

Nitrogen Rate Study

SOYBEAN

PURPOSE:

To evaluate different rates of pre-plant incorporated UAN and their impact on yield and profitability.

Pre-Plant Treatment	Final Stand Count	Percent Moisture	Test Weight	BU. / A.	BU. / A. Difference	ROI
Control: No Nitrogen	131,444	9.5	56.8	64.8	--	--
15 units /A.	134,000	9.8	57.2	65.6	+ 0.8	- \$11.97
30 units /A.	133,667	9.7	57.3	65.3	+ 0.5	- \$8.30
45 units /A.	133,889	9.8	57.1	64.6	- 0.2	- \$8.56

Soybeans \$9.79/Bu. - UAN \$0.44/unit of nitrogen - Individual results may vary

OBSERVATION:

This is the first year we did this study as part of our PFR collaboration. In our high yielding environments, the addition of early N may be beneficial as early season nitrogen availability may vary due to cool or wet soils. Soybeans have the ability to assist the fixation of nitrogen, but only after nodules are formed on the roots. Although there was no gain in yield or ROI, we will continue to test this and other practices that will help us gain higher yields more consistently.

Location: New Ulm
 Planting Date: 5/30/2017
 Harvest Date: 10/21/2017
 Hybrid: 234L4
 Population: 140,000
 Row Width: 30
 Previous Crop: Corn
 Tillage: Conventional Tillage - Fall Disk Rip
 Herbicides: 29 oz. Liberty®, 2 oz. Anthem®

Soil Type	Silty Clay Loam			
Soil Test Values	pH	%O.M.	CEC	
	5.3	4.7	15.5	
% Base Saturation	%Ca	%Mg	%K	%H
	62	19.6	2.3	16.1
Parts Per Million	P	K	S	Zn
	25.1	139.4	24.1	1.1

Research in Collaboration with



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