

# RESEARCH FOR RESULTS



## Total Soil Management (TSM) Holden Farm Trial

- OVERVIEW:** This trial compares corn yields among different pre-plant nitrogen treatments (4 – Ultra Boost Impregnated Urea, ESN and untreated urea) versus a check using only starter fertilizer to demonstrate how long nitrogen can be held in the soil and available to the crop.
- LOCATION:** SCHONERT – Holden Farms, 1.5 miles North of Oakwood, IL.
- VARIETY:** DeKalb 64-87 RIB Previous Crop = Soybeans.
- PLANTING DATE:** May 8, 2018
- HARVEST DATE:** October 1, 2018
- POPULATION:** 31,976
- PRE-PLANT:** Fall Tillage was chisel plowing and one pass with a field cultivator in spring. 3/23/2018: Fertilizer application: DAP 125 pounds, potash 125 pounds, TSM Micros 45 pounds, Pell Lime 150 pounds per acre. Nitrogen applied on May 4, 2018 per protocol and then worked into soil via field cultivator.
- WEED TREATMENT:** 4/26/18. Verdict at 16 oz/a, Atrazine 4L at 48 oz/a, Zidua WG at 2 oz/a at 20 gallons/acre at 56 F air temp and 45 % relative humidity
- TREATMENTS:**  
 A. 180 pounds N from Urea - CHECK  
 B. 180 pounds N from urea with added **SoilBiotics 4 - Ultra Boost**  
 C. 180 pounds N from ESN

### Holden Corn Plot Results

Treatment	Plot #	Moisture at Harvest	Adjusted yield
A	H334	17.5	178.3
A	H244	16.8	233.0
A	H141	17.0	243.7
A	H138	16.5	217.0
	<b>AVG</b>	<b>17.0</b>	<b>218.0</b>
B	H243	17.5	246.7
B	H234	17.2	173.5
B	H140	16.9	230.8
B	H137	16.8	225.8
	<b>AVG</b>	<b>17.1</b>	<b>219.2</b>
C	H242	16.8	253.5
C	H235	16.9	165.9
C	H139	16.6	229.1
C	H136	16.8	164.4
	<b>AVG</b>	<b>16.8</b>	<b>203.2</b>

**Summary:** The **SoilBiotics 4 - Ultra Boost** treatment had the highest yield among the urea nitrogen treatments (**SoilBiotics 4 - Ultra Boost** and ESN) and the untreated check, all applied and incorporated pre-plant at 180 units N. And, the cost-in-use for **SoilBiotics 4 - Ultra Boost** was less than the ESN treatment.

Treatments	Cost per acre	Cost per Unit
Urea	\$84.28	\$0.47
ESN	\$98.40	\$0.55
<b>4 - Ultra Boost</b>	\$88.61	\$0.49