

WEST SIDE Planting Date 6/1/20 Population 32,000	WEST PLOT	RANK AS TO HIGH YIELD	FULL SEASON VARIETIES	RM	WET WEIGHT Harvest Date 11/2/20	MOIS- TURE	TW	ROWS 6—30” Spacing	SHRINK FACTOR As Pounds Per Bushel	YIELD Adj. to 15% Moisture	O R D E R	Besecker Farms 2020 Org. Corn Test Plot Weighed on Kinzy Grain Cart by Tim Besecker
CHECKER	66G25	X	ORG	112	1480	20.2	50	6 ck	59.32	122.80	34	78 LONG ROWS
BRH 70N16		4	ORG	116	1380	23.2	49	6 CB	61.66	110.16	33	590' x 15' = .20317 Acres
BR 68C37		9	ORG	113	1200	22.0	52	6 CB	60.70	97.30	32	X 4.9220
GHO 63T1		7	ORG	112	1340	22.0	53	6	60.70	108.66	31	
BRH 66PM19	NEW	3	ORG	112	1420	25.2	50	6	63.20	110.59	30 *	Top 4 Ave 114.15 B/A
MC 6150		1	ORG	111	1560	23.6	49	6	61.98	123.88	29	Ck Ave 117.52 B/A
BRH 64K93	NEW	6	ORG	111	1320	20.8	53	6	59.74	108.76	28 *	F S Plot Ave 109.97 B/A
PHS 6341	NEW	8	ORG	111	1240	22.0	51	6	60.70	100.55	27 *	(includes checker)
CHECKER	66G25	X	ORG	112	1220	22.4	49	6 ck	61.02	98.41	26	
AL O.74-10		10	ORG	110	1180	21.8	53	6	60.54	95.94	25	
CAPP 4717		5	CUT	109	1280	18.0	54	6	57.70	109.19	24	
BRH 60PM11	NEW	2	ORG	109	1320	18.4	51	6	58.02	111.98	23	
CHECKER	66G25	X	ORG	112	1620	22.0	54	6 ck	60.70	131.36	22	
BRH 66G25	FIELD	SPLIT	ORG	112	1850	24.0	54	ODD 6-7	62.30	146.16	21	LONG ROWS
Middle of Field Planting Date 6/1/20 Population 32,000	EAST PLOT	RANK AS TO HIGH YIELD	MID TO EARLY SEASON VARIETIES	RM	WET WEIGHT Harvest Date 11/2/20	MOIS- TURE	TW	ROWS 6—30” Spacing	SHRINK FACTOR As Pounds Per Bushel	YIELD Adj. to 15% Moisture	O R D E R	Besecker Farms 2020 Org. Corn Test Plot Weighed on Kinzy Grain Cart by Tim Besecker
CHECKER	66G25	X	ORG	112	1270	24.0	54	6 ck	62.30	165.83	20	120 SHORT ROWS
AL O.48-08	NEW	2	ORG	108	1290	20.0	53	6	59.20	177.26	19 *	357' x 15' = .12293 Acres
GHO 58E4		1	ORG	108	1280	19.2	53	6	58.56	177.81	18	X 8.135
BRH 58PM36		10	ORG	107	1040	17.5	53	6 CB	57.40	147.39	17	
CAPP 4720	NEW	4	CUT	107	1060	17.0	54	6	57.00	152.28	16 *	Top 4 Ave 168.90 B/A
CHECKER	66G25	X	ORG	112	1080	23.0	52	6 ck	61.50	142.86	15	Ck Ave 149.40 B/A
PHS 5879		8	CUT	107	1080	19.0	54	6	58.40	150.44	14	M-E S Plot Ave 149.83 B/A
BRH 66G25		6	ORG	112	1140	22.5	52	6 CB	61.10	151.78	13	(includes checker)
AL O.18-06	NEW	7	ORG	106	1140	23.0	56	6	61.50	150.80	12 *	
PHS 3259		3	CUT	105	1200	18.4	54	6	58.02	168.25	11	
BRH 54C27	NEW	9	ORG	105	1040	17.4	54	6	57.32	147.60	10 *	AVE BOTH CORN PLOTS
GHO 55G3		11	ORG	105	1060	19.2	55	6	58.56	147.25	9	TOP 3 ALL COMPANIES
CHECKER	66G25	X	ORG	112	1140	23.4	52	6 ck	61.82	150.02	8	AL-VIKING —3=159.98
BRH 65G55	DISC	15	ORG	111	960	21.0	53	6 CB	59.90	130.38	7	BRH —————3=148.92
AL O.51-04		16	ORG	104	920	18.4	53	6	58.02	128.99	6	GHO —————3=144.57
MC 5300		14	ORG	103	960	18.6	52	6	58.16	134.28	5	PHS —————3=139.75
CAPP 4313		13	CUT	103	980	18.2	55	6	57.86	137.79	4	MC —————3=134.42
MC 5250		12	ORG	102	1020	17.4	55	6	57.32	144.76	3	CAPPEL —————3=133.09
AL O.45-97		5	ORG	97	1040	15.0	56	6	55.70	151.89	2	
CHECKER	66G25	X	ORG	X	1020	20.8	55	6 ck	59.74	138.90	1	SHORT ROWS—EAST SIDE

Comments: : Plot varieties were planted on the same date in two very different areas. West Area field was planted to Full Season Corn and East Area field was planted to Mid to Early Season Corn. All varieties were planted June 1 at 32,000 population with MST on seed, SP1 at 3 G/A plus PKT at 5 G/A in seed trench and 23 G/A Allganic, K sulfate, Dramm S, SP1 placed 2x2 as starter fertilizer. Rain came quickly right after planting, with corn emerging well and getting a good start. All corn was cultivated and side-dressed with Allganic plus, twice. Two cultivations controlled most weeds except for a few Giant Ragweed. Crop seemed to grow well all season in spite of 6 weeks drought, where it only received about 2/10 - 3/10 of an inch of rainfall (mid June thru August) Rain (2-3") finally came in time to improve pollination and again later on, which promoted good tip fill in both plots.

Conclusion: Yields were considerably different (approx 40 B/A) when comparing the East Area to the West Area and it appears this was not due to just relative maturity or weather differences when comparing the Checker Averages of the two areas. The East Plot was very consistent with 11 varieties yielding over 147 Bushel per Acre. The West Plot had 3 varieties at just under 100 B/Acre and only one variety, other than the Checker, that was over 120 Bushel per Acre. I am not sure why there is that much variance, but there has been some rotational differences over the past few years, but we don't think those minor differences make 40 bushel difference. However, there is a couple things that stand out to Chris and I. For one, the West Plot had cereal rye, peas, rape and radish as a cover crop which was chizzled in when the rye was at 6" growth and the East Plot was just chizzled and no cover-crop worked in. There was no compaction layer found in either plot. For the second thing,—even at the same planting rate, the East Plot ended up with a lower population and larger ears at harvest than the West Plot. Even the Checkers had larger ears on the East Plot. We are definitely looking into Soluble Calcium, OM, soil nutrient levels, and microbial diversity as well as soil till to find the answer to the 40 Bushel/Acre Deficit.

Comments appreciated—phone 937 459-5104

PLANT DATE 6 / 2 / 20	Rank In order of	Soybean Planting Order	WEST SIDE OF PLOT	RM	WEIGHT As Harvested HARVEST DATE 10/13/2020	MOIS- TURE At Harvest	6—30” ROWS = .20317 Acres	Test Weight	FACTOR Pounds per bushel	YIELD Adjusted to 13 % Moisture		Besecker Farms 2020 Soybean Test Plot Weighed on Kinzy Grain Cart by Tim Besecker	
Ave Seeding Rate 200 K/Acre	Highest Yield											Seed———Seed Cost Cost /Unit——Per Acre	
590' x 15' =.20317 Acres X 4.922													
BR 29DC5	FINISH	13	ORG	2.9	580 #	13.9	6	54	60.31	44.83	47+	\$50.00	\$71.43
BF Soy +	CK	12	ORG	3.9	660 #	13.5	6	54	60.348	51.24	46	\$25.00	\$38.46
GHO 390	5	11	ORG	3.9	540 #	13.0	6	57	60.0	42.16	45	\$69.90	\$107.54
BR 35DC2	1	10	ORG	3.5	660 #	13.0	6 CB	54	60.0	51.52	44	\$50.00	\$71.43
GHO 320	6	9	ORG	3.2	500 #	12.5	6	54	59.65	39.25	43	\$69.90	\$107.54
BR 29DC5	2	8	ORG	2.9	640 #	13.0	6 CB	55	60.0	49.98	42	\$50.00	\$71.43
BF Soy +	CK	7	ORG	3.9	580 #	13.2	6	54	60.138	45.15	41	\$25.00	\$38.46
GHO 291	3	6	ORG	2.9	560 #	12.9	6	55	59.93	43.75	40	\$69.90	\$107.54
VIK O27-02	7	5	ORG	2.7	500 #	13.2	6	54	60.138	38.92	39	\$49.00	\$70.00
BR 26FO	9	4	ORG	2.6	420 #	12.0	6	55	59.3	33.16	38	\$50.00	\$71.43
VIK O24-18	4	3	ORG	2.4	540 #	12.8	6	55	59.86	42.24	37	\$49.00	\$70.00
VIK O21-55	8	2	ORG	2.1	480 #	12.5	6	55	59.65	37.71	36	\$45.00	\$64.29
BF Soy +	CK	1	ORG	3.9	580 #	13.0	6	56	60.0	45.29	35	\$25.00	\$38.46
											AVE RM		
							Variety	9	RM =	2.1 to 3.9			
							Total	Plot	Ave. =	43.48 b/a		Includes Checker	
							Checker	3	Ave. =	47.23 b/a	3.9		
							Ave. of	Top 3	Yields =	48.42 b/a	3.1		
							GHO	average	Yield =	41.72 b/a	3.3		
							BRH	average	Yield =	44.89 b/a	3.0		
							VIK	average	Yield =	39.63 b/a	2.4		

Comments:

Plot varieties were very consistent in growth but varied by 18 bushel in yield. All varieties were planted June 2 and enhanced with AER PKT starter fertilizer, SPI Biological, Myco Seed Treat and foliar later on. They caught a good rain right after planting and got off to a quick start, exhibiting good germination and early growth. There was a period of time, about 6 weeks, where they only got approx. 2/10 –3/10 (two –three tenths) of an inch of rainfall during that critical time of late pod set to early bulking. Rains finally came later in abundance (2-3”) giving the longer maturity beans a little more yield advantage, as you can see. Two cultivations and the electric weed zapper was only 80% effective at controlling Giant Ragweed and Foxtail. All other weed species, for the most part, were controlled this season. Insects and diseases did not appear to be a problem.

Conclusion:

The Blue River BR 2.9 variety beat our 3.9 checker by almost 5 bu. per acre and the Beck's GHO 2.9 variety by slightly better than 6 bu. /acre. Beck's GHO 291 was the top yielder on this same field in 2018. We were disappointed in the NEW highly priced Beck's GHO 390 (3.9 RM), which was most attractive and looked very good at our field day but never came through with the top yield. It appears that neither the GHO 390 (3.9) or the GHO 320 (3.2) handled the 6 week period of dry weather stress as well as the Blue River varieties growing beside them. The short season Albert Lea -Viking varieties came in with less yield than the 3.9 Ck but as you can see, held their own against the Blue River BR 26FO (2.6 RM food Grade) in the early maturity class. This, I am sure was also due to the long period of dry weather experienced at that R4 –R5 critical period. Like we have experienced in the past (over an 8 year average) on our own Ohio area farms, typically the 2.0 to 2.8 RM class yields an average of 7-8 bushel less than the 3.0 to 4.0 RM class This season, the most profitable varieties were actually 2 Blue River soybeans varieties and the 3.9 checker with highest yields and a lower seed cost per acre.