RESEARCH FOR RESULTS

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Security Seed – Corn Research Trial 2016

OVERVIEW:	**This trial compares 4 – Ultra Boost and 3 – Growth Boost treated and untreated nitrogen applications from Urea and UAN to demonstrate nutrient stabilization as measured by yield and Return on Investment(ROI).**
LOCATION:	Hopkinsville, KY
PLOT:	408' x 10' (4 x 30" rows per plot)
HYBRID:	6517 AgriGold Double Pro
PLANTING DATE:	4/20/2016
HARVEST DATE:	9/9/2016
POPULATION:	32k
POST-HARVEST:	200 pounds per acre of a 50/50 blend of DAP/Potash (9-23-30)
PRE-PLANT (per acre):	No-Till. 1 gallon **4 – Ultra Boost** with 1 ton Urea
WEED TREATMENT:	Pre- Emergence - 1.5 quart Acuron with 1 quart Tomahawk 5 Post-Emergence - 1 quart Acuron with 1 quart Tomahawk 5
TREATMENTS:	In-Furrow – 7 gallons Pro-Germ, 1 gallon Kalibrate, 1 quart Micro 500
4/20/2016	1 pint Iron, 1 pint Boron and 3.4 ounces Capture LFR with 1 quart **3 – Growth Boost** and 1 pint **SB4400**
5/5/2016	Emergence – UREA applied
6/2/2016	Side-dress – 3 quarts **3 – Growth Boost** per 180 Units N from 32 UAN at V-6

Treatment	Moisture %	Test Weight	Yield (bu/a)	+ or - (bu/a) / ROI
180 units UAN with **3 - Growth Boost**	17.9	53.5	259.85	+1.64 / -$8.29
180 units UAN - Untreated	17.5	53.4	258.21	

Summary: SoilBiotics **3 - Growth Boost** added to 180 units of N from 32 UAN resulted in only minimal increase in yield as compared to untreated.

Treatment	Moisture %	Test Weight	Yield (bu/a)	+ or - (bu/a) / ROI
160 units UREA - Untreated	17.5	53.4	236.38	
160 units UREA with **4 - Ultra Boost**	17	53.3	246.41	+ 10.03 / $33.29
180 units UREA - Untreated	17.6	54.3	242.86	
180 units UREA with **4 - Ultra Boost**	17.5	54.1	254.93	+ 12.07 / $40.20

Summary: SoilBiotics **4 – Ultra Boost** impregnated urea showed increased yields at both 160 and 180 units of N compared to untreated urea. The **4 – Ultra Boost** treatment outperformed the untreated 160 units N by 10 bushels per acre and untreated 180 units of N by 12 bushels per acre, resulting in a strong return on investment (ROI) at both levels of fertility.

Treatment	Moisture %	Test Weight	Yield (bu/a)	+ or - (bu/a) / ROI
3 - Growth Boost with **SB4400** In Furrow	17.5	55	243.48	+ 4.30 / $1.13
Check	17.5	54.4	239.18	

Summary: In Furrow addition of **3 – Growth Boost** and **SB4400** resulted in yield increase versus the check but showed minimal ROI.

*ROI is based on $3.50 per bushel corn and estimated producer costs of **3 - Growth Boost** at $18.70 per gallon and **4 - Ultra Boost** at $22.72 per gallon

Security Seed – Corn Research Trial 2016

OVERVIEW: **This trial compares In Furrow starter fertilizer treatments to demonstrate increased plant nutrition as measured by yield.**
LOCATION: Hopkinsville, KY
PLOT: 408' x 10' (4 x 30" rows per plot)
HYBRID: 6517 AgriGold Double Pro
PLANTING DATE: 4/20/2016
HARVEST DATE: 9/9/2016
POPULATION: 32k
POST-HARVEST: 300 pounds per acre of a 50/50 blend of DAP/Potash (9-23-30)
PRE-PLANT (per acre): No-Till.
WEED TREATMENT: Pre- Emergence - 1.5 quart Acuron with 1 quart Tomahawk 5
Post-Emergence - 1 quart Acuron with 1 quart Tomahawk 5

Treatment	Moisture %	Test Weight	Yield (bu/a)	+ or - (bu/a)
Dry Check	18.5	52.8	234.29	
3 gallons Pro Germ + 1 quart Micro 500	17.8	53.4	244.48	+10.57
3 gallons 7-17-3 + Micros	17.7	53.5	229.33	-4.58
4 gallons 10-34-0 + 1 quart Zn	18.6	52.5	233.53	-0.38
Dry Check	18.6	53	232.41	
5 gallons Pro Germ + 1 Micro 500	17.7	53.5	244.77	+10.86
5 gallons 7-17-3 + Micros	18.9	53.1	233.78	-0.13
5 gallons 7-25-6 2s + Zn	18	53	236.38	+2.47
Dry Check	17.5	52.8	235.55	
5 gallons 7-25-6 2s + Zn + KS	18.5	52.3	236.05	+2.14
5 gallons 7-25-6 2s + Zn + USA 500	19.2	55.1	237.72	+3.81
5 gallons 10-14-1 + 1 pint **5 - MicroNutrient Boost** + 1 pint **6 - Growth Supplement**	17.8	52.8	239.96	+6.05
Dry Check	18	52.8	233.38	
Average Dry Check	**18.2**	**52.9**	**233.91**	

Summary: SoilBiotics in furrow fertilizer treatment with 10-14-1, **5 – MicroNutrient Boost** and **6 – Growth Supplement** showed increased yield over all other starter solutions except those with Pro Germ.