

2011 Commercial Soybean Inoculant Evaluation – Carrington

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Materials and Methods:

- Desired stand was 165,000 plants per acre. Planted 183,333 seeds per acre assuming a 10 percent seedling mortality.
- Soybean variety planted was 'Dairyland 0401'.
- Plant stand assessment: 19 DAP equates to 19 days after planting.
- Stand counts were determined by counting two specific areas per plot, each consisting of five 7-inch rows by 1 meter in length.
- Plant Maturity: The soybeans within this trial were not at physiological maturity; assessed to be at R6.0, crop/crop canopy was fully green with no or little hint of yellowing.
- Plant maturity as noted is a measure of relative maturity taken to assess maturity given that frost events were occurring before PM was achieved.
- Maturity notes were recorded mid-morning of September 14. The first frost occurred earlier the morning of Sept. 14 with a second frost occurring the next morning of Sept. 15.
- Maturity scored on a scale of 1 to 10, plant color was the basis of assessment and the focal area of the plant was the upper 1/3 of stems and pods. 1 = Upper pods and stems were very/deeply green in color to 10 = Upper pods and stems had a moderate shade of yellow color.
- Planting Date = June 3 ; Harvest Date = October 13 ; Previous Crop = Flax
- This trial was impacted by a hail storm on July 24, damage was uniform and subsequent yield loss was determined minimal.

Table 1. Influence of seed treatments on soybean stand establishment, agronomic traits, seed yield and quality.

ID	Seed Treatment	Formulation	Plant Stand 19 DAP plts ft ⁻²	Canopy Color 1 to 10	Plant Maturity ¹	Pod Ht cm	Plant Ht inch	Plant Lodge 0 to 9	Seeds/ pound	Seed Oil %	Seed Protein %	Test Weight lb/bu	Seed Yield bu/ac
1	Untreated	NA	4.1	4.5	4.0	10	32.8	0.1	3643	20.2	30.2	56.7	48.7
2	60 lb N	NA	3.8	4.7	4.5	10	32.4	0.0	3667	20.4	30.2	56.7	48.5
3	Optimize 400	Liquid	4.8	6.8	4.8	10	32.9	0.0	3596	20.4	30.5	56.6	53.3
4	BioBoost Plus	Liquid	4.6	6.5	3.7	10	32.8	0.0	3619	20.4	30.2	56.7	52.2
5	MycoApply endo	Peat	4.3	6.5	4.2	10	34.0	0.0	3608	20.5	30.1	56.5	52.3
6	SoyRhizo	Liquid	4.4	6.8	3.8	10	32.9	0.1	3648	20.2	30.8	56.5	53.2
MEAN			4.3	6.0	4.2	10.0	33.0	0.03	3630	20.4	30.4	56.6	51.4
C.V. (%)			9.0	14.3	38.1	0.0	5.8	416	1.8	1.1	1.5	0.6	6.2
LSD 0.10			0.4	0.8	NS	NS	NS	NS	NS	NS	NS	NS	3.1
LSD 0.05			0.5	1.0	NS	NS	NS	NS	NS	NS	NS	NS	3.7
LSD 0.01			0.6	1.4	NS	NS	NS	NS	NS	NS	NS	NS	NS
#REPS			6	6	6	6	6	6	6	6	6	6	6

Planting Date = June 3 ; Harvest Date = October 13 ; Previous Crop = Flax; Cultivar = Dairyland 0401

¹ The soybean within this trial were not at physiological maturity, assessed to be at R6.0, crop/crop canopy was fully green with no or little hint of yellowing. Plant maturity as noted is a measure of relative maturity taken to assess maturity given that frost events were occurring before PM was achieved. Maturity notes were recorded mid-morning of September 14. The first frost occurred earlier the morning of Sept.14 with a second frost occurring the next morning of Sept. 15. Maturity scored on a scale of 1 to 10, plant color was the basis of assessment and the focal area of the plant was the upper 1/3 of stems and pods. 1 = Upper pods and stems were very/deeply green in color, to 10 = Upper pods and stems had a moderate shade of yellow color.