

FIELD EXPERIMENT HISTORY

Year: 2021

Expt. No. 2021-201
Expt. Title: Purple Cow/Aqua Yield: Corn Starter-Side dress Trial
Personnel: T.S. Maloney, T.M. Maloney, S. Stumbras and J. Krebsbach
Location: Bienfang Farm, Whitewater, WI
Supported by: Agri-Tech Consulting, Purple Cow Organics and Aqua-Yield

FIELD INFORMATION

Field: BF-3 **N42.880397 W-88.740833**

Soil type: Milford silty clay loam

Soil Test Results: 11/03/2020 pH: 6.8 P: 40 ppm K: 143 ppm O.M. 4.6 % CEC = 27.6
Rock River Labs Ca = 4125 ppm, Mg = 802 ppm, S = 3.3 ppm, B = 0.6 ppm, Mn = 26 ppm, Zn = 3.6 ppm
Watertown, WI Sand % = 20, Silt % = 50, Clay % = 30%, Fertility = excellent, Drainage = excellent

Fertilizer Applied: 45 gal/acre UAN 28% applied May 17, 2021
90 lb/acre 11-52-0 + 200 lb/acre 0-0-62 applied November 20, 2020
Side dress = 15.0 gal/acre 28% UAN applied June 15, 2021

Tillage Operations: Fall chisel plowed, spring field cultivate to incorporate fertilizer and level field for planting

Previous Crop: Soybean

Previous Herbicide: Boundary fb FlexStar GT and Select Max

Irrigation: None

EXPERIMENTAL PROCEDURE

Exp. Design: RCB 1 factor

Replicates: 4

Variables: Factor A: Corn starter/sidedress treatment (7 treatments)

Plot Size: 10' x 50' plots = 0.011 acres Four 30" rows

Row Spacing: 30"

Cultivar: DS 4440AMXT

Planting: Date: 15-May-21
Equipment: SRES 4-row precision vacuum planter
Rate: 35,000 seeds per acre
Depth: 3.0"

Other data obtained: Stand, vigor, tissue analysis, lodging, grain yield, moisture, and test weight

Harvesting: Date: 9-Nov-21
Equipment: Case-IH 2144 plot combine with HarvestMaster HCGG and Allegro components

Pesticides	<u>Material</u>	<u>Rate</u>	<u>Method</u>	<u>Date</u>
	Accuron	1.5 pt	pre emergence	17-May-21
	Atrazine	1.0 lb	pre emergence	17-May-21
	Halex GT	4.0 pt	post emergence	16-Jun-21
	Roundup WeatherMax	8.0 oz	post emergence	16-Jun-21

Results: Table 201

Purple Cow Organics													
2021 field trials													
Corn starter In-furrow and side dress trials													
All side dress applications -June 15													
CX-1 with Activator													
CX-1+Pro with Activator													
								*	*	*	*		
Harvest complete								9-Nov	9-Nov	9-Nov	9-Nov	N	N
at planting applications								Harvest	Harvest	Harvest	Grain yield	Units	Units
side dress applications								grain	plot	actual	adjusted to	applied	per bu
Seed: Standard ST F&I								moisture	weight	test wt	@15%		
rep#	t#	description	plot	%	lbs	lbs	bu/acre						
1	1	Control	105	16.8	139.65	57.6	236.28						
2	1	5.0 gal/acre 6-24-6 LIF starter	204	17.0	145.28	57.8	245.22						
3	1		402	17.4	140.07	57.4	235.28						
4	1	15 gal/acre UAN 28% sidedress June 15	403	17.2	135.74	57.6	228.56						
				17.1	140.19	57.6	236.34	194	0.821				
1	2	5.0 gal/acre CX-1 + Activator LIF starter	103	16.8	148.20	57.7	250.75						
2	2		201	17.6	137.19	57.9	229.89						
3	2		305	17.0	142.95	57.9	241.29						
4	2	5.0 gal/acre CX-1 + Activator sidedress June 15	406	17.3	146.85	57.6	246.97						
				17.2	143.80	57.8	242.22	145	0.598				
1	3	2.5 gal/acre CX-1 + Pro + Activator LIF starter	102	17.2	146.36	57.9	246.45						
2	3		301	17.4	150.33	58.0	252.52						
3	3		303	17.5	147.84	57.9	248.04						
4	3	2.5 gal/acre CX-1 + Pro + Activator sidedress June 15	504	17.0	145.53	58.2	245.64						
				17.3	147.52	58.0	248.16	145	0.584				
1	4	5.0 gal/acre CX-1 + Activator LIF starter	106	17.2	144.97	58.1	244.11						
2	4		203	16.8	152.34	57.9	257.75						
3	4		404	17.5	143.96	58.2	241.53						
4	4	15 gal/acre UAN 28% sidedress June 15	501	17.1	147.61	57.9	248.85						
				17.2	147.22	58.0	248.06	190	0.766				
rep#	t#	description	plot	%	lbs	lbs	bu/acre			N	N		
1	5	2.5 gal/acre CX-1 + Pro + Activator LIF starter	104	17.3	146.39	58.2	246.20			Units	Units		
2	5		202	17.0	143.35	58.4	241.96			applied	per bu		
3	5		306	17.5	151.74	58.3	254.58						
4	5	15 gal/acre UAN 28% sidedress June 15	405	17.1	147.33	58.3	248.38						
				17.2	147.20	58.3	247.78	190	0.767				
1	6	no starter	101	17.4	145.17	57.6	243.85						
2	6		205	17.2	139.63	57.8	235.11						
3	6		304	16.9	134.19	57.6	226.77						
4	6	5.0 gal/acre CX-1 + Activator sidedress June 15	502	17.6	144.19	57.6	241.62						
				17.3	140.80	57.7	236.84	145	0.612				
1	7	no starter	206	17.3	141.99	58.1	238.80						
2	7		302	16.9	140.07	57.8	236.71						
3	7		401	16.8	146.92	57.9	248.58						
4	7	2.5 gal/acre CX-1 + Pro + Activator sidedress June 15	503	17.4	143.54	57.7	241.11						
				17.1	143.13	57.9	241.30	145	0.601				