

Microbial Solutions Research 2021

Of: 1
 Year: 2021 Crop: Soybeans State: Missouri County: Cass DSM: n/a Plot No. n/a
 Date Planted: 6/6/2021 Seeds/acre: 130,000 Date Harvested: 10/21/2021 Sales Rep: n/a SR #: n/a
 Cooperator: Brian Kurz (Renegade Research LLC) Location Address: 28613 S. St. Rt. T Garden City, MO 64747 Cooperator Phone: 573-550-4115
 Contact Name: Jim Lightsey Cooperator City: Garden City State: MO Zip: 64747

Plot Type	Soil pH	Water Management	Irrigation Type	Tillage Type	Soil Type	Fertilizer (lb/acre)
<input checked="" type="checkbox"/> Trial Only <input type="checkbox"/> Trial vs Competitor <input type="checkbox"/> Yield Monitor <input type="checkbox"/> Single Entry Check <input type="checkbox"/> Damaged	<input type="checkbox"/> High (> 7.8) <input type="checkbox"/> Low (< 5.5) <input checked="" type="checkbox"/> Neutral (5.6-7.7)	<input type="checkbox"/> Irrigated <input type="checkbox"/> Limited <input checked="" type="checkbox"/> None	<input type="checkbox"/> Drip <input type="checkbox"/> Overhead <input type="checkbox"/> Surface	<input checked="" type="checkbox"/> Full Tillage <input type="checkbox"/> No-Till <input type="checkbox"/> Zone Tillage	<input type="checkbox"/> Coarse <input type="checkbox"/> Fine <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Peat	Nitrogen: <u>0</u> Phosphorous: <u>70</u> Potassium: <u>70</u>

Previous Crop: Soybeans GPS Lat: 38.5974 Long: -94.2465

Prior Herbicide	Pre Herbicide	Post Herbicide	Insecticide	Insect Pest	Agronomic Field Conditions			
None	Roundup/2-4-D/Sharpen	Cobra, clethodim, crop oil, AMS	N/A		None	Low	Moderate	Severe
					Water Damage		X	
					Precipitation		X	
					Stand Issues	X		
					Disease	X		
					SCN	X		

Signature: *Brian Kurz*

RELEASE STATEMENT: My signature is authorization to use this material and my name and any yield comparisons data which might be printed by the Company.
 Renegade Research LLC

Comments: With a better understanding now of how the products perform and how they are designed to work. I recommed building a research study around fertilizer reduction and placement style. Soil contact vs. injected into the soil. I firmly believe these products can reduce fertilizer use and increase total farm ROI.

Bushel per Acre = (100 - % Moisture) x (110.465) x lbs. Grain ÷ Row Length (in feet) ÷ Row Width (in inches) ÷ Number of Rows

Strip #	Brand	Test Avg.	Treatment	Yield	% Moisture	Lbs Grain	Row Length (feet)	Row Width (inches)	# of Rows	Test Weight	Method		
											Infurrow	Drops	Foliar
1	Microbial Solutions	48.67	Check	41.9	17.1	30.19	110	30	2	48.1			
2	Microbial Solutions			48.2	30.1	23.96	128	30	1	29.6			
3	Microbial Solutions			55.9	27.3	28.84	138	30	1	33.5			
1	Microbial Solutions	59.27	32 oz. of TM-90	52.2	17.5	44.71	130	30	2	50.7			X
2	Microbial Solutions			49.7	19	42.67	128	30	2	51.3			X
3	Microbial Solutions			75.9	26.9	77.79	138	30	2	50.7			X
1	Microbial Solutions	50.14	64 oz. of TM-90	51.0	14.4	42.07	130	30	2	55.8			X
2	Microbial Solutions			51.6	15.9	42.65	128	30	2	50.1			X
3	Microbial Solutions			47.8	24.1	47.24	138	30	2	43.8			X
1	Microbial Solutions	49.36	32 oz of Humic-Ag	53.5	13.6	43.69	130	30	2	53.7			X
2	Microbial Solutions			49.8	23.1	45.03	128	30	2	44.8			X
3	Microbial Solutions			44.8	19.2	41.58	138	30	2	49.8			X
1	Microbial Solutions	48.63	64 oz. of Humic-Ag	49.0	25.8	46.61	130	30	2	41.6			X
2	Microbial Solutions			49.4	16.1	40.91	128	30	2	51			X
3	Microbial Solutions			47.5	18.4	43.66	138	30	2	48.9			X
1	Microbial Solutions	50.55	32 oz. of NLAg	54.3	20.6	48.26	130	30	2	48.6			X
2	Microbial Solutions			50.5	22.3	45.2	128	30	2	44.3			X
3	Microbial Solutions			46.9	17.8	42.73	138	30	2	47.9			X
1	Microbial Solutions	47.64	64 oz. of NLAg	54.2	18.9	47.23	130	30	2	50.6			X
2	Microbial Solutions			42.3	31.3	42.76	128	30	2	38.2			X
3	Microbial Solutions			46.4	25.1	46.47	138	30	2	44.2			X
1	Microbial Solutions	47.41	Check	50.4	21.6	45.41	130	30	2	48.6			
2	Microbial Solutions			43.7	24.6	40.25	128	30	2	46.6			
3	Microbial Solutions			48.2	28.4	50.41	138	30	2	42.8			