Wheat Grain Yield Response to RyzUp SmartGrass®

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Objective
To determine the effect of a spring application of RyzUp SmartGrass® to wheat grown for grain.

Background
Crop Year: Spring 2014
County/Town: Ross/Londonderry
Soil Type: Taggart silt loam
Drainage: Poorly drained
Crop: Wheat
Variety: Seed Consultants SCS1321
Soil Test: pH – 5.0
P – 37.6 ppm, K – 245.8 ppm, OM – 1.7
Application Date: 03/24/2014
Lime: 2 ton/A: 03/22/2014
Fertilizer: UAN 28%, 23 gallon/A: 4/17/14
Harvest Date: 07/06/2014

Methods
This was a randomized complete block design with four replications. The control treatment consisted of Urea Ammonium Nitrate (liquid UAN) and Agrotain. The test treatments were UAN, Agrotain and gibberellin A (RyzUp SmartGrass® PGR manufactured by Valent). Application was made with 17 gallons of UAN, 0.14 quarts of Agrotain, and 0.4 oz RyzUp SmartGrass on March 24, 2014.

The plots were harvested on July 6, 2014 using a JD 9500 combine with a 25 ft grain table. A total of 1.04 acres was harvested for each plot (201.5 feet by 75 feet) which represented approximately 83% of the plot area.

Results
The wheat harvested from the treated plots yielded an average of 74.56 bushel per acre while the plots with no RyzUp SmartGrass® yielded slightly higher at 79.57 bushels per acre. Even though the yield response was slightly negative, this difference was not statistically significant meaning the treatment had no measurable effect on yield.

There was some water damage noted in the plots that could have affected the results. According to notes taken by the cooperator, there was an estimated 4% plot loss on two of the control plots and on one of the treated plots. Based on this observation, the water damage affected the control plots more than the treated plots.

| Yield (lbs/ac) Response to RyzUp |
|-------------------------------|----------------|
| Treatment                     | Yield (lbs/A) |
| UAN + Agrotain+ RyzUp         | 79.57         |
| UAN + Agrotain                | 74.56         |

Not Significant (0.05)
P = 0.2035
Summary

This study showed no yield response in soft red winter wheat to a spring RyzUp SmartGrass® application. Early in the spring there were some coloration differences between the treated and untreated plots. The cooperator mentioned that at one time, the treated plots appeared darker and taller than the untreated plots. However, coloration and height differences disappeared and there was no statistical difference in yield between treatments.

Acknowledgement

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