					
13	COMMAND	0.5	LB A/A	PRE	0	a 0	c 0	d 65	b 53 b
	CALLISTO	0.094	LB A/A	4-5 lf					
	COC	1.25	% V/V	4-5 lf					
LSD (P=.05)					0.0	1.3	3.1	5.0	2.7
Bartlett's X2					0.0	0.0	0.998	2.133	0.0
P(Bartlett's X2)					.	.	0.802	0.344	.

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Weed Code				ORYSA	ORYSA		
Crop Code				PLATOT C	PLATOT C		
Part Rated				PHYBLE	PHYBLE		
Rating Data Type				%	%		
Rating Unit				7/7/05	8/4/05		
Trt-Eval Interval				28 DA-D	56 DA-D		
Trt No.	Treatment Name	Rate	Unit	Grow Stg	16	17	
1	Check			0	c	0	a
2	CALLISTO	0.094	LB A/A	PRE	0	c	0
3	CALLISTO	0.156	LB A/A	PRE	0	c	0
4	CALLISTO	0.188	LB A/A	PRE	0	c	0
5	CALLISTO	0.094	LB A/A	DPRE	0	c	0
6	CALLISTO	0.156	LB A/A	DPRE	0	c	0
7	CALLISTO	0.188	LB A/A	DPRE	0	c	0
8	CALLISTO	0.156	LB A/A	PRE	0	c	0
	COMMAND	0.5	LB A/A	PRE			
9	CALLISTO	0.156	LB A/A	DPRE	0	c	0
	PROWL	1.0	LB A/A	DPRE			
10	CALLISTO	0.156	LB A/A	DPRE	0	c	0
	FACET	0.5	LB A/A	DPRE			
11	COMMAND	0.5	LB A/A	PRE	0	c	0
	CALLISTO	0.094	LB A/A	2-3 lf			
	COC	1.25	% V/V	2-3 lf			
12	COMMAND	0.5	LB A/A	PRE	33	a	0
	CALLISTO	0.094	LB A/A	4-5 lf			
	STAM M-4	3.0	LB A/A	4-5 lf			
13	COMMAND	0.5	LB A/A	PRE	20	b	0
	CALLISTO	0.094	LB A/A	4-5 lf			
	COC	1.25	% V/V	4-5 lf			
LSD (P=.05)					2.7	0.0	
Bartlett's X2					0.0	0.0	
P(Bartlett's X2)					.	.	

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