

**Soybean response to selected plant establishment strategies, Wishek, 2013.** (Greg Endres, Tim Indergaard, Sheldon Gerhardt and Crystal Schaunaman)

A field trial was conducted by the NDSU Carrington Research Extension Center at the Tri-county off-station trial site near Wishek to examine the performance of soybean with planting rates, inoculated seed, fungicide-treated seed, and in-furrow applied fertilizer. Experimental design was a randomized complete block with four replications. Fall 2012 soil test indicated 12 ppm P (Olsen), 34 lb/A sulfur (0-24" depth), 3.3% organic matter and 5.8 pH. Seed treatment was CruiserMaxx. Fertilizer source was MES10 (12-40-0-10S) at 100 lb product/A. Dairyland Seed 'DSR0747' Roundup Ready soybean was planted in wheat stubble in 7-inch rows on June 6. Seed was harvested with a plot combine on October 28.

Comparing the two planting rates that had similar treatments, the planting rate of 175,000 pls/A averaged 142,770 plants/A while the planting rate of 130,000 pls/A averaged 103,390 plants/A (Table). Seed yield and other agronomic factors were similar among treatments. Stress from deficient soil moisture during reproductive stages reduced yield.

Table.								
Plant establishment factor			Plant	Seed				
Planting rate	Inoculant	Other <sup>1</sup>	Stand (June 13)	Yield	Test weight	Number /lb	Oil	Protein
pls/A			plt/A	lb/A	lb/bu		%	%
175	no	none	110,990	12.2	56.7	3410	15.3	37.5
130	no	none	105,290	13.0	56.5	3410	15.8	36.9
175	yes	none	179,290	9.8	56.0	3310	15.7	37.4
130	yes	none	109,560	11.3	56.5	3430	15.5	37.2
175	yes	seed trt	138,020	10.6	56.2	3470	15.7	37.1
130	yes	seed trt	95,330	14.2	56.8	3270	15.5	37.3
175	yes	fertilizer	138,020	12.9	56.4	3400	15.7	37.3
175	no	none	214,860	11.1	55.8	3240	15.5	38.1
mean			136,420	11.9	56.4	3370	15.6	37.3
CV (%)			28.1	20.1	1.0	4.4	2.5	2.1
LSD (0.05)			56,400	NS	NS	NS	NS	NS

<sup>1</sup>Seed treatment=CruiserMaxx; Fertilizer=in-furrow MES10 (Mosaic) at 100 lb/A.