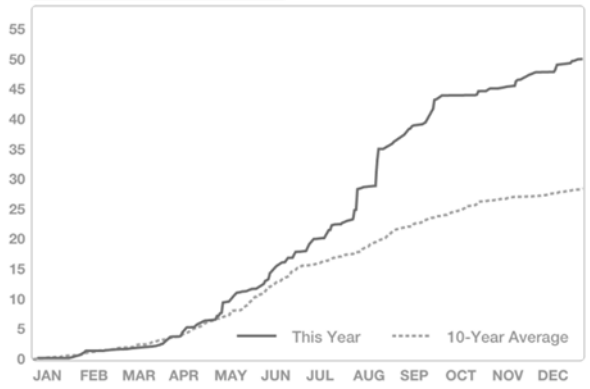
Nebraska On-Farm Research Network

RyzUp SmartGrass® applied with Herbicides to Soybeans at V4

Study ID: 198023201501
County: Butler
Soil Type: Butler silt loam; Olbut-Butler silt loam;
Planting Date: Unknown
Harvest Date: 10/10/15
Population: Unknown
Row Spacing (in.) 30
Hybrid: Seitec 8261RR
Reps: 5
Previous Crop: Corn
Tillage: Unknown
Seed Treatment: Unknown

Irrigation: Pivot, Total: unknown
Rainfall (in.):



Introduction: This study was looking at RyzUp SmartGrass® applied with a herbicide and fungicide application. Treatments were herbicide and fungicide only (check), herbicide and fungicide with 0.3 oz/ac RyzUp SmartGrass®, and herbicide and fungicide with 0.5 oz/ac RyzUp SmartGrass®. Herbicides used in the study were 24 oz/ac Durango and 0.5 oz/ac Cadet. The fungicide was 2.5 oz/ac Affiance. AMS was applied with all treatments at a rate of 17 lbs/100 gal. Application was on July 8 at 13 gpa using air induction T (Brown) 11005 spray tips. Plants were at V4.5 and were just starting to flower (<2% with flowers).

RyzUp SmartGrass® active ingredients are at right. RyzUp SmartGrass® is not currently labeled for use in soybeans, however there is a tolerance for the active ingredient.


RyzUp SmartGrass®
PLANT GROWTH REGULATOR
WATER SOLUBLE GRANULE
FOR ORGANIC PRODUCTION
ACTIVE INGREDIENT:
Gibberellin A_3 ..... 40.0% w/w
OTHER INGREDIENTS..... 60.0% w/w
Total..... 100.0% w/w
Contains a total of 1 g of Gibberellic Acid in 2.5 g of product.
EPA Reg. No. 73049-1
EPA Est. No. 33762-IA-001 List No. 60218

Product information from:
http://www.valent.com/agriculture/products/ryzupsmartgrass/label-msds.cfm

Results:

	Height (in.)		Trifoliate Nodes		Pods/ plant	Cotyledon Node Branches (%)	Unifoliate Node Branches (%)
	July 20	July 29	July 20	July 29	July 29	July 29	July 29
Check	15.2 B	20.6 B	8 A	11 A	25 AB	0.7 A	22.7 A
RyzUp SmartGrass (0.3 oz)	17.5 A	23.6 A	8 A	11 A	23 B	1.0 A	19.3 A
RyzUp SmartGrass (0.5 oz)	18.0 A	24.3 A	8 A	11 A	29 A	1.0 A	15.0 A
P-Value	0.0077	0.0033	0.6081	0.1457	0.0901	0.8905	0.4197

	% Defoliation of Trifoliate Node								
	1st	2nd	3rd	4th	5th	2-3	3-4	2-4	1-4
Check	73 A	42 A	44 A	51 A	6 A	20 A	48 A	46 A	53 A
RyzUp SmartGrass (0.3 oz)	61 A	31 A	31 AB	28 A	9 A	43 A	29 B	30 B	38 B
RyzUp SmartGrass (0.5 oz)	69 A	34 A	18 B	31 A	26 A	31 A	24 B	28 B	38 B
P-Value	0.75	0.74	0.04	0.12	0.42	0.11	0.01	0.02	0.04

	Yield (bu/ac)†	Moisture (%)	Test Weight	Oil (%)	Protein (%)	Weight (grams/ 100 seeds)	Marginal Net Return ($/ac)‡
Check	70 A*	11.6 A	58 A	19.6 B	38.6 A	16 A	623.00
RyzUp SmartGrass (0.3 oz)	70 A	11.5 A	58 A	20.4 A	38.0 A	16 A	616.00
RyzUp SmartGrass (0.5 oz)	69 A	11.5 A	58 A	20.0 AB	38.4 A	16 A	602.43
P-Value	0.3774	0.834	0.8392	0.0232	0.3222	0.4381	N/A

†Bushels per acre corrected to 13% moisture.
*Values with the same letter are not significantly different at a 90% confidence level.
‡Net Return based on $8.90/bu soybeans and $23.33/oz RyzUp cost.

Summary: Defoliation data was taken on July 29. The herbicide and fungicide only treatment (check) had higher defoliation than the 0.5 oz/ac RyzUp SmartGrass® treatment at the 3rd trifoliate node. The check also had higher defoliation than both rates of RyzUp SmartGrass® at trifoliate node 3-4, 2-4, and 1-4. On July 20 and 29 the check was shorter. On July 29, pods/plant were also counted; neither the 0.5 oz/ac rate or 0.3 oz/ac rate of RyzUp SmartGrass® had more pods than the check. No difference was seen in yield, moisture, or test weight between the three treatments. Use of RyzUp SmartGrass® did not provide a return on investment.

In Partnership with: