

LSU Northeast Research Station

Texasweed control in drill-seeded rice with Grasp.

Trial ID: SJ06R011
 Location: Bay 3

Protocol ID: SJ06R011
 Study Director:
 Investigator: Bill Williams

General Trial Information

Investigator: Bill Williams

Conclusions:

Various herbicide combinations with Grasp were evaluated for sesbania and Texasweed control. Both sesbania and Texasweed control improved when Grasp was applied with other herbicides. The best hemp sesbania programs were Grasp plus Stam. The best Texasweed programs were Grasp plus Londax. Grasp was also applied with Permit and Grandstand. Grandstand plus Stam was also effective at controlling sesbania and Texasweed.

Crop Description

Crop 1: ORYSA Oryza sativa Common rice
Variety: Cocodrie
BBCH Scale: BRIC **Planting Date:** 4/24/06
Planting Method: DRILLED **Rate, Unit:** 100 LB/A
Depth, Unit: 1 IN
Row Spacing, Unit: 8 IN
Seed Bed: MEDIUM
Soil Moisture: DRY **Emergence Date:** 5/4/06
Harvested Width, Unit: 5 FT **Harvest Equipment:** Small plot combine
% Standard Moisture: 12.0 **Harvested Length, Unit:** 12 FT

Pest Description

Pest 1 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyardgrass
Pest 2 Type: W **Code:** SEBEX Sesbania exaltata
Common Name: Hemp sesbania
Pest 3 Type: W **Code:** CNPPA Caperonia palustris
Common Name: Texasweed
Pest 4 Type: W **Code:** COMDI Commelina diffusa
Common Name: Spreading dayflower

Site and Design

Plot Width, Unit: 6.67 FT **Site Type:** FIELD
Plot Length, Unit: 15 FT **Tillage Type:** CONVENTIONAL-TILL
Replications: 3 **Study Design:** Randomized Complete Block

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Rate Unit
1.	6/7/06	Prilled Urea	300	lb/A

Soil Description

Description Name: Bay 3 - South End
% Sand: 25.2 **% OM:** 2.07 **Texture:** Clay
% Silt: 32.8 **pH:** 6.87 **Soil Name:** Sharkey
% Clay: 42 **CEC:** 21.9 **Fert. Level:** Excellent

Moisture Conditions

Overall Moisture Conditions: Dry
Closest Weather Station: Northeast Research Station **Distance:** 0.25 **Unit:** M

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	Date	Time	Amount	Unit	Type	Interval	Unit
1.	4/26/06	5:00 am	0.62	In	Rain	7	Hou
2.	4/26/06	10:00 p				3	Hou
3.	4/27/06	8:00 am	0.15	In	Rain	1	Hou
4.	4/30/06	8:30 am	1.19	In	Rain	1	Hou
5.	5/5/06	8:00 pm	1.49	In	Rain	1	Hou
6.	5/5/06	4:00 am				4	Hou
7.	5/6/06	8:00 am	0.31	In	Rain	3.5	Hou
8.	5/7/06	11:00 a	1.06	In	Rain	4	Hou
9.	5/7/06	12:00 p				2	Hou
10.	5/9/06	7:00 pm	0.39	In	Rain	0.75	Hou
11.	5/11/06	7:15 pm	0.2	In	Rain	0.5	Hou
12.	5/15/06	10:00 a	0.21	In	Rain	1	Hou
13.	5/19/06				Flush		
14.	5/27/06				Flush		
15.	5/28/06	5:00 pm	0.18	In	Rain	1	Hou
16.	5/29/06	2:30 pm	0.46	In	Rain	2.5	Hou
17.	5/30/06	1:30 pm	0.79	In	Rain	3	Hou
18.	6/2/06	6:30 pm	0.03	In	Rain	1	Hou
19.	6/7/06				Fertilize		
20.	6/7/06				Perment Flood		
21.	6/17/06	7:00 pm	0.03	In	Rain	1	Hou
22.	6/18/06	10:00 p	0.01	In	Rain	1	Hou
23.	6/19/06	10:00 p	0.05	In	Rain	1	Hou
24.	6/20/06	2:30 pm	0.19	In	Rain	1	Hou
25.	6/24/06	9:00 pm	0.07	In	Rain	1	Hou
26.	7/3/06	1:00 pm	0.07	In	Rain	0.5	Hou
27.	7/4/06	3:00 pm	0.69	In	Rain	1.5	Hou
28.	7/4/06	7:00 am				1	Hou
29.	7/5/06	12:00 a	1.25	In	Rain	0.75	Hou
30.	7/5/06	6:00pm				1.5	Hou
31.	7/6/06	6:00 pm	0.35	In	Rain	3.5	Hou
32.	7/11/06	2:00 pm	0.45	In	Rain	2	Hou

Application Description

	A
Application Date:	5/27/06
Time of Day:	6:30am
Application Method:	SPRAY
Application Timing:	LPOST
Application Placement:	BROFOL
Air Temperature, Unit:	74 F
% Relative Humidity:	86
Wind Velocity, Unit:	1 MPH
Wind Direction:	SE
Soil Temperature, Unit:	79 F
Soil Moisture:	DRY
% Cloud Cover:	0

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Crop Stage At Each Application

A	
Crop 1 Code, BBCH Scale:	ORYSA BRIC
Stage Scale Used:	BBCH
Stage Majority, Percent:	4-5 LF 100
Height, Unit:	4 IN
Height Minimum, Maximum:	4 4

Pest Stage At Each Application

A	
Pest 1 Code, Disc., Scale:	ECHCG W
Stage Majority, Percent:	1 TILL 100
Height, Unit:	4 IN
Height Minimum, Maximum:	4 4
Pest 2 Code, Disc., Scale:	SEBEX W
Stage Majority, Percent:	6 LF 100
Height, Unit:	6 IN
Height Minimum, Maximum:	6 6
Pest 3 Code, Disc., Scale:	CNPPA W
Stage Majority, Percent:	5 LF 100
Height, Unit:	4 IN
Height Minimum, Maximum:	4 4
Pest 4 Code, Disc., Scale:	COMDI W
Stage Majority, Percent:	3-4 LF 100
Height, Unit:	3 IN
Height Minimum, Maximum:	3 3

Application Equipment

A	
Appl. Equipment:	Backpack
Operating Pressure, Unit:	31 PSI
Nozzle Type:	Greenleaf
Nozzle Size:	11002
Nozzle Spacing, Unit:	20 IN
Nozzles/Row:	2
Ground Speed, Unit:	2.8 MPH
Carrier:	Water
Spray Volume, Unit:	15 GAL/AC
Propellant:	CO2

Trt No	Treatment Application Comment
3	Plot 311 is missing, was os with trt 11.
4	Plot 104 is missing, was os with trt 11.
13	No adjuvant.

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Location: Bay 3

Protocol ID: SJ06R011
Study Director:
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Pest Type	W Weed	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	W Weed	CNPPA	
Pest Code	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	CNPPA	CNPPA	
Pest Name	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Texasweed	Texasweed	
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	
Rating Date	5/31/06	6/6/06	6/22/06	6/30/06	7/21/06	5/31/06	6/6/06	6/6/06	
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control	
Rating Unit	%	%	%	%	%	%	%	%	
Days After First/Last Applic.	4 4	10 10	26 26	34 34	55 55	4 4	10 10	10 10	
Trt-Eval Interval	4 DA-A	10 DA-A	26 DA-A	34 DA-A	55 DA-A	4 DA-A	10 DA-A	10 DA-A	
Plant-Eval Interval	37 DP-1	43 DP-1	59 DP-1	67 DP-1	88 DP-1	37 DP-1	43 DP-1	43 DP-1	
Trt Treatment	Rate								
No.	Name	Rate	Unit						
1	Grasp	2.0	oz/a	30.0	e	76.7	bc	56.7	c
	Agridex	1	qt/a	50.0	ef	30.0	e	0.0	f
2	Grasp	2.3	oz/a	53.3	d	81.7	ab	70.0	b
	Agridex	1	qt/a	46.7	f	30.0	e	0.0	f
3	Grasp	2.0	oz/a	71.0	a-d	90.0	ab	86.6	a
	Permit	0.5	oz/a	81.3	b	79.9	b	81.3	b
	Agridex	1	qt/a	28.8	e	77.0	abc	28.8	e
4	Grasp	2.3	oz/a	75.8	a-d	87.8	ab	71.4	b
	Permit	0.5	oz/a	56.0	def	54.7	d	56.0	def
	Agridex	1	qt/a	30.7	e	69.6	bc	30.7	e
5	Grasp	2.0	oz/a	90.0	a	95.0	a	93.3	a
	Stam M4	4	qt/a	93.3	a	93.3	a	93.3	a
	Agridex	1	qt/a	91.7	a	95.0	a	91.7	a
6	Grasp	2.3	oz/a	91.7	a	95.0	a	93.3	a
	Stam M4	4	qt/a	91.7	a	95.0	a	91.7	a
	Agridex	1	qt/a	86.7	a	86.7	a	91.7	a
7	Grasp	2.0	oz/a	65.0	cd	66.7	c	58.3	c
	Grandstand	8	oz/a	30.0	e	76.7	bc	30.0	e
	Agridex	1	qt/a	53.3	d	53.3	c	30.0	e
8	Grasp	2	oz/a	30.0	e	76.7	bc	53.3	c
	Grandstand	12	oz/a	56.7	c	56.7	c	60.0	cde
	Agridex	1	qt/a	30.0	e	76.7	bc	30.0	e
9	Grasp	2.3	oz/a	30.0	e	76.7	bc	60.0	cde
	Grandstand	8	oz/a	30.0	e	76.7	bc	30.0	e
	Agridex	1	qt/a	30.0	e	76.7	bc	30.0	e
10	Grasp	2.3	oz/a	53.3	d	78.3	bc	76.7	b
	Grandstand	12	oz/a	76.7	b	76.7	b	70.0	c
	Agridex	1	qt/a	70.0	c	76.7	b	30.0	e
11	Grasp	2.0	oz/a	66.7	bcd	86.7	ab	63.3	cd
	Londax	0.75	oz/a	63.3	cd	86.7	ab	53.3	d
	Agridex	1	qt/a	60.0	c	86.7	ab	60.0	c
12	Grasp	2.3	oz/a	80.0	abc	85.0	ab	63.3	cd
	Londax	0.75	oz/a	60.0	c	85.0	ab	60.0	c
	Agridex	1	qt/a	60.0	c	85.0	ab	60.0	c
13	Regiment	0.5	oz/a						
	Dyne-A-Pak	1	pt/a						
14	Grandstand	8	oz/a	88.3	ab	93.3	a	90.0	a
	Stam M4	4	qt/a	90.0	a	90.0	a	91.7	a
15	nontreated			0.0	f	0.0	d	0.0	h
16	Grasp	2.5	oz/a	73.3	a-d	90.0	ab	46.7	f
	Agridex	1	qt/a	30.0	e	76.7	b	30.0	e
LSD (P=.05)		14.99		8.93		7.78		8.41	
Standard Deviation		8.93		5.32		4.64		5.01	
CV		14.91		6.76		6.77		8.6	
Bartlett's X2		17.551		3.779		3.581		9.94	
P(Bartlett's X2)		0.025*		0.976		0.964		0.269	

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Pest Type	W Weed	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	W Weed	CNPPA
Pest Code	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	SEBEX	CNPPA	CNPPA
Pest Name	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Hemp sesban>	Texasweed	Texasweed
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Date	5/31/06	6/6/06	6/22/06	6/30/06	7/21/06	5/31/06	6/6/06	6/6/06
Rating Data Type	Control	Control	Control	Control	Control	Control	Control	Control
Rating Unit	%	%	%	%	%	%	%	%
Days After First/Last Applic.	4 4	10 10	26 26	34 34	55 55	4 4	10 10	10 10
Trt-Eval Interval	4 DA-A	10 DA-A	26 DA-A	34 DA-A	55 DA-A	4 DA-A	10 DA-A	10 DA-A
Plant-Eval Interval	37 DP-1	43 DP-1	59 DP-1	67 DP-1	88 DP-1	37 DP-1	43 DP-1	43 DP-1
Replicate F	1.798	0.200	4.366	2.780	1.337	3.906	0.489	0.489
Replicate Prob(F)	0.1856	0.8197	0.0232	0.0805	0.2802	0.0329	0.6188	0.6188
Treatment F	27.178	57.205	74.746	81.204	563.502	210.712	22.831	22.831
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type				
Pest Code		CNPPA	CNPPA	CNPPA
Pest Name		Texasweed	Texasweed	Texasweed
Part Rated		PLATOT P	PLATOT P	PLATOT P
Rating Date		6/22/06	6/30/06	7/21/06
Rating Data Type		Control	Control	Control
Rating Unit		%	%	%
Days After First/Last Applic.		26 26	34 34	55 55
Trt-Eval Interval		26 DA-A	34 DA-A	55 DA-A
Plant-Eval Interval		59 DP-1	67 DP-1	88 DP-1
Trt No.	Treatment Name	Rate	Unit	
				8 9 10
1	Grasp	2.0 oz/a		56.7 e 30.0 c 0.0 c
	Agridex	1 qt/a		
2	Grasp	2.3 oz/a		70.0 cd 63.3 b 46.7 b
	Agridex	1 qt/a		
3	Grasp	2.0 oz/a		69.2 cd 76.7 ab 78.9 a
	Permit	0.5 oz/a		
	Agridex	1 qt/a		
4	Grasp	2.3 oz/a		54.9 e 81.4 ab 79.4 a
	Permit	0.5 oz/a		
	Agridex	1 qt/a		
5	Grasp	2.0 oz/a		73.3 bcd 78.3 ab 68.3 a
	Stam M4	4 qt/a		
	Agridex	1 qt/a		
6	Grasp	2.3 oz/a		73.3 bcd 81.7 ab 78.3 a
	Stam M4	4 qt/a		
	Agridex	1 qt/a		
7	Grasp	2.0 oz/a		53.3 e 76.7 ab 78.3 a
	Grandstand	8 oz/a		
	Agridex	1 qt/a		
8	Grasp	2 oz/a		76.7 bcd 85.0 a 81.7 a
	Grandstand	12 oz/a		
	Agridex	1 qt/a		
9	Grasp	2.3 oz/a		76.7 bcd 80.0 ab 73.3 a
	Grandstand	8 oz/a		
	Agridex	1 qt/a		
10	Grasp	2.3 oz/a		80.0 bc 86.7 a 83.3 a
	Grandstand	12 oz/a		
	Agridex	1 qt/a		
11	Grasp	2.0 oz/a		80.0 bc 86.7 a 86.7 a
	Londax	0.75 oz/a		
	Agridex	1 qt/a		
12	Grasp	2.3 oz/a		90.0 a 91.7 a 90.0 a
	Londax	0.75 oz/a		
	Agridex	1 qt/a		
13	Regiment	0.5 oz/a		
	Dyne-A-Pak	1 pt/a		
14	Grandstand	8 oz/a		81.7 b 65.0 b 85.0 a
	Stam M4	4 qt/a		
15	nontreated			0.0 f 0.0 d 0.0 c
16	Grasp	2.5 oz/a		66.7 d 30.0 c 0.0 c
	Agridex	1 qt/a		
LSD (P=.05)		6.94		12.21 15.56
Standard Deviation		4.14		7.27 9.27
CV		6.19		10.77 14.95
Bartlett's X2		1.212		5.689 17.342
P(Bartlett's X2)		0.997		0.841 0.044*
Replicate F		2.705		1.596 1.024
Replicate Prob(F)		0.0856		0.2219 0.3732
Treatment F		78.780		39.924 39.471
Treatment Prob(F)		0.0001		0.0001 0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.