

## LSU Northeast Research Station

Evaluation of Newpath and Beyond programs for controlling red rice.

Trial ID: MR05R102  
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:** Two 4 oz/A Newpath applications controlled red rice the same as two 6 oz/A Newpath applications. Overall, the best red rice control was observed when two Newpath applications were followed by 5 oz/A Beyond at the boot stage. Beyond appears to be a very effective red rice herbicide as single post-flood applications resulted in red rice control similar to two Newpath applications followed by Beyond. Rice yields were reduced by more than half when red rice was not controlled early in the season.

**CROP AND WEED DESCRIPTION****Weed Code Common Name Scientific Name**1. ORYSA Rice, common *Oryza sativa*Crop 1: ORYSA RICE  
Planting Date: 5/23/05  
Rate: 90 LB/A

Variety: CL 161

Planting Method: DRILLED

Row Spacing: 8 IN

Depth: 0.25 IN

Spacing Within Row: 5 IN

Seed Bed: MEDIUM

Soil Moisture: DRY

Emergence Date: 5/31/05

**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: RANDOMIZED COMPLETE BLOCK

**SOIL DESCRIPTION**% Sand: 14  
% Silt: 70  
% Clay: 16% OM: 1.3  
pH: 5.8  
CEC: 5.8Texture: SILT LOAM  
Soil Name: Gigger silt loam  
Fert. Level: EXCELLENT**MOISTURE CONDITIONS**

Date	Time	Amount	Unit	Type	Interval	Unit
1.	5/27/05			Flush		
2.	5/27/05			Flush		
3.	6/3/05			Flush		
4.	6/13/05			Flush		
5.	6/20/05			Flush		
6.	6/28/05	300 lb Urea	fb	Permanent flood		

Overall Moisture Conditions: Dry

Closest Weather Station: Macon Ridge Research Station

Distance: 0

Unit: MI

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## APPLICATION DESCRIPTION

	A	B	C	D	E	F
Application Date:	5/23/05	6/3/05	6/10/05	6/17/05	7/5/05	7/22/05
Time of Day:	1:00	10:00	10:30	10:30	1:00	1:00
Application Method:	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	1 lf	3-4 lf	4-5 lf	1 WAF	Boot
Applic. Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Air Temp., Unit:	92 F	82 F	88 F	80 F	91 F	95 F
% Relative Humidity:	48	70	71	70	49	52
Wind Velocity, Unit:	0 MPH	5 S	5 N	3 S	3.5 S	3 S
Soil Temp., Unit:	90 F	84 F	84 F	74 F	98 F	98 F
Soil Moisture:	DRY	WET	DAMP	FLOODED	FLOODED	FLOODED
% Cloud Cover:	0	80	40	80	40	70

## CROP STAGE AT EACH APPLICATION

	A	B	C	D
Crop 1 Code, Stage:	ORYSA NA	ORYSA 1-2 lf	ORYSA 3-4 lf	ORYSA 4-5 lf
Stage Scale:	N/A	1 in	2-4 in	4-6 in
	E	F		
Crop 1 Code, Stage:	ORYSA 2-4 T	ORYSA 1 Node		
Stage Scale:	14-16 in	34 inches		

## WEED STAGE AT EACH APPLICATION

	A	B	C	D
Weed 1 Code, Stage:	ORYSA n/a	ORYSA	ORYSA	ORYSA
Stage Scale:	N/A	1"	2-3"	5-6"
	E	F		
Weed 1 Code, Stage:	ORYSA PI	ORYSA E. boot		
Stage Scale:	16-18"	38"		

## APPLICATION EQUIPMENT

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

LSU Northeast Research Station

Evaluation of Newpath and Beyond programs for controlling red rice.

Trial ID: MR05R102  
 Location:

Study Dir.:  
 Investigator: Bill Williams

Weed Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
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	6/14/05	6/25/05	7/5/05	7/13/05	7/22/05
Trt-Eval Interval	11 DA-B	8 DA-D	18 DA-D	8 DA-E	17 DA-E
ARM Action Codes					
# Subsamples, Dec.					

Trt No.	Treatment Name	Rate	Grow Unit	Stg	1	2	3	4	5	
1	Command	13	OZ/A	OPRE	0	b 0	d 0	c 0	e 0	d
	Command	13	OZ/A	03-4 lf						
	Grasp	2	OZ/A	03-4 lf						
	COC	2	% V/V	03-4 lf						
2	Newpath	4.0	OZ/A	1 lf	90	a 87	b 90	ab 87	b 88	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
3	Newpath	6.0	OZ/A	1 lf	90	a 93	a 90	ab 93	ab 87	a
	COC	1	% V/V	1 lf						
	Newpath	6.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
4	Newpath	4.0	OZ/A	1 lf	90	a 88	b 93	a 96	a 93	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
	Beyond	5.0	OZ/A	1 WAF						
	COC	1	% V/V	1 WAF						
5	Beyond	5.0	OZ/A	1 WAF	0	b 0	d 0	c 50	d 73	b
	COC	1	% V/V	1 WAF						
6	Newpath	4.0	OZ/A	1 lf	90	a 88	b 93	a 90	ab 90	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
	Beyond	5.0	OZ/A	Boot						
	COC	1	% V/V	Boot						
7	Beyond	5.0	OZ/A	Boot	0	b 0	d 0	c 0	e 0	d
	COC	1	% V/V	Boot						
8	Beyond	5.0	OZ/A	1 lf	90	a 73	c 80	b 53	d 47	c
	COC	1	% V/V	1 lf						

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Weed Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
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	6/14/05	6/25/05	7/5/05	7/13/05	7/22/05
Trt-Eval Interval	11 DA-B	8 DA-D	18 DA-D	8 DA-E	17 DA-E
ARM Action Codes					
# Subsamples, Dec.					

Trt	Treatment	Rate	Grow	1	2	3	4	5		
No.	Name	Rate	Unit	Stg						
9	Beyond	5.0	OZ/A	4-5 lf	0	b 70	c 80	b 77	c 70	b
	COC	1	% V/V	4-5 lf						
LSD (P=.05)					0.0	4.7	10.5	8.5	8.6	
Bartlett's X2					0.0	1.77	7.687	4.225	5.021	
P(Bartlett's X2)					.	0.778	0.021*	0.517	0.541	

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	ORYSA	ORYSA	ORYSA	ORYSA	
Crop Code					ORYSA
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT C
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	INJURY
Rating Unit	%	%	%	%	%
Rating Date	7/26/05	8/10/05	8/20/05	10/4/05	6/14/05
Trt-Eval Interval	4 DA-F	19 DA-F	29 DA-F	74 DA-F	11 DA-B
ARM Action Codes					
# Subsamples, Dec.					

Trt No.	Treatment Name	Rate	Grow Unit	Stg	6	7	8	9	10	
1	Command	13	OZ/A	OPRE	0	e 0	e 0	f 0	g 0	a
	Command	13	OZ/A	03-4 lf						
	Grasp	2	OZ/A	03-4 lf						
	COC	2	% V/V	03-4 lf						
2	Newpath	4.0	OZ/A	1 lf	90	a 88	ab 87	c 87	bc 0	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
3	Newpath	6.0	OZ/A	1 lf	93	a 90	ab 83	c 83	cd 0	a
	COC	1	% V/V	1 lf						
	Newpath	6.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
4	Newpath	4.0	OZ/A	1 lf	93	a 96	a 99	a 95	a 0	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
	Beyond	5.0	OZ/A	1 WAF						
	COC	1	% V/V	1 WAF						
5	Beyond	5.0	OZ/A	1 WAF	88	ab 80	bc 85	c 90	b 0	a
	COC	1	% V/V	1 WAF						
6	Newpath	4.0	OZ/A	1 lf	90	a 93	ab 96	ab 99	a 0	a
	COC	1	% V/V	1 lf						
	Newpath	4.0	OZ/A	4-5 lf						
	COC	1	% V/V	4-5 lf						
	Beyond	5.0	OZ/A	Boot						
	COC	1	% V/V	Boot						
7	Beyond	5.0	OZ/A	Boot	37	d 67	cd 90	bc 80	d 0	a
	COC	1	% V/V	Boot						
8	Beyond	5.0	OZ/A	1 lf	63	c 57	d 53	e 57	f 0	a
	COC	1	% V/V	1 lf						
9	Beyond	5.0	OZ/A	4-5 lf	82	b 78	bc 68	d 70	e 0	a
	COC	1	% V/V	4-5 lf						
LSD (P=.05)					7.9	15.5	7.3	4.2	0.0	
Bartlett's X2					3.324	9.253	2.5	1.321	0.0	
P(Bartlett's X2)					0.767	0.235	0.777	0.517	.	

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Weed Code	ORYSA	ORYSA	ORYSA	ORYSA	
Crop Code					ORYSA
Part Rated	PLATOT P	PLATOT P	PLATOT P	PLATOT P	PLATOT C
Rating Data Type	CONTROL	CONTROL	CONTROL	CONTROL	INJURY
Rating Unit	%	%	%	%	%
Rating Date	7/26/05	8/10/05	8/20/05	10/4/05	6/14/05
Trt-Eval Interval	4 DA-F	19 DA-F	29 DA-F	74 DA-F	11 DA-B
ARM Action Codes					
# Subsamples, Dec.					

Trt	Treatment	Rate	Grow						
No.	Name	Rate	Unit	Stg	6	7	8	9	10

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					ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Crop Code					PLATOT C	PLATOT C	PLATOT C	GRAIN C	GRAIN C
Part Rated					INJURY	INJURY	INJURY	lb/lpt	YIELD
Rating Data Type					%	%	%	12 % Mst	BU
Rating Unit									
Rating Date					6/28/05	7/19/05	8/5/05	10/4/05	10/4/05
Trt-Eval Interval					11 DA-D	14 DA-E	14 DA-F		
ARM Action Codes									TY1
# Subsamples, Dec.									0
Trt No.	Treatment Name	Rate	Grow Stg	Rate Unit	11	12	13	14	15
1	Command	13	OZ/A	OPRE	0	a 0	a 0	a 2	f 34 f
	Command	13	OZ/A	03-4 lf					
	Grasp	2	OZ/A	03-4 lf					
	COC	2	% V/V	03-4 lf					
2	Newpath	4.0	OZ/A	1 lf	0	a 0	a 0	a 7	a 116 a
	COC	1	% V/V	1 lf					
	Newpath	4.0	OZ/A	4-5 lf					
	COC	1	% V/V	4-5 lf					
3	Newpath	6.0	OZ/A	1 lf	0	a 0	a 0	a 7	b 108 b
	COC	1	% V/V	1 lf					
	Newpath	6.0	OZ/A	4-5 lf					
	COC	1	% V/V	4-5 lf					
4	Newpath	4.0	OZ/A	1 lf	0	a 0	a 0	a 7	a 117 a
	COC	1	% V/V	1 lf					
	Newpath	4.0	OZ/A	4-5 lf					
	COC	1	% V/V	4-5 lf					
	Beyond	5.0	OZ/A	1 WAF					
	COC	1	% V/V	1 WAF					
5	Beyond	5.0	OZ/A	1 WAF	0	a 0	a 0	a 3	e 48 e
	COC	1	% V/V	1 WAF					
6	Newpath	4.0	OZ/A	1 lf	0	a 0	a 0	a 7	ab 114 ab
	COC	1	% V/V	1 lf					
	Newpath	4.0	OZ/A	4-5 lf					
	COC	1	% V/V	4-5 lf					
	Beyond	5.0	OZ/A	Boot					
	COC	1	% V/V	Boot					
7	Beyond	5.0	OZ/A	Boot	0	a 0	a 0	a 3	e 48 e
	COC	1	% V/V	Boot					
8	Beyond	5.0	OZ/A	1 lf	3	a 0	a 0	a 5	c 80 c
	COC	1	% V/V	1 lf					
9	Beyond	5.0	OZ/A	4-5 lf	8	a 0	a 0	a 4	d 65 d
	COC	1	% V/V	4-5 lf					
LSD (P=.05)					8.6	0.0	0.0	0.5	7.9
Bartlett's X2					1.446	0.0	0.0	5.625	5.622
P(Bartlett's X2)					0.229	.	.	0.689	0.689

## LSU Northeast Research Station

Weed Code					
Crop Code	ORYSA	ORYSA	ORYSA	ORYSA	ORYSA
Part Rated	PLATOT C	PLATOT C	PLATOT C	GRAIN C	GRAIN
Rating Data Type	INJURY	INJURY	INJURY	lb/lpt	YIELD
Rating Unit	%	%	%	12 % Mst	BU
Rating Date	6/28/05	7/19/05	8/5/05	10/4/05	10/4/05
Trt-Eval Interval	11 DA-D	14 DA-E	14 DA-F		
ARM Action Codes					TY1
# Subsamples, Dec.					0

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Trt	Treatment	Rate	Grow					
No.	Name	Rate Unit	Stg	11	12	13	14	15

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.

Column 15: TY1 = 16.13333\*[C14]

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