

North Carolina State University

Fastburn Control of Tall Fescue

Trial ID: 02-T34 Study Dir.: Jason Hinton
Location: NCSU Turf Field Lab Investigator: Fred Yelverton

GENERAL TRIAL INFORMATION

Study Director: Jason Hinton **Title:** Research Technician
Affiliation: North Carolina State University
Postal Code: 27695
Investigator: Fred Yelverton **Title:** Professor
Affiliation: North Carolina State University
Postal Code: 27695

TRIAL LOCATION

City: Raleigh **Trial Status:** Complete
State/Prov.: NC
Postal Code: 27695 **Initiation Date:** 07-08-02
Country: USA

Conducted Under GLP (Y/N): N **Conducted Under GEP (Y/N):** N

CROP AND WEED DESCRIPTION

| Weed | Code | Common Name | Scientific Name |
|------|-------|-------------|---------------------|
| 1. | FESAR | Tall Fescue | Festuca arundinacea |

SITE AND DESIGN

Plot Width, Unit: 5 FT **Plot Length, Unit:** 10 FT **Reps:** 4
Study Design: RANDOMIZED COMPLETE BLOCK

APPLICATION DESCRIPTION

| | A |
|-----------------------------|-----------|
| Application Date: | 07-08-02 |
| Time of Day: | 3-3:30 PM |
| Application Method: | Spray |
| Application Timing: | Post |
| Applic. Placement: | Foliar |
| Air Temp., Unit: | 89.4 F |
| % Relative Humidity: | 27 |
| Wind Velocity, Unit: | 0.8 MPH |
| Dew Presence (Y/N): | N |
| Water Hardness: | N/A |
| Soil Temp., Unit: | 84 F |
| Soil Moisture: | Poor |
| % Cloud Cover: | 0 |

WEED STAGE AT EACH APPLICATION

| | A |
|----------------------------|-------------|
| Weed 1 Code, Stage: | FESAR Mowed |
| Stage Scale: | 4 Inches |

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APPLICATION EQUIPMENT

| | A |
|------------------------------|-----------|
| Appl. Equipment: | CO2 Spray |
| Operating Pressure: | 36 PSI |
| Nozzle Type: | Flat Fan |
| Nozzle Size: | 8002 XR |
| Nozzle Spacing, Unit: | 10 Inch |
| Boom Height, Unit: | 10 Inch |
| Ground Speed, Unit: | 3 MPH |
| Carrier: | Water |
| Spray Volume, Unit: | 32.5 GPA |
| Propellant: | Compr.CO2 |

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| Weed Code | | | | | | | FESAR | FESAR | FESAR | | | | |
|--------------------|----------------|-----------|-----------|-----------|-----------|---------|--------------|--------------|----------|-----------|----------|---------|----------|
| Rating Data Type | | | | | | | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | | | | | | | % | % | % | | | | |
| Rating Date | | | | | | | 07-09-02 | 07-10-02 | 07-12-02 | | | | |
| Trt No. | Treatment Name | Form Conc | Form Type | Rate Rate | Rate Unit | Product | Product Rate | Product Rate | Grow Stg | Appl Code | | | |
| 1 | MON 79141 | 1.4 | L | 4.5 | LB AE/A | | | | Post | A | 16.3 bc | 42.5 b | 58.8 bcd |
| 2 | MON 79141 | 1.4 | L | 6.0 | LB AE/A | | | | Post | A | 22.5 b | 56.3 a | 66.3 abc |
| 3 | MON 79051 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 3.8 efg | 21.3 de | 46.3 de |
| 4 | MON 79051 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 6.3 d-g | 30.0 cd | 55.0 cd |
| 5 | MON 79052 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 1.3 g | 18.8 ef | 46.3 de |
| 6 | MON 79052 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 8.8 def | 26.3 de | 53.8 cd |
| 7 | MON 78997 | 1.4 | L | 4.5 | LB AE/A | | | | Post | A | 10.0 cde | 31.3 cd | 56.3 cd |
| 8 | MON 78997 | 1.4 | L | 6.0 | LB AE/A | | | | Post | A | 11.3 cd | 37.5 bc | 57.5 cd |
| 9 | QuikPRO | 66.6 | WG | 4.5 | LB AE/A | | | | Post | A | 41.3 a | 63.8 a | 71.3 ab |
| 10 | QuikPRO | 66.6 | WG | 6.0 | LB AE/A | | | | Post | A | 45.0 a | 66.3 a | 75.0 a |
| 11 | MON 78567 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 2.5 fg | 10.0 fg | 37.5 e |
| 12 | MON 78567 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 5.0 d-g | 21.3 de | 50.0 de |
| 13 | Roundup ProDry | 64.9 | WG | 4.5 | LB AE/A | | | | Post | A | 0.0 g | 0.0 g | 17.5 f |
| 14 | Roundup ProDry | 64.9 | WG | 6.0 | LB AE/A | | | | Post | A | 0.0 g | 0.0 g | 20.0 f |
| 15 | Finale | 2 | SC | 1.5 | LB AE/A | | | | Post | A | 0.0 g | 8.8 fg | 52.5 d |
| 16 | Nontreated | | | | | | | | | | 0.0 g | 0.0 g | 0.0 g |
| LSD (P=.05) | | | | | | | 7.02 | 10.88 | 13.45 | | | | |
| Standard Deviation | | | | | | | 4.91 | 7.61 | 9.41 | | | | |
| CV | | | | | | | 45.24 | 28.08 | 19.72 | | | | |
| Bartlett's X2 | | | | | | | 11.861 | 26.881 | 24.522 | | | | |
| P(Bartlett's X2) | | | | | | | 0.294 | 0.008* | 0.027* | | | | |
| Replicate F | | | | | | | 0.620 | 0.636 | 3.367 | | | | |
| Replicate Prob(F) | | | | | | | 0.6055 | 0.5959 | 0.0266 | | | | |
| Treatment F | | | | | | | 33.129 | 32.518 | 18.412 | | | | |
| Treatment Prob(F) | | | | | | | 0.0001 | 0.0001 | 0.0001 | | | | |

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

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| Weed Code | | | | | | | FESAR | FESAR | FESAR | | | | |
|--------------------|----------------|-----------|-----------|----------------|--------------|-------------------|----------|-----------|----------|---|----------|----------|---------|
| Rating Data Type | | | | | | | CONTROL | CONTROL | CONTROL | | | | |
| Rating Unit | | | | | | | % | % | % | | | | |
| Rating Date | | | | | | | 07-15-02 | 07-22-02 | 08-07-02 | | | | |
| Trt No. | Treatment Name | Form Conc | Form Type | Rate Rate Unit | Product Rate | Product Rate Unit | Grow Stg | Appl Code | | | | | |
| 1 | MON 79141 | 1.4 | L | 4.5 | LB AE/A | | | | Post | A | 76.3 bcd | 92.5 cd | 100.0 a |
| 2 | MON 79141 | 1.4 | L | 6.0 | LB AE/A | | | | Post | A | 77.5 bcd | 92.5 cd | 100.0 a |
| 3 | MON 79051 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 73.8 cd | 93.5 bcd | 100.0 a |
| 4 | MON 79051 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 78.8 abc | 96.0 a-d | 100.0 a |
| 5 | MON 79052 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 76.3 bcd | 95.0 a-d | 100.0 a |
| 6 | MON 79052 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 77.5 bcd | 93.8 a-d | 99.8 a |
| 7 | MON 78997 | 1.4 | L | 4.5 | LB AE/A | | | | Post | A | 78.8 abc | 97.5 abc | 100.0 a |
| 8 | MON 78997 | 1.4 | L | 6.0 | LB AE/A | | | | Post | A | 80.0 abc | 95.8 a-d | 98.8 a |
| 9 | QuikPRO | 66.6 | WG | 4.5 | LB AE/A | | | | Post | A | 82.5 ab | 91.0 d | 98.5 a |
| 10 | QuikPRO | 66.6 | WG | 6.0 | LB AE/A | | | | Post | A | 85.0 a | 93.5 bcd | 99.8 a |
| 11 | MON 78567 | 1.7 | L | 4.5 | LB AE/A | | | | Post | A | 73.8 cd | 92.5 cd | 98.8 a |
| 12 | MON 78567 | 1.7 | L | 6.0 | LB AE/A | | | | Post | A | 77.5 bcd | 95.0 a-d | 100.0 a |
| 13 | Roundup ProDry | 64.9 | WG | 4.5 | LB AE/A | | | | Post | A | 71.3 d | 99.5 ab | 100.0 a |
| 14 | Roundup ProDry | 64.9 | WG | 6.0 | LB AE/A | | | | Post | A | 77.5 bcd | 100.0 a | 100.0 a |
| 15 | Finale | 2 | SC | 1.5 | LB AE/A | | | | Post | A | 56.3 e | 41.3 e | 0.0 b |
| 16 | Nontreated | | | | | | | | | | 0.0 f | 0.0 f | 0.0 b |
| LSD (P=.05) | | | | | | | 7.18 | 6.41 | 1.55 | | | | |
| Standard Deviation | | | | | | | 5.02 | 4.49 | 1.08 | | | | |
| CV | | | | | | | 7.04 | 5.24 | 1.24 | | | | |
| Bartlett's X2 | | | | | | | 6.836 | 18.58 | 11.495 | | | | |
| P(Bartlett's X2) | | | | | | | 0.91 | 0.137 | 0.022* | | | | |
| Replicate F | | | | | | | 1.836 | 1.077 | 0.943 | | | | |
| Replicate Prob(F) | | | | | | | 0.1541 | 0.3685 | 0.4278 | | | | |
| Treatment F | | | | | | | 63.644 | 140.202 | 3961.107 | | | | |
| Treatment Prob(F) | | | | | | | 0.0001 | 0.0001 | 0.0001 | | | | |

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|--------------------|----------------|-----------|-----------|----------------|--------------|-------------------|----------|-----------|
| Rating Data Type | | | | | | | CONTROL | CONTROL |
| Rating Unit | | | | | | | % | % |
| Rating Date | | | | | | | 09-06-02 | 10-03-02 |
| Trt No. | Treatment Name | Form Conc | Form Type | Rate Rate Unit | Product Rate | Product Rate Unit | Grow Stg | Appl Code |
| 1 | MON 79141 | 1.4 | L | 4.5 LB AE/A | | | Post | A |
| 2 | MON 79141 | 1.4 | L | 6.0 LB AE/A | | | Post | A |
| 3 | MON 79051 | 1.7 | L | 4.5 LB AE/A | | | Post | A |
| 4 | MON 79051 | 1.7 | L | 6.0 LB AE/A | | | Post | A |
| 5 | MON 79052 | 1.7 | L | 4.5 LB AE/A | | | Post | A |
| 6 | MON 79052 | 1.7 | L | 6.0 LB AE/A | | | Post | A |
| 7 | MON 78997 | 1.4 | L | 4.5 LB AE/A | | | Post | A |
| 8 | MON 78997 | 1.4 | L | 6.0 LB AE/A | | | Post | A |
| 9 | QuikPRO | 66.6 | WG | 4.5 LB AE/A | | | Post | A |
| 10 | QuikPRO | 66.6 | WG | 6.0 LB AE/A | | | Post | A |
| 11 | MON 78567 | 1.7 | L | 4.5 LB AE/A | | | Post | A |
| 12 | MON 78567 | 1.7 | L | 6.0 LB AE/A | | | Post | A |
| 13 | Roundup ProDry | 64.9 | WG | 4.5 LB AE/A | | | Post | A |
| 14 | Roundup ProDry | 64.9 | WG | 6.0 LB AE/A | | | Post | A |
| 15 | Finale | 2 | SC | 1.5 LB AE/A | | | Post | A |
| 16 | Nontreated | | | | | | | |
| LSD (P=.05) | | | | | | | 0.00 | 0.00 |
| Standard Deviation | | | | | | | 0.00 | 0.00 |
| CV | | | | | | | 0.0 | 0.0 |
| Bartlett's X2 | | | | | | | 0.0 | 0.0 |
| P(Bartlett's X2) | | | | | | | 0.00* | 0.00* |
| Replicate F | | | | | | | 0.000 | 0.000 |
| Replicate Prob(F) | | | | | | | 1.0000 | 1.0000 |
| Treatment F | | | | | | | 0.000 | 0.000 |
| Treatment Prob(F) | | | | | | | 1.0000 | 1.0000 |

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Trial Comments