

LSU Northeast Research Station

Broadleaf weed control in drill-seeded rice with Regiment and Permit.

Trial ID: SJ06R035	Protocol ID: SJ06R035
Location:	Study Director:
	Investigator: Bill Williams

General Trial Information

Investigator: Bill Williams

Conclusions:

Combinations of Regiment and Permit were evaluated for weed control in drill-seeded rice. Combinations of Regiment and Permit were very effective at controlling barnyardgrass, sesbania and rice flatsedge following preemergence applications of Command. Applying, Permit with Regiment appeared to improve sprangletop control compared to Regiment alone. Additional, work will be required to confirm or rebuke the sprangletop results.

Crop Description

Crop 1: ORYSA Oryza sativa	Common rice
Variety: Trainasse	Description: 5/24/06
BBCH Scale: BRIC	
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: 5/31/06
	Harvest Equipment: Small plot combine
Harvested Width, Unit: 5 FT	Harvested Length, Unit: 12 FT
% Standard Moisture: 12.0	

Pest Description

Pest 1 Type: W	Code: ECHCG	Echinochloa crus-galli
	Common Name:	Common barnyardgrass
Pest 2 Type: W	Code: LEFPA	Leptochloa panicoides
	Common Name:	Amazon sprangletop
Pest 3 Type: W	Code: SEBEX	Sesbania exaltata
	Common Name:	Hemp sesbania
Pest 4 Type: W	Code: CNPPA	Caperonia palustris
	Common Name:	Texasweed
Pest 5 Type: W	Code: CYPPIR	Cyperus iria
	Common Name:	Rice flatsedge

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: Factorial

Maintenance

No.	Date	Maintenance Treatment Name	Rate	Unit
1.	6/27/06	Prilled urea	300	LB/A

Soil Description

Description Name: Bay 4 - Northend

% Sand: 25.2	% OM: 2.07	Texture: Clay
% Silt: 32.8	pH: 7.87	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:** MI

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	Date	Time	Amount	Unit	Type	Interval	Unit
1.	5/26/06				Flush		
2.	5/28/06	5:00 pm	0.18	In	Rain	1	Hou
3.	5/29/06	2:30 pm	0.46	In	Rain	2.5	Hou
4.	5/30/06	1:30 pm	0.79	In	Rain	3	Hou
5.	6/2/06	6:30 pm	0.03	In	Rain	1	Hou
6.	6/5/06				Flush		
7.	6/12/06				Flush		
8.	6/17/06	7:00 pm	0.03	In	Rain	1	Hou
9.	6/18/06	10:00 p	0.01	In	Rain	1	Hou
10.	6/19/06	10:00 p	0.05	In	Rain	1	Hou
11.	6/20/06	2:30 pm	0.19	In	Rain	1	Hou
12.	6/24/06	9:00 pm	0.07	In	Rain	1	Hou
13.	6/27/06				Fertilizer		
14.	6/28/06				Permanent Flood		
15.	7/3/06	1:00 pm	0.07	In	Rain	0.5	Hou
16.	7/4/06	3:00 pm	0.69	In	Rain	1.5	Hou
17.	7/4/06	7:00 am				1	Hou
18.	7/5/06	12:00 a	1.25	In	Rain	0.75	Hou
19.	7/5/06	6:00pm				1.5	Hou
20.	7/6/06	6:00 pm	0.35	In	Rain	3.5	Hou
21.	7/11/06	2:00 pm	0.45	In	Rain	2	Hou

Application Description

	A	B
Application Date:	5/25/06	6/12/06
Time of Day:	8:30	10:00
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BANSOI	BANFOL
Air Temperature, Unit:	72 F	88 F
% Relative Humidity:	68	48
Wind Velocity, Unit:	3 MPH	4 MPH
Wind Direction:	N	E
Soil Temperature, Unit:	81 F	86 F
Soil Moisture:	DRY	DRY
% Cloud Cover:	30	10

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ORYSA BRIC	ORYSA BRIC
Stage Scale Used:	BBCH	BBCH
Stage Majority, Percent:	N/A	2-3 LF 100
Height, Unit:		3 IN
Height Minimum, Maximum:		2 4

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Pest Stage At Each Application

	A	B
Pest 1 Code, Disc., Scale:	ECHCG W	ECHCG W
Stage Majority, Percent:	N/A	3-4 LF 100
Height, Unit:		1.5 IN
Height Minimum, Maximum:		1 2
Pest 2 Code, Disc., Scale:	LEFPA W	LEFPA W
Stage Majority, Percent:	N/A	3 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Pest 3 Code, Disc., Scale:	SEBEX W	SEBEX W
Stage Majority, Percent:	N/A	6 LF 100
Height, Unit:		3 IN
Height Minimum, Maximum:		3 4
Pest 4 Code, Disc., Scale:	CNPPA W	CNPPA W
Stage Majority, Percent:	N/A	4 LF 100
Height, Unit:		4 IN
Height Minimum, Maximum:		4 4
Pest 5 Code, Disc., Scale:	CYPIR W	CYPIR W
Stage Majority, Percent:	N/A	1-2 LF 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1

Application Equipment

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

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Location:

Protocol ID: SJ06R035
Study Director:
Investigator: Bill Williams

Pest Code	ECHCG	ECHCG	ECHCG	ECHCG	ECHCG	LEFPA	LEFPA	LEFPA	LEFPA
Crop Code									
BBCH Scale									
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Date	5/31/06	6/10/06	6/20/06	6/26/06	7/7/06	6/10/06	6/20/06	6/26/06	7/7/06
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%
Days After First/Last Applic.	6 6	16 16	26 8	32 14	43 25	16 16	26 8	32 14	43 25
Trt-Eval Interval	6 DA-A	16 DA-A	8 DA-B	14 DA-B	25 DA-B	16 DA-A	8 DA-B	14 DA-B	25 DA-B
ARM Action Codes									
Number of Decimals									
Trt Treatment									
No. Name	1	2	3	4	5	6	7	8	9
Rate									
Unit									
1 Command	95.0 a	93.3 a	93.3 a	90.0 a	91.7 a	93.3 a	85.0 a	88.3 a	63.3 c
Regiment									
Permit									
Dyne-A-Pak									
2 Command	95.0 a	93.3 a	93.3 a	91.7 a	96.0 a	93.3 a	93.3 a	91.7 a	73.3 bc
Regiment									
Permit									
Dyne-A-Pak									
3 Command	95.0 a	93.3 a	93.3 a	90.0 a	96.3 a	93.3 a	91.7 a	91.7 a	73.3 bc
Regiment									
Permit									
Dyne-A-Pak									
4 Command	95.0 a	93.3 a	93.3 a	90.0 a	95.0 a	93.3 a	66.7 b	76.7 b	53.3 d
Regiment									
Permit									
Dyne-A-Pak									
5 Command	95.0 a	93.3 a	93.3 a	93.3 a	97.7 a	93.3 a	93.3 a	93.3 a	86.7 ab
Regiment									
Permit									
Dyne-A-Pak									
6 Command	95.0 a	93.3 a	93.3 a	90.0 a	96.3 a	93.3 a	93.3 a	93.3 a	70.0 c
Regiment									
Permit									
Dyne-A-Pak									
7 Command	95.0 a	93.3 a	93.3 a	90.0 a	95.0 a	93.3 a	91.7 a	93.3 a	83.3 ab
Regiment									
Permit									
Dyne-A-Pak									
8 Command	95.0 a	93.3 a	93.3 a	90.0 a	95.0 a	93.3 a	93.3 a	91.7 a	86.7 ab
Regiment									
Permit									
Dyne-A-Pak									
9 Command	95.0 a	93.3 a	93.3 a	90.0 a	97.7 a	93.3 a	93.3 a	93.3 a	90.0 a
Regiment									
Permit									
Dyne-A-Pak									
10 Command	95.0 a	93.3 a	78.3 b	78.3 b	53.3 b	93.3 a	66.7 b	66.7 c	46.7 d
LSD (P=.05)	0.00	0.00	2.71	5.25	5.39	0.00	6.37	7.36	9.45
Standard Deviation	0.00	0.00	1.58	3.06	3.14	0.00	3.71	4.29	5.51
CV	0.0	0.0	1.72	3.42	3.44	0.0	4.28	4.88	7.58
Bartlett's X2	0.0	0.0	0.0	2.541	4.054	0.0	6.498	5.435	1.478
P(Bartlett's X2)	.	1.00	1.00	0.468	0.669	1.00	0.689	0.795	0.997
Replicate F	0.000	0.000	24.333	1.693	0.122	0.000	5.497	0.950	4.720
Replicate Prob(F)	1.0000	1.0000	0.0001	0.2120	0.8862	1.0000	0.0137	0.4054	0.0225
Treatment F	0.000	0.000	27.000	5.188	55.284	0.000	25.966	13.347	21.415
Treatment Prob(F)	1.0000	1.0000	0.0001	0.0015	0.0001	1.0000	0.0001	0.0001	0.0001

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

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	ECHCG	ECHCG	ECHCG	ECHCG	ECHCG	LEFPA	LEFPA	LEFPA	LEFPA
Pest Code									
Crop Code									
BBCH Scale									
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P
Rating Date	5/31/06	6/10/06	6/20/06	6/26/06	7/7/06	6/10/06	6/20/06	6/26/06	7/7/06
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%	%	%	%	%
Days After First/Last Applic.	6 6	16 16	26 8	32 14	43 25	16 16	26 8	32 14	43 25
Trt-Eval Interval	6 DA-A	16 DA-A	8 DA-B	14 DA-B	25 DA-B	16 DA-A	8 DA-B	14 DA-B	25 DA-B
ARM Action Codes									
Number of Decimals									

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

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Pest Code	SEBEX	SEBEX	SEBEX	SEBEX	CYPIR	CYPIR	CYPIR	CYPIR	ORYSA			
Crop Code									BRIC			
BBCH Scale									GRAIN C			
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	9/20/06			
Rating Date	5/31/06	6/20/06	6/26/06	7/7/06	5/31/06	6/20/06	6/26/06	7/7/06	YIELD			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	lb/A			
Rating Unit	%	%	%	%	%	%	%	%	118 100			
Days After First/Last Applic.	6 6	26 8	32 14	43 25	6 6	26 8	32 14	43 25				
Trt-Eval Interval	6 DA-A	8 DA-B	14 DA-B	25 DA-B	6 DA-A	8 DA-B	14 DA-B	25 DA-B				
ARM Action Codes												
Number of Decimals												
Trt No.	Treatment Name	Rate	Unit	10	11	12	13	14	15	16	17	18
1	Command	1.33	pt/a	0.0 a	93.3 a	91.7 a	90.0 a	0.0 a	93.3 a	90.0 a	93.3 b	7.97 abc
	Regiment	0.3	oz/a									
	Permit	0.33	oz/a									
	Dyne-A-Pak	1.5	% v/v									
2	Command	1.33	pt/a	0.0 a	90.0 a	91.7 a	93.3 a	0.0 a	95.0 a	95.0 a	97.7 ab	7.87 abc
	Regiment	0.3	oz/a									
	Permit	0.66	oz/a									
	Dyne-A-Pak	1.5	% v/v									
3	Command	1.33	pt/a	0.0 a	91.7 a	93.3 a	93.3 a	0.0 a	95.0 a	95.0 a	96.3 ab	6.43 bc
	Regiment	0.3	oz/a									
	Permit	1.0	oz/a									
	Dyne-A-Pak	1.5	% v/v									
4	Command	1.33	pt/a	0.0 a	95.0 a	91.7 a	88.3 a	0.0 a	95.0 a	95.0 a	95.0 ab	6.23 c
	Regiment	0.4	oz/a									
	Permit	0.33	oz/a									
	Dyne-A-Pak	1.5	% v/v									
5	Command	1.33	pt/a	0.0 a	90.0 a	90.0 a	94.7 a	0.0 a	95.0 a	95.0 a	97.7 ab	8.10 abc
	Regiment	0.4	oz/a									
	Permit	0.66	oz/a									
	Dyne-A-Pak	1.5	% v/v									
6	Command	1.33	pt/a	0.0 a	93.3 a	91.7 a	96.3 a	0.0 a	95.0 a	93.3 a	99.0 a	8.03 abc
	Regiment	0.4	oz/a									
	Permit	1.0	oz/a									
	Dyne-A-Pak	1.5	% v/v									
7	Command	1.33	pt/a	0.0 a	93.3 a	93.3 a	95.0 a	0.0 a	95.0 a	95.0 a	96.3 ab	8.60 ab
	Regiment	0.5	oz/a									
	Permit	0.33	oz/a									
	Dyne-A-Pak	1.5	% v/v									
8	Command	1.33	pt/a	0.0 a	95.0 a	91.7 a	91.7 a	0.0 a	95.0 a	93.3 a	95.0 ab	9.47 a
	Regiment	0.5	oz/a									
	Permit	0.66	oz/a									
	Dyne-A-Pak	1.5	% v/v									
9	Command	1.33	pt/a	0.0 a	95.0 a	91.7 a	94.7 a	0.0 a	95.0 a	95.0 a	97.7 ab	9.10 a
	Regiment	0.5	oz/a									
	Permit	1.0	oz/a									
	Dyne-A-Pak	1.5	% v/v									
10	Command	1.33	pt/a	0.0 a	0.0 b	0.0 b	0.0 b	0.0 a	0.0 b	0.0 b	0.0 c	1.33 d
LSD (P=.05)	0.00	5.65	3.42	8.00	0.00	1.57	4.81	3.25	1.479			
Standard Deviation	0.00	3.29	2.00	4.66	0.00	0.91	2.81	1.89	0.862			
CV	0.0	3.93	2.41	5.57	0.0	1.07	3.31	2.18	11.79			
Bartlett's X2	0.0	4.778	0.0	6.152	0.0	0.0	3.257	0.167	16.339			
P(Bartlett's X2)	.	0.311	1.00	0.522	.	.	0.196	0.999	0.06			
Replicate F	0.000	1.000	7.744	0.397	0.000	1.000	2.647	0.752	0.625			
Replicate Prob(F)	1.0000	0.3874	0.0037	0.6781	1.0000	0.3874	0.0982	0.4855	0.5466			
Treatment F	0.000	240.308	636.372	120.241	0.000	3237.334	338.306	779.839	22.001			
Treatment Prob(F)	1.0000	0.0001	0.0001	0.0001	1.0000	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 Code		ORYSA		
Crop Code		BRIC		
BBCH Scale		GRAIN C		
Part Rated		9/20/06		
Rating Date		YIELD		
Rating Data Type		BU		
Rating Unit	118 100			
Days After First/Last Applic.				
Trt-Eval Interval		TY1		
ARM Action Codes		0		
Number of Decimals				
Trt No.	Treatment Name	Rate	Unit	
				19
1	Command	1.33	pt/a	120 abc
	Regiment	0.3	oz/a	
	Permit	0.33	oz/a	
	Dyne-A-Pak	1.5	% v/v	
2	Command	1.33	pt/a	118 abc
	Regiment	0.3	oz/a	
	Permit	0.66	oz/a	
	Dyne-A-Pak	1.5	% v/v	
3	Command	1.33	pt/a	97 bc
	Regiment	0.3	oz/a	
	Permit	1.0	oz/a	
	Dyne-A-Pak	1.5	% v/v	
4	Command	1.33	pt/a	94 c
	Regiment	0.4	oz/a	
	Permit	0.33	oz/a	
	Dyne-A-Pak	1.5	% v/v	
5	Command	1.33	pt/a	122 abc
	Regiment	0.4	oz/a	
	Permit	0.66	oz/a	
	Dyne-A-Pak	1.5	% v/v	
6	Command	1.33	pt/a	121 abc
	Regiment	0.4	oz/a	
	Permit	1.0	oz/a	
	Dyne-A-Pak	1.5	% v/v	
7	Command	1.33	pt/a	129 ab
	Regiment	0.5	oz/a	
	Permit	0.33	oz/a	
	Dyne-A-Pak	1.5	% v/v	
8	Command	1.33	pt/a	142 a
	Regiment	0.5	oz/a	
	Permit	0.66	oz/a	
	Dyne-A-Pak	1.5	% v/v	
9	Command	1.33	pt/a	137 a
	Regiment	0.5	oz/a	
	Permit	1.0	oz/a	
	Dyne-A-Pak	1.5	% v/v	
10	Command	1.33	pt/a	20 d
LSD (P=.05)				22.2
Standard Deviation				13.0
CV				11.79
Bartlett's X2				16.343
P(Bartlett's X2)				0.06
Replicate F				0.625
Replicate Prob(F)				0.5466
Treatment F				22.002
Treatment Prob(F)				0.0001

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
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ARM Action Codes
TY1 = 15.03333*[18]