

2019 Weeds AR Wild Rice Research Summaries

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Acknowledgements

The rice research presented herein the Weeds AR Wild Rice Research Summary was made possible due to grower check-off dollars provided through the Arkansas Rice Research and Promotion Board. We thank the Arkansas growers, crop consultants, and commodity board members for their support, as without it, this research would not be possible. We would also like to thank the University of Arkansas System Division of Agriculture for their continued support of our research and Extension efforts.

We would also be remiss if we did not thank our industry supporters. We appreciate the support in the 2019 growing season from the following companies:

ADAMA
Albaugh, LLC
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Corteva Agriscience
FMC Corporation
Gowan Company
Nichino America, Inc.
Syngenta AG
UPL North America
Valent USA Corporation

The data presented in this publication are intended to help growers, county agents, crop consultants, specialists, and industry representatives make unbiased decisions concerning best management practices for effective weed management. It represents results from only one year of research, and although it may serve as a guide, making decisions based on only one-year worth of data is always risky. Many of these same treatments will be included in subsequent year's research, and as additional data are collected, the better treatments will be included in Extension recommendations. Check the University of Arkansas System Division of Agriculture MP-44 publication, "Recommended Chemicals for Weed and Brush Control," for current Arkansas weed management recommendations. Some of the chemicals and application methods included in this research summary are not labeled for use in the manner they were evaluated. Always read and follow the label directions on all herbicides to ensure proper use.



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(TRB19 RICE 01)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Nozzle arrangement effect on spray coverage in rice

Trial ID: TRB19 RICE 01 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE01 Investigator: Thomas R. Butts

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSA BRIC
Stage Majority, Percent	2 tiller
Height Average	8 in

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	DIGSA W
Stage Majority, Percent	tiller
Height Average	6 in
Density Average	5 FT2
Pest 2 Code, Type, Scale	ECHCG W
Stage Majority, Percent	4 lf
Height Average	7 IN
Height Minimum, Maximum	6 8
Density Average	2 FT2

Context	Date	By	Notes
STATUS	Mar-18-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-11-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Trial Notes:

Treatments are made with four nozzle types (AIXR, TTI, 3D, and ULD) and three nozzle arrangements of emitted spray for the directional 3D and TTI nozzles (forward, backwards, and alternating).

(TRB19 RICE 01)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Nozzle arrangement effect on spray coverage in rice									
Trial ID: TRB19 RICE 01				Location: Lonoke		Trial Year: 2019			
Protocol ID: TRB19 RICE01				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Digitaria sang>		Echinochloa cr>	
Pest Name				large crabgrass		large crabgrass		Common barnyar>	
Rating Date				Jun-27-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				10 10		16 16		16 16	
Trt Treatment				Rate		Appl		W Weed	
No. Name				Rate Unit Code		1*		2*	
1 Nontreated Control						47.5		57.5	
2 AIXR110-015						80.0		95.0	
NEWPATH				0.094 lb ai/a A				95.0	
NIS				1.25 % v/v A				100.0	
3 ULD120-02						72.5		92.5	
NEWPATH				0.094 lb ai/a A				92.5	
NIS				1.25 % v/v A				100.0	
4 3D100-02 (FORWARD)						70.0		90.0	
NEWPATH				0.094 lb ai/a A				90.0	
NIS				1.25 % v/v A				95.0	
5 3D100-02 (BACKWARD)						77.5		93.8	
NEWPATH				0.094 lb ai/a A				93.8	
NIS				1.25 % v/v A				100.0	
6 3D100-02 (ALTERNATING)						75.0		95.0	
NEWPATH				0.094 lb ai/a A				95.0	
NIS				1.25 % v/v A				100.0	
7 TTI110-02 (FORWARD)						75.0		93.8	
NEWPATH				0.094 lb ai/a A				93.8	
NIS				1.25 % v/v A				100.0	
8 TTI110-02 (BACKWARD)						70.0		82.5	
NEWPATH				0.094 lb ai/a A				93.8	
NIS				1.25 % v/v A				100.0	
9 TTI110-02 (ALTERNATING)						77.5		93.8	
NEWPATH				0.094 lb ai/a A				93.8	
NIS				1.25 % v/v A				100.0	
LSD P=.05						8.66		12.11	
Replicate F						0.526		1.356	
Replicate Prob(F)						0.6684		0.2801	
Treatment F						10.658		8.586	
Treatment Prob(F)						0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 01)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Nozzle arrangement effect on spray coverage in rice									
Trial ID: TRB19 RICE 01				Location: Lonoke			Trial Year: 2019		
Protocol ID: TRB19 RICE01				Investigator: Thomas R. Butts					
Pest Type				W	Weed	W	Weed	W	Weed
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Echinochloa cr>	
Pest Name				Common barnyar>		large crabgrass		Common barnyar>	
Rating Date				Jul-12-2019		Jul-19-2019		Jul-19-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				25	25	32	32	32	32
Trt	Treatment	Rate	Appl						
No.	Name	Rate	Unit	Code	5*	6*	7*		
1	Nontreated Control				90.0	72.5	91.3		
2	AIXR110-015				96.5	97.0	98.0		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
3	ULD120-02				95.8	97.0	95.3		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
4	3D100-02 (FORWARD)				97.3	95.0	97.3		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
5	3D100-02 (BACKWARD)				95.8	99.0	97.3		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
6	3D100-02 (ALTERNATING)				97.3	99.5	98.0		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
7	TTI110-02 (FORWARD)				95.0	99.0	97.3		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
8	TTI110-02 (BACKWARD)				96.5	97.0	95.0		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
9	TTI110-02 (ALTERNATING)				95.8	100.0	97.3		
	NEWPATH	0.094 lb ai/a	A						
	NIS	1.25 % v/v	A						
LSD P=.05					1.95	9.66	2.55		
Replicate F					1.628	2.577	1.662		
Replicate Prob(F)					0.2092	0.0773	0.2017		
Treatment F					10.829	6.796	6.171		
Treatment Prob(F)					0.0001	0.0001	0.0002		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 01)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Nozzle arrangement effect on spray coverage in rice									
Trial ID: TRB19 RICE 01				Location: Lonoke		Trial Year: 2019			
Protocol ID: TRB19 RICE01				Investigator: Thomas R. Butts					
Pest Type				W Weed					
Pest Scientific Name				Echinochloa cr>					
Pest Name				Common barnyar>					
Rating Date				Sep-19-2019		Oct-9-2019		Oct-9-2019	
Rating Type				CONTRO		WEIGHT		YIELD	
Rating Unit				%		lb/plot		BU	
Days After First/Last Applic.				94 94		114 114		114 114	
Trt Treatment		Rate		Appl					
No. Name		Rate Unit Code		8*		9*		10*	
1 Nontreated Control				70.0		26.83		137.9	
2 AIXR110-015 NEWPATH NIS				92.5		32.00		164.5	
				0.094 lb ai/a A 1.25 % v/v A					
3 ULD120-02 NEWPATH NIS				93.8		33.15		170.4	
				0.094 lb ai/a A 1.25 % v/v A					
4 3D100-02 (FORWARD) NEWPATH NIS				95.0		33.08		170.0	
				0.094 lb ai/a A 1.25 % v/v A					
5 3D100-02 (BACKWARD) NEWPATH NIS				92.5		34.88		179.2	
				0.094 lb ai/a A 1.25 % v/v A					
6 3D100-02 (ALTERNATING) NEWPATH NIS				95.0		33.25		170.9	
				0.094 lb ai/a A 1.25 % v/v A					
7 TTI110-02 (FORWARD) NEWPATH NIS				93.8		33.03		169.7	
				0.094 lb ai/a A 1.25 % v/v A					
8 TTI110-02 (BACKWARD) NEWPATH NIS				90.0		31.85		163.7	
				0.094 lb ai/a A 1.25 % v/v A					
9 TTI110-02 (ALTERNATING) NEWPATH NIS				95.0		34.80		178.8	
				0.094 lb ai/a A 1.25 % v/v A					
LSD P=.05				2.56		2.763		14.20	
Replicate F				1.509		1.561		1.561	
Replicate Prob(F)				0.2375		0.2247		0.2247	
Treatment F				83.038		6.332		6.332	
Treatment Prob(F)				0.0001		0.0002		0.0002	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 01)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Nozzle arrangement effect on spray coverage in rice

Trial ID: TRB19 RICE 01 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE01 Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

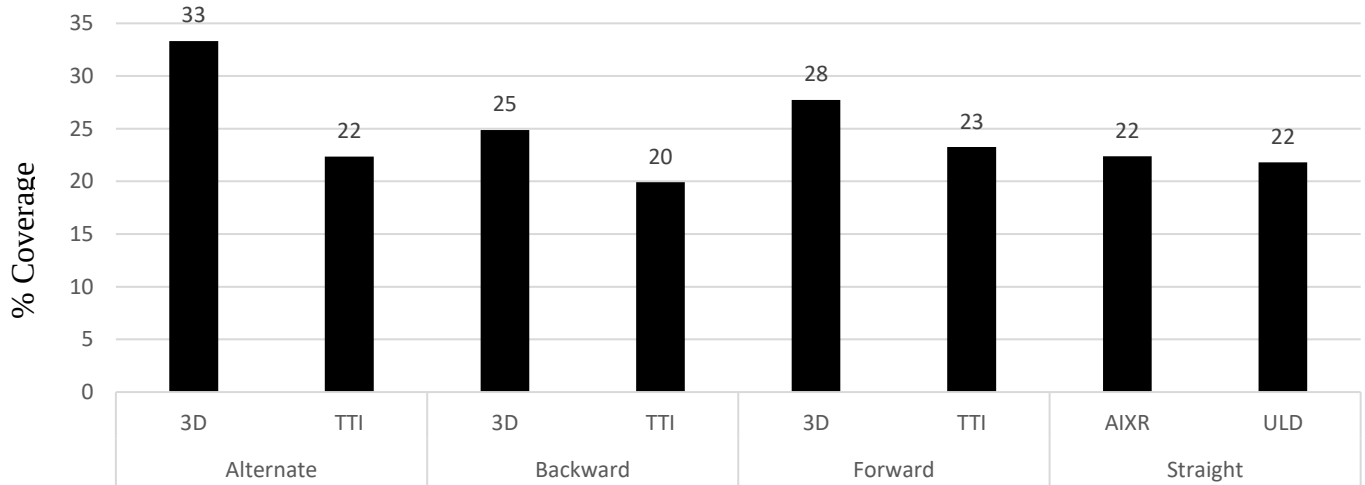
TY1 = 5.139066*[9]

Notes for Graphs:

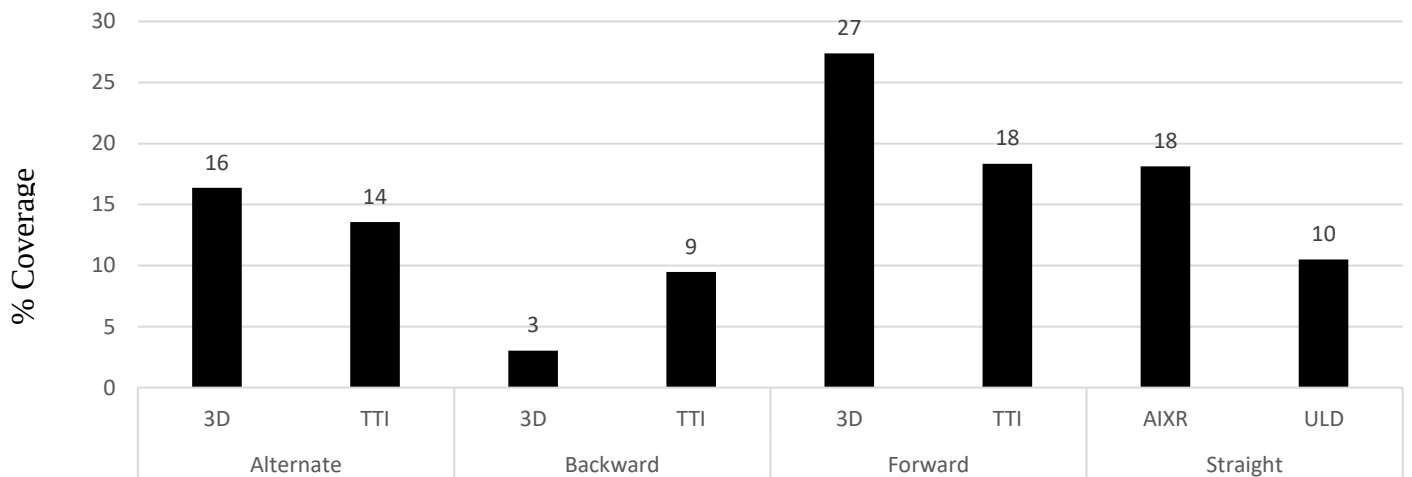
Forwards, Backwards, and Alternating denote the directional arrangement of emitted spray across the boom for the 3D and TTI nozzles.

Nozzle Arrangement Effect on Spray Coverage in Rice

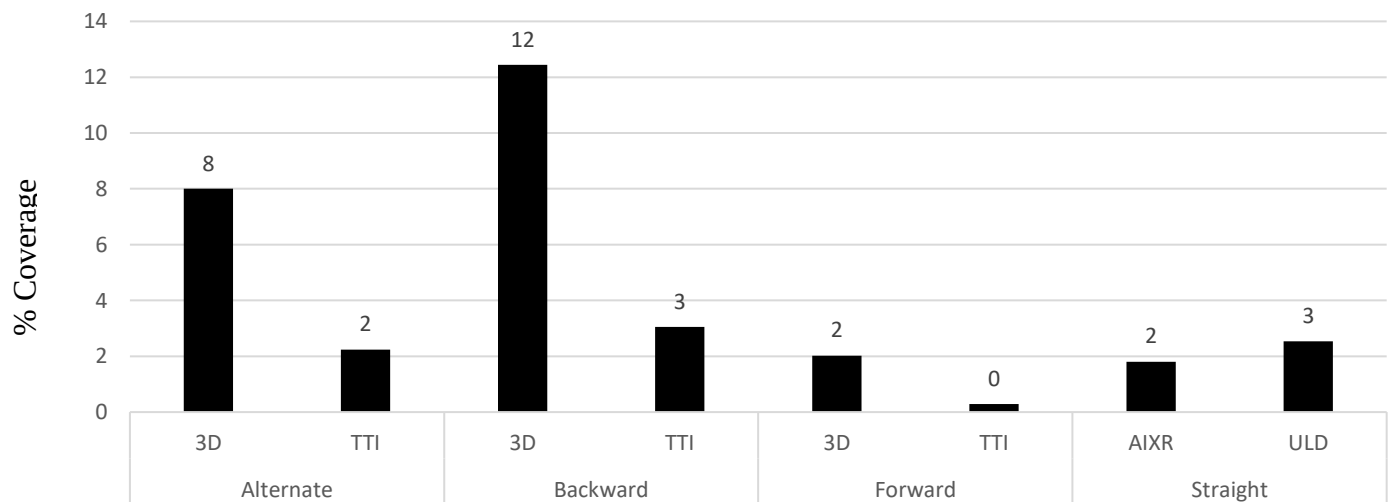
Top Spray Card



Front Spray Card



Back Spray Card



(TRB19 RICE 03)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice

Trial ID: TRB19 RICE 03 Location: Lonoke Trial Year: 2019
Protocol ID: PRE POST FULLPAGE Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Jun-11-2019
Variety: FULLPAGE
Planting Date: May-17-2019 **Planting Rate:** 32 LB/A
Planting Method: DRILLE drilled
Row Spacing: 7.5 IN
Soil Temperature: 70 F
Harvested Width: 3.6 FT
% Standard Moisture: 12.5 **Harvested** 25 FT

Pest Description

Pest 1 Type: W
Entry Oct-21-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 14
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D
Application Date	May-18-2019	May-29-2019	Jun-12-2019	Jul-1-2019
Appl. Start Time	8:30 AM	8:30 AM	1:30 PM	1:30 PM
Appl. Stop Time	9:00 AM	9:10 AM	2:00 PM	2:00 PM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Jun-11-2019	Oct-21-2019	Oct-21-2019	Oct-21-2019
Air Temperature Start, Stop	77 F	77 F	85 F	81 F
% Relative Humidity Start, Stop	68	68	34	
Wind Velocity+Dir. Start	5.3 MPH SW	6.3 MPH SW	4.8 MPH W	7 MPH SSE
Wet Leaves (Y/N)	N no	N no	N no	N no
Soil Temperature	68 F	70 F	68 F	70 F
Soil Moisture	Good	DRY	DRY	FLOOD
% Cloud Cover	30	90	60	20

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		2 lf	4 lf	tiller

(TRB19 RICE 03)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice

Trial ID: TRB19 RICE 03 Location: Lonoke Trial Year: 2019
 Protocol ID: PRE POST FULLPAGE Investigator: Thomas R. Butts

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	W	W	W	W

Application Equipment

	A	B	C	D
Appl. Equipment	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH	ARINDH	ARINDH
Nozzle Size	110018	110018	110018	110018
Nozzle Spacing	20 IN	20 IN	20 IN	20 IN
Nozzles/Row	6	6	6	6
Band Width	20 IN	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT	10 FT
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER

Context	Date	By	Notes
STATUS	Mar-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-11-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				Trial Year: 2019			
Trial ID: TRB19 RICE 03		Location: Lonoke					
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts					
Pest Type		W Weed		W Weed		W Weed	
Pest Scientific Name		Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name		large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date		May-31-2019		May-31-2019		May-31-2019	
Rating Type		CONTRO		CONTRO		CONTRO	
Rating Unit		%		%		%	
Days After First/Last Applic.		13 2		13 2		13 2	
Trt Treatment	Rate	Appl					
No. Name	Rate	Unit Code	1*	2*		3*	
1 UNTREATED CHECK			0.0	0.0		0.0	
2 SHARPEN	0.0445 lb ai/a A		95.0	96.3		27.5	
ADAMA CLOMAZONE	0.4 lb ai/a A						
PREFACE	0.0625 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
PREFACE	0.0625 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
3 SHARPEN	0.0445 lb ai/a A		93.8	95.8		30.0	
ADAMA CLOMAZONE	0.4 lb ai/a A						
PREFACE	0.094 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
PREFACE	0.094 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
4 SHARPEN	0.0445 lb ai/a A		93.8	93.8		35.0	
ADAMA CLOMAZONE	0.4 lb ai/a A						
POSTSCRIPT	0.039 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
5 SHARPEN	0.0445 lb ai/a A		95.0	95.0		37.5	
ADAMA CLOMAZONE	0.4 lb ai/a A						
PREFACE	0.0625 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
PREFACE	0.0625 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
POSTSCRIPT	0.039 lb ai/a D						
CROP OIL CONCENTRATE	1.25 % v/v D						
6 SHARPEN	0.0445 lb ai/a A		91.3	95.0		20.0	
ADAMA CLOMAZONE	0.4 lb ai/a A						
PREFACE	0.094 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
PREFACE	0.094 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
POSTSCRIPT	0.039 lb ai/a D						
CROP OIL CONCENTRATE	1.25 % v/v D						

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				Trial Year: 2019			
Trial ID: TRB19 RICE 03		Location: Lonoke					
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts					
Pest Type		W Weed		W Weed		W Weed	
Pest Scientific Name		Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name		large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date		May-31-2019		May-31-2019		May-31-2019	
Rating Type		CONTRO		CONTRO		CONTRO	
Rating Unit		%		%		%	
Days After First/Last Applic.		13 2		13 2		13 2	
Trt Treatment	Rate	Appl					
No. Name	Rate Unit Code		1*	2*		3*	
7 SHARPEN	0.0445 lb ai/a A		94.5	93.8		37.5	
ADAMA CLOMAZONE	0.4 lb ai/a A						
POSTSCRIPT	0.039 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
POSTSCRIPT	0.039 lb ai/a D						
CROP OIL CONCENTRATE	1.25 % v/v D						
8 SHARPEN	0.0445 lb ai/a A		94.5	95.8		35.0	
ADAMA CLOMAZONE	0.4 lb ai/a A						
POSTSCRIPT	0.0375 lb ai/a B						
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
9 POSTSCRIPT	0.039 lb ai/a B		32.5	35.0		2.5	
PENDIMETHALIN 3.8	0.95 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
LOYANT	0.0131 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
10 POSTSCRIPT	0.039 lb ai/a B		72.5	75.0		52.5	
ADAMA EC PROPANIL	4 lb ai/a B						
POSTSCRIPT	0.039 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
11 POSTSCRIPT	0.039 lb ai/a B		75.0	75.0		67.5	
ADAMA SC PROPANIL	4 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
12 POSTSCRIPT	0.039 lb ai/a B		32.5	35.0		0.0	
ADAMA CLOMAZONE	0.4 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
LOYANT	0.0131 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						
13 SHARPEN	0.0445 lb ai/a A		95.0	95.8		22.5	
ADAMA CLOMAZONE	0.4 lb ai/a A						
POSTSCRIPT	0.039 lb ai/a B						
CROP OIL CONCENTRATE	1.25 % v/v B						
POSTSCRIPT	0.039 lb ai/a C						
PERMIT	0.035 lb ai/a C						
CROP OIL CONCENTRATE	1.25 % v/v C						

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019			
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts						
Pest Type				W	Weed	W	Weed	W	Weed
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name				large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date				May-31-2019		May-31-2019		May-31-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				13	2	13	2	13	2
Trt	Treatment	Rate	Appl						
No.	Name	Rate	Unit Code	1*		2*		3*	
14	SHARPEN	0.0445 lb ai/a	A	92.5		96.3		33.8	
	ADAMA CLOMAZONE	0.4 lb ai/a	A						
	POSTSCRIPT	0.039 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	POSTSCRIPT	0.039 lb ai/a	C						
	PERMIT	0.035 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
LSD P=.05				7.85		7.24		16.66	
Replicate F				0.522		0.599		0.740	
Replicate Prob(F)				0.6696		0.6194		0.5345	
Treatment F				127.382		149.759		10.844	
Treatment Prob(F)				0.0001		0.0001		0.0001	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Aeschynomene v>		Echinochloa cr>		Digitaria sang>	
Pest Name				Northern joint>		Common barnyar>		large crabgrass	
Rating Date				May-31-2019		May-31-2019		Jun-10-2019	
Rating Type				CONTRO		DAMAGE		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				13 2		13 2		23 12	
Trt Treatment				Rate		Rate		Appl	
No. Name				Rate		Unit		Code	
				4*		5*		6*	
				7*					
1 UNTREATED CHECK				0.0		0.0		0.0	
2 SHARPEN				0.0445 lb ai/a A		27.5		2.5	
ADAMA CLOMAZONE				0.4 lb ai/a A		97.5		97.5	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
3 SHARPEN				0.0445 lb ai/a A		30.0		1.3	
ADAMA CLOMAZONE				0.4 lb ai/a A		100.0		97.5	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
4 SHARPEN				0.0445 lb ai/a A		32.5		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A		100.0		100.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
5 SHARPEN				0.0445 lb ai/a A		37.5		2.5	
ADAMA CLOMAZONE				0.4 lb ai/a A		97.5		96.3	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
6 SHARPEN				0.0445 lb ai/a A		17.5		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A		97.5		97.5	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice										
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019				
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>		Echinochloa cr>		Digitaria sang>			
Pest Name			Northern joint>		Common barnyar>		large crabgrass			
Rating Date			May-31-2019		May-31-2019		Jun-10-2019		Jun-10-2019	
Rating Type			CONTRO		DAMAGE		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			13		13		23		23	
Trt Treatment			Rate		Rate		Rate		Rate	
No. Name			Unit		Unit		Unit		Unit	
Code			4*		5*		6*		7*	
7 SHARPEN			0.0445 lb ai/a A		32.5		0.0		98.8	
ADAMA CLOMAZONE			0.4 lb ai/a A							
POSTSCRIPT			0.039 lb ai/a B							
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
POSTSCRIPT			0.039 lb ai/a D							
CROP OIL CONCENTRATE			1.25 % v/v D							
8 SHARPEN			0.0445 lb ai/a A		37.5		5.0		100.0	
ADAMA CLOMAZONE			0.4 lb ai/a A							
POSTSCRIPT			0.0375 lb ai/a B							
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
9 POSTSCRIPT			0.039 lb ai/a B		2.5		5.0		89.5	
PENDIMETHALIN 3.8			0.95 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
LOYANT			0.0131 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
10 POSTSCRIPT			0.039 lb ai/a B		55.0		2.5		100.0	
ADAMA EC PROPANIL			4 lb ai/a B							
POSTSCRIPT			0.039 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
11 POSTSCRIPT			0.039 lb ai/a B		67.5		16.3		96.3	
ADAMA SC PROPANIL			4 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
12 POSTSCRIPT			0.039 lb ai/a B		0.0		1.3		90.0	
ADAMA CLOMAZONE			0.4 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
LOYANT			0.0131 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
13 SHARPEN			0.0445 lb ai/a A		23.8		2.5		99.5	
ADAMA CLOMAZONE			0.4 lb ai/a A							
POSTSCRIPT			0.039 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
PERMIT			0.035 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice													
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019					
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts									
Pest Type				W Weed		W Weed		W Weed		W Weed			
Pest Scientific Name				Aeschynomene v>				Echinochloa cr>		Digitaria sang>			
Pest Name				Northern joint>				Common barnyar>		large crabgrass			
Rating Date				May-31-2019		May-31-2019		Jun-10-2019		Jun-10-2019			
Rating Type				CONTRO		DAMAGE		CONTRO		CONTRO			
Rating Unit				%		%		%		%			
Days After First/Last Applic.				13 2		13 2		23 12		23 12			
Trt Treatment				Rate		Appl							
No. Name				Unit Code		4*		5*		6*		7*	
14 SHARPEN				0.0445 lb ai/a A		33.8		5.0		96.3		97.5	
ADAMA CLOMAZONE				0.4 lb ai/a A									
POSTSCRIPT				0.039 lb ai/a B									
CROP OIL CONCENTRATE				1.25 % v/v B									
POSTSCRIPT				0.039 lb ai/a C									
PERMIT				0.035 lb ai/a C									
CROP OIL CONCENTRATE				1.25 % v/v C									
LSD P=.05				15.74		6.93		6.38		6.20			
Replicate F				1.146		0.577		0.335		0.086			
Replicate Prob(F)				0.3428		0.6337		0.7998		0.9672			
Treatment F				12.433		3.020		137.624		144.630			
Treatment Prob(F)				0.0001		0.0038		0.0001		0.0001			

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Sesbania herba>		Aeschynomene v>		Echinochloa cr>	
Pest Name				Hemp sesbania		Northern joint>		Common barnyar>	
Rating Date				Jun-10-2019		Jun-10-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				23 12		23 12		23 12	
Trt Treatment				Rate		Unit		Appl	
No. Name				Rate		Unit		Code	
				8*		9*		10*	
1 UNTREATED CHECK				0.0		0.0		0.0	
2 SHARPEN				0.0445 lb ai/a A		97.5		97.5	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
3 SHARPEN				0.0445 lb ai/a A		98.8		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
4 SHARPEN				0.0445 lb ai/a A		98.8		98.8	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
5 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
6 SHARPEN				0.0445 lb ai/a A		97.5		98.8	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019			
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Sesbania herba>		Aeschynomene v>		Echinochloa cr>	
Pest Name				Hemp sesbania		Northern joint>		Common barnyar>	
Rating Date				Jun-10-2019		Jun-10-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				23 12		23 12		23 12	
Trt Treatment				Rate Unit Appl		Rate Unit Appl		Rate Unit Appl	
No. Name				8*		9*		10*	
7 SHARPEN				0.0445 lb ai/a A		98.8		97.5	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
8 SHARPEN				0.0445 lb ai/a A		98.3		96.3	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
POSTSCRIPT				0.0375 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
9 POSTSCRIPT				0.039 lb ai/a B		30.0		37.5	
PENDIMETHALIN 3.8				0.95 lb ai/a B				0.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
LOYANT				0.0131 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
10 POSTSCRIPT				0.039 lb ai/a B		83.8		86.3	
ADAMA EC PROPANIL				4 lb ai/a B				0.0	
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
11 POSTSCRIPT				0.039 lb ai/a B		88.8		86.3	
ADAMA SC PROPANIL				4 lb ai/a B				0.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
12 POSTSCRIPT				0.039 lb ai/a B		50.0		42.5	
ADAMA CLOMAZONE				0.4 lb ai/a B				0.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
LOYANT				0.0131 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
13 SHARPEN				0.0445 lb ai/a A		77.5		81.3	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
POSTSCRIPT				0.039 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
PERMIT				0.035 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice										
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019				
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed				W Weed	
Pest Scientific Name			Sesbania herba>		Aeschynomene v>				Echinochloa cr>	
Pest Name			Hemp sesbania		Northern joint>				Common barnyar>	
Rating Date			Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-18-2019	
Rating Type			CONTRO		CONTRO		PHYGEN		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			23 12		23 12		23 12		31 6	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		8*		9*		10*	
14 SHARPEN			0.0445 lb ai/a A		90.0		82.5		0.0	
ADAMA CLOMAZONE			0.4 lb ai/a A							
POSTSCRIPT			0.039 lb ai/a B							
CROP OIL CONCENTRATE			1.25 % v/v B							
POSTSCRIPT			0.039 lb ai/a C							
PERMIT			0.035 lb ai/a C							
CROP OIL CONCENTRATE			1.25 % v/v C							
LSD P=.05			15.77		13.95		.		5.68	
Replicate F			2.185		1.313		0.000		1.574	
Replicate Prob(F)			0.1052		0.2839		1.0000		0.2112	
Treatment F			31.373		38.988		0.000		170.502	
Treatment Prob(F)			0.0001		0.0001		1.0000		0.0001	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke			Trial Year: 2019		
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Sesbania herba>		Aeschynomene v>	
Pest Name				large crabgrass		Hemp sesbania		Northern joint>	
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				31 6		31 6		31 6	
Trt Treatment				Rate		Appl			
No. Name		Rate Unit Code		12*		13*		14*	
1 UNTREATED CHECK				0.0		0.0		0.0	
2 SHARPEN		0.0445 lb ai/a A		97.5		97.5		98.8	
ADAMA CLOMAZONE		0.4 lb ai/a A							
PREFACE		0.0625 lb ai/a B							
ADAMA QUINCLORAC 1.5 L		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.0625 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
3 SHARPEN		0.0445 lb ai/a A		97.0		100.0		100.0	
ADAMA CLOMAZONE		0.4 lb ai/a A							
PREFACE		0.094 lb ai/a B							
ADAMA QUINCLORAC 1.5 L		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.094 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
4 SHARPEN		0.0445 lb ai/a A		100.0		100.0		100.0	
ADAMA CLOMAZONE		0.4 lb ai/a A							
POSTSCRIPT		0.039 lb ai/a B							
ADAMA QUINCLORAC 1.5 L		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
POSTSCRIPT		0.039 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
5 SHARPEN		0.0445 lb ai/a A		94.5		98.8		98.8	
ADAMA CLOMAZONE		0.4 lb ai/a A							
PREFACE		0.0625 lb ai/a B							
ADAMA QUINCLORAC 1.5 L		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.0625 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
POSTSCRIPT		0.039 lb ai/a D							
CROP OIL CONCENTRATE		1.25 % v/v D							
6 SHARPEN		0.0445 lb ai/a A		97.5		97.5		100.0	
ADAMA CLOMAZONE		0.4 lb ai/a A							
PREFACE		0.094 lb ai/a B							
ADAMA QUINCLORAC 1.5 L		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.094 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
POSTSCRIPT		0.039 lb ai/a D							
CROP OIL CONCENTRATE		1.25 % v/v D							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019			
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Digitaria sang>		Sesbania herba>		Aeschynomene v>		
Pest Name			large crabgrass		Hemp sesbania		Northern joint>		
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019
Rating Type			CONTRO		CONTRO		CONTRO		
Rating Unit			%		%		%		
Days After First/Last Applic.			31 6		31 6		31 6		31 6
Trt Treatment			Rate Appl		Rate Appl		Rate Appl		
No. Name			Rate Unit Code		Rate Unit Code		Rate Unit Code		
			12*		13*		14*		15*
7 SHARPEN			0.0445 lb ai/a A		95.0		97.5		98.8 0.0
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.039 lb ai/a B						
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
POSTSCRIPT			0.039 lb ai/a D						
CROP OIL CONCENTRATE			1.25 % v/v D						
8 SHARPEN			0.0445 lb ai/a A		97.0		96.5		98.3 0.0
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.0375 lb ai/a B						
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
9 POSTSCRIPT			0.039 lb ai/a B		92.5		88.8		87.5 0.0
PENDIMETHALIN 3.8			0.95 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
LOYANT			0.0131 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
10 POSTSCRIPT			0.039 lb ai/a B		95.8		95.0		93.8 0.0
ADAMA EC PROPANIL			4 lb ai/a B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
11 POSTSCRIPT			0.039 lb ai/a B		88.8		91.3		91.3 0.0
ADAMA SC PROPANIL			4 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
12 POSTSCRIPT			0.039 lb ai/a B		93.3		91.3		91.3 0.0
ADAMA CLOMAZONE			0.4 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
LOYANT			0.0131 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
13 SHARPEN			0.0445 lb ai/a A		99.5		96.3		98.3 0.0
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.039 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
PERMIT			0.035 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice										
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019		
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Digitaria sang>		Sesbania herba>		Aeschynomene v>		
Pest Name				large crabgrass		Hemp sesbania		Northern joint>		
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019
Rating Type				CONTRO		CONTRO		CONTRO		
Rating Unit				%		%		%		
Days After First/Last Applic.				31 6		31 6		31 6		31 6
Trt Treatment				Rate		Rate		Rate		
No. Name				Unit		Unit		Unit		
				12*		13*		14*		15*
14 SHARPEN				0.0445 lb ai/a A		98.3		97.0		98.8 0.0
ADAMA CLOMAZONE				0.4 lb ai/a A						
POSTSCRIPT				0.039 lb ai/a B						
CROP OIL CONCENTRATE				1.25 % v/v B						
POSTSCRIPT				0.039 lb ai/a C						
PERMIT				0.035 lb ai/a C						
CROP OIL CONCENTRATE				1.25 % v/v C						
LSD P=.05				5.91		5.21		3.40		.
Replicate F				1.368		0.689		1.150		0.000
Replicate Prob(F)				0.2668		0.5640		0.3412		1.0000
Treatment F				155.917		201.294		482.914		0.000
Treatment Prob(F)				0.0001		0.0001		0.0001		1.0000

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				Trial Year: 2019	
Trial ID: TRB19 RICE 03		Location: Lonoke			
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts			
Pest Type		W Weed	W Weed	W Weed	
Pest Scientific Name		Echinochloa cr>	Digitaria sang>	Sesbania herba>	
Pest Name		Common barnyar>	large crabgrass	Hemp sesbania	
Rating Date		Jul-3-2019	Jul-3-2019	Jul-3-2019	
Rating Type		CONTRO	CONTRO	CONTRO	
Rating Unit		%	%	%	
Days After First/Last Applic.		46 2	46 2	46 2	
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit Code	16*	17*	18*
1 UNTREATED CHECK			0.0	0.0	0.0
2 SHARPEN	0.0445 lb ai/a A		100.0	100.0	100.0
ADAMA CLOMAZONE	0.4 lb ai/a A				
PREFACE	0.0625 lb ai/a B				
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B				
CROP OIL CONCENTRATE	1.25 % v/v B				
PREFACE	0.0625 lb ai/a C				
CROP OIL CONCENTRATE	1.25 % v/v C				
3 SHARPEN	0.0445 lb ai/a A		100.0	100.0	100.0
ADAMA CLOMAZONE	0.4 lb ai/a A				
PREFACE	0.094 lb ai/a B				
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B				
CROP OIL CONCENTRATE	1.25 % v/v B				
PREFACE	0.094 lb ai/a C				
CROP OIL CONCENTRATE	1.25 % v/v C				
4 SHARPEN	0.0445 lb ai/a A		100.0	100.0	100.0
ADAMA CLOMAZONE	0.4 lb ai/a A				
POSTSCRIPT	0.039 lb ai/a B				
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B				
CROP OIL CONCENTRATE	1.25 % v/v B				
POSTSCRIPT	0.039 lb ai/a C				
CROP OIL CONCENTRATE	1.25 % v/v C				
5 SHARPEN	0.0445 lb ai/a A		100.0	100.0	100.0
ADAMA CLOMAZONE	0.4 lb ai/a A				
PREFACE	0.0625 lb ai/a B				
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B				
CROP OIL CONCENTRATE	1.25 % v/v B				
PREFACE	0.0625 lb ai/a C				
CROP OIL CONCENTRATE	1.25 % v/v C				
POSTSCRIPT	0.039 lb ai/a D				
CROP OIL CONCENTRATE	1.25 % v/v D				
6 SHARPEN	0.0445 lb ai/a A		100.0	100.0	100.0
ADAMA CLOMAZONE	0.4 lb ai/a A				
PREFACE	0.094 lb ai/a B				
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a B				
CROP OIL CONCENTRATE	1.25 % v/v B				
PREFACE	0.094 lb ai/a C				
CROP OIL CONCENTRATE	1.25 % v/v C				
POSTSCRIPT	0.039 lb ai/a D				
CROP OIL CONCENTRATE	1.25 % v/v D				

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				Trial Year: 2019			
Trial ID: TRB19 RICE 03		Location: Lonoke					
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts					
Pest Type		W Weed		W Weed		W Weed	
Pest Scientific Name		Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name		Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type		CONTRO		CONTRO		CONTRO	
Rating Unit		%		%		%	
Days After First/Last Applic.		46	2	46	2	46	2
Trt Treatment	Rate	Appl					
No. Name	Unit	Code					
7 SHARPEN	0.0445 lb ai/a	A	16*	17*	18*		
ADAMA CLOMAZONE	0.4 lb ai/a	A	100.0	100.0	100.0		
POSTSCRIPT	0.039 lb ai/a	B					
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
POSTSCRIPT	0.039 lb ai/a	D					
CROP OIL CONCENTRATE	1.25 % v/v	D					
8 SHARPEN	0.0445 lb ai/a	A	100.0	100.0	100.0		
ADAMA CLOMAZONE	0.4 lb ai/a	A					
POSTSCRIPT	0.0375 lb ai/a	B					
ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
9 POSTSCRIPT	0.039 lb ai/a	B	100.0	100.0	100.0		
PENDIMETHALIN 3.8	0.95 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
LOYANT	0.0131 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
10 POSTSCRIPT	0.039 lb ai/a	B	100.0	100.0	100.0		
ADAMA EC PROPANIL	4 lb ai/a	B					
POSTSCRIPT	0.039 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
11 POSTSCRIPT	0.039 lb ai/a	B	100.0	100.0	100.0		
ADAMA SC PROPANIL	4 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
12 POSTSCRIPT	0.039 lb ai/a	B	100.0	100.0	100.0		
ADAMA CLOMAZONE	0.4 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
LOYANT	0.0131 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					
13 SHARPEN	0.0445 lb ai/a	A	100.0	100.0	100.0		
ADAMA CLOMAZONE	0.4 lb ai/a	A					
POSTSCRIPT	0.039 lb ai/a	B					
CROP OIL CONCENTRATE	1.25 % v/v	B					
POSTSCRIPT	0.039 lb ai/a	C					
PERMIT	0.035 lb ai/a	C					
CROP OIL CONCENTRATE	1.25 % v/v	C					

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name				Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date				Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				46 2		46 2		46 2	
Trt Treatment		Rate	Appl						
No. Name		Unit	Code	16*		17*		18*	
14 SHARPEN	0.0445 lb ai/a	A		100.0		100.0		100.0	
ADAMA CLOMAZONE	0.4 lb ai/a	A							
POSTSCRIPT	0.039 lb ai/a	B							
CROP OIL CONCENTRATE	1.25 % v/v	B							
POSTSCRIPT	0.039 lb ai/a	C							
PERMIT	0.035 lb ai/a	C							
CROP OIL CONCENTRATE	1.25 % v/v	C							
LSD P=.05				.		.		.	
Replicate F				0.000		0.000		0.000	
Replicate Prob(F)				1.0000		1.0000		1.0000	
Treatment F				0.000		0.000		0.000	
Treatment Prob(F)				1.0000		1.0000		1.0000	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke			Trial Year: 2019		
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Aeschynomene v>		Echinochloa cr>		Digitaria sang>	
Pest Name				Northern joint>		Common barnyar>		large crabgrass	
Rating Date				Jul-3-2019		Jul-3-2019		Sep-17-2019	
Rating Type				CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				46 2		46 2		122 78	
Trt Treatment				Rate		Rate		Rate	
No. Name				Unit		Code		Code	
1 UNTREATED CHECK				19*		20*		21*	
				0.0		0.0		0.0	
2 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				100.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
3 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				100.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
4 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				100.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
5 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				100.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
6 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				100.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 10,15,16,17,18,19,20,21,22,23,25 because error mean square = 0.

(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Aeschynomene v>		Echinochloa cr>		Digitaria sang>	
Pest Name				Northern joint>		Common barnyar>		large crabgrass	
Rating Date				Jul-3-2019		Jul-3-2019		Sep-17-2019	
Rating Type				CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				46		46		122	
Trt Treatment				Rate		Rate		Rate	
No. Name				Unit		Unit		Unit	
				19*		20*		21*	
				22*					
7 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A		100.0		100.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
8 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A		100.0		100.0	
POSTSCRIPT				0.0375 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
9 POSTSCRIPT				0.039 lb ai/a B		100.0		0.0	
PENDIMETHALIN 3.8				0.95 lb ai/a B		100.0		100.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
LOYANT				0.0131 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
10 POSTSCRIPT				0.039 lb ai/a B		100.0		0.0	
ADAMA EC PROPANIL				4 lb ai/a B		100.0		100.0	
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
11 POSTSCRIPT				0.039 lb ai/a B		100.0		0.0	
ADAMA SC PROPANIL				4 lb ai/a B		100.0		100.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
12 POSTSCRIPT				0.039 lb ai/a B		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a B		100.0		100.0	
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
LOYANT				0.0131 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
13 SHARPEN				0.0445 lb ai/a A		100.0		0.0	
ADAMA CLOMAZONE				0.4 lb ai/a A		100.0		100.0	
POSTSCRIPT				0.039 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
PERMIT				0.035 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					

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

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

* Adjusted means

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice										
Trial ID: TRB19 RICE 03			Location:Lonoke			Trial Year:2019				
Protocol ID: PRE POST FULLPAGE			Investigator:Thomas R. Butts							
Pest Type			W Weed				W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>				Echinochloa cr>		Digitaria sang>	
Pest Name			Northern joint>				Common barnyar>		large crabgrass	
Rating Date			Jul-3-2019		Jul-3-2019		Sep-17-2019		Sep-17-2019	
Rating Type			CONTRO		PHYGEN		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			46		2		122		78	
Trt Treatment			Rate		Appl					
No. Name			Rate Unit		Code		19*		20*	
14 SHARPEN			0.0445 lb ai/a		A		100.0		0.0	
ADAMA CLOMAZONE			0.4 lb ai/a		A		100.0		100.0	
POSTSCRIPT			0.039 lb ai/a		B					
CROP OIL CONCENTRATE			1.25 % v/v		B					
POSTSCRIPT			0.039 lb ai/a		C					
PERMIT			0.035 lb ai/a		C					
CROP OIL CONCENTRATE			1.25 % v/v		C					
LSD P=.05										
Replicate F			0.000		0.000		0.000		0.000	
Replicate Prob(F)			1.0000		1.0000		1.0000		1.0000	
Treatment F			0.000		0.000		0.000		0.000	
Treatment Prob(F)			1.0000		1.0000		1.0000		1.0000	

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

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed			
Pest Scientific Name				Sesbania herba>		Aeschynomene v>			
Pest Name				Hemp sesbania		Northern joint>			
Rating Date				Sep-17-2019		Sep-17-2019		Sep-17-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				122 78		122 78		122 78	
Trt Treatment				Rate		Rate		Appl	
No. Name				Rate		Unit		Code	
				23*		24*		25*	
1 UNTREATED CHECK				0.0		0.0		0.0	
2 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
3 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
4 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
POSTSCRIPT				0.039 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
POSTSCRIPT				0.039 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
5 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.0625 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.0625 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
6 SHARPEN				0.0445 lb ai/a A		100.0		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a A				0.0	
PREFACE				0.094 lb ai/a B					
ADAMA QUINCLORAC 1.5 L				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
PREFACE				0.094 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
POSTSCRIPT				0.039 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					

Means followed by same letter or symbol 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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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03			Location: Lonoke			Trial Year: 2019			
Protocol ID: PRE POST FULLPAGE			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed				
Pest Scientific Name			Sesbania herba>		Aeschynomene v>				
Pest Name			Hemp sesbania		Northern joint>				
Rating Date			Sep-17-2019		Sep-17-2019		Sep-17-2019		Oct-9-2019
Rating Type			CONTRO		CONTRO		PHYGEN		WEIGHT
Rating Unit			%		%		%		lb/plot
Days After First/Last Applic.			122 78		122 78		122 78		144 100
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		23*		24*		25* 26*
7 SHARPEN			0.0445 lb ai/a A		100.0		100.0		0.0 31.00
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.039 lb ai/a B						
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
POSTSCRIPT			0.039 lb ai/a D						
CROP OIL CONCENTRATE			1.25 % v/v D						
8 SHARPEN			0.0445 lb ai/a A		100.0		100.0		0.0 29.53
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.0375 lb ai/a B						
ADAMA QUINCLORAC 1.5 L			0.375 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
9 POSTSCRIPT			0.039 lb ai/a B		100.0		99.5		0.0 31.10
PENDIMETHALIN 3.8			0.95 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
LOYANT			0.0131 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
10 POSTSCRIPT			0.039 lb ai/a B		100.0		100.0		0.0 32.13
ADAMA EC PROPANIL			4 lb ai/a B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
11 POSTSCRIPT			0.039 lb ai/a B		100.0		100.0		0.0 29.95
ADAMA SC PROPANIL			4 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
12 POSTSCRIPT			0.039 lb ai/a B		100.0		100.0		0.0 29.73
ADAMA CLOMAZONE			0.4 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
LOYANT			0.0131 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						
13 SHARPEN			0.0445 lb ai/a A		100.0		100.0		0.0 31.20
ADAMA CLOMAZONE			0.4 lb ai/a A						
POSTSCRIPT			0.039 lb ai/a B						
CROP OIL CONCENTRATE			1.25 % v/v B						
POSTSCRIPT			0.039 lb ai/a C						
PERMIT			0.035 lb ai/a C						
CROP OIL CONCENTRATE			1.25 % v/v C						

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

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice									
Trial ID: TRB19 RICE 03				Location: Lonoke				Trial Year: 2019	
Protocol ID: PRE POST FULLPAGE				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed			
Pest Scientific Name				Sesbania herba>		Aeschynomene v>			
Pest Name				Hemp sesbania		Northern joint>			
Rating Date				Sep-17-2019		Sep-17-2019		Sep-17-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				122 78		122 78		122 78	
Trt Treatment				Rate		Rate		Rate	
No. Name				Unit		Code		23*	
14 SHARPEN				0.0445 lb ai/a		A		100.0	
ADAMA CLOMAZONE				0.4 lb ai/a		A		100.0	
POSTSCRIPT				0.039 lb ai/a		B		0.0	
CROP OIL CONCENTRATE				1.25 % v/v		B		31.13	
POSTSCRIPT				0.039 lb ai/a		C			
PERMIT				0.035 lb ai/a		C			
CROP OIL CONCENTRATE				1.25 % v/v		C			
LSD P=.05						0.38			
Replicate F				0.000		1.000		0.000	
Replicate Prob(F)				1.0000		0.4031		1.0000	
Treatment F				0.000		39970.235		0.000	
Treatment Prob(F)				1.0000		0.0001		1.0000	

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				
Trial ID: TRB19 RICE 03		Location: Lonoke		Trial Year: 2019
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts		
Pest Type				
Pest Scientific Name				
Pest Name				
Rating Date		Oct-9-2019		
Rating Type		YIELD		
Rating Unit		BU		
Days After First/Last Applic.		144 100		
Trt No.	Treatment Name	Rate	Unit	Appl Code
				27*
1	UNTREATED CHECK			191.6
2	SHARPEN	0.0445 lb ai/a	A	324.8
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	PREFACE	0.0625 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	PREFACE	0.0625 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
3	SHARPEN	0.0445 lb ai/a	A	320.8
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	PREFACE	0.094 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	PREFACE	0.094 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
4	SHARPEN	0.0445 lb ai/a	A	327.7
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	POSTSCRIPT	0.039 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
5	SHARPEN	0.0445 lb ai/a	A	341.1
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	PREFACE	0.0625 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	PREFACE	0.0625 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
	POSTSCRIPT	0.039 lb ai/a	D	
	CROP OIL CONCENTRATE	1.25 % v/v	D	
6	SHARPEN	0.0445 lb ai/a	A	329.9
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	PREFACE	0.094 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	PREFACE	0.094 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
	POSTSCRIPT	0.039 lb ai/a	D	
	CROP OIL CONCENTRATE	1.25 % v/v	D	

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

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				
Trial ID: TRB19 RICE 03		Location: Lonoke		Trial Year: 2019
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts		
Pest Type		Oct-9-2019 YIELD BU 144 100		
Pest Scientific Name				
Pest Name				
Rating Date				
Rating Type				
Rating Unit				
Days After First/Last Applic.				
Trt No.	Treatment Name	Rate	Unit	Appl Code
				27*
7	SHARPEN	0.0445 lb ai/a	A	332.3
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	POSTSCRIPT	0.039 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
	POSTSCRIPT	0.039 lb ai/a	D	
	CROP OIL CONCENTRATE	1.25 % v/v	D	
8	SHARPEN	0.0445 lb ai/a	A	316.5
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	POSTSCRIPT	0.0375 lb ai/a	B	
	ADAMA QUINCLORAC 1.5 L	0.375 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
9	POSTSCRIPT	0.039 lb ai/a	B	333.4
	PENDIMETHALIN 3.8	0.95 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	LOYANT	0.0131 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
10	POSTSCRIPT	0.039 lb ai/a	B	344.3
	ADAMA EC PROPANIL	4 lb ai/a	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
11	POSTSCRIPT	0.039 lb ai/a	B	321.0
	ADAMA SC PROPANIL	4 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
12	POSTSCRIPT	0.039 lb ai/a	B	318.6
	ADAMA CLOMAZONE	0.4 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	LOYANT	0.0131 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	
13	SHARPEN	0.0445 lb ai/a	A	334.4
	ADAMA CLOMAZONE	0.4 lb ai/a	A	
	POSTSCRIPT	0.039 lb ai/a	B	
	CROP OIL CONCENTRATE	1.25 % v/v	B	
	POSTSCRIPT	0.039 lb ai/a	C	
	PERMIT	0.035 lb ai/a	C	
	CROP OIL CONCENTRATE	1.25 % v/v	C	

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

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice				
Trial ID: TRB19 RICE 03		Location: Lonoke		Trial Year: 2019
Protocol ID: PRE POST FULLPAGE		Investigator: Thomas R. Butts		
Pest Type				
Pest Scientific Name				
Pest Name				
Rating Date				Oct-9-2019
Rating Type				YIELD
Rating Unit				BU
Days After First/Last Applic.				144 100
Trt Treatment		Rate	Appl	
No. Name		Rate	Unit Code	27*
14 SHARPEN		0.0445 lb ai/a	A	333.6
ADAMA CLOMAZONE		0.4 lb ai/a	A	
POSTSCRIPT		0.039 lb ai/a	B	
CROP OIL CONCENTRATE		1.25 % v/v	B	
POSTSCRIPT		0.039 lb ai/a	C	
PERMIT		0.035 lb ai/a	C	
CROP OIL CONCENTRATE		1.25 % v/v	C	
LSD P=.05				43.81
Replicate F				1.187
Replicate Prob(F)				0.3272
Treatment F				6.046
Treatment Prob(F)				0.0001

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(TRB19 RICE 03)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Herbicide programs for FullPage hybrid rice

Trial ID: TRB19 RICE 03 Location: Lonoke Trial Year: 2019
 Protocol ID: PRE POST FULLPAGE Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

DAMAGE = damage

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 10.71868*[C26]

(TRB19 RICE 04)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides

Trial ID: TRB19 RICE 04 Location: Lonoke Trial Year: 2019
Protocol ID: Fullpage-Clearfield Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Oct-21-2019
Variety: Fullpage/CL745
Planting Date: May-17-2019 **Planting Rate:** 32 LB/A
Row Spacing: 7.5 IN
Soil Temperature: 70 F
Harvested Width: 3.6 FT
% Standard Moisture: 12.5 **Harvested:** 25 FT

Pest Description

Pest 1 Type: W **SEBEX** Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Oct-21-2019
Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Entry Date:** Oct-21-2019
Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry** Oct-21-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 5
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D	E
Application Date	May-18-2019	May-29-2019	Jun-12-2019		
Appl. Start Time	8:30 AM	8:30 AM	10:00 AM		
Appl. Stop Time	9:00 AM	8:45 AM	10:20 AM		
Application Method	SPRAY	SPRAY	SPRAY		
Application Placement	BROADC	BROADC	BROADC		
Applied By	B. Davis	B. Davis	B. Davis		
Appl. Entry Date	Oct-21-2019	Oct-21-2019	Oct-21-2019		
Air Temperature Start, Stop	77 F	76 F	74 F		
% Relative Humidity Start, Stop	68		54		
Wind Velocity+Dir. Start	5.3 MPH SW	5.1 MPH SW	2.3 MPH W		
Wet Leaves (Y/N)	N no	N no	N no		
Soil Temperature	68 F	70 F	64 F		
Soil Moisture	SLIWET	DRY	DRY		
% Cloud Cover	30	90	100		

(TRB19 RICE 04)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides

Trial ID: TRB19 RICE 04 Location: Lonoke Trial Year: 2019
Protocol ID: Fullpage-Clearfield Investigator: Thomas R. Butts

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		2 lf	tiller		
Height Average		3 in	8 in		

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale	SEBEX W	SEBEX W	SEBEX W	SEBEX W	SEBEX W
Stage Majority, Percent		2-3 lf	3 lf		
Height Average		3 in	3 in		
Density Average		5 FT2	1 FT2		
Pest 2 Code, Type, Scale	DIGSA W	DIGSA W	DIGSA W	DIGSA W	DIGSA W
Stage Majority, Percent		3-4 lf	4 lf		
Height Average		2 in	2 in		
Density Average		5 FT2	1 FT2		
Pest 3 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent		2 lf	4 lf		
Height Average		1 in	4 in		
Density Average		1 FT2	1 FT2		

Application Equipment

	A	B	C	D	E
Appl. Equipment	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE	SPRAYE	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI	34 PSI	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH	ARINDH	ARINDH	ARINDH
Nozzle Size	110018	110018	110018	110018	110018
Nozzle Spacing	20 IN	20 IN	20 IN	20 IN	20 IN
Nozzles/Row	6	6	6	6	6
Band Width	20 IN	20 IN	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT	10 FT	10 FT
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER	WATER

Context	Date	By	Notes
STATUS	Mar-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name				large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date				May-31-2019		May-31-2019		May-31-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				13 2		13 2		13 2	
Trt	Treatment	Rate	Appl						
No.	Name	Rate	Unit	Code	1*	2*	3*		
1	Untreated Check				0.0	0.0	0.0		
2	FULLPAGE RICE				92.5	93.8	47.5		
	CLOMAZONE	0.4 lb ai/a	A						
	SHARPEN	0.0445 lb ai/a	A						
	PREFACE	0.094 lb ai/a	B						
	ZURAX	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	PREFACE	0.094 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	POSTSCRIPT	0.039 lb ai/a	E						
	CROP OIL CONCENTRATE	1.25 % v/v	E						
3	FULLPAGE RICE				95.0	97.5	55.0		
	SHARPEN	0.0445 lb ai/a	A						
	CLOMAZONE	0.4 lb ai/a	A						
	PREFACE	0.375 lb ai/a	B						
	ZURAX	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	PREFACE	0.375 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	POSTSCRIPT	0.156 lb ai/a	D						
	CROP OIL CONCENTRATE	1.25 % v/v	D						
4	CLEARFIELD RICE				96.3	96.3	60.0		
	CLOMAZONE	0.4 lb ai/a	A						
	SHARPEN	0.0445 lb ai/a	A						
	NEWPATH	0.094 lb ai/a	B						
	FACET	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	NEWPATH	0.094 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	BEYOND	0.039 lb ai/a	E						
	CROP OIL CONCENTRATE	1.25 % v/v	E						

Means followed by same letter or symbol do not significantly differ ($P=0.05$, Student-Newman-Keuls).

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides												
Trial ID: TRB19 RICE 04				Location: Lonoke				Trial Year: 2019				
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts								
Pest Type				W Weed		W Weed		W Weed				
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Sesbania herba>				
Pest Name				large crabgrass		Common barnyar>		Hemp sesbania				
Rating Date				May-31-2019		May-31-2019		May-31-2019				
Rating Type				CONTRO		CONTRO		CONTRO				
Rating Unit				%		%		%				
Days After First/Last Applic.				13		13		13		2		
Trt Treatment				Rate		Appl						
No. Name				Rate		Unit		Code				
				1*		2*		3*				
5 CLEARFIELD RICE				97.5		97.5		55.0				
CLOMAZONE				0.4 lb ai/a		A						
SHARPEN				0.0445 lb ai/a		A						
NEWPATH				0.375 lb ai/a		B						
FACET				0.375 lb ai/a		B						
CROP OIL CONCENTRATE				1.25 % v/v		B						
NEWPATH				0.375 lb ai/a		C						
CROP OIL CONCENTRATE				1.25 % v/v		C						
BEYOND				0.156 lb ai/a		D						
CROP OIL CONCENTRATE				1.25 % v/v		D						
LSD P=.05				4.33		3.37		17.68				
Replicate F				3.105		2.087		1.253				
Replicate Prob(F)				0.0670		0.1555		0.3341				
Treatment F				919.737		1548.652		18.570				
Treatment Prob(F)				0.0001		0.0001		0.0001				

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type				W Weed				W Weed	
Pest Scientific Name				Aeschynomene v>				Digitaria sang>	
Pest Name				Northern joint>				large crabgrass	
Rating Date				May-31-2019		May-31-2019		Jun-18-2019	
Rating Type				CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				13 2		13 2		31 6	
Trt Treatment				Rate		Appl			
No. Name		Rate		Unit		Code			
				4*		5*		6*	
1 Untreated Check				0.0		0.0		0.0	
2 FULLPAGE RICE				47.5		0.0		96.5	
CLOMAZONE		0.4 lb ai/a A							
SHARPEN		0.0445 lb ai/a A							
PREFACE		0.094 lb ai/a B							
ZURAX		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.094 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
POSTSCRIPT		0.039 lb ai/a E							
CROP OIL CONCENTRATE		1.25 % v/v E							
3 FULLPAGE RICE				52.5		0.0		100.0	
SHARPEN		0.0445 lb ai/a A							
CLOMAZONE		0.4 lb ai/a A							
PREFACE		0.375 lb ai/a B							
ZURAX		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
PREFACE		0.375 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
POSTSCRIPT		0.156 lb ai/a D							
CROP OIL CONCENTRATE		1.25 % v/v D							
4 CLEARFIELD RICE				60.0		0.0		100.0	
CLOMAZONE		0.4 lb ai/a A							
SHARPEN		0.0445 lb ai/a A							
NEWPATH		0.094 lb ai/a B							
FACET		0.375 lb ai/a B							
CROP OIL CONCENTRATE		1.25 % v/v B							
NEWPATH		0.094 lb ai/a C							
CROP OIL CONCENTRATE		1.25 % v/v C							
BEYOND		0.039 lb ai/a E							
CROP OIL CONCENTRATE		1.25 % v/v E							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Aeschynomene v>		Digitaria sang>		Echinochloa cr>	
Pest Name				Northern joint>		large crabgrass		Common barnyar>	
Rating Date				May-31-2019		May-31-2019		Jun-18-2019	
Rating Type				CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				13		13		31	
Trt Treatment				Rate		Appl			
No. Name				Rate		Unit		Code	
				4*		5*		6*	
5 CLEARFIELD RICE				55.0		0.0		100.0	
CLOMAZONE				0.4 lb ai/a A					
SHARPEN				0.0445 lb ai/a A					
NEWPATH				0.375 lb ai/a B					
FACET				0.375 lb ai/a B					
CROP OIL CONCENTRATE				1.25 % v/v B					
NEWPATH				0.375 lb ai/a C					
CROP OIL CONCENTRATE				1.25 % v/v C					
BEYOND				0.156 lb ai/a D					
CROP OIL CONCENTRATE				1.25 % v/v D					
LSD P=.05				16.34		.		3.06	
Replicate F				1.481		0.000		1.000	
Replicate Prob(F)				0.2692		1.0000		0.4262	
Treatment F				21.267		0.000		2000.797	
Treatment Prob(F)				0.0001		1.0000		0.0001	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04				Location: Lonoke				Trial Year: 2019	
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Sesbania herba>		Aeschynomene v>		Digitaria sang>	
Pest Name				Hemp sesbania		Northern joint>		large crabgrass	
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				31 6		31 6		31 6	
Days After First/Last Applic.				46 21					
Trt Treatment				Rate		Appl			
No. Name				Rate Unit Code		8*		9*	
1 Untreated Check				0.0		0.0		0.0	
2 FULLPAGE RICE				81.3		82.5		0.0	
CLOMAZONE 0.4 lb ai/a A									
SHARPEN 0.0445 lb ai/a A									
PREFACE 0.094 lb ai/a B									
ZURAX 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
PREFACE 0.094 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
POSTSCRIPT 0.039 lb ai/a E									
CROP OIL CONCENTRATE 1.25 % v/v E									
3 FULLPAGE RICE				99.0		97.0		3.8	
SHARPEN 0.0445 lb ai/a A									
CLOMAZONE 0.4 lb ai/a A									
PREFACE 0.375 lb ai/a B									
ZURAX 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
PREFACE 0.375 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
POSTSCRIPT 0.156 lb ai/a D									
CROP OIL CONCENTRATE 1.25 % v/v D									
4 CLEARFIELD RICE				87.0		91.5		0.0	
CLOMAZONE 0.4 lb ai/a A									
SHARPEN 0.0445 lb ai/a A									
NEWPATH 0.094 lb ai/a B									
FACET 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
NEWPATH 0.094 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
BEYOND 0.039 lb ai/a E									
CROP OIL CONCENTRATE 1.25 % v/v E									

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

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

* Adjusted means

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(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides											
Trial ID: TRB19 RICE 04				Location: Lonoke				Trial Year: 2019			
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed				W Weed	
Pest Scientific Name				Sesbania herba>		Aeschynomene v>				Digitaria sang>	
Pest Name				Hemp sesbania		Northern joint>				large crabgrass	
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				31		31		31		46	
Trt Treatment				Rate		Unit		Appl			
No. Name				Rate		Unit		Code			
				8*		9*		10*		11*	
5 CLEARFIELD RICE				100.0		98.3		22.5		100.0	
CLOMAZONE				0.4 lb ai/a A							
SHARPEN				0.0445 lb ai/a A							
NEWPATH				0.375 lb ai/a B							
FACET				0.375 lb ai/a B							
CROP OIL CONCENTRATE				1.25 % v/v B							
NEWPATH				0.375 lb ai/a C							
CROP OIL CONCENTRATE				1.25 % v/v C							
BEYOND				0.156 lb ai/a D							
CROP OIL CONCENTRATE				1.25 % v/v D							
LSD P=.05				30.53		27.37		5.07		.	
Replicate F				0.542		0.624		0.423		0.000	
Replicate Prob(F)				0.6624		0.6130		0.7399		1.0000	
Treatment F				17.820		22.086		35.308		0.000	
Treatment Prob(F)				0.0001		0.0001		0.0001		1.0000	

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

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* Adjusted means

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(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides										
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019				
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Echinochloa cr>		Sesbania herba>		Aeschynomene v>		
Pest Name				Common barnyar>		Hemp sesbania		Northern joint>		
Rating Date				Jul-3-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019
Rating Type				CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit				%		%		%		%
Days After First/Last Applic.				46 21		46 21		46 21		46 21
Trt	Treatment	Rate	Appl							
No.	Name	Rate	Unit	Code	12*	13*	14*	15*		
1	Untreated Check				0.0	0.0	0.0	0.0		
2	FULLPAGE RICE				100.0	100.0	100.0	0.0		
	CLOMAZONE	0.4 lb ai/a	A							
	SHARPEN	0.0445 lb ai/a	A							
	PREFACE	0.094 lb ai/a	B							
	ZURAX	0.375 lb ai/a	B							
	CROP OIL CONCENTRATE	1.25 % v/v	B							
	PREFACE	0.094 lb ai/a	C							
	CROP OIL CONCENTRATE	1.25 % v/v	C							
	POSTSCRIPT	0.039 lb ai/a	E							
	CROP OIL CONCENTRATE	1.25 % v/v	E							
3	FULLPAGE RICE				100.0	100.0	100.0	0.0		
	SHARPEN	0.0445 lb ai/a	A							
	CLOMAZONE	0.4 lb ai/a	A							
	PREFACE	0.375 lb ai/a	B							
	ZURAX	0.375 lb ai/a	B							
	CROP OIL CONCENTRATE	1.25 % v/v	B							
	PREFACE	0.375 lb ai/a	C							
	CROP OIL CONCENTRATE	1.25 % v/v	C							
	POSTSCRIPT	0.156 lb ai/a	D							
	CROP OIL CONCENTRATE	1.25 % v/v	D							
4	CLEARFIELD RICE				100.0	100.0	100.0	0.0		
	CLOMAZONE	0.4 lb ai/a	A							
	SHARPEN	0.0445 lb ai/a	A							
	NEWPATH	0.094 lb ai/a	B							
	FACET	0.375 lb ai/a	B							
	CROP OIL CONCENTRATE	1.25 % v/v	B							
	NEWPATH	0.094 lb ai/a	C							
	CROP OIL CONCENTRATE	1.25 % v/v	C							
	BEYOND	0.039 lb ai/a	E							
	CROP OIL CONCENTRATE	1.25 % v/v	E							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides										
Trial ID: TRB19 RICE 04				Location: Lonoke				Trial Year: 2019		
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Echinochloa cr>		Sesbania herba>		Aeschynomene v>		
Pest Name				Common barnyar>		Hemp sesbania		Northern joint>		
Rating Date				Jul-3-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019
Rating Type				CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit				%		%		%		%
Days After First/Last Applic.				46 21		46 21		46 21		46 21
Trt Treatment		Rate	Appl	12*		13*		14*		15*
No. Name		Rate	Unit Code							
5 CLEARFIELD RICE				100.0		100.0		100.0		0.0
CLOMAZONE		0.4 lb ai/a	A							
SHARPEN		0.0445 lb ai/a	A							
NEWPATH		0.375 lb ai/a	B							
FACET		0.375 lb ai/a	B							
CROP OIL CONCENTRATE		1.25 % v/v	B							
NEWPATH		0.375 lb ai/a	C							
CROP OIL CONCENTRATE		1.25 % v/v	C							
BEYOND		0.156 lb ai/a	D							
CROP OIL CONCENTRATE		1.25 % v/v	D							
LSD P=.05				.		.		.		.
Replicate F				0.000		0.000		0.000		0.000
Replicate Prob(F)				1.0000		1.0000		1.0000		1.0000
Treatment F				0.000		0.000		0.000		0.000
Treatment Prob(F)				1.0000		1.0000		1.0000		1.0000

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04				Location: Lonoke			Trial Year: 2019		
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name				large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date				Sep-9-2019		Sep-9-2019		Sep-9-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				114 89		114 89		114 89	
Trt	Treatment			Rate	Appl				
No.	Name	Rate	Unit	Code	16*	17*	18*		
1	Untreated Check				0.0	0.0	0.0		
2	FULLPAGE RICE				100.0	100.0	100.0		
	CLOMAZONE	0.4 lb ai/a	A						
	SHARPEN	0.0445 lb ai/a	A						
	PREFACE	0.094 lb ai/a	B						
	ZURAX	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	PREFACE	0.094 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	POSTSCRIPT	0.039 lb ai/a	E						
	CROP OIL CONCENTRATE	1.25 % v/v	E						
3	FULLPAGE RICE				100.0	100.0	100.0		
	SHARPEN	0.0445 lb ai/a	A						
	CLOMAZONE	0.4 lb ai/a	A						
	PREFACE	0.375 lb ai/a	B						
	ZURAX	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	PREFACE	0.375 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	POSTSCRIPT	0.156 lb ai/a	D						
	CROP OIL CONCENTRATE	1.25 % v/v	D						
4	CLEARFIELD RICE				100.0	100.0	100.0		
	CLOMAZONE	0.4 lb ai/a	A						
	SHARPEN	0.0445 lb ai/a	A						
	NEWPATH	0.094 lb ai/a	B						
	FACET	0.375 lb ai/a	B						
	CROP OIL CONCENTRATE	1.25 % v/v	B						
	NEWPATH	0.094 lb ai/a	C						
	CROP OIL CONCENTRATE	1.25 % v/v	C						
	BEYOND	0.039 lb ai/a	E						
	CROP OIL CONCENTRATE	1.25 % v/v	E						

Means followed by same letter or symbol do not significantly differ ($P=0.05$, Student-Newman-Keuls).

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Sesbania herba>	
Pest Name				large crabgrass		Common barnyar>		Hemp sesbania	
Rating Date				Sep-9-2019		Sep-9-2019		Sep-9-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				114 89		114 89		114 89	
Trt	Treatment		Rate	Appl					
No.	Name	Rate	Unit	Code	16*		17*		18*
5 CLEARFIELD RICE					100.0		100.0		100.0
CLOMAZONE		0.4 lb ai/a	A						
SHARPEN		0.0445 lb ai/a	A						
NEWPATH		0.375 lb ai/a	B						
FACET		0.375 lb ai/a	B						
CROP OIL CONCENTRATE		1.25 % v/v	B						
NEWPATH		0.375 lb ai/a	C						
CROP OIL CONCENTRATE		1.25 % v/v	C						
BEYOND		0.156 lb ai/a	D						
CROP OIL CONCENTRATE		1.25 % v/v	D						
LSD P=.05					.		.		.
Replicate F					0.000		0.000		0.000
Replicate Prob(F)					1.0000		1.0000		1.0000
Treatment F					0.000		0.000		0.000
Treatment Prob(F)					1.0000		1.0000		1.0000

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides												
Trial ID: TRB19 RICE 04				Location: Lonoke				Trial Year: 2019				
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts								
Pest Type				W Weed				W Weed		W Weed		
Pest Scientific Name				Aeschynomene v>				Digitaria sang>		Echinochloa cr>		
Pest Name				Northern joint>				large crabgrass		Common barnyar>		
Rating Date				Sep-9-2019		Sep-9-2019		Oct-6-2019		Oct-6-2019		
Rating Type				CONTRO		PHYGEN		CONTRO		CONTRO		
Rating Unit				%		%		%		%		
Days After First/Last Applic.				114 89		114 89		141 116		141 116		
Trt	Treatment	Rate	Appl									
No.	Name	Rate	Unit	Code		19*		20*		21*		22*
1	Untreated Check					0.0		0.0		0.0		0.0
2	FULLPAGE RICE					97.5		0.0		96.3		97.5
	CLOMAZONE	0.4 lb ai/a	A									
	SHARPEN	0.0445 lb ai/a	A									
	PREFACE	0.094 lb ai/a	B									
	ZURAX	0.375 lb ai/a	B									
	CROP OIL CONCENTRATE	1.25 % v/v	B									
	PREFACE	0.094 lb ai/a	C									
	CROP OIL CONCENTRATE	1.25 % v/v	C									
	POSTSCRIPT	0.039 lb ai/a	E									
	CROP OIL CONCENTRATE	1.25 % v/v	E									
3	FULLPAGE RICE					100.0		0.0		100.0		100.0
	SHARPEN	0.0445 lb ai/a	A									
	CLOMAZONE	0.4 lb ai/a	A									
	PREFACE	0.375 lb ai/a	B									
	ZURAX	0.375 lb ai/a	B									
	CROP OIL CONCENTRATE	1.25 % v/v	B									
	PREFACE	0.375 lb ai/a	C									
	CROP OIL CONCENTRATE	1.25 % v/v	C									
	POSTSCRIPT	0.156 lb ai/a	D									
	CROP OIL CONCENTRATE	1.25 % v/v	D									
4	CLEARFIELD RICE					97.5		0.0		98.8		98.8
	CLOMAZONE	0.4 lb ai/a	A									
	SHARPEN	0.0445 lb ai/a	A									
	NEWPATH	0.094 lb ai/a	B									
	FACET	0.375 lb ai/a	B									
	CROP OIL CONCENTRATE	1.25 % v/v	B									
	NEWPATH	0.094 lb ai/a	C									
	CROP OIL CONCENTRATE	1.25 % v/v	C									
	BEYOND	0.039 lb ai/a	E									
	CROP OIL CONCENTRATE	1.25 % v/v	E									

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04				Location: Lonoke		Trial Year: 2019			
Protocol ID: Fullpage-Clearfield				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Aeschynomene v>		Digitaria sang>		Echinochloa cr>	
Pest Name				Northern joint>		large crabgrass		Common barnyar>	
Rating Date				Sep-9-2019		Sep-9-2019		Oct-6-2019	
Rating Type				CONTRO		PHYGEN		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				114 89		114 89		141 116	
Trt Treatment				Rate		Appl			
No. Name		Rate		Unit		Code			
				19*		20*		21*	
				22*					
5 CLEARFIELD RICE				100.0		0.0		100.0	
CLOMAZONE 0.4 lb ai/a A								98.8	
SHARPEN 0.0445 lb ai/a A									
NEWPATH 0.375 lb ai/a B									
FACET 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
NEWPATH 0.375 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
BEYOND 0.156 lb ai/a D									
CROP OIL CONCENTRATE 1.25 % v/v D									
LSD P=.05				5.07		.		3.92	
				0.615		0.000		0.516	
Replicate F				0.6181		1.0000		0.6790	
Replicate Prob(F)				720.692		0.000		1209.387	
Treatment F				0.0001		1.0000		0.0001	
Treatment Prob(F)									

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed				
Pest Scientific Name			Sesbania herba>		Aeschynomene v>				
Pest Name			Hemp sesbania		Northern joint>				
Rating Date			Oct-6-2019		Oct-6-2019		Oct-6-2019		Oct-9-2019
Rating Type			CONTRO		CONTRO		PHYGEN		WEIGHT
Rating Unit			%		%		%		lb/plot
Days After First/Last Applic.			141 116		141 116		141 116		144 119
Trt Treatment			Rate		Appl				
No. Name			Rate		Unit		Code		
			23*		24*		25*		26*
1 Untreated Check			0.0		0.0		0.0		12.78
2 FULLPAGE RICE			85.0		82.5		0.0		31.78
CLOMAZONE 0.4 lb ai/a A									
SHARPEN 0.0445 lb ai/a A									
PREFACE 0.094 lb ai/a B									
ZURAX 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
PREFACE 0.094 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
POSTSCRIPT 0.039 lb ai/a E									
CROP OIL CONCENTRATE 1.25 % v/v E									
3 FULLPAGE RICE			88.8		90.0		0.0		34.00
SHARPEN 0.0445 lb ai/a A									
CLOMAZONE 0.4 lb ai/a A									
PREFACE 0.375 lb ai/a B									
ZURAX 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
PREFACE 0.375 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
POSTSCRIPT 0.156 lb ai/a D									
CROP OIL CONCENTRATE 1.25 % v/v D									
4 CLEARFIELD RICE			87.5		92.5		0.0		28.38
CLOMAZONE 0.4 lb ai/a A									
SHARPEN 0.0445 lb ai/a A									
NEWPATH 0.094 lb ai/a B									
FACET 0.375 lb ai/a B									
CROP OIL CONCENTRATE 1.25 % v/v B									
NEWPATH 0.094 lb ai/a C									
CROP OIL CONCENTRATE 1.25 % v/v C									
BEYOND 0.039 lb ai/a E									
CROP OIL CONCENTRATE 1.25 % v/v E									

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides									
Trial ID: TRB19 RICE 04			Location: Lonoke			Trial Year: 2019			
Protocol ID: Fullpage-Clearfield			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed			
Pest Scientific Name				Sesbania herba>		Aeschynomene v>			
Pest Name				Hemp sesbania		Northern joint>			
Rating Date				Oct-6-2019		Oct-6-2019		Oct-6-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				141 116		141 116		141 116 144 119	
Trt Treatment		Rate		Appl					
No. Name		Rate		Unit Code		23*		24*	
5 CLEARFIELD RICE						95.0		95.0	
CLOMAZONE		0.4 lb ai/a		A				0.0	
SHARPEN		0.0445 lb ai/a		A				29.35	
NEWPATH		0.375 lb ai/a		B					
FACET		0.375 lb ai/a		B					
CROP OIL CONCENTRATE		1.25 % v/v		B					
NEWPATH		0.375 lb ai/a		C					
CROP OIL CONCENTRATE		1.25 % v/v		C					
BEYOND		0.156 lb ai/a		D					
CROP OIL CONCENTRATE		1.25 % v/v		D					
LSD P=.05				24.96		20.81		.	
Replicate F				0.246		0.384		0.000	
Replicate Prob(F)				0.8626		0.7668		1.0000	
Treatment F				24.381		35.986		0.000	
Treatment Prob(F)				0.0001		0.0001		1.0000	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides					
Trial ID: TRB19 RICE 04		Location: Lonoke		Trial Year: 2019	
Protocol ID: Fullpage-Clearfield		Investigator: Thomas R. Butts			
Pest Type			Oct-9-2019 YIELD BU 144 119		
Pest Scientific Name					
Pest Name					
Rating Date					
Rating Type					
Rating Unit					
Days After First/Last Applic.					
Trt No.	Treatment Name	Rate	Unit	Appl Code	27*
1	Untreated Check				135.2
2	FULLPAGE RICE				336.3
	CLOMAZONE	0.4 lb ai/a	A		
	SHARPEN	0.0445 lb ai/a	A		
	PREFACE	0.094 lb ai/a	B		
	ZURAX	0.375 lb ai/a	B		
	CROP OIL CONCENTRATE	1.25 % v/v	B		
	PREFACE	0.094 lb ai/a	C		
	CROP OIL CONCENTRATE	1.25 % v/v	C		
	POSTSCRIPT	0.039 lb ai/a	E		
	CROP OIL CONCENTRATE	1.25 % v/v	E		
3	FULLPAGE RICE				359.8
	SHARPEN	0.0445 lb ai/a	A		
	CLOMAZONE	0.4 lb ai/a	A		
	PREFACE	0.375 lb ai/a	B		
	ZURAX	0.375 lb ai/a	B		
	CROP OIL CONCENTRATE	1.25 % v/v	B		
	PREFACE	0.375 lb ai/a	C		
	CROP OIL CONCENTRATE	1.25 % v/v	C		
	POSTSCRIPT	0.156 lb ai/a	D		
	CROP OIL CONCENTRATE	1.25 % v/v	D		
4	CLEARFIELD RICE				300.3
	CLOMAZONE	0.4 lb ai/a	A		
	SHARPEN	0.0445 lb ai/a	A		
	NEWPATH	0.094 lb ai/a	B		
	FACET	0.375 lb ai/a	B		
	CROP OIL CONCENTRATE	1.25 % v/v	B		
	NEWPATH	0.094 lb ai/a	C		
	CROP OIL CONCENTRATE	1.25 % v/v	C		
	BEYOND	0.039 lb ai/a	E		
	CROP OIL CONCENTRATE	1.25 % v/v	E		

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides				
Trial ID: TRB19 RICE 04		Location: Lonoke		Trial Year: 2019
Protocol ID: Fullpage-Clearfield		Investigator: Thomas R. Butts		
Pest Type				
Pest Scientific Name				
Pest Name				
Rating Date				Oct-9-2019
Rating Type				YIELD
Rating Unit				BU
Days After First/Last Applic.				144 119
Trt Treatment	Rate	Unit	Appl	
No. Name			Code	27*
5 CLEARFIELD RICE				310.6
CLOMAZONE	0.4 lb ai/a	A		
SHARPEN	0.0445 lb ai/a	A		
NEWPATH	0.375 lb ai/a	B		
FACET	0.375 lb ai/a	B		
CROP OIL CONCENTRATE	1.25 % v/v	B		
NEWPATH	0.375 lb ai/a	C		
CROP OIL CONCENTRATE	1.25 % v/v	C		
BEYOND	0.156 lb ai/a	D		
CROP OIL CONCENTRATE	1.25 % v/v	D		
LSD P=.05				55.12
Replicate F				0.840
Replicate Prob(F)				0.4978
Treatment F				24.615
Treatment Prob(F)				0.0001

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 5,11,12,13,14,15,16,17,18,20,25 because error mean square = 0.

(TRB19 RICE 04)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FullPage vs Clearfield hybrid rice tolerance to IMI herbicides

Trial ID: TRB19 RICE 04 Location: Lonoke Trial Year: 2019
 Protocol ID: Fullpage-Clearfield Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 10.58347*[26]

(TRB19 RICE 05)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Oct-21-2019
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Row Spacing: 7.5 IN
Soil Temperature: 70 F
Harvested Width: 7.5 FT
Harvested Length: 25 FT
% Standard Moisture: 12.5

Pest Description

Pest 1 Type: W SEBEX Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Oct-21-2019

Pest 2 Type: W Code: ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry** Oct-21-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 8
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C
Application Date	May-15-2019		
Appl. Start Time	2:30 PM		
Appl. Stop Time	3:00 PM		
Application Method	SPRAY		
Application Placement	BROADC		
Applied By	B. Davis		
Appl. Entry Date	Oct-22-2019		
Air Temperature Start, Stop	87 F		
% Relative Humidity Start, Stop	46		
Wind Velocity+Dir. Start	5.5 MPH W		
Wet Leaves (Y/N)	N no		
Soil Temperature	70 F		
Soil Moisture	SLIWET		
% Cloud Cover	0		

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

(TRB19 RICE 05)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	SEBEX W	SEBEX W	SEBEX W
Pest 2 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W

Context	Date	By	Notes
STATUS	Mar-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Sesbania herba>	Aeschynomene v>	Amaranthus pal>	Echinochloa cr>
Pest Name	Hemp sesbania	Northern joint>	Palmer amaranth	Common barnyar>
Rating Date	May-31-2019	May-31-2019	May-31-2019	May-31-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	16 16	16 16	16 16	16 16
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	1*	2*	3*
1 Untreated Check		0.0	0.0	0.0
2 Roundup PowerMAX 32 oz/a A		20.0	12.5	86.3
Command 12.8 oz/a A				87.5
Provisia 15.5 oz/a B				
COC 16 oz/a B				
Provisia 15.5 oz/a C				
COC 16 oz/a C				
3 Roundup PowerMAX 32 oz/a A		55.0	62.5	95.0
Command 12.8 oz/a A				95.0
Gambit 1.0 oz/a A				
Gambit 1.0 oz/a B				
Provisia 15.5 oz/a B				
COC 16 oz/a B				
Provisia 15.5 oz/a C				
COC 16 oz/a C				
4 Roundup PowerMAX 32 oz/a A		50.0	55.0	93.8
Command 12.8 oz/a A				93.8
Gambit 1.5 oz/a A				
Gambit 0.5 oz/a B				
Provisia 15.5 oz/a B				
COC 16 oz/a B				
Provisia 15.5 oz/a C				
COC 16 oz/a C				
5 Roundup PowerMAX 32 oz/a A		55.0	70.0	91.3
Command 12.8 oz/a A				93.8
Gambit 1.5 oz/a A				
Permit Plus 0.75 oz/a B				
Provisia 15.5 oz/a B				
COC 16 oz/a B				
Provisia 15.5 oz/a C				
COC 16 oz/a C				

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator:Thomas R. Butts							
Pest Type			W	Weed	W	Weed	W	Weed	W	Weed
Pest Scientific Name			Sesbania herba>		Aeschynomene v>		Amaranthus pal>		Echinochloa cr>	
Pest Name			Hemp sesbania		Northern joint>		Palmer amaranth		Common barnyar>	
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			16	16	16	16	16	16	16	16
Trt	Treatment	Rate	Appl							
No.	Name	Rate	Unit	Code	1*	2*	3*	4*		
6	Roundup PowerMAX	32 oz/a	A		70.0	70.0	94.5	92.5		
	Command	12.8 oz/a	A							
	Gambit	2.0 oz/a	A							
	Provisia	15.5 oz/a	B							
	COC	16 oz/a	B							
	Provisia	15.5 oz/a	C							
	COC	16 oz/a	C							
7	Roundup PowerMAX	32 oz/a	A		62.5	62.5	93.8	92.5		
	Command	12.8 oz/a	A							
	Gambit	2.0 oz/a	A							
	Permit Plus	0.75 oz/a	B							
	Provisia	15.5 oz/a	B							
	COC	16 oz/a	B							
	Provisia	15.5 oz/a	C							
	COC	16 oz/a	C							
8	Roundup PowerMAX	32 oz/a	A		37.5	37.5	92.5	92.5		
	Command	12.8 oz/a	A							
	Sharpen	2.0 oz/a	A							
	Sharpen	1.0 oz/a	B							
	Provisia	15.5 oz/a	B							
	COC	16 oz/a	B							
	Provisia	15.5 oz/a	C							
	COC	16 oz/a	C							
LSD P=.05					26.56	27.42	6.56	3.54		
Replicate F					2.555	2.397	0.247	3.769		
Replicate Prob(F)					0.0827	0.0968	0.8626	0.0261		
Treatment F					6.745	8.363	216.018	740.539		
Treatment Prob(F)					0.0003	0.0001	0.0001	0.0001		

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type		W Weed		W Weed		W Weed
Pest Scientific Name		Digitaria sang>		Sesbania herba>		Aeschynomene v>
Pest Name		large crabgrass		Hemp sesbania		Northern joint>
Rating Date		May-31-2019	May-31-2019	Jun-10-2019		Jun-10-2019
Rating Type		CONTRO	PHYGEN	CONTRO		CONTRO
Rating Unit		%	%	%		%
Days After First/Last Applic.		16 16	16 16	26 26		26 26
Trt Treatment	Rate Appl					
No. Name	Rate Unit Code	5*	6*	7*		8*
1 Untreated Check		0.0	0.0	0.0		0.0
2 Roundup PowerMAX	32 oz/a A	82.5	0.0	0.0		0.0
Command	12.8 oz/a A					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
3 Roundup PowerMAX	32 oz/a A	95.0	0.0	96.3		96.3
Command	12.8 oz/a A					
Gambit	1.0 oz/a A					
Gambit	1.0 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
4 Roundup PowerMAX	32 oz/a A	93.8	0.0	92.5		93.3
Command	12.8 oz/a A					
Gambit	1.5 oz/a A					
Gambit	0.5 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
5 Roundup PowerMAX	32 oz/a A	93.8	0.0	96.3		96.3
Command	12.8 oz/a A					
Gambit	1.5 oz/a A					
Permit Plus	0.75 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator: Thomas R. Butts							
Pest Type			W Weed				W Weed		W Weed	
Pest Scientific Name			Digitaria sang>				Sesbania herba>		Aeschynomene v>	
Pest Name			large crabgrass				Hemp sesbania		Northern joint>	
Rating Date			May-31-2019		May-31-2019		Jun-10-2019		Jun-10-2019	
Rating Type			CONTRO		PHYGEN		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			16 16		16 16		26 26		26 26	
Trt Treatment			Rate Appl							
No. Name		Rate Unit Code	5*		6*		7*		8*	
6 Roundup PowerMAX		32 oz/a A	90.0		0.0		57.5		55.0	
Command		12.8 oz/a A								
Gambit		2.0 oz/a A								
Provisia		15.5 oz/a B								
COC		16 oz/a B								
Provisia		15.5 oz/a C								
COC		16 oz/a C								
7 Roundup PowerMAX		32 oz/a A	86.3		0.0		92.0		91.3	
Command		12.8 oz/a A								
Gambit		2.0 oz/a A								
Permit Plus		0.75 oz/a B								
Provisia		15.5 oz/a B								
COC		16 oz/a B								
Provisia		15.5 oz/a C								
COC		16 oz/a C								
8 Roundup PowerMAX		32 oz/a A	91.3		0.0		97.5		97.5	
Command		12.8 oz/a A								
Sharpen		2.0 oz/a A								
Sharpen		1.0 oz/a B								
Provisia		15.5 oz/a B								
COC		16 oz/a B								
Provisia		15.5 oz/a C								
COC		16 oz/a C								
LSD P=.05			8.43		.		22.46		20.24	
Replicate F			0.602		0.000		1.444		1.673	
Replicate Prob(F)			0.6210		1.0000		0.2582		0.2033	
Treatment F			126.285		0.000		31.798		39.326	
Treatment Prob(F)			0.0001		1.0000		0.0001		0.0001	

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Scientific Name		Amaranthus pal>	Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name		Palmer amaranth	Common barnyar>	large crabgrass	Hemp sesbania
Rating Date		Jun-10-2019	Jun-10-2019	Jun-10-2019	Jun-18-2019
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit		%	%	%	%
Days After First/Last Applic.		26 26	26 26	26 26	34 34
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code	9*	10*	11*	12*
1 Untreated Check		0.0	0.0	0.0	0.0
2 Roundup PowerMAX	32 oz/a A	96.3	95.0	93.8	35.0
Command	12.8 oz/a A				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
3 Roundup PowerMAX	32 oz/a A	96.3	95.0	95.0	100.0
Command	12.8 oz/a A				
Gambit	1.0 oz/a A				
Gambit	1.0 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
4 Roundup PowerMAX	32 oz/a A	95.0	95.0	95.0	98.8
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Gambit	0.5 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
5 Roundup PowerMAX	32 oz/a A	98.8	98.8	100.0	100.0
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Permit Plus	0.75 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator:Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Amaranthus pal>		Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name			Palmer amaranth		Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date			Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			26 26		26 26		26 26		34 34	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		9*		10*		11*	
									12*	
6 Roundup PowerMAX			32 oz/a A		95.0		92.5		92.5	
Command			12.8 oz/a A						55.0	
Gambit			2.0 oz/a A							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
7 Roundup PowerMAX			32 oz/a A		97.0		91.3		85.0	
Command			12.8 oz/a A						100.0	
Gambit			2.0 oz/a A							
Permit Plus			0.75 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
8 Roundup PowerMAX			32 oz/a A		97.0		91.3		91.3	
Command			12.8 oz/a A						98.8	
Sharpen			2.0 oz/a A							
Sharpen			1.0 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
LSD P=.05			3.77		7.29		8.92		16.61	
Replicate F			0.207		0.879		0.822		0.417	
Replicate Prob(F)			0.8901		0.4678		0.4964		0.7429	
Treatment F			708.100		181.067		120.134		47.534	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Scientific Name		Aeschynomene v>	Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name		Northern joint>	Common barnyar>	large crabgrass	Hemp sesbania
Rating Date		Jun-18-2019	Jun-18-2019	Jun-18-2019	Jul-3-2019
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit		%	%	%	%
Days After First/Last Applic.		34 34	34 34	34 34	49 49
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code	13*	14*	15*	16*
1 Untreated Check		0.0	0.0	0.0	0.0
2 Roundup PowerMAX	32 oz/a A	32.5	97.5	97.5	100.0
Command	12.8 oz/a A				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
3 Roundup PowerMAX	32 oz/a A	100.0	96.3	96.3	97.8
Command	12.8 oz/a A				
Gambit	1.0 oz/a A				
Gambit	1.0 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
4 Roundup PowerMAX	32 oz/a A	100.0	97.5	97.5	99.5
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Gambit	0.5 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
5 Roundup PowerMAX	32 oz/a A	100.0	98.8	98.8	100.0
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Permit Plus	0.75 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator:Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>		Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name			Northern joint>		Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jul-3-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			34 34		34 34		34 34		49 49	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		13*		14*		15*	
6 Roundup PowerMAX			32 oz/a A		62.5		96.3		71.3	
Command			12.8 oz/a A						100.0	
Gambit			2.0 oz/a A							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
7 Roundup PowerMAX			32 oz/a A		100.0		96.3		96.3	
Command			12.8 oz/a A						100.0	
Gambit			2.0 oz/a A							
Permit Plus			0.75 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
8 Roundup PowerMAX			32 oz/a A		98.8		97.5		97.5	
Command			12.8 oz/a A						100.0	
Sharpen			2.0 oz/a A							
Sharpen			1.0 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
LSD P=.05					19.05		5.01		24.97	
Replicate F					0.489		0.179		1.091	
Replicate Prob(F)					0.6936		0.9091		0.3748	
Treatment F					36.268		406.769		16.341	
Treatment Prob(F)					0.0001		0.0001		0.0001	

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Scientific Name		Aeschynomene v>	Echinochloa cr>	Digitaria sang>	Amaranthus pal>
Pest Name		Northern joint>	Common barnyar>	large crabgrass	Palmer amaranth
Rating Date		Jul-3-2019	Jul-3-2019	Jul-3-2019	Jul-3-2019
Rating Type		CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit		%	%	%	%
Days After First/Last Applic.		49 49	49 49	49 49	49 49
Trt Treatment	Rate Appl				
No. Name	Rate Unit Code	17*	18*	19*	20*
1 Untreated Check		0.0	0.0	0.0	0.0
2 Roundup PowerMAX	32 oz/a A	100.0	100.0	100.0	100.0
Command	12.8 oz/a A				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
3 Roundup PowerMAX	32 oz/a A	100.0	97.8	100.0	100.0
Command	12.8 oz/a A				
Gambit	1.0 oz/a A				
Gambit	1.0 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
4 Roundup PowerMAX	32 oz/a A	100.0	99.5	100.0	100.0
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Gambit	0.5 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				
5 Roundup PowerMAX	32 oz/a A	100.0	100.0	100.0	100.0
Command	12.8 oz/a A				
Gambit	1.5 oz/a A				
Permit Plus	0.75 oz/a B				
Provisia	15.5 oz/a B				
COC	16 oz/a B				
Provisia	15.5 oz/a C				
COC	16 oz/a C				

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator:Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>		Echinochloa cr>		Digitaria sang>		Amaranthus pal>	
Pest Name			Northern joint>		Common barnyar>		large crabgrass		Palmer amaranth	
Rating Date			Jul-3-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			49 49		49 49		49 49		49 49	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		17*		18*		19*	
6 Roundup PowerMAX			32 oz/a A		100.0		100.0		100.0	
Command			12.8 oz/a A							
Gambit			2.0 oz/a A							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
7 Roundup PowerMAX			32 oz/a A		100.0		100.0		100.0	
Command			12.8 oz/a A							
Gambit			2.0 oz/a A							
Permit Plus			0.75 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
8 Roundup PowerMAX			32 oz/a A		100.0		100.0		100.0	
Command			12.8 oz/a A							
Sharpen			2.0 oz/a A							
Sharpen			1.0 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
LSD P=.05					.		1.24		.	
Replicate F					0.000		0.396		0.000	
Replicate Prob(F)					1.0000		0.7571		1.0000	
Treatment F					0.000		6992.196		0.000	
Treatment Prob(F)					1.0000		0.0001		1.0000	

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type		W Weed	W Weed	W Weed		
Pest Scientific Name		Sesbania herba>	Aeschynomene v>	Echinochloa cr>		
Pest Name		Hemp sesbania	Northern joint>	Common barnyar>		
Rating Date		Sep-17-2019	Sep-17-2019	Sep-17-2019	Oct-9-2019	Oct-9-2019
Rating Type		CONTRO	CONTRO	CONTRO	WEIGHT	YIELD
Rating Unit		%	%	%	lb/plot	BU
Days After First/Last Applic.		125 125	125 125	125 125	147 147	147 147
Trt Treatment	Rate Appl					
No. Name	Rate Unit Code	21*	22*	23*	24*	25*
1 Untreated Check		0.0	0.0	0.0	11.40	58.2
2 Roundup PowerMAX	32 oz/a A	47.5	80.0	96.3	30.88	157.8
Command	12.8 oz/a A					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
3 Roundup PowerMAX	32 oz/a A	100.0	100.0	97.8	33.38	170.5
Command	12.8 oz/a A					
Gambit	1.0 oz/a A					
Gambit	1.0 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
4 Roundup PowerMAX	32 oz/a A	100.0	100.0	98.8	34.03	173.9
Command	12.8 oz/a A					
Gambit	1.5 oz/a A					
Gambit	0.5 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					
5 Roundup PowerMAX	32 oz/a A	100.0	100.0	100.0	35.78	182.8
Command	12.8 oz/a A					
Gambit	1.5 oz/a A					
Permit Plus	0.75 oz/a B					
Provisia	15.5 oz/a B					
COC	16 oz/a B					
Provisia	15.5 oz/a C					
COC	16 oz/a C					

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice										
Trial ID: TRB19 RICE 05			Location:Lonoke			Trial Year:2019				
Protocol ID: Gambit Programs			Investigator:Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed			
Pest Scientific Name			Sesbania herba>		Aeschynomene v>		Echinochloa cr>			
Pest Name			Hemp sesbania		Northern joint>		Common barnyar>			
Rating Date			Sep-17-2019		Sep-17-2019		Sep-17-2019		Oct-9-2019	
Rating Type			CONTRO		CONTRO		CONTRO		WEIGHT	
Rating Unit			%		%		%		lb/plot	
Days After First/Last Applic.			125 125		125 125		125 125		147 147	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		21*		22*		23*	
6 Roundup PowerMAX			32 oz/a A		75.0		82.5		98.8	
Command			12.8 oz/a A						33.63	
Gambit			2.0 oz/a A							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
7 Roundup PowerMAX			32 oz/a A		100.0		100.0		96.5	
Command			12.8 oz/a A						34.88	
Gambit			2.0 oz/a A							
Permit Plus			0.75 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
8 Roundup PowerMAX			32 oz/a A		100.0		100.0		100.0	
Command			12.8 oz/a A						32.98	
Sharpen			2.0 oz/a A							
Sharpen			1.0 oz/a B							
Provisia			15.5 oz/a B							
COC			16 oz/a B							
Provisia			15.5 oz/a C							
COC			16 oz/a C							
LSD P=.05			19.82		22.61		3.96		6.608	
Replicate F			1.393		0.436		1.184		0.650	
Replicate Prob(F)			0.2726		0.7294		0.3398		0.5916	
Treatment F			29.698		20.162		667.310		12.662	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

(TRB19 RICE 05)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Gambit herbicide programs in drill-seeded Provisia rice

Trial ID: TRB19 RICE 05 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Programs Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY2 = 5.109565*[24]

(TRB19 RICE 06)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Oct-14-2019
Variety: PV 01
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Row Spacing: 7.5 IN
Soil Temperature: 70 F
Harvested Width: 7.5 FT
Harvested Length: 25 FT
% Standard Moisture: 12.5

Pest Description

Pest 1 Type: W **Code:** SEBEX Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Oct-14-2019
Pest 2 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth **Entry Date:** Oct-14-2019
Pest 3 Type: W **Code:** CYPES Cyperus esculentus
Common Name: Yellow nutsedge **Entry Date:** Oct-14-2019
Pest 4 Type: W **Code:** CYPIR Cyperus iria
Common Name: Rice flatsedge **Entry Date:** Oct-14-2019
Pest 5 Type: W **Code:** AESVI Aeschynomene virginica
Common Name: Northern jointvetch **Entry Date:** Oct-14-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 11
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B
Application Date	May-15-2019	Jun-14-2019
Appl. Start Time	3:00 PM	8:30 AM
Appl. Stop Time	3:20 PM	9:15 AM
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	B. Davis	B. Davis
Appl. Entry Date	Oct-14-2019	Oct-14-2019
Air Temperature Start, Stop	87 F	72 F
% Relative Humidity Start, Stop	46	51
Wind Velocity+Dir. Start	5 MPH W	2.3 MPH SE
Wet Leaves (Y/N)	N no	N no
Soil Temperature	70 F	68 F
Soil Moisture	GOOD	DRY
% Cloud Cover	70	68

(TRB19 RICE 06)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale	ORYSA	BRIC	ORYSA	BRIC
Stage Majority, Percent			tillar	
Height Average			10	in

Pest Stage At Each Application

	A		B	
Pest 1 Code, Type, Scale	SEBEX	W	SEBEX	W
Stage Majority, Percent			8-10lf	
Height Average			10	in
Height Minimum, Maximum			10	12
Density Average			3	FT2
Pest 2 Code, Type, Scale	AMAPA	W	AMAPA	W
Stage Majority, Percent			8-15lf	
Height Average			10	in
Height Minimum, Maximum			10	16
Density Average			3	FT2
Pest 3 Code, Type, Scale	CYPES	W	CYPES	W
Stage Majority, Percent			4-5 lf	
Height Average			4	IN
Height Minimum, Maximum			4	6
Density Average			3	FT2
Pest 4 Code, Type, Scale	CYPIR	W	CYPIR	W
Stage Majority, Percent			3-6lf	
Height Average			3	in
Height Minimum, Maximum			2	5
Density Average			5	FT2
Pest 5 Code, Type, Scale	AESVI		AESVI	
Stage Majority, Percent			4-5lf	
Height Average			4	in
Density Average			1	FT2

Application Equipment

	A	B
Appl. Equipment	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH
Nozzle Size	110018	110018
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	6	6
Band Width	20 IN	20 IN
Boom Length	10 FT	10 FT
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER

(TRB19 RICE 06)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

Context	Date	By	Notes
STATUS	Mar-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-14-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Sesbania herba>	Aeschynomene v>	Cyperus iria	Cyperus escul>
Pest Name	Hemp sesbania	Northern joint>	Rice flatsedge	Yellow nutsedge
Rating Date	Jun-18-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	34 4	34 4	34 4	34 4
Trt Treatment	Rate	Rate	Rate	Rate
No. Name	Rate	Rate	Rate	Rate
1 NONTREATED	0.0	0.0	0.0	0.0
Command	0.3 lb ai/a A	0.3 lb ai/a A	0.3 lb ai/a A	0.3 lb ai/a A
2 Command	70.0	67.5	12.5	15.0
Permit	0.0155 lb ai/a B	0.0155 lb ai/a B	0.0155 lb ai/a B	0.0155 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
3 Command	70.0	62.5	10.0	8.8
Permit Plus	0.0176 lb ai/a B	0.0176 lb ai/a B	0.0176 lb ai/a B	0.0176 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
4 Command	67.5	67.5	10.0	8.8
Gambit	0.0247 lb ai/a B	0.0247 lb ai/a B	0.0247 lb ai/a B	0.0247 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
5 Command	67.5	65.0	16.3	11.3
Permit	0.0314 lb ai/a B	0.0314 lb ai/a B	0.0314 lb ai/a B	0.0314 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
6 Command	72.5	72.5	17.5	17.5
Permit Plus	0.035 lb ai/a B	0.035 lb ai/a B	0.035 lb ai/a B	0.035 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
7 Command	72.5	67.5	10.0	10.0
Gambit	0.0494 lb ai/a B	0.0494 lb ai/a B	0.0494 lb ai/a B	0.0494 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
8 Command	70.0	70.0	15.0	12.5
Permit	0.047 lb ai/a B	0.047 lb ai/a B	0.047 lb ai/a B	0.047 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
9 Command	70.0	70.0	10.0	10.0
Gambit	0.074 lb ai/a B	0.074 lb ai/a B	0.074 lb ai/a B	0.074 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
10 Command	67.5	67.5	11.3	11.3
Permit	0.0623 lb ai/a B	0.0623 lb ai/a B	0.0623 lb ai/a B	0.0623 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
11 Command	60.0	62.5	11.3	8.8
Gambit	0.099 lb ai/a B	0.099 lb ai/a B	0.099 lb ai/a B	0.099 lb ai/a B
MSO	1 % v/v B	1 % v/v B	1 % v/v B	1 % v/v B
LSD P=.05	10.74	12.47	7.83	7.18
Replicate F	0.699	0.843	0.844	1.371
Replicate Prob(F)	0.5602	0.4809	0.4806	0.2707
Treatment F	31.915	22.561	2.892	3.138
Treatment Prob(F)	0.0001	0.0001	0.0118	0.0074

(TRB19 RICE 06)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Sesbania herba>	Aeschynomene v>	Cyperus iria	Cyperus escul>
Pest Name	Hemp sesbania	Northern joint>	Rice flatsedge	Yellow nutsedge
Rating Date	Jun-25-2019	Jun-25-2019	Jun-25-2019	Jun-25-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	41 11	41 11	41 11	41 11
Trt Treatment	Rate	Rate	Rate	Rate
No. Name	Unit	Unit	Unit	Unit
	Code	Code	Code	Code
	5*	6*	7*	8*
1 NONTREATED	0.0	0.0	0.0	0.0
Command	0.3 lb ai/a A			
2 Command	98.8	98.8	92.5	92.5
Permit	0.0155 lb ai/a B			
MSO	1 % v/v B			
3 Command	100.0	100.0	92.5	90.0
Permit Plus	0.0176 lb ai/a B			
MSO	1 % v/v B			
4 Command	100.0	100.0	89.8	85.0
Gambit	0.0247 lb ai/a B			
MSO	1 % v/v B			
5 Command	100.0	100.0	87.5	85.0
Permit	0.0314 lb ai/a B			
MSO	1 % v/v B			
6 Command	100.0	100.0	80.0	80.0
Permit Plus	0.035 lb ai/a B			
MSO	1 % v/v B			
7 Command	100.0	100.0	92.5	92.5
Gambit	0.0494 lb ai/a B			
MSO	1 % v/v B			
8 Command	100.0	100.0	93.8	94.5
Permit	0.047 lb ai/a B			
MSO	1 % v/v B			
9 Command	100.0	100.0	92.5	92.5
Gambit	0.074 lb ai/a B			
MSO	1 % v/v B			
10 Command	100.0	100.0	90.0	90.0
Permit	0.0623 lb ai/a B			
MSO	1 % v/v B			
11 Command	92.5	93.8	80.0	80.0
Gambit	0.099 lb ai/a B			
MSO	1 % v/v B			
LSD P=.05	1.71	1.56	15.52	16.38
Replicate F	0.405	0.645	0.296	0.124
Replicate Prob(F)	0.7502	0.5921	0.8283	0.9450
Treatment F	2563.703	3062.420	25.821	22.783
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Sesbania herba>	Aeschynomene v>	Cyperus iria	Cyperus escul>
Pest Name	Hemp sesbania	Northern joint>	Rice flatsedge	Yellow nutsedge
Rating Date	Jul-3-2019	Jul-3-2019	Jul-3-2019	Jul-3-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	49 19	49 19	49 19	49 19
Trt Treatment				
No. Name	Rate Unit Appl Code			
1 NONTREATED Command	0.3 lb ai/a A	9*	10*	11*
2 Command Permit MSO	0.3 lb ai/a A 0.0155 lb ai/a B 1 % v/v B	100.0	100.0	100.0
3 Command Permit Plus MSO	0.3 lb ai/a A 0.0176 lb ai/a B 1 % v/v B	100.0	100.0	100.0
4 Command Gambit MSO	0.3 lb ai/a A 0.0247 lb ai/a B 1 % v/v B	100.0	100.0	100.0
5 Command Permit MSO	0.3 lb ai/a A 0.0314 lb ai/a B 1 % v/v B	100.0	100.0	100.0
6 Command Permit Plus MSO	0.3 lb ai/a A 0.035 lb ai/a B 1 % v/v B	100.0	100.0	100.0
7 Command Gambit MSO	0.3 lb ai/a A 0.0494 lb ai/a B 1 % v/v B	100.0	100.0	100.0
8 Command Permit MSO	0.3 lb ai/a A 0.047 lb ai/a B 1 % v/v B	100.0	100.0	100.0
9 Command Gambit MSO	0.3 lb ai/a A 0.074 lb ai/a B 1 % v/v B	100.0	100.0	100.0
10 Command Permit MSO	0.3 lb ai/a A 0.0623 lb ai/a B 1 % v/v B	100.0	100.0	100.0
11 Command Gambit MSO	0.3 lb ai/a A 0.099 lb ai/a B 1 % v/v B	100.0	100.0	100.0
LSD P=.05	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Sesbania herba>	Aeschynomene v>	Cyperus iria	Cyperus escul>
Pest Name	Hemp sesbania	Northern joint>	Rice flatsedge	Yellow nutsedge
Rating Date	Jul-12-2019	Jul-12-2019	Jul-12-2019	Jul-12-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	58 28	58 28	58 28	58 28
Trt Treatment				
No. Name	Rate Unit Appl Code			
1 NONTREATED Command	0.3 lb ai/a A	13*	14*	15*
2 Command Permit MSO	0.3 lb ai/a A 0.0155 lb ai/a B 1 % v/v B	100.0	100.0	100.0
3 Command Permit Plus MSO	0.3 lb ai/a A 0.0176 lb ai/a B 1 % v/v B	100.0	100.0	100.0
4 Command Gambit MSO	0.3 lb ai/a A 0.0247 lb ai/a B 1 % v/v B	100.0	100.0	100.0
5 Command Permit MSO	0.3 lb ai/a A 0.0314 lb ai/a B 1 % v/v B	100.0	100.0	100.0
6 Command Permit Plus MSO	0.3 lb ai/a A 0.035 lb ai/a B 1 % v/v B	100.0	100.0	100.0
7 Command Gambit MSO	0.3 lb ai/a A 0.0494 lb ai/a B 1 % v/v B	100.0	100.0	100.0
8 Command Permit MSO	0.3 lb ai/a A 0.047 lb ai/a B 1 % v/v B	100.0	100.0	100.0
9 Command Gambit MSO	0.3 lb ai/a A 0.074 lb ai/a B 1 % v/v B	100.0	100.0	100.0
10 Command Permit MSO	0.3 lb ai/a A 0.0623 lb ai/a B 1 % v/v B	100.0	100.0	100.0
11 Command Gambit MSO	0.3 lb ai/a A 0.099 lb ai/a B 1 % v/v B	100.0	100.0	100.0
LSD P=.05	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000

(TRB19 RICE 06)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

Pest Type	W Weed	W Weed		
Pest Scientific Name	Sesbania herba>	Aeschynomene v>		
Pest Name	Hemp sesbania	Northern joint>		
Rating Date	Sep-17-2019	Sep-17-2019	Oct-8-2019	Oct-8-2019
Rating Type	CONTRO	CONTRO	WEIGHT	YIELD
Rating Unit	%	%	lb/plot	BU
Days After First/Last Applic.	125 95	125 95	146 116	146 116
Trt Treatment	Rate	Appl		
No. Name	Rate	Unit Code	17*	18*
1 NONTREATED				
Command	0.3 lb ai/a A		10.25	52.9
2 Command	0.3 lb ai/a A		36.65	189.2
Permit	0.0155 lb ai/a B			
MSO	1 % v/v B			
3 Command	0.3 lb ai/a A		34.08	175.9
Permit Plus	0.0176 lb ai/a B			
MSO	1 % v/v B			
4 Command	0.3 lb ai/a A		35.85	185.1
Gambit	0.0247 lb ai/a B			
MSO	1 % v/v B			
5 Command	0.3 lb ai/a A		35.65	184.0
Permit	0.0314 lb ai/a B			
MSO	1 % v/v B			
6 Command	0.3 lb ai/a A		34.43	177.7
Permit Plus	0.035 lb ai/a B			
MSO	1 % v/v B			
7 Command	0.3 lb ai/a A		34.93	180.3
Gambit	0.0494 lb ai/a B			
MSO	1 % v/v B			
8 Command	0.3 lb ai/a A		33.33	172.0
Permit	0.047 lb ai/a B			
MSO	1 % v/v B			
9 Command	0.3 lb ai/a A		33.60	173.5
Gambit	0.074 lb ai/a B			
MSO	1 % v/v B			
10 Command	0.3 lb ai/a A		36.80	190.0
Permit	0.0623 lb ai/a B			
MSO	1 % v/v B			
11 Command	0.3 lb ai/a A		35.73	184.4
Gambit	0.099 lb ai/a B			
MSO	1 % v/v B			
LSD P=.05	2.18	8.78	4.631	23.91
Replicate F	1.000	0.898	0.111	0.111
Replicate Prob(F)	0.4064	0.4536	0.9531	0.9531
Treatment F	1593.000	90.602	22.367	22.367
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

(TRB19 RICE 06)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of ALS-inhibiting herbicides post-flood for weed control in a salvage situation

Trial ID: TRB19 RICE 06 Location: Lonoke Trial Year: 2019
 Protocol ID: Gambit Salvage Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY2 = 5.162667*[19]

(TRB19 RICE 07)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07 Location: Lonoke Trial Year: 2019
 Protocol ID: Rogue Post Flood Investigator: Thomas R. Butts

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Nov-1-2019
Variety: PV01
Planting Date: May-16-2019 **Planting Rate:** 90 LB/A
Harvested Width: 7.5 FT
Harvested Length: 20 FT
% Standard Moisture: 12.5

Pest Description

Pest 1 Type: W ECHC Echinochloa crus-galli
Common Name: Common barnyard grass **Entry Date:** Nov-1-2019

Pest 2 Type: W Code: DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Entry Date:** Nov-1-2019

Pest 3 Type: W Code: AMAPA Amaranthus palmeri
Common Name: Palmer amaranth **Entry** Nov-1-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 20 FT
Treated Plot Area: 200 FT² **Treatments:** 27
Replications: 3 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A
Application Date	Jun-25-2019
Appl. Start Time	10:00 AM
Appl. Stop Time	12:00 PM
Application Method	SPRAY
Application Placement	BROADC
Applied By	B. Davis
Appl. Entry Date	Nov-1-2019
Air Temperature Start, Stop	85 F
% Relative Humidity Start, Stop	66
Wind Velocity+Dir. Start	5 MPH S
Wet Leaves (Y/N)	N no
Soil Temperature	85 F
Soil Moisture	flooded
% Cloud Cover	40

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSA BRIC
Stage Majority, Percent	tiller
Height Average	16 in

(TRB19 RICE 07)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07

Location: Lonoke

Trial Year: 2019

Protocol ID: Rogue Post Flood

Investigator: Thomas R. Butts

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	ECHCG W
Stage Majority, Percent	3 lf
Height Average	12 in
Height Minimum, Maximum	6 16
Density Average	5 FT2
Pest 2 Code, Type, Scale	DIGSA W
Stage Majority, Percent	5 lf
Height Average	12 in
Height Minimum, Maximum	6 16
Density Average	5 FT2
Pest 3 Code, Type, Scale	AMAPA W
Stage Majority, Percent	5 lf
Height Average	8 in
Density Average	2 FT2

Application Equipment

	A
Appl. Equipment	BD- Tractor
Equipment Type	SPRAYE
Operation Pressure	34 PSI
Nozzle Type	ARINDH
Nozzle Size	110018
Nozzle Spacing	20 IN
Nozzles/Row	6
Band Width	20 IN
Boom Length	10 FT
Ground Speed	4 MPH
Carrier	WATER

Context	Date	By	Notes
STATUS	Mar-21-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-1-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 07)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07

Location: Lonoke

Trial Year: 2019

Protocol ID: Rogue Post Flood Investigator: Thomas R. Butts

Instructions:

The objective of this protocol is to evaluate graminicide tank-mix partners with Rogue for control of *Echinochloa* in a post-flood post-emergence application to drill-seeded Provisia rice.

The 4 replicate trial will require 3 bays, one for containment of each of the Rogue rates (8.4 and 12.6 oz./A.) and the third for the graminicides applied alone. The benzobicyclon rate will be equivalent to 100 and 150 g. a.i./A. and will be applied alone and as simulated tank-mixes with the graminicide partners.

The graminicide partners should be applied first and then Rogue applied sequentially to the benzobicyclon bays with minimal disturbance of the water in the bays. The entire surface area of the bay must be treated uniformly with benzobicyclon to avoid dilution.

An MSO-containing surfactant (1.0 % v/v) should be included with the Rogue applications and the graminicide tank-mix partner should also include the MSO surfactant or the recommended surfactant for the respective graminicide.

Pest Type				W Weed	W Weed	W Weed	W Weed
Pest Scientific Name				Echinochloa cr>	Echinochloa cr>	Digitaria sang>	Echinochloa cr>
Pest Name				Common barnyar>	Common barnyar>	large crabgrass	Common barnyar>
Rating Date				Jul-3-2019	Jul-12-2019	Jul-12-2019	Jul-18-2019
Rating Type				CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit				%	%	%	%
Days After First/Last Applic.				8	17	17	23
Trt Treatment	Rate	Appl					
No. Name	Rate Unit	Code		1*	2*	3*	4*
1 No Rogue or Rogue Plus Untreated Check				0.0	0.0	0.0	0.0
2 Grasp MSO	2 oz/a A 1.0 % v/v A			43.3	66.7	63.3	76.7
3 Regiment Dyne-A-Pak	0.5 oz/a A 1.0 % v/v A			53.3	85.0	83.3	91.0
4 Clincher MSO	13.5 oz/a A 1.0 % v/v A			66.7	66.7	83.3	73.3
5 Beyond MSO	5.0 oz/a A 1.0 % v/v A			63.3	92.7	95.0	90.0
6 Targa MSO	13 oz/a A 1.0 % v/v A			73.3	89.3	95.0	92.0
7 Facet MSO	22 oz/a A 1.0 % v/v A			63.3	86.0	94.3	91.0
8 Loyant MSO	8.0 oz/a A 1.0 % v/v A			73.3	80.0	78.3	90.0
9 Loyant MSO	16.0 oz/a A 1.0 % v/v A			56.7	80.0	80.0	83.3
10 Rogue MSO	8.4 oz/a A 1.0 % v/v A			26.7	53.3	56.7	56.7
11 Rogue Grasp MSO	8.4 oz/a A 2 oz/a A 1.0 % v/v A			63.3	86.7	86.7	90.0
12 Rogue Regiment Dyne-A-Pak	8.4 oz/a A 0.5 oz/a A 1.0 % v/v A			80.0	98.0	97.7	97.0

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control										
Trial ID: TRB19 RICE 07			Location: Lonoke			Trial Year: 2019				
Protocol ID: Rogue Post Flood			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Echinochloa cr>		Digitaria sang>		Echinochloa cr>	
Pest Name			Common barnyar>		Common barnyar>		large crabgrass		Common barnyar>	
Rating Date			Jul-3-2019		Jul-12-2019		Jul-12-2019		Jul-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			8		17		17		23	
Trt Treatment			Rate		Appl					
No. Name			Rate Unit		Code					
			1*		2*		3*		4*	
13 Rogue			8.4 oz/a		A		70.0		90.0	
Clincher			13.5 oz/a		A		93.3		88.3	
MSO			1.0 % v/v		A					
14 Rogue			8.4 oz/a		A		73.3		90.0	
Beyond			5.0 oz/a		A		91.7		90.0	
MSO			1.0 % v/v		A					
15 Rogue			8.4 oz/a		A		83.3		94.3	
Targa			13.0 oz/a		A		98.3		96.0	
MSO			1.0 % v/v		A					
16 Rogue			8.4 oz/a		A		66.7		97.0	
Facet			22 oz/a		A		97.0		94.3	
MSO			1.0 % v/v		A					
17 Rogue			8.4 oz/a		A		56.7		83.3	
Loyant			8.0 oz/a		A		89.3		85.0	
MSO			1.0 % v/v		A					
18 Rogue			8.4 oz/a		A		70.0		90.0	
Loyant			16.0 oz/a		A		96.7		93.3	
MSO			1.0 % v/v		A					
19 Rogue			12.6 oz/a		A		23.3		46.7	
MSO			1.0 % v/v		A		63.3		60.0	
20 Rogue			12.6 oz/a		A		66.7		86.7	
Grasp			2 oz/a		A		91.0		91.7	
MSO			1.0 % v/v		A					
21 Rogue			12.6 oz/a		A		66.7		93.3	
Regiment			0.5 oz/a		A		95.3		97.0	
Dyne-A-Pak			1.0 % v/v		A					
22 Rogue			12.6 oz/a		A		76.7		94.3	
Clincher			13.5 oz/a		A		97.0		92.7	
MSO			1.0 % v/v		A					
23 Rogue			12.6 oz/a		A		73.3		90.0	
Beyond			5.0 oz/a		A		90.0		91.7	
MSO			1.0 % v/v		A					
24 Rogue			12.6 oz/a		A		80.0		95.3	
Targa			13.0 oz/a		A		94.3		95.3	
MSO			1.0 % v/v		A					
25 Rogue			12.6 oz/a		A		66.7		95.3	
Facet			22 oz/a		A		97.0		88.7	
MSO			1.0 % v/v		A					
26 Rogue			12.6 oz/a		A		60.0		83.3	
Loyant			8.0 oz/a		A		88.3		88.3	
MSO			1.0 % v/v		A					

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control										
Trial ID: TRB19 RICE 07			Location:Lonoke			Trial Year:2019				
Protocol ID: Rogue Post Flood			Investigator:Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Echinochloa cr>		Digitaria sang>		Echinochloa cr>	
Pest Name			Common barnyar>		Common barnyar>		large crabgrass		Common barnyar>	
Rating Date			Jul-3-2019		Jul-12-2019		Jul-12-2019		Jul-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			8		17		17		23	
Trt Treatment			Rate Appl		Rate Appl		Rate Appl		Rate Appl	
No. Name			Rate Unit Code		Rate Unit Code		Rate Unit Code		Rate Unit Code	
			1*		2*		3*		4*	
27 Rogue			12.6 oz/a A		70.0		91.7		92.7	
Loyant			16.0 oz/a A							
MSO			1.0 % v/v A							
LSD P=.05			17.62		11.88		14.05		20.09	
Replicate F			0.523		1.047		1.723		2.967	
Replicate Prob(F)			0.5957		0.3583		0.1886		0.0602	
Treatment F			9.189		24.417		16.769		7.668	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07 Location: Lonoke Trial Year: 2019
 Protocol ID: Rogue Post Flood Investigator: Thomas R. Butts

Pest Type			W Weed	W Weed	W Weed	W Weed
Pest Scientific Name			Digitaria sang>	Amaranthus pal>	Echinochloa cr>	Digitaria sang>
Pest Name			large crabgrass	Palmer amaranth	Common barnyar>	large crabgrass
Rating Date			Jul-18-2019	Jul-18-2019	Sep-18-2019	Sep-18-2019
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%	%
Days After First/Last Applic.			23 23	23 23	85 85	85 85
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code	5*	6*	7*	8*
1 No Rogue or Rogue Plus Untreated Check			0.0	0.0	0.0	0.0
2 Grasp MSO	2 oz/a A 1.0 % v/v A		66.7	78.3	73.3	23.3
3 Regiment Dyne-A-Pak	0.5 oz/a A 1.0 % v/v A		91.7	91.7	91.7	50.0
4 Clincher MSO	13.5 oz/a A 1.0 % v/v A		93.3	94.3	86.7	80.0
5 Beyond MSO	5.0 oz/a A 1.0 % v/v A		93.3	93.3	80.0	86.7
6 Targa MSO	13 oz/a A 1.0 % v/v A		96.7	98.3	90.0	93.3
7 Facet MSO	22 oz/a A 1.0 % v/v A		94.3	90.0	83.3	63.3
8 Loyant MSO	8.0 oz/a A 1.0 % v/v A		88.3	96.7	73.3	30.0
9 Loyant MSO	16.0 oz/a A 1.0 % v/v A		70.0	91.7	70.0	16.7
10 Rogue MSO	8.4 oz/a A 1.0 % v/v A		90.0	100.0	50.0	56.7
11 Rogue Grasp MSO	8.4 oz/a A 2 oz/a A 1.0 % v/v A		83.3	100.0	80.0	70.0
12 Rogue Regiment Dyne-A-Pak	8.4 oz/a A 0.5 oz/a A 1.0 % v/v A		98.7	100.0	93.3	83.3

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control									
Trial ID: TRB19 RICE 07			Location:Lonoke			Trial Year:2019			
Protocol ID: Rogue Post Flood			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Amaranthus pal>		Echinochloa cr>	
Pest Name				large crabgrass		Palmer amaranth		Common barnyar>	
Rating Date				Jul-18-2019		Jul-18-2019		Sep-18-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				23 23		23 23		85 85	
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	5*		6*		7*	
13	Rogue	8.4 oz/a	A	96.0		100.0		86.7	
	Clincher	13.5 oz/a	A						
	MSO	1.0 % v/v	A						
14	Rogue	8.4 oz/a	A	91.7		98.3		66.7	
	Beyond	5.0 oz/a	A						
	MSO	1.0 % v/v	A						
15	Rogue	8.4 oz/a	A	100.0		100.0		92.7	
	Targa	13.0 oz/a	A						
	MSO	1.0 % v/v	A						
16	Rogue	8.4 oz/a	A	100.0		100.0		85.0	
	Facet	22 oz/a	A						
	MSO	1.0 % v/v	A						
17	Rogue	8.4 oz/a	A	86.7		100.0		80.0	
	Loyant	8.0 oz/a	A						
	MSO	1.0 % v/v	A						
18	Rogue	8.4 oz/a	A	98.3		100.0		89.3	
	Loyant	16.0 oz/a	A						
	MSO	1.0 % v/v	A						
19	Rogue	12.6 oz/a	A	83.3		100.0		53.3	
	MSO	1.0 % v/v	A						
20	Rogue	12.6 oz/a	A	91.7		100.0		80.0	
	Grasp	2 oz/a	A						
	MSO	1.0 % v/v	A						
21	Rogue	12.6 oz/a	A	93.3		100.0		94.3	
	Regiment	0.5 oz/a	A						
	Dyne-A-Pak	1.0 % v/v	A						
22	Rogue	12.6 oz/a	A	95.0		100.0		90.0	
	Clincher	13.5 oz/a	A						
	MSO	1.0 % v/v	A						
23	Rogue	12.6 oz/a	A	98.3		100.0		56.7	
	Beyond	5.0 oz/a	A						
	MSO	1.0 % v/v	A						
24	Rogue	12.6 oz/a	A	99.3		100.0		91.7	
	Targa	13.0 oz/a	A						
	MSO	1.0 % v/v	A						
25	Rogue	12.6 oz/a	A	97.0		100.0		83.3	
	Facet	22 oz/a	A						
	MSO	1.0 % v/v	A						
26	Rogue	12.6 oz/a	A	88.3		100.0		76.7	
	Loyant	8.0 oz/a	A						
	MSO	1.0 % v/v	A						

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control												
Trial ID: TRB19 RICE 07			Location:Lonoke			Trial Year:2019						
Protocol ID: Rogue Post Flood			Investigator: Thomas R. Butts									
Pest Type			W Weed		W Weed		W Weed		W Weed			
Pest Scientific Name			Digitaria sang>		Amaranthus pal>		Echinochloa cr>		Digitaria sang>			
Pest Name			large crabgrass		Palmer amaranth		Common barnyar>		large crabgrass			
Rating Date			Jul-18-2019		Jul-18-2019		Sep-18-2019		Sep-18-2019			
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO			
Rating Unit			%		%		%		%			
Days After First/Last Applic.			23 23		23 23		85 85		85 85			
Trt Treatment		Rate	Appl									
No.	Name	Rate	Unit	Code	5*		6*		7*		8*	
27	Rogue	12.6 oz/a	A	91.7		100.0		89.3		76.7		
	Loyant	16.0 oz/a	A									
	MSO	1.0 % v/v	A									
LSD P=.05				14.43		6.55		13.73		22.84		
Replicate F				2.149		0.571		4.038		7.764		
Replicate Prob(F)				0.1268		0.5685		0.0234		0.0011		
Treatment F				14.526		70.494		16.542		11.222		
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001		

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07 Location: Lonoke Trial Year: 2019
 Protocol ID: Rogue Post Flood Investigator: Thomas R. Butts

Pest Type				Oct-3-2019 WEIGHT lb/plot 100 100	Oct-3-2019 YIELD BU 100 100
Pest Scientific Name					
Pest Name					
Rating Date					
Rating Type					
Rating Unit					
Days After First/Last Applic.					
Trt No.	Treatment Name	Rate	Appl Code	9*	10*
		Rate Unit			
1	No Rogue or Rogue Plus Untreated Check			20.03	93.9
2	Grasp MSO	2 oz/a 1.0 % v/v	A A	19.90	93.2
3	Regiment Dyne-A-Pak	0.5 oz/a 1.0 % v/v	A A	23.67	110.9
4	Clincher MSO	13.5 oz/a 1.0 % v/v	A A	22.30	104.5
5	Beyond MSO	5.0 oz/a 1.0 % v/v	A A	7.60	35.6
6	Targa MSO	13 oz/a 1.0 % v/v	A A	26.97	126.3
7	Facet MSO	22 oz/a 1.0 % v/v	A A	25.03	117.3
8	Loyant MSO	8.0 oz/a 1.0 % v/v	A A	21.53	100.9
9	Loyant MSO	16.0 oz/a 1.0 % v/v	A A	21.73	101.8
10	Rogue MSO	8.4 oz/a 1.0 % v/v	A A	21.77	102.0
11	Rogue Grasp MSO	8.4 oz/a 2 oz/a 1.0 % v/v	A A A	25.70	120.4
12	Rogue Regiment Dyne-A-Pak	8.4 oz/a 0.5 oz/a 1.0 % v/v	A A A	26.73	125.2

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control						
Trial ID: TRB19 RICE 07			Location: Lonoke		Trial Year: 2019	
Protocol ID: Rogue Post Flood			Investigator: Thomas R. Butts			
Pest Type						
Pest Scientific Name						
Pest Name						
Rating Date			Oct-3-2019	Oct-3-2019		
Rating Type			WEIGHT	YIELD		
Rating Unit			lb/plot	BU		
Days After First/Last Applic.			100	100	100	100
Trt No.	Treatment Name	Rate	Appl Code	9*	10*	
		Rate Unit				
13	Rogue Clincher MSO	8.4 oz/a 13.5 oz/a 1.0 % v/v	A A A	25.33	118.7	
14	Rogue Beyond MSO	8.4 oz/a 5.0 oz/a 1.0 % v/v	A A A	11.23	52.6	
15	Rogue Targa MSO	8.4 oz/a 13.0 oz/a 1.0 % v/v	A A A	27.80	130.2	
16	Rogue Facet MSO	8.4 oz/a 22 oz/a 1.0 % v/v	A A A	26.37	123.5	
17	Rogue Loyant MSO	8.4 oz/a 8.0 oz/a 1.0 % v/v	A A A	24.37	114.2	
18	Rogue Loyant MSO	8.4 oz/a 16.0 oz/a 1.0 % v/v	A A A	27.20	127.4	
19	Rogue MSO	12.6 oz/a 1.0 % v/v	A A	20.37	95.4	
20	Rogue Grasp MSO	12.6 oz/a 2 oz/a 1.0 % v/v	A A A	24.63	115.4	
21	Rogue Regiment Dyne-A-Pak	12.6 oz/a 0.5 oz/a 1.0 % v/v	A A A	28.30	132.6	
22	Rogue Clincher MSO	12.6 oz/a 13.5 oz/a 1.0 % v/v	A A A	25.63	120.1	
23	Rogue Beyond MSO	12.6 oz/a 5.0 oz/a 1.0 % v/v	A A A	7.53	35.3	
24	Rogue Targa MSO	12.6 oz/a 13.0 oz/a 1.0 % v/v	A A A	26.60	124.6	
25	Rogue Facet MSO	12.6 oz/a 22 oz/a 1.0 % v/v	A A A	27.00	126.5	
26	Rogue Loyant MSO	12.6 oz/a 8.0 oz/a 1.0 % v/v	A A A	25.17	117.9	

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control					
Trial ID: TRB19 RICE 07		Location:Lonoke		Trial Year:2019	
Protocol ID: Rogue Post Flood		Investigator: Thomas R. Butts			
Pest Type					
Pest Scientific Name					
Pest Name					
Rating Date		Oct-3-2019		Oct-3-2019	
Rating Type		WEIGHT		YIELD	
Rating Unit		lb/plot		BU	
Days After First/Last Applic.		100	100	100	100
Trt	Treatment	Rate	Appl		
No.	Name	Rate Unit	Code	9*	10*
27	Rogue	12.6 oz/a	A	23.83	111.7
	Loyant	16.0 oz/a	A		
	MSO	1.0 % v/v	A		
LSD P=.05		3.656		17.13	
Replicate F		6.637		6.637	
Replicate Prob(F)		0.0027		0.0027	
Treatment F		18.939		18.939	
Treatment Prob(F)		0.0001		0.0001	

(TRB19 RICE 07)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Tank-mixtures with benzobicyclon for post-flood weed control

Trial ID: TRB19 RICE 07

Location: Lonoke

Trial Year: 2019

Protocol ID: Rogue Post Flood

Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 4.68512*[9]

(TRB19 RICE 09)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield

Trial ID: TRB19 RICE 09 Location: Lonoke Trial Year: 2019
 Protocol ID: Programs Barnyard Control Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Sep-24-2019
Variety: CL 153
Planting Date: May-16-2019 **Planting Rate:** 90 LB/A
Harvested Width: 7.5 FT
% Standard Moisture: 12.5 **Harvested** 25 FT

Pest Description

Pest 1 Type: W **ECHCG** Echinochloa crus-galli
Common Name: Common barnyard grass **Entry Date:** Jun-4-2019
Pest 2 Type: W **Code:** CYPIR Cyperus iria
Common Name: Rice flatsedge **Entry Date:** Jun-4-2019
Pest 3 Type: W **Code:** SEBEX Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Jun-4-2019
Pest 4 Type: W **Code:** AESVI Aeschynomene virginica
Common Name: Northern jointvetch **Entry Date:** Jun-4-2019
Pest 5 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Entry** Jun-4-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 12
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C
Application Date	May-17-2019	Jun-3-2019	Jun-14-2019
Appl. Start Time	7:00 AM	2:00 PM	12:45 PM
Appl. Stop Time	7:30 AM		1:15 PM
Application Method	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Sep-24-2019	Jun-4-2019	Sep-24-2019
Air Temperature Start, Stop	70 F	87 F	84 F
% Relative Humidity Start, Stop	60	56	34
Wind Velocity+Dir. Start	5.3 MPH SW	2.9 MPH E	4.5 MPH S
Wet Leaves (Y/N)	N no	N no	N no
Soil Temperature	72 F	80 F	70 F
Soil Moisture	SLIWET	DRY	DRY
% Cloud Cover	5	80	40

(TRB19 RICE 09)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield

Trial ID: TRB19 RICE 09

Location: Lonoke

Trial Year: 2019

Protocol ID: Programs Barnyard Control

Investigator: Thomas R. Butts

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		3 lf	2 tiller
Height Average		5 IN	10 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent		3lf	tillar
Height Average			10 IN
Pest 2 Code, Type, Scale	CYPIR W	CYPIR W	CYPIR W
Stage Majority, Percent		3lf	4lf
Height Average			4 IN
Pest 3 Code, Type, Scale	SEBEX W	SEBEX W	SEBEX W
Stage Majority, Percent		4lf	5 lf
Height Average			9 IN
Pest 4 Code, Type, Scale	AESVI	AESVI	AESVI
Stage Majority, Percent		3lf	4 lf
Height Average			6 IN
Pest 5 Code, Type, Scale	DIGSA W	DIGSA W	DIGSA W
Stage Majority, Percent		2lf	4 lf
Height Average			6 IN

Application Equipment

	B	C
Appl. Equipment	BD- Tractor	
Equipment Type	SPRAYE	
Operation Pressure	34 PSI	
Nozzle Type	ARINDH	
Nozzle Size	110018	
Nozzle Spacing	20 IN	
Nozzles/Row	6	
Band Width	20 IN	
Boom Length	10 FT	
Ground Speed	4 MPH	
Carrier	WATER	

Context	Date	By	Notes
STATUS	Mar-25-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-4-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09			Location:Lonoke			Trial Year: 2019			
Protocol ID: Programs Barnyard Control			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Echinochloa cr>	
Pest Name				Common barnyar>		large crabgrass		Common barnyar>	
Rating Date				May-31-2019		May-31-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				14		14		24	
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	1*		2*		3*	
1	Untreated Check			0.0		0.0		0.0	
2	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		90.0	
3	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		91.3	
	Loyant	1 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
4	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		92.0	
	RebelEX	18 oz/a	B						
	MSO CONCENTRATE	1 qt/a	B						
	Loyant	1 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
5	COMMAND 3ME	12.8 oz/a	A	90.2		90.2		94.6	
	GRASP SC	2.3 oz/a	B						
	MSO CONCENTRATE	1 qt/a	B						
	Loyant	1 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
6	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		92.5	
	GRASP SC	2.3 oz/a	B						
	MSO CONCENTRATE	1 qt/a	B						
	CYHALOFOP-BUTYL + XDE-848 BE	1.78 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
7	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		96.3	
	FACET L	32 oz/a	B						
	PROWL H2O	32 oz/a	B						
	MSO CONCENTRATE	1 % v/v	B						
	Loyant	1 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
8	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		95.0	
	FACET L	32 oz/a	B						
	PROWL H2O	32 oz/a	B						
	MSO CONCENTRATE	1 % v/v	B						
	CYHALOFOP-BUTYL + XDE-848 BE	1.78 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
9	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		92.5	
	PENOXSULAM + XDE-848 BE	1.45 pt/a	B						
	MSO CONCENTRATE	0.5 pt/a	B						
	RICESTAR	24 oz/a	C						
	FACET L	32 oz/a	C						
	MSO CONCENTRATE	1 % v/v	C						
10	COMMAND 3ME	12.8 oz/a	A	90.0		90.0		92.0	
	NEWPATH	6 oz/a	B						
	MSO CONCENTRATE	1 % v/v	B						
	Loyant	1 pt/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 7,10,13,15 because error mean square = 0.

(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09				Location:Lonoke			Trial Year: 2019		
Protocol ID: Programs Barnyard Control				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Echinochloa cr>	
Pest Name				Common barnyar>		large crabgrass		Common barnyar>	
Rating Date				May-31-2019		May-31-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				14		14		24	
Trt Treatment				Rate		Rate		Rate	
No. Name				Rate Unit		Rate Unit		Rate Unit	
				Appl		Appl		Appl	
				Code		Code		Code	
				1*		2*		3*	
11 COMMAND 3ME				12.8 oz/a		12.8 oz/a		12.8 oz/a	
BOLERO 8EC				3 pt/a		3 pt/a		3 pt/a	
PROWL H2O				32 oz/a		32 oz/a		32 oz/a	
PROPANIL				4 qt/a		4 qt/a		4 qt/a	
STRADA XT2				8 oz/a		8 oz/a		8 oz/a	
MSO CONCENTRATE				0.5 pt/a		0.5 pt/a		0.5 pt/a	
				A		A		A	
				B		B		B	
				C		C		C	
				C		C		C	
				C		C		C	
12 COMMAND 3ME				12.8 oz/a		12.8 oz/a		12.8 oz/a	
FACET L				32 oz/a		32 oz/a		32 oz/a	
PROWL H2O				32 oz/a		32 oz/a		32 oz/a	
MSO CONCENTRATE				1 pt/a		1 pt/a		1 pt/a	
Loyant				8 oz/a		8 oz/a		8 oz/a	
MSO CONCENTRATE				0.5 pt/a		0.5 pt/a		0.5 pt/a	
				A		A		A	
				B		B		B	
				B		B		B	
				B		B		B	
				C		C		C	
				C		C		C	
LSD P=.05				2.33		2.33		6.77	
Replicate F				1.315		1.315		2.972	
Replicate Prob(F)				0.2865		0.2865		0.0463	
Treatment F				1059.070		1059.070		133.380	
Treatment Prob(F)				0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield						
Trial ID: TRB19 RICE 09		Location:Lonoke		Trial Year:2019		
Protocol ID: Programs Barnyard Control		Investigator: Thomas R. Butts				
Pest Type			W Weed	W Weed	W Weed	
Pest Scientific Name			Digitaria sang>	Sesbania herba>	Cyperus escul>	
Pest Name			large crabgrass	Hemp sesbania	Yellow nutsedge	
Rating Date			Jun-10-2019	Jun-10-2019	Jun-10-2019	
Rating Type			CONTRO	CONTRO	CONTRO	
Rating Unit			%	%	%	
Days After First/Last Applic.			24	24	24	7
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	4*	5*	6*
1	Untreated Check			0.0	0.0	0.0
2	COMMAND 3ME	12.8 oz/a	A	90.0	0.0	0.0
3	COMMAND 3ME	12.8 oz/a	A	91.3	0.0	0.0
	Loyant	1 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
4	COMMAND 3ME	12.8 oz/a	A	92.5	97.0	35.0
	RebelEX	18 oz/a	B			
	MSO CONCENTRATE	1 qt/a	B			
	Loyant	1 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
5	COMMAND 3ME	12.8 oz/a	A	94.0	98.7	10.9
	GRASP SC	2.3 oz/a	B			
	MSO CONCENTRATE	1 qt/a	B			
	Loyant	1 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
6	COMMAND 3ME	12.8 oz/a	A	87.5	97.5	15.0
	GRASP SC	2.3 oz/a	B			
	MSO CONCENTRATE	1 qt/a	B			
	CYHALOFOP-BUTYL + XDE-848 BE	1.78 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
7	COMMAND 3ME	12.8 oz/a	A	96.3	77.5	10.0
	FACET L	32 oz/a	B			
	PROWL H2O	32 oz/a	B			
	MSO CONCENTRATE	1 % v/v	B			
	Loyant	1 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
8	COMMAND 3ME	12.8 oz/a	A	95.0	87.5	27.5
	FACET L	32 oz/a	B			
	PROWL H2O	32 oz/a	B			
	MSO CONCENTRATE	1 % v/v	B			
	CYHALOFOP-BUTYL + XDE-848 BE	1.78 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
9	COMMAND 3ME	12.8 oz/a	A	90.0	96.3	25.0
	PENOX SULAM + XDE-848 BE	1.45 pt/a	B			
	MSO CONCENTRATE	0.5 pt/a	B			
	RICESTAR	24 oz/a	C			
	FACET L	32 oz/a	C			
	MSO CONCENTRATE	1 % v/v	C			
10	COMMAND 3ME	12.8 oz/a	A	91.3	0.0	17.5
	NEWPATH	6 oz/a	B			
	MSO CONCENTRATE	1 % v/v	B			
	Loyant	1 pt/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			

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

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* Adjusted means

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield						
Trial ID: TRB19 RICE 09		Location:Lonoke		Trial Year:2019		
Protocol ID: Programs Barnyard Control		Investigator:Thomas R. Butts				
Pest Type			W Weed	W Weed	W Weed	
Pest Scientific Name			Digitaria sang>	Sesbania herba>	Cyperus escul>	
Pest Name			large crabgrass	Hemp sesbania	Yellow nutsedge	
Rating Date			Jun-10-2019	Jun-10-2019	Jun-10-2019	
Rating Type			CONTRO	CONTRO	CONTRO	
Rating Unit			%	%	%	
Days After First/Last Applic.			24	24	24	7
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	4*	5*	6*
11	COMMAND 3ME	12.8 oz/a	A	98.8	0.0	42.0
	BOLERO 8EC	3 pt/a	B			
	PROWL H2O	32 oz/a	B			
	PROPANIL	4 qt/a	C			
	STRADA XT2	8 oz/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
12	COMMAND 3ME	12.8 oz/a	A	96.3	91.3	5.0
	FACET L	32 oz/a	B			
	PROWL H2O	32 oz/a	B			
	MSO CONCENTRATE	1 pt/a	B			
	Loyant	8 oz/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
LSD P=.05				6.50	8.79	32.53
Replicate F				5.876	0.941	0.178
Replicate Prob(F)				0.0026	0.4324	0.9107
Treatment F				143.060	240.401	1.571
Treatment Prob(F)				0.0001	0.0001	0.1552

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09			Location:Lonoke			Trial Year: 2019			
Protocol ID: Programs Barnyard Control			Investigator: Thomas R. Butts						
Pest Type				Jun-10-2019 PHYGEN %	W Weed		W Weed		Jun-18-2019 PHYGEN %
Pest Scientific Name					Echinochloa cr>		Digitaria sang>		
Pest Name					Common barnyar>		large crabgrass		
Rating Date					Jun-18-2019		Jun-18-2019		
Rating Type					CONTRO		CONTRO		
Rating Unit					%		%		
Days After First/Last Applic.					24		32		
Trt Treatment				7		4		4	
Rate				32		32		32	
Appl				7		4		4	
No. Name				7*		8*		10*	
1 Untreated Check				0.0		0.0		0.0	
2 COMMAND 3ME				12.8 oz/a		A		0.0	
3 COMMAND 3ME				12.8 oz/a		A		0.0	
Loyant				1 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
4 COMMAND 3ME				12.8 oz/a		A		0.0	
RebelEX				18 oz/a		B		0.0	
MSO CONCENTRATE				1 qt/a		B		0.0	
Loyant				1 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
5 COMMAND 3ME				12.8 oz/a		A		0.0	
GRASP SC				2.3 oz/a		B		0.0	
MSO CONCENTRATE				1 qt/a		B		0.0	
Loyant				1 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
6 COMMAND 3ME				12.8 oz/a		A		0.0	
GRASP SC				2.3 oz/a		B		0.0	
MSO CONCENTRATE				1 qt/a		B		0.0	
CYHALOFOP-BUTYL + XDE-848 BE				1.78 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
7 COMMAND 3ME				12.8 oz/a		A		0.0	
FACET L				32 oz/a		B		0.0	
PROWL H2O				32 oz/a		B		0.0	
MSO CONCENTRATE				1 % v/v		B		0.0	
Loyant				1 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
8 COMMAND 3ME				12.8 oz/a		A		0.0	
FACET L				32 oz/a		B		0.0	
PROWL H2O				32 oz/a		B		0.0	
MSO CONCENTRATE				1 % v/v		B		0.0	
CYHALOFOP-BUTYL + XDE-848 BE				1.78 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	
9 COMMAND 3ME				12.8 oz/a		A		0.0	
PENOX SULAM + XDE-848 BE				1.45 pt/a		B		0.0	
MSO CONCENTRATE				0.5 pt/a		B		0.0	
RICESTAR				24 oz/a		C		0.0	
FACET L				32 oz/a		C		0.0	
MSO CONCENTRATE				1 % v/v		C		0.0	
10 COMMAND 3ME				12.8 oz/a		A		0.0	
NEWPATH				6 oz/a		B		0.0	
MSO CONCENTRATE				1 % v/v		B		0.0	
Loyant				1 pt/a		C		0.0	
MSO CONCENTRATE				0.5 pt/a		C		0.0	

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

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* Adjusted means

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09			Location:Lonoke			Trial Year: 2019			
Protocol ID: Programs Barnyard Control			Investigator: Thomas R. Butts						
Pest Type					W Weed	W Weed			
Pest Scientific Name					Echinochloa cr>	Digitaria sang>			
Pest Name					Common barnyar>	large crabgrass			
Rating Date				Jun-10-2019	Jun-18-2019	Jun-18-2019	Jun-18-2019		
Rating Type				PHYGEN	CONTRO	CONTRO	PHYGEN		
Rating Unit				%	%	%	%		
Days After First/Last Applic.				24	32	32	32		
				7	4	4	4		
Trt Treatment		Rate	Appl						
No. Name		Rate Unit	Code	7*	8*	9*	10*		
11	COMMAND 3ME	12.8 oz/a	A	0.0	99.0	99.0	0.0		
	BOLERO 8EC	3 pt/a	B						
	PROWL H2O	32 oz/a	B						
	PROPANIL	4 qt/a	C						
	STRADA XT2	8 oz/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
12	COMMAND 3ME	12.8 oz/a	A	0.0	98.3	99.0	0.0		
	FACET L	32 oz/a	B						
	PROWL H2O	32 oz/a	B						
	MSO CONCENTRATE	1 pt/a	B						
	Loyant	8 oz/a	C						
	MSO CONCENTRATE	0.5 pt/a	C						
LSD P=.05				.	4.87	5.28	.		
Replicate F				0.000	0.318	0.106	0.000		
Replicate Prob(F)				1.0000	0.8125	0.9562	1.0000		
Treatment F				0.000	268.416	227.022	0.000		
Treatment Prob(F)				1.0000	0.0001	0.0001	1.0000		

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09				Location:Lonoke			Trial Year: 2019		
Protocol ID: Programs Barnyard Control				Investigator: Thomas R. Butts					
Pest Type				W Weed		W Weed			
Pest Scientific Name				Echinochloa cr>		Digitaria sang>			
Pest Name				Common barnyar>		large crabgrass			
Rating Date				Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Days After First/Last Applic.				47 19		47 19		47 19	
Trt Treatment		Rate Appl							
No. Name		Rate Unit Code		11*		12*		13*	
1 Untreated Check				0.0		0.0		0.0	
2 COMMAND 3ME 12.8 oz/a A				72.5		80.0		0.0	
3 COMMAND 3ME 12.8 oz/a A				91.3		90.0		0.0	
Loyant 1 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
4 COMMAND 3ME 12.8 oz/a A				95.8		95.8		0.0	
RebelEX 18 oz/a B									
MSO CONCENTRATE 1 qt/a B									
Loyant 1 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
5 COMMAND 3ME 12.8 oz/a A				93.0		92.9		0.0	
GRASP SC 2.3 oz/a B									
MSO CONCENTRATE 1 qt/a B									
Loyant 1 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
6 COMMAND 3ME 12.8 oz/a A				91.3		88.8		0.0	
GRASP SC 2.3 oz/a B									
MSO CONCENTRATE 1 qt/a B									
CYHALOFOP-BUTYL + XDE-848 BE 1.78 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
7 COMMAND 3ME 12.8 oz/a A				75.0		97.5		0.0	
FACET L 32 oz/a B									
PROWL H2O 32 oz/a B									
MSO CONCENTRATE 1 % v/v B									
Loyant 1 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
8 COMMAND 3ME 12.8 oz/a A				97.0		96.3		0.0	
FACET L 32 oz/a B									
PROWL H2O 32 oz/a B									
MSO CONCENTRATE 1 % v/v B									
CYHALOFOP-BUTYL + XDE-848 BE 1.78 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									
9 COMMAND 3ME 12.8 oz/a A				97.8		95.8		0.0	
PENOXSULAM + XDE-848 BE 1.45 pt/a B									
MSO CONCENTRATE 0.5 pt/a B									
RICESTAR 24 oz/a C									
FACET L 32 oz/a C									
MSO CONCENTRATE 1 % v/v C									
10 COMMAND 3ME 12.8 oz/a A				98.8		98.8		0.0	
NEWPATH 6 oz/a B									
MSO CONCENTRATE 1 % v/v B									
Loyant 1 pt/a C									
MSO CONCENTRATE 0.5 pt/a C									

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

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield						
Trial ID: TRB19 RICE 09		Location:Lonoke		Trial Year: 2019		
Protocol ID: Programs Barnyard Control		Investigator: Thomas R. Butts				
Pest Type			W Weed	W Weed		
Pest Scientific Name			Echinochloa cr>	Digitaria sang>		
Pest Name			Common barnyar>	large crabgrass		
Rating Date			Jul-3-2019	Jul-3-2019	Jul-3-2019	
Rating Type			CONTRO	CONTRO	PHYGEN	
Rating Unit			%	%	%	
Days After First/Last Applic.			47 19	47 19	47 19	
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	11*	12*	13*
11	COMMAND 3ME	12.8 oz/a	A	99.5	97.5	0.0
	BOLERO 8EC	3 pt/a	B			
	PROWL H2O	32 oz/a	B			
	PROPANIL	4 qt/a	C			
	STRADA XT2	8 oz/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
12	COMMAND 3ME	12.8 oz/a	A	98.8	98.8	0.0
	FACET L	32 oz/a	B			
	PROWL H2O	32 oz/a	B			
	MSO CONCENTRATE	1 pt/a	B			
	Loyant	8 oz/a	C			
	MSO CONCENTRATE	0.5 pt/a	C			
LSD P=.05				19.27	7.53	.
Replicate F				1.045	0.377	0.000
Replicate Prob(F)				0.3859	0.7700	1.0000
Treatment F				17.541	111.547	0.000
Treatment Prob(F)				0.0001	0.0001	1.0000

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* Adjusted means

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09				Location:Lonoke		Trial Year:2019			
Protocol ID: Programs Barnyard Control				Investigator:Thomas R. Butts					
Pest Type				W Weed					
Pest Scientific Name				Echinochloa cr>					
Pest Name				Common barnyar>					
Rating Date				Sep-18-2019		Sep-18-2019		Oct-9-2019	
Rating Type				CONTRO		PHYGEN		WEIGHT	
Rating Unit				%		%		lb/plot	
Days After First/Last Applic.				124 96		124 96		145 117	
Trt Treatment				Rate Appl					
No. Name				Rate Unit Code		14*		15*	
1 Untreated Check						0.0		0.0	
2 COMMAND 3ME				12.8 oz/a A		57.5		0.0	
3 COMMAND 3ME				12.8 oz/a A		87.5		0.0	
Loyant				1 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
4 COMMAND 3ME				12.8 oz/a A		92.5		0.0	
RebelEX				18 oz/a B					
MSO CONCENTRATE				1 qt/a B					
Loyant				1 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
5 COMMAND 3ME				12.8 oz/a A		87.0		0.0	
GRASP SC				2.3 oz/a B					
MSO CONCENTRATE				1 qt/a B					
Loyant				1 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
6 COMMAND 3ME				12.8 oz/a A		75.0		0.0	
GRASP SC				2.3 oz/a B					
MSO CONCENTRATE				1 qt/a B					
CYHALOFOP-BUTYL + XDE-848 BE				1.78 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
7 COMMAND 3ME				12.8 oz/a A		95.8		0.0	
FACET L				32 oz/a B					
PROWL H2O				32 oz/a B					
MSO CONCENTRATE				1 % v/v B					
Loyant				1 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
8 COMMAND 3ME				12.8 oz/a A		93.3		0.0	
FACET L				32 oz/a B					
PROWL H2O				32 oz/a B					
MSO CONCENTRATE				1 % v/v B					
CYHALOFOP-BUTYL + XDE-848 BE				1.78 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					
9 COMMAND 3ME				12.8 oz/a A		93.3		0.0	
PENOXsulAM + XDE-848 BE				1.45 pt/a B					
MSO CONCENTRATE				0.5 pt/a B					
RICESTAR				24 oz/a C					
FACET L				32 oz/a C					
MSO CONCENTRATE				1 % v/v C					
10 COMMAND 3ME				12.8 oz/a A		97.5		0.0	
NEWPATH				6 oz/a B					
MSO CONCENTRATE				1 % v/v B					
Loyant				1 pt/a C					
MSO CONCENTRATE				0.5 pt/a C					

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

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* Adjusted means

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(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield									
Trial ID: TRB19 RICE 09				Location:Lonoke		Trial Year:2019			
Protocol ID: Programs Barnyard Control				Investigator:Thomas R. Butts					
Pest Type				W Weed					
Pest Scientific Name				Echinochloa cr>					
Pest Name				Common barnyar>					
Rating Date				Sep-18-2019		Sep-18-2019	Oct-9-2019	Oct-9-2019	
Rating Type				CONTRO		PHYGEN	WEIGHT	YIELD	
Rating Unit				%		%	lb/plot	BU	
Days After First/Last Applic.				124 96		124 96	145 117	145 117	
Trt	Treatment			Rate	Appl				
No.	Name			Rate Unit	Code	14*	15*	16*	17*
11	COMMAND 3ME			12.8 oz/a	A	98.8	0.0	32.88	166.4
	BOLERO 8EC			3 pt/a	B				
	PROWL H2O			32 oz/a	B				
	PROPANIL			4 qt/a	C				
	STRADA XT2			8 oz/a	C				
	MSO CONCENTRATE			0.5 pt/a	C				
12	COMMAND 3ME			12.8 oz/a	A	99.5	0.0	32.45	164.3
	FACET L			32 oz/a	B				
	PROWL H2O			32 oz/a	B				
	MSO CONCENTRATE			1 pt/a	B				
	Loyant			8 oz/a	C				
	MSO CONCENTRATE			0.5 pt/a	C				
LSD P=.05						8.26	.	4.935	24.98
Replicate F						0.884	0.000	0.502	0.502
Replicate Prob(F)						0.4600	1.0000	0.6835	0.6835
Treatment F						97.311	0.000	17.250	17.250
Treatment Prob(F)						0.0001	1.0000	0.0001	0.0001

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 7,10,13,15 because error mean square = 0.

(TRB19 RICE 09)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Program Approach to BYG Control with Corteva Rice Herbicides Clearfield

Trial ID: TRB19 RICE 09 Location: Lonoke Trial Year: 2019
 Protocol ID: Programs Barnyard Control Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.062364*[16]

(TRB19 RICE 10)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield

Trial ID: TRB RICE 10 Location: Lonoke Trial Year: 2019
Protocol ID: Command and Obey Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Oct-18-2019
Variety: CL153
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Row Spacing: 7.5 IN
Harvested Width: 7.5 FT
% Standard Moisture: 12.5 **Harvested:** 25 FT

Pest Description

Pest 1 Type: W **SEBEX** Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Oct-18-2019

Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Entry Date:** Oct-18-2019

Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry Date:** Oct-18-2019

Pest 4 Type: W **Code:** AESVI Aeschynomene virginica
Common Name: Northern jointvetch **Entry** Oct-18-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 11
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D
Application Date	May-15-2019	May-28-2019	Jun-4-2019	Jun-14-2019
Appl. Start Time	6:50 AM	10:45 AM	9:00 AM	9:00 AM
Appl. Stop Time	7:00 AM	11:00 AM	9:30 AM	9:30 AM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Oct-18-2019	Oct-18-2019	Oct-18-2019	Oct-18-2019
Air Temperature Start, Stop	79 F	83 F	80 F	75 F
% Relative Humidity Start, Stop	67	73	60	47
Wind Velocity+Dir. Start	1.4 MPH W	7.7 MPH SW	4.2 MPH S	3.2 MPH S
Wet Leaves (Y/N)	N no	N no	N no	N no
Soil Temperature	71 F	70 F	74 F	68 F
Soil Moisture	SLIWET	DRY	GOOD	DRY
% Cloud Cover	60	90	30	70

(TRB19 RICE 10)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield

Trial ID: TRB RICE 10

Location: Lonoke

Trial Year: 2019

Protocol ID: Command and Obey Investigator: Thomas R. Butts

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		2 lf	3-4 lf	tiller
Height Average		3 in	4 in	8 in

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	SEBEX W	SEBEX W	SEBEX W	SEBEX W
Stage Majority, Percent		2-3 lf	3 lf	8-10lf
Height Average		2 in	3 in	12 in
Height Minimum, Maximum				10 14
Density Average		2 FT2	2 FT2	
Pest 2 Code, Type, Scale	DIGSA W	DIGSA W	DIGSA W	DIGSA W
Stage Majority, Percent		2 lf	3-4 lf	4-5 lf
Height Average		1 in	2 in	4 in
Density Average		1 FT2	2 FT2	1 FT2
Pest 3 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent		2 lf	3-4 lf	2-3 lf
Height Average		1 in	2 in	3 in
Density Average		1 FT2	1 FT2	1 FT2
Pest 4 Code, Type, Scale	AESVI	AESVI	AESVI	AESVI
Stage Majority, Percent			3 lf	4-5lf
Height Average			2 in	3 in
Density Average			1 FT2	1 FT2

Application Equipment

	A	B	C	D
Appl. Equipment	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH	ARINDH	ARINDH
Nozzle Size	110018	110018	110018	110018
Nozzle Spacing	20 IN	20 IN	20 IN	20 IN
Nozzles/Row	6	6	6	6
Band Width	20 IN	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT	10 FT
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER

Context	Date	By	Notes
STATUS	Mar-27-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-18-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed	W Weed	W Weed				
Pest Scientific Name			Aeschynomene v>	Sesbania herba>	Echinochloa cr>				
Pest Name			Northern joint>	Hemp sesbania	Common barnyar>				
Rating Date			May-24-2019	May-24-2019	May-24-2019	May-24-2019			
Rating Type			CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit			%	%	%	%			
Pest Stage Majority			1-2 lf	1-2 lf	1-3 lf				
Days After First/Last Applic.			9	9	9	9	9	9	9
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	1*	2*	3*	4*		
1	UNTREATED CHECK			0.0	0.0	0.0	0.0		
2	COMMAND 3 ME	12.8 fl oz/a A		47.5	40.0	98.8	0.0		
	NEWPATH	4 fl oz/a B							
	COC	1 % v/v B							
	NEWPATH	4 fl oz/a C							
	COC	1 % v/v C							
3	OBEY	31 fl oz/a A		78.8	83.8	100.0	0.0		
	NEWPATH	4 fl oz/a B							
	COC	1 % v/v B							
	NEWPATH	4 fl oz/a C							
	COC	1 % v/v C							
4	NEWPATH	4 fl oz/a B		0.0	0.0	0.0	0.0		
	COC	1 % v/v B							
	NEWPATH	4 fl oz/a C							
	COC	1 % v/v C							
5	COMMAND 3 ME	12.8 fl oz/a A		40.0	38.8	100.0	0.0		
	OBEY	31 fl oz/a C							
	LOYANT	16 fl oz/a D							
	MSO	0.5 % v/v D							
6	OBEY	31 fl oz/a A		86.3	86.3	100.0	0.0		
	COMMAND 3 ME	12.8 fl oz/a C							
	LOYANT	16 fl oz/a D							
	MSO	0.5 % v/v D							
7	COMMAND 3 ME	12.8 fl oz/a A		38.8	43.8	100.0	0.0		
	LOYANT	16 fl oz/a D							
	MSO	0.5 % v/v D							
8	OBEY	31 fl oz/a A		85.0	86.3	100.0	0.0		
	RICEBEAUX	96 fl oz/a C							
9	COMMAND 3 ME	12.8 fl oz/a A		41.3	43.8	100.0	0.0		
	RICEBEAUX	96 fl oz/a C							
10	OBEY	31 fl oz/a A		86.3	87.5	100.0	0.0		
	COMMAND 3 ME	12.8 fl oz/a C							
	RICEBEAUX	96 fl oz/a C							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed	W Weed	W Weed				
Pest Scientific Name			Aeschynomene v>	Sesbania herba>	Echinochloa cr>				
Pest Name			Northern joint>	Hemp sesbania	Common barnyar>				
Rating Date			May-24-2019	May-24-2019	May-24-2019	May-24-2019			
Rating Type			CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit			%	%	%	%			
Pest Stage Majority			1-2 lf	1-2 lf	1-3 lf				
Days After First/Last Applic.			9	9	9	9	9	9	9
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	1*	2*	3*	4*		
11	COMMAND 3 ME	12.8 fl oz/a A		36.3	37.5	100.0	0.0		
	NEWPATH	4 fl oz/a B							
	COC	1 % v/v B							
	AIM	1.25 fl oz/a C							
	NEWPATH	4 fl oz/a C							
	COC	1 % v/v C							
LSD P=.05				13.93	14.30	1.09	.		
Replicate F				1.775	1.429	1.000	0.000		
Replicate Prob(F)				0.1733	0.2537	0.4064	1.0000		
Treatment F				43.706	43.373	11489.001	0.000		
Treatment Prob(F)				0.0001	0.0001	0.0001	1.0000		

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(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield										
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019				
Protocol ID: Command and Obey			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>		Sesbania herba>		Echinochloa cr>		Digitaria sang>	
Pest Name			Northern joint>		Hemp sesbania		Common barnyar>		large crabgrass	
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Pest Stage Majority										
Days After First/Last Applic.			16 3		16 3		16 3		16 3	
Trt Treatment			Rate		Rate		Rate		Rate	
No. Name			Unit Code		Unit Code		Unit Code		Unit Code	
			5*		6*		7*		8*	
1 UNTREATED CHECK			0.0		0.0		0.0		0.0	
2 COMMAND 3 ME			12.8 fl oz/a A		25.0		32.5		94.5	
NEWPATH			4 fl oz/a B							
COC			1 % v/v B							
NEWPATH			4 fl oz/a C							
COC			1 % v/v C							
3 OBEY			31 fl oz/a A		70.0		67.5		98.8	
NEWPATH			4 fl oz/a B							
COC			1 % v/v B							
NEWPATH			4 fl oz/a C							
COC			1 % v/v C							
4 NEWPATH			4 fl oz/a B		0.0		0.0		20.0	
COC			1 % v/v B							
NEWPATH			4 fl oz/a C							
COC			1 % v/v C							
5 COMMAND 3 ME			12.8 fl oz/a A		15.0		0.0		86.3	
OBEY			31 fl oz/a C							
LOYANT			16 fl oz/a D							
MSO			0.5 % v/v D							
6 OBEY			31 fl oz/a A		67.5		65.0		95.0	
COMMAND 3 ME			12.8 fl oz/a C							
LOYANT			16 fl oz/a D							
MSO			0.5 % v/v D							
7 COMMAND 3 ME			12.8 fl oz/a A		17.5		5.0		81.3	
LOYANT			16 fl oz/a D							
MSO			0.5 % v/v D							
8 OBEY			31 fl oz/a A		60.0		62.5		95.0	
RICEBEAUX			96 fl oz/a C							
9 COMMAND 3 ME			12.8 fl oz/a A		12.5		0.0		92.5	
RICEBEAUX			96 fl oz/a C							
10 OBEY			31 fl oz/a A		67.5		67.5		91.3	
COMMAND 3 ME			12.8 fl oz/a C							
RICEBEAUX			96 fl oz/a C							

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield											
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019					
Protocol ID: Command and Obey			Investigator: Thomas R. Butts								
Pest Type			W Weed		W Weed		W Weed		W Weed		
Pest Scientific Name			Aeschynomene v>		Sesbania herba>		Echinochloa cr>		Digitaria sang>		
Pest Name			Northern joint>		Hemp sesbania		Common barnyar>		large crabgrass		
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019		
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO		
Rating Unit			%		%		%		%		
Pest Stage Majority											
Days After First/Last Applic.			16 3		16 3		16 3		16 3		
Trt Treatment		Rate	Appl								
No. Name		Rate Unit	Code	5*		6*		7*		8*	
11 COMMAND 3 ME		12.8 fl oz/a A		15.0		0.0		93.8		94.5	
NEWPATH		4 fl oz/a B									
COC		1 % v/v B									
AIM		1.25 fl oz/a C									
NEWPATH		4 fl oz/a C									
COC		1 % v/v C									
LSD P=.05				13.40		10.64		7.69		8.16	
Replicate F				0.845		4.134		1.770		0.131	
Replicate Prob(F)				0.4801		0.0145		0.1742		0.9409	
Treatment F				37.246		74.799		161.187		140.231	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield											
Trial ID: TRB RICE 10				Location: Lonoke				Trial Year: 2019			
Protocol ID: Command and Obey				Investigator: Thomas R. Butts							
Pest Type				May-31-2019 PHYGEN %		W Weed		W Weed		W Weed	
Pest Scientific Name						Aeschynomene v>		Sesbania herba>		Echinochloa cr>	
Pest Name						Northern joint>		Hemp sesbania		Common barnyar>	
Rating Date						Jun-10-2019		Jun-10-2019		Jun-10-2019	
Rating Type						CONTRO		CONTRO		CONTRO	
Rating Unit						%		%		%	
Pest Stage Majority											
Days After First/Last Applic.				16 3		26 6		26 6		26 6	
Trt Treatment				Rate		Appl					
No. Name				Rate Unit Code		9*		10*		11*	
1 UNTREATED CHECK				0.0		0.0		0.0		0.0	
2 COMMAND 3 ME				12.8 fl oz/a A		0.0		0.0		95.3	
NEWPATH				4 fl oz/a B							
COC				1 % v/v B							
NEWPATH				4 fl oz/a C							
COC				1 % v/v C							
3 OBEY				31 fl oz/a A		0.0		52.5		96.5	
NEWPATH				4 fl oz/a B							
COC				1 % v/v B							
NEWPATH				4 fl oz/a C							
COC				1 % v/v C							
4 NEWPATH				4 fl oz/a B		0.0		0.0		60.0	
COC				1 % v/v B							
NEWPATH				4 fl oz/a C							
COC				1 % v/v C							
5 COMMAND 3 ME				12.8 fl oz/a A		0.0		0.0		82.5	
OBEY				31 fl oz/a C							
LOYANT				16 fl oz/a D							
MSO				0.5 % v/v D							
6 OBEY				31 fl oz/a A		0.0		80.0		88.8	
COMMAND 3 ME				12.8 fl oz/a C							
LOYANT				16 fl oz/a D							
MSO				0.5 % v/v D							
7 COMMAND 3 ME				12.8 fl oz/a A		0.0		0.0		85.0	
LOYANT				16 fl oz/a D							
MSO				0.5 % v/v D							
8 OBEY				31 fl oz/a A		0.0		95.8		85.0	
RICEBEAUX				96 fl oz/a C							
9 COMMAND 3 ME				12.8 fl oz/a A		0.0		93.8		75.0	
RICEBEAUX				96 fl oz/a C							
10 OBEY				31 fl oz/a A		0.0		96.5		92.5	
COMMAND 3 ME				12.8 fl oz/a C							
RICEBEAUX				96 fl oz/a C							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield										
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019				
Protocol ID: Command and Obey			Investigator: Thomas R. Butts							
Pest Type					W Weed		W Weed		W Weed	
Pest Scientific Name					Aeschynomene v>		Sesbania herba>		Echinochloa cr>	
Pest Name					Northern joint>		Hemp sesbania		Common barnyar>	
Rating Date			May-31-2019		Jun-10-2019		Jun-10-2019		Jun-10-2019	
Rating Type			PHYGEN		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Pest Stage Majority										
Days After First/Last Applic.			16	3	26	6	26	6	26	6
Trt Treatment			Rate	Appl						
No. Name			Rate Unit	Code	9*	10*	11*	12*		
11 COMMAND 3 ME			12.8 fl oz/a A		0.0	94.5	93.8	95.0		
NEWPATH			4 fl oz/a B							
COC			1 % v/v B							
AIM			1.25 fl oz/a C							
NEWPATH			4 fl oz/a C							
COC			1 % v/v C							
LSD P=.05				.	9.46	9.37	10.25			
Replicate F			0.000		0.422	0.396	0.385			
Replicate Prob(F)			1.0000		0.7386	0.7568	0.7643			
Treatment F			0.000		199.651	200.924	61.811			
Treatment Prob(F)			1.0000		0.0001	0.0001	0.0001			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Digitaria sang>		Aeschynomene v>		Sesbania herba>		
Pest Name			large crabgrass		Northern joint>		Hemp sesbania		
Rating Date			Jun-10-2019		Jun-10-2019		Jun-18-2019		Jun-18-2019
Rating Type			CONTRO		PHYGEN		CONTRO		CONTRO
Rating Unit			%		%		%		%
Pest Stage Majority									
Days After First/Last Applic.			26		26		34		34
Trt Treatment			Rate		Appl				
No. Name			Rate Unit Code		13*		14*		15*
1 UNTREATED CHECK			0.0		0.0		0.0		0.0
2 COMMAND 3 ME			12.8 fl oz/a A		95.3		0.0		0.0
NEWPATH			4 fl oz/a B						
COC			1 % v/v B						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
3 OBEY			31 fl oz/a A		96.5		0.0		57.5
NEWPATH			4 fl oz/a B						
COC			1 % v/v B						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
4 NEWPATH			4 fl oz/a B		60.0		0.0		7.5
COC			1 % v/v B						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
5 COMMAND 3 ME			12.8 fl oz/a A		82.5		0.0		80.0
OBEY			31 fl oz/a C						
LOYANT			16 fl oz/a D						
MSO			0.5 % v/v D						
6 OBEY			31 fl oz/a A		86.3		0.0		96.3
COMMAND 3 ME			12.8 fl oz/a C						
LOYANT			16 fl oz/a D						
MSO			0.5 % v/v D						
7 COMMAND 3 ME			12.8 fl oz/a A		85.0		0.0		80.0
LOYANT			16 fl oz/a D						
MSO			0.5 % v/v D						
8 OBEY			31 fl oz/a A		85.0		0.0		98.3
RICEBEAUX			96 fl oz/a C						
9 COMMAND 3 ME			12.8 fl oz/a A		75.0		0.0		98.8
RICEBEAUX			96 fl oz/a C						
10 OBEY			31 fl oz/a A		92.5		0.0		98.8
COMMAND 3 ME			12.8 fl oz/a C						
RICEBEAUX			96 fl oz/a C						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Digitaria sang>		Aeschynomene v>		Sesbania herba>		
Pest Name			large crabgrass		Northern joint>		Hemp sesbania		
Rating Date			Jun-10-2019		Jun-10-2019		Jun-18-2019		Jun-18-2019
Rating Type			CONTRO		PHYGEN		CONTRO		CONTRO
Rating Unit			%		%		%		%
Pest Stage Majority									
Days After First/Last Applic.			26 6		26 6		34 4		34 4
Trt Treatment			Rate		Appl				
No. Name			Rate Unit Code		13*		14*		15*
11 COMMAND 3 ME			12.8 fl oz/a A		95.0		0.0		83.8
NEWPATH			4 fl oz/a B						83.8
COC			1 % v/v B						
AIM			1.25 fl oz/a C						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
LSD P=.05			11.13		.		12.17		12.17
Replicate F			0.207		0.000		0.524		0.524
Replicate Prob(F)			0.8908		1.0000		0.6694		0.6694
Treatment F			52.075		0.000		95.516		95.516
Treatment Prob(F)			0.0001		1.0000		0.0001		0.0001

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* Adjusted means

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(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Aeschynomene v>	
Pest Name				Common barnyar>		large crabgrass		Northern joint>	
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type				CONTRO		CONTRO		PHYGEN	
Rating Unit				%		%		%	
Pest Stage Majority									
Days After First/Last Applic.				34 4		34 4		34 4	
Trt Treatment				Rate		Appl			
No. Name				Rate Unit Code		17*		18*	
1 UNTREATED CHECK				0.0		0.0		0.0	
2 COMMAND 3 ME				12.8 fl oz/a A		96.3		0.0	
NEWPATH				4 fl oz/a B					
COC				1 % v/v B					
NEWPATH				4 fl oz/a C					
COC				1 % v/v C					
3 OBEY				31 fl oz/a A		84.5		0.0	
NEWPATH				4 fl oz/a B					
COC				1 % v/v B					
NEWPATH				4 fl oz/a C					
COC				1 % v/v C				91.3	
4 NEWPATH				4 fl oz/a B		67.5		0.0	
COC				1 % v/v B					
NEWPATH				4 fl oz/a C					
COC				1 % v/v C					
5 COMMAND 3 ME				12.8 fl oz/a A		90.0		0.0	
OBEY				31 fl oz/a C					
LOYANT				16 fl oz/a D					
MSO				0.5 % v/v D				100.0	
6 OBEY				31 fl oz/a A		87.0		0.0	
COMMAND 3 ME				12.8 fl oz/a C					
LOYANT				16 fl oz/a D					
MSO				0.5 % v/v D					
7 COMMAND 3 ME				12.8 fl oz/a A		82.5		0.0	
LOYANT				16 fl oz/a D					
MSO				0.5 % v/v D				100.0	
8 OBEY				31 fl oz/a A		87.5		0.0	
RICEBEAUX				96 fl oz/a C				98.8	
9 COMMAND 3 ME				12.8 fl oz/a A		82.5		0.0	
RICEBEAUX				96 fl oz/a C				100.0	
10 OBEY				31 fl oz/a A		92.5		0.0	
COMMAND 3 ME				12.8 fl oz/a C					
RICEBEAUX				96 fl oz/a C				100.0	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield										
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019				
Protocol ID: Command and Obey			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed				W Weed	
Pest Scientific Name			Echinochloa cr>		Digitaria sang>				Aeschynomene v>	
Pest Name			Common barnyar>		large crabgrass				Northern joint>	
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Sep-19-2019	
Rating Type			CONTRO		CONTRO		PHYGEN		CONTRO	
Rating Unit			%		%		%		%	
Pest Stage Majority										
Days After First/Last Applic.			34 4		34 4		34 4		127 97	
Trt Treatment			Rate		Rate		Rate		Rate	
No. Name			Rate Unit Code		17*		18*		19*	
11 COMMAND 3 ME			12.8 fl oz/a A		91.3		91.3		0.0	
NEWPATH			4 fl oz/a B						97.5	
COC			1 % v/v B							
AIM			1.25 fl oz/a C							
NEWPATH			4 fl oz/a C							
COC			1 % v/v C							
LSD P=.05			14.96		14.96		.		2.53	
Replicate F			1.293		1.293		0.000		2.222	
Replicate Prob(F)			0.2948		0.2948		1.0000		0.1060	
Treatment F			27.264		27.264		0.000		2764.704	
Treatment Prob(F)			0.0001		0.0001		1.0000		0.0001	

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

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(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Sesbania herba>		Echinochloa cr>		Digitaria sang>		
Pest Name			Hemp sesbania		Common barnyar>		large crabgrass		
Rating Date			Sep-19-2019		Sep-19-2019		Sep-19-2019		Sep-19-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Pest Stage Majority									
Days After First/Last Applic.			127 97		127 97		127 97		127 97
Trt Treatment			Rate		Appl				
No. Name			Rate Unit Code		21*		22*		23*
1 UNTREATED CHECK					0.0		0.0		0.0
2 COMMAND 3 ME			12.8 fl oz/a A		0.0		100.0		100.0
NEWPATH			4 fl oz/a B						0.0
COC			1 % v/v B						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
3 OBEY			31 fl oz/a A		95.0		95.0		100.0
NEWPATH			4 fl oz/a B						0.0
COC			1 % v/v B						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
4 NEWPATH			4 fl oz/a B		0.0		57.5		52.5
COC			1 % v/v B						0.0
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
5 COMMAND 3 ME			12.8 fl oz/a A		100.0		92.5		88.8
OBEY			31 fl oz/a C						0.0
LOYANT			16 fl oz/a D						
MSO			0.5 % v/v D						
6 OBEY			31 fl oz/a A		100.0		95.0		91.3
COMMAND 3 ME			12.8 fl oz/a C						0.0
LOYANT			16 fl oz/a D						
MSO			0.5 % v/v D						
7 COMMAND 3 ME			12.8 fl oz/a A		100.0		87.5		86.3
LOYANT			16 fl oz/a D						0.0
MSO			0.5 % v/v D						
8 OBEY			31 fl oz/a A		98.8		82.5		92.5
RICEBEAUX			96 fl oz/a C						0.0
9 COMMAND 3 ME			12.8 fl oz/a A		100.0		77.5		91.3
RICEBEAUX			96 fl oz/a C						0.0
10 OBEY			31 fl oz/a A		100.0		90.8		97.5
COMMAND 3 ME			12.8 fl oz/a C						0.0
RICEBEAUX			96 fl oz/a C						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

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(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield									
Trial ID: TRB RICE 10			Location: Lonoke			Trial Year: 2019			
Protocol ID: Command and Obey			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Sesbania herba>		Echinochloa cr>		Digitaria sang>		
Pest Name			Hemp sesbania		Common barnyar>		large crabgrass		
Rating Date			Sep-19-2019		Sep-19-2019		Sep-19-2019		Sep-19-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Pest Stage Majority									
Days After First/Last Applic.			127 97		127 97		127 97		127 97
Trt Treatment			Rate		Rate		Rate		
No. Name			Unit Code		Unit Code		Unit Code		
			21*		22*		23*		24*
11 COMMAND 3 ME			12.8 fl oz/a A		97.5		97.0		98.8
NEWPATH			4 fl oz/a B						0.0
COC			1 % v/v B						
AIM			1.25 fl oz/a C						
NEWPATH			4 fl oz/a C						
COC			1 % v/v C						
LSD P=.05			2.77		11.73		10.95		.
Replicate F			3.041		2.269		1.695		0.000
Replicate Prob(F)			0.0441		0.1008		0.1891		1.0000
Treatment F			2326.114		50.800		63.312		0.000
Treatment Prob(F)			0.0001		0.0001		0.0001		1.0000

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

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(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield						
Trial ID: TRB RICE 10			Location: Lonoke		Trial Year: 2019	
Protocol ID: Command and Obey			Investigator: Thomas R. Butts			
Pest Type			Oct-8-2019 WEIGHT lb/plot		Oct-8-2019 YIELD BU	
Pest Scientific Name						
Pest Name						
Rating Date						
Rating Type						
Rating Unit						
Pest Stage Majority						
Days After First/Last Applic.			146	116	146	116
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code			
1 UNTREATED CHECK			25*	26*		
			7.13	36.1		
2	COMMAND 3 ME	12.8 fl oz/a A	17.28	87.5		
	NEWPATH	4 fl oz/a B				
	COC	1 % v/v B				
	NEWPATH	4 fl oz/a C				
	COC	1 % v/v C				
3	OBEY	31 fl oz/a A	34.90	176.7		
	NEWPATH	4 fl oz/a B				
	COC	1 % v/v B				
	NEWPATH	4 fl oz/a C				
	COC	1 % v/v C				
4	NEWPATH	4 fl oz/a B	13.78	69.7		
	COC	1 % v/v B				
	NEWPATH	4 fl oz/a C				
	COC	1 % v/v C				
5	COMMAND 3 ME	12.8 fl oz/a A	33.35	168.8		
	OBEY	31 fl oz/a C				
	LOYANT	16 fl oz/a D				
	MSO	0.5 % v/v D				
6	OBEY	31 fl oz/a A	35.40	179.2		
	COMMAND 3 ME	12.8 fl oz/a C				
	LOYANT	16 fl oz/a D				
	MSO	0.5 % v/v D				
7	COMMAND 3 ME	12.8 fl oz/a A	29.55	149.6		
	LOYANT	16 fl oz/a D				
	MSO	0.5 % v/v D				
8	OBEY	31 fl oz/a A	31.83	161.1		
	RICEBEAUX	96 fl oz/a C				
9	COMMAND 3 ME	12.8 fl oz/a A	27.83	140.9		
	RICEBEAUX	96 fl oz/a C				
10	OBEY	31 fl oz/a A	31.03	157.1		
	COMMAND 3 ME	12.8 fl oz/a C				
	RICEBEAUX	96 fl oz/a C				

Means followed by same letter or symbol do not significantly differ ($P=0.05$, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield					
Trial ID: TRB RICE 10		Location: Lonoke		Trial Year: 2019	
Protocol ID: Command and Obey		Investigator: Thomas R. Butts			
Pest Type					
Pest Scientific Name					
Pest Name					
Rating Date			Oct-8-2019	Oct-8-2019	
Rating Type			WEIGHT	YIELD	
Rating Unit			lb/plot	BU	
Pest Stage Majority					
Days After First/Last Applic.			146 116	146 116	
Trt	Treatment	Rate	Appl		
No. Name		Rate Unit	Code	25*	26*
11	COMMAND 3 ME	12.8 fl oz/a A		36.08	182.6
	NEWPATH	4 fl oz/a B			
	COC	1 % v/v B			
	AIM	1.25 fl oz/a C			
	NEWPATH	4 fl oz/a C			
	COC	1 % v/v C			
LSD P=.05			6.097	30.86	
Replicate F			0.340	0.340	
Replicate Prob(F)			0.7967	0.7967	
Treatment F			21.695	21.695	
Treatment Prob(F)			0.0001	0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,9,14,19,24 because error mean square = 0.

(TRB19 RICE 10)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

FULL SEASON RICE HERBICIDE PROGRAMS WITH COMMAND 3ME AND OBEY- Clearfield

Trial ID: TRB RICE 10 Location: Lonoke Trial Year: 2019
 Protocol ID: Command and Obey Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.062364*[25]

(TRB19 RICE 11)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Soil Moisture Level and Crop Size Impact on Rice Tolerance to Loyant Clearfield

Trial ID: TRB19 RICE 11 Location: Lonoke Trial Year: 2019
Protocol ID: Soil Moisture Loyant Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Sep-25-2019
Variety: CI 745
Planting Date: May-17-2019 **Planting Rate:** 32 LB/A
Depth: 1 IN
Soil Temperature: 70 F
Harvested Width: 7.5 FT
Harvested Length: 25 FT
% Standard Moisture: 12.5

Pest Description

Pest 1 Type: W
Entry Sep-25-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 16
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D
Application Date	May-28-2019	May-28-2019	Jun-14-2019	Jun-14-2019
Appl. Start Time	10:15 AM	10:15 AM	11:00 AM	11:00 AM
Appl. Stop Time	11:00 AM	11:00 AM	11:30 AM	11:30 AM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Sep-25-2019	Sep-25-2019	Sep-25-2019	Sep-25-2019
Air Temperature Start, Stop	81 F	81 F	80 F	80 F
% Relative Humidity Start, Stop	63	63	44	44
Wind Velocity+Dir. Start	9.4 MPH SW	9.4 MPH SW	4 MPH S	4 MPH S
Wet Leaves (Y/N)	N no	N no	N no	N no
Soil Temperature	70 F	70 F	68 F	68 F
Soil Moisture	GOOD	GOOD	DRY	DRY
% Cloud Cover	95	95	50	50

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent	2 lf	2 lf	2 tillar	2 tillar

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	W	W	W	W

(TRB19 RICE 11)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Soil Moisture Level and Crop Size Impact on Rice Tolerance to Loyant Clearfield

Trial ID: TRB19 RICE 11 Location: Lonoke Trial Year: 2019
 Protocol ID: Soil Moisture Loyant Investigator: Thomas R. Butts

Application Equipment

	A	B	C	D
Appl. Equipment	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH	ARINDH	ARINDH
Nozzle Size	110018	110018	110018	110018
Nozzle Spacing	20 IN	20 IN	20 IN	20 IN
Nozzles/Row	6	6	6	6
Band Width	20 IN	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT	10 FT
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER

Context	Date	By	Notes
STATUS	Apr-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Sep-25-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 11)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Soil Moisture Level and Crop Size Impact on Rice Tolerance to Loyant Clearfield											
Trial ID: TRB19 RICE 11			Location:Lonoke			Trial Year:2019					
Protocol ID: Soil Moisture Loyant			Investigator: Thomas R. Butts								
Rating Date				Jun-10-2019		Jun-19-2019		Jun-26-2019		Jul-3-2019	
Rating Type				PHYGEN		PHYGEN		PHYGEN		PHYGEN	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				13 13		22 5		29 12		36 19	
Trt Treatment		Rate		Appl							
No. Name		Rate Unit		Code		1*		2*		3*	
1 UNTREATED				A		0.0		0.0		0.0	
2 Loyant		1 pt/a		A		0.0		17.5		17.5	
3 Loyant		1 pt/a		A		0.0		17.5		18.8	
MSO CONCENTRATE		0.5 pt/a		A						15.0	
4 CYHALOFOP-BUTYL + XDE-848 BE		28 fl oz/a		A		0.0		25.0		25.0	
MSO CONCENTRATE		0.5 pt/a		A						22.5	
5 UNTREATED				C		0.0		0.0		0.0	
6 Loyant		1 pt/a		C		0.0		0.0		2.5	
7 Loyant		1 pt/a		C		0.0		0.0		6.3	
MSO CONCENTRATE		0.5 pt/a		C						0.0	
8 CYHALOFOP-BUTYL + XDE-848 BE		28 fl oz/a		C		0.0		2.5		2.5	
MSO CONCENTRATE		0.5 pt/a		C						2.5	
9 UNTREATED				B		0.0		0.0		0.0	
10 Loyant		1 pt/a		B		0.0		35.0		32.5	
11 Loyant		1 pt/a		B		0.0		37.5		40.0	
MSO CONCENTRATE		0.5 pt/a		B						40.0	
12 CYHALOFOP-BUTYL + XDE-848 BE		28 fl oz/a		B		0.0		35.0		37.5	
MSO CONCENTRATE		0.5 pt/a		B						32.5	
13 UNTREATED				D		0.0		0.0		0.0	
14 Loyant		1 pt/a		D		0.0		1.3		10.0	
15 Loyant		1 pt/a		D		0.0		3.8		20.0	
MSO CONCENTRATE		0.5 pt/a		D						10.0	
16 CYHALOFOP-BUTYL + XDE-848 BE		28 fl oz/a		D		0.0		3.8		12.5	
MSO CONCENTRATE		0.5 pt/a		D						3.8	
LSD P=.05						.		6.72		14.80	
Replicate F						0.000		2.310		0.241	
Replicate Prob(F)						1.0000		0.0891		0.8672	
Treatment F						0.000		37.519		7.134	
Treatment Prob(F)						1.0000		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,5 because error mean square = 0.

(TRB19 RICE 11)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Soil Moisture Level and Crop Size Impact on Rice Tolerance to Loyant Clearfield						
Trial ID: TRB19 RICE 11		Location:Lonoke		Trial Year:2019		
Protocol ID: Soil Moisture Loyant		Investigator: Thomas R. Butts				
Rating Date				Sep-9-2019	Oct-3-2019	Oct-3-2019
Rating Type				PHYGEN	WEIGHT	YIELD
Rating Unit				%	lb/plot	BU
Days After First/Last Applic.				104 87	128 111	128 111
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	5*	6*	7*
1	UNTREATED		A	0.0	47.20	235.0
2	Loyant	1 pt/a	A	0.0	48.18	239.9
3	Loyant	1 pt/a	A	0.0	49.38	245.9
	MSO CONCENTRATE	0.5 pt/a	A			
4	CYHALOFOP-BUTYL + XDE-848 BE	28 fl oz/a	A	0.0	46.23	230.2
	MSO CONCENTRATE	0.5 pt/a	A			
5	UNTREATED		C	0.0	49.15	244.8
6	Loyant	1 pt/a	C	0.0	48.88	243.4
7	Loyant	1 pt/a	C	0.0	46.83	233.2
	MSO CONCENTRATE	0.5 pt/a	C			
8	CYHALOFOP-BUTYL + XDE-848 BE	28 fl oz/a	C	0.0	49.00	244.0
	MSO CONCENTRATE	0.5 pt/a	C			
9	UNTREATED		B	0.0	49.30	245.5
10	Loyant	1 pt/a	B	0.0	51.40	256.0
11	Loyant	1 pt/a	B	0.0	50.55	251.7
	MSO CONCENTRATE	0.5 pt/a	B			
12	CYHALOFOP-BUTYL + XDE-848 BE	28 fl oz/a	B	0.0	50.58	251.9
	MSO CONCENTRATE	0.5 pt/a	B			
13	UNTREATED		D	0.0	48.03	239.2
14	Loyant	1 pt/a	D	0.0	46.58	231.9
15	Loyant	1 pt/a	D	0.0	46.08	229.4
	MSO CONCENTRATE	0.5 pt/a	D			
16	CYHALOFOP-BUTYL + XDE-848 BE	28 fl oz/a	D	0.0	49.20	245.0
	MSO CONCENTRATE	0.5 pt/a	D			
LSD P=.05				.	4.103	20.43
Replicate F				0.000	3.852	3.852
Replicate Prob(F)				1.0000	0.0155	0.0155
Treatment F				0.000	1.260	1.260
Treatment Prob(F)				1.0000	0.2667	0.2667

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,5 because error mean square = 0.

(TRB19 RICE 11)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Soil Moisture Level and Crop Size Impact on Rice Tolerance to Loyant Clearfield

Trial ID: TRB19 RICE 11 Location: Lonoke Trial Year: 2019
 Protocol ID: Soil Moisture Loyant Investigator: Thomas R. Butts

Rating Type

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 4.979761*[6]

(TRB19 RICE 12)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice

Trial ID: TRB19 RICE 12 Location: Lonoke Trial Year: 2019
 Protocol ID: Penoxsulam EPOST Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYZA Oryza sativa Common rice
Entry Date: Sep-25-2019
Variety: CL 153
Planting Date: May-15-2019 **Planting Rate:** 90 S/A
Soil Temperature: 70 F
Harvested Width: 7.5 FT
Harvested Length: 25 FT
% Standard Moisture: 12.5

Pest Description

Pest 1 Type: W **DIGSA** Digitaria sanguinalis
Common Name: large crabgrass **Entry Date:** Sep-25-2019
Pest 2 Type: W **Code:** SEBEX Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Sep-25-2019
Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry** Sep-25-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 7
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A
Application Date	May-28-2019
Appl. Start Time	10:00 AM
Appl. Stop Time	10:30 AM
Application Method	SPRAY
Application Placement	BROADC
Applied By	B. Davis
Appl. Entry Date	Sep-25-2019
Air Temperature Start, Stop	81 F
% Relative Humidity Start, Stop	68
Wind Velocity+Dir. Start	8.7 MPH SW
Wet Leaves (Y/N)	N no
Soil Temperature	70 F
Soil Moisture	DRY
% Cloud Cover	90

(TRB19 RICE 12)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice

Trial ID: TRB19 RICE 12 Location: Lonoke Trial Year: 2019
 Protocol ID: Penoxsulam EPOST Investigator: Thomas R. Butts

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSA BRIC
Stage Majority, Percent	2lf
Height Average	3 IN

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	DIGSA W
Stage Majority, Percent	2-4 lf
Height Average	3 IN
Density Average	20 FT2
Pest 2 Code, Type, Scale	SEBEX W
Stage Majority, Percent	2-3 lf
Height Average	3 IN
Density Average	2 FT2
Pest 3 Code, Type, Scale	ECHCG W
Stage Majority, Percent	2-3 lf
Height Average	3 IN
Density Average	5 FT2

Application Equipment

	A
Appl. Equipment	BD- Tractor
Equipment Type	SPRAYE
Operation Pressure	34 PSI
Nozzle Type	ARINDH
Nozzle Size	110018
Nozzle Spacing	20 IN
Nozzles/Row	6
Band Width	20 IN
Boom Length	10 FT
Ground Speed	4 MPH
Carrier	WATER

Context	Date	By	Notes
STATUS	Apr-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Sep-25-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice

Trial ID: TRB19 RICE 12 Location: Lonoke Trial Year: 2019
 Protocol ID: Penoxsulam EPOST Investigator: Thomas R. Butts

Pest Type				W Weed	W Weed	W Weed
Pest Scientific Name				Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name				Common barnyar>	large crabgrass	Hemp sesbania
Rating Date				Jun-7-2019	Jun-7-2019	Jun-7-2019
Rating Type				CONTRO	CONTRO	CONTRO
Rating Unit				%	%	%
Days After First/Last Applic.				10	10	10
Trt Treatment	Rate	Appl				
No. Name	Rate Unit	Code		1*	2*	3*
1 UNTREATED		A		0.0	0.0	0.0
2 GRASP SC	2.0 fl oz/a	A		42.5	45.0	100.0
METHYLATED SEED OIL	1 qt/a	A				
3 GRASP SC	2.8 fl oz/a	A		42.5	50.0	100.0
METHYLATED SEED OIL	1 qt/a	A				
4 RebelEX	16 fl oz/a	A		52.5	50.0	100.0
METHYLATED SEED OIL	1 qt/a	A				
5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A		22.5	22.5	100.0
METHYLATED SEED OIL	0.5 pt/a	A				
6 FACET L	32 fl oz/a	A		72.5	75.0	100.0
STAM M-4	3 qt/a	A				
CROP OIL CONCENTRATE	1 % v/v	A				
7 FACET	0.5 lb/a	A		42.5	35.0	100.0
COMMAND 3ME	21.3 fl oz/a	A				
CROP OIL CONCENTRATE	1 % v/v	A				
LSD P=.05				15.69	20.14	.
Replicate F				0.726	0.123	0.000
Replicate Prob(F)				0.5496	0.9453	1.0000
Treatment F				18.737	12.266	0.000
Treatment Prob(F)				0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice									
Trial ID: TRB19 RICE 12			Location:Lonoke			Trial Year:2019			
Protocol ID: Penoxsulam EPOST			Investigator:Thomas R. Butts						
Pest Type			W Weed			W Weed		W Weed	
Pest Scientific Name			Aeschynomene v>			Echinochloa cr>		Digitaria sang>	
Pest Name			Northern joint>			Common barnyar>		large crabgrass	
Rating Date			Jun-7-2019		Jun-7-2019	Jun-10-2019		Jun-10-2019	
Rating Type			CONTRO		PHYGEN	CONTRO		CONTRO	
Rating Unit			%		%	%		%	
Days After First/Last Applic.			10 10		10 10	13 13		13 13	
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	4*		5*		6*	
	1 UNTREATED		A	0.0		0.0		0.0	
	2 GRASP SC	2.0 fl oz/a	A	100.0		1.3		15.0	
	METHYLATED SEED OIL	1 qt/a	A						
	3 GRASP SC	2.8 fl oz/a	A	100.0		0.0		27.5	
	METHYLATED SEED OIL	1 qt/a	A						
	4 RebelEX	16 fl oz/a	A	92.5		0.0		32.5	
	METHYLATED SEED OIL	1 qt/a	A						
	5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A	100.0		2.5		0.0	
	METHYLATED SEED OIL	0.5 pt/a	A						
	6 FACET L	32 fl oz/a	A	100.0		3.8		77.5	
	STAM M-4	3 qt/a	A						
	CROP OIL CONCENTRATE	1 % v/v	A						
	7 FACET	0.5 lb/a	A	100.0		6.3		25.0	
	COMMAND 3ME	21.3 fl oz/a	A						
	CROP OIL CONCENTRATE	1 % v/v	A						
LSD P=.05				8.42		3.74		22.58	
Replicate F				1.000		0.891		0.964	
Replicate Prob(F)				0.4155		0.4649		0.4312	
Treatment F				174.333		3.563		12.031	
Treatment Prob(F)				0.0001		0.0167		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice									
Trial ID: TRB19 RICE 12		Location:Lonoke		Trial Year:2019					
Protocol ID: Penoxsulam EPOST		Investigator:Thomas R. Butts							
Pest Type	W Weed		W Weed				W Weed		
Pest Scientific Name	Sesbania herba>		Aeschynomene v>				Echinochloa cr>		
Pest Name	Hemp sesbania		Northern joint>				Common barnyar>		
Rating Date	Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-18-2019		
Rating Type	CONTRO		CONTRO		PHYGEN		CONTRO		
Rating Unit	%		%		%		%		
Days After First/Last Applic.	13 13		13 13		13 13		21 21		
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code	8*		9*		10*		11*
1 UNTREATED		A	0.0		0.0		0.0		0.0
2 GRASP SC	2.0 fl oz/a	A	100.0		100.0		0.0		50.0
METHYLATED SEED OIL	1 qt/a	A							
3 GRASP SC	2.8 fl oz/a	A	100.0		100.0		0.0		42.5
METHYLATED SEED OIL	1 qt/a	A							
4 RebelEX	16 fl oz/a	A	100.0		100.0		0.0		30.0
METHYLATED SEED OIL	1 qt/a	A							
5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A	100.0		100.0		0.0		37.5
METHYLATED SEED OIL	0.5 pt/a	A							
6 FACET L	32 fl oz/a	A	100.0		100.0		0.0		67.5
STAM M-4	3 qt/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
7 FACET	0.5 lb/a	A	97.5		97.5		0.0		30.0
COMMAND 3ME	21.3 fl oz/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
LSD P=.05			1.62		1.62		.		30.15
Replicate F			1.000		1.000		0.000		0.494
Replicate Prob(F)			0.4155		0.4155		1.0000		0.6908
Treatment F			4763.000		4763.000		0.000		4.202
Treatment Prob(F)			0.0001		0.0001		1.0000		0.0081

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice									
Trial ID: TRB19 RICE 12			Location:Lonoke			Trial Year:2019			
Protocol ID: Penoxsulam EPOST			Investigator:Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Digitaria sang>		Sesbania herba>		Aeschynomene v>		
Pest Name			large crabgrass		Hemp sesbania		Northern joint>		
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			21 21		21 21		21 21		21 21
Trt	Treatment	Rate	Appl	12*		13*		14*	
No.	Name	Rate Unit	Code					15*	
1	UNTREATED		A	0.0		0.0		0.0	
2	GRASP SC	2.0 fl oz/a	A	27.5		100.0		100.0	
	METHYLATED SEED OIL	1 qt/a	A						
3	GRASP SC	2.8 fl oz/a	A	40.0		100.0		100.0	
	METHYLATED SEED OIL	1 qt/a	A						
4	RebelEX	16 fl oz/a	A	30.0		100.0		100.0	
	METHYLATED SEED OIL	1 qt/a	A						
5	PENOXSULAM + XDE-848 BE	1.45 pt/a	A	10.0		100.0		100.0	
	METHYLATED SEED OIL	0.5 pt/a	A						
6	FACET L	32 fl oz/a	A	72.5		100.0		100.0	
	STAM M-4	3 qt/a	A						
	CROP OIL CONCENTRATE	1 % v/v	A						
7	FACET	0.5 lb/a	A	37.5		91.3		91.3	
	COMMAND 3ME	21.3 fl oz/a	A						
	CROP OIL CONCENTRATE	1 % v/v	A						
LSD P=.05				24.15		8.06		8.06	
Replicate F				0.338		1.000		1.000	
Replicate Prob(F)				0.7982		0.4155		0.4155	
Treatment F				8.225		189.768		189.768	
Treatment Prob(F)				0.0002		0.0001		0.0001	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice									
Trial ID: TRB19 RICE 12			Location:Lonoke			Trial Year:2019			
Protocol ID: Penoxsulam EPOST			Investigator:Thomas R. Butts						
Pest Type			W Weed	W Weed	W Weed				
Pest Scientific Name			Echinochloa cr>	Digitaria sang>	Sesbania herba>				
Pest Name			Common barnyar>	large crabgrass	Hemp sesbania				
Rating Date			Jun-26-2019	Jun-26-2019	Jun-26-2019				
Rating Type			CONTRO	CONTRO	CONTRO				
Rating Unit			%	%	%				
Days After First/Last Applic.			29	29	29	29	29	29	29
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code	16*		17*		18*		19*
1 UNTREATED		A	0.0		0.0		0.0		0.0
2 GRASP SC	2.0 fl oz/a	A	40.0		32.5		100.0		0.0
METHYLATED SEED OIL	1 qt/a	A							
3 GRASP SC	2.8 fl oz/a	A	37.5		40.0		100.0		0.0
METHYLATED SEED OIL	1 qt/a	A							
4 RebelEX	16 fl oz/a	A	22.5		25.0		100.0		0.0
METHYLATED SEED OIL	1 qt/a	A							
5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A	27.5		10.0		100.0		0.0
METHYLATED SEED OIL	0.5 pt/a	A							
6 FACET L	32 fl oz/a	A	55.0		65.0		100.0		0.0
STAM M-4	3 qt/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
7 FACET	0.5 lb/a	A	37.5		30.0		75.0		0.0
COMMAND 3ME	21.3 fl oz/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
LSD P=.05			23.00		26.55		28.07		.
Replicate F			0.675		1.174		1.000		0.000
Replicate Prob(F)			0.5782		0.3473		0.4155		1.0000
Treatment F			4.967		5.527		15.667		0.000
Treatment Prob(F)			0.0037		0.0021		0.0001		1.0000

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice									
Trial ID: TRB19 RICE 12			Location:Lonoke			Trial Year:2019			
Protocol ID: Penoxsulam EPOST			Investigator:Thomas R. Butts						
Pest Type			W Weed	W Weed	W Weed				
Pest Scientific Name			Echinochloa cr>	Sesbania herba>	Aeschynomene v>				
Pest Name			Common barnyar>	Hemp sesbania	Northern joint>				
Rating Date			Sep-19-2019	Sep-19-2019	Sep-19-2019				
Rating Type			CONTRO	CONTRO	CONTRO				
Rating Unit			%	%	%				
Days After First/Last Applic.			114	114	114	114	114	133	133
Trt Treatment	Rate	Appl							
No. Name	Rate Unit	Code	20*		21*		22*		23*
1 UNTREATED		A	0.0		0.0		0.0		5.30
2 GRASP SC	2.0 fl oz/a	A	55.0		97.5		95.0		11.53
METHYLATED SEED OIL	1 qt/a	A							
3 GRASP SC	2.8 fl oz/a	A	57.5		98.8		95.0		13.73
METHYLATED SEED OIL	1 qt/a	A							
4 RebelEX	16 fl oz/a	A	55.0		92.5		88.8		11.65
METHYLATED SEED OIL	1 qt/a	A							
5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A	57.5		100.0		97.5		14.18
METHYLATED SEED OIL	0.5 pt/a	A							
6 FACET L	32 fl oz/a	A	67.5		100.0		97.5		14.93
STAM M-4	3 qt/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
7 FACET	0.5 lb/a	A	67.5		85.0		70.0		15.98
COMMAND 3ME	21.3 fl oz/a	A							
CROP OIL CONCENTRATE	1 % v/v	A							
LSD P=.05			17.31		11.70		13.83		5.001
Replicate F			0.140		0.552		1.000		1.228
Replicate Prob(F)			0.9345		0.6533		0.4155		0.3283
Treatment F			16.018		86.146		58.512		4.457
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0062

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice

Trial ID: TRB19 RICE 12 Location: Lonoke Trial Year: 2019
 Protocol ID: Penoxsulam EPOST Investigator: Thomas R. Butts

Pest Type		
Pest Scientific Name		
Pest Name		
Rating Date	Oct-8-2019	
Rating Type	YIELD	
Rating Unit	BU	
Days After First/Last Applic.	133	133
Trt Treatment	Rate	Appl
No. Name	Rate Unit	Code
1 UNTREATED		A
		24*
2 GRASP SC	2.0 fl oz/a	A
METHYLATED SEED OIL	1 qt/a	A
3 GRASP SC	2.8 fl oz/a	A
METHYLATED SEED OIL	1 qt/a	A
4 RebelEX	16 fl oz/a	A
METHYLATED SEED OIL	1 qt/a	A
5 PENOXSULAM + XDE-848 BE	1.45 pt/a	A
METHYLATED SEED OIL	0.5 pt/a	A
6 FACET L	32 fl oz/a	A
STAM M-4	3 qt/a	A
CROP OIL CONCENTRATE	1 % v/v	A
7 FACET	0.5 lb/a	A
COMMAND 3ME	21.3 fl oz/a	A
CROP OIL CONCENTRATE	1 % v/v	A
LSD P=.05		25.32
Replicate F		1.228
Replicate Prob(F)		0.3283
Treatment F		4.457
Treatment Prob(F)		0.0062

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 3,10,15,19 because error mean square = 0.

(TRB19 RICE 12)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Penoxsulam weed control when applied EPOST in drill-seeded rice

Trial ID: TRB19 RICE 12 Location: Lonoke Trial Year: 2019
 Protocol ID: Penoxsulam EPOST Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.062364*[23]

(TRB19 RICE 13)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice

Trial ID: TRB19 RICE 13 Location: Lonoke Trial Year: 2019
 Protocol ID: Bispyribac plus Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Oct-28-2019
Variety: CI153
Planting Date: May-16-2019 **Planting Rate:** 90 LB/A
Depth: 1 IN
Harvested Width: 7.5 FT
% Standard Moisture: 12.5 **Harvested** 25 FT

Pest Description

Pest 1 Type: W **Code:** CYPIR Cyperus iria
Common Name: Rice flatsedge **Entry Date:** Jun-6-2019
Pest 2 Type: W **Code:** SEBEX Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Jun-6-2019
Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry Date:** Jun-6-2019
Pest 4 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass **Entry** Jun-6-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 14
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B
Application Date	May-17-2019	Jun-3-2019
Appl. Start Time	8:15 AM	1:30 PM
Appl. Stop Time	8:45 AM	
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	B. Davis	B. Davis
Appl. Entry Date	Oct-28-2019	Jun-6-2019
Air Temperature Start, Stop	75 F	87 F
% Relative Humidity Start, Stop	67	57
Wind Velocity+Dir. Start	4.3 MPH SW	2.5 MPH E
Wet Leaves (Y/N)	N no	N no
Soil Temperature	72 F	72 F
Soil Moisture	SLIWET	DRY
% Cloud Cover	10	70

(TRB19 RICE 13)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice			
Trial ID: TRB19 RICE 13	Location: Lonoke		Trial Year: 2019
Protocol ID: Bispyribac plus	Investigator: Thomas R. Butts		

Crop Stage At Each Application			
	A		B
Crop 1 Code, BBCH Scale	ORYSA	BRIC	ORYSA BRIC
Stage Majority, Percent			3-4 lf

Pest Stage At Each Application			
	A		B
Pest 1 Code, Type, Scale	CYPIR	W	CYPIR W
Stage Majority, Percent			3-4lf
Height Average			3 in
Density Average			5 FT2
Pest 2 Code, Type, Scale	SEBEX	W	SEBEX W
Stage Majority, Percent			3-4 lf
Height Average			5 in
Density Average			2 FT2
Pest 3 Code, Type, Scale	ECHCG	W	ECHCG W
Stage Majority, Percent			3-4 lf
Height Average			3 in
Density Average			1 FT2
Pest 4 Code, Type, Scale	DIGSA	W	DIGSA W
Stage Majority, Percent			4-5 lf
Height Average			4 in
Density Average			1 FT2

Application Equipment		
	A	B
Appl. Equipment	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH
Nozzle Size	110018	110018
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	6	6
Band Width	20 IN	20 IN
Boom Length	10 FT	10 FT
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER

Context	Date	By	Notes
STATUS	Apr-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-6-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice									
Trial ID: TRB19 RICE 13			Location: Lonoke			Trial Year: 2019			
Protocol ID: Bispyribac plus			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr		Digitaria sang		Echinochloa cr	
Pest Name				Common barnyar		large crabgrass		Common barnyar	
Rating Date				May-31-2019		May-31-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				14 14		14 14		24 7	
Trt Treatment				Rate Unit		Appl			
No. Name				1*		2*		3*	
1 UNTREATED CHECK				0.0		0.0		0.0	
2 BOLERO				3 pt/a		A		92.5	
COMMAND				1.33 pt/a		A		92.5	
3 BOLERO				3 pt/a		A		85.0	
LEAGUE				6.4 oz wt/a		A		85.0	
COMMAND				1.33 pt/a		A		94.5	
4 BOLERO				3 pt/a		A		90.3	
COMMAND				1.33 pt/a		A		95.3	
REGIMENT				0.53 oz wt/a		B		94.5	
DYNE-A-PAK				1 % v/v		B		94.5	
5 BOLERO				3 pt/a		A		92.5	
LEAGUE				6.4 oz wt/a		A		92.5	
COMMAND				1.33 pt/a		A		92.5	
REGIMENT				0.53 oz wt/a		B		91.3	
DYNE-A-PAK				1 % v/v		B		91.3	
6 BOLERO				3 pt/a		A		96.5	
LEAGUE				6.4 oz wt/a		A		97.3	
COMMAND				1.33 pt/a		A		95.3	
REGIMENT				0.53 oz wt/a		B		95.3	
DYNE-A-PAK				1 % v/v		B		95.3	
7 BOLERO				3 pt/a		A		93.8	
COMMAND				1.33 pt/a		A		93.8	
FACET L				32 fl oz/a		B		93.8	
DYNE-A-PAK				1 % v/v		B		93.8	
8 BOLERO				3 pt/a		A		96.5	
COMMAND				1.33 pt/a		A		97.3	
LEAGUE				6.4 oz wt/a		A		97.5	
FACET L				32 fl oz/a		B		97.5	
DYNE-A-PAK				1 % v/v		B		97.5	
9 BOLERO				3 pt/a		A		92.5	
COMMAND				1.33 pt/a		A		92.5	
REGIMENT				0.53 oz wt/a		B		92.5	
FACET L				32 fl oz/a		B		92.5	
DYNE-A-PAK				1 % v/v		B		92.5	
10 BOLERO				3 pt/a		A		97.3	
LEAGUE				6.4 oz wt/a		A		97.3	
COMMAND				1.33 pt/a		A		97.5	
REGIMENT				0.53 oz wt/a		B		98.3	
FACET L				32 fl oz/a		B		98.3	
DYNE-A-PAK				1 % v/v		B		98.3	
11 BOLERO				3 pt/a		A		88.8	
PROWL H2O				1 qt/a		A		88.8	
REGIMENT				0.53 oz wt/a		B		86.3	
FACET L				32 fl oz/a		B		75.0	
DYNE-A-PAK				1 % v/v		B		75.0	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice											
Trial ID: TRB19 RICE 13			Location:Lonoke			Trial Year:2019					
Protocol ID: Bispyribac plus			Investigator:Thomas R. Butts								
Pest Type			W Weed		W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Echinochloa cr>		Digitaria sang>		
Pest Name			Common barnyar>		large crabgrass		Common barnyar>		large crabgrass		
Rating Date			May-31-2019		May-31-2019		Jun-10-2019		Jun-10-2019		
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO		
Rating Unit			%		%		%		%		
Days After First/Last Applic.			14 14		14 14		24 7		24 7		
Trt	Treatment	Rate	Appl	1*		2*		3*		4*	
No.	Name	Rate Unit	Code								
11	BOLERO	3 pt/a	A	92.5		91.3		93.8		96.5	
	COMMAND	1.33 pt/a	A								
	PROWL H2O	1 qt/a	B								
	REGIMENT	0.53 oz wt/a	B								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
12	BOLERO	3 pt/a	A	94.5		94.5		91.3		92.0	
	COMMAND	1.33 pt/a	A								
	LOYANT	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
13	BOLERO	3 pt/a	A	94.5		95.3		90.8		90.8	
	COMMAND	1.33 pt/a	A								
	PROWL H2O	1 qt/a	B								
	LOYANT	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
14	BOLERO	3 pt/a	A	93.3		93.3		95.0		97.0	
	COMMAND	1.33 pt/a	A								
	LOYANT	16 fl oz/a	B								
	REGIMENT	0.53 oz wt/a	B								
	MSO	0.5 pt/a	B								
	DYNE-A-PAK	1 % v/v	B								
LSD P=.05				6.88		4.67		8.80		8.14	
Replicate F				0.380		0.015		0.109		0.795	
Replicate Prob(F)				0.7680		0.9974		0.9544		0.5040	
Treatment F				108.973		238.471		66.339		79.495	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
* Adjusted means

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice											
Trial ID: TRB19 RICE 13				Location: Lonoke				Trial Year: 2019			
Protocol ID: Bispyribac plus				Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr		Digitaria sang		Echinochloa cr		Digitaria sang	
Pest Name				Common barnyar		large crabgrass		Common barnyar		large crabgrass	
Rating Date				Jun-18-2019		Jun-18-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				32 15		32 15		47 30		47 30	
Trt	Treatment	Rate	Appl	5*		6*		7*		8*	
No.	Name	Rate Unit	Code								
1	UNTREATED CHECK			0.0		0.0		0.0		0.0	
2	BOLERO	3 pt/a	A	83.3		83.3		88.8		92.0	
	COMMAND	1.33 pt/a	A								
3	BOLERO	3 pt/a	A	94.5		92.5		95.3		96.5	
	LEAGUE	6.4 oz wt/a	A								
	COMMAND	1.33 pt/a	A								
4	BOLERO	3 pt/a	A	96.5		94.5		96.3		97.0	
	COMMAND	1.33 pt/a	A								
	REGIMENT	0.53 oz wt/a	B								
	DYNE-A-PAK	1 % v/v	B								
5	BOLERO	3 pt/a	A	96.3		96.3		98.3		97.5	
	LEAGUE	6.4 oz wt/a	A								
	COMMAND	1.33 pt/a	A								
	REGIMENT	0.53 oz wt/a	B								
	DYNE-A-PAK	1 % v/v	B								
6	BOLERO	3 pt/a	A	98.8		96.3		97.5		98.3	
	COMMAND	1.33 pt/a	A								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
7	BOLERO	3 pt/a	A	97.5		97.5		98.8		99.5	
	COMMAND	1.33 pt/a	A								
	LEAGUE	6.4 oz wt/a	A								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
8	BOLERO	3 pt/a	A	98.3		97.0		99.0		99.5	
	COMMAND	1.33 pt/a	A								
	REGIMENT	0.53 oz wt/a	B								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
9	BOLERO	3 pt/a	A	98.3		98.3		98.8		99.5	
	LEAGUE	6.4 oz wt/a	A								
	COMMAND	1.33 pt/a	A								
	REGIMENT	0.53 oz wt/a	B								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
10	BOLERO	3 pt/a	A	90.0		85.0		90.8		92.0	
	PROWL H2O	1 qt/a	A								
	REGIMENT	0.53 oz wt/a	B								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								

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

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice											
Trial ID: TRB19 RICE 13			Location:Lonoke		Trial Year:2019						
Protocol ID: Bispyribac plus			Investigator: Thomas R. Butts								
Pest Type			W Weed		W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Echinochloa cr>		Digitaria sang>		
Pest Name			Common barnyar>		large crabgrass		Common barnyar>		large crabgrass		
Rating Date			Jun-18-2019		Jun-18-2019		Jul-3-2019		Jul-3-2019		
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO		
Rating Unit			%		%		%		%		
Days After First/Last Applic.			32 15		32 15		47 30		47 30		
Trt	Treatment	Rate	Appl								
No.	Name	Rate Unit	Code	5*		6*		7*		8*	
11	BOLERO	3 pt/a	A	98.8		98.3		98.8		97.5	
	COMMAND	1.33 pt/a	A								
	PROWL H2O	1 qt/a	B								
	REGIMENT	0.53 oz wt/a	B								
	FACET L	32 fl oz/a	B								
	DYNE-A-PAK	1 % v/v	B								
12	BOLERO	3 pt/a	A	95.3		94.5		97.5		97.5	
	COMMAND	1.33 pt/a	A								
	LOYANT	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
13	BOLERO	3 pt/a	A	95.0		92.5		98.3		98.3	
	COMMAND	1.33 pt/a	A								
	PROWL H2O	1 qt/a	B								
	LOYANT	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
14	BOLERO	3 pt/a	A	96.3		95.8		98.8		98.8	
	COMMAND	1.33 pt/a	A								
	LOYANT	16 fl oz/a	B								
	REGIMENT	0.53 oz wt/a	B								
	MSO	0.5 pt/a	B								
	DYNE-A-PAK	1 % v/v	B								
LSD P=.05				7.03		8.26		6.37		6.24	
Replicate F				1.153		0.417		0.107		0.288	
Replicate Prob(F)				0.3400		0.7416		0.9556		0.8334	
Treatment F				110.265		78.084		136.644		142.986	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice									
Trial ID: TRB19 RICE 13				Location: Lonoke		Trial Year: 2019			
Protocol ID: Bispyribac plus				Investigator: Thomas R. Butts					
Pest Type				W Weed					
Pest Scientific Name				Echinochloa cr>					
Pest Name				Common barnyar>					
Rating Date				Sep-18-2019		Oct-4-2019		Oct-4-2019	
Rating Type				CONTRO		WEIGHT		YIELD	
Rating Unit				%		lb/plot		BU	
Days After First/Last Applic.				124 107		140 123		140 123	
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	9*		10*		11*	
1	UNTREATED CHECK			0.0		8.13		40.8	
2	BOLERO	3 pt/a	A	75.0		25.03		125.8	
	COMMAND	1.33 pt/a	A						
3	BOLERO	3 pt/a	A	78.8		31.95		160.6	
	LEAGUE	6.4 oz wt/a	A						
	COMMAND	1.33 pt/a	A						
4	BOLERO	3 pt/a	A	85.0		29.23		146.9	
	COMMAND	1.33 pt/a	A						
	REGIMENT	0.53 oz wt/a	B						
	DYNE-A-PAK	1 % v/v	B						
5	BOLERO	3 pt/a	A	90.0		35.45		178.2	
	LEAGUE	6.4 oz wt/a	A						
	COMMAND	1.33 pt/a	A						
	REGIMENT	0.53 oz wt/a	B						
	DYNE-A-PAK	1 % v/v	B						
6	BOLERO	3 pt/a	A	86.3		34.25		172.2	
	COMMAND	1.33 pt/a	A						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						
7	BOLERO	3 pt/a	A	95.8		35.10		176.4	
	COMMAND	1.33 pt/a	A						
	LEAGUE	6.4 oz wt/a	A						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						
8	BOLERO	3 pt/a	A	87.5		33.70		169.4	
	COMMAND	1.33 pt/a	A						
	REGIMENT	0.53 oz wt/a	B						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						
9	BOLERO	3 pt/a	A	96.3		35.83		180.1	
	LEAGUE	6.4 oz wt/a	A						
	COMMAND	1.33 pt/a	A						
	REGIMENT	0.53 oz wt/a	B						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						
10	BOLERO	3 pt/a	A	75.0		30.68		154.2	
	PROWL H2O	1 qt/a	A						
	REGIMENT	0.53 oz wt/a	B						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice									
Trial ID: TRB19 RICE 13			Location:Lonoke			Trial Year: 2019			
Protocol ID: Bispyribac plus			Investigator: Thomas R. Butts						
Pest Type				W Weed					
Pest Scientific Name				Echinochloa cr>					
Pest Name				Common barnyar>					
Rating Date				Sep-18-2019		Oct-4-2019		Oct-4-2019	
Rating Type				CONTRO		WEIGHT		YIELD	
Rating Unit				%		lb/plot		BU	
Days After First/Last Applic.				124 107		140 123		140 123	
Trt	Treatment	Rate	Appl						
No.	Name	Rate Unit	Code	9*		10*		11*	
11	BOLERO	3 pt/a	A	94.5		33.05		166.1	
	COMMAND	1.33 pt/a	A						
	PROWL H2O	1 qt/a	B						
	REGIMENT	0.53 oz wt/a	B						
	FACET L	32 fl oz/a	B						
	DYNE-A-PAK	1 % v/v	B						
12	BOLERO	3 pt/a	A	88.8		31.50		158.3	
	COMMAND	1.33 pt/a	A						
	LOYANT	16 fl oz/a	B						
	MSO	0.5 pt/a	B						
13	BOLERO	3 pt/a	A	93.8		33.50		168.4	
	COMMAND	1.33 pt/a	A						
	PROWL H2O	1 qt/a	B						
	LOYANT	16 fl oz/a	B						
	MSO	0.5 pt/a	B						
14	BOLERO	3 pt/a	A	86.3		34.23		172.0	
	COMMAND	1.33 pt/a	A						
	LOYANT	16 fl oz/a	B						
	REGIMENT	0.53 oz wt/a	B						
	MSO	0.5 pt/a	B						
	DYNE-A-PAK	1 % v/v	B						
LSD P=.05				17.12		3.965		19.93	
Replicate F				0.208		2.520		2.520	
Replicate Prob(F)				0.8904		0.0720		0.0720	
Treatment F				16.508		26.481		26.481	
Treatment Prob(F)				0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 13)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Regiment plus Facet mixture for weed control in rice		
Trial ID: TRB19 RICE 13	Location: Lonoke	Trial Year: 2019
Protocol ID: Bispyribac plus	Investigator: Thomas R. Butts	
<u>Pest Type</u> W, Weed = Weed or volunteer crop <u>Rating Type</u> CONTRO = control / burndown or knockdown WEIGHT = weight YIELD = yield <u>Rating Unit</u> % = percent lb/plot = pounds per plot BU = bushel <u>ARM Action Codes</u> TY1 = 5.026962*[10]		

(TRB19 RICE 14)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Trial ID: TRB19 RICE 14		Row rice tolerance to Strada XT2 vs Strada plus Facet	
Protocol ID: Strada in Row Rice		Location:Lonoke	Trial Year:2019
Investigator: Thomas R. Butts			

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1:C ORYSA Oryza sativa Common rice
Entry Date: Nov-1-2019
Variety: CL 745
Planting Date: May-17-2019 **Planting Rate:**32 LB/A
Harvested Width:7.5 FT
Harvested Length:25 FT
% Standard Moisture: 12.5

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:**7
Replications: 4 **Study Design:**RACOB L Randomized Complete Block (RCB)

Application Description

	A
Application Date	Jun-14-2019
Appl. Start Time	1:30 PM
Appl. Stop Time	1:45 PM
Application Method	SPRAY
Application Placement	BROADC
Applied By	B. Davis
Appl. Entry Date	Nov-1-2019
Air Temperature Start, Stop	87 F
% Relative Humidity Start, Stop	34
Wind Velocity+Dir. Start	4.3 MPH S
Wet Leaves (Y/N)	N no
Soil Temperature	70 F
Soil Moisture	DRY

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSA BRIC
Stage Majority, Percent	2 tiller

(TRB19 RICE 14)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Trial ID: TRB19 RICE 14		Row rice tolerance to Strada XT2 vs Strada plus Facet	
Protocol ID: Strada in Row Rice		Location:Lonoke	Trial Year:2019
Investigator: Thomas R. Butts			

Application Equipment	
	A
Appl. Equipment	BD- Tractor
Equipment Type	SPRAYE
Operation Pressure	34 PSI
Nozzle Type	ARINDH
Nozzle Size	110018
Nozzle Spacing	20 IN
Nozzles/Row	6
Band Width	20 IN
Boom Length	10 FT
Ground Speed	4 MPH
Carrier	WATER

Context	Date	By	Notes
STATUS	Apr-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-1-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 14)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Row rice tolerance to Strada XT2 vs Strada plus Facet															
Trial ID: TRB19 RICE 14				Location:Lonoke				Trial Year:2019							
Protocol ID: Strada in Row Rice				Investigator: Thomas R. Butts											
Rating Date				Jun-19-2019		Jun-26-2019		Jul-3-2019		Jul-12-2019		Sep-17-2019		Oct-2-2019	
Rating Type				PHYGEN		PHYGEN		PHYGEN		PHYGEN		PHYGEN		WEIGHT	
Rating Unit				%		%		%		%		%		lb/plot	
Days After First/Last Applic.				5		5 12 12		19 19		28 28		95 95		110 110	
Trt	Treatment	Rate	Appl	1*		2*		3*		4*		5*		6*	
No.	Name	Rate Unit	Code												
1	Untreated Check			0.0		0.0		0.0		0.0		0.0		30.88	
2	Strada NIS	2.1 oz/a 0.25 % v/v	A A	0.0		0.0		0.0		0.0		0.0		35.70	
3	Strada Pro NIS	2.5 oz/a 0.25 % v/v	A A	0.0		0.0		0.0		0.0		0.0		33.58	
4	Strada XT2 Crop Oil Concentrat	10.5 oz/a 2 pt/a	A A	0.0		0.0		0.0		0.0		0.0		35.38	
5	Strada XT2 Loyant MSO	10.5 oz/a 16 oz/a 0.5 pt/a	A A A	0.0		0.0		0.0		0.0		0.0		34.88	
6	Facet L Loyant MSO	32 oz/a 16 oz/a 0.5 pt/a	A A A	0.0		0.0		0.0		0.0		0.0		33.40	
7	Facet L Strada Loyant MSO	32 oz/a 2.1 oz/a 16 oz/a 0.5 pt/a	A A A A	0.0		0.0		0.0		0.0		0.0		36.90	
LSD P=.05				.		.		.		.		.		3.181	
Replicate F				0.000		0.000		0.000		0.000		0.000		5.636	
Replicate Prob(F)				1.0000		1.0000		1.0000		1.0000		1.0000		0.0066	
Treatment F				0.000		0.000		0.000		0.000		0.000		3.376	
Treatment Prob(F)				1.0000		1.0000		1.0000		1.0000		1.0000		0.0208	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4,5 because error mean square = 0.

(TRB19 RICE 14)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Row rice tolerance to Strada XT2 vs Strada plus Facet			
Trial ID: TRB19 RICE 14		Location: Lonoke	
Protocol ID: Strada in Row Rice		Investigator: Thomas R. Butts	
Rating Date		Oct-2-2019	
Rating Type		YIELD	
Rating Unit		BU	
Days After First/Last Applic.		110 110	
Trt No.	Treatment Name	Rate Rate Unit	Appl Code
1	Untreated Check		7*
2	Strada NIS	2.1 oz/a 0.25 % v/v	A A
3	Strada Pro NIS	2.5 oz/a 0.25 % v/v	A A
4	Strada XT2 Crop Oil Concentrat	10.5 oz/a 2 pt/a	A A
5	Strada XT2 Loyant MSO	10.5 oz/a 16 oz/a 0.5 pt/a	A A A
6	Facet L Loyant MSO	32 oz/a 16 oz/a 0.5 pt/a	A A A
7	Facet L Strada Loyant MSO	32 oz/a 2.1 oz/a 16 oz/a 0.5 pt/a	A A A A
LSD P=.05		16.50	
Replicate F		5.636	
Replicate Prob(F)		0.0066	
Treatment F		3.376	
Treatment Prob(F)		0.0208	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4,5 because error mean square = 0.

(TRB19 RICE 14)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Row rice tolerance to Strada XT2 vs Strada plus Facet		
Trial ID: TRB19 RICE 14	Location:Lonoke	Trial Year:2019
Protocol ID: Strada in Row Rice	Investigator:Thomas R. Butts	
<u>Rating Type</u> PHYGEN = phytotoxicity - general / injury WEIGHT = weight YIELD = yield		
<u>Rating Unit</u> % = percent lb/plot = pounds per plot BU = bushel		
<u>ARM Action Codes</u> TY1 = 5.186267*[6]		

(TRB19 RICE 16)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Spray droplet size effect of PRE rice herbicides on weed control		
Trial ID: TRB19 RICE 16	Location: Lonoke	Trial Year: 2019
Protocol ID: Droplet Size Lonoke	Investigator: Thomas R. Butts	

General Trial Information
Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts
Conducted Under GLP: N
Conducted Under GEP: No

Crop Description
Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Jun-27-2019
Variety: CL 153
Planting Date: May-16-2019
Planting Rate: 90 LB/A
Harvested Width: 7.5 FT
% Standard Moisture: 12.5
Harvested: 25 FT

Site and Design
Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT ²
Treatments: 22
Replications: 4
Study RACOB L Randomized Complete Block (RCB)

Application Description			
	A	B	C
Application Date	May-16-2019	May-16-2019	May-16-2019
Appl. Start Time	5:00 PM	5:00 AM	5:00 AM
Appl. Stop Time	6:00 PM	6:00 AM	6:00 AM
Application Method	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC
Applied By	Dr. Butts	Dr. Butts	Dr. Butts
Appl. Entry Date	Jun-27-2019	Jun-27-2019	Jun-27-2019
Air Temperature Start, Stop	88 F	88 F	88 F
% Relative Humidity Start, Stop	49	49	49
Wind Velocity+Dir. Start	5 MPH SW	5 MPH SW	5 MPH SW
Wet Leaves (Y/N)	N no	N no	N no
Soil Temperature	72 F	72 F	72 F
Soil Moisture	SLIWET	SLIWET	SLIWET
% Cloud Cover	20	20	20

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC

Context	Date	By	Notes
STATUS	Apr-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-27-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 16)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Spray droplet size effect of PRE rice herbicides on weed control				
Trial ID: TRB19 RICE 16		Location: Lonoke		Trial Year: 2019
Protocol ID: Droplet Size Lonoke		Investigator: Thomas R. Butts		
Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Aeschynomene v>	Sesbania herba>	Echinochloa cr>	Echinochloa cr>
Pest Name	Northern joint>	Hemp sesbania	Common barnyar>	Common barnyar>
Rating Date	May-24-2019	May-24-2019	May-24-2019	May-31-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Pest Stage Majority	1-2 lf	1-2 lf	1-2 lf	
Days After First/Last Applic.	8 8	8 8	8 8	15 15
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	1*	2*	3*
1 Untreated		0.0	0.0	0.0
2 Command	12.8 fl oz/a A	38.8	38.8	81.3
3 Facet L	32 fl oz/a A	88.8	88.8	92.5
4 Newpath	4 fl oz/a A	40.0	40.0	66.3
5 League	6.4 oz/a A	43.8	43.8	33.8
6 Gambit	1.5 oz/a A	60.0	60.0	61.3
7 Prowl	2.1 pt/a A	55.0	55.0	62.5
8 Bolero	3 pt/a A	35.0	35.0	50.0
9 Command	12.8 fl oz/a B	57.5	57.5	91.3
10 Facet L	32 fl oz/a B	92.5	92.5	100.0
11 Newpath	4 fl oz/a B	58.8	58.8	88.8
12 League	6.4 oz/a B	41.3	41.3	22.5
13 Gambit	1.5 oz/a B	62.5	62.5	36.3
14 Prowl	2.1 pt/a B	37.5	37.5	75.0
15 Bolero	3 pt/a B	71.3	71.3	61.3
16 Command	12.8 fl oz/a C	35.0	35.0	85.0
17 Facet L	32 fl oz/a C	89.5	89.5	100.0
18 Newpath	4 fl oz/a C	43.8	43.8	83.8
19 League	6.4 oz/a C	43.8	43.8	40.0
20 Gambit	1.5 oz/a C	67.5	67.5	26.3
21 Prowl	2.1 pt/a C	66.3	66.3	60.0
22 Bolero	3 pt/a C	68.8	68.8	67.5
LSD P=.05		26.34	26.34	23.05
Replicate F		0.855	0.855	0.777
Replicate Prob(F)		0.4691	0.4691	0.5111
Treatment F		5.349	5.349	11.262
Treatment Prob(F)		0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 16)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Spray droplet size effect of PRE rice herbicides on weed control											
Trial ID: TRB19 RICE 16				Location: Lonoke				Trial Year: 2019			
Protocol ID: Droplet Size Lonoke				Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Digitaria sang>		Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name				large crabgrass		Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date				May-31-2019		Jun-10-2019		Jun-10-2019		Jun-10-2019	
Rating Type				CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Pest Stage Majority											
Days After First/Last Applic.				15 15		25 25		25 25		25 25	
Trt Treatment				Rate		Appl					
No. Name				Rate Unit		Code		5*		6*	
1 Untreated				0.0		0.0		0.0		0.0	
2 Command 12.8 fl oz/a A				70.0		52.5		47.5		0.0	
3 Facet L 32 fl oz/a A				78.8		67.5		60.0		55.0	
4 Newpath 4 fl oz/a A				73.8		45.0		55.0		0.0	
5 League 6.4 oz/a A				50.0		20.0		15.0		0.0	
6 Gambit 1.5 oz/a A				67.5		45.0		42.5		52.5	
7 Prowl 2.1 pt/a A				57.5		47.5		37.5		0.0	
8 Bolero 3 pt/a A				52.5		40.0		27.5		0.0	
9 Command 12.8 fl oz/a B				90.0		83.8		82.5		0.0	
10 Facet L 32 fl oz/a B				91.3		80.0		82.5		75.0	
11 Newpath 4 fl oz/a B				85.0		70.0		75.0		0.0	
12 League 6.4 oz/a B				55.0		22.5		20.0		0.0	
13 Gambit 1.5 oz/a B				70.0		30.0		30.0		55.0	
14 Prowl 2.1 pt/a B				67.5		60.0		50.0		0.0	
15 Bolero 3 pt/a B				62.5		45.0		35.0		0.0	
16 Command 12.8 fl oz/a C				88.8		77.5		72.5		0.0	
17 Facet L 32 fl oz/a C				90.0		75.0		80.0		92.5	
18 Newpath 4 fl oz/a C				80.0		70.0		72.5		0.0	
19 League 6.4 oz/a C				65.0		45.0		45.0		25.0	
20 Gambit 1.5 oz/a C				62.5		27.5		27.5		57.5	
21 Prowl 2.1 pt/a C				62.5		52.5		47.5		0.0	
22 Bolero 3 pt/a C				67.5		50.0		42.5		0.0	
LSD P=.05				12.20		21.30		18.77		24.35	
Replicate F				0.585		0.125		0.402		0.575	
Replicate Prob(F)				0.6273		0.9452		0.7523		0.6335	
Treatment F				20.689		8.308		12.114		12.303	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 16)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Spray droplet size effect of PRE rice herbicides on weed control									
Trial ID: TRB19 RICE 16			Location: Lonoke			Trial Year: 2019			
Protocol ID: Droplet Size Lonoke			Investigator: Thomas R. Butts						
Pest Type			W Weed						
Pest Scientific Name			Digitaria sang>						
Pest Name			large crabgrass						
Rating Date			Jun-18-2019		Oct-10-2019		Oct-10-2019		
Rating Type			CONTRO		WEIGHT		YIELD		
Rating Unit			%		lb/plot		BU		
Pest Stage Majority									
Days After First/Last Applic.			33 33		147 147		147 147		
Trt Treatment			Rate		Appl				
No. Name			Rate Unit		Code				
			10*		11*		12*		
1 Untreated			0.0		2.23		10.8		
2 Command			12.8 fl oz/a A		50.0		11.95		57.9
3 Facet L			32 fl oz/a A		60.0		12.40		60.1
4 Newpath			4 fl oz/a A		62.5		7.00		33.9
5 League			6.4 oz/a A		40.0		5.50		26.6
6 Gambit			1.5 oz/a A		50.0		7.43		36.0
7 Prowl			2.1 pt/a A		45.0		8.93		43.2
8 Bolero			3 pt/a A		42.5		10.48		50.7
9 Command			12.8 fl oz/a B		80.0		24.93		120.7
10 Facet L			32 fl oz/a B		67.5		16.10		78.0
11 Newpath			4 fl oz/a B		75.0		12.20		59.1
12 League			6.4 oz/a B		42.5		3.25		15.7
13 Gambit			1.5 oz/a B		55.0		5.88		28.5
14 Prowl			2.1 pt/a B		47.5		10.75		52.1
15 Bolero			3 pt/a B		45.0		10.05		48.7
16 Command			12.8 fl oz/a C		72.5		22.10		107.1
17 Facet L			32 fl oz/a C		70.0		19.13		92.6
18 Newpath			4 fl oz/a C		67.5		12.08		58.5
19 League			6.4 oz/a C		50.0		6.28		30.4
20 Gambit			1.5 oz/a C		52.5		5.80		28.1
21 Prowl			2.1 pt/a C		55.0		12.15		58.9
22 Bolero			3 pt/a C		40.0		7.13		34.5
LSD P=.05			15.77		5.858		28.38		
Replicate F			0.681		0.275		0.275		
Replicate Prob(F)			0.5667		0.8435		0.8435		
Treatment F			9.181		7.814		7.814		
Treatment Prob(F)			0.0001		0.0001		0.0001		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 16)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Spray droplet size effect of PRE rice herbicides on weed control		
Trial ID: TRB19 RICE 16	Location: Lonoke	Trial Year: 2019
Protocol ID: Droplet Size Lonoke	Investigator: Thomas R. Butts	
<u>Pest Type</u> W, Weed = Weed or volunteer crop		
<u>Rating Type</u> CONTRO = control / burndown or knockdown WEIGHT = weight YIELD = yield		
<u>Rating Unit</u> % = percent lb/plot = pounds per plot BU = bushel		
<u>ARM Action Codes</u> TY1 = 4.844056*[11]		

(TRB19 RICE 18)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Trial ID: TRB19 RICE 18		Rice cultivars tolerance to Loyant	
Protocol ID: Loyant Tolerance Cult		Location:	Trial Year:2019
		Investigator: Thomas R. Butts	

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1:C ORYSA Oryza sativa Common rice
Entry Date: Oct-29-2019
Planting Date: May-17-2019
Harvested Width:3.6 FT
% Standard Moisture: 12.5 **Harvested** 25 FT

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:**20
Replications: 4 **Study** FACTOR Factorial

Application Description

	A	B
Application Date	Jun-3-2019	Jun-17-2019
Appl. Start Time	3:15 PM	8:30 AM
Appl. Stop Time	3:40 PM	9:00 AM
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	B. Davis	B. Davis
Appl. Entry Date	Jun-4-2019	Oct-29-2019
Air Temperature Start, Stop	85 F	73 F
% Relative Humidity Start, Stop	57	65
Wind Velocity+Dir. Start	4.9 MPH NE	4 MPH S
Wet Leaves (Y/N)	N no	N no
Soil Temperature	80 F	60 F
Soil Moisture	DRY	DRY
% Cloud Cover	80	90

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC
Stage Scale Used	DESC	
Stage Majority, Percent	3lf	tiller
Height Average	3 IN	9 in
Height Minimum, Maximum		6 8

(TRB19 RICE 18)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Trial ID: TRB19 RICE 18		Rice cultivars tolerance to Loyant	
Protocol ID: Loyant Tolerance Cult		Location:	Trial Year:2019
		Investigator: Thomas R. Butts	

Application Equipment			
	A	B	
Appl. Equipment	BD- Tractor	BD- Tractor	
Equipment Type	SPRAYE	SPRAYE	
Operation Pressure	34 PSI	34 PSI	
Nozzle Type	ARINDH	ARINDH	
Nozzle Size	110018	110018	
Nozzle Spacing	20 IN	20 IN	
Nozzles/Row	6	6	
Band Width	20 IN	20 IN	
Boom Length	10 FT	10 FT	
Ground Speed	4 MPH	4 MPH	
Carrier	WATER	WATER	

Context	Date	By	Notes
STATUS	Apr-11-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-4-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

(TRB19 RICE 18)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Rice cultivars tolerance to Loyant															
Trial ID: TRB19 RICE 18				Location:		Trial Year:2019									
Protocol ID: Loyant Tolerance Cult				Investigator: Thomas R. Butts											
Rating Date				Jun-10-2019		Jun-18-2019		Jun-26-2019		Jul-3-2019		Jul-12-2019		Sep-17-2019	
Rating Type				PHYGEN		PHYGEN		PHYGEN		PHYGEN		PHYGEN		PHYGEN	
Rating Unit				%		%		%		%		%		%	
Days After First/Last Applic.				7		15		23		30		39		106	
Trt Treatment				Rate Appl											
No. Name		Rate Unit Code		1*		2*		3*		4*		5*		6*	
1 XP 753				15.0		2.5		0.0		0.0		0.0		0.0	
Untreated Check															
2 XP 753				15.0		7.5		20.0		15.0		2.5		0.0	
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
3 XP 753				15.0		12.5		42.5		26.3		15.0		0.0	
Loyant		2 pt/a B													
MSO Concentrate		0.5 pt/a B													
4 XP 753				15.0		30.0		25.0		13.8		5.0		0.0	
Loyant		1 pt/a A													
MSO Concentrate		0.5 pt/a A													
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
5 Diamond				15.0		5.0		0.0		0.0		0.0		0.0	
Untreated Check															
6 Diamond				15.0		3.8		27.5		32.5		15.0		0.0	
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
7 Diamond				15.0		5.0		25.0		20.0		7.5		0.0	
Loyant		2 pt/a B													
MSO Concentrate		0.5 pt/a B													
8 Diamond				15.0		8.8		25.0		37.5		15.0		0.0	
Loyant		1 pt/a A													
MSO Concentrate		0.5 pt/a A													
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
9 XL 745				15.0		12.5		0.0		0.0		0.0		0.0	
Untreated Check															
10 XL 745				15.0		12.5		35.0		42.5		20.0		0.0	
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
11 XL 745				15.0		15.0		27.5		27.5		15.0		0.0	
Loyant		2 pt/a B													
MSO Concentrate		0.5 pt/a B													
12 XL 745				15.0		25.0		45.0		35.0		12.5		0.0	
Loyant		1 pt/a A													
MSO Concentrate		0.5 pt/a A													
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													
13 Titan				15.0		8.8		0.0		0.0		0.0		0.0	
Untreated Check															
14 Titan				15.0		0.0		12.5		7.5		5.0		0.0	
Loyant		1 pt/a B													
MSO Concentrate		0.5 pt/a B													

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,6 because error mean square = 0.

(TRB19 RICE 18)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Rice cultivars tolerance to Loyant							
Trial ID: TRB19 RICE 18		Location:		Trial Year:2019			
Protocol ID: Loyant Tolerance Cult		Investigator: Thomas R. Butts					
Rating Date		Jun-10-2019	Jun-18-2019	Jun-26-2019	Jul-3-2019	Jul-12-2019	Sep-17-2019
Rating Type		PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN
Rating Unit		%	%	%	%	%	%
Days After First/Last Applic.		7	15	23	30	39	106
Trt Treatment	Rate Appl						
No. Name	Rate Unit Code	1*	2*	3*	4*	5*	6*
15 Titan		15.0	3.8	22.5	17.5	15.0	0.0
Loyant	2 pt/a B						
MSO Concentrate	0.5 pt/a B						
16 Titan		15.0	12.5	32.5	27.5	20.0	0.0
Loyant	1 pt/a A						
MSO Concentrate	0.5 pt/a A						
Loyant	1 pt/a B						
MSO Concentrate	0.5 pt/a B						
17 Gemini		15.0	2.5	0.0	0.0	0.0	0.0
Untreated Check							
18 Gemini		15.0	7.5	28.8	37.5	20.0	0.0
Loyant	1 pt/a B						
MSO Concentrate	0.5 pt/a B						
19 Gemini		15.0	20.0	32.5	30.0	20.0	0.0
Loyant	2 pt/a B						
MSO Concentrate	0.5 pt/a B						
20 Gemini		15.0	20.0	27.5	31.3	15.0	0.0
Loyant	1 pt/a A						
MSO Concentrate	0.5 pt/a A						
Loyant	1 pt/a B						
MSO Concentrate	0.5 pt/a B						
LSD P=.05		.	14.21	19.73	24.95	14.43	.
Analyzed as		RCB	RCB	RCB	RCB	RCB	RCB
Replicate F		0.000	0.124	1.470	0.277	2.258	0.000
Replicate Prob(F)		1.0000	0.9454	0.2323	0.8414	0.0914	1.0000
Treatment F		0.000	2.552	4.350	2.783	2.368	0.000
Treatment Prob(F)		1.0000	0.0034	0.0001	0.0015	0.0064	1.0000

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,6 because error mean square = 0.

(TRB19 RICE 18)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Rice cultivars tolerance to Loyant					
Trial ID: TRB19 RICE 18			Location:		Trial Year:2019
Protocol ID: Loyant Tolerance Cult			Investigator: Thomas R. Butts		
Rating Date			Oct-9-2019		
Rating Type			WEIGHT		
Rating Unit			lb/plot		
Days After First/Last Applic.			128 114		
			128 114		
Trt	Treatment	Rate Appl			
No.	Name	Rate Unit Code	7*		8*
1	XP 753		29.95		321.0
	Untreated Check				
2	XP 753		34.78		372.7
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
3	XP 753		31.25		335.0
	Loyant	2 pt/a B			
	MSO Concentrate	0.5 pt/a B			
4	XP 753		32.98		353.4
	Loyant	1 pt/a A			
	MSO Concentrate	0.5 pt/a A			
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
5	Diamond		24.45		262.1
	Untreated Check				
6	Diamond		21.25		227.8
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
7	Diamond		25.55		273.9
	Loyant	2 pt/a B			
	MSO Concentrate	0.5 pt/a B			
8	Diamond		24.10		258.3
	Loyant	1 pt/a A			
	MSO Concentrate	0.5 pt/a A			
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
9	XL 745		32.18		344.9
	Untreated Check				
10	XL 745		28.63		306.8
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
11	XL 745		29.10		311.9
	Loyant	2 pt/a B			
	MSO Concentrate	0.5 pt/a B			
12	XL 745		30.90		331.2
	Loyant	1 pt/a A			
	MSO Concentrate	0.5 pt/a A			
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			
13	Titan		24.05		257.8
	Untreated Check				
14	Titan		27.15		291.0
	Loyant	1 pt/a B			
	MSO Concentrate	0.5 pt/a B			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,6 because error mean square = 0.

(TRB19 RICE 18)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Rice cultivars tolerance to Loyant					
Trial ID: TRB19 RICE 18			Location:		Trial Year:2019
Protocol ID: Loyant Tolerance Cult			Investigator: Thomas R. Butts		
Rating Date	Oct-9-2019		Oct-9-2019		
Rating Type	WEIGHT		YIELD		
Rating Unit	lb/plot		BU		
Days After First/Last Applic.	128	114	128	114	
Trt Treatment	Rate	Appl			
No. Name	Rate	Unit Code	7*	8*	
15 Titan			22.20	238.0	
Loyant	2 pt/a	B			
MSO Concentrate	0.5 pt/a	B			
16 Titan			25.40	272.3	
Loyant	1 pt/a	A			
MSO Concentrate	0.5 pt/a	A			
Loyant	1 pt/a	B			
MSO Concentrate	0.5 pt/a	B			
17 Gemini			28.78	308.4	
Untreated Check					
18 Gemini			26.15	280.3	
Loyant	1 pt/a	B			
MSO Concentrate	0.5 pt/a	B			
19 Gemini			28.13	301.5	
Loyant	2 pt/a	B			
MSO Concentrate	0.5 pt/a	B			
20 Gemini			28.98	310.6	
Loyant	1 pt/a	A			
MSO Concentrate	0.5 pt/a	A			
Loyant	1 pt/a	B			
MSO Concentrate	0.5 pt/a	B			
LSD P=.05			4.690	50.27	
Analyzed as		RCB		RCB	
Replicate F		1.157		1.157	
Replicate Prob(F)		0.3341		0.3341	
Treatment F		4.851		4.851	
Treatment Prob(F)		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,6 because error mean square = 0.

(TRB19 RICE 18)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Trial ID: TRB19 RICE 18		Rice cultivars tolerance to Loyant	
Protocol ID: Loyant Tolerance Cult		Location:	Trial Year:2019
Investigator: Thomas R. Butts			
<u>Rating Type</u> PHYGEN = phytotoxicity - general / injury WEIGHT = weight YIELD = yield			
<u>Rating Unit</u> % = percent lb/plot = pounds per plot BU = bushel			
<u>ARM Action Codes</u> TY1 = 10.71868*[7]			

(TRB19 RICE 19)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Entry Date: Nov-1-2019
Variety: PV01
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Harvested Width: 7.5 FT
% Standard Moisture: 12.5 **Harvested Length:** 25 FT

Pest Description

Pest 1 Type: W **SEBEX** Sesbania herbacea
Common Name: Hemp sesbania **Entry Date:** Nov-1-2019
Pest 2 Type: W **Code:** AESVI Aeschynomene virginica
Common Name: Northern jointvetch **Entry Date:** Nov-1-2019
Pest 3 Type: W **Code:** CYPIR Cyperus iria
Common Name: Rice flatsedge **Entry Date:** Nov-1-2019
Pest 4 Type: W **Code:** CYPES Cyperus esculentus
Common Name: Yellow nutsedge **Entry Date:** Nov-1-2019
Pest 5 Type: W **Code:** AMAPA Amaranthus palmeri
Common Name: Palmer amaranth **Entry Date:** Nov-1-2019

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 11
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B
Application Date	May-15-2019	Jun-12-2019
Appl. Start Time	9:00 AM	10:00 AM
Appl. Stop Time	9:30 AM	10:30 AM
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	B. Davis	B. Davis
Appl. Entry Date	Nov-1-2019	Nov-1-2019
Air Temperature Start, Stop	87 F	77 F
% Relative Humidity Start, Stop	57	48
Wind Velocity+Dir. Start	3.7 MPH W	3.5 MPH W
Wet Leaves (Y/N)	N no	N no
Soil Temperature	72 F	64 F
Soil Moisture	SLIWET	DRY
% Cloud Cover		90

(TRB19 RICE 19)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		tiller
Height Average		10 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SEBEX W	SEBEX W
Stage Majority, Percent		8-10lf
Height Average		12 in
Height Minimum, Maximum		12 16
Density Average		2 FT2
Pest 2 Code, Type, Scale	AESVI	AESVI
Stage Majority, Percent		4 lf
Height Average		6 in
Density Average		2 FT2
Pest 3 Code, Type, Scale	CYPIR W	CYPIR W
Stage Majority, Percent		4 lf
Height Average		6 in
Density Average		2 FT2
Pest 4 Code, Type, Scale	CYPES W	CYPES W
Stage Majority, Percent		4 lf
Height Average		6 in
Density Average		2 FT2
Pest 5 Code, Type, Scale	AMAPA W	AMAPA W
Stage Majority, Percent		10 lf
Height Average		11 in
Height Minimum, Maximum		10 12
Density Average		2 FT2

Application Equipment

	A	B
Appl. Equipment	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH
Nozzle Size	110018	110018
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	6	6
Band Width	20 IN	20 IN
Boom Length	10 FT	10 FT
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER

(TRB19 RICE 19)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19

Location:Lonoke

Trial Year:2019

Protocol ID: Londax Permit Quinstar

Investigator:Thomas R. Butts

Context	Date	By	Notes
STATUS	Apr-16-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-1-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Pest Type				W Weed	W Weed	W Weed
Pest Scientific Name				Sesbania herba>	Aeschynomene v>	Echinochloa cr>
Pest Name				Hemp sesbania	Northern joint>	Common barnyar>
Rating Date				May-31-2019	May-31-2019	May-31-2019
Rating Type				CONTRO	CONTRO	CONTRO
Rating Unit				%	%	%
Days After First/Last Applic.				16 16	16 16	16 16
Trt Treatment	Rate	Unit	Appl			
No. Name			Code	1*	2*	3*
1 Untreated				0.0	0.0	0.0
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		3.8	3.8	95.0
3 Command 3ME	0.30 lb ai/a	A		2.5	3.8	95.0
4 UpStage 3CS	0.30 lb ai/a	A		0.0	6.3	95.0
Duet	3.02 lb ai/a	B				
COC	1.0 % v/v	B				
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		1.3	8.8	95.0
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
COC	1.0 % v/v	B				
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		6.3	7.5	95.0
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
COC	1.0 % v/v	B				
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		2.5	6.3	95.0
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
RiceOne CS	0.71 lb ai/a	B				
COC	1.0 % v/v	B				
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		2.5	8.8	95.0
Duet	4.03 lb ai/a	B				
COC	1.0 % v/v	B				
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		0.0	2.5	95.0
Duet	4.03 lb ai/a	B				
Permit	0.0525 lb ai/a	B				
Londax	0.021 lb ai/a	B				
COC	1.0 % v/v	B				
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		0.0	3.8	95.0
Duet	4.03 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.021 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
COC	1.0 % v/v	B				

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE										
Trial ID: TRB19 RICE 19			Location:Lonoke			Trial Year:2019				
Protocol ID: Londax Permit Quinstar			Investigator:Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Sesbania herba>		Aeschynomene v>		Echinochloa cr>		
Pest Name				Hemp sesbania		Northern joint>		Common barnyar>		
Rating Date				May-31-2019		May-31-2019		May-31-2019		
Rating Type				CONTRO		CONTRO		CONTRO		
Rating Unit				%		%		%		
Days After First/Last Applic.				16 16		16 16		16 16		
Trt Treatment		Rate	Unit	Appl						
No. Name				Code	1*		2*		3*	
11 UpStage 3 CS (KFD-308-02)		0.30 lb ai/a	A		0.0		5.0		95.0	
Duet		4.03 lb ai/a	B							
Permit		0.0525 lb ai/a	B							
Londax		0.021 lb ai/a	B							
Quinstar 4F		0.30 lb ai/a	B							
RiceOne CS		0.68 lb ai/a	B							
COC		1.0 % v/v	B							
LSD P=.05					3.30		5.96		.	
Replicate F					4.746		1.367		0.000	
Replicate Prob(F)					0.0080		0.2719		1.0000	
Treatment F					3.174		1.720		0.000	
Treatment Prob(F)					0.0069		0.1219		1.0000	

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type			W Weed	W Weed	W Weed
Pest Scientific Name			Digitaria sang>	Amaranthus pal>	Sesbania herba>
Pest Name			large crabgrass	Palmer amaranth	Hemp sesbania
Rating Date			May-31-2019	May-31-2019	Jun-18-2019
Rating Type			CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%
Days After First/Last Applic.			16 16	16 16	34 6
Trt Treatment	Rate	Rate Unit	Appl Code		
No. Name					
1 Untreated			4*	5*	6*
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		0.0	0.0	0.0
3 Command 3ME	0.30 lb ai/a A		95.0	95.0	0.0
4 UpStage 3CS	0.30 lb ai/a A		95.0	95.0	70.0
Duet	3.02 lb ai/a B				
COC	1.0 % v/v B				
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	75.0
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
COC	1.0 % v/v B				
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	75.0
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
COC	1.0 % v/v B				
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	82.5
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
RiceOne CS	0.71 lb ai/a B				
COC	1.0 % v/v B				
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	75.0
Duet	4.03 lb ai/a B				
COC	1.0 % v/v B				
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	77.5
Duet	4.03 lb ai/a B				
Permit	0.0525 lb ai/a B				
Londax	0.021 lb ai/a B				
COC	1.0 % v/v B				
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		95.0	95.0	75.0
Duet	4.03 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.021 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
COC	1.0 % v/v B				

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE										
Trial ID: TRB19 RICE 19			Location:Lonoke			Trial Year:2019				
Protocol ID: Londax Permit Quinstar			Investigator:Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Digitaria sang>		Amaranthus pal>		Sesbania herba>		
Pest Name				large crabgrass		Palmer amaranth		Hemp sesbania		
Rating Date				May-31-2019		May-31-2019		Jun-18-2019		
Rating Type				CONTRO		CONTRO		CONTRO		
Rating Unit				%		%		%		
Days After First/Last Applic.				16 16		16 16		34 6		
Trt Treatment		Rate	Rate Unit	Appl Code	4*		5*		6*	
No. Name										
11 UpStage 3 CS (KFD-308-02)		0.30 lb ai/a	A		95.0		95.0		80.0	
Duet		4.03 lb ai/a	B							
Permit		0.0525 lb ai/a	B							
Londax		0.021 lb ai/a	B							
Quinstar 4F		0.30 lb ai/a	B							
RiceOne CS		0.68 lb ai/a	B							
COC		1.0 % v/v	B							
LSD P=.05					.		.		7.73	
Replicate F					0.000		0.000		1.058	
Replicate Prob(F)					1.0000		1.0000		0.3814	
Treatment F					0.000		0.000		178.587	
Treatment Prob(F)					1.0000		1.0000		0.0001	

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type				W Weed	W Weed	W Weed
Pest Scientific Name				Aeschynomene v>	Echinochloa cr>	Digitaria sang>
Pest Name				Northern joint>	Common barnyar>	large crabgrass
Rating Date				Jun-18-2019	Jun-18-2019	Jun-18-2019
Rating Type				CONTRO	CONTRO	CONTRO
Rating Unit				%	%	%
Days After First/Last Applic.				34 6	34 6	34 6
Trt Treatment	Rate	Rate	Appl			
No. Name		Unit	Code	7*	8*	9*
1 Untreated				0.0	0.0	0.0
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		0.0	90.0	90.0
3 Command 3ME	0.30 lb ai/a	A		0.0	85.0	82.5
4 UpStage 3CS	0.30 lb ai/a	A		70.0	93.8	93.8
Duet	3.02 lb ai/a	B				
COC	1.0 % v/v	B				
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		75.0	91.3	91.3
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
COC	1.0 % v/v	B				
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		75.0	83.8	78.8
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
COC	1.0 % v/v	B				
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		82.5	87.5	85.0
Duet	3.02 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.018 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
RiceOne CS	0.71 lb ai/a	B				
COC	1.0 % v/v	B				
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		75.0	90.0	85.0
Duet	4.03 lb ai/a	B				
COC	1.0 % v/v	B				
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		77.5	91.3	86.3
Duet	4.03 lb ai/a	B				
Permit	0.0525 lb ai/a	B				
Londax	0.021 lb ai/a	B				
COC	1.0 % v/v	B				
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		75.0	83.8	78.8
Duet	4.03 lb ai/a	B				
Permit	0.041 lb ai/a	B				
Londax	0.021 lb ai/a	B				
Quinstar 4F	0.30 lb ai/a	B				
COC	1.0 % v/v	B				

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE										
Trial ID: TRB19 RICE 19			Location:Lonoke			Trial Year:2019				
Protocol ID: Londax Permit Quinstar			Investigator:Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		
Pest Scientific Name				Aeschynomene v>		Echinochloa cr>		Digitaria sang>		
Pest Name				Northern joint>		Common barnyar>		large crabgrass		
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019		
Rating Type				CONTRO		CONTRO		CONTRO		
Rating Unit				%		%		%		
Days After First/Last Applic.				34 6		34 6		34 6		
Trt Treatment		Rate	Rate Unit	Appl Code	7*		8*		9*	
No. Name										
11 UpStage 3 CS (KFD-308-02)		0.30 lb ai/a	A		80.0		93.8		92.5	
Duet		4.03 lb ai/a	B							
Permit		0.0525 lb ai/a	B							
Londax		0.021 lb ai/a	B							
Quinstar 4F		0.30 lb ai/a	B							
RiceOne CS		0.68 lb ai/a	B							
COC		1.0 % v/v	B							
LSD P=.05					7.73		11.99		19.34	
Replicate F					1.058		0.329		0.214	
Replicate Prob(F)					0.3814		0.8040		0.8856	
Treatment F					178.587		42.516		15.721	
Treatment Prob(F)					0.0001		0.0001		0.0001	

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type			W Weed	W Weed	W Weed
Pest Scientific Name			Amaranthus pal>	Sesbania herba>	Aeschynomene v>
Pest Name			Palmer amaranth	Hemp sesbania	Northern joint>
Rating Date			Jun-18-2019	Jul-3-2019	Jul-3-2019
Rating Type			CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%
Days After First/Last Applic.			34 6	49 21	49 21
Trt Treatment	Rate	Rate			
No. Name		Unit	10*	11*	12*
1 Untreated			0.0	0.0	0.0
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	0.0	0.0	0.0
3 Command 3ME	0.30 lb ai/a	A	0.0	0.0	0.0
4 UpStage 3CS	0.30 lb ai/a	A	62.0	100.0	100.0
Duet	3.02 lb ai/a	B			
COC	1.0 % v/v	B			
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	57.3	100.0	100.0
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
COC	1.0 % v/v	B			
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	45.0	100.0	100.0
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	47.5	100.0	100.0
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
RiceOne CS	0.71 lb ai/a	B			
COC	1.0 % v/v	B			
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	57.3	100.0	100.0
Duet	4.03 lb ai/a	B			
COC	1.0 % v/v	B			
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	57.3	100.0	100.0
Duet	4.03 lb ai/a	B			
Permit	0.0525 lb ai/a	B			
Londax	0.021 lb ai/a	B			
COC	1.0 % v/v	B			
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	45.0	100.0	100.0
Duet	4.03 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.021 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			

(TRB19 RICE 19)

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EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE												
Trial ID: TRB19 RICE 19				Location:Lonoke				Trial Year:2019				
Protocol ID: Londax Permit Quinstar				Investigator:Thomas R. Butts								
Pest Type				W Weed			W Weed			W Weed		
Pest Scientific Name				Amaranthus pal>			Sesbania herba>			Aeschynomene v>		
Pest Name				Palmer amaranth			Hemp sesbania			Northern joint>		
Rating Date				Jun-18-2019			Jul-3-2019			Jul-3-2019		
Rating Type				CONTRO			CONTRO			CONTRO		
Rating Unit				%			%			%		
Days After First/Last Applic.				34			49			49		
Trt Treatment				Rate			Rate			Rate		
No. Name				Unit			Unit			Unit		
				Code			10*			11*		
							12*					
11 UpStage 3 CS (KFD-308-02)				0.30 lb ai/a A			62.3			100.0		
Duet				4.03 lb ai/a B								
Permit				0.0525 lb ai/a B								
Londax				0.021 lb ai/a B								
Quinstar 4F				0.30 lb ai/a B								
RiceOne CS				0.68 lb ai/a B								
COC				1.0 % v/v B								
LSD P=.05				30.44			.			.		
Replicate F				2.137			0.000			0.000		
Replicate Prob(F)				0.1164			1.0000			1.0000		
Treatment F				6.100			0.000			0.000		
Treatment Prob(F)				0.0001			1.0000			1.0000		

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type			W Weed	W Weed	W Weed
Pest Scientific Name			Echinochloa cr>	Digitaria sang>	Amaranthus pal>
Pest Name			Common barnyar>	large crabgrass	Palmer amaranth
Rating Date			Jul-3-2019	Jul-3-2019	Jul-3-2019
Rating Type			CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%
Days After First/Last Applic.			49 21	49 21	49 21
Trt Treatment	Rate	Appl			
No. Name	Unit	Code	13*	14*	15*
1 Untreated			0.0	0.0	0.0
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		90.0	90.0	95.0
3 Command 3ME	0.30 lb ai/a A		90.0	90.0	91.3
4 UpStage 3CS	0.30 lb ai/a A		98.8	98.8	100.0
Duet	3.02 lb ai/a B				
COC	1.0 % v/v B				
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		100.0	100.0	100.0
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
COC	1.0 % v/v B				
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		93.8	97.5	100.0
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
COC	1.0 % v/v B				
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		98.8	97.5	99.5
Duet	3.02 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.018 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
RiceOne CS	0.71 lb ai/a B				
COC	1.0 % v/v B				
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		93.8	97.5	99.5
Duet	4.03 lb ai/a B				
COC	1.0 % v/v B				
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		100.0	100.0	100.0
Duet	4.03 lb ai/a B				
Permit	0.0525 lb ai/a B				
Londax	0.021 lb ai/a B				
COC	1.0 % v/v B				
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a A		98.8	99.5	100.0
Duet	4.03 lb ai/a B				
Permit	0.041 lb ai/a B				
Londax	0.021 lb ai/a B				
Quinstar 4F	0.30 lb ai/a B				
COC	1.0 % v/v B				

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

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EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE												
Trial ID: TRB19 RICE 19				Location:Lonoke				Trial Year:2019				
Protocol ID: Londax Permit Quinstar				Investigator:Thomas R. Butts								
Pest Type				W Weed		W Weed		W Weed				
Pest Scientific Name				Echinochloa cr>		Digitaria sang>		Amaranthus pal>				
Pest Name				Common barnyar>		large crabgrass		Palmer amaranth				
Rating Date				Jul-3-2019		Jul-3-2019		Jul-3-2019				
Rating Type				CONTRO		CONTRO		CONTRO				
Rating Unit				%		%		%				
Days After First/Last Applic.				49 21		49 21		49 21				
Trt Treatment				Rate Unit		Rate Unit		Rate Unit				
No. Name				13*		14*		15*				
11 UpStage 3 CS (KFD-308-02)				0.30 lb ai/a A		99.5		98.8		100.0		
Duet				4.03 lb ai/a B								
Permit				0.0525 lb ai/a B								
Londax				0.021 lb ai/a B								
Quinstar 4F				0.30 lb ai/a B								
RiceOne CS				0.68 lb ai/a B								
COC				1.0 % v/v B								
LSD P=.05				6.45		3.21		1.28				
Replicate F				3.304		1.186		0.491				
Replicate Prob(F)				0.0335		0.3317		0.6910				
Treatment F				171.986		703.507		4529.717				
Treatment Prob(F)				0.0001		0.0001		0.0001				

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type			W Weed	W Weed	W Weed
Pest Scientific Name			Sesbania herba>	Aeschynomene v>	Echinochloa cr>
Pest Name			Hemp sesbania	Northern joint>	Common barnyar>
Rating Date			Sep-17-2019	Sep-17-2019	Sep-17-2019
Rating Type			CONTRO	CONTRO	CONTRO
Rating Unit			%	%	%
Days After First/Last Applic.			125 97	125 97	125 97
Trt Treatment	Rate	Rate			
No. Name		Unit	16*	17*	18*
1 Untreated			0.0	0.0	0.0
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	0.0	0.0	67.5
3 Command 3ME	0.30 lb ai/a	A	0.0	0.0	57.5
4 UpStage 3CS	0.30 lb ai/a	A	100.0	100.0	94.5
Duet	3.02 lb ai/a	B			
COC	1.0 % v/v	B			
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	97.0
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
COC	1.0 % v/v	B			
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	88.8
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	93.8
Duet	3.02 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
RiceOne CS	0.71 lb ai/a	B			
COC	1.0 % v/v	B			
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	88.3
Duet	4.03 lb ai/a	B			
COC	1.0 % v/v	B			
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	95.8
Duet	4.03 lb ai/a	B			
Permit	0.0525 lb ai/a	B			
Londax	0.021 lb ai/a	B			
COC	1.0 % v/v	B			
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A	100.0	100.0	94.5
Duet	4.03 lb ai/a	B			
Permit	0.041 lb ai/a	B			
Londax	0.021 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE															
Trial ID: TRB19 RICE 19				Location:Lonoke				Trial Year:2019							
Protocol ID: Londax Permit Quinstar				Investigator:Thomas R. Butts											
Pest Type				W Weed		W Weed		W Weed							
Pest Scientific Name				Sesbania herba>		Aeschynomene v>		Echinochloa cr>							
Pest Name				Hemp sesbania		Northern joint>		Common barnyar>							
Rating Date				Sep-17-2019		Sep-17-2019		Sep-17-2019							
Rating Type				CONTRO		CONTRO		CONTRO							
Rating Unit				%		%		%							
Days After First/Last Applic.				125 97		125 97		125 97							
Trt Treatment				Rate		Rate		Rate							
No. Name				Rate		Unit		Code		16*		17*		18*	
11 UpStage 3 CS (KFD-308-02)				0.30 lb ai/a A		100.0		100.0		96.3					
Duet				4.03 lb ai/a B											
Permit				0.0525 lb ai/a B											
Londax				0.021 lb ai/a B											
Quinstar 4F				0.30 lb ai/a B											
RiceOne CS				0.68 lb ai/a B											
COC				1.0 % v/v B											
LSD P=.05						.		.		9.74					
Replicate F				0.000		0.000		5.563							
Replicate Prob(F)				1.0000		1.0000		0.0037							
Treatment F				0.000		0.000		75.752							
Treatment Prob(F)				1.0000		1.0000		0.0001							

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type					
Pest Scientific Name					
Pest Name					
Rating Date					
Rating Type					
Rating Unit					
Days After First/Last Applic.					
		W Weed			
		Amaranthus pal>			
		Palmer amaranth			
		Sep-17-2019			
		CONTRO			
		%			
		125 97			
			Oct-8-2019	Oct-8-2019	Oct-8-2019
			WEIGHT	MOICON	YIELD
			lb/plot	%	BU
			146 118	146 118	146 118
Trt Treatment	Rate	Unit	Appl Code		
No. Name				19*	20*
1 Untreated				0.0	9.83
2 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		67.5	9.98
3 Command 3ME	0.30 lb ai/a	A		57.5	12.48
4 UpStage 3CS	0.30 lb ai/a	A		100.0	34.28
Duet	3.02 lb ai/a	B			15.85
COC	1.0 % v/v	B			170.1
5 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		100.0	36.30
Duet	3.02 lb ai/a	B			15.70
Permit	0.041 lb ai/a	B			180.5
Londax	0.018 lb ai/a	B			
COC	1.0 % v/v	B			
6 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		97.5	33.75
Duet	3.02 lb ai/a	B			17.75
Permit	0.041 lb ai/a	B			163.9
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			
7 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		99.5	35.63
Duet	3.02 lb ai/a	B			14.60
Permit	0.041 lb ai/a	B			179.5
Londax	0.018 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
RiceOne CS	0.71 lb ai/a	B			
COC	1.0 % v/v	B			
8 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		92.0	33.18
Duet	4.03 lb ai/a	B			15.05
COC	1.0 % v/v	B			166.3
9 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		100.0	34.80
Duet	4.03 lb ai/a	B			15.15
Permit	0.0525 lb ai/a	B			174.3
Londax	0.021 lb ai/a	B			
COC	1.0 % v/v	B			
10 UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A		96.3	32.95
Duet	4.03 lb ai/a	B			15.13
Permit	0.041 lb ai/a	B			165.1
Londax	0.021 lb ai/a	B			
Quinstar 4F	0.30 lb ai/a	B			
COC	1.0 % v/v	B			

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

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EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE											
Trial ID: TRB19 RICE 19				Location:Lonoke				Trial Year:2019			
Protocol ID: Londax Permit Quinstar				Investigator:Thomas R. Butts							
Pest Type				W Weed							
Pest Scientific Name				Amaranthus pal>							
Pest Name				Palmer amaranth							
Rating Date				Sep-17-2019		Oct-8-2019		Oct-8-2019		Oct-8-2019	
Rating Type				CONTRO		WEIGHT		MOICON		YIELD	
Rating Unit				%		lb/plot		%		BU	
Days After First/Last Applic.				125 97		146 118		146 118		146 118	
Trt	Treatment			Rate	Rate	Appl					
No.	Name	Rate	Unit	Appl	Code	19*	20*	21*	22*		
11	UpStage 3 CS (KFD-308-02)	0.30 lb ai/a	A			98.8	31.05	14.03	157.4		
	Duet	4.03 lb ai/a	B								
	Permit	0.0525 lb ai/a	B								
	Londax	0.021 lb ai/a	B								
	Quinstar 4F	0.30 lb ai/a	B								
	RiceOne CS	0.68 lb ai/a	B								
	COC	1.0 % v/v	B								
LSD P=.05						8.23	6.959	4.819	35.19		
Replicate F						3.485	0.152	2.884	0.262		
Replicate Prob(F)						0.0278	0.9278	0.0521	0.8524		
Treatment F						118.666	20.691	1.533	20.731		
Treatment Prob(F)						0.0001	0.0001	0.1761	0.0001		

(TRB19 RICE 19)

ARM 2019.8 Standardized Summary

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EVALUATION OF UPL-NA HERBICIDES FOR WEED CONTROL IN DRILL-SEEDED RICE

Trial ID: TRB19 RICE 19 Location: Lonoke Trial Year: 2019
 Protocol ID: Londax Permit Quinstar Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

MOICON = moisture content

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = $5.162667 * [20] * (100 - [21]) / 87.5$

(TRB19 RICE 20)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice		
Trial ID: TRB19 RICE 20	Location: Lonoke	Trial Year: 2019
Protocol ID: Standards Rice	Investigator: Thomas R. Butts	

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
 Entry Date: Nov-5-2019
 Variety: CL153
 Planting Date: May-16-2019 Planting Rate: 90 LB/A
 Depth: 1 IN
 Harvested Width: 7.5 FT
 Harvested Length: 25 FT
 % Standard Moisture: 12.5

Pest Description

Pest 1 Type: W ECHC Echinochloa crus-galli
 Common Name: Common barnyard grass Entry Date: Nov-5-2019

Pest 2 Type: W Code: DIGSA Digitaria sanguinalis
 Common Name: large crabgrass Entry Date: Nov-5-2019

Pest 3 Type: W Code: SEBEX Sesbania herbacea
 Common Name: Hemp sesbania Entry Nov-5-2019

Site and Design

Treated Plot Width: 1 FT
 Treated Plot Length: 25 FT
 Treated Plot Area: 250 FT² Treatments: 20
 Replications: 4 Study RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D	E
Application Date	May-16-2019	May-17-2019	Jun-4-2019	Jun-12-2019	Jun-27-2019
Appl. Start Time	8:00 AM	9:00 AM	11:00 AM	3:00 PM	1:00 PM
Appl. Stop Time	9:00 AM	9:30 AM	11:45 AM	3:30 PM	2:00 PM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Nov-5-2019	Nov-5-2019	Nov-5-2019	Nov-5-2019	Nov-5-2019
Air Temperature Start, Stop	85 F	80 F	88 F	82 F	84 F
% Relative Humidity Start, Stop	52	55	52	38	68
Wind Velocity+Dir. Start	4.7 MPH W	3.8 MPH SW	3.5 MPH S	2.3 MPH W	6 MPH E
Wet Leaves (Y/N)	N no	N no	N no	N no	N no
Soil Temperature	70 F	72 F	74 F	68 F	70 F
Soil Moisture	SLIWET	SLIWET	SLIWET	DRY	flooded
% Cloud Cover	0	20	20	0	90

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent			3-4 lf	t4 lf	tiller

(TRB19 RICE 20)

ARM 2019.8 Site Description

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Trial ID: TRB19 RICE 20		Location: Lonoke		Arkansas herbicide program approaches for weed control in rice	
Protocol ID: Standards Rice		Investigator: Thomas R. Butts		Trial Year: 2019	

Pest Stage At Each Application					
	A	B	C	D	E
Pest 1 Code, Type, Scale	ECHCG W	ECHCG W	ECHCG W	ECHCG W	ECHCG W
Stage Majority, Percent			3 lf	5 lf	tiller
Height Average			3 in	6 in	12 in
Density Average			1 FT2	2 FT2	1 FT2
Pest 2 Code, Type, Scale	DIGSA W	DIGSA W	DIGSA W	DIGSA W	DIGSA W
Stage Majority, Percent			2-4 lf	tiller	tiller
Height Average			3 in	6 in	12 in
Height Minimum, Maximum			2 4		
Density Average			5 FT2	3 FT2	1 FT2
Pest 3 Code, Type, Scale	SEBEX W	SEBEX W	SEBEX W	SEBEX W	SEBEX W
Stage Majority, Percent			4 lf	6 lf	ECHCG
Height Average			5 in	8 in	12 in
Density Average			1 FT2	1 FT2	1 FT2
Coverage					2

Context	Date	By	Notes
STATUS	Apr-19-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-5-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location: Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			15 14		15 14		15 14		15 14
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		1*		2*		3* 4*
1 Untreated Check					0.0		0.0		0.0 0.0
2 Command			12.8 oz/a A		92.5		91.3		0.0 1.3
RiceOne			24 oz/a C						
COC			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
3 Obey			32 oz/a A		93.8		93.8		72.5 25.0
Command			12 oz/a C						
Ricestar HT			24 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
4 Command			16 oz/a A		96.3		96.3		0.0 0.0
Prowl H2O			32 oz/a B						
Ricestar HT			24 oz/a C						
Facet L			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
5 Command			14 oz/a A		95.0		95.0		5.0 0.0
Prowl H2O			32 oz/a B						
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
6 Command			16 oz/a A		92.5		94.5		30.0 0.0
Sharpen			2 oz/a A						
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
Prowl H2O			32 oz/a D						
Ricestar HT			24 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
7 Command			16 oz/a A		95.0		95.0		12.5 0.0
Sharpen			2 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location:Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			15 14		15 14		15 14		15 14
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		1*		2*		3* 4*
8 Command			16 oz/a A		95.0		95.0		10.0 1.3
League			6 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
9 Command			34 oz/a A		95.0		95.0		5.0 7.5
Prowl H2O			32 oz/a C						
Ricestar HT			24 oz/a C						
Sharpen			2 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
10 Newpath			4 oz/a A		93.8		93.8		7.5 2.5
Command			16 oz/a A						
Prowl H2O			32 oz/a C						
Ricestar HT			17 oz/a C						
Sharpen			2 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
11 Command			12 oz/a A		95.0		93.8		75.0 0.0
Facet L			32 oz/a A						
Newpath			4 oz/a C						
Prowl H2O			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Newpath			4 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
12 Command			12 oz/a A		95.0		95.0		85.0 0.0
Facet L			32 oz/a A						
Newpath			4 oz/a C						
Prowl H2O			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Ricestar HT			24 oz/a D						
Loyant			16 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
13 Command			17 oz/a A		93.8		95.0		7.5 1.3
Prowl H2O			32 oz/a C						
Ricestar HT			17 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Regiment			0.5 oz/a D						
Dyne-A-Pak			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location: Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			May-31-2019		May-31-2019		May-31-2019		May-31-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			15 14		15 14		15 14		15 14
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		1*		2*		3* 4*
14 Prowl H2O			32 oz/a B		85.0		82.5		0.0 0.0
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
15 Prowl H2O			32 oz/a B		86.3		85.0		3.8 0.0
Bolero			64 oz/a B						
Loyant			16 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
16 Command			16 oz/a A		92.5		93.8		2.5 2.5
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
17 Command			34 oz/a A		95.0		96.3		2.5 8.8
Clearpath			8 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Newpath			4 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Beyond			5 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
18 Command			16 oz/a A		95.0		95.0		0.0 0.0
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
RiceBeaux			96 oz/a C						
NIS			3.84 oz/a C						
Stam M-4			96 oz/a E						
Beyond			5 oz/a E						
19 Command			16 oz/a A		90.0		87.5		7.5 0.0
League			6 oz/a A						
Newpath			4 oz/a C						
Warrant			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
20 Command			16 oz/a A		92.5		91.3		17.5 1.3
League			6 oz/a A						
Newpath			4 oz/a C						
Warrant			48 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
LSD P=.05					5.75		6.65		18.29 14.09
Replicate F					1.080		0.388		0.317 0.920
Replicate Prob(F)					0.3650		0.7623		0.8134 0.4369
Treatment F					107.154		80.715		17.546 1.372
Treatment Prob(F)					0.0001		0.0001		0.0001 0.1786

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(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location:Lonoke			Trial Year:2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-10-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			25 6		25 6		25 6		25 6
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		5*		6*		7* 8*
1 Untreated Check					0.0		0.0		0.0 0.0
2 Command			12.8 oz/a A		85.0		85.0		0.0 3.8
RiceOne			24 oz/a C						
COC			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
3 Obey			32 oz/a A		87.5		92.5		76.3 0.0
Command			12 oz/a C						
Ricestar HT			24 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
4 Command			16 oz/a A		90.0		95.0		61.3 1.3
Prowl H2O			32 oz/a B						
Ricestar HT			24 oz/a C						
Facet L			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
5 Command			14 oz/a A		86.3		91.3		0.0 0.0
Prowl H2O			32 oz/a B						
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
6 Command			16 oz/a A		90.0		95.0		96.3 2.5
Sharpen			2 oz/a A						
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
Prowl H2O			32 oz/a D						
Ricestar HT			24 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
7 Command			16 oz/a A		90.0		87.5		0.0 0.0
Sharpen			2 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

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* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location:Lonoke		Trial Year:2019				
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-10-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			25 6		25 6		25 6		25 6
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		5*		6*		7* 8*
8 Command			16 oz/a A		87.5		85.0		0.0 0.0
League			6 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
9 Command			34 oz/a A		95.0		95.0		95.0 50.0
Prowl H2O			32 oz/a C						
Ricestar HT			24 oz/a C						
Sharpen			2 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
10 Newpath			4 oz/a A		97.0		97.0		97.0 52.5
Command			16 oz/a A						
Prowl H2O			32 oz/a C						
Ricestar HT			17 oz/a C						
Sharpen			2 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
11 Command			12 oz/a A		92.5		92.5		75.0 0.0
Facet L			32 oz/a A						
Newpath			4 oz/a C						
Prowl H2O			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Newpath			4 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
12 Command			12 oz/a A		95.0		95.0		92.5 0.0
Facet L			32 oz/a A						
Newpath			4 oz/a C						
Prowl H2O			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Ricestar HT			24 oz/a D						
Loyant			16 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
13 Command			17 oz/a A		92.5		92.5		0.0 1.3
Prowl H2O			32 oz/a C						
Ricestar HT			17 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Regiment			0.5 oz/a D						
Dyne-A-Pak			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location: Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		
Rating Date			Jun-10-2019		Jun-10-2019		Jun-10-2019		Jun-10-2019
Rating Type			CONTRO		CONTRO		CONTRO		PHYGEN
Rating Unit			%		%		%		%
Days After First/Last Applic.			25 6		25 6		25 6		25 6
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		5*		6*		7* 8*
14 Prowl H2O			32 oz/a B		60.0		52.5		0.0 0.0
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
15 Prowl H2O			32 oz/a B		55.0		55.0		0.0 0.0
Bolero			64 oz/a B						
Loyant			16 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
16 Command			16 oz/a A		85.0		85.0		0.0 2.5
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
17 Command			34 oz/a A		92.5		93.8		20.0 16.3
Clearpath			8 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Newpath			4 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Beyond			5 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
18 Command			16 oz/a A		92.5		93.8		95.0 6.3
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
RiceBeaux			96 oz/a C						
NIS			3.84 oz/a C						
Stam M-4			96 oz/a E						
Beyond			5 oz/a E						
19 Command			16 oz/a A		91.3		91.3		0.0 0.0
League			6 oz/a A						
Newpath			4 oz/a C						
Warrant			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
20 Command			16 oz/a A		88.8		83.8		31.3 2.5
League			6 oz/a A						
Newpath			4 oz/a C						
Warrant			48 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
LSD P=.05					8.35		8.47		24.94 4.45
Replicate F					4.211		0.460		0.357 1.044
Replicate Prob(F)					0.0093		0.7112		0.7844 0.3800
Treatment F					56.552		59.169		23.411 98.777
Treatment Prob(F)					0.0001		0.0001		0.0001 0.0001

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* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice										
Trial ID: TRB19 RICE 20			Location:Lonoke			Trial Year:2019				
Protocol ID: Standards Rice			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		Aeschynomene v>	
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		Northern joint>	
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			33 6		33 6		33 6		33 6	
Trt Treatment			Rate Appl							
No. Name			Rate Unit Code		9*		10*		11*	
					12*					
1 Untreated Check					0.0		0.0		0.0	
2 Command			12.8 oz/a A		75.0		75.0		72.5	
RiceOne			24 oz/a C							
COC			15.4 oz/a C							
RiceBeaux			96 oz/a D							
NIS			3.84 oz/a D							
Clincher			15 oz/a E							
Crop Oil Concentrate			15.4 oz/a E							
3 Obey			32 oz/a A		88.8		88.8		96.3	
Command			12 oz/a C							
Ricestar HT			24 oz/a C							
Crop Oil Concentrate			15.4 oz/a C							
RiceBeaux			96 oz/a D							
NIS			3.84 oz/a D							
Clincher			15 oz/a E							
Crop Oil Concentrate			15.4 oz/a E							
4 Command			16 oz/a A		93.8		93.8		87.5	
Prowl H2O			32 oz/a B							
Ricestar HT			24 oz/a C							
Facet L			32 oz/a C							
Crop Oil Concentrate			15.4 oz/a C							
RiceBeaux			96 oz/a D							
NIS			3.84 oz/a D							
Clincher			15 oz/a E							
Crop Oil Concentrate			15.4 oz/a E							
5 Command			14 oz/a A		85.0		85.0		75.0	
Prowl H2O			32 oz/a B							
Bolero			64 oz/a B							
Rebel EX			18 oz/a D							
Crop Oil Concentrate			15.4 oz/a D							
6 Command			16 oz/a A		93.8		93.8		92.5	
Sharpen			2 oz/a A							
Stam M-4			96 oz/a C							
Facet L			32 oz/a C							
Prowl H2O			32 oz/a D							
Ricestar HT			24 oz/a D							
Crop Oil Concentrate			15.4 oz/a D							
Clincher			15 oz/a E							
Crop Oil Concentrate			15.4 oz/a E							
7 Command			16 oz/a A		81.3		77.5		72.5	
Sharpen			2 oz/a A							
Prowl H2O			32 oz/a B							
RiceBeaux			96 oz/a D							
NIS			3.84 oz/a D							
Ricestar HT			24 oz/a E							
Crop Oil Concentrate			15.4 oz/a E							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice										
Trial ID: TRB19 RICE 20			Location:Lonoke		Trial Year:2019					
Protocol ID: Standards Rice			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		Aeschynomene v>	
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		Northern joint>	
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			33 6		33 6		33 6		33 6	
Trt Treatment			Rate Appl							
No. Name		Rate Unit Code	9*		10*		11*		12*	
8 Command 16 oz/a A			80.0		77.5		76.3		76.3	
League 6 oz/a A										
Prowl H2O 32 oz/a B										
RiceBeaux 96 oz/a D										
NIS 3.84 oz/a D										
Ricestar HT 24 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										
9 Command 34 oz/a A			92.5		93.8		93.8		93.8	
Prowl H2O 32 oz/a C										
Ricestar HT 24 oz/a C										
Sharpen 2 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Clincher 15 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										
10 Newpath 4 oz/a A			95.0		95.0		95.0		95.0	
Command 16 oz/a A										
Prowl H2O 32 oz/a C										
Ricestar HT 17 oz/a C										
Sharpen 2 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Clincher 15 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										
11 Command 12 oz/a A			93.8		93.8		73.8		73.8	
Facet L 32 oz/a A										
Newpath 4 oz/a C										
Prowl H2O 32 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Newpath 4 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
12 Command 12 oz/a A			96.3		96.3		93.8		93.8	
Facet L 32 oz/a A										
Newpath 4 oz/a C										
Prowl H2O 32 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Ricestar HT 24 oz/a D										
Loyant 16 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
13 Command 17 oz/a A			88.8		91.3		72.5		72.5	
Prowl H2O 32 oz/a C										
Ricestar HT 17 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Regiment 0.5 oz/a D										
Dyne-A-Pak 15.4 oz/a D										
Clincher 15 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice										
Trial ID: TRB19 RICE 20			Location:Lonoke			Trial Year:2019				
Protocol ID: Standards Rice			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Digitaria sang>		Sesbania herba>		Aeschynomene v>	
Pest Name			Common barnyar>		large crabgrass		Hemp sesbania		Northern joint>	
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-18-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			33 6		33 6		33 6		33 6	
Trt Treatment			Rate Appl							
No. Name		Rate Unit Code	9*		10*		11*		12*	
14 Prowl H2O 32 oz/a B			55.0		50.0		83.8		83.8	
Bolero 64 oz/a B										
Rebel EX 18 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
15 Prowl H2O 32 oz/a B			55.0		55.0		75.0		75.0	
Bolero 64 oz/a B										
Loyant 16 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
16 Command 16 oz/a A			85.0		85.0		70.0		70.0	
Rebel EX 18 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
17 Command 34 oz/a A			91.3		91.3		55.0		55.0	
Clearpath 8 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Newpath 4 oz/a D										
Crop Oil Concentrate 15.4 oz/a D										
Beyond 5 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										
18 Command 16 oz/a A			92.5		92.5		95.0		95.0	
Stam M-4 96 oz/a C										
Facet L 32 oz/a C										
RiceBeaux 96 oz/a C										
NIS 3.84 oz/a C										
Stam M-4 96 oz/a E										
Beyond 5 oz/a E										
19 Command 16 oz/a A			87.5		87.5		0.0		0.0	
League 6 oz/a A										
Newpath 4 oz/a C										
Warrant 32 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
Clincher 15 oz/a E										
Crop Oil Concentrate 15.4 oz/a E										
20 Command 16 oz/a A			92.5		92.5		91.3		90.0	
League 6 oz/a A										
Newpath 4 oz/a C										
Warrant 48 oz/a C										
Crop Oil Concentrate 15.4 oz/a C										
RiceBeaux 96 oz/a D										
NIS 3.84 oz/a D										
LSD P=.05			7.93		8.88		14.27		14.44	
Replicate F			1.210		0.699		0.052		0.083	
Replicate Prob(F)			0.3144		0.5565		0.9841		0.9690	
Treatment F			64.239		53.217		29.871		29.014	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location:Lonoke		Trial Year:2019				
Protocol ID: Standards Rice			Investigator:Thomas R. Butts						
Pest Type				W Weed	W Weed	W Weed			
Pest Scientific Name				Echinochloa cr>	Digitaria sang>	Sesbania herba>			
Pest Name				Common barnyar>	large crabgrass	Hemp sesbania			
Rating Date			Jun-18-2019	Jul-3-2019	Jul-3-2019	Jul-3-2019			
Rating Type			PHYGEN	CONTRO	CONTRO	CONTRO			
Rating Unit			%	%	%	%			
Days After First/Last Applic.			33	48	48	48	6		
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code	13*	14*	15*	16*		
1 Untreated Check			0.0	0.0	0.0	0.0			
2 Command			12.8 oz/a A	7.5	92.5	92.5	96.3		
RiceOne			24 oz/a C						
COC			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
3 Obey			32 oz/a A	5.0	98.8	98.8	100.0		
Command			12 oz/a C						
Ricestar HT			24 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
4 Command			16 oz/a A	6.3	98.8	98.8	95.0		
Prowl H2O			32 oz/a B						
Ricestar HT			24 oz/a C						
Facet L			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
5 Command			14 oz/a A	1.3	85.0	82.5	85.0		
Prowl H2O			32 oz/a B						
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
6 Command			16 oz/a A	3.8	100.0	100.0	100.0		
Sharpen			2 oz/a A						
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
Prowl H2O			32 oz/a D						
Ricestar HT			24 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
7 Command			16 oz/a A	6.3	86.3	86.3	97.5		
Sharpen			2 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice										
Trial ID: TRB19 RICE 20			Location:Lonoke		Trial Year:2019					
Protocol ID: Standards Rice			Investigator:Thomas R. Butts							
Pest Type					W Weed		W Weed		W Weed	
Pest Scientific Name					Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name					Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date			Jun-18-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type			PHYGEN		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			33	6	48	6	48	6	48	6
Trt Treatment			Rate Appl							
No.	Name	Rate Unit Code	13*		14*		15*		16*	
8	Command	16 oz/a A	7.5		91.3		91.3		100.0	
	League	6 oz/a A								
	Prowl H2O	32 oz/a B								
	RiceBeaux	96 oz/a D								
	NIS	3.84 oz/a D								
	Ricestar HT	24 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								
9	Command	34 oz/a A	12.5		100.0		100.0		100.0	
	Prowl H2O	32 oz/a C								
	Ricestar HT	24 oz/a C								
	Sharpen	2 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Clincher	15 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								
10	Newpath	4 oz/a A	25.0		100.0		100.0		100.0	
	Command	16 oz/a A								
	Prowl H2O	32 oz/a C								
	Ricestar HT	17 oz/a C								
	Sharpen	2 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Clincher	15 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								
11	Command	12 oz/a A	0.0		100.0		100.0		94.5	
	Facet L	32 oz/a A								
	Newpath	4 oz/a C								
	Prowl H2O	32 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Newpath	4 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
12	Command	12 oz/a A	2.5		98.8		99.5		100.0	
	Facet L	32 oz/a A								
	Newpath	4 oz/a C								
	Prowl H2O	32 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Ricestar HT	24 oz/a D								
	Loyant	16 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
13	Command	17 oz/a A	0.0		100.0		100.0		100.0	
	Prowl H2O	32 oz/a C								
	Ricestar HT	17 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Regiment	0.5 oz/a D								
	Dyne-A-Pak	15.4 oz/a D								
	Clincher	15 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice										
Trial ID: TRB19 RICE 20			Location:Lonoke		Trial Year:2019					
Protocol ID: Standards Rice			Investigator: Thomas R. Butts							
Pest Type					W Weed		W Weed		W Weed	
Pest Scientific Name					Echinochloa cr>		Digitaria sang>		Sesbania herba>	
Pest Name					Common barnyar>		large crabgrass		Hemp sesbania	
Rating Date			Jun-18-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type			PHYGEN		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			33	6	48	6	48	6	48	6
Trt Treatment										
No.	Name	Rate Unit Code	13*		14*		15*		16*	
14	Prowl H2O	32 oz/a B	0.0		57.5		57.5		85.8	
	Bolero	64 oz/a B								
	Rebel EX	18 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
15	Prowl H2O	32 oz/a B	2.5		60.0		55.0		97.0	
	Bolero	64 oz/a B								
	Loyant	16 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
16	Command	16 oz/a A	1.3		77.5		75.0		62.5	
	Rebel EX	18 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
17	Command	34 oz/a A	10.0		100.0		100.0		100.0	
	Clearpath	8 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Newpath	4 oz/a D								
	Crop Oil Concentrate	15.4 oz/a D								
	Beyond	5 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								
18	Command	16 oz/a A	7.5		100.0		100.0		100.0	
	Stam M-4	96 oz/a C								
	Facet L	32 oz/a C								
	RiceBeaux	96 oz/a C								
	NIS	3.84 oz/a C								
	Stam M-4	96 oz/a E								
	Beyond	5 oz/a E								
19	Command	16 oz/a A	0.0		99.5		98.8		0.0	
	League	6 oz/a A								
	Newpath	4 oz/a C								
	Warrant	32 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	Clincher	15 oz/a E								
	Crop Oil Concentrate	15.4 oz/a E								
20	Command	16 oz/a A	11.3		97.0		97.0		100.0	
	League	6 oz/a A								
	Newpath	4 oz/a C								
	Warrant	48 oz/a C								
	Crop Oil Concentrate	15.4 oz/a C								
	RiceBeaux	96 oz/a D								
	NIS	3.84 oz/a D								
LSD P=.05			5.86		11.08		10.35		10.40	
Replicate F			1.705		0.540		0.577		0.979	
Replicate Prob(F)			0.1762		0.6571		0.6325		0.4089	
Treatment F			8.669		38.381		45.394		69.457	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

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* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice				
Trial ID: TRB19 RICE 20		Location: Lonoke		Trial Year: 2019
Protocol ID: Standards Rice		Investigator: Thomas R. Butts		
Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Aeschynomene v>	Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name	Northern joint>	Common barnyar>	large crabgrass	Hemp sesbania
Rating Date	Jul-3-2019	Sep-18-2019	Sep-18-2019	Sep-18-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	48 6	125 83	125 83	125 83
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	17*	18*	19*
1 Untreated Check		0.0	0.0	0.0
2 Command	12.8 oz/a A	99.5	71.3	90.0
RiceOne	24 oz/a C			93.8
COC	15.4 oz/a C			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
3 Obey	32 oz/a A	100.0	98.8	100.0
Command	12 oz/a C			
Ricestar HT	24 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
4 Command	16 oz/a A	97.5	97.5	97.5
Prowl H2O	32 oz/a B			87.5
Ricestar HT	24 oz/a C			
Facet L	32 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
5 Command	14 oz/a A	87.5	85.0	85.0
Prowl H2O	32 oz/a B			57.5
Bolero	64 oz/a B			
Rebel EX	18 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
6 Command	16 oz/a A	100.0	100.0	100.0
Sharpen	2 oz/a A			
Stam M-4	96 oz/a C			
Facet L	32 oz/a C			
Prowl H2O	32 oz/a D			
Ricestar HT	24 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
7 Command	16 oz/a A	99.5	77.5	77.5
Sharpen	2 oz/a A			92.5
Prowl H2O	32 oz/a B			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
Ricestar HT	24 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice				
Trial ID: TRB19 RICE 20		Location: Lonoke		Trial Year: 2019
Protocol ID: Standards Rice		Investigator: Thomas R. Butts		
Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Aeschynomene v>	Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name	Northern joint>	Common barnyar>	large crabgrass	Hemp sesbania
Rating Date	Jul-3-2019	Sep-18-2019	Sep-18-2019	Sep-18-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	48 6	125 83	125 83	125 83
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	17*	18*	19*
8 Command	16 oz/a A	100.0	82.5	92.0
League	6 oz/a A			86.3
Prowl H2O	32 oz/a B			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
Ricestar HT	24 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
9 Command	34 oz/a A	100.0	100.0	99.5
Prowl H2O	32 oz/a C			
Ricestar HT	24 oz/a C			
Sharpen	2 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
10 Newpath	4 oz/a A	100.0	97.5	98.8
Command	16 oz/a A			100.0
Prowl H2O	32 oz/a C			
Ricestar HT	17 oz/a C			
Sharpen	2 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
11 Command	12 oz/a A	98.3	97.5	97.5
Facet L	32 oz/a A			
Newpath	4 oz/a C			
Prowl H2O	32 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Newpath	4 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
12 Command	12 oz/a A	100.0	98.8	98.8
Facet L	32 oz/a A			100.0
Newpath	4 oz/a C			
Prowl H2O	32 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Ricestar HT	24 oz/a D			
Loyant	16 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
13 Command	17 oz/a A	100.0	100.0	100.0
Prowl H2O	32 oz/a C			
Ricestar HT	17 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Regiment	0.5 oz/a D			
Dyne-A-Pak	15.4 oz/a D			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice				
Trial ID: TRB19 RICE 20		Location: Lonoke		Trial Year: 2019
Protocol ID: Standards Rice		Investigator: Thomas R. Butts		
Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Scientific Name	Aeschynomene v>	Echinochloa cr>	Digitaria sang>	Sesbania herba>
Pest Name	Northern joint>	Common barnyar>	large crabgrass	Hemp sesbania
Rating Date	Jul-3-2019	Sep-18-2019	Sep-18-2019	Sep-18-2019
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Days After First/Last Applic.	48 6	125 83	125 83	125 83
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	17*	18*	19*
14 Prowl H2O	32 oz/a B	88.3	50.0	45.0
Bolero	64 oz/a B			77.5
Rebel EX	18 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
15 Prowl H2O	32 oz/a B	96.3	60.0	37.5
Bolero	64 oz/a B			100.0
Loyant	16 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
16 Command	16 oz/a A	62.5	67.5	62.5
Rebel EX	18 oz/a D			30.0
Crop Oil Concentrate	15.4 oz/a D			
17 Command	34 oz/a A	100.0	98.8	100.0
Clearpath	8 oz/a C			95.8
Crop Oil Concentrate	15.4 oz/a C			
Newpath	4 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
Beyond	5 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
18 Command	16 oz/a A	100.0	98.8	100.0
Stam M-4	96 oz/a C			
Facet L	32 oz/a C			
RiceBeaux	96 oz/a C			
NIS	3.84 oz/a C			
Stam M-4	96 oz/a E			
Beyond	5 oz/a E			
19 Command	16 oz/a A	0.0	87.5	87.5
League	6 oz/a A			0.0
Newpath	4 oz/a C			
Warrant	32 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
20 Command	16 oz/a A	100.0	90.0	90.0
League	6 oz/a A			100.0
Newpath	4 oz/a C			
Warrant	48 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
LSD P=.05		8.87	11.42	11.16
Replicate F		0.483	0.555	0.497
Replicate Prob(F)		0.6955	0.6467	0.6859
Treatment F		96.901	37.126	46.429
Treatment Prob(F)		0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location: Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed						
Pest Scientific Name			Aeschynomene v>						
Pest Name			Northern joint>						
Rating Date			Sep-18-2019		Oct-8-2019		Oct-8-2019		
Rating Type			CONTRO		WEIGHT		YIELD		
Rating Unit			%		lb/plot		BU		
Days After First/Last Applic.			125 83		145 103		145 103		
Trt Treatment			Rate Appl						
No. Name			Rate Unit Code		21*		22*		23*
1 Untreated Check					0.0		7.88		40.1
2 Command			12.8 oz/a A		100.0		35.85		182.8
RiceOne			24 oz/a C						
COC			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
3 Obey			32 oz/a A		100.0		35.48		180.8
Command			12 oz/a C						
Ricestar HT			24 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
4 Command			16 oz/a A		97.5		34.78		177.3
Prowl H2O			32 oz/a B						
Ricestar HT			24 oz/a C						
Facet L			32 oz/a C						
Crop Oil Concentrate			15.4 oz/a C						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
5 Command			14 oz/a A		72.5		30.70		156.5
Prowl H2O			32 oz/a B						
Bolero			64 oz/a B						
Rebel EX			18 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
6 Command			16 oz/a A		100.0		40.10		204.4
Sharpen			2 oz/a A						
Stam M-4			96 oz/a C						
Facet L			32 oz/a C						
Prowl H2O			32 oz/a D						
Ricestar HT			24 oz/a D						
Crop Oil Concentrate			15.4 oz/a D						
Clincher			15 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						
7 Command			16 oz/a A		97.5		32.53		165.8
Sharpen			2 oz/a A						
Prowl H2O			32 oz/a B						
RiceBeaux			96 oz/a D						
NIS			3.84 oz/a D						
Ricestar HT			24 oz/a E						
Crop Oil Concentrate			15.4 oz/a E						

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice									
Trial ID: TRB19 RICE 20			Location:Lonoke			Trial Year: 2019			
Protocol ID: Standards Rice			Investigator: Thomas R. Butts						
Pest Type			W Weed						
Pest Scientific Name			Aeschynomene v>						
Pest Name			Northern joint>						
Rating Date			Sep-18-2019		Oct-8-2019		Oct-8-2019		
Rating Type			CONTRO		WEIGHT		YIELD		
Rating Unit			%		lb/plot		BU		
Days After First/Last Applic.			125 83		145 103		145 103		
Trt	Treatment		Rate Appl						
No.	Name	Rate Unit Code	21*		22*		23*		
8	Command	16 oz/a A	82.0		33.35		170.0		
	League	6 oz/a A							
	Prowl H2O	32 oz/a B							
	RiceBeaux	96 oz/a D							
	NIS	3.84 oz/a D							
	Ricestar HT	24 oz/a E							
	Crop Oil Concentrate	15.4 oz/a E							
9	Command	34 oz/a A	96.3		35.03		178.5		
	Prowl H2O	32 oz/a C							
	Ricestar HT	24 oz/a C							
	Sharpen	2 oz/a C							
	Crop Oil Concentrate	15.4 oz/a C							
	Clincher	15 oz/a E							
	Crop Oil Concentrate	15.4 oz/a E							
10	Newpath	4 oz/a A	100.0		36.18		184.4		
	Command	16 oz/a A							
	Prowl H2O	32 oz/a C							
	Ricestar HT	17 oz/a C							
	Sharpen	2 oz/a C							
	Crop Oil Concentrate	15.4 oz/a C							
	Clincher	15 oz/a E							
	Crop Oil Concentrate	15.4 oz/a E							
11	Command	12 oz/a A	93.8		38.63		196.9		
	Facet L	32 oz/a A							
	Newpath	4 oz/a C							
	Prowl H2O	32 oz/a C							
	Crop Oil Concentrate	15.4 oz/a C							
	Newpath	4 oz/a D							
	Crop Oil Concentrate	15.4 oz/a D							
12	Command	12 oz/a A	100.0		35.58		181.4		
	Facet L	32 oz/a A							
	Newpath	4 oz/a C							
	Prowl H2O	32 oz/a C							
	Crop Oil Concentrate	15.4 oz/a C							
	Ricestar HT	24 oz/a D							
	Loyant	16 oz/a D							
	Crop Oil Concentrate	15.4 oz/a D							
13	Command	17 oz/a A	100.0		33.75		172.0		
	Prowl H2O	32 oz/a C							
	Ricestar HT	17 oz/a C							
	Crop Oil Concentrate	15.4 oz/a C							
	Regiment	0.5 oz/a D							
	Dyne-A-Pak	15.4 oz/a D							
	Clincher	15 oz/a E							
	Crop Oil Concentrate	15.4 oz/a E							

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice				
Trial ID: TRB19 RICE 20		Location: Lonoke		Trial Year: 2019
Protocol ID: Standards Rice		Investigator: Thomas R. Butts		
Pest Type	W Weed			
Pest Scientific Name	Aeschynomene v>			
Pest Name	Northern joint>			
Rating Date	Sep-18-2019	Oct-8-2019	Oct-8-2019	
Rating Type	CONTRO	WEIGHT	YIELD	
Rating Unit	%	lb/plot	BU	
Days After First/Last Applic.	125 83	145 103	145 103	
Trt Treatment	Rate Appl			
No. Name	Rate Unit Code	21*	22*	23*
14 Prowl H2O	32 oz/a B	92.5	22.78	116.1
Bolero	64 oz/a B			
Rebel EX	18 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
15 Prowl H2O	32 oz/a B	100.0	20.43	104.1
Bolero	64 oz/a B			
Loyant	16 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
16 Command	16 oz/a A	47.5	28.53	145.4
Rebel EX	18 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
17 Command	34 oz/a A	95.8	37.40	190.7
Clearpath	8 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Newpath	4 oz/a D			
Crop Oil Concentrate	15.4 oz/a D			
Beyond	5 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
18 Command	16 oz/a A	100.0	35.80	182.5
Stam M-4	96 oz/a C			
Facet L	32 oz/a C			
RiceBeaux	96 oz/a C			
NIS	3.84 oz/a C			
Stam M-4	96 oz/a E			
Beyond	5 oz/a E			
19 Command	16 oz/a A	0.0	28.98	147.7
League	6 oz/a A			
Newpath	4 oz/a C			
Warrant	32 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
Clincher	15 oz/a E			
Crop Oil Concentrate	15.4 oz/a E			
20 Command	16 oz/a A	100.0	34.63	176.5
League	6 oz/a A			
Newpath	4 oz/a C			
Warrant	48 oz/a C			
Crop Oil Concentrate	15.4 oz/a C			
RiceBeaux	96 oz/a D			
NIS	3.84 oz/a D			
LSD P=.05		12.38	4.433	22.60
Replicate F		0.962	3.960	3.960
Replicate Prob(F)		0.4169	0.0124	0.0124
Treatment F		51.517	22.833	22.833
Treatment Prob(F)		0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 20)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Arkansas herbicide program approaches for weed control in rice

Trial ID: TRB19 RICE 20 Location: Lonoke Trial Year: 2019
 Protocol ID: Standards Rice Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.097764*[22]

(TRB19 RICE 21)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 21 Investigator: Thomas R. Butts

General Trial Information

Investigator: Thomas R. Butts

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Harvested Width: 7.5 FT
% Standard Moisture: 12.5 **Harvested** 25 FT

Pest Description

Pest 1 Type: W ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass

Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis
Common Name: large crabgrass

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 15
Replications: 4 **Study** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B
Application Date	Jun-4-2019	Jun-12-2019
Appl. Start Time	10:00 AM	9:15 AM
Appl. Stop Time	10:40 AM	9:30 AM
Application Method	SPRAY	SPRAY
Application Placement	BROADC	BROADC
Applied By	B. Davis	B. Davis
Air Temperature Start, Stop	82 F	74 F
% Relative Humidity Start, Stop	69	52
Wind Velocity+Dir. Start	2.5 MPH S	4.2 MPH NE
Wet Leaves (Y/N)	N no	N no
Soil Temperature	74 F	62 F
Soil Moisture	ABONOR	DRY
% Cloud Cover	40	80

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent	4 lf	4lf
Height Average	6 in	6 in

(TRB19 RICE 21)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 21 Investigator: Thomas R. Butts

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	ECHCG W	ECHCG W
Stage Majority, Percent	3-4 lf	3-4 lf
Height Average	3 in	3 in
Density Average	2 FT2	2 FT2
Pest 2 Code, Type, Scale	DIGSA W	DIGSA W
Stage Majority, Percent	3-4 lf	3-4 lf
Height Average	3 in	3 in
Density Average	1 FT2	1 FT2

Application Equipment

	A	B
Appl. Equipment	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH
Nozzle Size	110018	110018
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	6	6
Band Width	20 IN	20 IN
Boom Length	10 FT	10 FT
Ground Speed	4 MPH	4 MPH
Carrier	WATER	WATER

Context	Date	By	Notes
STATUS	Apr-19-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-5-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21				Location: Lonoke				Trial Year: 2019			
Protocol ID: TRB19 RICE 21				Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Leptochloa sp.		Digitaria sang>		Echinochloa cr>	
Pest Name				Common barnyar>		Sprangletop		large crabgrass		Common barnyar>	
Rating Date				Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-26-2019	
Rating Type				CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				14		14		14		22	
Trt Treatment				1*		2*		3*		4*	
No. Name				Rate Unit		Appl Code					
1 Nontreated Control				0.0		0.0		0.0		0.0	
2 Provisia				15.5 fl oz/a		A		93.8		93.8	
COC				1 pt/a		A		93.8		95.0	
3 Clincher				15 fl oz/a		A		82.5		88.8	
COC				1 qt/a		A		85.0		80.0	
4 Ricestar HT				24 fl oz/a		A		93.3		95.0	
COC				1 pt/a		A		93.8		93.8	
5 Grasp				2 fl oz/a		A		77.5		45.0	
COC				1 qt/a		A		75.0		57.5	
6 Regiment				0.5 oz wt/a		A		75.0		70.0	
Dyne-A-Pak				15.4 fl oz/a		A		72.5		62.5	
7 Loyant				16 fl oz/a		A		85.0		83.8	
MSO				0.5 pt/a		A		65.0		77.5	
8 Propanil				4 qt/a		A		85.0		80.0	
9 Facet L				32 fl oz/a		A		75.0		47.5	
COC				1 % v/v		A		70.0		62.5	
10 Provisia				15.5 fl oz/a		A		92.5		92.5	
COC				1 pt/a		A		92.5		92.5	
Provisia				15.5 fl oz/a		B					
COC				1 pt/a		B					
11 Provisia				15.5 fl oz/a		A		95.0		95.0	
COC				1 pt/a		A		93.8		91.3	
Loyant				16 fl oz/a		B					
MSO				0.5 pt/a		B					
12 Loyant				16 fl oz/a		A		87.5		92.5	
MSO				0.5 pt/a		A		85.0		78.8	
Loyant				16 fl oz/a		B					
MSO				0.5 pt/a		B					
13 Provisia				15.5 fl oz/a		A		95.0		95.0	
COC				1 pt/a		A		95.0		95.0	
Regiment				0.5 oz wt/a		B					
Dyne-A-Pak				15.4 fl oz/a		B					
14 Provisia				15.5 fl oz/a		A		93.8		93.8	
COC				1 pt/a		A		93.8		93.8	
Propanil				4 qt/a		B					

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice											
Trial ID: TRB19 RICE 21			Location: Lonoke			Trial Year: 2019					
Protocol ID: TRB19 RICE 21			Investigator: Thomas R. Butts								
Pest Type			W Weed		W Weed		W Weed		W Weed		
Pest Scientific Name			Echinochloa cr>		Leptochloa sp.		Digitaria sang>		Echinochloa cr>		
Pest Name			Common barnyar>		Sprangletop		large crabgrass		Common barnyar>		
Rating Date			Jun-18-2019		Jun-18-2019		Jun-18-2019		Jun-26-2019		
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO		
Rating Unit			%		%		%		%		
Days After First/Last Applic.			14 6		14 6		14 6		22 14		
Trt Treatment		Rate	Appl	1*		2*		3*		4*	
No. Name		Rate Unit	Code								
15 Provisia		15.5 fl oz/a	A	95.0		95.0		95.0		93.8	
COC		1 pt/a	A								
Facet L		32 fl oz/a	B								
COC		1 % v/v	B								
LSD P=.05				8.44		16.81		16.11		10.05	
Replicate F				0.621		0.773		0.248		1.576	
Replicate Prob(F)				0.6056		0.5158		0.8620		0.2095	
Treatment F				64.605		21.396		18.498		50.311	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21				Location: Lonoke				Trial Year: 2019			
Protocol ID: TRB19 RICE 21				Investigator: Thomas R. Butts							
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Leptochloa sp.		Echinochloa cr>		Leptochloa sp.		Digitaria sang>	
Pest Name				Sprangletop		Common barnyar>		Sprangletop		large crabgrass	
Rating Date				Jun-26-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				22 14		29 21		29 21		29 21	
Trt	Treatment	Rate	Appl	5*		6*		7*		8*	
No.	Name	Rate Unit	Code								
1	Nontreated Control			0.0		0.0		0.0		0.0	
2	Provisia	15.5 fl oz/a	A	95.0		100.0		100.0		100.0	
	COC	1 pt/a	A								
3	Clincher	15 fl oz/a	A	85.0		86.3		98.3		94.5	
	COC	1 qt/a	A								
4	Ricestar HT	24 fl oz/a	A	93.8		92.5		100.0		94.5	
	COC	1 pt/a	A								
5	Grasp	2 fl oz/a	A	32.5		82.5		50.0		72.5	
	COC	1 qt/a	A								
6	Regiment	0.5 oz wt/a	A	72.5		60.0		72.5		70.0	
	Dyne-A-Pak	15.4 fl oz/a	A								
7	Loyant	16 fl oz/a	A	88.8		92.5		96.3		86.3	
	MSO	0.5 pt/a	A								
8	Propanil	4 qt/a	A	87.5		70.0		95.0		85.0	
9	Facet L	32 fl oz/a	A	55.0		85.0		70.0		90.0	
	COC	1 % v/v	A								
10	Provisia	15.5 fl oz/a	A	92.5		100.0		100.0		100.0	
	COC	1 pt/a	A								
	Provisia	15.5 fl oz/a	B								
	COC	1 pt/a	B								
11	Provisia	15.5 fl oz/a	A	91.3		100.0		100.0		100.0	
	COC	1 pt/a	A								
	Loyant	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
12	Loyant	16 fl oz/a	A	86.3		98.8		100.0		98.8	
	MSO	0.5 pt/a	A								
	Loyant	16 fl oz/a	B								
	MSO	0.5 pt/a	B								
13	Provisia	15.5 fl oz/a	A	95.0		100.0		100.0		100.0	
	COC	1 pt/a	A								
	Regiment	0.5 oz wt/a	B								
	Dyne-A-Pak	15.4 fl oz/a	B								
14	Provisia	15.5 fl oz/a	A	93.8		99.5		100.0		100.0	
	COC	1 pt/a	A								
	Propanil	4 qt/a	B								

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21			Location: Lonoke			Trial Year: 2019					
Protocol ID: TRB19 RICE 21			Investigator: Thomas R. Butts								
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Leptochloa sp.		Echinochloa cr>		Leptochloa sp.		Digitaria sang>	
Pest Name				Sprangletop		Common barnyar>		Sprangletop		large crabgrass	
Rating Date				Jun-26-2019		Jul-3-2019		Jul-3-2019		Jul-3-2019	
Rating Type				CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				22 14		29 21		29 21		29 21	
Trt Treatment		Rate		Appl							
No. Name		Rate Unit		Code		5*		6*		7*	
15 Provisia		15.5 fl oz/a		A		93.8		100.0		100.0	
COC		1 pt/a		A							
Facet L		32 fl oz/a		B							
COC		1 % v/v		B							
LSD P=.05				10.50		12.38		14.12		9.44	
Replicate F				0.544		0.454		1.012		1.446	
Replicate Prob(F)				0.6550		0.7160		0.3972		0.2429	
Treatment F				56.675		36.859		32.179		60.923	
Treatment Prob(F)				0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice									
Trial ID: TRB19 RICE 21			Location: Lonoke			Trial Year: 2019			
Protocol ID: TRB19 RICE 21			Investigator: Thomas R. Butts						
Pest Type				W Weed		W Weed		W Weed	
Pest Scientific Name				Echinochloa cr>		Leptochloa sp.		Echinochloa cr>	
Pest Name				Common barnyar>		Sprangletop		Common barnyar>	
Rating Date				Jul-12-2019		Jul-12-2019		Sep-17-2019	
Rating Type				CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%	
Days After First/Last Applic.				38 30		38 30		105 97	
Trt Treatment				Rate		Appl			
No. Name				Rate Unit		Code			
				9*		10*		11*	
				12*					
1 Nontreated Control				0.0		0.0		0.0	
2 Provisia				15.5 fl oz/a		A		100.0	
COC				1 pt/a		A		100.0	
3 Clincher				15 fl oz/a		A		75.0	
COC				1 qt/a		A		97.5	
4 Ricestar HT				24 fl oz/a		A		58.8	
COC				1 pt/a		A		92.0	
5 Grasp				2 fl oz/a		A		88.8	
COC				1 qt/a		A		100.0	
6 Regiment				0.5 oz wt/a		A		77.5	
Dyne-A-Pak				15.4 fl oz/a		A		95.0	
7 Loyant				16 fl oz/a		A		42.5	
MSO				0.5 pt/a		A		47.5	
8 Propanil				4 qt/a		A		50.0	
9 Facet L				32 fl oz/a		A		65.0	
COC				1 % v/v		A		97.0	
10 Provisia				15.5 fl oz/a		A		86.3	
COC				1 pt/a		A		91.3	
Provisia				15.5 fl oz/a		B		86.3	
COC				1 pt/a		B		91.3	
11 Provisia				15.5 fl oz/a		A		60.0	
COC				1 pt/a		A		85.0	
Loyant				16 fl oz/a		B		60.0	
MSO				0.5 pt/a		B		85.0	
12 Loyant				16 fl oz/a		A		37.5	
MSO				0.5 pt/a		A		43.8	
Loyant				16 fl oz/a		B		37.5	
MSO				0.5 pt/a		B		43.8	
13 Provisia				15.5 fl oz/a		A		99.5	
COC				1 pt/a		A		100.0	
Regiment				0.5 oz wt/a		B		99.5	
Dyne-A-Pak				15.4 fl oz/a		B		100.0	
14 Provisia				15.5 fl oz/a		A		98.8	
COC				1 pt/a		A		100.0	
Propanil				4 qt/a		B		99.5	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice										
Trial ID: TRB19 RICE 21			Location: Lonoke			Trial Year: 2019				
Protocol ID: TRB19 RICE 21			Investigator: Thomas R. Butts							
Pest Type			W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name			Echinochloa cr>		Leptochloa sp.		Echinochloa cr>		Leptochloa sp.	
Pest Name			Common barnyar>		Sprangletop		Common barnyar>		Sprangletop	
Rating Date			Jul-12-2019		Jul-12-2019		Sep-17-2019		Sep-17-2019	
Rating Type			CONTRO		CONTRO		CONTRO		CONTRO	
Rating Unit			%		%		%		%	
Days After First/Last Applic.			38 30		38 30		105 97		105 97	
Trt Treatment			Rate		Rate		Rate		Rate	
No. Name			Rate Unit		Rate Unit		Rate Unit		Rate Unit	
			9*		10*		11*		12*	
15 Provisia			15.5 fl oz/a		100.0		100.0		100.0	
COC			1 pt/a							
Facet L			32 fl oz/a							
COC			1 % v/v							
LSD P=.05			15.89		14.29		26.47		18.40	
Replicate F			0.801		1.642		0.965		1.609	
Replicate Prob(F)			0.5004		0.1941		0.4181		0.2016	
Treatment F			23.569		32.588		10.646		21.331	
Treatment Prob(F)			0.0001		0.0001		0.0001		0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice						
Trial ID: TRB19 RICE 21			Location: Lonoke		Trial Year: 2019	
Protocol ID: TRB19 RICE 21			Investigator: Thomas R. Butts			
Pest Type						
Pest Scientific Name						
Pest Name						
Rating Date				Oct-9-2019	Oct-9-2019	
Rating Type				WEIGHT	YIELD	
Rating Unit				lb/plot	BU	
Days After First/Last Applic.				127 119	127 119	
Trt No.	Treatment Name	Rate	Appl Unit Code	13*	14*	
1	Nontreated Control			20.425	105.1	
2	Provisia COC	15.5 fl oz/a 1 pt/a	A A	34.300	176.5	
3	Clincher COC	15 fl oz/a 1 qt/a	A A	28.280	145.5	
4	Ricestar HT COC	24 fl oz/a 1 pt/a	A A	32.050	164.9	
5	Grasp COC	2 fl oz/a 1 qt/a	A A	21.825	112.3	
6	Regiment Dyne-A-Pak	0.5 oz wt/a 15.4 fl oz/a	A A	19.050	98.0	
7	Loyant MSO	16 fl oz/a 0.5 pt/a	A A	28.050	144.3	
8	Propanil	4 qt/a	A	23.125	119.0	
9	Facet L COC	32 fl oz/a 1 % v/v	A A	19.850	102.1	
10	Provisia COC Provisia COC	15.5 fl oz/a 1 pt/a 15.5 fl oz/a 1 pt/a	A A B B	34.950	179.8	
11	Provisia COC Loyant MSO	15.5 fl oz/a 1 pt/a 16 fl oz/a 0.5 pt/a	A A B B	35.575	183.0	
12	Loyant MSO Loyant MSO	16 fl oz/a 0.5 pt/a 16 fl oz/a 0.5 pt/a	A A B B	32.075	165.0	
13	Provisia COC Regiment Dyne-A-Pak	15.5 fl oz/a 1 pt/a 0.5 oz wt/a 15.4 fl oz/a	A A B B	34.650	178.3	
14	Provisia COC Propanil	15.5 fl oz/a 1 pt/a 4 qt/a	A A B	35.925	184.8	

Means followed by same letter or symbol do not significantly differ ($P=0.05$, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 21 Investigator: Thomas R. Butts

Pest Type			
Pest Scientific Name			
Pest Name			
Rating Date	Oct-9-2019	Oct-9-2019	
Rating Type	WEIGHT	YIELD	
Rating Unit	lb/plot	BU	
Days After First/Last Applic.	127 119	127 119	
Trt Treatment	Rate	Appl	
No. Name	Rate Unit	Code	
		13*	14*
15 Provisia	15.5 fl oz/a	A	35.000
COC	1 pt/a	A	180.1
Facet L	32 fl oz/a	B	
COC	1 % v/v	B	
LSD P=.05	5.6256	28.94	
Replicate F	0.549	0.549	
Replicate Prob(F)	0.6515	0.6515	
Treatment F	10.755	10.755	
Treatment Prob(F)	0.0001	0.0001	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

(TRB19 RICE 21)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of POST herbicides for grass control in Provisia rice

Trial ID: TRB19 RICE 21 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 21 Investigator: Thomas R. Butts

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.144966*[13]

(TRB19 RICE 22)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Effectiveness of Loyant and Loyant + Clincher Tank-Mix on Sprangletop

Trial ID: TRB19 RICE 22 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 22 Investigator: Tom Barber

General Trial Information

Investigator: Tom Barber

Conducted Under GLP: N

Conducted Under GEP: No

Crop Description

Crop 1: C ORYSA Oryza sativa Common rice

Variety: CL 153

Planting Date: May-16-2019

Planting Rate: 90 LB/A

Harvested Width: 7.5 FT

% Standard Moisture: 12.5

Harvested 25 FT

Pest Description

Pest 1 Type: W LEFSS Leptochloa sp.

Common Name: Sprangletop

Pest 2 Type: W **Code:** DIGSA Digitaria sanguinalis

Common Name: large crabgrass

Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli

Common Name: Common barnyard grass

Site and Design

Treated Plot Width: 1 FT

Treated Plot Length: 25 FT

Treated Plot Area: 250 FT² **Treatments:** 11

Replications: 4

Study

RACOB L Randomized Complete Block (RCB)

Application Description

	A
Application Date	Jun-14-2019
Appl. Start Time	10:00 AM
Appl. Stop Time	10:30 AM
Application Method	SPRAY
Application Placement	BROADC
Applied By	B. Davis
Air Temperature Start, Stop	77 F
% Relative Humidity Start, Stop	46
Wind Velocity+Dir. Start	3.2 MPH S
Wet Leaves (Y/N)	N no
Soil Temperature	68 F
% Cloud Cover	60

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	ORYSA BRIC
Stage Majority, Percent	tiller
Height Average	8 in

(TRB19 RICE 22)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Effectiveness of Loyant and Loyant + Clincher Tank-Mix on Sprangletop

Trial ID: TRB19 RICE 22 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 22 Investigator: Tom Barber

Pest Stage At Each Application

	A	
Pest 1 Code, Type, Scale	LEFSS	W
Stage Majority, Percent	3	If
Height Average	5	in
Height Minimum, Maximum	3	6
Density Average	2	FT2
Pest 2 Code, Type, Scale	DIGSA	W
Stage Majority, Percent	tiller	
Height Average	5	in
Height Minimum, Maximum	4	6
Density Average	5	FT2
Pest 3 Code, Type, Scale	ECHCG	W
Stage Majority, Percent	tiller	
Height Average	5	in
Height Minimum, Maximum	4	6
Density Average	3	FT2

Application Equipment

	A	
Appl. Equipment	BD-	Tractor
Equipment Type	SPRAYE	
Operation Pressure	34	PSI
Nozzle Type	ARINDH	
Nozzle Size	110018	
Nozzle Spacing	20	IN
Nozzles/Row	6	
Band Width	20	IN
Boom Length	10	FT
Ground Speed	4	MPH
Carrier	WATER	

Context	Date	By	Notes
STATUS	Apr-19-2019	Tom Barber	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Nov-6-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 22)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Effectiveness of Loyant and Loyant + Clincher Tank-Mix on Sprangletop											
Trial ID: TRB19 RICE 22			Location: Lonoke			Trial Year: 2019					
Protocol ID: TRB19 RICE 22			Investigator: Tom Barber								
Pest Type				W Weed		W Weed		W Weed		W Weed	
Pest Scientific Name				Leptochloa sp.		Leptochloa sp.		Leptochloa sp.		Leptochloa sp.	
Pest Name				Sprangletop		Sprangletop		Sprangletop		Sprangletop	
Rating Date				Jun-26-2019		Jul-3-2019		Jul-17-2019		Jul-19-2019	
Rating Type				CONTROL		CONTRO		CONTRO		CONTRO	
Rating Unit				%		%		%		%	
Days After First/Last Applic.				12 12		19 19		33 33		35 35	
Trt Treatment				Rate Appl		Rate Appl		Rate Appl		Rate Appl	
No. Name				Rate Unit Code		Rate Unit Code		Rate Unit Code		Rate Unit Code	
				1*		2*		3*		4*	
1 Nontreated Control				0.0		0.0		0.0		0.0	
2 Loyant MSO				4 fl oz/a A 0.5 pt/a A		37.5		47.5		50.0	
3 Loyant MSO				6 fl oz/a A 0.5 pt/a A		35.0		15.0		25.0	
4 Loyant MSO				8 fl oz/a A 0.5 pt/a A		20.0		5.0		30.0	
5 Loyant MSO				10 fl oz/a A 0.5 pt/a A		32.5		32.5		40.0	
6 Loyant MSO				12 fl oz/a A 0.5 pt/a A		47.5		45.0		40.0	
7 Loyant Clincher MSO				4 fl oz/a A 15 fl oz/a A 0.5 pt/a A		40.0		42.5		37.5	
8 Loyant Clincher MSO				6 fl oz/a A 15 fl oz/a A 0.5 pt/a A		55.0		32.5		52.5	
9 Loyant Clincher MSO				8 fl oz/a A 15 fl oz/a A 0.5 pt/a A		45.0		37.5		55.0	
10 Loyant Clincher MSO				10 fl oz/a A 15 fl oz/a A 0.5 pt/a A		55.0		35.0		52.5	
11 Loyant Clincher MSO				12 fl oz/a A 15 fl oz/a A 0.5 pt/a A		60.0		60.0		62.5	
LSD P=.05				24.89		37.51		23.09		.	
Replicate F				0.130		0.066		0.818		0.000	
Replicate Prob(F)				0.9414		0.9774		0.4944		1.0000	
Treatment F				4.047		2.007		4.806		0.000	
Treatment Prob(F)				0.0014		0.0686		0.0004		1.0000	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,5 because error mean square = 0.

(TRB19 RICE 22)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Effectiveness of Loyant and Loyant + Clincher Tank-Mix on Sprangletop						
Trial ID: TRB19 RICE 22			Location: Lonoke		Trial Year: 2019	
Protocol ID: TRB19 RICE 22			Investigator: Tom Barber			
Pest Type						
Pest Scientific Name						
Pest Name						
Rating Date			Oct-9-2019		Oct-9-2019	
Rating Type			WEIGHT		YIELD	
Rating Unit			lb/plot		BU	
Days After First/Last Applic.			117 117		117 117	
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	6*		7*
1	Nontreated Control			16.80		85.0
2	Loyant	4 fl oz/a A		14.03		71.0
	MSO	0.5 pt/a A				
3	Loyant	6 fl oz/a A		12.80		64.8
	MSO	0.5 pt/a A				
4	Loyant	8 fl oz/a A		13.23		66.9
	MSO	0.5 pt/a A				
5	Loyant	10 fl oz/a A		13.03		65.9
	MSO	0.5 pt/a A				
6	Loyant	12 fl oz/a A		14.05		71.1
	MSO	0.5 pt/a A				
7	Loyant	4 fl oz/a A		14.88		75.3
	Clincher	15 fl oz/a A				
	MSO	0.5 pt/a A				
8	Loyant	6 fl oz/a A		16.05		81.3
	Clincher	15 fl oz/a A				
	MSO	0.5 pt/a A				
9	Loyant	8 fl oz/a A		13.55		68.6
	Clincher	15 fl oz/a A				
	MSO	0.5 pt/a A				
10	Loyant	10 fl oz/a A		15.60		79.0
	Clincher	15 fl oz/a A				
	MSO	0.5 pt/a A				
11	Loyant	12 fl oz/a A		16.20		82.0
	Clincher	15 fl oz/a A				
	MSO	0.5 pt/a A				
LSD P=.05			5.368		27.17	
Replicate F			0.820		0.820	
Replicate Prob(F)			0.4932		0.4932	
Treatment F			0.576		0.576	
Treatment Prob(F)			0.8199		0.8199	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 4,5 because error mean square = 0.

(TRB19 RICE 22)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Effectiveness of Loyant and Loyant + Clincher Tank-Mix on Sprangletop

Trial ID: TRB19 RICE 22 Location: Lonoke Trial Year: 2019
 Protocol ID: TRB19 RICE 22 Investigator: Tom Barber

Pest Type

W, Weed = Weed or volunteer crop

Rating Type

CONTRO = control / burndown or knockdown

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.062364*[6]

(TRB19 RICE 23)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Provisia rice tolerance to late applications of Provisia

Trial ID: TRB19 RICE 23 Location: Lonoke Trial Year: 2019
 Protocol ID: Provisia Tolerance Investigator: Thomas R. Butts

General Trial Information

Study Director: Dr. Thomas Butts
Investigator: Thomas R. Butts

Conducted Under GLP: N
Conducted Under GEP: No

Crop Description

Crop 1: C ORYZA Oryza sativa Common rice
Entry Date: Oct-10-2019
Planting Date: May-15-2019 **Planting Rate:** 90 LB/A
Depth: 1 IN
Harvested Width: 7.5 FT
% Standard Moisture: 11.9 **Harvested:** 25 FT

Site and Design

Treated Plot Width: 1 FT
Treated Plot Length: 25 FT
Treated Plot Area: 250 FT² **Treatments:** 6
Replications: 4 **Study Design:** RACOB L Randomized Complete Block (RCB)

Application Description

	A	B	C	D	E
Application Date	May-15-2019	May-28-2019	Jun-12-2019	Jul-11-2019	Jul-31-2019
Appl. Start Time	11:15 AM	9:00 AM	8:30 AM	9:00 AM	10:00 AM
Appl. Stop Time	11:30 AM	9:30 AM	9:00 AM	9:30 AM	10:30 AM
Application Method	SPRAY	SPRAY	SPRAY	SPRAY	SPRAY
Application Placement	BROADC	BROADC	BROADC	BROADC	BROADC
Applied By	B. Davis	B. Davis	B. Davis	B. Davis	B. Davis
Appl. Entry Date	Oct-10-2019	Oct-10-2019	Oct-10-2019	Oct-10-2019	Oct-10-2019
Air Temperature Start, Stop	82 F	79 F	70 F	80 F	89 F
% Relative Humidity Start, Stop	51	76	52	79	60
Wind Velocity+Dir. Start	12 MPH W	5.9 MPH SW	3.4 MPH W	7 MPH N	6 MPH NNE
Wet Leaves (Y/N)	N no	N no	N no	N no	N no
Soil Temperature	64 F	70 F	62 F	70 F	64 F
Soil Moisture	SLIWET	DRY		VERWET	VERWET
% Cloud Cover	0	90	30	20	60

(TRB19 RICE 23)

ARM 2019.8 Site Description

U of A Cooperative Extension Service

Evaluation of Provisia rice tolerance to late applications of Provisia

Trial ID: TRB19 RICE 23 Location: Lonoke Trial Year: 2019
 Protocol ID: Provisia Tolerance Investigator: Thomas R. Butts

	F
Application Date	Aug-7-2019
Appl. Start Time	9:20 AM
Appl. Stop Time	9:30 AM
Application Method	SPRAY
Application Placement	BROADC
Applied By	B. Davis
Appl. Entry Date	Oct-10-2019
Air Temperature Start, Stop	84 F
% Relative Humidity Start, Stop	79
Wind Velocity+Dir. Start	5 MPH WSW
Wet Leaves (Y/N)	N no
Soil Temperature	64 F
Soil Moisture	VERWET
% Cloud Cover	10

Crop Stage At Each Application

	A	B	C	D	E	F
Crop 1 Code, BBCH Scale	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC	ORYSA BRIC
Stage Majority, Percent		2 lf	5lf	1" PI	E Boot	L Boot

Application Equipment

	A	B	C	D	E	F
Appl. Equipment	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor	BD- Tractor
Equipment Type	SPRAYE	SPRAYE	SPRAYE	SPRAYE	SPRAYE	SPRAYE
Operation Pressure	34 PSI	34 PSI	34 PSI	34 PSI	34 PSI	34 PSI
Nozzle Type	ARINDH	ARINDH	ARINDH	ARINDH	ARINDH	ARINDH
Nozzle Size	110018	110018	110018	110018	110018	110018
Nozzle Spacing	20 IN	20 IN	20 IN	20 IN	20 IN	20 IN
Nozzles/Row	6	6	6	6	6	6
Band Width	20 IN	20 IN	20 IN	20 IN	20 IN	20 IN
Boom Length	10 FT	10 FT	10 FT	10 FT	10 FT	10 FT
Ground Speed	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH	4 MPH
Carrier	WATER	WATER	WATER	WATER	WATER	WATER

Context	Date	By	Notes
STATUS	Apr-19-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-10-2019	Thomas R. Butts	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

(TRB19 RICE 23)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Provisia rice tolerance to late applications of Provisia															
Trial ID: TRB19 RICE 23				Location: Lonoke				Trial Year: 2019							
Protocol ID: Provisia Tolerance				Investigator: Thomas R. Butts											
Rating Date				Jun-10-2019		Jun-18-2019		Jun-26-2019		Aug-14-2019		Aug-28-2019		Sep-17-2019	
Rating Type				PHYGEN		PHYGEN		PHYGEN		PHYGEN		PHYGEN		PHYGEN	
Rating Unit				%		%		%		%		%		%	
Days After First/Last Applic.				26 13		34 6		42 14		91 7		105 21		125 41	
Trt	Treatment	Rate	Appl												
No.	Name	Rate Unit	Code	1*		2*		3*		4*		5*		6*	
1				0.0		0.0		0.0		0.0		0.0		0.0	
2 Command 12 oz/a A				0.0		0.0		0.0		0.0		0.0		0.0	
Sharpen 2 oz/a A															
Provisia 15.5 fl oz/a B															
COC 1 % v/v B															
Provisia 15.5 fl oz/a C															
COC 1 % v/v C															
3 Command 12 oz/a A				0.0		0.0		0.0		0.0		0.0		0.0	
Sharpen 2 oz/a A															
Provisia 15.5 fl oz/a B															
COC 1 % v/v B															
Provisia 15.5 fl oz/a D															
COC 1 % v/v D															
4 Command 12 oz/a A				0.0		0.0		0.0		0.0		0.0		0.0	
Sharpen 2 oz/a A															
Provisia 15.5 fl oz/a B															
COC 1 % v/v B															
Provisia 15.5 fl oz/a E															
COC 1 % v/v E															
5 Command 12 oz/a A				0.0		0.0		0.0		0.0		0.0		0.0	
Sharpen 2 oz/a A															
Provisia 15.5 fl oz/a B															
COC 1 % v/v B															
Provisia 15.5 fl oz/a F															
COC 1 % v/v F															
6 Command 12 oz/a A				0.0		0.0		0.0		0.0		0.0		0.0	
Sharpen 2 oz/a A															
Provisia 15.5 fl oz/a B															
COC 1 % v/v B															
Provisia 15.5 fl oz/a C															
COC 1 % v/v C															
Provisia 15.5 fl oz/a D															
COC 1 % v/v D															
LSD P=.05				.		.		.		.		.		.	
Replicate F				0.000		0.000		0.000		0.000		0.000		0.000	
Replicate Prob(F)				1.0000		1.0000		1.0000		1.0000		1.0000		1.0000	
Treatment F				0.000		0.000		0.000		0.000		0.000		0.000	
Treatment Prob(F)				1.0000		1.0000		1.0000		1.0000		1.0000		1.0000	

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

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

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6 because error mean square = 0.

(TRB19 RICE 23)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Provisia rice tolerance to late applications of Provisia						
Trial ID: TRB19 RICE 23			Location: Lonoke		Trial Year: 2019	
Protocol ID: Provisia Tolerance			Investigator: Thomas R. Butts			
Rating Date			Oct-4-2019		Oct-4-2019	
Rating Type			WEIGHT		YIELD	
Rating Unit			lb/plot		BU	
Days After First/Last Applic.			142 58		142 58	
Trt	Treatment	Rate	Appl			
No.	Name	Rate Unit	Code	7*		8*
1				32.15		166.0
2	Command	12 oz/a	A	36.20		186.9
	Sharpen	2 oz/a	A			
	Provisia	15.5 fl oz/a	B			
	COC	1 % v/v	B			
	Provisia	15.5 fl oz/a	C			
	COC	1 % v/v	C			
3	Command	12 oz/a	A	33.35		172.2
	Sharpen	2 oz/a	A			
	Provisia	15.5 fl oz/a	B			
	COC	1 % v/v	B			
	Provisia	15.5 fl oz/a	D			
	COC	1 % v/v	D			
4	Command	12 oz/a	A	33.25		171.7
	Sharpen	2 oz/a	A			
	Provisia	15.5 fl oz/a	B			
	COC	1 % v/v	B			
	Provisia	15.5 fl oz/a	E			
	COC	1 % v/v	E			
5	Command	12 oz/a	A	32.38		167.1
	Sharpen	2 oz/a	A			
	Provisia	15.5 fl oz/a	B			
	COC	1 % v/v	B			
	Provisia	15.5 fl oz/a	F			
	COC	1 % v/v	F			
6	Command	12 oz/a	A	31.95		164.9
	Sharpen	2 oz/a	A			
	Provisia	15.5 fl oz/a	B			
	COC	1 % v/v	B			
	Provisia	15.5 fl oz/a	C			
	COC	1 % v/v	C			
	Provisia	15.5 fl oz/a	D			
	COC	1 % v/v	D			
LSD P=.05			3.560		18.38	
Replicate F			0.338		0.338	
Replicate Prob(F)			0.7980		0.7980	
Treatment F			1.773		1.773	
Treatment Prob(F)			0.1790		0.1790	

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6 because error mean square = 0.

(TRB19 RICE 23)

ARM 2019.8 Standardized Summary

U of A Cooperative Extension Service

Evaluation of Provisia rice tolerance to late applications of Provisia

Trial ID: TRB19 RICE 23 Location: Lonoke Trial Year: 2019
 Protocol ID: Provisia Tolerance Investigator: Thomas R. Butts

Rating Type

PHYGEN = phytotoxicity - general / injury

WEIGHT = weight

YIELD = yield

Rating Unit

% = percent

lb/plot = pounds per plot

BU = bushel

ARM Action Codes

TY1 = 5.162667*[7]