University of Wisconsin-Madison

Fall RyzUp Study 2010

Locations: Arlington, Prairie du Sac, and Lancaster, WI
Investigator: Mark Renz

Trial Locations

Cities: Arlington, Prairie du Sac, Lancaster, Wisconsin

Application Description

Arlington Experiment Station: 10/21/2010
Sprayer: JWA
Air Temperature: 50 F
Soil Temperature: 45 F
R. Humidity: 33%
Wind: 3-10 MPH Northwest
Sky: Clear, 100%
Soil: Dry
Pasture Grasses: 5-9 inches tall, major species; perennial ryegrass & tall fescue
Rainfall totals: three weeks prior to application; 0.01", two weeks after; 1.45" *KWIARLIN2 (Arlington)

Prairie du Sac USDA/ Badger Ammunition: 10/22/2010
Sprayer: JWA
Air Temperature: 63 F
Soil Temperature: 48 F
R. Humidity: 22%
Wind: 1-5 MPH West
Sky: Clear, 100%
Soil: Dry
Pasture Grasses: 3-5 inches tall, major species; Kentucky bluegrass, & tall fescue
Rainfall totals: three weeks prior to application; 0.04", two weeks after; 1.63" *KWIPRAIR3 (Sauk)

Lancaster Experiment Station: 10/21/2010
Sprayer: JWA
Air Temperature: 59 F
Soil Temperature: 54 F
R. Humidity: 25%
Wind: 3-7 MPH Northwest
Sky: Clear, 100%
Soil: Dry
Pasture Grasses: 3-6 inches tall, major species: fescue, bluegrass, quackgrass, orchardgrass
Rainfall totals: three weeks prior to application; 0.10, two weeks after; 0.39" *KWIPLATT1 (Platteville)

University of Wisconsin-Madison

Site and Design

Plot Width, Unit: 10 FT
Plot Length, Unit: 15 FT
Replications: 4 *4 untreated checks were also alternated in between the treated for a total of 8 plots at each location.*

Measurements per plot at each date: All measurements were taken randomly within the plot and are shown as averages in the tables below. An 18" square "falling pasture plate" was used to take three measurements. Four height measurements per plot. Final grass clippings were taken from 0.5 sq meter per plot. Grass clipping were oven dried and weighed for biomass yields.

Notes

- At all locations RyzUp was applied Broadcast in water at 20 GPA.
- 0.3 oz/A product was applied with NIS at 0.25% v/v.
- A spray boom with six 8003 VS nozzles.
- A backpack CO2 sprayer at 30 psi.
- Mix water pH was 7.79, at field-air temperature
- All animals were kept off the fields

Comments

- At Lancaster at the 19 and 26 DAT observations, some grasses were taller and greener than the surrounding untreated checks. Those tall grasses sometimes looked a bit yellower as well and often had a curled tip with some "bronzing" and purpling at their leaf-tops. The entire RyzUp sprayed area was a bit "mottled" with extra growth. – Some plants were definitely bigger, greener, etc., and others were not.

- All treated grasses seemed to keep the same population density as the check populations. – The existing populations were just taller and the leaves were thicker. Also, at the Lancaster site there were "zones of repugnance" where cattle droppings and possibly urine were contributing to the fertility. Each plot contained 3-4 zones of repugnance (the other two sites had no cow-patties). Not only was grass growth greater in all plots with the zones, but in the RyzUp the growth was even greater. Species at Lancaster included: Orchard grass, Quackgrass, Bluegrass, and Fescue spp.

- No visual differences were seen at any time at Arlington and Badger/USDA. No color difference in the leaf vegetation. No difference in the population density (visual). No difference in height or vigor

  JWA

University of Wisconsin-Madison

Mean Separations

Arlington

Treatment	(19 DAT) 11/10/10 Ave Grass Height (cm)	11/10/10 Ave Pasture Plate Height (cm)	(28 DAT) 11/19/10 Ave Grass Height (cm)	11/19/10 Ave Pasture Plate Height (cm)	Ave Biomass Dry Weights (gm/0.5 sq M)
Untreated	19.8	10.3	19.4	11.4	39.5
RyzUp	18.8	10.6	19.9	10.5	39.3
P value:	NS	NS	NS	NS	NS

Prairie du Sac

Treatment	(19 DAT) 11/10/10 Ave Grass Height (cm)	11/10/10 Ave Pasture Plate Height (cm)	(28 DAT) 11/19/10 Ave Grass Height (cm)	11/19/10 Ave Pasture Plate Height (cm)	Ave Biomass Dry Weights (gm/0.5 sq M)
Untreated	12.1	6.9	11.8	6.7	36.5
RyzUp	11.8	7.5	12.0	6.9	36.8
P value:	NS	NS	NS	NS	NS

Lancaster

Treatment	(19 DAT) 11/9 /10 Ave Grass Height (cm)	11/9/10 Ave Pasture Plate Height (cm)	(26 DAT) 11/16/10 Ave Grass Height (cm)	11/16/10 Ave Pasture Plate Height (cm)	Ave Biomass Dry Weights (gm/0.5 sq M)
Untreated	8.3	4.9	9.0	5.0	12.3
RyzUp	9.7	5.6	11.6	6.0	20.1
P value:	0.0018	NS	0.0025	NS	0.0197