

# LSU Northeast Research Station

A comparison of ALS herbicides for broadleaf weed control in rice.

Trial ID: SJ06R034  
Location:

Protocol ID: SJ06R034  
Study Director:  
Investigator: Bill Williams

## General Trial Information

Investigator: Bill Williams

## Crop Description

**Crop 1:** ORYSA Oryza sativa Common rice  
**Variety:** Trainasse  
**BBCH Scale:** BRIC  
**Planting Method:** DRILLED  
**Depth, Unit:** 1 IN  
**Row Spacing, Unit:** 8 IN  
**Seed Bed:** MEDIUM  
**Soil Moisture:** DRY  
**Planting Date:** 5/24/06  
**Rate, Unit:** 100 LB/A  
**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 **Cyperus palustris**  
**Common Name:** Texasweed

**Pest 5 Type:** W **Code:** CYPPIR **Cyperus iria**  
**Common Name:** Rice flatsedge

**Pest 6 Type:** W **Code:** COMDI **Commelina diffusa**  
**Common Name:** Spreading dayflower

**Pest 7 Type:** W **Code:** ECLAL **Eclipta alba**  
**Common Name:** Eclipta

**Pest 8 Type:** W **Code:** CYPES **Cyperus esculentus**  
**Common Name:** Yellow Nutsedge

## 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.	6/27/06	Prilled urea	300	LB/A

## Soil Description

**Description Name:** Bay 4 - North end  
**% 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

# LSU Northeast Research Station

	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	6/20/06
Time of Day:	8:30	10:00
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	4-5 LF
Application Placement:	BANSOI	BANFOL
Air Temperature, Unit:	72 F	85 F
% Relative Humidity:	68	68
Wind Velocity, Unit:	3 MPH	2 MPH
Wind Direction:	N	SE
Soil Temperature, Unit:	81 F	84 F
Soil Moisture:	DRY	DAMP
% 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	4 LF 100
Height, Unit:		7 IN
Height Minimum, Maximum:		6 8

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## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Disc., Scale:</b>	ECHCG W	ECHCG W
<b>Stage Majority, Percent:</b>	N/A	2-3T 100
<b>Height Minimum, Maximum:</b>		19 100
<b>Density, Unit:</b>		18 20
<b>Pest 2 Code, Disc., Scale:</b>	LEFPA W	LEFPA W
<b>Stage Majority, Percent:</b>	N/A	2-3T 100
<b>Height Minimum, Maximum:</b>		22 100
<b>Density, Unit:</b>		21 23
<b>Pest 3 Code, Disc., Scale:</b>	SEBEX W	SEBEX W
<b>Stage Majority, Percent:</b>	N/A	
<b>Height Minimum, Maximum:</b>		22 100
<b>Density, Unit:</b>		21 23
<b>Pest 4 Code, Disc., Scale:</b>	CNPPA W	CNPPA W
<b>Stage Majority, Percent:</b>	N/A	
<b>Height, Unit:</b>		9 IN
<b>Height Minimum, Maximum:</b>		8 10
<b>Pest 5 Code, Disc., Scale:</b>	CYPIR W	CYPIR W
<b>Stage Majority, Percent:</b>	N/A	4 LF 100
<b>Height, Unit:</b>		7 IN
<b>Height Minimum, Maximum:</b>		8 9
<b>Pest 6 Code, Disc., Scale:</b>	COMDI W	COMDI W
<b>Stage Majority, Percent:</b>	N/A	N/A
<b>Pest 7 Code, Disc., Scale:</b>	ECLAL W	ECLAL W
<b>Stage Majority, Percent:</b>	N/A	
<b>Height, Unit:</b>		8.5 IN
<b>Height Minimum, Maximum:</b>		8 9
<b>Pest 8 Code, Disc., Scale:</b>	CYPES W	CYPES W
<b>Stage Majority, Percent:</b>	N/A	N/A

## Application Equipment

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

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Investigator: Bill Williams

Pest Code	SEBEX	SEBEX	SEBEX	CYPIR	CYPIR	CYPIR	ORYSA BRIC	ORYSA BRIC			
Crop Code							Common rice	Common rice			
BBCH Scale							GRAIN C	GRAIN C			
Crop Name											
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT P					
Rating Date	6/26/06	7/3/06	7/18/06	6/26/06	7/3/06	7/18/06	9/20/06	9/20/06			
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	YIELD	YIELD			
Rating Unit	%	%	%	%	%	%	Lb/Plot	BU			
Days After First/Last Applic.	32 6	39 13	54 28	32 6	39 13	54 28	118 92	118 92			
Trt-Eval Interval	6 DA-B	13 DA-B	28 DA-B	6 DA-B	13 DA-B	28 DA-B					
Plant-Eval Interval	33 DP-1	40 DP-1	55 DP-1	33 DP-1	40 DP-1	55 DP-1	119 DP-1	119 DP-1			
ARM Action Codes								TY1			
Number of Decimals								0			
Trt No.	Treatment Name	Rate	Unit	1	2	3	4	5	6	7	8
1	Command Regiment Dyne-A-Pak	1.33 0.5 1.5	pt/a oz/a % v/v	91.7 a	95.0 a	95.0 a	30.0 d	90.0 b	95.0 a	4.50 def	65 def
2	Command IR5878 Stam M4	1.33 2 4	pt/a oz/a qt/a	93.3 a	95.0 a	95.0 a	93.3 a	95.0 a	95.0 a	8.07 a	117 a
3	Command Grasp Dyne-A-Pak	1.33 2.3 1.5	pt/a oz/a % v/v	78.3 b	91.7 a	80.0 b	30.0 d	95.0 a	95.0 a	5.03 de	73 de
4	Command Londax Stam M4	1.33 1.0 4	pt/a oz/a qt/a	93.3 a	95.0 a	95.0 a	93.3 a	95.0 a	95.0 a	2.13 gh	31 gh
5	Command Permit Stam M4	1.33 1.0 4	pt/a oz/a qt/a	93.3 a	95.0 a	93.3 a	93.3 a	95.0 a	95.0 a	8.00 a	116 a
6	Command Regiment Permit Dyne-A-Pak	1.33 0.5 0.33 1.5	pt/a oz/a oz/a % v/v	88.3 ab	95.0 a	95.0 a	83.3 b	95.0 a	95.0 a	7.43 ab	108 ab
7	Command IR5878 Permit Stam M4	1.33 2 0.33 4	pt/a oz/a oz/a qt/a	91.7 a	95.0 a	95.0 a	93.3 a	95.0 a	95.0 a	6.97 abc	101 abc
8	Command Grasp Permit Dyne-A-Pak	1.33 2.3 0.33 1.5	pt/a oz/a oz/a % v/v	83.3 ab	91.7 a	95.0 a	85.0 ab	90.0 b	95.0 a	5.40 cd	78 cd
9	Command Londax Permit Stam M4	1.33 0.5 0.33 4	pt/a oz/a oz/a qt/a	93.3 a	95.0 a	95.0 a	93.3 a	95.0 a	95.0 a	3.40 efg	49 efg
10	Command Regiment Permit Dyne-A-Pak	1.33 0.5 0.5 1.5	pt/a oz/a oz/a % v/v	86.7 ab	95.0 a	95.0 a	53.3 c	95.0 a	95.0 a	1.23 hi	18 hi
11	Command Grasp Permit Dyne-A-Pak	1.33 2.3 0.5 1.5	pt/a oz/a oz/a % v/v	84.4 ab	95.3 a	94.9 a	82.4 b	94.8 a	95.1 a	2.02 gh	29 gh
12	Command Regiment Londax Dyne-A-Pak	1.33 0.5 0.5 1.5	pt/a oz/a oz/a % v/v	91.7 a	95.0 a	95.0 a	50.0 c	95.0 a	95.0 a	2.93 fgh	42 fgh
13	Command Grasp Londax Dyne-A-Pak	1.33 2.3 0.5 1.5	pt/a oz/a oz/a % v/v	90.0 ab	95.0 a	95.0 a	53.3 c	95.0 a	95.0 a	5.80 bcd	84 bcd

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BBCH Scale								
Crop Name							Common rice	Common rice
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Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	CONTROL	YIELD	YIELD
Rating Unit	%	%	%	%	%	%	Lb/PLot	BU
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Trt-Eval Interval	6 DA-B	13 DA-B	28 DA-B	6 DA-B	13 DA-B	28 DA-B		
Plant-Eval Interval	33 DP-1	40 DP-1	55 DP-1	33 DP-1	40 DP-1	55 DP-1	119 DP-1	119 DP-1
ARM Action Codes								TY1
Number of Decimals								0
Trt Treatment								
No. Name	1	2	3	4	5	6	7	8
Rate								
Unit								
14 Command	80.0 ab	93.3 a	95.0 a	30.0 d	95.0 a	95.0 a	4.47 def	65 def
IR5878								
Londax								
Dyne-A-Pak								
15 Command	0.0 c	0.0 b	0.0 c	0.0 e	0.0 d	0.0 c	0.00 i	0 i
16 Command	93.3 a	95.0 a	90.0 a	91.7 a	76.7 c	56.7 b	3.00 fgh	43 fgh
Stam M4								
LSD (P=.05)	7.81	3.45	5.70	5.73	2.45	2.45	1.405	20.3
Standard Deviation	4.68	2.06	3.41	3.43	1.47	1.47	0.841	12.2
CV	5.62	2.33	3.89	5.2	1.68	1.69	19.12	19.12
Bartlett's X2	10.658	1.018	2.52	3.89	0.0	0.0	41.006	41.006
P(Bartlett's X2)	0.713	0.601	0.284	0.952	.	.	0.001*	0.001*
Replicate F	3.837	3.159	1.261	0.878	1.099	0.996	1.187	1.187
Replicate Prob(F)	0.0332	0.0574	0.2986	0.4264	0.3465	0.3817	0.3196	0.3196
Treatment F	71.044	393.708	144.832	239.978	788.064	871.639	25.683	25.683
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.

### ARM Action Codes

TY1 = 14.48333\*[7]