

(04SYSCORNNW)

Ohio State University
Horticulture and Crop Science

SOYBEAN CORN SYSTEMS STUDY CORN TREATMENTS

Trial ID: 04SYSCORNNW
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 ELATIOR L. |
| 2. | CHEAL LAMBSQUARTERS, COMMON | CHENOPODIUM ALBUM L. |
| 3. | ABUTH Velvetleaf | Abutilon theophrasti |
| 4. | POLPY Pennsylvania smartweed | Polygonum pensylvanicum |
| 5. | HIBTR Mallow, Venice | Hibiscus trionum |

Crop 1: ZEAMX ROUNDUP READY CORN Variety: DEKALB DKC 60-09 RR
 Planting Date: 4-19-04 Planting Method: JOHN DEERE 7000
 Rate: 30813 SEED/A Depth: 1.5 IN
 Row Spacing: 30 IN Seed Bed: CONVENTIONAL

Crop 2: ZEAMX LIBERTY LINK CORN Variety: PIONEER 34M92 LL
 Planting Date: 4-19-04 Planting Method: JOHN DEERE 7000
 Rate: 30813 SEED/A Depth: 1.5 IN
 Row Spacing: 30 IN Seed Bed: CONVENTIONAL

Crop 3: ZEAMX CLEARFIELD CORN Variety: SEED CONSULTANTS SC10C82
 Planting Date: 4-19-04 Planting Method: JOHN DEERE 7000
 Rate: 30813 SEED/A Depth: 1.5 IN
 Row Spacing: 30 IN Seed Bed: CONVENTIONAL

SITE AND DESIGN

Plot Width, Unit: 10 FT Plot Length, Unit: 40 FT Reps: 4
 Tillage Type: CONVENTIONAL 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 | 5-25-04 | 6-4-04 |
| Time of Day: | 8:00 A.M. | 9:00 A.M. | 10:00 A.M. |
| Application Method: | SPRAY | SPRAY | SPRAY |
| Application Timing: | PRE | EPO | POST |
| Applic. Placement: | BROADCAST | BROADCAST | BROADCAST |
| Air Temp., Unit: | 45 F | 62 F | 65 F |
| % Relative Humidity: | 75 | 72 | 60 |
| Wind Velocity, Unit: | 9 E | 6 S | 6 E |
| Soil Temp., Unit: | 48 F | 59 F | 65 F |
| Soil Moisture: | DRY/DRY | MOIST/WET | DRY/MOIST |
| % Cloud Cover: | 100 | 70 | 0 |

Ohio State University
Horticulture and Crop Science

CROP STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|-------|----------|----------|
| Crop 1 Code, Stage: | ZEAMX | ZEAMX | ZEAMX |
| Stage Scale: | | 4 COLLAR | 5 COLLAR |
| Height, Unit: | | 9 IN | 12 IN |
| Crop 2 Code, Stage: | ZEAMX | ZEAMX | ZEAMX |
| Stage Scale: | | 4 COLLAR | 5 COLLAR |
| Height, Unit: | | 9 IN | 12 IN |
| Crop 3 Code, Stage: | ZEAMX | ZEAMX | ZEAMX |
| Stage Scale: | | 4 COLLAR | 5 COLLAR |
| Height, Unit: | | 9 IN | 12 IN |

WEED STAGE AT EACH APPLICATION

| | A | B | C |
|----------------------------|-------|------------|------------|
| Weed 1 Code, Stage: | AMBEL | AMBEL 1-2" | AMBEL 1-2" |
| Stage Scale: | | 4 LVS | 4 LVS |
| Weed 2 Code, Stage: | CHEAL | CHEAL 1-2" | CHEAL 2" |
| Stage Scale: | | 6 LVS | 6 LVS |
| Weed 3 Code, Stage: | ABUTH | ABUTH 1-2" | ABUTH 1" |
| Stage Scale: | | 3 LVS | 2 LVS |
| Weed 4 Code, Stage: | POLPY | POLPY 2-3" | POLPY 3-4" |
| Stage Scale: | | 7 LVS | 8 LVS |
| Weed 5 Code, Stage: | HIBTR | HIBTR | HIBTR 1" |
| Stage Scale: | | | 2 LVS |

APPLICATION EQUIPMENT

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

(04SYSCORNNW)

Ohio State University
Horticulture and Crop Science

SOYBEAN CORN SYSTEMS STUDY CORN TREATMENTS

Trial ID: 04SYSCORNNW
Location: NORTHWEST A-1

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

Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

ARM Action Codes

Subsamples, Dec.

| ZEAMX WEIGHT LBS 10-13-04 HARVEST | ZEAMX MOISTURE PERCENT 10-13-04 HARVEST | ZEAMX YIELD BU/ACRE 10-13-04 HARVEST TY1 |
|---|---|---|
| 1 | 1 | 1 |

| Trt No. | Treatment Name | Product Rate | Product Unit | Grow Stg | Appl Code | 13 | 14 | 15 |
|--------------------|--------------------|--------------|--------------|----------|-----------|---------|--------|----------|
| 1 | DEGREE XTRA | 1.49 | qt/a | PRE | A | 52.4 a | 16.1 b | 202.3 a |
| 1 | ROUNDUP WEATHERMAX | 21.3 | oz/a | POST | C | | | |
| 1 | AMS | 4 | qt/a | POST | | | | |
| 2 | GUARDSMAN MAX | 1 | qt/a | PRE | A | 49.9 ab | 16.1 b | 192.7 ab |
| 2 | STEADFAST ATZ | 14 | oz/a | POST | C | | | |
| 2 | CLARITY | 4 | oz/a | POST | | | | |
| 2 | COC | 1 | % v/v | POST | | | | |
| 2 | 28% | 4 | qt/a | POST | | | | |
| 3 | ATRAZINE | 1 | qt/a | PRE | A | 47.1 c | 19.0 a | 175.3 c |
| 3 | LIGHTNING | 1.28 | oz/a | EPO | B | | | |
| 3 | DISTINCT | 2 | oz/a | EPO | | | | |
| 3 | NIS | 0.25 | % v/v | EPO | | | | |
| 3 | 28% | 4 | qt/a | EPO | | | | |
| 4 | FULTIME | 3.5 | qt/a | PRE | A | 51.0 ab | 16.1 b | 196.8 ab |
| 4 | ACCENT | 0.66 | oz/a | SCOUT | C | | | |
| 4 | HORNET | 3 | oz/a | SCOUT | | | | |
| 4 | COC | 1 | % v/v | SCOUT | | | | |
| 4 | 28% | 4 | qt/a | SCOUT | | | | |
| 5 | DUAL II MAGNUM | 1.66 | pt/a | PRE | A | 49.3 bc | 16.0 b | 190.7 b |
| 5 | MARKSMAN | 3.5 | pt/a | EPO | B | | | |
| 6 | BALANCE PRO | 1.5 | oz/a | PRE | A | 40.5 d | 18.5 a | 151.8 d |
| 6 | LIBERTY | 32 | oz/a | POST | C | | | |
| 6 | ATRAZINE | 1.5 | qt/a | POST | | | | |
| 6 | AMS | 4 | qt/a | POST | | | | |
| LSD (P=.05) | | | | | | 2.76 | 0.73 | 9.86 |
| Standard Deviation | | | | | | 1.83 | 0.49 | 6.55 |
| CV | | | | | | 3.79 | 2.87 | 3.54 |

(04SYSCORNNW)

Ohio State University
Horticulture and Crop Science

| | | | | | | | |
|--------------------|--|--|--|--|----------|----------|----------|
| Weed Code | | | | | | | |
| Crop Code | | | | | ZEAMX | ZEAMX | ZEAMX |
| Rating Data Type | | | | | WEIGHT | MOISTURE | YIELD |
| Rating Unit | | | | | LBS | PERCENT | BU/ACRE |
| Rating Date | | | | | 10-13-04 | 10-13-04 | 10-13-04 |
| 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 | 13 | 14 | 15 |

| | | | | | | | | | |
|-------------------|--|--|--|--|--|--|--------|--------|--------|
| Replicate F | | | | | | | 14.855 | 0.870 | 16.937 |
| Replicate Prob(F) | | | | | | | 0.0001 | 0.4783 | 0.0001 |
| Treatment F | | | | | | | 21.545 | 32.545 | 32.218 |
| Treatment Prob(F) | | | | | | | 0.0001 | 0.0001 | 0.0001 |

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 = $3.889286 * [13] * (100 - [14]) / 84.5$