

(04SYSSOYNW)

Ohio State University
Horticulture and Crop Science
SOYBEAN CORN SYSTEMS STUDY SOYBEAN TREATMENTS

Trial ID: 04SYSSOYNW
Location: NORTHWEST A-1

Study Dir.: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

GENERAL TRIAL INFORMATION

Study Director: Anthony F. Dobbels
Investigator: Dr. Mark M. Loux

Conducted Under GLP (Y/N): N

Conducted Under GEP (Y/N): N

CROP AND WEED DESCRIPTION

| Weed Code | Common Name | Scientific Name |
|-----------|-----------------------|-------------------------|
| 1. AMBEL | Ragweed, common | Ambrosia artemisiifolia |
| 2. CHEAL | Lambsquarters, common | Chenopodium album |
| 3. SETLU | Foxtail, yellow | Setaria glauca |
| 4. HIBTR | Mallow, Venice | Hibiscus trionum |

Crop 1: GLXMA SOYBEAN

Variety: ASGROW AG3302 RR/STS

Planting Date: 4-19-04

Planting Method: GREAT PLAINS DRILL

Rate: 200000 SEED/A

Depth: 0.75 IN

Row Spacing: 7.5 IN

Seed Bed: NO-TILL

SITE AND DESIGN

Plot Width, Unit: 10 FT

Plot Length, Unit: 40 FT Reps: 4

Tillage Type: NO-TILL

Study Design: RANDOMIZED COMPLETE BLOCK

SOIL DESCRIPTION

| | | | |
|-------|------|------------|-----------|
| % OM: | 3.7 | Texture: | clay |
| pH: | 6.6 | Soil Name: | Hoytville |
| CEC: | 19.5 | | |

APPLICATION DESCRIPTION

| | A | B | C |
|----------------------|-----------|------------|-----------|
| Application Date: | 4-20-04 | 6-4-04 | 6-18-04 |
| Time of Day: | 8:00 A.M. | 10:00 A.M. | 9:00 A.M. |
| Application Method: | SPRAY | SPRAY | SPRAY |
| Application Timing: | PRE | POST | SCOUT |
| Applic. Placement: | BROADCAST | BROADCAST | BROADCAST |
| Air Temp., Unit: | 45 F | 65 F | 70 F |
| % Relative Humidity: | 75 | 60 | 84 |
| Wind Velocity, Unit: | 9 E | 6 E | 6 E |
| Soil Temp., Unit: | 48 F | 65 F | 70 F |
| Soil Moisture: | DRY/DRY | DRY/MOIST | MOIST/WET |
| % Cloud Cover: | 100 | 0 | 0 |

CROP STAGE AT EACH APPLICATION

| | A | B | C |
|---------------------|-------|-------|-----------|
| Crop 1 Code, Stage: | GLXMA | GLXMA | GLXMA |
| Stage Scale: | | 3 TRI | 7 TRI/ R1 |
| Height, Unit: | | 6 IN | 9 IN |

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|---------------------|-------|------------|-------|
| Weed 1 Code, Stage: | AMBEL | AMBEL 4-6" | AMBEL |
| Stage Scale: | | 10 LVS | |
| Weed 2 Code, Stage: | CHEAL | CHEAL 3" | CHEAL |
| Stage Scale: | | 4 LVS | |
| Weed 3 Code, Stage: | SETLU | SETLU 4" | SETLU |
| Stage Scale: | | 3 LVS | |
| Weed 4 Code, Stage: | HIBTR | HIBTR | HIBTR |

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APPLICATION EQUIPMENT

| | A | B | C |
|-----------------------|----------|----------|---|
| Appl. Equipment: | BACKPACK | BACKPACK | |
| Operating Pressure: | 50 | 50 | |
| Nozzle Type: | DG | DG | |
| Nozzle Size: | 11002 | 11002 | |
| Nozzle Spacing, Unit: | 18 IN | 18 IN | |
| Ground Speed, Unit: | 3 MPH | 3 MPH | |
| Carrier: | WATER | WATER | |
| Spray Volume, Unit: | 20 GPA | 20 GPA | |
| Propellant: | CO2 | CO2 | |

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Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

ARM Action Codes

Subsamples, Dec.

| GLYMX WEIGHT LBS 9-21-04 HARVEST | GLYMX MOISTURE PERCENT 9-21-04 HARVEST | GLYMX YIELD BU/ACRE 9-21-04 HARVEST TY1 |
|--|--|--|
| 1 | 1 | 1 |

| Trt No. | Treatment Name | Product Rate | Product Unit | Grow Stg | Appl Code | 14 | 15 | 16 |
|---------|--------------------|--------------|--------------|----------|-----------|--------|---------|--------|
| 1 | ROUNDUP WEATHERMAX | 21.3 oz/a | | POST | B | 22.0 a | 10.7 b | 59.6 a |
| 1 | AMS | 4 qt/a | | POST | B | | | |
| 1 | ROUNDUP WEATHERMAX | 16 oz/a | | SCOUT | C | | | |
| 1 | AMS | 4 qt/a | | SCOUT | C | | | |
| 2 | CLASSIC | 1.15 oz/a | | PRE | A | 22.2 a | 10.5 b | 60.3 a |
| 2 | AUTHORITY | 1.88 oz/a | | PRE | A | | | |
| 2 | CANOPY XL 3 OZ | | | | | | | |
| 2 | SYNCHRONY | 0.5 oz/a | | POST | B | | | |
| 2 | SELECT | 8 oz/a | | POST | B | | | |
| 2 | COC | 1 % v/v | | POST | B | | | |
| 2 | AMS | 2.4 qt/a | | POST | B | | | |
| 3 | PROWL H20 | 2.1 pt/a | | PRE | A | 23.1 a | 10.9 ab | 62.5 a |
| 3 | RAPTOR | 4 oz/a | | POST | B | | | |
| 3 | FLEXSTAR | 1.33 pt/a | | POST | B | | | |
| 3 | NIS | 0.25 % v/v | | POST | B | | | |
| 3 | AMS | 2.4 qt/a | | POST | B | | | |
| 4 | PYTHON | 1 oz/a | | PRE | A | 21.5 a | 10.6 b | 58.2 a |
| 4 | FIRSTRATE | 0.3 oz/a | | POST | B | | | |
| 4 | SELECT | 8 oz/a | | POST | B | | | |
| 4 | COC | 1 % v/v | | POST | B | | | |
| 4 | 28% | 2.5 % v/v | | POST | B | | | |
| 5 | SCEPTER | 1.4 oz/a | | PRE | A | 22.6 a | 11.6 a | 60.6 a |
| 5 | FLEXSTAR | 1.33 pt/a | | POST | B | | | |
| 5 | FUSION | 8 oz/a | | POST | B | | | |
| 5 | MSO | 1 % v/v | | POST | B | | | |
| 5 | 28% | 2.5 % v/v | | POST | B | | | |
| 6 | CLASSIC | 1.15 oz/a | | PRE | A | 22.2 a | 10.0 b | 60.6 a |
| 6 | AUTHORITY | 1.88 oz/a | | PRE | A | | | |
| 6 | CANOPY XL 3 OZ | | | | | | | |
| 6 | ROUNDUP WEATHERMAX | 21.3 oz/a | | POST | B | | | |
| 6 | AMS | 4 qt/a | | POST | B | | | |

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| | | | | |
|--------------------|--|---------|----------|---------|
| Weed Code | | | | |
| Crop Code | | GLYMX | GLYMX | GLYMX |
| Rating Data Type | | WEIGHT | MOISTURE | YIELD |
| Rating Unit | | LBS | PERCENT | BU/ACRE |
| Rating Date | | 9-21-04 | 9-21-04 | 9-21-04 |
| Trt-Eval Interval | | HARVEST | HARVEST | HARVEST |
| ARM Action Codes | | | | TY1 |
| # Subsamples, Dec. | | 1 | 1 | 1 |

| Trt | Treatment | Product | Product | Grow | Appl | | | | |
|-----|-----------|---------|---------|------|------|------|----|----|----|
| No. | Name | Rate | Rate | Unit | Stg | Code | 14 | 15 | 16 |

| | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--------|--------|--------|
| LSD (P=.05) | | | | | | | 1.27 | 0.92 | 3.13 |
| Standard Deviation | | | | | | | 0.84 | 0.61 | 2.08 |
| CV | | | | | | | 3.79 | 5.7 | 3.45 |
| Replicate F | | | | | | | 5.338 | 0.320 | 6.693 |
| Replicate Prob(F) | | | | | | | 0.0106 | 0.8105 | 0.0044 |
| Treatment F | | | | | | | 1.727 | 3.065 | 1.821 |
| Treatment Prob(F) | | | | | | | 0.1892 | 0.0420 | 0.1691 |

Means followed by same letter do not significantly differ (P=.05, LSD)

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

Column 3: TY1 = $2.64 * [14] * (100 - [15]) / 87$