

# Wheat Grain Yield Response to RyzUp SmartGrass®

Chris Bruynis, Ohio State University Extension Educator, Ross County

## 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 cooperators, 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 cooperater 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

The author expresses appreciation to Bill Haddad, sales representative with Valent Corporation, for providing the RyzUp SmartGrass® product used in this study at no charge. In addition, Ross Meeker is acknowledged for providing the wheat field for the study, help in laying out the plots, and providing the equipment and labor to conduct the research.

For more information, contact:

Chris Bruynis  
Ross County Extension  
475 Western Ave, Suite F  
Chillicothe, OH 45601  
[bruynis.1@osu.edu](mailto:bruynis.1@osu.edu)



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES