

LSU Northeast Research Station

Evaluation of Grasp for weed control in pin-point flood rice.

Trial ID: SJ05R019

Study Dir.:

Location: Bay 3

Investigator: Bill Williams

GENERAL TRIAL INFORMATION

Investigator: Bill Williams

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

Objective: The objective of this study is to evaluate herbicides that can be tank mixed with Newpath to control annual grasses escaping control from earlier Newpath applications. Herbicides other than Newpath were used at select timings to ensure the presence of certain annual grasses.

CROP AND WEED DESCRIPTION

Weed Code	Common Name	Scientific Name
1.	ECHCG Barnyardgrass, common	Echinochloa crus-galli
2.	SEBEX Coffeebean	Sesbania exaltata
3.	LEFPA Sprangletop, tighthead	Leptochloa panicoides
4.	HETLI Ducksalad	Heteranthera limosa

Crop 1: ORYSA RICE

Variety: Chenier

Planting Date: 5/26/05

Planting Method: DRILLED

Rate: 150 LB/A

Depth: 0.25 "

Row Spacing: 8 "

Spacing Within Row: 5 "

Seed Bed: MEDIUM

Soil Moisture: DRY

SITE AND DESIGN

Plot Width, Unit: 6.67 FT

Plot Length, Unit: 15 FT

Reps: 3

Site Type: RICE PADDY

Tillage Type: CONVENTIONAL-TILL

Study Design: SPLIT-BLOCK

SOIL DESCRIPTION

% Sand: 25.2 **% OM:** 2.07

Texture: Clay

% Silt: 32.8 **pH:** 7.87

Soil Name: Sharkey clay

% Clay: 42 **CEC:** 21.9

Fert. Level: EXCELLENT

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MOISTURE CONDITIONS

	Date	Time	Amount	Unit	Type	Interval	Unit
1.	5/20/05	5:30 PM	0	n/	Seeding flood established	0	n/a
2.	5/25/05	8:00 PM	0.78	in	Rainfall	0	n/a
3.	5/26/05	10:00am	0	n/	Seeded (pregerminated)	0	n/a
4.	5/27/05	3:00PM	0	n/	Drained for pegging	0	n/a
5.	5/29/05	1:00 AM	0.63	in	Rainfall	0	n/a
6.	5/30/05	11:00 A	1.51	in	Rainfall	0	n/a
7.	5/31/05	8:00 PM	0.26	in	Rainfall	0	n/a
8.	6/2/05	4:00 PM	0.04	in	Rainfall	0	n/a
9.	6/3/05	10:00 A	0	n/	300 lb Urea fb Permanent flood	0	na
10.	6/6/05	7:00 PM	0.39	in	Rainfall	0	n/a
11.	6/18/05	11:00 A	0.42	in	Rainfall	0	n/a
12.	6/22/05	8:00 AM	0	n/	Flood lowered for 2-3 lf app	0	na
13.	6/23/05	8:00 AM	0	n/	Normal flood reestablished	0	na
14.	7/3/05	6:00 PM	0.06	in	Rainfall	0	n/a
15.	7/6/05	1:30 PM	1.6	in	Rainfall	0	n/a
16.	7/8/05	1:45 PM	0.93	in	Rainfall	0	n/a
17.	7/10/05	1:00 PM	0.04	in	Rainfall	0	n/a
18.	7/14/05	2:00 PM	0.44	in	Rainfall	0	n/a
19.	7/16/05	10:00 P	0.04	in	Rainfall	0	n/a
20.	7/17/05	1:00 PM	0.25	in	Rainfall	0	n/a
21.	7/18/05	7:00 PM	0.05	in	Rainfall	0	n/a
22.	7/22/05	2:30 PM	0.15	in	Rainfall	0	n/a
23.	8/4/05	3:30 PM	0.27	in	Rainfall	0	n/a
24.	8/5/05	8:00 PM	0.45	in	Rainfall	0	n/a
25.	8/6/05	6:00 PM	0.25	in	Rainfall	0	n/a
26.	8/16/05	6:00 PM	1.31	in	Rainfall	0	n/a
27.	8/22/05	9:00 PM	0.05	in	Rainfall	0	n/a

Overall Moisture Conditions: Dry

Closest Weather Station: Northeast Research Station

Distance: 0.25 Unit: mi

APPLICATION DESCRIPTION

	A	B	C
Application Date:	6/1/05	6/22/05	7/1/05
Time of Day:	10:00	10:00	10
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PEG	2-3 lf	4-5 lf
Applic. Placement:	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	73 F	92 F	91 F
% Relative Humidity:	78	62	49
Wind Velocity, Unit:	5 NW	2 E	3 S
Soil Temp., Unit:	71 F	85 F	98 F
Soil Moisture:	Wet	Wet	Flooded
% Cloud Cover:	80	80	30

CROP STAGE AT EACH APPLICATION

	A	B	C
Crop 1 Code, Stage:	ORYSA PEG	ORYSA 2-3 lf	ORYSA 4-5 lf
Stage Scale:	0.5 in	2-3 in	4-6 in

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WEED STAGE AT EACH APPLICATION

	A	B	C
Weed 1 Code, Stage:	ECHCG n/a	ECHCG 1-2 lf	ECHCG 4-5 lf
Stage Scale:	n/a	1 in	4-6 in
Weed 2 Code, Stage:	SEBEX cot	SEBEX n/a	SEBEX n/a
Stage Scale:	0.5 in	4-8"	8-12 in
Weed 3 Code, Stage:	LEFPA n/a	LEFPA 1-2 T	LEFPA PI
Stage Scale:	n/a	6-8 in	12-16 in
Weed 4 Code, Stage:	HETLI 1 lf	HETLI n/a	HETLI Spoon
Stage Scale:	0.25 in	1-2 in	2-4 in

APPLICATION EQUIPMENT

	A	B	C
Appl. Equipment:	Backpack	Backpack	Backpack
Operating Pressure:	31	31	31
Nozzle Type:	Greenleaf	Greenleaf	Greenleaf
Nozzle Size:	11002	11002	11002
Nozzle Spacing, Unit:	20 "	20 "	20 "
Nozzles/Row:	4	4	4
Carrier:	Water	Water	Water
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA
Propellant:	CO2	CO2	CO2

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Trial ID: SJ05R019
 Location: Bay 3

Study Dir.:
 Investigator: Bill Williams

Weed Code	ECHCG	ECHCG	ECHCG	SEBEX	SEBEX
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Rating Date	6/24/05	7/12/05	8/10/05	6/24/05	7/12/05
Trt-Eval Interval	23 DA-A	11 DA-C	40 DA-C	23 DA-A	11 DA-C

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	1	2	3	4	5	
1	Grasp	1.7	OZ/A	2-3 lf	0	f 92	a 92	a 0	c 85	abc
	Agridex	1	QT/A	2-3 lf						
2	Grasp	2.0	OZ/A	2-3 lf	0	f 93	a 93	a 0	c 87	ab
	Agridex	1	QT/A	2-3 lf						
3	Grasp	2.3	OZ/A	2-3 lf	0	f 92	a 92	a 0	c 92	a
	Agridex	1	QT/A	2-3 lf						
4	Grasp	2.9	OZ/A	2-3 lf	0	f 92	a 92	a 0	c 92	a
	Agridex	1	QT/A	2-3 lf						
5	Grasp	2.0	OZ/A	2-3 lf	0	f 92	a 92	a 0	c 92	a
	Clincher	15	OZ/A	2-3 lf						
	Agridex	1	QT/A	2-3 lf						
6	Facet	0.5	LB/A	2-3 lf	0	f 92	a 92	a 0	c 93	a
	Londax	1.0	OZ/A	2-3 lf						
	Agridex	1	% V/V	2-3 lf						
7	Grasp	1.7	OZ/A	Pegging	53	e 92	a 92	a 85	b 77	cd
	Agridex	1	QT/A	Pegging						
8	Grasp	2.0	OZ/A	Pegging	73	d 88	a 88	a 87	ab 85	abc
	Agridex	1	QT/A	Pegging						
9	Grasp	2.3	OZ/A	Pegging	83	c 92	a 92	a 87	ab 88	ab
	Agridex	1	QT/A	Pegging						
10	Grasp	2.9	OZ/A	Pegging	92	ab 92	a 92	a 87	ab 85	abc
	Agridex	1	QT/A	Pegging						
11	Grasp	2.3	OZ/A	Pegging	95	a 92	a 92	a 92	a 80	bcd
	Command	1.33	PT/A	Pegging						
	Agridex	1	QT/A	Pegging						
12	Grasp	2.3	OZ/A	Pegging	90	b 92	a 92	a 87	ab 67	e
	Clincher	15	OZ/A	Pegging						
	Agridex	1	QT/A	Pegging						
13	Grasp	1.7	OZ/A	4-5 lf	0	f 50	d 50	d 0	c 77	cd
	Agridex	1	QT/A	4-5 lf						
14	Grasp	2.0	OZ/A	4-5 lf	0	f 57	c 57	c 0	c 77	cd
	Agridex	1	QT/A	4-5 lf						
15	Grasp	2.3	OZ/A	4-5 lf	0	f 60	c 60	c 0	c 85	abc
	Agridex	1	QT/A	4-5 lf						

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Weed Code	ECHCG	ECHCG	ECHCG	SEBEX	SEBEX
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Rating Date	6/24/05	7/12/05	8/10/05	6/24/05	7/12/05
Trt-Eval Interval	23 DA-A	11 DA-C	40 DA-C	23 DA-A	11 DA-C
Trt Treatment	Rate	Grow			
No. Name	Rate Unit	Stg	1	2	3
16 Grasp	2.9 OZ/A	4-5 lf	0	f 67	b 67
Agridex	1 QT/A	4-5 lf			b 0
17 Command	1.33 PT/A	Pegging	92	ab 92	a 92
Grasp	2.0 OZ/A	4-5 lf			a 0
Clincher	15 OZ/A	4-5 lf			c 73
Agridex	1 QT/A	4-5 lf			de
18 Command	1.33 PT/A	Pegging	95	a 92	a 92
Grasp	2.0 OZ/A	4-5 lf			a 0
Grandstand	0.66 PT/A	4-5 lf			c 73
Agridex	1 QT/A	4-5 lf			de
LSD (P=.05)			4.8	5.2	5.2
Bartlett's X2			1.881	7.381	7.381
P(Bartlett's X2)			0.865	0.946	0.946
				5.4	3.199
				9.9	7.884
				0.669	0.952

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	HETLI	HETLI	HETLI	AMMCO	
Part Rated				PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	
Rating Data Type				CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	
Rating Unit				%	%	%	%	%	
Rating Date				8/10/05	6/24/05	7/12/05	8/10/05	6/24/05	
Trt-Eval Interval				40 DA-C	23 DA-A	11 DA-C	40 DA-C	23 DA-A	
Trt No.	Treatment Name	Rate	Grow Stg	6	7	8	9	10	
1	Grasp	1.7	OZ/A 2-3 lf	85	abc 0	c 92	a 92	a 0	c
	Agridex	1	QT/A 2-3 lf						
2	Grasp	2.0	OZ/A 2-3 lf	87	ab 0	c 92	a 92	a 0	c
	Agridex	1	QT/A 2-3 lf						
3	Grasp	2.3	OZ/A 2-3 lf	92	a 0	c 92	a 92	a 0	c
	Agridex	1	QT/A 2-3 lf						
4	Grasp	2.9	OZ/A 2-3 lf	92	a 0	c 92	a 92	a 0	c
	Agridex	1	QT/A 2-3 lf						
5	Grasp	2.0	OZ/A 2-3 lf	92	a 0	c 88	ab 88	ab 0	c
	Clincher	15	OZ/A 2-3 lf						
	Agridex	1	QT/A 2-3 lf						
6	Facet	0.5	LB/A 2-3 lf	93	a 0	c 88	ab 88	ab 0	c
	Londax	1.0	OZ/A 2-3 lf						
	Agridex	1	% V/V 2-3 lf						
7	Grasp	1.7	OZ/A Pegging	77	cd 92	b 88	ab 88	ab 92	b
	Agridex	1	QT/A Pegging						
8	Grasp	2.0	OZ/A Pegging	85	abc 90	b 92	a 92	a 95	a
	Agridex	1	QT/A Pegging						
9	Grasp	2.3	OZ/A Pegging	88	ab 95	a 92	a 92	a 95	a
	Agridex	1	QT/A Pegging						
10	Grasp	2.9	OZ/A Pegging	85	abc 95	a 92	a 92	a 95	a
	Agridex	1	QT/A Pegging						
11	Grasp	2.3	OZ/A Pegging	80	bcd 95	a 83	bc 83	bc 95	a
	Command	1.33	PT/A Pegging						
	Agridex	1	QT/A Pegging						
12	Grasp	2.3	OZ/A Pegging	67	e 95	a 90	ab 90	ab 95	a
	Clincher	15	OZ/A Pegging						
	Agridex	1	QT/A Pegging						
13	Grasp	1.7	OZ/A 4-5 lf	77	cd 0	c 0	g 0	g 0	c
	Agridex	1	QT/A 4-5 lf						
14	Grasp	2.0	OZ/A 4-5 lf	77	cd 0	c 53	f 53	f 0	c
	Agridex	1	QT/A 4-5 lf						
15	Grasp	2.3	OZ/A 4-5 lf	85	abc 0	c 73	de 73	de 0	c
	Agridex	1	QT/A 4-5 lf						
16	Grasp	2.9	OZ/A 4-5 lf	85	abc 0	c 77	cd 77	cd 0	c
	Agridex	1	QT/A 4-5 lf						

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Weed Code	SEBEX	HETLI	HETLI	HETLI	AMMCO
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Rating Date	8/10/05	6/24/05	7/12/05	8/10/05	6/24/05
Trt-Eval Interval	40 DA-C	23 DA-A	11 DA-C	40 DA-C	23 DA-A
Trt Treatment	Rate	Grow			
No. Name	Rate Unit	Stg	6	7	8
17 Command	1.33 PT/A	Pegging	73	de 0	c 73
Grasp	2.0 OZ/A	4-5 lf			de 73
Clincher	15 OZ/A	4-5 lf			de 0
Agridex	1 QT/A	4-5 lf			c
18 Command	1.33 PT/A	Pegging	73	de 0	c 67
Grasp	2.0 OZ/A	4-5 lf			e 67
Grandstand	0.66 PT/A	4-5 lf			e 0
Agridex	1 QT/A	4-5 lf			c
LSD (P=.05)			9.9	2.3	7.5
Bartlett's X2			7.884	0.567	11.57
P(Bartlett's X2)			0.952	0.451	0.711
					7.5
					1.1
					0.0
					.

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				AMMCO	AMMCO		
Part Rated				PLATOT P	PLATOT P		
Rating Data Type				CONTROL	CONTROL		
Rating Unit				%	%		
Rating Date				7/12/05	8/10/05		
Trt-Eval Interval				11 DA-C	40 DA-C		
Trt No.	Treatment Name	Rate	Unit	Grow Stg	11	12	
1	Grasp	1.7	OZ/A	2-3 lf	92	a 92	a
	Agridex	1	QT/A	2-3 lf			
2	Grasp	2.0	OZ/A	2-3 lf	92	a 92	a
	Agridex	1	QT/A	2-3 lf			
3	Grasp	2.3	OZ/A	2-3 lf	92	a 92	a
	Agridex	1	QT/A	2-3 lf			
4	Grasp	2.9	OZ/A	2-3 lf	92	a 92	a
	Agridex	1	QT/A	2-3 lf			
5	Grasp	2.0	OZ/A	2-3 lf	92	a 92	a
	Clincher	15	OZ/A	2-3 lf			
	Agridex	1	QT/A	2-3 lf			
6	Facet	0.5	LB/A	2-3 lf	92	a 92	a
	Londax	1.0	OZ/A	2-3 lf			
	Agridex	1	% V/V	2-3 lf			
7	Grasp	1.7	OZ/A	Pegging	92	a 92	a
	Agridex	1	QT/A	Pegging			
8	Grasp	2.0	OZ/A	Pegging	92	a 92	a
	Agridex	1	QT/A	Pegging			
9	Grasp	2.3	OZ/A	Pegging	92	a 92	a
	Agridex	1	QT/A	Pegging			
10	Grasp	2.9	OZ/A	Pegging	92	a 92	a
	Agridex	1	QT/A	Pegging			
11	Grasp	2.3	OZ/A	Pegging	92	a 92	a
	Command	1.33	PT/A	Pegging			
	Agridex	1	QT/A	Pegging			
12	Grasp	2.3	OZ/A	Pegging	92	a 92	a
	Clincher	15	OZ/A	Pegging			
	Agridex	1	QT/A	Pegging			
13	Grasp	1.7	OZ/A	4-5 lf	30	b 30	b
	Agridex	1	QT/A	4-5 lf			
14	Grasp	2.0	OZ/A	4-5 lf	30	b 30	b
	Agridex	1	QT/A	4-5 lf			
15	Grasp	2.3	OZ/A	4-5 lf	27	c 27	c
	Agridex	1	QT/A	4-5 lf			
16	Grasp	2.9	OZ/A	4-5 lf	30	b 30	b
	Agridex	1	QT/A	4-5 lf			

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Weed Code	AMMCO	AMMCO
Part Rated	PLATOT P	PLATOT P
Rating Data Type	CONTROL	CONTROL
Rating Unit	%	%
Rating Date	7/12/05	8/10/05
Trt-Eval Interval	11 DA-C	40 DA-C

Trt	Treatment	Rate	Grow			
No.	Name	Rate Unit	Stg	11	12	
17	Command	1.33 PT/A	Pegging 30		b 30	b
	Grasp	2.0 OZ/A	4-5 lf			
	Clincher	15 OZ/A	4-5 lf			
	Agridex	1 QT/A	4-5 lf			
18	Command	1.33 PT/A	Pegging 30		b 30	b
	Grasp	2.0 OZ/A	4-5 lf			
	Grandstand	0.66 PT/A	4-5 lf			
	Agridex	1 QT/A	4-5 lf			
LSD (P=.05)				3.0	3.0	
Bartlett's X2				2.345	2.345	
P(Bartlett's X2)				0.999	0.999	

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.