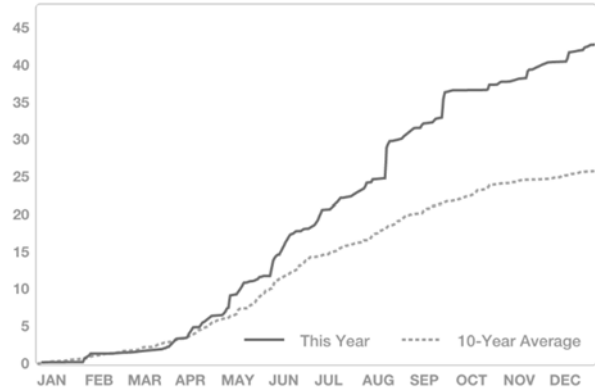


RyzUp SmartGrass® applied with Herbicides to Soybeans at V2

Study ID: 069023201502
County: Butler
Soil Type: Hastings silt loam; Fillmore silt loam;
Planting Date: 6/1/15
Harvest Date: 10/12/15
Population: Unknown
Row Spacing (in.) 30
Hybrid: NK S27-J7
Reps: 4
Previous Crop: Corn
Tillage: No-Till
Herbicides: *Pre:* None *Post:* 40 oz/ac RoundUp PowerMax, 17 lb AMS/100 gal H₂O/s/100, and 0.4 oz/ac Cadet on 7/30/15
Seed Treatment: Unknown
Foliar Insecticides: None

Foliar Fungicides: None
Fertilizer: None
Irrigation: Pivot, Total: Unknown
Rainfall (in.):



Introduction: This study was looking at RyzUp SmartGrass® applied with a herbicide application. The herbicide application was 40 oz/ac RoundUp PowerMax, 17 lb AMS/100 gal H₂O/s/100 and 0.4 oz/ac Cadet on 7/30/15. Treatments were herbicide only, herbicide with 0.3 oz/ac RyzUp SmartGrass®, and herbicide with 0.5 oz/ac RyzUp SmartGrass®. The growth stage at application was V2. RyzUp SmartGrass® product ingredients are at right. There was 10 gpa in the final deposition and the air induction nozzle resulted in spotting of application rather than a uniform distribution. RyzUp SmartGrass® is not currently labeled for use in soybeans, however there is a tolerance for the active ingredient.



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

Results:

	Height (in.)			
	July 7	July 13	July 22	July 31
Check	7.7 B*	10.5 B	16.4 B	23.3 B
RyzUp SmartGrass (0.3 oz)	9.6 A	12.6 A	20.3 A	28.7 A
RyzUp SmartGrass (0.5 oz)	10.5 A	12.9 A	20.0 A	29.5 A
<i>P-Value</i>	0.0067	<0.0001	0.0188	0.0044

	Trifoliolate Nodes			
	July 7	July 13	July 22	July 31
Check	5 A	6 A	9 A	10 A
RyzUp SmartGrass (0.3 oz)	5 A	6 A	9 A	10 A
RyzUp SmartGrass (0.5 oz)	5 A	6 A	9 A	10 A
<i>P-Value</i>	0.7385	0.8357	0.8138	0.9128

	Unifoliate Branches (%) July 31	Defoliation of 1st Trifoliate (%) July 31	Defoliation of 2nd Trifoliate (%) July 31	Defoliation of 3rd Trifoliate (%) July 31
Check	5.8 A	100 A	92 A	40 A
RyzUp SmartGrass (0.3 oz)	3.3 A	100 A	96 A	56 A
RyzUp SmartGrass (0.5 oz)	4.6 A	97 A	90 A	43 A
<i>P-Value</i>	0.7622	0.4219	0.8671	0.5244

	Yield (bu/ac)†	Oil (%)	Protein (%)	Weight (grams/100 seeds)	Marginal Net Return (\$/ac)‡
Check	63 A	18.8 A	39.5 B	17 A	560.70
RyzUp SmartGrass (0.3 oz)	67 A	18.6 A	40.1 AB	18 A	589.30
RyzUp SmartGrass (0.5 oz)	68 A	18.6 A	40.4 A	18 A	593.53
<i>P-Value</i>	0.6738	0.9282	0.0425	0.7368	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 \$23.34/oz RyzUp SmartGrass cost.

Summary: At all four dates that height was measured, the RyzUp SmartGrass® treatments had taller plants than the herbicide only check. There were no differences in trifoliolate nodes at any of the measurement dates nor in % defoliation for the three treatments. No difference was seen in yield, % oil, or seed weight between the three treatments. The RyzUp SmartGrass® 0.5 oz/ac treatment had higher % protein at harvest than the herbicide only check.



In Partnership with:



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