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Field Evaluation of Herbicides on Rice 2005

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Drew T. Ellis Ronald E. Talbert Marilyn R. McClelland

FIELD EVALUATION



OF HERBICIDES ON RICE

2005

ARKANSAS AGRICULTURAL EXPERIMENT STATION

Division of Agriculture

University of Arkansas System

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**FIELD EVALUATION OF HERBICIDES
ON RICE
- 2005 –**

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SUMMARY

Field studies to evaluate herbicides in rice weed management systems were conducted in 2005 at the Rice Research and Extension Center near Stuttgart, Arkansas. New herbicides, herbicide mixtures, and application timings were evaluated for weed control efficacy and rice tolerance. Results of these studies, in part, provide useful information to producers, fellow researchers, and the crop protection industry for the most effective, economical herbicide programs for successful rice production in Arkansas.

INTRODUCTION

“Field Evaluation of Herbicides on Rice, 2005” contains results from annual herbicide evaluation experiments on rice. The experiments reflect current concerns of Arkansas rice producers and the crop protection industry and are conducted under conditions common to Arkansas rice production practices.

Each experiment is prefaced by a site description form, which describes the methods and specific conditions of the experiment. Each site description is followed by the data table. Temperatures and rainfall data are located in the Appendix table.

This publication can be found online at: <http://www.uark.edu/depts/agripub/Publications/researchseries/>

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List of Herbicides Used in Trials

By Common Name:

| Common name | Trade name | Formulation | Manufacturer |
|------------------------|----------------------------|-------------------|-------------------------|
| 2,4-D | several | several | several |
| acifluorfen | Ultra Blazer | 2 SL | BASF |
| bensulfuron | Londax | 60 DF | DuPont |
| bentazon | Basagran | 4 SL | BASF |
| bentazon + acifluorfen | Storm | 4 SL | BASF |
| bispyribac | Regiment | 80 DF | Valent |
| carfentrazone | Aim | 2 EC | FMC |
| clomazone | Command | 3 ME | FMC |
| cyhalofop | Clincher | 2.38 EC | Dow AgroSciences |
| fenoxaprop | Ricestar | 0.58 EC | Bayer |
| glyphosate | Roundup UltraMax | 3.7 (ae) SL | Monsanto |
| halosulfuron | Permit | 75 DG | Gowan |
| imazethapyr | Newpath | 2 AS | BASF |
| IR 5878 | -- | 50 WG | Isagro |
| pendimethalin | Pendimax; Prowl | 3.3 EC | Dow AgroSciences; BASF |
| penoxsulam | Grasp | 2 EC | Dow AgroSciences |
| propanil | Stam; Super Wham; RiceShot | 4 EC, 4 SC, 80 DF | Dow AgroSciences/RiceCo |
| propanil + bensulfuron | Duet | 4.03 EC | RiceCo |
| quinclorac | Facet | 75 DF | BASF |
| thiobencarb | Bolero | 8 EC | Valent |
| triclopyr | Grandstand | 3 SL | Dow AgroSciences |

By Trade Name:

| Trade name | Common name | Formulation | Manufacturer |
|-----------------------------|------------------------|-------------|------------------|
| -- | IR 5878 | 50 WG | Isagro |
| 2,4-D (several trade names) | 2,4-D | several | several |
| Aim | carfentrazone | 2 EC | FMC |
| Basagran | bentazon | 4 SL | BASF |
| Bolero | thiobencarb | 8 EC | Valent |
| Clincher | cyhalofop | 2.38 EC | Dow AgroSciences |
| Command | clomazone | 3 ME | FMC |
| Duet | propanil + bensulfuron | 4.03 EC | RiceCo |
| Facet | quinclorac | 75 DF | BASF |
| Grandstand | triclopyr | 3 SL | Dow AgroSciences |
| Grasp | penoxsulam | 2 EC | Dow AgroSciences |
| Londax | bensulfuron | 60 DF | DuPont |
| Newpath | imazethapyr | 2 AS | BASF |
| Pendimax | pendimethalin | 3.3 EC | Dow AgroSciences |
| Permit | halosulfuron | 75 DG | Gowan |
| Prowl | pendimethalin | 3.3 EC | BASF |
| Regiment | bispyribac | 80 DF | Valent |
| Rice Shot | propanil | 4 EC | RiceCo |
| Ricestar | fenoxaprop | 0.58 EC | Bayer |
| Roundup UltraMax | glyphosate | 3.7 (ae) SL | Monsanto |
| Stam | propanil | 4 SC, 80 DF | Dow AgroSciences |
| Storm | bentazon + acifluorfen | 4 SL | BASF |
| Super Wham | propanil | 4 EC | RiceCo |
| Ultra Blazer | acifluorfen | 2 SL | BASF |

List of Abbreviations Used in Tables

Abbreviations

BDLF or brdlf – broadleaf weeds
BROFOL – broadcast foliar application
BROSOL – broadcast soil application
BU/AC – bushels per acre
BYG – barnyardgrass
COC – crop oil concentrate
DA-A (or B, etc.) – days after application of timing A, B, etc.
DPP – days before planting (preplant)
DPRE – delayed preemergence
EPOST – early postemergence
IRR – irrigation
LF or lf – leaf
LPOST – late postemergence
NIS – nonionic surfactant
NS – not significant according to LSD (least significant difference)
Pofld – postflood
PPI – preplant incorporated
PRE – preemergence
PREFLD – preflood

Bayer codes of weeds

AESVI – Northern jointvetch (*Aeschynomene virginica*)
AMAPA – Palmer amaranth (*Amaranthus palmeri*)
BRAPP – broadleaf signalgrass (*Brachiaria platyphylla*)
CASOB – sicklepod (*Senna obtusifolia*)
CYPES – yellow nutsedge (*Cyperus esculentus*)
ECHCG – barnyardgrass (*Echinochloa crus-galli*)
IPOLA – pitted morningglory (*Ipomoea lacunosa*)
PHYAN – cutleaf groundcherry (*Physalis angulata*)
POLLA – pale smartweed (*Polygonum lapathifolium*)
SEBEX – hemp sesbania (*Sesbania exaltata*)

University of Arkansas

Table 1. Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Objective: Evaluate efficacy of several broadleaf rice herbicides on five non-traditional broadleaf weeds.

Conclusions: Several weeds that have not been a problem in rice have become a problem or are a potential problem, especially on levees or where flood is not constant, and are referred to as non-traditional rice weeds. Cutleaf groundcherry was controlled >90% 6

weeks after EPOST application of acifluorfen, carfentrazone, quinclorac, imazethapyr, triclopyr, propanil, and penoxsulam. Control with LPOST applications was >90% only with quinclorac, triclopyr, and propanil. Sicklepod and pitted morningglory were controlled >90% with EPOST applications of quinclorac and triclopyr and EPOST and LPOST applications of 2,4-D. Carfentrazone EPOST or LPOST also controlled pitted morningglory. Only acifluorfen and carfentrazone had significant activity on pale smartweed (average 85%) and then only for about 2 weeks after application. After 2 weeks, regrowth of pale smartweed was rapid. Palmer amaranth was also very difficult to control in this experiment. EPOST application of acifluorfen, carfentrazone, or triclopyr controlled Palmer amaranth at least 89%, but regrowth and continued emergence negated early control. 2,4-D was the only herbicide that controlled Palmer amaranth greater than 90% for over 2 weeks. Hemp sesbania was controlled by most herbicides including halosulfuron, acifluorfen, carfentrazone, quinclorac, bispyribac, propanil, and 2,4-D applied either EPOST or LPOST. Hemp sesbania control with triclopyr and IR5878 was fair.

In summary, each of these weeds can be controlled, with pale smartweed and Palmer amaranth being the most difficult to control. A herbicide program must be carefully chosen, both for herbicide and application timing, in fields where more than one of these non-traditional weeds are present.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|----------------------|-------------------------|
| 1. | PHYAN | cutleaf groundcherry | Physalis angulata |
| 2. | IPOLA | pitted morningglory | Ipomoea lacunosa |
| 3. | CASOB | sicklepod | Senna obtusifolia |
| 4. | AMAPA | Palmer amaranth | Amaranthus palmeri |
| 5. | POLLA | pale smartweed | Polygonum lapathifolium |

| | | |
|-----------------------|------------------------------------|----------------------------------|
| Crop 1: | ORYSI RICE, PADDY (DRY-SEEDED+IRR) | Variety: CI 161 |
| Planting Date: | 11/May/05 | Planting Method: DRILLED |
| Rate: | 70 LB/A | Depth: 1.5 IN |
| Row Spacing: | 7 in | Emergence Date: 18/Aug/05 |
| Soil Moisture: | SLIGHTLY DRY | |

Plots were not flooded.

SITE AND DESIGN

| | | | |
|----------------------|-------------------|--|----------------|
| Plot Width: | 6 FT | Plot Length: 14 FT | Reps: 4 |
| Tillage Type: | CONVENTIONAL-TILL | Study Design: Randomized complete block | |

SOIL DESCRIPTION

| | | | |
|-------------------|------------------|---------------------|-----------|
| % Sand: 8 | OM: 0.94 | Texture: | SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: | DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: | GOOD |

APPLICATION DESCRIPTION

| | A | B |
|----------------------|-----------|-----------|
| Application Date: | 13/Jun/05 | 13/Jul/05 |
| Time of Day: | 8:00am | 7:00pm |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | EPOST | LPOST |
| Applic. Placement: | BROFOL | BROFOL |
| Air Temp., Unit: | 93 F | 83 F |
| % Relative Humidity: | 98 | 80 |
| Wind Velocity, Unit: | 4.3 MPH | 2 MPH |
| Dew Presence (Y/N): | N | N |
| Soil Temp., Unit: | 93 F | 84 F |
| Soil Moisture: | Adequate | Adequate |
| % Cloud Cover: | 35 | 60 |

CROP STAGE AT EACH APPLICATION

| | A | B |
|---------------------|------------------------|---|
| Crop 1 Code, Stage: | ORYSI EPOST, 3-4 lf | ORYSI LPOST, panicle differentiation |

WEED STAGE AT EACH APPLICATION

| | A | B |
|---------------------|-----------------|-----------------|
| Weed 1 Code, Stage: | PHYAN 2.5/4-5 | PHYAN 8-10;12 |
| Stage Scale: | in/lf | LF;IN |
| Weed 2 Code, Stage: | IPOLA 3.5/10-12 | IPOLA 30-36;18 |
| Stage Scale: | in/lf | LF;IN |
| Weed 3 Code, Stage: | CASOB 4.5/5 | CASOB 10-14;18 |
| Stage Scale: | in/lf | LF;IN |
| Weed 4 Code, Stage: | AMAPA 7-9;3-8 | AMAPA 9-28,9-28 |
| Stage Scale: | nodes;in | cm,nodes |
| Weed 5 Code, Stage: | POLLA 6-9;6-10 | POLLA 10-15;15 |
| Stage Scale: | lf;in | lf;in |

APPLICATION EQUIPMENT

| | A | B |
|-----------------------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack |
| Operating Pressure: | 32 | 32 |
| Nozzle Type: | TJ80015EV | TJ80015EV |
| Nozzle Size: | 015 | 015 |
| Nozzle Spacing, Unit: | 20 IN | 20 IN |
| Nozzles/Row: | 3 | 3 |
| Boom Length, Unit: | 40 IN | 40 IN |
| Boom Height, Unit: | 20 IN | 20 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
 Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | PHYAN | PHYAN | PHYAN | PHYAN |
|-------------------|-----------|-----------|----------|-----------|
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 21/Jun/05 | 28/Jun/05 | 6/Jul/05 | 25/Jul/05 |
| Trt-Eval Interval | 8 DA-A | 15 DA-A | 23 DA-A | 12 DA-B |

| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | 53 | 63 | 73 | 66 |
|-------------|---------------------------|-------|-----------|------------------|----|-----|-----|-----|
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 53 | 63 | 73 | 66 |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | 10 |
| | NIS | 0.25 | % v/v | | | | | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 96 | 98 | 100 | 99 |
| | NIS | 0.25 | % v/v | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 0 | 0 | 0 | 45 |
| | NIS | 0.25 | % v/v | | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 96 | 99 | 100 | 100 |
| | NIS | 0.25 | % v/v | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 0 | 0 | 0 | 75 |
| | NIS | 0.25 | % v/v | | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 71 | 86 | 99 | 99 |
| | COC | 1 | % v/v | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 0 | 0 | 0 | 80 |
| | COC | 1 | % v/v | | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 9 | 11 | 11 | 6 |
| | NIS | 0.25 | % v/v | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 0 | 0 | 0 | 5 |
| | NIS | 0.25 | % v/v | | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 88 | 90 | 88 | 85 |
| | Kinetic | 0.125 | % v/v | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 0 | 0 | 0 | 5 |
| | Kinetic | 0.125 | % v/v | | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 53 | 96 | 98 | 99 |
| | NIS | 0.25 | % v/v | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | 70 |
| | NIS | 0.25 | % v/v | | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 50 | 85 | 91 | 90 |
| | NIS | 0.25 | % v/v | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 0 | 0 | 0 | 96 |
| | NIS | 0.25 | % v/v | | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 99 | 100 | 100 | 96 |
| 18 | Propanil | 4 | lb ai/a | LPOST | 0 | 0 | 0 | 85 |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 50 | 95 | 94 | 96 |
| | COC | 1.25 | % v/v | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 0 | 0 | 51 |
| | COC | 1.25 | % v/v | | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 18 | 71 | 84 | 65 |
| | Kinetic | 0.2 | % v/v | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 0 | 0 | 16 |
| | Kinetic | 0.2 | % v/v | | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 39 | 20 | 10 | 0 |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 0 | 0 | 9 |
| 25 | Untreated check | | | | 4 | 0 | 0 | 0 |
| LSD (P=.05) | | | | | 5 | 4 | 3 | 4 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
 Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | PHYAN | CASOB | CASOB | CASOB | |
|-------------------|---------------------------|-------|-----------|------------------|-----------|-----------|----------|---|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 3/Aug/05 | 21/Jun/05 | 28/Jun/05 | 6/Jul/05 | |
| Trt-Eval Interval | | | | 21 DA-B | 8 DA-A | 15 DA-A | 23 DA-A | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 60 | 44 | 53 | |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | 58 | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 15 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 84 | 20 | 30 | |
| | NIS | 0.25 | % v/v | | | | 35 | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 70 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 100 | 30 | 25 | |
| | NIS | 0.25 | % v/v | | | | 15 | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 80 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 99 | 80 | 90 | |
| | COC | 1 | % v/v | | | | 95 | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 98 | 3 | 3 | |
| | COC | 1 | % v/v | | | | 3 | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 5 | 10 | 10 | |
| | NIS | 0.25 | % v/v | | | | 10 | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 5 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 80 | 55 | 70 | |
| | Kinetic | 0.125 | % v/v | | | | 85 | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 10 | 0 | 0 | |
| | Kinetic | 0.125 | % v/v | | | | 0 | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 98 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 5 | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 79 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 85 | 63 | 80 | |
| | NIS | 0.25 | % v/v | | | | 90 | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 98 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 92 | 50 | 55 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 94 | 0 | 0 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 94 | 30 | 45 | |
| | COC | 1.25 | % v/v | | | | 45 | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 65 | 0 | 0 | |
| | COC | 1.25 | % v/v | | | | 0 | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 50 | 15 | 27 | |
| | Kinetic | 0.2 | % v/v | | | | 22 | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 24 | 0 | 0 | |
| | Kinetic | 0.2 | % v/v | | | | 0 | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | | 85 | 99 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 0 | 0 | |
| 25 | Untreated check | | | | 0 | 0 | 0 | |
| LSD (P=.05) | | | | | 4 | 4 | 4 | 2 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | CASOB | CASOB | IPOLA | IPOLA | |
|-------------------|---------------------------|-------|-----------|------------------|----------|-----------|-----------|---|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 25/Jul/05 | 3/Aug/05 | 21/Jun/05 | 28/Jun/05 | |
| Trt-Eval Interval | | | | 12 DA-B | 21 DA-B | 8 DA-A | 15 DA-A | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 50 | 48 | 35 | |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | 40 | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 25 | 31 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 35 | 35 | 80 | |
| | NIS | 0.25 | % v/v | | | | 85 | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 40 | 45 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 15 | 15 | 85 | |
| | NIS | 0.25 | % v/v | | | | 95 | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 30 | 45 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 98 | 95 | 70 | |
| | COC | 1 | % v/v | | | | 90 | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 40 | 44 | 0 | |
| | COC | 1 | % v/v | | | | 0 | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 10 | 10 | 20 | |
| | NIS | 0.25 | % v/v | | | | 25 | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 10 | 10 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 80 | 75 | 55 | |
| | Kinetic | 0.125 | % v/v | | | | 65 | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 50 | 65 | 0 | |
| | Kinetic | 0.125 | % v/v | | | | 0 | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 0 | 0 | 55 | |
| | NIS | 0.25 | % v/v | | | | 65 | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 95 | 95 | 75 | |
| | NIS | 0.25 | % v/v | | | | 95 | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 70 | 88 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 30 | 10 | 40 | |
| | NIS | 4 | lb ai/a | LPOST | 55 | 65 | 0 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 55 | 65 | 0 | |
| | NIS | 4 | lb ai/a | EPOST | 40 | 35 | 10 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 40 | 35 | 10 | |
| | COC | 1.25 | % v/v | | | | 25 | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 20 | 35 | 0 | |
| | COC | 1.25 | % v/v | | | | 0 | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 8 | 10 | 35 | |
| | Kinetic | 0.2 | % v/v | | | | 65 | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 25 | 35 | 0 | |
| | Kinetic | 0.2 | % v/v | | | | 0 | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 100 | 100 | 60 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 80 | 95 | 0 | |
| 25 | Untreated check | | | | 0 | 0 | 0 | |
| LSD (P=.05) | | | | | 5 | 6 | 9 | 3 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | IPOLA | IPOLA | IPOLA | POLLA | |
|-------------------|---------------------------|-------|-----------|------------------|-----------|----------|-----------|---|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 6/Jul/05 | 25/Jul/05 | 3/Aug/05 | 21/Jun/05 | |
| Trt-Eval Interval | | | | 23 DA-A | 12 DA-B | 21 DA-B | 8 DA-A | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 55 | 50 | 0 | |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 0 | 30 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 95 | 90 | 70 | |
| | NIS | 0.25 | % v/v | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 0 | 60 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 100 | 95 | 81 | |
| | NIS | 0.25 | % v/v | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 0 | 85 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 90 | 95 | 9 | |
| | COC | 1 | % v/v | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 0 | 65 | 0 | |
| | COC | 1 | % v/v | | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 30 | 20 | 20 | |
| | NIS | 0.25 | % v/v | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 0 | 5 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 65 | 60 | 0 | |
| | Kinetic | 0.125 | % v/v | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 0 | 20 | 0 | |
| | Kinetic | 0.125 | % v/v | | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 75 | 70 | 8 | |
| | NIS | 0.25 | % v/v | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 50 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 95 | 90 | 50 | |
| | NIS | 0.25 | % v/v | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 0 | 90 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 50 | 45 | 60 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 0 | 65 | 0 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 30 | 25 | 0 | |
| | COC | 1.25 | % v/v | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 10 | 3 | |
| | COC | 1.25 | % v/v | | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 85 | 80 | 13 | |
| | Kinetic | 0.2 | % v/v | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 25 | 0 | |
| | Kinetic | 0.2 | % v/v | | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 100 | 100 | 76 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 100 | 0 | |
| 25 | Untreated check | | | | 0 | 0 | 0 | |
| LSD (P=.05) | | | | | 3 | 3 | 5 | 8 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | POLLA | POLLA | POLLA | POLLA | |
|-------------------|---------------------------|-------|-----------|------------------|----------|-----------|----------|----|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 28/Jun/05 | 6/Jul/05 | 25/Jul/05 | 3/Aug/05 | |
| Trt-Eval Interval | | | | 15 DA-A | 23 DA-A | 12 DA-B | 21 DA-B | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 5 | 0 | 0 | |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 19 | 0 | 29 | |
| | NIS | 0.25 | % v/v | | | | 15 | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 85 | 40 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 8 | 0 | 86 | |
| | NIS | 0.25 | % v/v | | | | 68 | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 89 | 30 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 0 | 0 | 75 | |
| | NIS | 0.25 | % v/v | | | | 30 | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 3 | 0 | 0 | |
| | COC | 1 | % v/v | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 5 | 0 | 8 | |
| | COC | 1 | % v/v | | | | 0 | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 41 | 24 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 8 | 0 | 44 | |
| | NIS | 0.25 | % v/v | | | | 2 | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 13 | 35 | 24 | |
| | Kinetic | 0.125 | % v/v | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 10 | 0 | 40 | |
| | Kinetic | 0.125 | % v/v | | | | 70 | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 14 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 0 | 13 | |
| | NIS | 0.25 | % v/v | | | | 8 | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 25 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 0 | 0 | 14 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 48 | 0 | 0 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 8 | 0 | 48 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 5 | 0 | 11 | |
| | COC | 1.25 | % v/v | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 0 | 30 | |
| | COC | 1.25 | % v/v | | | | 11 | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 9 | 0 | 8 | |
| | Kinetic | 0.2 | % v/v | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 0 | 0 | |
| | Kinetic | 0.2 | % v/v | | | | 0 | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 81 | 38 | 8 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 0 | 76 | |
| 25 | Untreated check | | | | 4 | 0 | 0 | |
| LSD (P=.05) | | | | | 15 | 7 | 14 | 18 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | AMAPA | AMAPA | AMAPA | AMAPA |
|-------------------|-----------|-----------|----------|-----------|
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 22/Jun/05 | 29/Jun/05 | 7/Jul/05 | 13/Jul/05 |
| Trt-Eval Interval | 9 DA-A | 16 DA-A | 24 DA-A | 30 DA-A |

| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | 43 | 34 | 0 | 0 |
|-------------|---------------------------|-------|-----------|------------------|----|-----|-----|-----|
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 43 | 34 | 0 | 0 |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 10 | 36 | 23 | 8 |
| | NIS | 0.25 | % v/v | | | | | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 95 | 89 | 23 | 19 |
| | NIS | 0.25 | % v/v | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 6 | 72 | 45 | 8 |
| | NIS | 0.25 | % v/v | | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 87 | 95 | 31 | 20 |
| | NIS | 0.25 | % v/v | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 0 | 69 | 39 | 18 |
| | NIS | 0.25 | % v/v | | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 16 | 35 | 14 | 9 |
| | COC | 1 | % v/v | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 5 | 31 | 24 | 14 |
| | COC | 1 | % v/v | | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 12 | 14 | 0 | 0 |
| | NIS | 0.25 | % v/v | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 0 | 10 | 0 | 0 |
| | NIS | 0.25 | % v/v | | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 70 | 74 | 43 | 11 |
| | Kinetic | 0.125 | % v/v | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 0 | 30 | 44 | 43 |
| | Kinetic | 0.125 | % v/v | | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 46 | 50 | 20 | 6 |
| | NIS | 0.25 | % v/v | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 46 | 51 | 35 |
| | NIS | 0.25 | % v/v | | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 48 | 48 | 30 | 13 |
| | NIS | 0.25 | % v/v | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 4 | 49 | 38 | 30 |
| | NIS | 0.25 | % v/v | | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 98 | 89 | 33 | 24 |
| 18 | Propanil | 4 | lb ai/a | LPOST | 0 | 66 | 26 | 6 |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 71 | 66 | 24 | 13 |
| | COC | 1.25 | % v/v | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 35 | 46 | 19 |
| | COC | 1.25 | % v/v | | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 31 | 26 | 5 | 0 |
| | Kinetic | 0.2 | % v/v | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 40 | 25 | 5 |
| | Kinetic | 0.2 | % v/v | | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 97 | 100 | 100 | 100 |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 85 | 95 | 91 |
| 25 | Untreated check | | | | 0 | 9 | 0 | 0 |
| LSD (P=.05) | | | | | 15 | 21 | 34 | 28 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Lonoke

Trial ID: LONOKE 01-05
 Location: Lonoke, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | SEBEX | SEBEX | SEBEX | SEBEX | |
|-------------------|---------------------------|-------|-----------|------------------|----------|-----------|----------|---|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 28/Jun/05 | 6/Jul/05 | 25/Jul/05 | 3/Aug/05 | |
| Trt-Eval Interval | | | | 15 DA-A | 23 DA-A | 12 DA-B | 21 DA-B | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 92 | 97 | 100 | |
| | NIS (nonionic surfactant) | 0.25 | % v/v | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 0 | 0 | 82 | |
| | NIS | 0.25 | % v/v | | | | 88 | |
| 3 | Acifluorfen (UltraBlazer) | 0.20 | lb ai/a | EPOST | 100 | 97 | 100 | |
| | NIS | 0.25 | % v/v | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 0 | 0 | 100 | |
| | NIS | 0.25 | % v/v | | | | 100 | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 100 | 100 | 98 | |
| | NIS | 0.25 | % v/v | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 0 | 0 | 100 | |
| | NIS | 0.25 | % v/v | | | | 98 | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 84 | 91 | 100 | |
| | COC | 1 | % v/v | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 0 | 0 | 69 | |
| | COC | 1 | % v/v | | | | 84 | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 48 | 71 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 0 | 0 | 25 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 99 | 99 | 100 | |
| | Kinetic | 0.125 | % v/v | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 0 | 0 | 73 | |
| | Kinetic | 0.125 | % v/v | | | | 99 | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 20 | 15 | 0 | |
| | NIS | 0.25 | % v/v | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | 0 | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 88 | 72 | 70 | |
| | NIS | 0.25 | % v/v | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 0 | 0 | 73 | |
| | NIS | 0.25 | % v/v | | | | 92 | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 100 | 100 | 100 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 0 | 0 | 100 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 36 | 14 | 0 | |
| | COC | 1.25 | % v/v | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 0 | 59 | |
| | COC | 1.25 | % v/v | | | | 64 | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 63 | 66 | 100 | |
| | Kinetic | 0.2 | % v/v | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 0 | 50 | |
| | Kinetic | 0.2 | % v/v | | | | 80 | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 100 | 100 | 100 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 0 | 98 | |
| 25 | Untreated check | | | | 0 | 0 | 0 | |
| LSD (P=.05) | | | | | 18 | 19 | 17 | 9 |

University of Arkansas

Table 2. Evaluation of Herbicides for Non-Traditional Weeds in Rice, Stuttgart, 2005

Trial ID: STUT 07-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert
Affiliation: Univ. of Arkansas; Dept. Crop, Soil, and Environmental Sciences

Objective: Evaluate efficacy of several broadleaf rice herbicides on five non-traditional broadleaf weeds.

Conclusions: This experiment is a second location for evaluating herbicides on weeds that are becoming a problem in some rice fields, especially on levees and where flood is not constant (other location was at Lonoke; Table 1 in this series). Sicklepod was controlled >90% with quinclorac applied EPOST and LPOST and with EPOST application of 2,4-D, although 2,4-D activity was short-lived. Triclopyr was less effective in this experiment than at Lonoke, but propanil applied EPOST was more effective for the first 3 weeks after application (89 to 94%). As at Lonoke, carfentrazone had excellent activity on pitted morningglory, both EPOST and LPOST (>95% almost 3 weeks after application). Control with quinclorac and triclopyr EPOST and 2,4-D EPOST or LPOST was also >90%. Carfentrazone also controlled cutleaf groundcherry as did quinclorac, bispyribac, imazethapyr, and propanil EPOST and triclopyr and imazethapyr LPOST. Quinclorac was the only herbicide that could be used to control a complex of sicklepod, pitted morningglory, and cutleaf groundcherry.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|----------------------|-------------------|
| 1. | PHYAN | Cutleaf groundcherry | Physalis angulata |
| 2. | IPOLA | Pitted morningglory | Ipomoea lacunosa |
| 3. | CASOB | Sicklepod | Senna obtusifolia |

Crop 1: ORYSI RICE, PADDY (DRY-SEEDED+IRR) **Variety:** CI 161
Planting Date: 28/Apr/05 **Planting Method:** DRILLED
Rate: 90 lbs/a **Emergence Date:** 7/May/05

Plots were not flooded.

SITE AND DESIGN

Plot Width, Unit: 6 FT **Plot Length, Unit:** 14 FT **Reps:** 4
Study Design: Randomized complete block

SOIL DESCRIPTION

| | | |
|-------------------|-------------------|------------------------------|
| % Sand: | % OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

| | A | B |
|-----------------------------|----------|-----------|
| Application Date: | 2/Jun/05 | 6/Jul/05 |
| Time of Day: | 5:45AM | 10:00am |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | EPOST | LPOST |
| Applic. Placement: | BROFOL | BROFOL |
| Air Temp., Unit: | 75 F | 80 F |
| % Relative Humidity: | 76 | 85 |
| Wind Velocity, Unit: | 4 MPH | 4 MPH |
| Dew Presence (Y/N): | N | Y |
| Soil Temp., Unit: | 70 F | 78 F |
| Soil Moisture: | MODERATE | EXCESSIVE |
| % Cloud Cover: | 95 | 100 |

CROP STAGE AT EACH APPLICATION

| | A | B |
|----------------------------|------------------------|---|
| Crop 1 Code, Stage: | ORYSI EPOST, 3-4 lf | ORYSI LPOST, panicle differentiation |

WEED STAGE AT EACH APPLICATION

| | A | B |
|----------------------------|-------------|----------------|
| Weed 1 Code, Stage: | PHYAN 3-4;1 | PHYAN 8-10;12 |
| Stage Scale: | lf;in | LF;IN |
| Weed 2 Code, Stage: | IPOLA 4-5;2 | IPOLA 30-36;18 |
| Stage Scale: | lf;in | LF;IN |
| Weed 3 Code, Stage: | CASOB 3;2 | CASOB 8-12;16 |
| Stage Scale: | lf;in | LF;IN |

APPLICATION EQUIPMENT

| | A | B |
|------------------------------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack |
| Operating Pressure: | 32 psi | 32 psi |
| Nozzle Type: | TJ80015EV | TJ80015EV |
| Nozzle Spacing, Unit: | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN |
| Boom Height, Unit: | 20 IN | 20 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Stuttgart, 2005

Trial ID: STUT 07-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | CASOB | CASOB | CASOB | CASOB | CASOB |
|-------------------|----------|-----------|-----------|-----------|-----------|
| Rating Data Type | Control | Control | Control | Control | Control |
| Rating Unit | % | % | % | % | % |
| Rating Date | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 14/Jul/05 |
| Trt-Eval Interval | 5 DA-A | 12 DA-A | 18 DA-A | 26 DA-A | 8 DA-B |

| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | 34 | 36 | 33 | 12 | 13 |
|-------------|----------------------------|-------|-----------|------------------|----|----|----|----|----|
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 34 | 36 | 33 | 12 | 13 |
| | NIS (non-ionic surfactant) | 0.25 | % v/v | | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | 14 | 16 |
| | NIS | 0.25 | % v/v | | | | | | |
| 3 | Acifluorfen (Ultra Blazer) | 0.20 | lb ai/a | EPOST | 48 | 53 | 53 | 39 | 18 |
| | NIS | 0.25 | % v/v | | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 3 | 0 | 0 | 34 | 39 |
| | NIS | 0.25 | % v/v | | | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 68 | 73 | 73 | 45 | 8 |
| | NIS | 0.25 | % v/v | | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 4 | 0 | 0 | 31 | 36 |
| | NIS | 0.25 | % v/v | | | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 94 | 96 | 96 | 92 | 95 |
| | COC (crop oil) | 1 | % v/v | | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 0 | 0 | 0 | 95 | 95 |
| | COC | 1 | % v/v | | | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 9 | 5 | 13 | 4 | 1 |
| | NIS | 0.25 | % v/v | | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 0 | 0 | 0 | 9 | 13 |
| | NIS | 0.25 | % v/v | | | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 78 | 79 | 83 | 41 | 6 |
| | Kinetic | 0.125 | % v/v | | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 3 | 0 | 0 | 14 | 18 |
| | Kinetic | 0.125 | % v/v | | | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 1 | 0 | 3 | 2 | 1 |
| | NIS | 0.25 | % v/v | | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 0 | 0 | 0 | 5 |
| | NIS | 0.25 | % v/v | | | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 46 | 60 | 65 | 83 | 68 |
| | NIS | 0.25 | % v/v | | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 0 | 0 | 0 | 66 | 81 |
| | NIS | 0.25 | % v/v | | | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 89 | 94 | 91 | 60 | 18 |
| 18 | Propanil | 4 | lb ai/a | LPOST | 3 | 3 | 5 | 23 | 23 |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 29 | 34 | 33 | 9 | 3 |
| | COC | 1.25 | % v/v | | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 3 | 0 | 0 | 29 | 30 |
| | COC | 1.25 | % v/v | | | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 8 | 8 | 6 | 5 | 0 |
| | Kinetic | 0.2 | % v/v | | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 0 | 0 | 15 | 20 |
| | Kinetic | 0.2 | % v/v | | | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 59 | 98 | 94 | 95 | 68 |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 0 | 0 | 0 | 68 | 73 |
| 25 | Untreated check | | | | 0 | 0 | 8 | 3 | 0 |
| LSD (P=.05) | | | | | 10 | 12 | 14 | 12 | 18 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Stuttgart, 2005

Trial ID: STUT 07-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | CASOB | IPOLA | IPOLA | IPOLA | IPOLA |
|-------------------|-----------|----------|-----------|-----------|-----------|
| Rating Data Type | Control | Control | Control | Control | Control |
| Rating Unit | % | % | % | % | % |
| Rating Date | 25/Jul/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt-Eval Interval | 19 DA-B | 5 DA-A | 12 DA-A | 18 DA-A | 26 DA-A |

| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | | |
|-------------|----------------------------|-------|-----------|------------------|----|----|----|-----|-----|
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 0 | 14 | 62 | 56 | 72 |
| | NIS (non-ionic surfactant) | 0.25 | % v/v | | | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 21 | 0 | 3 | 10 | 4 |
| | NIS | 0.25 | % v/v | | | | | | |
| 3 | Acifluorfen (Ultra Blazer) | 0.20 | lb ai/a | EPOST | 14 | 66 | 86 | 87 | 61 |
| | NIS | 0.25 | % v/v | | | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 41 | 0 | 3 | 0 | 50 |
| | NIS | 0.25 | % v/v | | | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 0 | 90 | 94 | 95 | 51 |
| | NIS | 0.25 | % v/v | | | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 39 | 0 | 0 | 4 | 84 |
| | NIS | 0.25 | % v/v | | | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 93 | 74 | 88 | 92 | 97 |
| | COC (crop oil) | 1 | % v/v | | | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 92 | 0 | 0 | 0 | 70 |
| | COC | 1 | % v/v | | | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 0 | 30 | 34 | 35 | 23 |
| | NIS | 0.25 | % v/v | | | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 9 | 0 | 0 | 0 | 18 |
| | NIS | 0.25 | % v/v | | | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 0 | 59 | 73 | 70 | 48 |
| | Kinetic | 0.125 | % v/v | | | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 19 | 13 | 6 | 0 | 8 |
| | Kinetic | 0.125 | % v/v | | | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 0 | 45 | 75 | 86 | 81 |
| | NIS | 0.25 | % v/v | | | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 0 | 4 | 0 | 0 | 28 |
| | NIS | 0.25 | % v/v | | | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 61 | 24 | 85 | 92 | 93 |
| | NIS | 0.25 | % v/v | | | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 94 | 0 | 0 | 0 | 76 |
| | NIS | 0.25 | % v/v | | | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 11 | 87 | 95 | 94 | 71 |
| 18 | Propanil | 4 | lb ai/a | LPOST | 25 | 4 | 10 | 4 | 21 |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 0 | 55 | 65 | 76 | 60 |
| | COC | 1.25 | % v/v | | | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 29 | 0 | 0 | 0 | 16 |
| | COC | 1.25 | % v/v | | | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 0 | 29 | 68 | 60 | 67 |
| | Kinetic | 0.2 | % v/v | | | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 18 | 0 | 0 | 0 | 0 |
| | Kinetic | 0.2 | % v/v | | | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 32 | 54 | 99 | 100 | 100 |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 86 | 3 | 0 | 15 | 10 |
| 25 | Untreated check | | | | 0 | 0 | 0 | 0 | 0 |
| LSD (P=.05) | | | | | 18 | 19 | 9 | 14 | 15 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Stuttgart, 2005

Trial ID: STUT 07-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | IPOLA | IPOLA | PHYAN | PHYAN | PHYAN | |
|-------------------|----------------------------|-------|-----------|------------------|-----------|----------|-----------|-----------|----|
| Rating Data Type | | | | Control | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | % | |
| Rating Date | | | | 14/Jul/05 | 25/Jul/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | |
| Trt-Eval Interval | | | | 8 DA-B | 19 DA-B | 5 DA-A | 12 DA-A | 18 DA-A | |
| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | | | | | |
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 15 | 22 | 63 | 77 | |
| | NIS (non-ionic surfactant) | 0.25 | % v/v | | | | | 95 | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 24 | 15 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | | 0 | |
| 3 | Acifluorfen (Ultra Blazer) | 0.20 | lb ai/a | EPOST | 26 | 15 | 81 | 89 | |
| | NIS | 0.25 | % v/v | | | | | 93 | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 55 | 56 | 1 | 6 | |
| | NIS | 0.25 | % v/v | | | | | 5 | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 5 | 15 | 38 | 90 | |
| | NIS | 0.25 | % v/v | | | | | 100 | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 89 | 97 | 4 | 5 | |
| | NIS | 0.25 | % v/v | | | | | 8 | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 98 | 98 | 13 | 63 | |
| | COC (crop oil) | 1 | % v/v | | | | | 97 | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 78 | 85 | 10 | 0 | |
| | COC | 1 | % v/v | | | | | 15 | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 14 | 5 | 0 | 15 | |
| | NIS | 0.25 | % v/v | | | | | 18 | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 23 | 21 | 15 | 20 | |
| | NIS | 0.25 | % v/v | | | | | 30 | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 26 | 20 | 15 | 90 | |
| | Kinetic | 0.125 | % v/v | | | | | 65 | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 13 | 16 | 0 | 0 | |
| | Kinetic | 0.125 | % v/v | | | | | 22 | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 57 | 26 | 0 | 100 | |
| | NIS | 0.25 | % v/v | | | | | 100 | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 65 | 70 | 0 | 0 | |
| | NIS | 0.25 | % v/v | | | | | 10 | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 51 | 67 | 37 | 88 | |
| | NIS | 0.25 | % v/v | | | | | 90 | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 85 | 98 | 0 | 5 | |
| | NIS | 0.25 | % v/v | | | | | 0 | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 29 | 15 | 88 | 95 | |
| | NIS | 4 | lb ai/a | LPOST | 28 | 34 | 0 | 0 | |
| 18 | Propanil | 4 | lb ai/a | LPOST | 28 | 34 | 0 | 0 | |
| | NIS | 4 | lb ai/a | EPOST | 29 | 15 | 88 | 95 | |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 11 | 0 | 33 | 43 | |
| | COC | 1.25 | % v/v | | | | | 56 | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 13 | 16 | 0 | 0 | |
| | COC | 1.25 | % v/v | | | | | 0 | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 41 | 38 | 3 | 13 | |
| | Kinetic | 0.2 | % v/v | | | | | 25 | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 32 | 51 | 0 | 0 | |
| | Kinetic | 0.2 | % v/v | | | | | 0 | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 93 | 97 | 22 | 75 | |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 78 | 99 | 0 | 0 | |
| 25 | Untreated check | | | | 0 | 0 | 0 | 0 | |
| LSD (P=.05) | | | | | 24 | 25 | 29 | 29 | 24 |

University of Arkansas

Evaluation of Herbicides for Non-Traditional Weeds in Rice, Stuttgart, 2005

Trial ID: STUT 07-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| | | | |
|-------------------|-----------|-----------|-----------|
| Weed Code | PHYAN | PHYAN | PHYAN |
| Rating Data Type | Control | Control | Control |
| Rating Unit | % | % | % |
| Rating Date | 28/Jun/05 | 14/Jul/05 | 25/Jul/05 |
| Trt-Eval Interval | 26 DA-A | 8 DA-B | 19 DA-B |

| Trt No. | Treatment Name | Rate | Rate Unit | Appl Description | 28/Jun/05 | 14/Jul/05 | 25/Jul/05 |
|-------------|----------------------------|-------|-----------|------------------|-----------|-----------|-----------|
| 1 | Halosulfuron (Permit) | 0.063 | lb ai/a | EPOST | 25 | 5 | 0 |
| | NIS (non-ionic surfactant) | 0.25 | % v/v | | | | |
| 2 | Halosulfuron | 0.063 | lb ai/a | LPOST | 7 | 9 | 10 |
| | NIS | 0.25 | % v/v | | | | |
| 3 | Acifluorfen (Ultra Blazer) | 0.20 | lb ai/a | EPOST | 67 | 50 | 42 |
| | NIS | 0.25 | % v/v | | | | |
| 4 | Acifluorfen | 0.20 | lb ai/a | LPOST | 41 | 76 | 88 |
| | NIS | 0.25 | % v/v | | | | |
| 5 | Carfentrazone (Aim) | 0.025 | lb ai/a | EPOST | 100 | 100 | 100 |
| | NIS | 0.25 | % v/v | | | | |
| 6 | Carfentrazone | 0.025 | lb ai/a | LPOST | 10 | 53 | 100 |
| | NIS | 0.25 | % v/v | | | | |
| 7 | Quinclorac (Facet) | 0.375 | lb ai/a | EPOST | 100 | 100 | 100 |
| | COC (crop oil) | 1 | % v/v | | | | |
| 8 | Quinclorac | 0.375 | lb ai/a | LPOST | 8 | 38 | 50 |
| | COC | 1 | % v/v | | | | |
| 9 | Bentazon (Basagran) | 0.75 | lb ai/a | EPOST | 0 | 0 | 0 |
| | NIS | 0.25 | % v/v | | | | |
| 10 | Bentazon | 0.75 | lb ai/a | LPOST | 33 | 43 | 67 |
| | NIS | 0.25 | % v/v | | | | |
| 11 | Bispyribac (Regiment) | 0.032 | lb ai/a | EPOST | 100 | 100 | 100 |
| | Kinetic | 0.125 | % v/v | | | | |
| 12 | Bispyribac | 0.032 | lb ai/a | LPOST | 12 | 66 | 66 |
| | Kinetic | 0.125 | % v/v | | | | |
| 13 | Imazethapyr (Newpath) | 0.063 | lb ai/a | EPOST | 100 | 100 | 100 |
| | NIS | 0.25 | % v/v | | | | |
| 14 | Imazethapyr | 0.063 | lb ai/a | LPOST | 15 | 43 | 98 |
| | NIS | 0.25 | % v/v | | | | |
| 15 | Triclopyr (Grandstand) | 0.25 | lb ai/a | EPOST | 84 | 75 | 75 |
| | NIS | 0.25 | % v/v | | | | |
| 16 | Triclopyr | 0.25 | lb ai/a | LPOST | 7 | 49 | 100 |
| | NIS | 0.25 | % v/v | | | | |
| 17 | Propanil (Stam) | 4 | lb ai/a | EPOST | 100 | 100 | 100 |
| 18 | Propanil | 4 | lb ai/a | LPOST | 20 | 35 | 0 |
| 19 | Penoxsulam (Grasp) | 0.031 | lb ai/a | EPOST | 63 | 42 | 33 |
| | COC | 1.25 | % v/v | | | | |
| 20 | Penoxsulam | 0.031 | lb ai/a | LPOST | 0 | 68 | 0 |
| | COC | 1.25 | % v/v | | | | |
| 21 | IR5878 | 0.067 | lb ai/a | EPOST | 58 | 15 | 50 |
| | Kinetic | 0.2 | % v/v | | | | |
| 22 | IR5878 | 0.067 | lb ai/a | LPOST | 0 | 5 | 0 |
| | Kinetic | 0.2 | % v/v | | | | |
| 23 | 2,4-D | 1.5 | lb ai/a | EPOST | 64 | 37 | 33 |
| 24 | 2,4-D | 1.5 | lb ai/a | LPOST | 3 | 14 | 25 |
| 25 | Untreated check | | | | 0 | 0 | 0 |
| LSD (P=.05) | | | | | 39 | 43 | 55 |

University of Arkansas

Table 3. Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert
Affiliation: Univ. of Arkansas, Dept. Crop, Soil, and Environmental Sciences

Objective: To evaluate weed control with Clincher (cyhalofop), Command (clomazone), and Facet (quinclorac) herbicide programs.

Conclusions: Barnyardgrass and broadleaf signalgrass were controlled with clomazone at 0.225 lb/A PRE or cyhalofop at 0.25 lb/A + clomazone or quinclorac applied at the 3- to 4-leaf grass stage. Herbicide applications at pre-flood followed by the flood controlled all grass weeds by the end of June. Hemp sesbania and pitted morningglory were controlled with cyhalofop + quinclorac applied 2 weeks before the flood (3- to 4-leaf grass stage applications) and followed by triclopyr and halosulfuron applied 1 week before flood. Although pitted morningglory control was enhanced by the flood, cyhalofop applied post-flood (pofld) was needed to control hemp sesbania >90%. None of the herbicide programs controlled yellow nutsedge early in the season. Preflood treatments of triclopyr + halosulfuron helped with nutsedge control, and by 2 weeks after flood, nutsedge control ranged from 87 to 93% in all herbicide-treated plots. Rice yields did not differ among herbicide programs.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|------------------------|------------------------|
| 1. | ECHCG | Barnyardgrass | Echinochloa crus-galli |
| 2. | BRAPP | Signalgrass, broadleaf | Brachiaria platyphylla |
| 3. | AESVI | Northern jointvetch | Aeschynomene virginica |
| 4. | SEBEX | Hemp sesbania | Sesbania exaltata |
| 5. | IPOLA | Morningglory, pitted | Ipomoea lacunosa |
| 6. | CYPES | Yellow nutsedge | Cyperus esculentus |

Crop 1: ORYSI RICE, PADDY (DRY-SEEDED+IRR) **Variety:** Wells
Planting Date: 27/Apr/05 **Planting Method:** DRILLED **Plots flushed weekly from planting to flood**
Rate: 90 lbs/A **Permanent flood June 13**
Row Spacing: 7 in **Seed Bed:** SMOOTH

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4
Tillage Type: CONVENTIONAL-TILL **Study Design:** Randomized complete block

SOIL DESCRIPTION

% Sand: 8 **% OM:** 0.94 **Texture:** SILT LOAM
% Silt: 75 **pH:** 5.8 **Soil Name:** DEWITT
% Clay: 16 **CEC:** 14.3 **Fert. Level:** ADEQUATE

APPLICATION DESCRIPTION

| | A | B | C | D | E |
|-----------------------------|-----------|-----------|----------|----------------|-----------|
| Application Date: | 29/Apr/05 | 23/May/05 | 6/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Time of Day: | 7:00am | 9:30pm | 9:00pm | 9:00PM | 7:00AM |
| Application Method: | Spray | Spray | Spray | Spray | Spray |
| Application Timing: | PRE | 3-4LF BYG | PREFLD | 1wk post flood | 10AAD |
| Applic. Placement: | BROSOI | BROSOI | BROFOL | BROFOL | BROFOL |
| Air Temp., Unit: | 70 F | 79 | 82 F | 80 F | 83 F |
| % Relative Humidity: | 67 | 81 | 80 | 92 | 95 |
| Wind Velocity, Unit: | 4 mph | 1.1 MPH | 4 MPH | 0 MPH | 1.8 MPH |
| Dew Presence (Y/N): | N | Y | N | Y | Y |
| Soil Temp., Unit: | 70 F | 79 F | 89 F | 91 F | 79 F |
| Soil Moisture: | INADEQUAT | INADEQUAT | ADEQUATE | EXCESSIVE | EXCESSIVE |
| % Cloud Cover: | 85 | 0 | 60 | 0 | 0 |

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|-------------|-------------|-------------|
| Weed 1 Code, Stage: | ECHCG | ECHCG 3-4 | ECHCG 1-2 |
| Stage Scale: | | LF | TILLER |
| Weed 2 Code, Stage: | BRAPP | BRAPP 3-4 | BRAPP 1-2 |
| Stage Scale: | | LF | TILLER |
| Weed 3 Code, Stage: | AESVI | AESVI 2 | AESVI 5-6 |
| Stage Scale: | | LF | LF |
| Weed 4 Code, Stage: | SEBEX | SEBEX 3 | SEBEX 5-6 |
| Stage Scale: | | LF | LF |
| Weed 5 Code, Stage: | IPOLA | IPOLA 7-8 | IPOLA 10-12 |
| Stage Scale: | | LF | LF |
| Weed 6 Code, Stage: | CYPES | CYPES 7 | CYPES 7-9 |
| Stage Scale: | | LF | LF |
| | | | |
| | D | E | |
| Weed 1 Code, Stage: | ECHCG 2-3 | ECHCG 5-8 | |
| Stage Scale: | TILLER | TILLER | |
| Weed 2 Code, Stage: | BRAPP 2-3 | BRAPP 5-8 | |
| Stage Scale: | TILLER | TILLER | |
| Weed 3 Code, Stage: | AESVI 9-10 | AESVI 12-14 | |
| Stage Scale: | LF | LF | |
| Weed 4 Code, Stage: | SEBEX 9-10 | SEBEX 12-14 | |
| Stage Scale: | LF | LF | |
| Weed 5 Code, Stage: | IPOLA 14-18 | IPOLA 18-22 | |
| Stage Scale: | LF | LF | |
| Weed 6 Code, Stage: | CYPES 12-14 | CYPES 14-16 | |
| Stage Scale: | LF | LF | |

APPLICATION EQUIPMENT

| | A | B | C | D |
|------------------------------|-----------|-----------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 110015 DG | 110015 DG | 110015 DG | 110015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 | CO2 |
| | | | | |
| | E | | | |
| Appl. Equipment: | Backpack | | | |
| Operating Pressure: | 23 PSI | | | |
| Nozzle Type: | FLAT FAN | | | |
| Nozzle Size: | 110015 DG | | | |
| Nozzle Spacing, Unit: | 20 IN | | | |
| Boom Length, Unit: | 40 IN | | | |
| Boom Height, Unit: | 15 IN | | | |
| Ground Speed, Unit: | 3 MPH | | | |
| Carrier: | WATER | | | |
| Spray Volume, Unit: | 10 GPA | | | |
| Propellant: | CO2 | | | |

Permanent flood: June 13

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| Weed Code | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG |
|------------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | Control | Control | Control | Control | Control |
| Rating Unit | % | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
|-------------|------------------------|-------|-----------|--------------|----------|----------|-----------|-----------|-----------|
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 82 | 92 | 100 | 95 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| 2 | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 81 | 80 | 100 | 100 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 3 | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 98 | 95 | 100 | 100 | 100 |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| 4 | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 78 | 84 | 100 | 98 | 100 |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 5 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | 100 | 100 | 100 | 98 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 6 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | 100 | 100 | 100 | 100 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| 7 | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | % v/v | 1wk pofld | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | 99 | 99 | 98 | 100 | 100 |
| | Triclopyr | 0.08 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| 8 | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | | | | | |
| | COC | 1 | qt/a | 10 d later | | | | | |
| | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 93 | 93 | 100 | 100 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| 9 | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 1 | qt/a | Preflood | | | | | |
| 9 | Untreated check | | | | 0 | 5 | 0 | 0 | 0 |
| LSD (P=.05) | | | | | 9 | 10 | 2 | 4 | 1 |

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| | | | | | |
|------------------|----------|----------|-----------|-----------|-----------|
| Weed Code | BRAPP | BRAPP | BRAPP | BRAPP | BRAPP |
| Rating Data Type | Control | Control | Control | Control | Control |
| Rating Unit | % | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
|-------------|------------------------|-------|-----------|--------------|-----|-----|-----|-----|-----|
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 89 | 92 | 100 | 98 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 2 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 84 | 91 | 100 | 100 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 3 | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 84 | 90 | 100 | 100 | 100 |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 4 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 63 | 79 | 100 | 100 | 100 |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 5 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | 100 | 100 | 98 | 99 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 6 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | 100 | 98 | 100 | 99 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 7 | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | % v/v | 1wk pofld | | | | | |
| | Clomazone | 0.08 | lb ai/a | PRE | 89 | 70 | 86 | 73 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| 8 | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | | | | | |
| | COC | 1 | qt/a | 10 d later | | | | | |
| | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 82 | 90 | 100 | 100 | 100 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| 9 | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 1 | qt/a | Preflood | | | | | |
| | Untreated check | | | | 0 | 0 | 0 | 15 | 0 |
| LSD (P=.05) | | | | | 19 | 10 | 7 | 17 | 1 |

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| Weed Code | | | | | SEBEX | SEBEX | SEBEX | SEBEX | SEBEX |
|------------------|------------------------|-------|-----------|--------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 19 | 52 | 38 | 83 | 95 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 2 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 4 | 50 | 35 | 80 | 85 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| 3 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 100 | 100 | 100 | 100 | 100 |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 4 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 97 | 100 | 100 | 100 | 100 |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| 5 | Clomazone | 0.225 | lb ai/a | PRE | 15 | 50 | 33 | 80 | 67 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 6 | Clomazone | 0.225 | lb ai/a | PRE | 16 | 47 | 42 | 80 | 96 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | % v/v | 1wk pofld | | | | | |
| 7 | Clomazone | 0.08 | lb ai/a | PRE | 5 | 49 | 29 | 79 | 95 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | | | | | |
| | COC | 1 | qt/a | 10 d later | | | | | |
| 8 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 23 | 54 | 58 | 92 | 96 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 1 | qt/a | Preflood | | | | | |
| 9 | Untreated check | | | | 0 | 0 | 0 | 0 | 0 |
| LSD (P=.05) | | | | | 14 | 6 | 14 | 14 | 27 |

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| Weed Code | IPOLA | IPOLA | IPOLA | IPOLA | IPOLA |
|------------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | Control | Control | Control | Control | Control |
| Rating Unit | % | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | | | | | | |
|-------------|------------------------|---------|-----------|--------------|----|----|-----|-----|-----|---|----|----|----|-----|
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 13 | 47 | 64 | 100 | 100 | | | | | |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | | | | | | |
| 2 | COC | 1 | pt/a | Preflood | 15 | 46 | 34 | 91 | 100 | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | | | | | | |
| 3 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 88 | 92 | 100 | 100 | 100 | | | | | |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | | | | | | |
| 4 | COC | 1 | pt/a | Preflood | 78 | 91 | 100 | 100 | 100 | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | | | | | | |
| 5 | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | 26 | 48 | 82 | 98 | 100 | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | | | | | | |
| | Clomazone | 0.225 | lb ai/a | PRE | | | | | | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| 6 | Halosulfuron | 0.023 | lb ai/a | Preflood | 15 | 39 | 74 | 95 | 100 | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | | | | | | |
| | COC | 1 | % v/v | 1wk pofld | | | | | | | | | | |
| | Clomazone | 0.08 | lb ai/a | PRE | | | | | | 8 | 39 | 66 | 98 | 100 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | | | | | | |
| Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | | | | | | | |
| 7 | COC | 1 | qt/a | 1wk pofld | 28 | 41 | 65 | 91 | 100 | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | | | | | | | | | | |
| | COC | 1 | qt/a | 10 d later | | | | | | | | | | |
| | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | | | | | | |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | | | | | | | | | | |
| 8 | Triclopyr | 0.19 | lb ai/a | Preflood | 0 | 0 | 0 | 0 | 100 | | | | | |
| | COC | 1 | qt/a | Preflood | | | | | | | | | | |
| | Untreated check | | | | | | | | | | | | | |
| LSD (P=.05) | | | | | 17 | 8 | 31 | 7 | 1 | | | | | |

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| Weed Code | | | | | CYPES | CYPES | CYPES | CYPES | CYPES |
|------------------|------------------------|-------|-----------|--------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 4 | 0 | 45 | 71 | 87 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 2 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 1 | 0 | 38 | 71 | 93 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| 3 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 0 | 8 | 43 | 73 | 95 |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 4 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 0 | 6 | 45 | 68 | 95 |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| 5 | Clomazone | 0.225 | lb ai/a | PRE | 0 | 0 | 48 | 68 | 88 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| 6 | Clomazone | 0.225 | lb ai/a | PRE | 0 | 0 | 40 | 67 | 93 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1 | pt/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | % v/v | 1wk pofld | | | | | |
| 7 | Clomazone | 0.08 | lb ai/a | PRE | 0 | 0 | 39 | 71 | 95 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | | | | | |
| | COC | 1 | qt/a | 1wk pofld | | | | | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | | | | | |
| | COC | 1 | qt/a | 10 d later | | | | | |
| 8 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 7 | 4 | 9 | 19 | 90 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | | | | | |
| | COC | 1 | qt/a | 3-4 lf grass | | | | | |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 1 | qt/a | Preflood | | | | | |
| 9 | Untreated check | | | | 0 | 0 | 0 | 0 | 48 |
| LSD (P=.05) | | | | | 5 | 5 | 11 | 21 | 33 |

University of Arkansas

Programs with Clincher, Command, and Facet in Southern U.S. Rice

Trial ID: STUT 03-05
Location: Stuttgart, Ark.

Study Dir.: Ellis; Talbert

| Crop | | | | | Rice |
|-------------|------------------------|-------|-----------|--------------|-------|
| Data Type | | | | | YIELD |
| Unit | | | | | BU/AC |
| Trt. No. | Treatment Name | Rate | Rate Unit | Grow Stg | |
| 1 | Cyhalofop (Clincher) | 0.25 | lb ai/a | 3-4 lf grass | 182.2 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | |
| | COC | 1 | qt/a | 3-4 lf grass | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| 2 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 188.3 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | |
| | COC | 1 | qt/a | 3-4 lf grass | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | |
| | COC | 1 | qt/a | 1wk pofld | |
| 3 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 185.8 |
| | Quinclorac (Facet) | 0.38 | lb ai/a | 3-4 lf grass | |
| | COC | 1 | qt/a | 3-4 lf grass | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| 4 | Cyhalofop | 0.19 | lb ai/a | 3-4 lf grass | 184.1 |
| | Quinclorac | 0.38 | lb ai/a | 3-4 lf grass | |
| | COC | 1 | qt/a | 3-4 lf grass | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | |
| | COC | 1 | qt/a | 1wk pofld | |
| 5 | Clomazone | 0.225 | lb ai/a | PRE | 185.2 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| 6 | Clomazone | 0.225 | lb ai/a | PRE | 182.6 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1 | pt/a | Preflood | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | |
| | COC | 1 | % v/v | 1wk pofld | |
| 7 | Clomazone | 0.08 | lb ai/a | PRE | 186.4 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | Cyhalofop | 0.28 | lb ai/a | 1wk pofld | |
| | COC | 1 | qt/a | 1wk pofld | |
| | Cyhalofop | 0.19 | lb ai/a | 10 d later | |
| | COC | 1 | qt/a | 10 d later | |
| 8 | Cyhalofop | 0.25 | lb ai/a | 3-4 lf grass | 145.4 |
| | Clomazone | 0.3 | lb ai/a | 3-4 lf grass | |
| | COC | 1 | qt/a | 3-4 lf grass | |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | Preflood | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | |
| | COC | 1 | qt/a | Preflood | |
| 9 | Untreated check | | | | 46.8 |
| LSD (P=.05) | | | | | 44.4 |

University of Arkansas

Table 4. Comparison of propanil formulations (Stam SC and Stam M-4)

Trial ID: Stut 06-05 **Study Dir.:** Drew Ellis; Ron Talbert
Location: Stuttgart, Ark.

Objective: To compare Stam M-4 and Stam 4SC for weed control in rice.

Conclusions: In general, activity of Stam SC and Stam M-4 was equal. By 22 days after application, control of broadleaf signalgrass and hemp sesbania was at least 90% with all treatments. Barnyardgrass was controlled only with Command or Facet plus Stam.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|-----------------------|------------------------|
| 1. | ECHCG | Barnyardgrass | Echinochloa crus-galli |
| 2. | BRAPP | Broadleaf signalgrass | Brachiaria platyphylla |
| 3. | SEBEX | Hemp sesbania | Sesbania exaltata |

Crop 1: ORYSI RICE, PADDY (DRY-SEEDED+IRR) **Variety:** Wells
Planting Date: 27/Apr/05 **Planting Method:** DRILLED **Plots flushed weekly from planting to flood**
Rate: 90 lbs/A **Row Spacing:** 7 in **Permanent flood:** June 13

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4 **Study Design:** Randomized complete block

SOIL DESCRIPTION

| | | |
|-------------------|------------------|------------------------------|
| % Sand: 8 | OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

Application Date: 23/May/05
Time of Day: 9:30pm
Application Method: spray
Application Timing: 3-4LF BYG
Applic. Placement: BROSOI
Air Temp., Unit: 79
% Relative Humidity: 81
Wind Velocity, Unit: 1.1 MPH
Dew Presence (Y/N): Y
Soil Temp., Unit: 79 F
Soil Moisture: INADEQUAT
% Cloud Cover: 0

APPLICATION EQUIPMENT

A
Appl. Equipment: C02 backpack
Operating Pressure: 23 PSI
Nozzle Type: FLAT FAN
Nozzle Size: 110015 DG
Nozzle Spacing, Unit: 20 IN
Boom Length, Unit: 40 IN
Boom Height, Unit: 15 IN
Ground Speed, Unit: 3 MPH
Carrier: WATER
Spray Volume, Unit: 10 GPA

University of Arkansas

Comparison of propanil formulations (Stam SC and Stam M-4)

Trial ID: Stut 06-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | ECHCG |
|-------------------|--------------------------|-------|-----------|-------------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | | | | | 10 DA-A | 15 DA-A | 22 DA-A | 28 DA-A |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 01 | Clomazone (Command 3ME) | 0.5 | lb ai/a | 3-4 lf weed | 80 | 86 | 79 | 88 |
| | Stam 4 SC (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC (crop oil) | 2.5 | % v/v | 3-4 lf weed | | | | |
| 02 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 90 | 98 | 99 | 100 |
| | Facet (quinclorac) | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 03 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 65 | 55 | 26 | 38 |
| | Grandstand (triclopyr) | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 04 | Stam 4SC | 4 | lb ai/a | 3-4 lf weed | 75 | 68 | 52 | 77 |
| | Grasp (penoxsulam) | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 05 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 68 | 55 | 40 | 50 |
| | Pendimax (pendimethalin) | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 06 | Untreated check | | | | 0 | 0 | 0 | 0 |
| 07 | Command (clomazone) | 0.5 | lb ai/a | 3-4 lf weed | 94 | 91 | 95 | 93 |
| | Stam M-4 (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 08 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 96 | 100 | 100 | 99 |
| | Facet | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 09 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 61 | 35 | 16 | 23 |
| | Grandstand | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 10 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 81 | 63 | 66 | 83 |
| | Penoxsulam | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 11 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 58 | 47 | 21 | 61 |
| | Pendimax | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 12 | Clomazone | 0.5 | lb ai/a | 3-4 lf weed | 95 | 92 | 93 | 92 |
| | Super Wham (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| LSD (P=.05) | | | | | 15 | 11 | 16 | 20 |

University of Arkansas

Comparison of propanil formulations (Stam SC and Stam M-4)

Trial ID: Stut 06-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | BRAPP | BRAPP | BRAPP | BRAPP |
|-------------------|--------------------------|-------|-----------|-------------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | | | | | 10 DA-A | 15 DA-A | 22 DA-A | 28 DA-A |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 01 | Clomazone (Command 3ME) | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Stam 4 SC (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC (crop oil) | 2.5 | % v/v | 3-4 lf weed | | | | |
| 02 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 99 | 100 | 100 | 100 |
| | Facet (quinclorac) | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 03 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 97 | 100 | 100 | 99 |
| | Grandstand (triclopyr) | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 04 | Stam 4SC | 4 | lb ai/a | 3-4 lf weed | 95 | 97 | 100 | 100 |
| | Grasp (penoxsulam) | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 05 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 100 | 99 | 100 | 99 |
| | Pendimax (pendimethalin) | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 06 | Untreated check | | | | 0 | 0 | 0 | 0 |
| 07 | Command (clomazone) | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Stam M-4 (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 08 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Facet | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 09 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 97 | 71 | 100 | 99 |
| | Grandstand | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 10 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 100 | 91 | 90 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 11 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 81 | 52 | 100 | 96 |
| | Pendimax | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 12 | Clomazone | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Super Wham (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| LSD (P=.05) | | | | | 9 | 18 | 8 | 2 |

University of Arkansas

Comparison of propanil formulations (Stam SC and Stam M-4)

Trial ID: Stut 06-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | SEBEX | SEBEX | SEBEX | SEBEX |
|-------------------|--------------------------|-------|-----------|-------------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | | | | | 10 DA-A | 15 DA-A | 22 DA-A | 28 DA-A |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 01 | Clomazone (Command 3ME) | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 98 | 95 |
| | Stam 4 SC (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC (crop oil) | 2.5 | % v/v | 3-4 lf weed | | | | |
| 02 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Facet (quinclorac) | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 03 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Grandstand (triclopyr) | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 04 | Stam 4SC | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Grasp (penoxsulam) | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 05 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Pendimax (pendimethalin) | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 06 | Untreated check | | | | 0 | 0 | 0 | 0 |
| 07 | Command (clomazone) | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Stam M-4 (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 08 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Facet | 0.375 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 09 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Grandstand | 0.25 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 10 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 11 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 99 | 78 | 100 | 100 |
| | Pendimax | 1 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| 12 | Clomazone | 0.5 | lb ai/a | 3-4 lf weed | 100 | 100 | 100 | 100 |
| | Super Wham (propanil) | 4 | lb ai/a | 3-4 lf weed | | | | |
| | COC | 2.5 | % v/v | 3-4 lf weed | | | | |
| LSD (P=.05) | | | | | 3 | 18 | 2 | 4 |

University of Arkansas

Comparison of propanil formulations (Stam SC and Stam M-4)

Trial ID: Stut 06-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Weed Code
 Rating Data Type
 Rating Unit
 Rating Date

Rice
 Yield

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | BU/AC |
|-------------|--------------------------|-------|-----------|-------------|-------|
| 01 | Clomazone (Command 3ME) | 0.5 | lb ai/a | 3-4 lf weed | 126.1 |
| | Stam 4 SC (propanil) | 4 | lb ai/a | 3-4 lf weed | |
| | COC (crop oil) | 2.5 | % v/v | 3-4 lf weed | |
| 02 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 157.8 |
| | Facet | 0.375 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 03 | Stam 4 SC | 4 | lb ai/a | 3-4 lf weed | 36.2 |
| | Grandstand (triclopyr) | 0.25 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 04 | Stam 4SC | 4 | lb ai/a | 3-4 lf weed | 110.6 |
| | Grasp (penoxsulam) | 0.031 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 05 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 45.3 |
| | Pendimax (pendimethalin) | 1 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 06 | Untreated check | | | | 17.1 |
| 07 | Command (clomazone) | 0.5 | lb ai/a | 3-4 lf weed | 161.5 |
| | Stam M-4 (propanil) | 4 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 08 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 178.7 |
| | Facet | 0.375 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 09 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 23.1 |
| | Grandstand | 0.25 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 10 | Stam M-4 | 4 | lb ai/a | 3-4 lf weed | 120.1 |
| | Penoxsulam | 0.031 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 11 | Stam 4SC | 4 | % v/v | 3-4 lf weed | 87.5 |
| | Pendimax | 1 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| 12 | Clomazone | 0.5 | lb ai/a | 3-4 lf weed | 153.7 |
| | Super Wham (propanil) | 4 | lb ai/a | 3-4 lf weed | |
| | COC | 2.5 | % v/v | 3-4 lf weed | |
| LSD (P=.05) | | | | | 29.7 |

University of Arkansas

Table 5. Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Objective: To evaluate efficacy of penoxsulam (Grasp) for weed control in conventional and Clearfield rice herbicide programs.

Conclusions: Barnyardgrass and broadleaf signalgrass were controlled with clomazone applied PRE or in a tank mixture with penoxsulam (Grasp). Penoxsulam did not increase control of the grasses in the Clearfield (Newpath) system. However, penoxsulam controlled hemp sesbania in the Clearfield system, especially when applied pre-flood (3- to 4-leaf rice). Penoxsulam may have had minimal activity on pitted morningglory, but good (>90%) control was obtained until flood was established when quinclorac or triclopyr were used in the management system. Penoxsulam had little activity on yellow nutsedge, but controlled Northern jointvetch in the Clearfield system. Penoxsulam applied with clomazone or propanil at the 2-leaf rice stage, even if followed by triclopyr plus halosulfuron pre-flood, had lower yield than other treatments.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|------------------------|------------------------|
| 1. | ECHCG | Barnyardgrass | Echinochloa crus-galli |
| 2. | BRAPP | Signalgrass, broadleaf | Brachiaria platyphylla |
| 3. | AESVI | Northern jointvetch | Aeschynomene virginica |
| 4. | SEBEX | Hemp sesbania | Sesbania exaltata |
| 5. | IPOLA | Morningglory, pitted | Ipomoea lacunosa |
| 6. | CYPES | Yellow nutsedge | Cyperus esculentus |

Crop 1: ORYSI RICE, PADDY (DRY-SEEDED+IRR) **Variety:** CL 161
Planting Date: 27/Apr/05 **Planting Method:** DRILLED **Plots flushed weekly from planting to flood**
Rate: 90 lbs/A **Row Spacing:** 7 in **Permanent flood:** June 13

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4
Tillage Type: Conventional tillage **Study Design:** Randomized complete block

SOIL DESCRIPTION

| | | |
|-------------------|-------------------|---------------------------|
| % Sand: 8 | % OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.93 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: GOOD |

APPLICATION DESCRIPTION

| | A | B | C | D |
|-----------------------------|-----------|-----------|----------|-----------|
| Application Date: | 29/Apr/05 | 17/May/05 | 6/Jun/05 | 20/Jun/05 |
| Time of Day: | 7:00AM | 3:00PM | 9:00pm | 9:00PM |
| Application Method: | SPRAY | SPRAY | SPRAY | SPRAY |
| Application Timing: | PRE | EPOST | PREFLD | 1wk pofld |
| Applic. Placement: | BROSOL | BROFOL | BROFOL | BROFOL |
| Air Temp., Unit: | 70 F | 85 F | 82 F | 83 F |
| % Relative Humidity: | 67 | 75 | 80 | 86 |
| Wind Velocity, Unit: | 4 mph | 3 MPH | 4 MPH | 0 MPH |
| Dew Presence (Y/N): | N | N | N | N |
| Soil Temp., Unit: | 70 F | 78 F | 89 F | 88 F |
| Soil Moisture: | INADEQUAT | VERY WET | ADEQUATE | EXCESSIVE |
| % Cloud Cover: | 85 | 0 | 60 | 0 |

CROP STAGE AT EACH APPLICATION

| | A | B | C | D |
|----------------------------|----------|------------|------------|----------|
| Crop 1 Code, Stage: | ORYSI | ORYSI 2-If | ORYSI 4-If | ORYSI |
| Height, Unit: | | 4 IN | | |

WEED STAGE AT EACH APPLICATION

| | A | B | C | D |
|----------------------------|-----------|----------------|---------------------|---------------------|
| Weed 1 Code, Stage: | ECHCG PRE | ECHCG 1-2 If | ECHCG 2-3 TILLER | ECHCG 4-5 TILLER |
| Weed 2 Code, Stage: | BRAPP PRE | BRAPP 1-2 If | BRAPP 2-3 TILLER | BRAPP 4-5 TILLER |
| Weed 3 Code, Stage: | AESVI PRE | AESVI COT-1 If | AESVI 5-6 If | AESVI 6-7 If |
| Weed 4 Code, Stage: | SEBEX PRE | SEBEX 1-2 If | SEBEX 5-6 If | SEBEX 6-7 If |
| Weed 5 Code, Stage: | IPOLA PRE | IPOLA COT-1 If | IPOLA 4-5 If | IPOLA 5-6 If |

APPLICATION EQUIPMENT

| | A | B | C | D |
|------------------------------|-----------|-----------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 110015 DG | 110015 DG | 110015 DG | 110015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 | CO2 |

Permanent flood: June 13

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG |
|------------------|------------------------|-------|-----------|-------------|-----------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 17/May/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 0 | 98 | 100 | 90 | 85 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 0 | 99 | 100 | 95 | 87 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| 3 | Halosulfuron | 0.023 | lb ai/a | Preflood | 0 | 92 | 73 | 86 | 78 |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| 4 | COC | 2.5 | % v/v | 1-2 lf rice | 0 | 95 | 88 | 90 | 80 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 5 | Halosulfuron | 0.023 | lb ai/a | Preflood | 3 | 100 | 100 | 99 | 100 |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 0 | 98 | 97 | 100 | 97 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 7 | Clomazone | 0.3 | lb ai/a | PRE | 94 | 96 | 98 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 96 | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 98 | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 99 | 79 | 95 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 98 | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG |
|------------------|-----------------------|-------|-----------|-------------|-----------|-----------|-----------|------------|------------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 17/May/05 | 2/June/05 | 7/June/05 | 14/June/05 | 20/June/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 96 | 99 | 100 | 100 | 98 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 96 | 100 | 99 | 100 | 98 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 95 | 100 | 98 | 100 | 100 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 99 | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 26 | 99 | 98 | 100 | 100 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 11 | 100 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 18 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 28 | 95 | 100 | 100 | 100 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 9 | NS | 8 | NS | NS |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | ECHCG | BRAPP | BRAPP | BRAPP | BRAPP |
|------------------|------------------------|-------|-----------|-------------|-----------|-----------|----------|----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 28/Jun/05 | 17/May/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 100 | 0 | 76 | 44 | 55 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 0 | 82 | 93 | 89 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 3 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 0 | 98 | 61 | 94 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 4 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 0 | 93 | 91 | 95 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 5 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 0 | 100 | 99 | 100 |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 10 | 98 | 100 | 100 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 7 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 74 | 97 | 99 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 89 | 100 | 97 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 94 | 100 | 98 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 74 | 76 | 87 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 93 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 88 | 99 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | ECHCG | BRAPP | BRAPP | BRAPP | BRAPP |
|------------------|-----------------------|-------|-----------|-------------|-----------|-----------|----------|----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 28/Jun/05 | 17/May/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 100 | 85 | 99 | 59 | 92 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 100 | 90 | 100 | 75 | 78 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 100 | 86 | 95 | 81 | 81 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 100 | 31 | 95 | 92 | 100 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 100 | 11 | 99 | 93 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | COC | 1.25 | % v/v | Preflood | 100 | 23 | 96 | 91 | 100 |
| | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 1 | 23 | NS | 18 | 19 |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | BRAPP | BRAPP | SEBEX | SEBEX | SEBEX |
|------------------|------------------------|-------|-----------|-------------|-----------|-----------|-----------|----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 20/Jun/05 | 28/Jun/05 | 17/May/05 | 2/Jun/05 | 7/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 67 | 88 | 33 | 99 | 96 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 92 | 100 | 33 | 99 | 95 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 3 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 95 | 100 | 33 | 100 | 100 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 4 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 92 | 100 | 33 | 100 | 100 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 5 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 33 | 100 | 100 |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 96 | 100 | 33 | 100 | 100 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 7 | Clomazone | 0.3 | lb ai/a | PRE | 99 | 99 | 38 | 49 | 81 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 31 | 61 | 74 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 31 | 73 | 76 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 80 | 100 | 31 | 55 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 33 | 37 | 82 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 31 | 75 | 95 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | BRAPP | BRAPP | SEBEX | SEBEX | SEBEX |
|------------------|-----------------------|-------|-----------|-------------|-----------|-----------|-----------|----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 20/Jun/05 | 28/Jun/05 | 17/May/05 | 2/Jun/05 | 7/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 96 | 100 | 30 | 28 | 8 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 98 | 100 | 31 | 6 | 0 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 97 | 100 | 30 | 30 | 16 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 98 | 100 | 30 | 21 | 9 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 100 | 100 | 31 | 96 | 94 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 18 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 100 | 100 | 31 | 24 | 75 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 16 | 4 | NS | 27 | 12 |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | SEBEX | SEBEX | SEBEX | IPOLA | IPOLA |
|------------------|------------------------|-------|-----------|-------------|-----------|-----------|-----------|-----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 17/May/05 | 2/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 96 | 90 | 88 | 13 | 82 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 100 | 8 | 69 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| 3 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 100 | 8 | 95 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| 4 | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 100 | 12 | 93 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 5 | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 100 | 15 | 93 |
| 6 | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 100 | 100 | 100 | 8 | 93 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| 7 | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 88 | 89 | 92 | 76 | 59 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 84 | 98 | 97 | 65 | 66 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 95 | 100 | 100 | 71 | 73 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 100 | 64 | 73 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 93 | 96 | 98 | 76 | 72 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 13 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 100 | 100 | 71 | 73 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | SEBEX | SEBEX | SEBEX | IPOLA | IPOLA |
|------------------|-----------------------|-------|-----------|-------------|-----------|-----------|-----------|-----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 17/May/05 | 2/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 6 | 81 | 90 | 58 | 15 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 45 | 72 | 48 | 11 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 16 | 95 | 63 | 30 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 8 | 5 | 9 | 16 | 86 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 100 | 99 | 76 | 13 | 87 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 18 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 88 | 95 | 100 | 34 | 82 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 11 | 20 | 16 | 20 | 17 |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | IPOLA | IPOLA | IPOLA | IPOLA | CYPES |
|------------------|------------------------|-------|-----------|-------------|----------|-----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 17/May/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 31 | 18 | 14 | 100 | 0 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 85 | 98 | 98 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| 3 | Halosulfuron | 0.023 | lb ai/a | Preflood | 80 | 96 | 95 | 100 | 0 |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| 4 | Propanil | 3 | lb ai/a | 1-2 lf rice | 88 | 100 | 100 | 100 | 0 |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 5 | Halosulfuron | 0.023 | lb ai/a | Preflood | 93 | 100 | 100 | 100 | 0 |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| 6 | COC | 2.5 | % v/v | 1-2 lf rice | 92 | 100 | 100 | 100 | 0 |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| 7 | Penoxsulam | 0.031 | lb ai/a | Preflood | 55 | 94 | 87 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Penoxsulam | 0.031 | lb ai/a | Preflood | 66 | 100 | 100 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Penoxsulam | 0.031 | lb ai/a | Preflood | 65 | 100 | 100 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Penoxsulam | 0.031 | lb ai/a | Preflood | 87 | 95 | 97 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Penoxsulam | 0.031 | lb ai/a | Preflood | 67 | 89 | 91 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 12 | Penoxsulam | 0.031 | lb ai/a | Preflood | 79 | 100 | 100 | 100 | 0 |
| | Clomazone | 0.3 | lb ai/a | PRE | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | IPOLA | IPOLA | IPOLA | IPOLA | CYPES |
|------------------|-----------------------|-------|-----------|-------------|----------|-----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 17/May/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 5 | 8 | 3 | 100 | 0 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 4 | 3 | 100 | 0 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 10 | 3 | 15 | 100 | 0 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 72 | 100 | 100 | 100 | 0 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 81 | 100 | 100 | 100 | 0 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | COC | 1.25 | % v/v | Preflood | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 77 | 99 | 81 | 100 | 0 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 17 | 9 | 16 | NS | NS |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | CYPES | CYPES | CYPES | CYPES | CYPES |
|------------------|------------------------|-------|-----------|-------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 0 | 9 | 10 | 0 | 0 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 0 | 11 | 34 | 75 | 100 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| 3 | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 25 | 28 | 46 | 0 | 25 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| 4 | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 38 | 37 | 84 | 96 | 100 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| 5 | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 0 | 11 | 6 | 0 | 3 |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 10 | 19 | 81 | 92 | 98 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| 7 | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 0 | 3 | 58 | 82 | 90 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| 8 | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 0 | 11 | 75 | 66 | 75 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| 9 | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 0 | 15 | 77 | 93 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| 10 | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 4 | 40 | 68 | 83 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| 11 | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 0 | 11 | 64 | 85 | 98 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| 12 | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| | Clomazone | 0.3 | lb ai/a | PRE | 0 | 13 | 37 | 50 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | CYPES | CYPES | CYPES | CYPES | CYPES |
|------------------|-----------------------|-------|-----------|-------------|----------|----------|-----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 0 | 6 | 0 | 0 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 0 | 0 | 0 | 0 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 0 | 0 | 4 | 0 | 0 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 31 | 64 | 100 | 98 | 100 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 38 | 60 | 100 | 98 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | COC | 1.25 | % v/v | Preflood | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 29 | 68 | 98 | 89 | 100 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 13 | 19 | 26 | 21 | 24 |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | AESVI | AESVI | AESVI | AESVI | AESVI |
|------------------|------------------------|-------|-----------|-------------|-----------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 17/May/05 | 2/Jun/05 | 7/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 0 | 94 | 92 | 0 | 0 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 8 | 96 | 97 | 100 | 100 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 3 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 3 | 94 | 25 | 0 | 4 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 4 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 0 | 94 | 86 | 100 | 100 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 5 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 3 | 96 | 100 | 100 | 100 |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 3 | 96 | 100 | 100 | 100 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 2.5 | % v/v | 1-2 lf rice | | | | | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 7 | Clomazone | 0.3 | lb ai/a | PRE | 86 | 96 | 99 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 86 | 93 | 100 | 100 | 93 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 81 | 94 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 85 | 93 | 100 | 99 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Propanil | 4 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 86 | 96 | 99 | 99 | 99 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 84 | 97 | 100 | 100 | 100 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | | | | | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | | | | | |
| | COC | 2.5 | % v/v | Preflood | | | | | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | AESVI | AESVI | AESVI | AESVI | AESVI |
|------------------|-----------------------|-------|-----------|-------------|-----------|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % | % |
| Rating Date | | | | | 17/May/05 | 2/Jun/05 | 7/Jun/05 | 20/Jun/05 | 28/Jun/05 |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 40 | 95 | 97 | 94 | 98 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 44 | 91 | 96 | 95 | 81 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 53 | 85 | 85 | 95 | 93 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | | | | | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | | | | | |
| | COC | 2.5 | % v/v | 1 wk pofld | | | | | |
| 16 | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | 3 | 9 | 11 | 3 | 5 |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| 17 | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | 6 | 91 | 86 | 99 | 91 |
| | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | | | | | |
| 18 | COC | 1.25 | % v/v | Preflood | 1 | 19 | 81 | 96 | 99 |
| | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | | | | | |
| | COC | 1.25 | % v/v | 1-2 lf rice | | | | | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | | | | | |
| | COC | 1.25 | % v/v | Preflood | | | | | |
| LSD (P=.05) | | | | | 17 | 9 | 10 | 5 | 8 |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Crop | Rating | Data Type | Rating Unit | Rice Yield | BU/AC |
|------|------------------------|-----------|-------------|-------------|-------|
| 1 | Penoxsulam (Grasp) | 0.031 | lb ai/a | 1-2 lf rice | 151.7 |
| | Clomazone (Command) | 0.3 | lb ai/a | 1-2 lf rice | |
| | COC (crop oil) | 2.5 | % v/v | 1-2 lf rice | |
| 2 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 131.0 |
| | Clomazone | 0.3 | lb ai/a | 1-2 lf rice | |
| | COC | 2.5 | % v/v | 1-2 lf rice | |
| | Triclopyr (Grandstand) | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1.25 | % v/v | Preflood | |
| 3 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 131.5 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | |
| | COC | 2.5 | % v/v | 1-2 lf rice | |
| 4 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 131.1 |
| | Propanil | 3 | lb ai/a | 1-2 lf rice | |
| | COC | 2.5 | % v/v | 1-2 lf rice | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Halosulfuron | 0.023 | lb ai/a | Preflood | |
| | COC | 1.25 | % v/v | Preflood | |
| 5 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 160.0 |
| | Quinclorac | 0.28 | lb ai/a | 1-2 lf rice | |
| | COC | 2.5 | % v/v | 1-2 lf rice | |
| 6 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 157.8 |
| | Quinclorac (Facet) | 0.28 | lb ai/a | 1-2 lf rice | |
| | COC | 2.5 | % v/v | 1-2 lf rice | |
| | Triclopyr | 0.25 | lb ai/a | Preflood | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 7 | Clomazone | 0.3 | lb ai/a | PRE | 154.1 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 8 | Clomazone | 0.3 | lb ai/a | PRE | 162.4 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | Triclopyr | 0.19 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 9 | Clomazone | 0.3 | lb ai/a | PRE | 158.6 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | Halosulfuron (Permit) | 0.023 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 166.3 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | Propanil | 4 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 11 | Clomazone | 0.3 | lb ai/a | PRE | 163.2 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | Cyhalofop (Clincher) | 0.25 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |
| 12 | Clomazone | 0.3 | lb ai/a | PRE | 161.9 |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | Bensulfuron (Londax) | 0.028 | lb ai/a | Preflood | |
| | Quinclorac | 0.25 | lb ai/a | Preflood | |
| | COC | 2.5 | % v/v | Preflood | |

University of Arkansas

Penoxsulam (Grasp) in Rice Weed Management Programs

Trial ID: Stut 04-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Crop | | | | | Rice |
|-------------|-----------------------|-------|-----------|-------------|-------|
| Rating | Data Type | | | | Yield |
| Rating Unit | | | | | BU/AC |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | |
| 13 | Clomazone | 0.15 | lb ai/a | PRE | 154.1 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | |
| | COC | 2.5 | % v/v | 1 wk pofld | |
| 14 | Clomazone | 0.15 | lb ai/a | PRE | 164.6 |
| | Penoxsulam | 0.044 | lb ai/a | 1 wk pofld | |
| | COC | 2.5 | % v/v | 1 wk pofld | |
| 15 | Clomazone | 0.15 | lb ai/a | PRE | 166.8 |
| | Penoxsulam | 0.036 | lb ai/a | 1 wk pofld | |
| | Cyhalofop | 0.28 | lb ai/a | 1 wk pofld | |
| 16 | COC | 2.5 | % v/v | 1 wk pofld | 156.0 |
| | Imazethapyr (Newpath) | 0.063 | lb ai/a | 1-2 lf rice | |
| | COC | 1.25 | % v/v | 1-2 lf rice | |
| 17 | Imazethapyr | 0.063 | lb ai/a | Preflood | 163.9 |
| | COC | 1.25 | % v/v | Preflood | |
| | Imazethapyr | 0.063 | lb ai/a | 1-2 lf rice | |
| 18 | Penoxsulam | 0.031 | lb ai/a | 1-2 lf rice | 154.3 |
| | COC | 1.25 | % v/v | 1-2 lf rice | |
| | Imazethapyr | 0.063 | lb ai/a | Preflood | |
| | COC | 1.25 | % v/v | Preflood | |
| | Penoxsulam | 0.031 | lb ai/a | Preflood | |
| | COC | 1.25 | % v/v | Preflood | |

LSD (P=.05) 20.1

University of Arkansas

Table 6. Rice Root Tolerance to Penoxsulam (Grasp) in Arkansas

Trial ID: STUT 05-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Objective: To evaluate the effect of penoxsulam (Grasp) and bispyribac (Regiment) on rice root development.

Conclusions: Both penoxsulam and bispyribac caused significant visual root-mass reduction from 12 to 19 days after application. Rate response to penoxsulam was not significant, although root injury was more severe with bispyribac at 0.044 lb/A than at 0.022 lb/A at 12 days after application. However, by 26 days after application, no root injury was evident with either of the herbicides, and rice yields did not differ among treatments.

Crop Description

Crop 1: ORYSI RICE, PADDY (DRY-SEEDED+IRR) **Variety:** Wells
Planting Date: 27/Apr/05 **Planting Method:** DRILLED
Rate: 90 lbs/A **Row Spacing:** 7 in
Plots flushed weekly from planting to flood
Permanent flood: June 13

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4 **Study Design:** Randomized complete block

SOIL DESCRIPTION

| | | |
|-------------------|-------------------|------------------------------|
| % Sand: 8 | % OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

| | A | B |
|-----------------------------|-----------|----------|
| Application Date: | 29/Apr/05 | 2/Jun/05 |
| Time of Day: | 7:00am | 5:45am |
| Application Method: | Spray | Spray |
| Application Timing: | PRE | 4-5lf |
| Applic. Placement: | BROSOI | BROFOL |
| Air Temp., Unit: | 70 F | 75 F |
| % Relative Humidity: | 67 | 76 |
| Wind Velocity, Unit: | 4 mph | 4 mph |
| Dew Presence (Y/N): | N | N |
| Soil Temp., Unit: | 70 F | 70 |
| Soil Moisture: | INADEQUAT | ADEQUATE |
| % Cloud Cover: | 85 | 95 |

APPLICATION EQUIPMENT

| | A | B |
|------------------------------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN |
| Nozzle Size: | 110015 DG | 110015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 |

University of Arkansas

Rice Tolerance to Penoxsulam (Grasp) in Arkansas

Trial ID: STUT 05-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Injury is percentage visual root mass reduction compared to root mass of quinclorac + propanil.

| Crop Code | | | | | Rice | Rice | Rice | |
|-------------------|-----------------------|--------|-----------|-------------|-------------|-------------|-------------|-------|
| Rating Data Type | | | | | Root injury | Root injury | Root injury | |
| Rating Unit | | | | | % | % | % | Rice |
| Rating Date | | | | | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | Yield |
| Trt-Eval Interval | | | | | 12 DA-B | 18 DA-B | 26 DA-B | BU/AC |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Clomazone (Command) | 0.3 | lb ai/a | PRE | 28 | 53 | 0 | 186.4 |
| | Penoxsulam (Grasp) | 0.031 | lb ai/a | 4-5 lf rice | | | | |
| | COC (crop oil) | 2.5 | % v/v | 4-5 lf rice | | | | |
| 2 | Clomazone | 0.3 | lb ai/a | PRE | 15 | 40 | 0 | 186.5 |
| | Penoxsulam | 0.062 | lb ai/a | 4-5 lf rice | | | | |
| | COC | 2.5 | % v/v | 4-5 lf rice | | | | |
| 3 | Clomazone | 0.3 | lb ai/a | PRE | 16 | 30 | 0 | 183.2 |
| | Bispyribac (Regiment) | 0.022 | lb ai/a | 4-5 lf rice | | | | |
| | Kinetic (adjuvant) | 0.25 | % v/v | 4-5 lf rice | | | | |
| 4 | Clomazone | 0.3 | lb ai/a | PRE | 68 | 33 | 0 | 192.3 |
| | Bispyribac | 0.044 | lb ai/a | 4-5 lf rice | | | | |
| | Kinetic | 0.25 | % v/v | 4-5 lf rice | | | | |
| 5 | Clomazone | 0.3 | lb ai/a | PRE | 0 | 0 | 0 | 191.2 |
| | Quinclorac (Facet) | 0.3754 | lb ai/a | 4-5 lf rice | | | | |
| | Propanil (Stam 4SC) | 4 | lb ai/a | 4-5 lf rice | | | | |
| | COC | 2.5 | % v/v | 4-5 lf rice | | | | |
| LSD (P=.05) | | | | | 22 | 13 | NS | NS |

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Table 7. Propanil (Super Wham) plus Cyhalofop (Clincher) for Control of Resistant Barnyardgrass

Trial ID: STUT 08-05
Location: Stuttgart, Ark.

Study Dir.: Dr. Robert Scott, Extension Weed Specialist; Drew Ellis

Objectives:

To evaluate control of propanil-resistant barnyardgrass with propanil formulation Super Wham and cyhalofop (Clincher)

Conclusions: Poor barnyardgrass control resulted when applications of Super Wham plus Clincher were delayed until barnyardgrass was 8 to 10 inches tall rather than when sprayed at the 4- to 6-inch stage, regardless of Clincher or Super Wham rate. Clincher at 6, 8, or 10 oz product/A tended to be more effective than 4 oz/A. Even with Clincher applied at high rates to 4- to 6-inch barnyardgrass, control declined between 4 and 5 weeks after application.

CROP AND WEED DESCRIPTION

| | | |
|---------------------------------|---------------------------------|---|
| Crop: ORYSI Oryza sativa | Rice, seeded, dried paddy | |
| Variety: Wells | Planting Date: 27/Apr/05 | |
| Planting Method: DRILLED | Rate, Unit: 90 lbs/A | Plots flushed weekly from planting until flood |
| Row Spacing, Unit: 7 in | Seed Bed: SMOOTH | Permanent flood: June 13 |

| Weed Code | Common Name | Scientific Name |
|-----------|------------------------------------|------------------------|
| ECHCG | Barnyardgrass (propanil resistant) | Echinochloa crus-galli |

SITE AND DESIGN

| | |
|-------------------------|--|
| Plot Width: 6 FT | Plot Length, Unit: 18 FT |
| Replications: 4 | Study Design: Randomized complete block |

SOIL DESCRIPTION

| | | |
|-------------------|-------------------|------------------------------|
| % Sand: 8 | % OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

| | A | B | C |
|--------------------------------|-----------|-----------|-----------|
| Application Date: | 23/May/05 | 2/Jun/05 | 13/Jun/05 |
| Time of Day: | 9:30pm | 5:45AM | 9:00PM |
| Application Method: | Spray | Spray | Spray |
| Application Timing: | 4-6" BYG | 3-4" BDLF | 8-10" BYG |
| Application Placement: | BROFOL | BROFOL | BROFOL |
| Air Temperature, Unit: | 79 F | 75 F | 80 F |
| % Relative Humidity: | 81 | 76 | 92 |
| Wind Velocity, Unit: | 1 MPH | 4 MPH | 0 MPH |
| Dew Presence (Y/N): | Y | N | Y |
| Soil Temperature, Unit: | 79 F | 70 F | 91 F |
| Soil Moisture: | INADEQUAT | ADEQUATE | EXCESSIVE |
| % Cloud Cover: | 0 | 95 | 0 |

BYG = barnyardgrass; BDLF = broadleaf weeds

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------|----------|----------|----------|
| Weed Code: | ECHCG W | ECHCG W | ECHCG W |
| Height, Unit: | 4 IN | 3 IN | 8 IN |
| Crop Code: | ORYSI | | |
| Height: | 6 IN | | |

APPLICATION EQUIPMENT

| | A | B | C |
|------------------------------|-----------|-----------|-----------|
| Appl. Equipment: | Backpack | Backpack | Backpack |
| Operating Pressure: | 28 | 28 | 28 |
| Pressure Unit: | PSI | PSI | PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 110015 DG | 110015 DG | 110015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN |
| Boom Height, Unit: | 15 IN | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH |
| Carrier: | H2O | H2O | H2O |
| Spray Volume: | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 |

University of Arkansas

Propanil (Super Wham) plus Cyhalofop (Clincher) for Control of Resistant Barnyardgrass

Trial ID: STUT 08-05
 Location: Stuttgart, Ark.

Study Dir.: Dr. Robert Scott, Extension Weed Specialist; Drew Ellis

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG | RICE Yield BU/AC |
|------------------|----------------|------|-----------|--------------|----------|----------|-----------|-----------|-----------|------------------------|
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | |
| Rating Data Type | | | | | Control | Control | Control | Control | Control | |
| Rating Unit | | | | | % | % | % | % | % | |
| Trt No. | Treatment Name | Rate | Rate Unit | Growth Stage | | | | | | |
| 1 | Super Wham | 4 | qt/a | 4-6"byg | 85 | 83 | 73 | 75 | 67 | 121.0 |
| | Clincher | 4 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 2 | Riceshot | 5 | qt/a | 4-6"byg | 63 | 74 | 62 | 67 | 47 | 90.2 |
| | Agridex | 1 | % v/v | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 3 | Super Wham | 4 | qt/a | 4-6"byg | 86 | 83 | 77 | 86 | 82 | 132.3 |
| | Clincher | 6 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 4 | Storm | 1.5 | pt/a | 3-4"bdlf | 9 | 44 | 38 | 56 | 58 | 82.1 |
| | Agridex | 1 | % v/v | 3-4"bdlf | | | | | | |
| | Super Wham | 4 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 6 | oz/a | 8-10"byg | | | | | | |
| 5 | Super Wham | 4 | qt/a | 4-6"byg | 86 | 87 | 86 | 91 | 71 | 150.4 |
| | Clincher | 8 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 6 | Storm | 1.5 | pt/a | 3-4"brdlf | 13 | 47 | 38 | 54 | 64 | 79.3 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 4 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 8 | oz/a | 8-10"byg | | | | | | |
| 7 | Super Wham | 4 | qt/a | 4-6"byg | 86 | 95 | 92 | 97 | 88 | 161.7 |
| | Clincher | 10 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 8 | Storm | 1.5 | pt/a | 3-4"brdlf | 6 | 36 | 20 | 47 | 68 | 100.2 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 4 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 10 | oz/a | 8-10"byg | | | | | | |
| 9 | Super Wham | 5 | qt/a | 4-6"byg | 74 | 78 | 72 | 68 | 64 | 101.4 |
| | Clincher | 4 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 10 | Storm | 1.5 | pt/a | 3-4"brdlf | 19 | 47 | 29 | 56 | 68 | 107.9 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 5 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 4 | oz/a | 8-10"byg | | | | | | |
| 11 | Super Wham | 5 | qt/a | 4-6"byg | 88 | 91 | 83 | 97 | 81 | 119.6 |
| | Clincher | 6 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |

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Propanil (Super Wham) plus Cyhalofop (Clincher) for Control of Resistant Barnyardgrass

Trial ID: Stut 08-05
 Location: Stuttgart, Ark.

Study Director: Dr. Robert Scott; Drew Ellis

| Weed Code | | | | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG | RICE | |
|------------------|----------------|------|-----------|--------------|----------|-----------|-----------|-----------|-------|-------|
| Rating Date | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | Yield | |
| Rating Data Type | | | | Control | Control | Control | Control | Control | BU/AC | |
| Rating Unit | | | | % | % | % | % | % | | |
| Trt No. | Treatment Name | Rate | Rate Unit | Growth Stage | | | | | | |
| 12 | Storm | 1.5 | pt/a | 3-4"brdlf | 30 | 45 | 21 | 57 | 75 | 96.8 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 5 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 6 | oz/a | 8-10"byg | | | | | | |
| 13 | Super Wham | 5 | qt/a | 4-6"byg | 86 | 88 | 87 | 88 | 57 | 146.8 |
| | Clincher | 8 | oz/a | 4-6"byg | | | | | | |
| | Storm | 1.5 | pt/a | 3-4"brdlf | | | | | | |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| 14 | Storm | 1.5 | pt/a | 3-4"brdlf | 6 | 43 | 28 | 60 | 70 | 116.8 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 5 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 8 | oz/a | 8-10"byg | | | | | | |
| 15 | Storm | 1.5 | pt/a | 3-4"brdlf | 6 | 35 | 19 | 38 | 38 | 69.5 |
| | Agridex | 1 | % v/v | 3-4"brdlf | | | | | | |
| | Super Wham | 3 | qt/a | 8-10"byg | | | | | | |
| | Clincher | 3 | oz/a | 8-10"byg | | | | | | |
| LSD (P=.05) | | | | | 19 | 18 | 19 | 19 | 23 | 34.2 |

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Table 8. Propanil (Super Wham) plus Clomazone (Command) for Control of Resistant Barnyardgrass

Trial ID: STUT 09-05
Location: Stuttgart, Ark.

Study Dir.: Dr. Robert Scott, Extension Weed Specialist; Drew Ellis

Objectives:

To evaluate control of propanil-resistant barnyardgrass with Super Wham and Command.

Conclusions: Barnyardgrass control was generally better with Command plus the grass herbicides Ricestar (fenoxaprop) and Clincher (cyhalofop) than with Super Wham. Control with Super Wham was poor (average of 60% 10 days after application and 15% 28 days after application). Although the addition of Command increased barnyardgrass control over that with Super Wham alone, control remained inadequate, and rice yields were reduced compared to rice treated with Ricestar and Clincher.

CROP AND WEED DESCRIPTION

| | | |
|---------------------------------|---------------------------------|---|
| Crop: ORYSI Oryza sativa | Rice, seeded, dried paddy | |
| Variety: Wells | Planting date: 27/Apr/05 | |
| Planting method: drilled | Rate: 90 lb/A | Plots flushed weekly from planting until flood |
| Row Spacing: 7 in. | Seedbed: smooth | Permanent flood: June 13 |

| | | |
|------------------|--------------------|------------------------|
| Weed Code | Common Name | Scientific Name |
| EGHCG | Barnyardgrass | Echinochloa crus-galli |

SITE AND DESIGN

| | |
|-------------------------|--|
| Plot Width: 6 FT | Plot Length: 18 FT |
| Replications: 4 | Study Design: Randomized complete block |

SOIL DESCRIPTION

| | | |
|-------------------|-------------------|------------------------------|
| % Sand: 8 | % OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75 | pH: 5.8 | Soil Name: DEWITT |
| % Clay: 16 | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

| | |
|--------------------------------|----------------|
| | A |
| Application Date: | 23/May/05 |
| Time of Day: | 9:30 PM |
| Application Method: | SPRAY |
| Application Timing: | 3-4 leaf ECHCG |
| Application Placement: | BROFOL |
| Air Temperature, Unit: | 79 F |
| % Relative Humidity: | 81 |
| Wind Velocity, Unit: | 1 MPH |
| Dew Presence (Y/N): | Y |
| Soil Temperature, Unit: | 79 F |
| Soil Moisture: | INADEQUAT |
| % Cloud Cover: | 0 |

WEED STAGE AT APPLICATION

| | |
|------------------------|----------|
| | A |
| Weed Code: | EGHCG |
| Stage Majority: | 4-leaf |
| Height, Unit: | 4 in. |

APPLICATION EQUIPMENT

| | |
|------------------------------|-----------|
| | A |
| Appl. Equipment: | Backpack |
| Operating Pressure: | 32 |
| Pressure Unit: | PSI |
| Nozzle Type: | FLAT FAN |
| Nozzle Size: | 110015 DG |
| Nozzle Spacing, Unit: | 20 IN |
| Boom Height, Unit: | 15 IN |
| Ground Speed, Unit: | 3 MPH |
| Carrier: | water |
| Spray Volume: | 10 |
| Volume Unit: | GPA |
| Propellant: | CO2 |

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Propanil-Resistant Barnyardgrass Control with Super Wham (propanil) and clomazone (Command)

Trial ID: STUT 09-05
Location: Stuttgart, Ark.

Study Dir.: Dr. Robert Scott; Drew Ellis

| | | | | | |
|-------------------|----------|----------|-----------|-----------|-------|
| Weed Code | ECHCG | ECHCG | ECHCG | ECHCG | |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | RICE |
| Rating Data Type | Control | Control | Control | Control | Yield |
| Rating Unit | % | % | % | % | BU/AC |
| Trt-Eval Interval | 10 DA-A | 15 DA-A | 22 DA-A | 28 DA-A | |

| Trt No. | Treatment Name | Form Conc | Form Type | Rate | Rate Unit | | | | | |
|---|-----------------------|-----------|-----------|------|-----------|----|----|-----|-----|-----------------|
| <u>TREATMENTS APPLIED TO 3- TO 4-LEAF BARNYARDGRASS</u> | | | | | | | | | | |
| 1 | Untreated Check | | | | | 19 | 3 | 12 | 0 | 12.6 |
| 2 | Super Wham (propanil) | 4 | SC | 3 | qt/a | 63 | 42 | 40 | 20 | -- ^z |
| 3 | Super Wham | 4 | SC | 4 | qt/a | 65 | 51 | 36 | 11 | 28.1 |
| 4 | Command (clomazone) | 3 | ME | 3 | oz/a | 80 | 74 | 67 | 51 | 68.2 |
| | Super Wham | 4 | SC | 3 | qt/a | | | | | |
| 5 | Command | 3 | ME | 4 | oz/a | 73 | 66 | 67 | 50 | 95.4 |
| | Super Wham | 4 | SC | 3 | qt/a | | | | | |
| 6 | Command | 3 | ME | 5 | oz/a | 78 | 71 | 66 | 64 | 81.4 |
| | Super Wham | 4 | SC | 3 | qt/a | | | | | |
| 7 | Command | 3 | ME | 3 | oz/a | 71 | 69 | 68 | 43 | 70.5 |
| | Super Wham | 4 | SC | 4 | qt/a | | | | | |
| 8 | Command | 3 | ME | 4 | oz/a | 74 | 70 | 73 | 76 | 86.7 |
| | Super Wham | 4 | SC | 4 | qt/a | | | | | |
| 9 | Command | 3 | ME | 5 | oz/a | 79 | 75 | 63 | 59 | 88.4 |
| | Super Wham | 4 | SC | 4 | qt/a | | | | | |
| 10 | Ricestar (fenoxaprop) | 0.58 | EC | 17 | oz/a | 90 | 95 | 96 | 97 | 168.9 |
| | Agridex (crop oil) | 1 | L | 1 | % v/v | | | | | |
| 11 | Clincher (cyhalofop) | 2.38 | EC | 15 | oz/a | 84 | 92 | 97 | 100 | 161.7 |
| | Agridex | 1 | L | 1 | % v/v | | | | | |
| 12 | Command | 3 | ME | 3 | oz/a | 88 | 96 | 92 | 95 | 149.0 |
| | Ricestar | 0.58 | EC | 17 | oz/a | | | | | |
| | Agridex | 1 | L | 1 | % v/v | | | | | |
| 13 | Command | 3 | ME | 4 | oz/a | 91 | 98 | 98 | 99 | 181.6 |
| | Ricestar | 0.58 | EC | 17 | oz/a | | | | | |
| | Agridex | 1 | L | 1 | % v/v | | | | | |
| 14 | Command | 3 | ME | 3 | oz/a | 87 | 91 | 96 | 98 | 164.4 |
| | Clincher | 2.38 | EC | 15 | oz/a | | | | | |
| | Agridex | 1 | L | 1 | % v/v | | | | | |
| 15 | Command | 3 | ME | 4 | oz/a | 90 | 98 | 100 | 100 | 119.1 |
| | Clincher | 2.38 | EC | 15 | oz/a | | | | | |
| | Agridex | 1 | L | 1 | % v/v | | | | | |
| LSD (P=.05) | | | | | | 11 | 15 | 19 | 24 | 55.6 |

^z Data not available.

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Table 9. Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

Objective: To evaluate efficacy of IR5878 applied alone and with other postemergence herbicides for weed control in a rice weed management program with Command.

Conclusions: Early post applications of clomazone + IR5878 controlled northern jointvetch (AESVI), hemp sesbania (SEBEX), and pitted morningglory (IPOLA) until after permanent flood. Preflood applications of IR5878 with or without propanil increased northern jointvetch control over control with clomazone applied PRE. Control of hemp sesbania and pitted morningglory tended to be somewhat better with IR5878 + propanil applied preflood than with IR5878 applied alone preflood. However, pitted morningglory control with propanil + bensulfuron (Duet) was not as good as control with propanil alone (Super Wham) when combined with IR5878. Reduced rates of both IR5878 (0.0131 lb/A) and propanil (0.74 lb/A) were ineffective for controlling the weeds in this experiment. Although penoxsulam had good activity on northern jointvetch, control of pitted morningglory and hemp sesbania was poor. Only treatments containing halosulfuron controlled yellow nutsedge. Only clomazone applied alone PRE and penoxsulam applied alone preflood reduced rice yields to the level of the untreated check plots.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|----------------------|------------------------|
| 1. | AESVI | Northern jointvetch | Aeschynomene virginica |
| 2. | SEBEX | Hemp sesbania | Sesbania exaltata |
| 3. | IPOLA | Morningglory, pitted | Ipomoea lacunosa |
| 4. | CYPES | Yellow nutsedge | Cyperus esculentus |

Crop: ORYSI RICE, PADDY (DRY SEEDED + IRR) **Variety:** WELLS **Rate:** 90 LB/A
Planting Date: 27/Apr/05 **Planting Method:** DRILLED
Row Spacing: 7 IN **Seed Bed:** SMOOTH
Soil Moisture: DRY **Emergence Date:** 9/May/05

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4 **Tillage Type:** CONVENTIONAL
Study Design: Randomized complete block **Flush:** weekly from planting until flood June 13

SOIL DESCRIPTION

| | | |
|--------------------|------------------|------------------------------------|
| % Sand: 8 % | OM: 0.94 | Texture: SILT LOAM |
| % Silt: 75% | pH: 5.8 | Soil Name: DEWITT SILT LOAM |
| % Clay: 16% | CEC: 14.3 | Fert. Level: ADEQUATE |

APPLICATION DESCRIPTION

| | A | B | C |
|-----------------------------|-----------|-----------|----------|
| Application Date: | 29/Apr/05 | 17/May/05 | 6/Jun/05 |
| Time of Day: | 7:00am | 3:00pm | 9:00pm |
| Application Method: | SPRAY | SPRAY | SPRAY |
| Application Timing: | PRE | EPOST | PREFLD |
| Applic. Placement: | BROSOL | BROFOL | BROFOL |
| Air Temp., Unit: | 70 F | 85 F | 82 F |
| % Relative Humidity: | 67 | 75 | 80 |
| Wind Velocity, Unit: | 4 mph | 3 MPH | 4 MPH |
| Dew Presence (Y/N): | N | N | N |
| Soil Temp.: | 70 F | 78 F | 89 F |
| Soil Moisture: | INADEQUAT | Very Wet | ADEQUATE |
| % Cloud Cover: | 85 | 0 | 60 |

EPOST, early postemergence; PREFLD, preflood

CROP STAGE AT EACH APPLICATION

| | A | B | C |
|--------------------------|----------|-------------------|----------|
| Crop Code, Stage: | ORYSI | ORYSI | ORYSI |
| Stage: | | 2-leaf , 4 inches | |

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|----------|--------------|-----------|
| Weed 1 Code, Stage: | AESVI | AESVI | AESVI 6-8 |
| Stage Scale: | | cotyl-1 leaf | 6-8 leaf |
| Weed 2 Code, Stage: | SEBEX | SEBEX | SEBEX |
| Stage Scale: | | 1-2 leaf | 6-8 leaf |
| Weed 3 Code, Stage: | IPOLA | IPOLA | IPOLA |
| Stage Scale: | | cotyl-1 leaf | 7-8 leaf |
| Weed 4 Code, Stage: | CYPES | CYPES | CYPES |
| Stage Scale: | | 2-4 leaf | 6-8 leaf |

APPLICATION EQUIPMENT

| | A | B | C |
|------------------------------|----------|----------|----------|
| Appl. Equipment: | Backpack | Backpack | Backpack |
| Operating Pressure: | 28 | 28 | 28 |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 80015 | 80015 | 80015 |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN |
| Nozzles/Row: | 3 | 3 | 3 |
| Boom Length, Unit: | 40 IN | 40 IN | 40 IN |
| Boom Height, Unit: | 17 IN | 17 IN | 17 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH |
| Carrier: | water | water | water |
| Spray Volume, Unit: | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 |

University of Arkansas

Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| | | | | |
|-------------------|-----------|----------|----------|-----------|
| Weed Code | AESVI | AESVI | AESVI | AESVI |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 24/May/05 | 2/Jun/05 | 7/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 7 DA-B | 16 DA-B | 21 DA-B | 14 DA-C |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | AESVI Control % | AESVI Control % | AESVI Control % | AESVI Control % |
|-------------|---|------------------------------|--|---|-----------------|-----------------|-----------------|-----------------|
| 1 | Untreated | | | | 0 | 0 | 0 | 0 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 0 | 0 | 93 | 100 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 86 | 99 | 80 | 100 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 0 | 72 | 100 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 20 | 0 | 85 | 100 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 0 | 0 | 16 | 100 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 0 | 90 | 100 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 0 | 66 | 100 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 0 | 0 | 100 | 100 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 0 | 0 | 13 | 9 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 81 | 99 | 91 | 100 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 0 | 0 | 29 | 100 |
| LSD (P=.05) | | | | | 16 | 0.8 | 15 | 2 |

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Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | AESVI | SEBEX | SEBEX | SEBEX |
|-------------------|---|------------------------------|--|---|-----------|-----------|----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 28/Jun/05 | 24/May/05 | 2/Jun/05 | 7/Jun/05 |
| Trt-Eval Interval | | | | | 22 DA-C | 7 DA-B | 16 DA-B | 21 DA-B |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Untreated | | | | 5 | 0 | 0 | 0 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 100 | 0 | 0 | 53 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 100 | 89 | 100 | 96 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 59 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 56 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 23 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 46 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 15 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 100 | 0 | 0 | 4 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 3 | 0 | 0 | 0 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 100 | 94 | 100 | 100 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 100 | 0 | 0 | 14 |
| LSD (P=.05) | | | | | 4 | 2 | 1 | 26 |

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Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | SEBEX | SEBEX | SEBEX | IPOLA | |
|-------------------|---|------------------------------|--|---|-----------|-----------|-----------|----|
| Rating Data Type | | | | Control | Control | Control | Control | |
| Rating Unit | | | | % | % | % | % | |
| Rating Date | | | | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | 24/May/05 | |
| Trt-Eval Interval | | | | 8 DA-C | 14 DA-C | 22 DA-C | 7 DA-B | |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Untreated | | | | 0 | 3 | 0 | 0 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 40 | 83 | 100 | 0 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 96 | 93 | 94 | 74 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 98 | 99 | 98 | 0 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 100 | 89 | 0 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 51 | 78 | 28 | 0 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 99 | 96 | 98 | 0 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 95 | 100 | 92 | 0 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 21 | 65 | 15 | 0 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 0 | 3 | 0 | 0 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 100 | 100 | 100 | 66 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 93 | 99 | 95 | 0 |
| LSD (P=.05) | | | | | 17 | 13 | 16 | 7 |

University of Arkansas

Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | IPOLA | IPOLA | IPOLA | IPOLA |
|-------------------|---|------------------------------|--|---|----------|----------|-----------|-----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | | | | | 16 DA-B | 21 DA-B | 8 DA-C | 14 DA-C |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Untreated | | | | 0 | 0 | 0 | 0 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 0 | 24 | 69 | 87 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 92 | 86 | 95 | 95 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 68 | 95 | 100 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 74 | 95 | 100 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 0 | 31 | 64 | 80 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 35 | 74 | 91 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 0 | 37 | 62 | 88 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 0 | 0 | 8 | 19 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 0 | 0 | 0 | 0 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 94 | 92 | 100 | 100 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 0 | 29 | 63 | 90 |
| LSD (P=.05) | | | | | 2 | 29 | 25 | 18 |

University of Arkansas

Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | IPOLA | CYPES | CYPES | CYPES |
|-------------------|---|------------------------------|--|---|-----------|-----------|----------|----------|
| Rating Data Type | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | % | % | % | % |
| Rating Date | | | | | 28/Jun/05 | 24/May/05 | 2/Jun/05 | 7/Jun/05 |
| Trt-Eval Interval | | | | | 22 DA-C | 7 DA-B | 16 DA-B | 21 DA-B |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Untreated | | | | 100 | 0 | 0 | 0 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 100 | 0 | 0 | 0 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 100 | 0 | 66 | 61 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 36 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 43 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 11 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 0 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 100 | 0 | 0 | 0 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 100 | 0 | 0 | 0 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 100 | 0 | 0 | 0 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 100 | 0 | 81 | 76 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 100 | 0 | 0 | 68 |
| LSD (P=.05) | | | | | NS | NS | 4 | 5 |

University of Arkansas

Efficacy of IR5878 in a clomazone (Command) Program in Rice

Trial ID: STUT 01-05
 Location: Stuttgart, Ark.

Study Dir.: Drew Ellis; Ron Talbert

| Weed Code | | | | | CYPES | CYPES | CYPES | |
|-------------------|---|------------------------------|--|---|-----------|-----------|-----------|------------|
| Rating Data Type | | | | | Control | Control | Control | Rice yield |
| Rating Unit | | | | | % | % | % | BU/AC |
| Rating Date | | | | | 14/Jun/05 | 20/Jun/05 | 28/Jun/05 | |
| Trt-Eval Interval | | | | | 8 DA-C | 14 DA-C | 22 DA-C | |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 1 | Untreated | | | | 0 | 0 | 0 | 115.8 |
| 2 | Clomazone (clomazone) + IR5878 + Kinetic (adjuvant) | 0.3 0.053 0.2 | lb ai/a lb ai/a % v/v | PRE Preflood Preflood | 12 | 14 | 4 | 168.4 |
| 3 | Clomazone IR5878 + Kinetic | 0.3 0.0656 0.2 | lb ai/a lb ai/a % v/v | EPOST EPOST EPOST | 53 | 10 | 0 | 188.1 |
| 4 | Clomazone fb IR5878 + Kinetic + Propanil (Super Wham) | 0.3 0.053 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 64 | 20 | 0 | 191.0 |
| 5 | Clomazone fb IR5878 + Kinetic + Propanil | 0.3 0.0656 0.2 4 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 70 | 45 | 15 | 181.6 |
| 6 | Clomazone fb IR 5878 Propanil Kinetic | 0.3 0.0131 0.74 0.1 | lb ai/a lb ai/a lb ai/a % v/v | PRE Preflood Preflood Preflood | 10 | 8 | 0 | 166.0 |
| 7 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.053 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 36 | 26 | 9 | 181.5 |
| 8 | Clomazone fb IR5878 + Kinetic + Propanil + bensulfuron (Duet) | 0.3 0.0656 0.2 4.03 | lb ai/a lb ai/a % v/v lb ai/a | PRE Preflood Preflood Preflood | 45 | 30 | 24 | 167.2 |
| 9 | Penoxsulam (Grasp) Agridex (crop oil) | 0.0313 2.5 | lb ai/a % v/v | Preflood Preflood | 0 | 0 | 0 | 134.4 |
| 10 | Clomazone | 0.3 | lb ai/a | PRE | 0 | 0 | 0 | 162.3 |
| 11 | Clomazone + Halosulfuron (Permit) | 0.3 0.063 | lb ai/a lb ai/a | EPOST EPOST | 100 | 100 | 100 | 201.2 |
| 12 | Clomazone fb Halosulfuron + Propanil | 0.3 0.063 4 | lb ai/a lb ai/a lb ai/a | PRE Preflood Preflood | 93 | 95 | 99 | 172.1 |
| LSD (P=.05) | | | | | 13 | 11 | 9 | 38.0 |

University of Arkansas

Table 10. Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05 **Study Dir.:** Ron Talbert, Drew Ellis, Brian Ottis
Location: Stuttgart, Ark.

Objective: 1) Evaluate barnyardgrass control with Newpath for optimal control based upon barnyardgrass growth stage in silt loam
 2) Evaluate rice tolerance at each application timing
 3) Compare barnyardgrass control in a conventional and stale seedbed production system

Conclusions: By mid-June, barnyardgrass and broadleaf signalgrass were controlled 90 to 100% regardless of imazethapyr treatment or tillage practice (stale seedbed or conventional tillage). Rice yields did not differ among treatments.

CROP AND WEED DESCRIPTION

| | | |
|------------------|-----------------------|---------------------------------------|
| Weed Code | Common Name | Scientific Name |
| ECHCG | barnyardgrass | Echinochloa crus-galli (L.) Beauv. |
| BRAPP | broadleaf signalgrass | Brachiaria platyphylla (Griseb.) Nash |

Crop: ORYSI Rice, Paddy (Dry-seeded) **Variety:** CL161
Planting Date: 5/May/05 **Planting Method:** DRILLED **Plots flushed weekly from planting until flood**
Rate: 90 LB/A **Depth:** 1 IN **Permanent flood:** June 13
Row Spacing: 7 in **Seed Bed:** SMOOTH/TRASHY

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4
Tillage Type: CONV./STALE SEEDBED **Study Design:** randomized complete block

SOIL DESCRIPTION

| | | |
|--------------------|------------------|------------------------------|
| % Sand: 8 % | OM: 0.94 | Texture: silt loam |
| % Silt: 75 | pH: 5.8 | Soil Name: Dewitt |
| % Clay: 16 | CEC: 14.3 | Fert. Level: adequate |

APPLICATION DESCRIPTION

| | A | B | C | D | E | F | G |
|-----------------------------|-----------|-----------|-----------|----------|-----------|-----------|-----------|
| Application Date: | 15/Apr/05 | 6/May/05 | 12/May/05 | 2/Jun/05 | 13/Jun/05 | 13/Jun/05 | 20/Jun/05 |
| Time of Day: | 7:30 AM | 8:00 AM | 9:00AM | 5:45AM | 9:00PM | 9:00PM | 9:00 PM |
| Application Method: | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY | SPRAY |
| Application Timing: | 14-DPP | PPI | PRE | 2LF | 4LF | 5-6LF | 7 LF |
| Applic. Placement: | BROSOI | BROSOI | BROSOI | BROFOL | BROFOL | BROFOL | BROFOL |
| Air Temp., Unit: | 71 F | 62 F | 84 F | 75 F | 80 F | 80 F | 83 F |
| % Relative Humidity: | 70 | 70 | 86 | 76 | 92 | 92 | 86 |
| Wind Velocity, Unit: | 3 S | 0.5 S | 0 MPH | 4 MPH | 0 MPH | 0 MPH | 0 MPH |
| Dew Presence (Y/N): | Y | N | N | N | Y | Y | N |
| Soil Temp., Unit: | 68 F | 55 F | 70 F | 70 F | 91 F | 91 F | 98 F |
| Soil Moisture: | adequate | inadequat | excessive | adequate | excessive | excessive | excessive |
| % Cloud Cover: | 25 | 0 | 0 | 95 | 0 | 0 | 0 |

CROP STAGE AT EACH APPLICATION

| | A | B | C | D | E | F | G |
|----------------------|----------|----------|----------|----------|----------|----------|----------|
| Crop Code: | ORYSI | ORYSI | ORYSI | ORYSI | ORYSI | ORYSI | ORYSI |
| Stage Scale: | 14-DPP | PPI | PRE | 2 LEAF | 4 LF | 5-6 LF | 7 LF |
| Height, Unit: | | | | 2 IN | 6 IN | 8 IN | 12 IN |

WEED STAGE AT EACH APPLICATION

| | A | B | C | D | E | F | G |
|----------------------------|----------|----------|----------|----------|----------|----------|----------|
| Weed 1 Code, Stage: | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG | ECHCG |
| Stage Scale: | 14-DPP | PPI | PRE | 2 LF | 3 LF | 4 LF | 6-7 LF |
| Weed 2 Code, Stage: | BRAPP | BRAPP | BRAPP | BRAPP | BRAPP | BRAPP | BRAPP |
| Stage Scale: | 14-DPP | PPI | PRE | 2 LF | 3 LF | 4 LF | 6-7 LF |

APPLICATION EQUIPMENT

| | A | B | C | D | E |
|------------------------------|-----------|-----------|----------|----------|----------|
| Appl. Equipment: | Backpack | Backpack | Backpack | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI | 23 PSI | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 110015 DG | 110015 DG | 80015 DG | 80015 DG | 80015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN | 40 IN | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN | 15 IN | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH | 3 MPH | 3 MPH |
| Incorporation Equip.: | | POWER TIL | | | |
| Hours to Incorp.: | | 0.5 | | | |
| Incorp. Depth, Unit: | | 2 IN | | | |
| Carrier: | WATER | WATER | WATER | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 | CO2 | CO2 |

| | F | G |
|------------------------------|----------|----------|
| Appl. Equipment: | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN |
| Nozzle Size: | 80015 DG | 80015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 |

University of Arkansas

Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | ECHCG | ECHCG | ECHCG | ECHCG |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | | |
|---------|--------------------------------|--------|-----------|----------|-----------|-----|----|-----|-----|
| 1 | Untreated check (stale) | | | | | 0 | 0 | 0 | 0 |
| 2 | Untreated check (conventional) | | | | | 0 | 0 | 0 | 0 |
| 3 | Stale seedbed | | | | | 96 | 94 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 4 | Conventional | | | | | 77 | 98 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 5 | Stale seedbed | | | | | 95 | 95 | 99 | 95 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 6 | Conventional | | | | | 100 | 91 | 93 | 98 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 7 | Stale seedbed | | | | | 100 | 98 | 99 | 94 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 8 | Conventional | | | | | 100 | 98 | 98 | 100 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 9 | Stale seedbed | | | | | 100 | 96 | 97 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 10 | Conventional | | | | | 100 | 96 | 96 | 95 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 11 | Stale seedbed | | | | | 95 | 95 | 100 | 98 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 12 | Conventional | | | | | 99 | 91 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |

University of Arkansas

Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | ECHCG | ECHCG | ECHCG | ECHCG |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | ECHCG Control % | ECHCG Control % | ECHCG Control % | ECHCG Control % |
|---------|------------------|--------|-----------|----------|-----------|-----------------|-----------------|-----------------|-----------------|
| 13 | Stale seedbed | | | | | 98 | 95 | 98 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 14 | Conventional | | | | | 100 | 100 | 99 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 15 | Stale seedbed | | | | | 100 | 100 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 16 | Conventional | | | | | 100 | 100 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 17 | Stale seedbed | | | | | 95 | 90 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 18 | Conventional | | | | | 85 | 90 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 19 | Stale seedbed | | | | | 0 | 97 | 100 | 97 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 20 | Conventional | | | | | 0 | 99 | 99 | 100 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 21 | Stale seedbed | | | | | 0 | 90 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 22 | Conventional | | | | | 0 | 96 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | ECHCG | ECHCG | ECHCG | ECHCG |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | 0 | 96 | 100 | 99 |
|-------------|------------------|--------|-----------|----------|-----------|----|----|-----|----|
| 23 | Stale seedbed | | | | | | | | |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 24 | Conventional | | | | | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| LSD (P=.05) | | | | | | 14 | 11 | 5 | 3 |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | BRAPP | BRAPP | BRAPP | BRAPP |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | | |
|---------|--------------------------------|--------|-----------|----------|-----------|-----|-----|-----|-----|
| 1 | Untreated check (stale) | | | | | 0 | 0 | 0 | 0 |
| 2 | Untreated check (conventional) | | | | | 0 | 0 | 0 | 0 |
| 3 | Stale seedbed | | | | | 98 | 95 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 4 | Conventional | | | | | 80 | 99 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 5 | Stale seedbed | | | | | 95 | 100 | 99 | 96 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 6 | Conventional | | | | | 100 | 96 | 88 | 88 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 7 | Stale seedbed | | | | | 100 | 90 | 98 | 92 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 8 | Conventional | | | | | 100 | 97 | 98 | 100 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 9 | Stale seedbed | | | | | 99 | 91 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 10 | Conventional | | | | | 99 | 96 | 97 | 94 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 11 | Stale seedbed | | | | | 97 | 100 | 85 | 97 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| 12 | Conventional | | | | | 99 | 95 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | BRAPP | BRAPP | BRAPP | BRAPP |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | | |
|---------|------------------|--------|-----------|----------|-----------|-----|-----|-----|-----|
| 13 | Stale seedbed | | | | | 98 | 94 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 14 | Conventional | | | | | 100 | 100 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 15 | Stale seedbed | | | | | 100 | 100 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 16 | Conventional | | | | | 100 | 100 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 17 | Stale seedbed | | | | | 98 | 90 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 18 | Conventional | | | | | 83 | 90 | 100 | 95 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 19 | Stale seedbed | | | | | 0 | 90 | 100 | 99 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 20 | Conventional | | | | | 0 | 100 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | | | | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | | | | |
| 21 | Stale seedbed | | | | | 0 | 93 | 100 | 100 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |
| 22 | Conventional | | | | | 0 | 96 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | | | | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | | | | |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

| | | | | |
|-------------------|----------|----------|-----------|-----------|
| Weed Code | BRAPP | BRAPP | BRAPP | BRAPP |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 |
| Trt-Eval Interval | 21 DA-C | 5 DA-D | 12 DA-D | 7 DA-E,F |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | | |
|-------------|------------------|--------|-----------|----------|-----------|----|----|-----|-----|
| 23 | Stale seedbed | | | | | 0 | 95 | 100 | 98 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | | | | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| 24 | Conventional | | | | | 0 | 95 | 100 | 100 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | | | | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | | | | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | | | | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | | | | |
| LSD (P=.05) | | | | | | 15 | 10 | 11 | 6 |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

Rice yield
 BU/AC

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | Rice yield BU/AC |
|---------|--------------------------------|--------|-----------|----------|-----------|------------------|
| 1 | Untreated check (stale) | | | | | 87.6 |
| 2 | Untreated check (conventional) | | | | | 71.5 |
| 3 | Stale seedbed | | | | | 130.2 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| 4 | Conventional | | | | | 101.0 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| 5 | Stale seedbed | | | | | 93.6 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 6 | Conventional | | | | | 108.4 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 7 | Stale seedbed | | | | | 96.4 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |
| 8 | Conventional | | | | | 98.9 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |
| 9 | Stale seedbed | | | | | 117.3 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| 10 | Conventional | | | | | 110.0 |
| | Newpath | 0.0625 | lb ai/a | PPI | B | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| 11 | Stale seedbed | | | | | 123.0 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| 12 | Conventional | | | | | 138.9 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

Rating Data Type
Rating Unit
Rating Date
Trt-Eval Interval

Rice yield
BU/AC

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | |
|---------|------------------|--------|-----------|----------|-----------|-------|
| 13 | Stale seedbed | | | | | 146.2 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 14 | Conventional | | | | | 119.9 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 15 | Stale seedbed | | | | | 92.4 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |
| 16 | Conventional | | | | | 111.8 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |
| 17 | Stale seedbed | | | | | 116.7 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| 18 | Conventional | | | | | 113.4 |
| | Newpath | 0.0625 | lb ai/a | PRE | C | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| 19 | Stale seedbed | | | | | 108.9 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 20 | Conventional | | | | | 107.0 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 4 LEAF | E | |
| | AG-98 | 0.25 | % v/v | 4 LEAF | E | |
| 21 | Stale seedbed | | | | | 128.2 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |
| 22 | Conventional | | | | | 123.4 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 5-6 LEAF | F | |
| | AG-98 | 0.25 | % v/v | 5-6 LEAF | F | |

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Imazethapyr (Newpath) in Conventional and Stale Seedbed Systems

Trial ID: STUT 11-05
 Location: Stuttgart, Ark.

Study Dir.: Ron Talbert, Drew Ellis, Brian Ottis

Weed Code
 Rating Data Type
 Rating Unit
 Rating Date
 Trt-Eval Interval

Rice yield
 BU/AC

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | Rice yield BU/AC |
|-------------|------------------|--------|-----------|----------|-----------|------------------|
| 23 | Stale seedbed | | | | | 119.9 |
| | Roundup UltraMax | 1.0 | lb ai/a | 14-DPP | A | |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| 24 | Conventional | | | | | 122.9 |
| | Newpath | 0.0625 | lb ai/a | 2 LEAF | D | |
| | AG-98 | 0.25 | % v/v | 2 LEAF | D | |
| | Newpath | 0.0625 | lb ai/a | 7 LEAF | G | |
| | AG-98 | 0.25 | % v/v | 7 LEAF | G | |
| LSD (P=.05) | | | | | | NS |

University of Arkansas

Table 11. Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis

Objective: To evaluate conventional herbicide programs in stale-seedbed and conventional tillage systems.

Conclusions: Control of barnyardgrass and broadleaf signalgrass was generally >95% with treatments containing Command (clomazone) or Facet (quinclorac) applied 14 days preplant (DPP) in stale seedbed or PRE in conventional tillage or with Command applied delayed PRE (DPRE) in either tillage system, and rice yields were not reduced. Facet was not effective DPRE unless it was combined with Prowl (pendimethalin). Rice yields with Facet applied DPRE alone were reduced. Control of barnyardgrass and broadleaf signalgrass, however, was excellent with Facet plus Prowl applied DPRE and with clomazone treatments followed by Stam (propanil) early POST (EPOST) until at least 1 week after permanent flood. Delaying herbicide treatment until EPOST generally resulted in poorer control than applying DPRE and PRE treatments and following with Stam EPOST.

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|-----------------------|------------------------|
| 1. | ECHCG | barnyardgrass | Echinochloa crus-galli |
| 2. | BRAPP | broadleaf signalgrass | Brachiaria platyphylla |

Crop: ORYSI rice, paddy (dry-seeded+irr) **Variety:** Wells
Planting Date: 5/May/05 **Planting Method:** drilled
Rate: 90 LB/A **Depth:** 0.75 in **Row Spacing:** 7 IN **Plots flushed weekly until flood**
Seed Bed: smooth/trashy **Soil Moisture:** adequate **Permanent flood June 13**

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4
Tillage Type: CONV./STALE SEEDBED **Study Design:** randomized complete block

SOIL DESCRIPTION

% Sand: 8 % **OM:** 0.94 **Texture:** SILT LOAM
% Silt: 75 **pH:** 5.8 **Soil Name:** DEWITT Permanent flood: June 13
% Clay: 16 **CEC:** 14.3 **Fert. Level:** ADEQUATE
Overall Moisture Conditions: wet-wet-dry

APPLICATION DESCRIPTION

| | A | B | C | D |
|-----------------------------|-----------|-----------|-----------|----------|
| Application Date: | 15/Apr/05 | 6/May/05 | 11/May/05 | 2/Jun/05 |
| Time of Day: | 7:30 AM | 8:00 am | 9:00 pm | 5:45AM |
| Application Method: | SPRAY | SPRAY | SPRAY | SPRAY |
| Application Timing: | 14-DPP | PRE | DPRE | EPOST |
| Applic. Placement: | BROSOL | BROSOL | BROSOL | BROFOL |
| Air Temp., Unit: | 71 F | 62 F | 84 F | 75 F |
| % Relative Humidity: | 70 | 70 | 86 | 76 |
| Wind Velocity, Unit: | 3 S | 0.5 S | 0.5 S | 4 MPH |
| Dew Presence (Y/N): | Y | N | N | N |
| Water Hardness: | N/A | N/A | N/A | N/A |
| Soil Temp., Unit: | 65 F | 55 F | 70 F | 70 F |
| Soil Moisture: | ADEQUATE | INADEQUAT | EXCESSIVE | ADEQUATE |
| % Cloud Cover: | 25 | 0 | 0 | 95 |

CROP STAGE AT EACH APPLICATION

| | A | B | C | D |
|----------------------|----------|----------|----------|----------|
| CropCode: | ORYSI | ORYSI | ORYSI | ORYSI |
| Stage: | 14-DPP | PRE | DPRE | EPOST |
| Height, Unit: | | | | 8 IN |

WEED STAGE AT EACH APPLICATION

| | A | B | C | D |
|---------------------|----------|----------|----------|----------|
| Weed 1 Code: | ECHCG | ECHCG | ECHCG | ECHCG |
| Stage: | 14-DPP | PRE | DPRE | 3-4 LF |
| Weed 2 Code: | BRAPP | BRAPP | BRAPP | BRAPP |
| Stage: | 14-DPP | PRE | DPRE | 3-4 LF |

APPLICATION EQUIPMENT

| | A | B | C | D |
|------------------------------|----------|----------|----------|----------|
| Appl. Equipment: | Backpack | Backpack | Backpack | Backpack |
| Operating Pressure: | 23 PSI | 23 PSI | 23 PSI | 23 PSI |
| Nozzle Type: | FLAT FAN | FLAT FAN | FLAT FAN | FLAT FAN |
| Nozzle Size: | 11015 DG | 11015 DG | 80015 DG | 80015 DG |
| Nozzle Spacing, Unit: | 20 IN | 20 IN | 20 IN | 20 IN |
| Boom Length, Unit: | 40 IN | 40 IN | 40 IN | 40 IN |
| Boom Height, Unit: | 15 IN | 15 IN | 17 IN | 17 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 | CO2 | CO2 |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
Investigator: Ron Talbert

| Weed Code | Rating Data Type | Rating Unit | Rating Date | Trt-Eval Interval | Rice bleach % | ECHCG Control % | ECHCG Control % | ECHCG Control % |
|-----------|-----------------------------|-------------|-------------|-------------------|---------------|-----------------|-----------------|-----------------|
| | | | | | 24/May/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 |
| | | | | | 13 DA-C | 22 DA-C | 5 DA-D | 12 DA-D |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | |
| 1 | Stale Seedbed Untreated | | | | | 0 | 11 | 0 |
| 2 | Conventional-till untreated | | | | | 0 | 9 | 8 |
| 3 | Stale seedbed | | | | | 0 | 100 | 100 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Command (clomazone) | 0.4 | lb ai/a | 14-DPP | A | | | |
| | Stam (propanil) | 3 | lb ai/a | EPOST | D | | | |
| 4 | Conventional | | | | | 4 | 100 | 100 |
| | Command | 0.4 | lb ai/a | PRE | B | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 5 | Stale seedbed | | | | | 3 | 100 | 98 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Command | 0.8 | lb ai/a | 14-DPP | A | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 6 | Conventional | | | | | 16 | 100 | 100 |
| | Command | 0.8 | lb ai/a | PRE | B | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 7 | Stale seedbed | | | | | 0 | 100 | 95 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Facet | 0.25 | lb ai/a | 14-DPP | A | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 8 | Conventional | | | | | 2 | 100 | 100 |
| | Facet | 0.25 | lb ai/a | PRE | B | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 9 | Stale seedbed | | | | | 7 | 100 | 98 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Command | 0.4 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 10 | Conventional | | | | | 6 | 100 | 100 |
| | Command | 0.4 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 11 | Stale seedbed | | | | | 12 | 99 | 97 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Command | 0.8 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 12 | Conventional | | | | | 6 | 100 | 100 |
| | Command | 0.8 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 13 | Stale seedbed | | | | | 0 | 95 | 85 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Prowl (pendimethalin) | 1 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 14 | Conventional | | | | | 0 | 100 | 95 |
| | Prowl | 1 | lb ai/a | DPRE | C | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | |
| 15 | Stale seedbed | | | | | 0 | 38 | 63 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | |
| | Facet (quinclorac) | 0.25 | lb ai/a | DPRE | C | | | |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
Investigator: Ron Talbert

| | | | | | | | |
|-------------------|--|--|--|--|-----------|----------|-----------|
| Weed Code | | | | | ECHCG | ECHCG | ECHCG |
| Rating Data Type | | | | | Control | Control | Control |
| Rating Unit | | | | | % | % | % |
| Rating Date | | | | | 24/May/05 | 7/Jun/05 | 14/Jun/05 |
| Trt-Eval Interval | | | | | 13 DA-C | 22 DA-C | 5 DA-D |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | Rice bleach % | ECHCG Control % | ECHCG Control % | ECHCG Control % |
|-------------|--------------------------------|------|-----------|----------|-----------|---------------|-----------------|-----------------|-----------------|
| | | | | | | 24/May/05 | 22 DA-C | 5 DA-D | 12 DA-D |
| 16 | Conventional Facet | 0.25 | lb ai/a | DPRE | C | 0 | 41 | 60 | 75 |
| 17 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 0 | 98 | 100 | 95 |
| | Prowl | 1 | lb ai/a | DPRE | C | | | | |
| | Facet | 0.25 | lb ai/a | DPRE | C | | | | |
| 18 | Conventional Prowl | 1 | lb ai/a | DPRE | C | 0 | 91 | 100 | 100 |
| | Facet | 0.25 | lb ai/a | DPRE | C | | | | |
| 19 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 0 | 78 | 78 | 95 |
| | Command | 0.4 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 20 | Conventional Command | 0.4 | lb ai/a | EPOST | D | 7 | 69 | 82 | 95 |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 21 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 0 | 51 | 54 | 74 |
| | Command | 0.8 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 22 | Conventional Command | 0.8 | lb ai/a | EPOST | D | 1 | 76 | 65 | 77 |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 23 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 0 | 53 | 51 | 24 |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 24 | Conventional Prowl | 1 | lb ai/a | EPOST | D | 0 | 56 | 60 | 62 |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 25 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 4 | 74 | 66 | 81 |
| | Facet | 0.25 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 26 | Conventional Facet | 0.25 | lb ai/a | EPOST | D | 0 | 64 | 73 | 98 |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 27 | Stale seedbed Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | 0 | 45 | 65 | 73 |
| | Facet | 0.19 | lb ai/a | EPOST | D | | | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 28 | Conventional Facet | 0.19 | lb ai/a | EPOST | D | 0 | 54 | 73 | 100 |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| LSD (P=.05) | | | | | | 6 | 23 | 24 | 20 |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
Investigator: Ron Talbert

| | | | | |
|-------------------|-----------|----------|----------|-----------|
| Weed Code | ECHCG | BRAPP | BRAPP | BRAPP |
| Rating Data Type | Control | Control | Control | Control |
| Rating Unit | % | % | % | % |
| Rating Date | 20/Jun/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 |
| Trt-Eval Interval | 18 DA-D | 22 DA-C | 5 DA-D | 12 DA-D |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | ECHCG | BRAPP | BRAPP | BRAPP |
|---------|-----------------------------|------|-----------|----------|-----------|-------|-------|-------|-------|
| 1 | Stale Seedbed Untreated | | | | | 0 | 10 | 0 | 0 |
| 2 | Conventional-till untreated | | | | | 10 | 9 | 8 | 6 |
| 3 | Stale seedbed | | | | | 100 | 100 | 100 | 100 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command (clomazone) | 0.4 | lb ai/a | 14-DPP | A | | | | |
| | Stam (propanil) | 3 | lb ai/a | EPOST | D | | | | |
| 4 | Conventional | | | | | 95 | 100 | 100 | 100 |
| | Command | 0.4 | lb ai/a | PRE | B | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 5 | Stale seedbed | | | | | 100 | 100 | 100 | 100 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command | 0.8 | lb ai/a | 14-DPP | A | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 6 | Conventional | | | | | 97 | 100 | 100 | 100 |
| | Command | 0.8 | lb ai/a | PRE | B | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 7 | Stale seedbed | | | | | 100 | 100 | 95 | 100 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Facet | 0.25 | lb ai/a | 14-DPP | A | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 8 | Conventional | | | | | 95 | 100 | 100 | 100 |
| | Facet | 0.25 | lb ai/a | PRE | B | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 9 | Stale seedbed | | | | | 93 | 100 | 100 | 98 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command | 0.4 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 10 | Conventional | | | | | 95 | 100 | 100 | 100 |
| | Command | 0.4 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 11 | Stale seedbed | | | | | 95 | 90 | 93 | 96 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command | 0.8 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 12 | Conventional | | | | | 100 | 100 | 100 | 100 |
| | Command | 0.8 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 13 | Stale seedbed | | | | | 91 | 87 | 84 | 89 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Prowl (pendimethalin) | 1 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 14 | Conventional | | | | | 100 | 98 | 95 | 99 |
| | Prowl | 1 | lb ai/a | DPRE | C | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 15 | Stale seedbed | | | | | 78 | 40 | 59 | 74 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Facet (quinclorac) | 0.25 | lb ai/a | DPRE | C | | | | |
| 16 | Conventional | | | | | 80 | 38 | 64 | 75 |
| | Facet | 0.25 | lb ai/a | DPRE | C | | | | |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
 Investigator: Ron Talbert

| Weed Code | | | | | | ECHCG | BRAPP | BRAPP | BRAPP |
|-------------------|------------------|------|-----------|----------|-----------|-----------|----------|----------|-----------|
| Rating Data Type | | | | | | Control | Control | Control | Control |
| Rating Unit | | | | | | % | % | % | % |
| Rating Date | | | | | | 20/Jun/05 | 2/Jun/05 | 7/Jun/05 | 14/Jun/05 |
| Trt-Eval Interval | | | | | | 18 DA-D | 22 DA-C | 5 DA-D | 12 DA-D |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | Appl Code | | | | |
| 17 | Stale seedbed | | | | | 100 | 96 | 98 | 100 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Prowl | 1 | lb ai/a | DPRE | C | | | | |
| | Facet | 0.25 | lb ai/a | DPRE | C | | | | |
| 18 | Conventional | | | | | 100 | 90 | 100 | 100 |
| | Prowl | 1 | lb ai/a | DPRE | C | | | | |
| | Facet | 0.25 | lb ai/a | DPRE | C | | | | |
| 19 | Stale seedbed | | | | | 92 | 78 | 82 | 96 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command | 0.4 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 20 | Conventional | | | | | 95 | 69 | 85 | 100 |
| | Command | 0.4 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 21 | Stale seedbed | | | | | 78 | 54 | 56 | 71 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Command | 0.8 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 22 | Conventional | | | | | 63 | 76 | 63 | 72 |
| | Command | 0.8 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 23 | Stale seedbed | | | | | 30 | 58 | 45 | 26 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 24 | Conventional | | | | | 60 | 62 | 61 | 65 |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 25 | Stale seedbed | | | | | 63 | 71 | 63 | 90 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Facet | 0.25 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 26 | Conventional | | | | | 84 | 64 | 74 | 99 |
| | Facet | 0.25 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 27 | Stale seedbed | | | | | 73 | 40 | 65 | 68 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | | | |
| | Facet | 0.19 | lb ai/a | EPOST | D | | | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| 28 | Conventional | | | | | 100 | 53 | 75 | 99 |
| | Facet | 0.19 | lb ai/a | EPOST | D | | | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | | | |
| | Stam | 3 | lb ai/a | EPOST | D | | | | |
| LSD (P=.05) | | | | | | 24 | 24 | 24 | 21 |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
 Investigator: Ron Talbert

| | | |
|-------------------|-----------|------------|
| Weed Code | BRAPP | |
| Rating Data Type | Control | Rice yield |
| Rating Unit | % | BU/AC |
| Rating Date | 20/Jun/05 | |
| Trt-Eval Interval | 18 DA-D | |

| Trt No. | Treatment Name | Rate | Unit | Grow Stg | Appl Code | BRAPP Control % | Rice yield BU/AC |
|---------|-----------------------------|------|---------|----------|-----------|-----------------|------------------|
| 1 | Stale Seedbed Untreated | | | | | 0 | 44.4 |
| 2 | Conventional-till untreated | | | | | 10 | 54.8 |
| 3 | Stale seedbed | | | | | 100 | 126.4 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command (clomazone) | 0.4 | lb ai/a | 14-DPP | A | | |
| | Stam (propanil) | 3 | lb ai/a | EPOST | D | | |
| 4 | Conventional | | | | | 99 | 141.2 |
| | Command | 0.4 | lb ai/a | PRE | B | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 5 | Stale seedbed | | | | | 100 | 143.3 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command | 0.8 | lb ai/a | 14-DPP | A | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 6 | Conventional | | | | | 100 | 156.6 |
| | Command | 0.8 | lb ai/a | PRE | B | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 7 | Stale seedbed | | | | | 100 | 138.9 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Facet | 0.25 | lb ai/a | 14-DPP | A | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 8 | Conventional | | | | | 95 | 117.4 |
| | Facet | 0.25 | lb ai/a | PRE | B | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 9 | Stale seedbed | | | | | 95 | 155.9 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command | 0.4 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 10 | Conventional | | | | | 100 | 134.4 |
| | Command | 0.4 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 11 | Stale seedbed | | | | | 100 | 157.1 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command | 0.8 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 12 | Conventional | | | | | 100 | 148.5 |
| | Command | 0.8 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 13 | Stale seedbed | | | | | 89 | 125.1 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Prowl (pendimethalin) | 1 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 14 | Conventional | | | | | 98 | 110.0 |
| | Prowl | 1 | lb ai/a | DPRE | C | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 15 | Stale seedbed | | | | | 75 | 86.2 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Facet (quinclorac) | 0.25 | lb ai/a | DPRE | C | | |
| 16 | Conventional | | | | | 79 | 96.3 |
| | Facet | 0.25 | lb ai/a | DPRE | C | | |

University of Arkansas

Evaluation of Conventional Herbicide Programs in Two Tillage Systems

Trial ID: STUT 10-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Ellis, Ottis
 Investigator: Ron Talbert

| | | |
|-------------------|-----------|------------|
| Weed Code | BRAPP | |
| Rating Data Type | Control | Rice yield |
| Rating Unit | % | BU/AC |
| Rating Date | 20/Jun/05 | |
| Trt-Eval Interval | 18 DA-D | |

| Trt No. | Treatment Name | Rate | Unit | Grow Stg | Appl Code | BRAPP Control % | Rice yield BU/AC |
|-------------|------------------|------|---------|----------|-----------|-----------------|------------------|
| 17 | Stale seedbed | | | | | 100 | 152.6 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Prowl | 1 | lb ai/a | DPRE | C | | |
| | Facet | 0.25 | lb ai/a | DPRE | C | | |
| 18 | Conventional | | | | | 97 | 133.3 |
| | Prowl | 1 | lb ai/a | DPRE | C | | |
| | Facet | 0.25 | lb ai/a | DPRE | C | | |
| 19 | Stale seedbed | | | | | 95 | 137.6 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command | 0.4 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 20 | Conventional | | | | | 96 | 157.8 |
| | Command | 0.4 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 21 | Stale seedbed | | | | | 79 | 21.5 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Command | 0.8 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 22 | Conventional | | | | | 63 | 103.2 |
| | Command | 0.8 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 23 | Stale seedbed | | | | | 30 | 97.1 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 24 | Conventional | | | | | 60 | 122.1 |
| | Prowl | 1 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 25 | Stale seedbed | | | | | 69 | 146.4 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Facet | 0.25 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 26 | Conventional | | | | | 100 | 146.2 |
| | Facet | 0.25 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 27 | Stale seedbed | | | | | 93 | 127.8 |
| | Roundup UltraMax | 1 | lb ai/a | 14-DPP | A | | |
| | Facet | 0.19 | lb ai/a | EPOST | D | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| 28 | Conventional | | | | | 100 | 142.7 |
| | Facet | 0.19 | lb ai/a | EPOST | D | | |
| | Prowl | 1 | lb ai/a | EPOST | D | | |
| | Stam | 3 | lb ai/a | EPOST | D | | |
| LSD (P=.05) | | | | | | 21 | 47 |

University of Arkansas

Table 12. Evaluation of Potential Allelopathic Properties of Several Rice Cultivars

Trial ID: STUT 02-05 **Study Dir.:** Talbert, Gealy, Ellis, Black
Location: Stuttgart, Ark.

Objective: To evaluate rice varietal differences in allelopathic ability on barnyardgrass.

Conclusions: The interaction of cultivars and herbicide treatment was not significant for barnyardgrass control or rice yield, so potential allelopathic effects of specific cultivars were not discerned. Cultivars, averaged over herbicide treatments, also had no differential effect on barnyardgrass control. Averaged over cultivars, barnyardgrass was controlled better and rice yield was higher with Command (clomazone) applied delayed PRE (DPRE) followed by a pre-flood application of Stam (propanil) + Permit (halosulfuron) than by Bolero (thiobencarb) applied DPRE. The highest rice yields among cultivars, averaged over herbicide treatment, were from XL8 at 14 or 30 seed/ft², Francis, and XP710 at 14 seed/ft².

CROP AND WEED DESCRIPTION

| | | | |
|-----------------------|---|---|--------------|
| Weed Code | Common Name | Scientific Name | |
| ECHCG | Barnyardgrass | Echinochloa crus-galli | |
| Crop: | ORYSI Rice, Paddy (Dry-seeded + irrigation) | Variety: | Various |
| Planting Date: | 29/Apr/05 | Planting Method: | Drilled |
| Row Spacing: | 7 In | Soil Moisture: | Slightly dry |
| | | Depth: | 1.5 IN |
| | | Emergence Date: | 9/May/05 |
| | | Flushed weekly from planting until flood June 13 | |

SITE AND DESIGN

Plot Width: 6 FT **Plot Length:** 18 FT **Reps:** 4 **Study Design:** Factorial on randomized complete block

SOIL DESCRIPTION

| | | | | | |
|----------------|-----|-------------|------|---------------------|-----------|
| % Sand: | 8 % | OM: | 0.94 | Texture: | silt loam |
| % Silt: | 75 | pH: | 5.93 | Soil Name: | Dewitt |
| % Clay: | 16 | CEC: | 14.3 | Fert. Level: | good |

APPLICATION DESCRIPTION

| | | |
|-----------------------------|----------|----------|
| | A | B |
| Application Date: | 6/May/05 | 6/Jun/05 |
| Time of Day: | 8:00AM | 9:00pm |
| Application Method: | SPRAY | SPRAY |
| Application Timing: | DPRE | Preflood |
| Applic. Placement: | BROSOL | BROFOL |
| Air Temp., Unit: | 62 F | 82 F |
| % Relative Humidity: | 70 | 80 |
| Wind Velocity, Unit: | 0.5 MPH | 4 MPH |
| Dew Presence (Y/N): | N | N |
| Soil Temp., Unit: | 55 F | 89 F |
| Soil Moisture: | ADEQUATE | ADEQUATE |
| % Cloud Cover: | 0 | 60 |

WEED STAGE AT EACH APPLICATION

| | | |
|---------------------|--------------|------------|
| | A | B |
| Weed Code: | ECHCG | ECHCG |
| Stage Scale: | preemergence | 2-3 tiller |

APPLICATION EQUIPMENT

| | A | B |
|------------------------------|----------|----------|
| Appl. Equipment: | Backpack | Backpack |
| Operating Pressure: | 28 | 28 |
| Nozzle Type: | FLAT FAN | FLAT FAN |
| Nozzle Size: | 80015 | 80015 |
| Nozzle Spacing, Unit: | 20 IN | 20 IN |
| Nozzles/Row: | 3 | 3 |
| Boom Length, Unit: | 40 IN | 40 IN |
| Boom Height, Unit: | 17 IN | 17 IN |
| Ground Speed, Unit: | 3 MPH | 3 MPH |
| Carrier: | WATER | WATER |
| Spray Volume, Unit: | 10 GPA | 10 GPA |
| Propellant: | CO2 | CO2 |

University of Arkansas

Evaluation of Potential Allelopathic Properties of Several Rice Cultivars

Trial ID: STUT 02-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Gealy, Ellis, Black

| | | | | |
|-------------------|----------|-----------|-----------|------------|
| Weed Code | ECHCG | ECHCG | ECHCG | Rice Yield |
| Rating Data Type | Control | Control | Control | BU/AC |
| Rating Unit | % | % | % | |
| Rating Date | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | |
| Trt-Eval Interval | 32 DA-A | 8 DA-B | 14 DA-B | |

| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg |
|---------|----------------|------|-----------|----------|
|---------|----------------|------|-----------|----------|

TABLE OF A MEANS (CULTIVARS)

| | | | | | |
|----|-----------------------|----|----|----|-------|
| 1 | PI 312777 | 59 | 81 | 80 | 65.5 |
| 2 | Saber | 54 | 73 | 70 | 109.9 |
| 3 | Rexmont | 54 | 72 | 62 | 87.3 |
| 4 | Drew | 47 | 70 | 71 | 123.3 |
| 5 | XL8 (14 seed/sq ft) | 62 | 72 | 69 | 166.4 |
| 6 | XL8 (30 seed/sq ft) | 44 | 81 | 78 | 147.9 |
| 7 | Francis | 64 | 79 | 74 | 150.0 |
| 8 | 4593 | 51 | 75 | 79 | 118.8 |
| 9 | XP710 (14 seed/sq ft) | 51 | 62 | 69 | 170.1 |
| 10 | STg 96L-26-093 | 61 | 74 | 78 | 120.1 |
| 11 | L-30-117 | 60 | 78 | 72 | 106.7 |
| | LSD (0.05) | NS | NS | NS | 27.1 |

TABLE OF B MEANS (HERBICIDES)

| | | | | | |
|---|-------------------------------------|----|-----|-----|-------|
| 1 | Untreated | 23 | 48 | 31 | 121.9 |
| 2 | Bolero (thiobencarb) 2 lb ai/a | 49 | 75 | 87 | 111.9 |
| 3 | Command (clomazone) 0.4 lb ai/a | 94 | 100 | 100 | 138.8 |
| 3 | Stam (propanil) 3 lb ai/a | | | | |
| 3 | Permit (halosulfuron) 0.047 lb ai/a | | | | |
| | LSD (0.05) | 11 | 8 | 6 | 14.2 |

TABLE OF AB MEANS (CULTIVAR X HERBICIDE INTERACTION)

| | | | | | |
|---|-----------------------|----|----|----|-------|
| 1 | PI 312777 | 25 | 60 | 40 | 95.0 |
| 1 | Untreated | | | | |
| 2 | Saber | 15 | 40 | 20 | 90.7 |
| 1 | Untreated | | | | |
| 3 | Rexmont | 20 | 40 | 15 | 75.0 |
| 1 | Untreated | | | | |
| 4 | Drew | 15 | 45 | 20 | 116.6 |
| 1 | Untreated | | | | |
| 5 | XL8 (14 seed/sq ft) | 20 | 40 | 30 | 172.1 |
| 1 | Untreated | | | | |
| 6 | XL8 (30 seed/sq ft) | 25 | 55 | 35 | 151.5 |
| 1 | Untreated | | | | |
| 7 | Francis | 20 | 50 | 35 | 160.8 |
| 1 | Untreated | | | | |
| 8 | 4593 | 30 | 60 | 40 | 115.3 |
| 1 | Untreated | | | | |
| 9 | XP710 (14 seed/sq ft) | 20 | 40 | 35 | 157.8 |
| 1 | Untreated | | | | |

University of Arkansas

Evaluation of Potential Allelopathic Properties of Several Rice Cultivars

Trial ID: STUT 02-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Gealy, Ellis, Black

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | |
|-------------------|-----------------------|-------|-----------|----------|----------|-----------|-----------|------------|
| Rating Data Type | | | | | Control | Control | Control | Rice Yield |
| Rating Unit | | | | | % | % | % | BU/AC |
| Rating Date | | | | | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | |
| Trt-Eval Interval | | | | | 32 DA-A | 8 DA-B | 14 DA-B | |
| Trt No. | Treatment Name | Rate | Rate Unit | Grow Stg | | | | |
| 10 | STg 96L-26-093 | | | | 30 | 45 | 35 | 117.0 |
| 1 | Untreated | | | | | | | |
| 11 | L-30-117 | | | | 30 | 55 | 40 | 88.7 |
| 1 | Untreated | | | | | | | |
| 1 | PI 312777 | | | | 53 | 83 | 100 | 32.0 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 2 | Saber | | | | 49 | 79 | 90 | 107.5 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 3 | Rexmont | | | | 46 | 76 | 71 | 81.5 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 4 | Drew | | | | 51 | 66 | 93 | 116.1 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 5 | XL8 (14 seed/sq ft) | | | | 70 | 76 | 76 | 158.3 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 6 | XL8 (30 seed/sq ft) | | | | 31 | 89 | 98 | 127.8 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 7 | Francis | | | | 74 | 86 | 87 | 128.1 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 8 | 4593 | | | | 24 | 65 | 97 | 99.1 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 9 | XP710 (14 seed/sq ft) | | | | 35 | 48 | 73 | 172.2 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 10 | STg 96L-26-093 | | | | 53 | 78 | 100 | 101.9 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 11 | L-30-117 | | | | 50 | 80 | 76 | 106.1 |
| 2 | Bolero (thiobencarb) | 2 | lb ai/a | DPRE | | | | |
| 1 | PI 312777 | | | | 100 | 100 | 100 | 69.5 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 2 | Saber | | | | 100 | 100 | 100 | 131.5 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 3 | Rexmont | | | | 97 | 100 | 100 | 105.3 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 4 | Drew | | | | 75 | 100 | 100 | 137.3 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 5 | XL8 (14 seed/sq ft) | | | | 96 | 100 | 100 | 168.7 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 6 | XL8 (30 seed/sq ft) | | | | 75 | 99 | 100 | 164.6 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |

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Evaluation of Potential Allelopathic Properties of Several Rice Cultivars

Trial ID: STUT 02-05
 Location: Stuttgart, Ark.

Study Dir.: Talbert, Gealy, Ellis, Black

| Weed Code | | | | | ECHCG | ECHCG | ECHCG | |
|---|-----------------------|-------|---------|----------|----------|-----------|-----------|------------|
| Rating Data Type | | | | | Control | Control | Control | Rice Yield |
| Rating Unit | | | | | PERCENT | PERCENT | PERCENT | BU/AC |
| Rating Date | | | | | 7/Jun/05 | 14/Jun/05 | 20/Jun/05 | |
| Trt-Eval Interval | | | | | 32 DA-A | 8 DA-B | 14 DA-B | |
| Trt No. | Treatment Name | Rate | Unit | Grow Stg | | | | |
| 7 | Francis | | | | 98 | 100 | 100 | 161.2 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 8 | 4593 | | | | 99 | 100 | 100 | 142.1 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 9 | XP710 (14 seed/sq ft) | | | | 97 | 99 | 99 | 180.2 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 10 | STg 96L-26-093 | | | | 100 | 100 | 100 | 141.6 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| 11 | L-30-117 | | | | 100 | 100 | 100 | 125.2 |
| 3 | Command (clomazone) | 0.4 | lb ai/a | DPRE | | | | |
| 3 | Stam (propanil) | 3 | lb ai/a | preflood | | | | |
| 3 | Permit (halosulfuron) | 0.047 | lb ai/a | preflood | | | | |
| LSD (0.05) for cultivar X herbicide interaction | | | | | NS | NS | NS | NS |

Appendix Table. Climatological data for Stuttgart, 2006.

| Day | April | | | May | | | June | | | July | | | August | | |
|-----|----------|----------|---------------|----------|----------|---------------|----------|----------|---------------|----------|----------|---------------|----------|----------|---------------|
| | Temp. | | Precip in. | Temp. | | Precip in. | Temp. | | Precip in. | Temp. | | Precip in. | Temp. | | Precip in. |
| | Max F | Min F | | Max F | Min F | | Max F | Min F | | Max F | Min F | | Max F | Min F | |
| 1 | 61 | 42 | | 64 | 41 | | 81 | 71 | | 99 | 67 | 1.35 | 95 | 68 | |
| 2 | 71 | 43 | 0.08 | 74 | 42 | | 86 | 71 | | 83 | 68 | 0.20 | 95 | 70 | |
| 3 | 78 | 42 | | 64 | 41 | | 86 | 73 | | 90 | 71 | | 96 | 70 | |
| 4 | 72 | 53 | | 68 | 42 | | 92 | 72 | | 94 | 73 | | 95 | 72 | |
| 5 | 79 | 56 | | 72 | 43 | | 94 | 77 | | 94 | 74 | | 96 | 72 | |
| 6 | 77 | 54 | 0.60 | 76 | 47 | | 95 | 79 | | 90 | 71 | 0.93 | 98 | 71 | |
| 7 | 70 | 52 | | 80 | 48 | | 100 | 80 | | 80 | 71 | 0.09 | 96 | 69 | |
| 8 | 70 | 51 | 0.12 | 84 | 58 | | 96 | 78 | 1.12 | 88 | 69 | 0.1 | 93 | 70 | |
| 9 | 75 | 53 | 0.14 | 82 | 59 | 0.04 | 92 | 76 | | 90 | 72 | | 95 | 70 | |
| 10 | 79 | 58 | | 80 | 60 | 0.01 | 87 | 78 | | 89 | 71 | 0.03 | 96 | 73 | |
| 11 | 64 | 50 | 1.48 | 85 | 61 | | 93 | 77 | | 91 | 70 | 0.03 | 97 | 70 | |
| 12 | 68 | 48 | 3.25 | 91 | 65 | | 94 | 75 | 0.24 | 82 | 67 | 0.18 | 97 | 72 | |
| 13 | 61 | 47 | 0.01 | 92 | 67 | | 93 | 74 | | 93 | 69 | | 99 | 73 | |
| 14 | 69 | 47 | | 87 | 69 | 0.01 | 92 | 78 | | 93 | 72 | | 97 | 73 | |
| 15 | | | | 80 | 57 | | 97 | 78 | | 94 | 71 | | 97 | 71 | |
| 16 | | | | 73 | 52 | | 97 | 78 | | 91 | 71 | 0.31 | 96 | 72 | |
| 17 | | | | 74 | 52 | | 92 | 78 | | 89 | 71 | 0.03 | 98 | 72 | 0.40 |
| 18 | | | | 79 | 55 | | 79 | 71 | 0.13 | 90 | 72 | 0.18 | 97 | 73 | |
| 19 | | | | 89 | 64 | | 92 | 69 | | 89 | 73 | | 99 | 73 | |
| 20 | 80 | 57 | | 90 | 68 | | 95 | 71 | | 94 | 74 | | 97 | 74 | |
| 21 | 83 | 60 | | 94 | 61 | | 98 | 75 | | 96 | 75 | | 100 | 75 | |
| 22 | 86 | 65 | 0.50 | 85 | 62 | | 99 | 77 | | 97 | 71 | | 100 | 73 | |
| 23 | | | | 92 | 70 | 0.03 | 101 | 77 | | 97 | 72 | | 99 | 74 | |
| 24 | | | | 92 | 69 | | 103 | 81 | | 98 | 75 | 0.25 | 100 | 70 | 0.35 |
| 25 | 85 | 40 | | 91 | 62 | | 104 | 83 | | 99 | 76 | | 95 | 72 | |
| 26 | 58 | 40 | 1.24 | 83 | 59 | | 105 | 83 | | 97 | 75 | | 100 | 76 | |
| 27 | 72 | 47 | | 86 | 63 | | 105 | 84 | | 96 | 75 | | 100 | 76 | |
| 28 | 72 | 54 | | 87 | 61 | 0.03 | 90 | 80 | 0.07 | 91 | 69 | 0.01 | 79 | 68 | 1.61 |
| 29 | 86 | 54 | | 87 | 66 | 0.02 | 103 | 79 | | 84 | 64 | 0.12 | 87 | 67 | 2.37 |
| 30 | 55 | 49 | 0.20 | 74 | 64 | 0.17 | 106 | 82 | | 88 | 63 | | 79 | 70 | 1.00 |
| 31 | | | | 80 | 64 | | | | | 90 | 67 | | 87 | 74 | |

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