



MICHIGAN SUGARBEET
REACH
Research & Education Advisory Council

2021 Variety Trial Results



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	Amanda Harden		
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Company	Name
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CEO of Michigan Sugar Company	Mark Flegenheimer

MISSION STATEMENT:

The mission of the **Michigan Sugarbeet Research Education Advisory Council** is to be the central trusted source of agronomic information for the sugarbeet industry.

The council will provide direction for the Michigan-Ontario sugarbeet researchers and assemble and distribute research/agronomy information.

Cooperative educational efforts will be conducted with the goal of improving productivity and profitability for all stakeholders.



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2021 Variety Trial Results

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Approval of Seed Varieties for the 2022 Crop

Fully Approved Varieties		
Unlimited Quantities		
BTS-1703	HIL-9908	SX-RR1264
BTS-197N	HIL-2238NT	SX-RR1278N
C-G675	HIL-2240	SX-2283
C-G752NT	HIL-2332NT	SX-2294
C-G919	MA-709	SX-2296N
C-G932NT	MA-813NT	
HIL-9879NT	MA-814	
HIL-9865		

Limited Approved Varieties		
Quantities limited to 10% of acres		
C-G021	SX-2297	
HIL-2361	SX-2201	
SX-2295		

Specialty Approved Varieties		
Variety	Specialty	Quantity
BTS-1606**	Nematode/Alternaria	Unlimited
BTS-1941*	CR+	10%
BTS-1065*	CR+	5%
C-G049*	CR+	5%

* Approved to plant through 2022

** Approved to plant through 2023

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Approved Varieties for 2022

2020 & 2021 Data

Variety	Approval Status	\$/A	All Values are % of Check										Fusarium	Rhizo mania
			RWSA	RWST	T/A	Emer gence	Cercos pora	Rhizoc tonia	Root Aphid	Aphan omyces				
*C-G675	Fully Approved	\$2,466	103.4	99.7	103.6	109.1 G+	93.9 G	101.4 F+	108.1 G	108.4 F	105.9 F	88.9 G+		
C-G049	Special Approval	\$2,443	102.4	97.8	105.1	109.0 G+	49.2 E	97.0 G	64.9 G+	87.3 G+	63.7 G+	93.9 G		
*SX-2296N	Fully Approved	\$2,391	100.3	102.6	97.9	95.2 F	105.3 F-	99.0 G	97.5 G	94.4 G	108.9 F	114.7 F		
C-G021	Limited Approval	\$2,388	99.9	99.5	100.7	104.5 G	43.0 E	96.5 G	236.4 F	93.7 G	68.2 G+	87.9 G+		
C-G932NT	Fully Approved	\$2,383	99.9	99.0	101.1	108.0 G+	105.5 F-	98.1 G	60.2 G+	83.6 G+	70.9 G+	100.5 F+		
*HIL-9865	Fully Approved	\$2,373	99.3	101.2	97.9	96.0 F	99.5 F	99.0 G	101.6 G	104.5 F+	117.4 P	99.5 G		
SX-2294	Fully Approved	\$2,372	99.5	100.3	99.4	97.5 F	89.4 G	108.1 F	170.9 F+	87.2 G+	98.2 G	113.2 F		
SX-2295	Limited Approval	\$2,372	99.3	101.5	97.9	99.1 F+	92.1 G	98.0 G	144.7 F+	96.4 G	100.2 F+	126.5 F		
BTS-1065	Special Approval	\$2,369	99.3	96.7	102.7	107.6 G+	49.0 E	105.4 F	130.0 F+	102.7 F+	48.4 G+	86.1 G+		
BTS-1941	Special Approval	\$2,361	98.7	95.5	103.7	104.1 G	41.1 E	101.0 F+	109.6 G	87.9 G+	74.2 G+	88.3 G+		
HIL-2361	Limited Approval	\$2,353	98.7	101.7	96.9	102.3 G	91.6 G	92.1 G+	113.7 G	100.4 F+	107.0 F	117.5 F		
BTS-197N	Fully Approved	\$2,346	98.2	98.3	100.1	99.5 F+	110.8 P	97.8 G	72.8 G+	85.9 G+	79.2 G	97.3 G		
BTS-1606N	Special Approval	\$2,343	98.4	96.9	101.7	100.9 G	98.5 F+	101.0 F+	58.9 G+	104.7 F+	76.9 G+	85.9 G+		
BTS-1703	Fully Approved	\$2,343	98.3	99.4	99.0	103.7 G	80.3 G+	100.8 F+	69.3 G+	92.2 G	105.2 F	102.3 F+		
SX-2283	Fully Approved	\$2,343	98.1	100.5	97.8	97.3 F	91.6 G	102.5 F+	144.1 F+	100.0 F+	102.4 F+	116.2 F		
HIL-2332NT	Fully Approved	\$2,335	98.1	102.9	95.5	97.1 F	107.0 P	94.9 G+	70.6 G+	113.4 F	121.2 P	113.0 F		
*C-G752NT	Fully Approved	\$2,313	96.9	96.4	100.5	99.6 F+	101.4 F	100.5 F+	92.8 G	92.7 G	67.7 G+	96.9 G		
SX-2201	Limited Approval	\$2,309	96.9	99.5	97.6	96.5 F	85.9 G	105.4 F	77.5 G+	92.0 G	107.8 F	108.3 F+		
SX-1278N	Fully Approved	\$2,306	96.6	99.0	97.8	105.0 G	109.8 P	104.7 F+	222.4 F	96.7 G	104.1 F	100.1 F+		
C-G919	Fully Approved	\$2,299	96.4	97.4	99.2	106.1 G	72.5 G+	100.5 F+	145.1 F+	95.4 G	80.2 G	98.2 G		
SX-2297	Limited Approval	\$2,286	95.9	102.1	94.2	91.9 F	90.3 G	93.9 G+	162.0 F+	98.9 G	108.9 F	122.2 F		
HIL-2238NT	Fully Approved	\$2,286	95.6	96.9	98.6	102.3 G	94.7 G	105.2 F	151.4 F+	122.3 F-	118.7 P	89.8 G+		
MA-814	Fully Approved	\$2,261	94.8	97.8	97.1	106.0 G	93.2 G	100.1 F+	81.7 G	108.7 F	117.1 P	110.0 F		
MA-709	Fully Approved	\$2,251	94.3	98.1	96.4	93.1 F	90.2 G	96.7 G	254.5 F	115.5 F-	113.6 F-	106.5 F+		
MA-813NT	Fully Approved	\$2,053	86.0	97.7	88.5	99.8 F+	85.7 G	104.1 F+	177.3 F+	115.7 F	113.3 F-	136.0 F		

A lower value is better for Cercospora, Rhizoctonia, Root Aphid, Aphanomyces, Fusarium and Rhizomania

\$/A: Gross dollars per acre calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767 for 2021, and \$0.165 for 2020.

*Check Variety



Rhizoctonia

Varieties for 2022 - Average of 2020 & 2021

Variety	% of Check				Comments
	Rhizoc	RWSA	RWST	Cerc	
HIL-2361	92.1	98.7	101.7	91.6	Fully Approved variety with very good Rhizoctonia tolerance. Above average RWST and RWSA. Good Cercospora tolerance as well as other disease traits.
SX-2297	93.9	95.9	102.1	90.3	Fully Approved variety with very good Rhizoctonia tolerance. Above average RWST but below average RWSA. Good Cercospora tolerance as well as other disease traits.
HIL-2332NT	94.9	98.1	102.9	107.0	Fully Approved variety with very good Rhizoctonia tolerance. Above average RWST and RWSA. Weak on Cercospora and Fusarium.
C-G021	96.5	99.9	99.5	43.0	Limited Approved variety with good Rhizoctonia tolerance. Above average RWST and RWSA. CR+ trait for excellent Cercospora tolerance. Good overall disease package, slightly weak on root aphids but meets approval standards.
MA-709	96.7	94.3	98.1	90.2	Fully Approved variety with good Rhizoctonia tolerance. Below average RWST and RWSA. Good Cercospora tolerance but otherwise weak on root diseases.
C-G049	97.0	102.4	97.8	49.2	Specialty Approved Variety with good Rhizoctonia tolerance. Below average RWST and above average RWSA. CR+ trait for excellent Cercospora tolerance. Good overall disease package.

Note: Lower values are better for Rhizoctonia and Cercospora. Higher values are better for RWST and RWSA. Rhizoctonia ratings are from Rhizoctonia Nurseries.

Cercospora

Varieties for 2022 - Average of 2020 & 2021

Variety	% of Check				Comments
	Cerc	RWSA	RWST	Rhizoc	
BTS-1941	41.1	98.7	95.5	101.0	Specialty Approved variety with CR+ trait for excellent Cercospora Tolerance. Good overall disease package, above average RWSA but below average RWST.
C-G021	43.0	99.9	99.5	96.5	Limited Approved variety with CR+ trait for excellent Cercospora tolerance. Good overall disease package. Slight weakness to Root Aphid, but meets approval standards. Above average RWSA and better RWST than other CR+ varieties.
BTS-1065	49.0	99.3	96.7	105.4	Specialty Approved variety with CR+ trait for excellent Cercospora Tolerance. Good overall disease package with above average RWSA but below average RWST.
C-G049	49.2	102.4	97.8	97.0	New Limited Approved variety with CR+ trait for excellent cercospora tolerance. Good overall disease package, above average RWSA but below average RWST.
C-G919	72.5	96.4	97.4	100.5	Fully Approved variety with very good Cercospora tolerance. Good overall disease traits, but below average RWSA and RWST. Good workhorse variety.
BTS-1703	80.3	98.3	99.4	100.9	Fully Approved variety with very good Cercospora tolerance. Good overall disease traits, but below average RWSA and RWST. Good workhorse variety.
MA-813NT	85.7	86.0	97.7	104.1	Fully Approved Nematode tolerant variety with good Cercospora tolerance. Below average RWSA and RWST. Slight weakness to all root disease tested.
SX-2201	85.9	96.9	99.5	105.4	Limited Approved variety with good Cercospora tolerance. Average RWSA and RWST. Good overall disease package.
SX-2294	89.4	99.5	100.3	108.1	Fully Approved variety with good Cercospora tolerance. Above average RWSA and RWST. Slight weakness to Rhizoctonia but otherwise good disease traits.
MA-709	90.2	94.3	98.1	96.7	Fully Approved variety with good Cercospora tolerance. Below average RWSA and RWST. Good Rhizoctonia tolerance but weak on other root diseases.
SX-2297	90.3	95.9	102.1	93.9	Fully Approved variety with good Cercospora tolerance. Below average RWSA but above average RWST. Good overall disease traits.

Note: Lower values are better for Rhizoctonia and Cercospora. Higher values are better for RWST and RWSA.



High Quality

Varieties for 2022 - Average of 2020 & 2021

Variety	% of Check				Comments
	RWST	RWSA	Rhizoc	Cerc	
HIL-2332NT	102.9	98.1	94.9	107.0	Fully Approved variety with above average RWST and RWSA. Weak on Cercospora and Fusarium, but otherwise good disease traits.
SX-2296N	102.6	100.3	99.0	105.3	Fully Approved Nematode tolerant variety with above average RWST and RWSA. Weak on Cercospora but otherwise good disease traits.
SX-2297	102.1	95.9	93.9	90.3	Fully Approved variety with above average RWST and below average RWSA. Good Cercospora and Rhizoctonia tolerance as well as other disease traits.
HIL-2361	101.7	98.7	92.1	91.6	Limited Approved variety with above average RWST and RWSA. Good Cercospora and Rhizoctonia tolerance and well as other disease traits.
SX-2295	101.5	99.3	98.0	92.1	Limited Approved variety with above average RWST and RWSA. Good Cercospora and Rhizoctonia tolerance and well as other disease traits.
HIL-9865	101.2	99.3	99.0	99.5	Fully Approved variety with above average RWST and RWSA. Weak on Cercospora and Fusarium, but otherwise good disease traits.

Note: Lower values are better for Rhizoctonia and Cercospora. Higher values are better for RWST and RWSA.



Sugarbeet Cyst Nematode

Varieties for 2022 - Average of 2020 & 2021

Variety	All Values are % of Check				Comments
	RWSA	RWST	Rhizoc	Cerc	
SX-2296N	100.3	102.6	99.0	105.3	Fully Approved variety with above average RWST and RWSA. Weak on Cercospora.
C-G932NT	99.9	99.0	98.1	105.5	Fully Approved variety with average RWST and above average RWSA. Weak on Cercospora but otherwise good disease traits.
BTS-1606	98.4	96.9	101.0	98.5	Specialty Approved variety with below average RWST and above average RWSA. Good overall disease traits.
BTS-197N	98.2	98.3	97.8	110.8	Fully Approved variety with below average RWST and above average RWSA. Weak on Cercospora, otherwise good disease traits.
HIL-2332NT	98.1	102.9	94.9	107.0	Fully Approved variety with the best RWST and above average RWSA. Weak on Cercospora and Fusarium, but otherwise good disease traits.
C-G752NT	96.9	96.4	100.5	101.4	Fully Approved variety with below average RWST and RWSA. Slight weakness to Cercospora and Rhizoctonia, but otherwise good disease traits.
SX-RR1278N	96.6	99.0	104.7	109.8	Fully Approved variety with average RWST and below average RWSA. Weak on most diseases tested, but good for Aphanomyces.
HIL-2238NT	95.6	96.9	105.2	94.7	Fully Approved variety with below average RWST and RWSA. Good Cercospora tolerance but slightly weak on root diseases.
MA-813NT	86.0	97.7	104.1	85.7	Fully Approved variety with below average RWST and RWSA. Good Cercospora tolerance but weak on root diseases.

Note: Lower values are better for Rhizoctonia and Cercospora. Higher values are better for RWST and RWSA.



Official Variety Trial

Average of 8 Locations - 2021

Trial Quality: see trial pages
Plant/Harv: see trial pages
Plots: 2 Rows x 38 ft.
Row Spacing: 22 in.
Seeding Rate: see trial pages

Locations:
 Gerstenberger Shaffner
 Grekowicz SVREC
 Maurer Sylvester
 Mininger Trost

Cerc Control:
 see trial pages
Rhizoc Control:
 see trial pages

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G049	\$2,459	12389	248	18	50.3	1	16.7	18	95.8	15	62.9	1
BTS-1941	\$2,403	12077	245	25	49.5	2	16.6	20	95.3	25	59.8	8
C-G675	\$2,401	12123	254	12	47.8	5	17.0	11	95.8	16	61.3	4
C-G932NT	\$2,377	12003	252	13	47.7	6	16.8	14	95.9	14	61.9	3
BTS-1606N	\$2,374	11963	248	20	48.4	3	16.5	23	96.0	12	59.5	10
SX-2294	\$2,371	11976	256	9	46.9	11	17.0	9	96.1	9	60.5	6
C-G021	\$2,367	11924	252	14	47.3	9	16.9	13	95.8	18	56.6	17
BTS-1065	\$2,358	11869	247	22	48.2	4	16.6	21	95.6	22	60.1	7
BTS-197N	\$2,349	11821	249	17	47.6	7	16.7	16	95.6	21	54.2	23
SX-2283	\$2,343	11813	256	8	46.2	12	17.0	10	96.2	7	55.4	21
HIL-2332NT	\$2,337	11844	264	1	45.1	20	17.4	1	96.4	2	56.8	16
SX-2296N	\$2,335	11830	261	4	45.5	17	17.2	4	96.1	8	55.9	19
HIL-2361	\$2,332	11770	262	2	44.9	22	17.2	3	96.4	1	59.1	14
SX-2295	\$2,330	11766	257	7	45.6	15	17.0	8	96.2	6	59.3	12
BTS-1703	\$2,314	11691	255	10	46.0	13	17.0	7	95.8	17	56.5	18
C-G752NT	\$2,312	11669	246	23	47.4	8	16.5	25	95.7	19	55.5	20
HIL-9865	\$2,307	11644	258	5	45.0	21	17.1	6	96.3	3	55.1	22
C-G919	\$2,295	11598	248	19	46.9	10	16.5	24	96.3	4	58.6	15
SX-1278N	\$2,295	11584	258	6	45.1	19	17.1	5	96.0	10	62.6	2
SX-2297	\$2,283	11558	262	3	44.3	24	17.3	2	96.3	5	51.9	25
SX-2201	\$2,281	11566	254	11	45.7	14	16.9	12	96.0	11	59.3	11
MA-709	\$2,244	11322	249	15	45.6	16	16.7	15	95.7	20	53.9	24
HIL-2238NT	\$2,204	11099	246	24	45.2	18	16.6	22	95.5	23	59.3	13
MA-814	\$2,188	11074	249	16	44.7	23	16.6	19	95.9	13	60.7	5
MA-813NT	\$1,999	10114	247	21	41.2	25	16.7	17	95.4	24	59.6	9
Average	\$2,314.3	11683.5	252.9		46.33		16.87		95.93		58.25	
LSD 5%	109.3	557.9	4.6		1.9		0.3		0.3		3.7	
CV %	4.8	4.8	1.8		4.1		1.6		0.3		6.5	

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: For 2021, 5 trials were planted thick and thinned to a stand equivalent to 200 beets/100', and 3 trials were planted to stand. Overall emergence was better in the trials planted to stand, but final stands were similar in all trials. Root yield in all trials was exceptional. Sugar content tended to be better in trials that received the least amount of rain in the 2 weeks prior to harvest. Overall, sugar content was lower than in 2020, but varietal trends were similar across years. Trials received 6-8 fungicide applications for control of leaf spot depending on their harvest date.



Plant To Stand

Average of 4 Locations - 2021

Trial Quality: see trial pages

Plant/Harv: see trial pages

Plots: 6 Rows X 38 ft.

Row Spacing: 22 in.

Seeding Rate: 4.1 in.

Locations: Maurer

Mininger

Shaffner

SVREC

Cerc Control:

see trial pages

Rhizoc Control:

see trial pages

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Beets/100 ft	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
C-G675	\$2,380	12299	260	7	47.2	4	17.4	4	95.8	9	137	5
C-G932NT	\$2,377	12256	259	9	47.6	3	17.3	7	95.7	16	130	15
BTS-1065	\$2,326	11927	254	12	46.5	7	17.0	12	95.7	10	146	1
SX-2296N	\$2,300	11854	259	8	45.8	10	17.3	5	95.6	18	129	17
BTS-1941	\$2,297	11833	244	22	48.9	1	16.5	21	95.1	23	131	12
SX-1278N	\$2,295	11828	260	6	45.3	11	17.2	10	96.0	4	135	8
C-G021	\$2,295	11808	256	11	46.0	9	17.1	11	95.7	12	128	18
C-G943	\$2,294	11795	247	20	48.5	2	16.7	18	95.4	22	135	9
BTS-1703	\$2,244	11579	257	10	45.0	12	17.3	8	95.5	19	125	20
BTS-197N	\$2,242	11544	247	21	46.8	5	16.6	20	95.5	21	119	22
BTS-1606N	\$2,242	11518	248	18	46.5	6	16.7	19	95.7	15	137	4
C-G752NT	\$2,230	11487	249	17	46.0	8	16.7	17	95.7	14	130	13
C-G919	\$2,223	11483	248	19	45.0	13	16.4	22	96.1	2	137	6
MA-709	\$2,211	11383	254	13	44.9	14	17.0	13	95.7	11	109	23
SX-2295	\$2,201	11381	260	5	43.8	17	17.3	6	96.0	7	143	3
SX-2297	\$2,196	11374	262	1	43.4	18	17.4	2	96.0	5	124	21
SX-2294	\$2,171	11205	262	3	43.0	20	17.3	9	96.1	1	132	11
SX-2283	\$2,170	11141	262	2	42.4	22	17.4	1	96.0	6	130	14
HIL-9865	\$2,145	11053	253	15	43.8	16	16.9	15	96.0	8	130	16
MA-814	\$2,122	10930	252	16	43.3	19	16.8	16	96.0	3	135	7
MA-813NT	\$2,084	10763	253	14	42.6	21	16.9	14	95.7	13	145	2
HIL-2238NT	\$2,066	10719	242	23	44.2	15	16.3	23	95.5	20	127	19
HIL-2332NT	\$2,033	10487	261	4	40.4	23	17.4	3	95.7	17	133	10
Average	\$2,223.6	11462.9	254		45.1		17.00		95.74		131.7	
LSD 5%	186.3	966.8	8.6		3.4		0.5		0.6		18.4	
CV%	5.9	6.0	2.4		5.4		2.1		0.5		9.9	

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top ranking variety in each column.

Comments: The Plant to Stand trials in 2021 struggled to emerge. All 4 trials had lower than desired emergence. Although they had lower stands, timely planting as well as mostly favorable growing conditions resulted in very good root yields and relatively good sugar content when compared to company average.

2021 Variety Trial Averages

Average of Six Trials

Farms: Chaffin Farms (Ithaca)
DVL Farms (Ruth)
Stephen Kearns (Ontario)

Kretzschmer Brothers (Caseville)
Sylvester Farms (Fairgrove)
Wadsworth Farms, Inc. (Sandusky)

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP
BTS-1606N	\$2,228	11178	251	44.7	16.9	95.4
C-G021	\$2,223	11111	248	45.1	16.8	95.3
BTS-1065	\$2,226	11099	255	43.6	17.2	95.4
C-G932NT	\$2,174	10894	250	43.6	16.9	95.3
BTS-1703	\$2,164	10814	253	42.8	17.1	95.4
C-G675	\$2,137	10681	252	42.4	17.0	95.4
C-G752NT	\$2,131	10668	245	43.7	16.6	95.3
SX-2296N	\$2,103	10512	262	40.2	17.6	95.4
SX-2294	\$2,094	10439	259	40.5	17.4	95.4
BTS-197N	\$2,060	10284	246	41.9	16.7	95.4
HIL-2238NT	\$2,007	10012	247	40.8	16.7	95.4
HIL-9865	\$1,934	9654	252	38.4	17.0	95.4
Average	\$2,123	10612	252	42.3	17.0	95.4
LSD 5%	60.5	307.0	3.6	1.0	0.2	N.S.
CV %	4.4	4.5	2.2	3.6	1.9	0.2
p-value	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.7739

Comments: These results are the average of six 2021 Sugarbeet Advancement trials. As it does every year, the weather had a major impact on the SBA trials this year. Several of the trials were impacted by freezing temperatures in the early spring. The Chaffin, Sylvester, and Wadsworth trials all experienced stand loss due to the cold. As far as root disease, this year it seemed as though the SBA trials had either moderate or very low levels of disease. Additionally, most locations had Rhizoctonia, Aphanomyces, and Fusarium all present. More Cercospora leaf spot was observed this year than in previous years, particularly in the Chaffin, Shaffner, and Wadsworth trials which were all rated for it. Sugarbeet cyst nematode was present at two trials this year, with moderate levels at the Wadsworth trial and low levels at the Kretzschmer trial. For RWSA and tons per acre, there was better statistical separation this year than last year, with a few varieties rising to the top for each of those measures. To make the most informed sugarbeet variety selection possible, this data should be used in conjunction with Michigan Sugar variety/nursery data and seed company information.

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA and the early delivery adjustments.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant



OVT Emergence

Average of 2 Years, 2020 & 2021

Trial Quality: Good
Locations: 2020 - Grekowicz, Maurer, Mininger, Sylvester, Trost
 2021 - Gerstenberger, Grekowicz, Maurer, Mininger, Shaffner, SVREC, Sylvester, Trost
Plot Size: 2 Rows X 38 ft., 8 reps
Seeding Rate: 2021 - 1.9" and 3.75" seed spacing, 2020 - 3.75" seed spacing

Variety	% Emerge
C-G675	61.6
C-G049	61.5
C-G932NT	60.9
BTS-1065	60.7
C-G919	59.9
MA-814	59.8
SX-1278N	59.2
C-G021	59.0
BTS-1941	58.7
BTS-1703	58.5
HIL-2238NT	57.7
HIL-2361	57.7
BTS-1606N	56.9
MA-813NT	56.3
C-G752NT	56.2
BTS-197N	56.1
SX-2295	55.9
SX-2294	55.0
SX-2283	54.9
HIL-2332NT	54.8
SX-2201	54.4
HIL-9865	54.2
SX-2296N	53.7
MA-709	52.6
SX-2297	51.8
Average	57.13
LSD 5%	5.8
CV %	4.9

Comments: Emergence data is from Official Variety Trials.

2021 Variety Trials

Emergence Summary

Early Counts

<i>Trial</i>	Chaffin	DVL	Kearns	Kretzschmer	Shaffner	Sylvester	Wadsworth	Average
	Gratiot	Huron	Ontario	Huron	Midland	Tuscola	Sanilac	
<i>Plant Date</i>	March 23	April 10	April 14	April 8	April 18	April 5	March 25	
<i>Count Days</i>	17	19	16	11	20	9	15	
BTS-1065	165	142	239	46	63	121	51	105
BTS-1606N	160	122	182	74	57	89	49	99
C-G752NT	164	123	229	52	55	82	69	98
C-G675	169	134	245	42	52	102	37	97
C-G021	149	125	222	53	48	102	52	96
SX-2296N	143	138	224	45	52	97	22	89
BTS-1703	151	163	228	38	56	62	28	88
C-G932NT	138	126	199	41	77	80	34	84
BTS-197N	151	104	211	40	34	66	50	82
SX-2294	132	113	215	17	80	60	18	68
HIL-2238NT	122	133	189	7	38	50	1	63
HIL-9865	112	99	216	22	57	58	8	60
Average	146	127	217	40	56	81	35	86
LSD 5%	31.1	33.6	N.S.	11.9	N.S.	23.8	24.1	11.8
CV %	14.8	15.6	13.4	17.6	45.4	17.4	40.8	19.6
p-value	0.0140	0.0495	0.2984	<0.0001	0.6061	<0.0001	0.0002	<0.0001

Late Counts

<i>Trial</i>	Chaffin	DVL	Kearns	Kretzschmer	Shaffner	Sylvester	Wadsworth	Average
<i>Count Days</i>	56	44	35	47	47	44	53	
SX-2294	180	192	261	188	197	179	229	194
HIL-2238NT	179	238	266	154	190	175	200	189
SX-2296N	175	213	243	183	189	162	216	189
BTS-1065	170	176	268	184	210	171	217	188
C-G021	168	173	263	178	198	193	201	185
C-G752NT	177	169	270	185	205	166	195	183
BTS-1703	136	216	250	184	199	155	190	180
C-G675	161	197	269	169	187	160	192	178
BTS-1606N	131	168	240	191	219	157	195	177
C-G932NT	157	181	273	163	186	173	168	171
BTS-197N	151	147	260	165	157	155	169	157
HIL-9865	121	153	264	138	171	144	159	148
Average	159	185	261	173	192	166	194	178
LSD 5%	N.S.	32.9	N.S.	22.9	N.S.	N.S.	22.3	13.5
CV %	19.4	10.5	7.5	7.8	10.3	10.3	6.8	11.7
p-value	0.1163	0.0002	0.5477	0.0020	0.0567	0.1146	<0.0001	<0.0001

Comments on Root Rot Summary page

Root Rot Summary

Fall Count of Dead Beets in 1200 Foot of Row

<i>Trial Location</i>	Chaffin	DVL	Kretzschmer	Shaffner	Sylvester	Wadsworth	Average
BTS-1606N	4	21	31	8	3	14	14
C-G675	1	65	46	32	2	51	33
C-G021	10	31	69	53	2	63	38
BTS-1703	3	29	112	31	22	33	38
C-G932NT	14	77	108	50	1	33	47
BTS-1065	20	48	87	60	1	177	65
C-G752NT	19	81	143	53	3	135	72
SX-2296N	9	134	80	66	1	178	78
BTS-197N	9	171	118	59	1	167	87
HIL-9865	7	146	80	61	2	235	88
SX-2294	41	118	142	70	27	339	123
HIL-2238NT	60	212	71	200	6	419	161
AVERAGE	16	94	90	62	6	154	70
LSD (5%)	33.4	83.1	N.S.	54.2	N.S.	114.0	27.4
CV (%)	142.6	52.0	57.6	51.8	272.3	43.8	60.4
p-value	0.0373	0.0010	0.2564	0.0001	0.5538	<0.0001	<0.0001

Comments: The root rot summary provides the results of the dead beet counts taken from the Sugarbeet Advancement variety trials this fall. During these counts, the number of dead/dying beets in 1200 feet of row is recorded from each plot. The dead beets were likely injured by one of the root diseases which can be found in the growing area, including Rhizoctonia, Aphanomyces, and Fusarium. This year, it seemed that each trial had either a moderate level of root disease or hardly any root disease. In most locations, all three of the major root diseases in this growing region were observed at varying levels. During sugar sampling, particularly high levels of Aphanomyces root scarring were observed in both the DVL and Shaffner trials. We continue to observe an increasing amount of Fusarium throughout the growing region. No dead beet count was taken at Kearns. Research has suggested there may be a link between Rhizoctonia root rot and sugarbeet cyst nematodes, which could partially explain the high levels of root disease at the Wadsworth trial. See the individual trials for Quadris treatments.

Emergence Summary Comments: Average is of 5 trials in the early counts and 6 trials in the late counts. Neither average includes the Kearns trial (Canada) because different seed treatments were used, and the early average does not include the Shaffner trial because emergence was impacted by soil moisture. Final emergence was impacted by frost at the Chaffin, Sylvester, and Wadsworth trials. All varieties had the standard seed treatment plus Tachigaren 20. The varieties also contained these additional seed treatments by these companies: Seedex - Tri-Pak; Hillehog - Vibrance; Crystal - Kabina; Betaseed - Kabina. Kabina is not approved for use in Canada (Kearns).

Bold: Results are not significantly less than the highest emerging variety

N.S. – not significant

Leaf Spot Ratings at Harvest

<i>Trial Location</i>	Chaffin	Shaffner	Wadsworth	Average
C-G021	1.13	0.42	1.08	0.88
BTS-1065	1.38	0.58	1.08	1.01
BTS-1703	2.69	1.75	2.33	2.26
C-G675	3.19	1.83	2.33	2.45
SX-2294	3.88	1.58	2.25	2.57
HIL-2238NT	3.81	1.92	2.92	2.88
HIL-9865	3.50	2.25	3.17	2.97
BTS-1606N	3.56	2.50	3.00	3.02
C-G752NT	3.88	2.33	3.25	3.15
C-G932NT	3.81	2.50	3.25	3.19
BTS-197N	4.19	2.50	3.75	3.48
SX-2296N	4.69	2.83	3.42	3.65
AVERAGE	3.31	1.92	2.65	2.63
LSD (5%)	0.89	0.47	0.31	0.40
CV (%)	18.8	14.4	6.9	16.9
p-value	<0.0001	<0.0001	<0.0001	<0.0001

Comments: This leaf spot summary provides the results of the leaf spot ratings taken from the Sugarbeet Advancement variety trials just prior to harvest. The rating is based on a 0-9 scale with a lower number being better. The rating is a combination rating for all leaf spots, but primarily *Cercospora* and *Alternaria*. Previous trials have shown there is likely an economic impact caused by leaf spot at a 3.0 rating and above. This year, *Cercospora* was the primary foliar disease observed in the SBA trials. For most of the season, the disease was well managed in the trials. It primarily developed in September and October due to abnormally warm temperatures and adequate moisture in the canopy. Consequently, leaf spot had less of an impact in the trials that were harvested early, including the Sylvester and DVL trials.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

East District Trials





Official Variety Trial

Maurer, Ruth - 2021

Trial Quality: Good

Planted: April 22

Harvested: September 30

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 1.9 in./ thinned to
200 beets/100'

Soil Info: Clay Loam

% OM: 3.4 pH: 7.6 CEC: 11.9

P: Above Opt K: Above Opt

Mn: High B: Medium

Prev Crop: Dry Beans

Added N: 35 lbs. 2x2, 120 lbs. sidedress

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 14.73 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-1941	\$2,671	12055	251	13	48.0	1	16.7	12	96.1	18	55.4	10
C-G049	\$2,598	11725	248	15	47.3	2	16.5	14	96.1	16	56.1	6
C-G021	\$2,555	11533	251	11	45.3	6	16.9	6	95.7	24	47.0	20
C-G932NT	\$2,540	11463	254	8	45.1	7	16.8	7	96.3	12	58.5	2
BTS-197N	\$2,527	11407	247	18	46.3	3	16.5	15	96.0	19	48.9	18
BTS-1606N	\$2,515	11349	248	16	46.0	4	16.5	16	96.3	13	56.1	5
C-G675	\$2,510	11330	255	5	44.2	9	17.0	4	96.0	21	55.5	9
C-G919	\$2,507	11313	245	21	45.7	5	16.4	20	96.4	10	55.5	8
SX-2296N	\$2,456	11082	258	4	42.9	14	17.0	5	96.7	4	52.7	13
SX-2283	\$2,448	11049	251	12	43.5	11	16.6	13	96.5	8	48.1	19
SX-2294	\$2,422	10932	249	14	44.0	10	16.4	19	96.6	7	54.2	12
HIL-2332NT	\$2,409	10873	259	3	42.0	18	17.0	3	96.7	5	45.6	23
HIL-9865	\$2,400	10834	254	7	42.1	17	16.7	11	96.8	1	50.9	16
C-G752NT	\$2,396	10811	244	22	44.4	8	16.3	21	96.1	15	52.4	14
SX-2297	\$2,388	10779	265	1	40.7	24	17.4	1	96.6	6	35.7	25
MA-709	\$2,376	10723	248	17	43.3	12	16.4	18	96.3	11	46.1	22
HIL-2361	\$2,367	10683	262	2	40.7	23	17.2	2	96.8	2	56.2	4
BTS-1703	\$2,367	10683	252	10	42.5	16	16.8	8	95.9	22	49.3	17
SX-2295	\$2,348	10599	254	6	41.6	20	16.8	9	96.5	9	46.3	21
SX-1278N	\$2,314	10441	252	9	41.4	22	16.8	10	96.2	14	59.2	1
MA-814	\$2,308	10417	242	24	43.1	13	16.3	22	95.9	32	55.2	11
BTS-1065	\$2,292	10344	243	23	42.7	15	16.2	23	96.0	20	52.0	15
HIL-2238NT	\$2,263	10215	247	19	41.4	21	16.4	17	96.1	17	41.9	24
SX-2201	\$2,246	10135	245	20	41.9	19	16.1	24	96.8	3	57.4	3
MA-813NT	\$2,047	9238	238	25	38.8	25	16.0	25	95.6	25	55.8	7
Average	\$2,410.8	10880.5	251		43.4		16.63		96.27		51.69	
LSD 5%	192.5	868.7	11.5		3.2		0.6		0.7		11.2	
CV %	8.1	8.1	4.6		7.4		3.9		0.7		22.0	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This OVT was planted at 1.9" spacing and thinned to a stand equivalent to 200 beets/100' of row. This trial experienced relatively good growing conditions throughout the entire growing season. Both root yield and sugar content are very good considering a September 30th harvest date. Disease levels were low in this trial. Cercospora Leaf Spot was present at very low levels, well below economic impact. Rhizoctonia was also present in this trial at low levels.



Official Variety Trial

Grekowicz, Port Hope - 2021

Trial Quality: Very Good

Planted: April 26

Harvested: October 28

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 3.75 in.

Soil Info: Clay Loam

% OM: 5.5 **pH:** 7.7 **CEC:** 13.2

P: Above Opt **K:** Above Opt

Mn: High **B:** Medium

Prev Crop: Alfalfa

Added N: 35 lbs. 2x2, dairy manure

Disease Pressure:

Cerc: Low

Rhizoc: Very Low

Rainfall: 16.48 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
HIL-2332NT	\$2,675	15137	244	3	62.5	2	16.8	2	94.4	4	65.8	21
SX-2297	\$2,645	14969	239	5	62.4	3	16.8	4	93.7	11	61.4	25
HIL-2361	\$2,640	14942	246	1	60.6	4	16.8	3	95.0	1	72.6	10
SX-2294	\$2,594	14678	230	15	62.8	1	16.3	13	93.3	18	71.8	11
SX-2296N	\$2,531	14326	246	2	58.4	18	17.0	1	94.1	5	71.1	12
SX-2201	\$2,504	14173	235	8	60.1	7	16.5	7	93.7	10	70.6	14
HIL-9865	\$2,503	14163	236	7	59.8	8	16.3	14	94.6	2	68.6	17
C-G675	\$2,488	14078	233	11	60.5	5	16.4	8	93.3	21	76.4	3
MA-709	\$2,472	13990	232	12	59.3	12	16.3	12	93.6	12	63.1	24
SX-2283	\$2,461	13926	240	4	58.1	19	16.7	5	94.0	6	65.2	23
SX-1278N	\$2,428	13741	232	13	59.4	11	16.4	10	93.3	20	75.8	4
C-G021	\$2,421	13700	233	9	58.4	17	16.4	11	93.6	13	72.9	9
MA-813NT	\$2,418	13683	229	16	59.7	9	16.1	16	93.1	23	66.7	20
MA-814	\$2,413	13658	231	14	60.3	6	16.2	15	93.5	15	68.6	18
BTS-1703	\$2,384	13491	233	10	57.9	20	16.4	9	93.3	19	69.2	16
SX-2295	\$2,377	13452	239	6	56.4	23	16.6	6	94.0	7	68.3	19
BTS-1606N	\$2,337	13226	222	22	59.6	10	15.5	23	94.0	8	71.1	13
C-G752NT	\$2,325	13160	224	20	58.8	14	15.8	20	93.4	16	65.2	22
C-G919	\$2,313	13089	224	19	58.4	16	15.5	24	94.6	3	76.6	2
C-G932NT	\$2,262	12799	227	17	56.8	22	15.9	19	94.0	9	70.3	15
BTS-197N	\$2,259	12785	222	21	57.7	21	16.0	17	92.9	24	74.8	6
BTS-1941	\$2,233	12635	217	24	58.5	15	15.8	21	92.4	25	75.5	5
C-G049	\$2,222	12574	216	25	59.1	13	15.3	25	93.5	14	78.3	1
HIL-2238NT	\$2,173	12299	225	18	54.8	25	15.9	18	93.3	17	74.3	8
BTS-1065	\$2,169	12274	221	23	56.4	24	15.7	22	93.1	22	74.4	7
Average	\$2,409.8	13638.0	231		59.1		16.21		93.66		70.74	
LSD 5%	191.8	1085.2	10.8		3.7		0.5		0.9		8.4	
C %	8.1	8.1	4.7		6.4		3.4		1.0		12.0	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: Due to labor concerns this OVT was planted to stand. Final stands were very good averaging 219 beets/100'. This trial received the most consistent rainfall throughout the growing season of all variety trials. Adequate rainfall along with high soil fertility promoted huge canopy growth. With all of these factors combined yields at harvest were the highest for all OVT's in 2021. Disease levels were low in this trial. Cercospora Leafspot was present in this trial at harvest, but overall levels were well below economic impact level.



Official Variety Trial

Gerstenberger, Sandusky - 2021

Trial Quality: Fair
Planted: April 23
Harvested: October 6
Plots: 2 Rows X 38 ft., 8 reps
Row Width: 22 in.
Seeding Rate: 3.75 in.

Soil Info: Clay Loam
% OM: 3.4 **pH:** 6.8 **CEC:** 8.4
P: Above Opt **K:** Below Opt
Mn: Medium **B:** Very Low
Prev Crop: Soy Beans
Added N: 35 lbs. 2x2, 100 lbs. PPI

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 17.34 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-1065	\$2,276	10707	230	24	46.1	1	15.3	24	96.4	25	61.3	9
C-G049	\$2,163	10176	235	19	43.6	2	15.6	16	96.5	23	66.8	3
C-G932NT	\$2,158	10153	240	10	42.4	6	15.7	11	97.1	4	66.7	4
SX-2294	\$2,155	10138	239	13	42.6	5	15.7	13	97.0	9	61.1	10
BTS-1606N	\$2,154	10135	233	21	42.9	4	15.4	20	96.7	18	62.4	8
SX-2295	\$2,121	9977	244	3	40.9	9	16.0	3	96.9	12	68.6	2
SX-2283	\$2,107	9912	239	11	41.3	8	15.7	14	97.1	2	58.1	18
BTS-1941	\$2,095	9855	229	25	43.2	3	15.1	25	96.6	21	60.3	12
BTS-197N	\$2,093	9847	239	12	40.3	13	15.7	10	96.7	20	51.4	25
C-G752NT	\$2,087	9817	234	20	41.4	7	15.4	22	96.9	15	59.1	15
SX-2296N	\$2,076	9767	242	6	40.5	11	15.9	6	96.7	19	56.6	22
C-G675	\$2,062	9699	244	4	39.6	18	16.0	4	97.0	8	71.4	1
HIL-2332NT	\$2,060	9690	243	5	39.6	17	16.0	5	96.9	13	60.9	11
BTS-1703	\$2,057	9676	241	8	40.3	15	15.8	8	97.1	3	59.9	14
C-G021	\$2,053	9656	239	14	40.7	10	15.7	15	97.0	7	57.9	19
HIL-2361	\$2,029	9547	246	2	39.7	16	16.1	2	97.0	6	60.0	13
MA-709	\$2,017	9490	241	9	39.5	19	15.8	7	96.8	16	57.7	20
SX-1278N	\$2,017	9489	236	18	40.3	14	15.5	18	96.9	11	65.6	5
HIL-9865	\$1,964	9237	241	7	38.4	22	15.8	9	97.2	1	58.3	17
HIL-2238NT	\$1,949	9170	238	15	39.1	20	15.7	12	96.8	17	57.0	21
SX-2201	\$1,940	9127	231	23	40.4	12	15.3	23	96.5	24	53.4	23
C-G919	\$1,940	9124	236	16	38.7	21	15.5	17	96.9	14	58.7	16
SX-2297	\$1,838	8646	249	1	34.7	24	16.3	1	96.9	10	52.8	24
MA-814	\$1,803	8480	236	17	35.4	23	15.5	19	97.1	5	62.6	7
MA-813NT	\$1,638	7705	232	22	33.7	25	15.4	21	96.5	22	64.7	6
Average	\$2,034.1	9568.9	238		40.2		15.68		96.86		60.53	
LSD 5%	249.3	1172.9	12.2		4.5		0.7		0.5		11.4	
CV %	12.4	12.4	5.2		11.4		4.8		0.5		19.0	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: Due to labor concerns, this OVT was planted to stand. Final stands were adequate, averaging 181 beets/100'. This trial location was the driest of all OVT locations during the months of April and May. Adequate rainfall amounts during the months of June, July and August promoted rapid growth. Frequent and borderline excessive rainfall during the month of September continued to positively influence root yields while negatively influencing sugar content. Disease levels were low in this trial.



Plant to Stand

Maurer, Ruth - 2021

Trial Quality: Good

Planted: April 22

Harvested: October 1

Plots: 6 Rows X 38 ft., 6 reps

Row Width: 22 in.

Seeding Rate: 4.1 in.

Soil Info: Clay Loam

% OM: 3.4 **pH:** 7.6 **CEC:** 11.9

P: Above Opt **K:** Above Opt

Mn: High **B:** Medium

Prev Crop: Dry Beans

Added N: 35 lbs. 2x2, 120 lbs. sidedress

Disease Pressure:

Cerc: Low

Rhizoc: Low/Moderate

Rainfall: 14.73 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
C-G932NT	\$2,188	11747	256	2	45.9	2	16.9	2	96.5	4	148.6	8
BTS-1065	\$2,098	11261	237	23	45.3	3	16.0	23	95.6	20	169.0	1
SX-2296N	\$2,077	11149	254	5	43.5	6	16.8	4	96.2	11	141.7	15
BTS-1941	\$2,048	10996	241	21	46.4	1	16.4	16	94.9	23	149.3	7
C-G675	\$2,031	10901	253	6	42.7	10	16.8	6	96.2	12	150.6	6
C-G021	\$2,010	10791	249	13	43.1	9	16.6	11	95.9	16	138.6	19
BTS-1606N	\$1,999	10732	246	14	43.7	5	16.4	17	96.1	13	158.2	5
BTS-1703	\$1,989	10679	251	9	42.6	11	16.8	8	95.8	18	138.9	18
BTS-197N	\$1,960	10524	243	19	43.2	7	16.4	14	95.4	21	127.3	22
SX-2283	\$1,949	10461	250	10	41.5	14	16.5	13	96.4	5	145.0	14
C-G943	\$1,945	10444	241	20	44.3	4	16.2	19	95.2	22	145.4	12
HIL-2332NT	\$1,940	10416	259	1	40.4	18	17.1	1	96.2	9	147.6	9
SX-1278N	\$1,922	10319	252	8	40.9	17	16.8	7	96.1	14	146.0	10
HIL-2238NT	\$1,921	10314	239	22	43.1	8	16.0	22	96.0	15	145.3	13
MA-813NT	\$1,920	10308	250	11	41.3	15	16.6	12	96.2	10	164.4	4
SX-2295	\$1,917	10293	256	3	40.3	20	16.8	3	96.6	3	145.7	11
C-G919	\$1,912	10262	245	15	41.8	12	16.1	21	96.9	1	168.1	2
C-G752NT	\$1,908	10242	245	17	41.8	13	16.4	15	95.7	19	138.5	20
MA-814	\$1,882	10103	245	16	41.3	16	16.3	18	96.3	7	164.7	3
SX-2294	\$1,875	10064	255	4	39.4	23	16.8	5	96.6	2	139.7	17
SX-2297	\$1,865	10012	253	7	39.7	21	16.7	9	96.3	8	128.9	21
MA-709	\$1,839	9871	249	12	39.7	22	16.7	10	95.8	17	107.3	23
HIL-9865	\$1,833	9842	244	18	40.4	19	16.2	20	96.4	6	141.5	16
Average	\$1,957.8	10510.1	248		42.27		16.54		96.04		145.65	
LSD 5%	199.6	1071.3	11.0		4.2		0.6		0.6		40.9	
CV %	8.9	8.9	3.9		8.6		3.3		0.5		24.5	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial had lower than desired emergence, but it was mostly consistent across varieties.

Rhizoctonia levels in this trial were higher than in the OVT planted at the same location with the same varieties. Cercospora Leaf Spot control was good. Overall, root yield and sugar content were respectable for an October 1st harvest date.

Variety Trial

Stephen Kearns, Ontario - 2021

Trial Quality: Very good
Planted: April 14
Harv/Samp: Oct 20 / Oct 20
Plot Size: 3 reps
Row Spacing: 30 inch
Seeding Rate: 54,000

Soil Type: Loam
Fertilizer: Fall: 350# Potash + 225# MAP; PPI: 31 gal of 28% + 6 gal ATS
Prev Crop: Wheat w/ clover
Weather: Damaging rain in late June, good for the rest of the season

Cerc Control: Pressure was significant at the end of the season. See comments for materials.
Rhizoc Control: Very good control: Quadris I.F. (7 oz)
Other Pests: None

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row	
							16 Day	35 Day
C-G021	\$2,494	13005	244	53.3	16.5	94.9	222	263
BTS-1065	\$2,487	12967	244	53.1	16.5	94.7	239	268
BTS-1606N	\$2,323	12109	248	48.8	16.7	94.8	182	240
BTS-1703	\$2,256	11762	249	47.2	16.8	95.2	228	250
C-G932NT	\$2,251	11739	244	48.2	16.4	94.6	199	273
SX-2294	\$2,236	11660	249	46.9	16.8	94.8	215	261
HIL-2238NT	\$2,231	11630	248	46.9	16.8	95.0	189	266
C-G675	\$2,208	11513	246	46.9	16.6	95.1	245	269
SX-2296N	\$2,095	10922	248	44.0	16.7	94.5	224	243
HIL-9865	\$2,079	10839	240	45.3	16.3	94.7	216	264
BTS-197N	\$2,075	10818	235	46.1	15.9	94.6	211	260
C-G752NT	\$2,064	10761	230	46.7	15.7	94.6	229	270
Average	\$2,233	11644	244	47.8	16.5	94.8	217	261
LSD 5%	175.3	913.7	N.S.	2.2	N.S.	N.S.	N.S.	N.S.
CV %	4.7	4.7	3.3	2.7	2.9	0.3	13.4	7.5
p-value	0.0002	0.0002	0.1417	<0.0001	0.1240	0.1592	0.2984	0.5477

Comments: Due to travel restrictions which continue to be in place to manage the COVID-19 pandemic, the Sugarbeet Advancement team was unable to travel to the Kearns trial in 2021. The trial was able to continue because Wayne Martin, from Michigan Sugar Company, volunteered to manage it this year. The quality of this trial was very good. There was a significant amount of Cercospora leaf spot pressure, which impacted how the varieties performed here. The leaf spot program was as follows: 1. Proline + Manzate, 2. Copper + Manzate, 3. Cevya + Manzate, 4. Copper + Manzate, 5. Proline, 6. Cevya + Manzate.

Key Points:
 ➤ Yield and variety rank impacted by Cercospora leaf spot

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA and the early delivery adjustments.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Variety Trial

DVL Farms, Ruth - 2021

Trial Quality: Good	Soil Type: Loam	Cerc Control: Good control on early harvested trial. See below for materials.
Planted: April 10	Fertilizer: 2x2: Dry blend of N, P, K, S, Mn & B; Streamer 40 gal of 28%; Total N = 150#	
Harv/Samp: Sept 29 / Sept 20		Rhizoc Control: In-furrow only: 5 oz with 4 oz of Mustang
Plot Size: 3 reps	Prev Crop: Drybeans	
Row Spacing: 28 inch	Weather: Good weather	Other Pests: Aphanomyces, Fusarium
Seeding Rate: 52,000		

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							19 Day	44 Day	
BTS-1703	\$2,240	9825	260	37.8	17.6	95.3	163	216	29
BTS-1606N	\$2,187	9593	253	37.9	17.1	95.1	122	168	21
SX-2294	\$2,103	9224	266	34.7	17.9	95.5	113	192	118
BTS-1065	\$2,099	9209	248	37.1	16.9	95.3	142	176	48
C-G675	\$2,067	9067	254	35.7	17.2	95.2	134	197	65
SX-2296N	\$2,066	9062	262	34.6	17.7	95.4	138	213	134
C-G932NT	\$2,061	9040	252	35.9	17.1	95.1	126	181	77
C-G752NT	\$2,056	9020	247	36.5	16.8	95.2	123	169	81
C-G021	\$2,031	8909	254	35.1	17.2	95.1	125	173	31
BTS-197N	\$1,944	8527	248	34.4	16.9	95.2	104	147	171
HIL-2238NT	\$1,867	8188	244	33.5	16.6	95.2	133	238	212
HIL-9865	\$1,794	7871	254	31.0	17.2	95.4	99	153	146

Average	\$2,043	8961	253	35.3	17.2	95.3	127	185	94
LSD 5%	220.5	967.3	8.0	3.3	0.5	N.S.	33.6	32.9	83.1
CV %	6.4	6.4	1.9	5.6	1.6	0.2	15.6	10.5	52.0
p-value	0.0211	0.0211	0.0003	0.0142	0.0005	0.2341	0.0495	0.0002	0.0010

Comments: The DVL trial was planted on April 10, and experienced good weather throughout the season. There was a moderate level of root disease at this trial, primarily Rhizoctonia and Aphanomyces. A substantial amount of Aphanomyces scarring was observed when sugar samples were dug. The amount of leaf spot that was observed at this location was very low. The leaf spot program was as follows: 7/3 Proline, 7/17 Priaxor + Headline, 8/2 Topguard, 8/16 EBDC, 9/2 Eminent. All applications included EBDC and Reguard.

Key Points:

- Moderate level of root disease
- Primarily Rhizoctonia and Aphanomyces

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA and the early delivery adjustments.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Variety Trial

Wadsworth Farms Inc., Sandusky - 2021

Trial Quality: Good	Soil Type: Loam	Cerc Control: Some varieties likely above economic impact at harvest. See comments for materials.
Planted: March 25	Fertilizer: Fall: V.R. potash; 2x2: 30#-46#-9#-31#S-4#Mn-1#B-1#Zn, PPI: 135# N by urea/ESN	Rhizoc Control: Quadris I.F. (6 oz) & Foliar (14 oz)
Harv/Samp: Nov 10 / Oct 28	Prev Crop: Drybeans	Other Pests: Sugarbeet cyst nematode, Fusarium
Plot Size: 3 reps	Weather: Periods of dry, especially early season. Very good fall.	
Row Spacing: 27.56 inches		
Seeding Rate: 57,000		

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft	Leaf Spot Rating
							15 Day	53 Day		
BTS-1606N	\$2,020	11429	262	43.6	17.5	95.7	49	195	14	3.00
C-G752NT	\$1,992	11274	258	43.7	17.2	95.7	69	195	135	3.25
C-G932NT	\$1,939	10975	257	42.6	17.2	95.6	34	168	33	3.25
C-G021	\$1,806	10223	261	39.2	17.4	95.6	52	201	63	1.08
BTS-1703	\$1,761	9966	262	38.0	17.4	95.5	28	190	33	2.33
C-G675	\$1,727	9775	265	36.8	17.7	95.7	37	192	51	2.33
BTS-197N	\$1,693	9580	254	37.8	17.0	95.6	50	169	167	3.75
SX-2296N	\$1,651	9342	277	33.7	18.3	95.8	22	216	178	3.42
BTS-1065	\$1,636	9259	264	35.0	17.6	95.6	51	217	177	1.08
HIL-2238NT	\$1,514	8570	258	33.2	17.2	95.6	1	200	419	2.92
SX-2294	\$1,464	8287	269	30.8	17.9	95.7	18	229	339	2.25
HIL-9865	\$1,340	7583	261	29.1	17.4	95.4	8	159	235	3.17
Average	\$1,712	9689	262	37.0	17.5	95.6	35	194	154	2.65
LSD 5%	192.0	1086.4	10.3	3.8	0.6	N.S.	24.1	22.3	114.0	0.31
CV %	6.6	6.6	2.4	6.1	2.0	0.2	40.8	6.8	43.8	6.9
p-value	<0.0001	<0.0001	0.0170	<0.0001	0.0109	0.5126	0.0002	<0.0001	<0.0001	<0.0001

Comments: The Wadsworth trial was one of the earliest planted Sugarbeet Advancement trials this year, planted on March 25. This trial was impacted by freezing conditions around emergence, which reduced the final stand of several varieties. Sugarbeet cyst nematode impacted yield results at this location. This trial had the highest level of root disease of the Sugarbeet Advancement variety trials, with Rhizoctonia and Fusarium being observed. Moderate levels of Cercospora leaf spot were also observed here, with some varieties likely experiencing an economic impact from the disease (3.0 rating or higher). The leaf spot program was as follows: 6/25 EBDC, 7/5 Delaro + Proline, 7/19 Tin + Topsin, 8/2 Proline, 8/16 Tin, 8/29 Provysol + Badge, 9/10 Tin. All applications included and EBDC except 8/29.

Key Points:

- Planted early
- Frost damage, impacted stand
- Nematode impact
- High root disease levels
- Moderate CLS

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Central District Trials





Official Variety Trial

Trost, Pigeon - 2021

Trial Quality: Very Good

Planted: April 8, replanted May 13

Harvested: October 22

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 1.9 in. thinned to
200 beets/100'

Soil Info: Clay Loam

% OM: 3.8 **pH:** 6.8 **CEC:** 14.3

P: Above Opt **K:** Above Opt

Mn: High **B:** Low

Prev Crop: Corn

Added N: 35 lbs. 2x2, 120 lbs. sidedress

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 13.62 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G049	\$2,263	12808	277	9	46.2	1	18.4	6	95.8	16	59.5	7
SX-2296N	\$2,206	12484	285	4	44.1	8	18.7	4	96.1	7	56.7	15
C-G752NT	\$2,200	12449	270	14	46.0	2	18.0	15	95.7	17	52.6	21
SX-2201	\$2,199	12447	288	1	41.9	19	19.0	1	96.0	8	62.1	4
SX-2294	\$2,190	12393	275	10	45.0	5	18.2	10	96.0	9	62.6	2
SX-2295	\$2,183	12353	281	7	43.9	9	18.5	5	96.3	4	56.7	14
SX-1278N	\$2,170	12279	286	3	43.0	14	18.8	3	96.2	6	62.2	3
BTS-1606N	\$2,163	12243	272	12	45.0	4	18.1	13	95.9	12	52.1	22
C-G932NT	\$2,161	12231	268	16	45.7	3	18.0	14	95.3	21	61.1	6
HIL-2332NT	\$2,144	12132	286	2	42.4	15	18.8	2	96.2	5	56.7	16
BTS-1065	\$2,106	11921	265	21	44.7	6	17.7	22	95.2	23	61.2	5
SX-2283	\$2,074	11739	274	11	43.0	13	18.2	11	96.0	11	56.5	17
C-G675	\$2,060	11659	270	15	43.3	11	17.9	16	95.8	14	58.8	9
C-G919	\$2,036	11522	267	19	43.3	12	17.7	23	96.0	10	59.4	8
BTS-197N	\$2,035	11516	263	22	43.8	10	17.8	21	95.2	24	43.9	25
BTS-1703	\$2,033	11503	272	13	42.3	16	18.1	12	95.8	15	57.7	12
HIL-9865	\$2,013	11392	281	6	40.7	22	18.4	8	96.5	2	56.3	18
BTS-1941	\$2,005	11349	262	25	44.1	7	17.8	20	94.8	25	56.2	19
HIL-2361	\$2,001	11323	278	8	40.7	21	18.2	9	96.4	3	57.7	13
SX-2297	\$1,992	11276	282	5	40.0	24	18.4	7	96.7	1	53.3	20
HIL-2238NT	\$1,976	11182	266	20	42.3	17	17.9	18	95.2	22	64.1	1
C-G021	\$1,945	11006	262	24	42.0	18	17.6	25	95.5	18	49.6	24
MA-709	\$1,906	10786	262	23	41.1	20	17.6	24	95.3	19	51.3	23
MA-814	\$1,896	10732	268	17	40.2	23	17.8	19	95.9	13	58.7	10
MA-813NT	\$1,622	9180	267	18	34.8	25	17.9	17	95.3	20	58.5	11
Average	\$2,063.2	11676.1	273		42.8		18.15		95.80		57.01	
LSD 5%	155.3	879.1	11.2		3.1		0.6		0.8		6.8	
CV %	7.6	7.6	4.2		7.4		3.4		0.8		12.1	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial was originally planted on April 8th, but was replanted on May 13th due to stand concerns from both a crusting and frost event. The replant was planted at a 1.9" seed spacing and thinned to the equivalent of 200 beets/100' of row. The location that this trial was planted was at the southern edge of an area that remained relatively dry during the months of April through June. More frequent rainfall during July improved canopy growth, but this location still appeared to be behind most others in terms of development. Another dry spell during August slowed growth, but helped to increase sugar content. Overall root yield when harvested in October was very good and sugar content was the highest of all 8 OVT's from 2021 despite the later planting date. Cercospora Leaf Spot was present at levels close to economic impact at harvest. Rhizoctonia levels were low.



Official Variety Trial

SVREC, Richville - 2021

Trial Quality: Good

Planted: April 14

Harvested: October 20

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 1.9 in. thinned to
200 beets/100'

Soil Info: Clay Loam

% OM: 3.6 **pH:** 7.5 **CEC:** 16.7

P: Above Opt **K:** Above Opt

Mn: High **B:** Low

Prev Crop: Corn

Added N: 35 lbs. 2x2, 100 lbs. PPI

Disease Pressure:

Cerc: Low/Moderate

Rhizoc: Low/Moderate

Rainfall: 16.62 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G049	\$2,744	14306	259	13	55.3	1	17.2	17	96.1	12	55.2	1
C-G675	\$2,623	13674	262	10	52.1	3	17.5	8	95.9	18	50.4	8
C-G932NT	\$2,589	13500	264	8	51.1	7	17.4	9	96.4	6	52.2	4
BTS-1941	\$2,579	13447	255	22	52.7	2	17.2	14	95.3	24	49.9	10
C-G919	\$2,552	13308	256	17	51.6	5	17.0	21	96.6	3	49.5	11
C-G021	\$2,529	13183	255	20	51.3	6	17.0	20	96.1	13	46.4	13
BTS-197N	\$2,525	13164	260	12	50.6	8	17.4	11	95.7	21	45.8	15
HIL-2332NT	\$2,524	13159	277	1	47.6	12	18.1	1	96.7	2	46.3	14
BTS-1065	\$2,507	13073	253	24	51.6	4	16.9	25	96.0	16	51.4	6
HIL-9865	\$2,419	12611	274	2	44.9	22	18.0	2	96.2	9	44.7	17
SX-2295	\$2,412	12577	264	9	47.2	15	17.5	7	96.1	11	51.3	7
BTS-1606N	\$2,400	12515	255	21	49.3	9	17.0	22	95.8	19	50.0	9
BTS-1703	\$2,394	12480	265	6	47.1	16	17.7	5	95.8	20	41.1	23
MA-814	\$2,382	12417	257	16	48.3	10	17.0	19	96.1	10	55.0	2
SX-2294	\$2,375	12383	261	11	47.5	13	17.4	12	95.9	17	45.4	16
SX-2297	\$2,368	12347	264	7	46.6	18	17.4	10	96.5	4	40.4	25
SX-2283	\$2,344	12221	256	18	47.6	11	17.0	23	96.3	8	43.0	21
SX-2201	\$2,336	12181	259	14	47.0	17	17.2	18	96.0	14	40.6	24
SX-2296N	\$2,329	12143	270	4	45.2	21	17.6	6	96.5	5	43.9	20
HIL-2361	\$2,310	12046	270	3	44.7	23	17.8	3	96.3	7	48.6	12
C-G752NT	\$2,309	12038	255	23	47.3	14	17.2	16	95.3	23	44.4	19
SX-1278N	\$2,276	11865	268	5	45.5	20	17.7	4	96.7	1	51.6	5
MA-709	\$2,234	11647	257	15	45.8	19	17.2	15	96.0	15	41.8	22
HIL-2238NT	\$2,185	11390	252	25	44.0	24	16.9	24	95.5	22	44.6	18
MA-813NT	\$2,072	10805	256	19	42.4	25	17.2	13	95.3	25	53.3	3
Average	\$2,412.7	12579.3	261		48.2		17.34		96.03		47.47	
LSD 5%	193.2	1007.2	10.1		3.5		0.6		0.6		7.8	
CV %	8.1	8.1	3.9		7.3		3.3		0.6		16.6	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial was planted at 1.9" seed spacing and thinned to the equivalent of 200 beets/100' of row.

Very dry conditions in April and May were followed by frequent and persistent rainfall in the month of June. The June weather promoted rapid canopy and root growth. Root yield and sugar content were very good in this trial compared to some others. Rhizoctonia was present in this trial at low to moderate levels in some varieties. Cercospora Leaf Spot was also present at harvest in levels that were near economic impact.



Official Variety Trial

Sylvester, Fairgrove - 2021

Trial Quality: Very Good

Planted: April 7

Harvested: October 13

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 3.75 in.

Soil Info: Clay Loam

% OM: 3.9 **pH:** 7.8 **CEC:** 16.9

P: Above Opt **K:** Above Opt

Mn: High **B:** Medium

Prev Crop: Corn

Added N: 35 lbs. 2x2, 120 lbs. sidedress

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 18.09 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-1703	\$3,044	15042	278	2	54.0	5	18.4	2	96.0	4	66.0	6
BTS-1606N	\$3,010	14877	268	10	55.5	3	17.8	11	95.9	7	66.6	5
C-G049	\$2,976	14709	264	18	56.7	2	17.7	15	95.8	13	64.1	11
BTS-1941	\$2,957	14613	257	23	56.7	1	17.4	23	95.3	25	69.8	1
BTS-1065	\$2,910	14384	267	14	53.7	7	17.7	14	95.9	9	67.5	4
C-G932NT	\$2,898	14320	266	15	53.8	6	17.8	12	95.6	17	64.5	9
C-G675	\$2,864	14155	270	8	52.5	10	18.0	5	95.6	16	61.6	18
C-G919	\$2,860	14135	262	20	54.5	4	17.5	21	95.9	8	57.3	22
C-G021	\$2,837	14023	268	11	53.3	9	17.8	10	95.6	18	65.4	7
SX-2295	\$2,818	13929	269	9	51.3	13	17.4	22	96.0	5	64.7	8
SX-2283	\$2,815	13913	276	3	50.6	15	18.3	3	95.9	12	54.7	23
HIL-2361	\$2,813	13904	271	5	50.9	14	17.7	16	96.1	2	69.3	2
SX-2294	\$2,801	13845	275	4	50.2	18	18.3	4	95.8	14	64.2	10
SX-2296N	\$2,766	13670	265	17	51.4	12	17.6	17	95.4	21	53.8	24
SX-1278N	\$2,763	13653	268	12	49.8	19	17.8	9	95.7	15	61.0	19
BTS-197N	\$2,762	13651	262	21	51.8	11	17.6	18	95.4	22	63.0	15
SX-2297	\$2,754	13610	270	7	50.4	16	18.0	7	95.9	11	62.0	17
HIL-2332NT	\$2,742	13552	284	1	48.2	24	18.6	1	96.3	1	63.0	14
C-G752NT	\$2,725	13468	249	25	53.6	8	16.8	25	95.5	20	53.7	25
HIL-9865	\$2,703	13360	267	13	49.4	20	18.0	6	96.0	3	59.4	21
SX-2201	\$2,658	13137	270	6	49.2	21	17.9	8	95.9	6	64.0	13
MA-814	\$2,626	12980	264	19	49.2	22	17.6	19	95.9	10	62.3	16
HIL-2238NT	\$2,617	12931	256	24	50.4	17	17.3	24	95.4	23	67.7	3
MA-709	\$2,587	12786	266	16	48.7	23	17.8	13	95.6	19	60.9	20
MA-813NT	\$2,396	11840	261	22	45.3	25	17.6	20	95.4	24	64.1	12
Average	\$2,788.2	13779.4	267		51.6		17.78		95.75		62.83	
LSD 5%	225.1	1112.6	11.3		3.7		0.7		0.5		7.2	
CV %	8.2	8.2	4.3		7.2		4.1		0.6		11.7	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: Due to labor concerns, this trial was planted to stand. Final stands averaged 191 beets/100' of row.

Overall conditions during the growing season were very good. Early planting combined with good conditions resulted in very high root yields and comparatively good sugars. Disease control in this trial was good. Both Cercospora Leaf Spot and Rhizoctonia were present, but in low levels.



Plant to Stand

SVREC, Richville - 2021

Trial Quality: Good

Planted: April 14

Harvested: October 20

Plots: 6 Rows X 38 ft., 4 reps

Row Width: 22 in.

Seeding Rate: 4.1 in.

Soil Info: Clay Loam

% OM: 3.6 pH: 7.5 CEC: 16.7

P: Above Opt K: Above Opt

Mn: High B: Low

Prev Crop: Corn

Added N: 35 lbs. 2x2, 100 lbs. PPI

Disease Pressure:

Cerc: Low/Moderate

Rhizoc: Low/Moderate

Rainfall: 16.62 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
C-G675	\$2,493	12997	276	3	47.0	1	18.2	4	96.3	5	143.8	3
C-G932NT	\$2,387	12445	272	7	45.7	3	18.1	7	95.9	15	126.1	11
BTS-1065	\$2,344	12220	268	11	45.5	4	17.7	11	96.2	8	142.0	4
BTS-1703	\$2,273	11849	272	8	43.5	9	18.2	3	95.4	19	111.4	16
SX-2296N	\$2,247	11716	274	4	42.7	10	18.1	6	96.2	7	128.9	8
SX-1278N	\$2,234	11646	274	5	42.6	11	18.1	5	96.1	11	129.1	7
BTS-197N	\$2,201	11475	259	14	44.2	7	17.3	16	95.9	14	105.6	21
SX-2297	\$2,194	11438	279	2	41.1	15	18.4	2	96.1	10	92.5	23
BTS-1941	\$2,165	11287	257	17	43.8	8	17.6	12	94.7	23	108.6	20
C-G943	\$2,163	11276	254	19	46.2	2	17.4	15	95.0	22	131.5	6
BTS-1606N	\$2,162	11272	253	21	44.5	6	16.8	20	96.2	9	122.8	14
C-G021	\$2,142	11167	262	13	42.4	12	17.4	13	95.9	16	110.8	18
SX-2294	\$2,136	11137	274	6	40.7	18	17.9	9	96.8	2	125.0	13
C-G752NT	\$2,121	11057	248	22	44.5	5	16.8	21	95.4	18	139.9	5
HIL-9865	\$2,117	11039	269	10	41.1	14	17.7	10	96.4	4	126.1	10
SX-2283	\$2,114	11023	281	1	39.1	19	18.5	1	96.3	6	113.1	15
MA-814	\$2,047	10673	259	15	41.1	16	17.1	19	96.4	3	146.6	2
C-G919	\$2,039	10629	254	18	41.7	13	16.7	22	96.8	1	125.2	12
MA-709	\$1,983	10337	253	20	40.9	17	17.2	18	95.1	21	101.5	22
SX-2295	\$1,865	9722	262	12	37.5	20	17.4	14	96.0	12	127.8	9
HIL-2332NT	\$1,813	9451	270	9	35.1	23	18.0	8	95.7	17	111.2	17
HIL-2238NT	\$1,743	9086	244	23	37.2	21	16.6	23	95.1	20	109.9	19
MA-813NT	\$1,739	9067	258	16	35.1	22	17.2	17	95.9	13	152.4	1
Average	\$2,118.2	11044.0	264		41.9		17.57		95.90		123.12	
LSD 5%	383.5	1999.7	19.0		6.9		1.1		0.9		38.4	
CV %	12.8	12.8	5.1		11.6		4.5		0.7		22.1	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: Final stands in this trial were lower than desired. Overall root yield and sugar content were very good.

Cercospora Leaf Spot and Rhizoctonia were both present in this trial at low to moderate levels depending on varietal tolerance.

Variety Trial

Kretzschmer Brothers, Caseville - 2021

Trial Quality: Excellent	Soil Type: Loam	Cerc Control: Good control: Below economic injury at harvest
Planted: April 8	Fertilizer: No 2x2; VR: P& K; PPI: 21 gal of 28% & 3 gal of Thiosul; Streamer: 20 gal of 28%	Rhizoc Control: Foliar only: 12 oz w/ Mustang
Harv/Samp: Oct 23 / Oct 23	Prev Crop: Wheat w/ clover	Other Pests: Low level of sugarbeet cyst nematode
Plot Size: 3 reps	Weather: Very dry for much of the summer.	
Row Spacing: 22 inch		
Seeding Rate: 63,600		

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							11 Day	47 Day	
BTS-1606N	\$2,244	12700	270	47.0	18.1	96.1	74	191	31
SX-2296N	\$2,219	12555	285	44.1	18.9	96.2	45	183	80
BTS-1703	\$2,199	12446	277	45.0	18.5	96.2	38	184	112
C-G675	\$2,165	12254	273	44.8	18.2	96.0	42	169	46
C-G021	\$2,147	12153	269	45.3	18.0	96.1	53	178	69
SX-2294	\$2,147	12149	280	43.4	18.7	96.1	17	188	142
BTS-1065	\$2,121	12006	277	43.4	18.5	96.2	46	184	87
C-G932NT	\$2,119	11993	271	44.3	18.1	96.1	41	163	108
HIL-9865	\$2,080	11773	277	42.6	18.4	96.2	22	138	80
C-G752NT	\$2,069	11711	264	44.4	17.7	95.9	52	185	143
BTS-197N	\$2,043	11564	264	43.8	17.7	96.1	40	165	118
HIL-2238NT	\$1,906	10789	262	41.2	17.5	96.0	7	154	71

Average	\$2,122	12008	272	44.1	18.2	96.1	40	173	90
LSD 5%	123.6	699.4	6.3	2.3	0.3	N.S.	11.9	22.9	N.S.
CV %	3.4	3.4	1.4	3.1	1.1	0.3	17.6	7.8	57.6
p-value	0.0011	0.0011	<0.0001	0.0094	<0.0001	0.9526	<0.0001	0.0020	0.2564

Comments: The Kretzschmer trial was planted on April 8. Due to its proximity to the Saginaw Bay, this trial was spared from the freezing temperatures other trials experienced this spring. For most of the year, this was one of the driest SBA locations. A low level of sugarbeet cyst nematode is present at this location. No in-furrow Quadris was applied to this trial. While a moderate level of root disease was observed here, its impact did not appear to be variety specific. Both Cercospora and Alternaria leaf spots were well controlled at this location, so there was not enough to rate at the end of the season. The leaf spot program was as follows: 1. EBDC, 2. Delaro & Proline, 3. Super Tin & Topsin, 4. Provysol, 5. Super Tin, 6. Proline & Badge, 7. EBDC. Applications 1-5 included an EBDC.

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Key Points:

- Light nematode pressure
- Dry weather throughout season
- Moderate root disease, not variety specific
- Very low leaf spot pressure in regular delivery field

Variety Trial

Sylvester Farms, Fairgrove - 2021

Trial Quality: Excellent	Soil Type: Loam	Cerc Control: Very good control on early harvested trial. See below for materials.
Planted: April 5	Fertilizer: 2x2: 8 gal of 28%, 7 gal of Thiosul, 5 gal 10-34-0 + 1 qt of B & Mn; PPI: 60 gal of 28%	Rhizoc Control: Quadris I.F.: 10 oz w/ Mustang; Foliar: 8 leaf at 12 oz
Harv/Samp: Sept 17 / Sept 14	Prev Crop: Corn	Other Pests: None
Plot Size: 3 reps	Weather: Stand hurt by early freeze. Very good for remainder of season.	
Row Spacing: 20 inch		
Seeding Rate: 68,000		

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							9 Day	44 Day	
BTS-1065	\$2,639	10795	257	41.9	17.4	95.2	121	171	1
C-G021	\$2,636	10784	237	45.4	16.3	95.2	102	193	2
C-G675	\$2,484	10162	247	41.1	16.9	95.1	102	160	2
BTS-197N	\$2,479	10140	249	40.7	16.9	95.4	66	155	1
C-G752NT	\$2,466	10086	247	40.8	16.8	95.4	82	166	3
C-G932NT	\$2,438	9972	247	40.3	16.9	95.3	80	173	1
SX-2296N	\$2,437	9969	263	37.9	17.8	95.3	97	162	1
BTS-1703	\$2,433	9953	246	40.5	16.8	95.2	62	155	22
SX-2294	\$2,432	9949	254	39.2	17.2	95.2	60	179	27
BTS-1606N	\$2,431	9944	240	41.4	16.5	95.1	89	157	3
HIL-2238NT	\$2,402	9824	242	40.6	16.5	95.5	50	175	6
HIL-9865	\$2,342	9581	245	39.0	16.8	95.1	58	144	2
Average	\$2,468	10097	248	40.7	16.9	95.2	81	166	6
LSD 5%	101.5	415.2	8.7	1.3	0.5	N.S.	23.8	N.S.	N.S.
CV %	2.4	2.4	2.1	1.8	1.7	0.3	17.4	10.3	272.3
p-value	0.0001	0.0001	0.0002	<0.0001	0.0002	0.4827	<0.0001	0.1146	0.5538

Comments: The Sylvester trial was planted on April 5. This trial did experience freezing temperatures around the time of emergence, but stand was not impacted as much as in some other SBA trials. Throughout the season, the quality of this trial was excellent. The level of root disease was very low, and while Cercospora was present, it was kept at low levels. The leaf spot program was as follows: 1. EBDC, 2. Provysol, 3. Priaxor + Topsin, 4. Super Tin, 5. Delaro + Proline, 6. Super Tin. Apps 2-6 included EBDC. All apps included Masterlock.

Key Points:

- Frost damage
- Very low root disease
- Low CLS
- Early harvested trial

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA and the early delivery adjustments.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

CR+ Variety Trial

Guza Farms, Bad Axe - 2021

Trial Quality: Excellent	Soil Type: Loam	Cerc Control: Trial used a 6 spray program and 3 spray program. See comments.
Planted: April 7	Fertilizer: PPI: 25 gal 28%; 2x2: 11 28%, 5 gal thiosul, 1 qt of Mn & B; I.F.: Nachurs 6-24-6; Streamer: 12 gal 28%, 1 gal thiosul, 2 gal K-fuse	Rhiz Control: Quadris: I.F.(7oz) and foliar broadcast (16 oz)
Harv/Samp: Oct 27 / Oct 27	Prev Crop: Corn	Other Pests: None
Plot Size: 4 reps	Weather: Stand hurt by early freeze. Very good for remainder of season.	
Row Spacing: 22 inch		
Seeding Rate: 65,000		

Variety & Spray Program	Net Revenue	Gross Revenue	RWSA	RWST	T/A	% Sugar	% CJP	Dead Beets / 1200 Ft	Leaf Spot Rating
BTS-1941, 3 sprays	\$1,772	\$2,121	12004	275	43.7	18.2	95.7	70	1.63
BTS-1065, 3 sprays	\$1,760	\$2,109	11936	286	41.7	18.9	95.7	113	1.63
C-G021, 3 sprays	\$1,750	\$2,099	11877	277	42.9	18.4	95.7	73	1.69
C-G919, 3 sprays	\$1,680	\$1,994	11286	276	40.9	18.3	95.8	51	3.69
BTS-1065, 6 sprays	\$1,670	\$2,107	11922	284	41.9	18.8	95.8	128	0.50
C-G675, 6 sprays	\$1,623	\$2,025	11462	287	39.9	18.9	95.6	88	1.56
C-G021, 6 sprays	\$1,616	\$2,053	11617	282	41.3	18.6	95.8	123	0.56
C-G919, 6 sprays	\$1,553	\$1,955	11064	277	39.9	18.4	95.5	65	0.88
Average	\$1,678	\$2,058	11646	280.6	41.5	18.6	95.7	89	1.52
LSD 5%	96.4	96.4	545.4	8.9	1.7	0.5	N.S.	N.S.	0.40
CV %	3.9	3.2	3.2	2.2	2.7	1.7	0.2	55.2	17.77
p-value	0.0009	0.0119	0.0119	0.0422	0.0011	0.0294	0.1790	0.2530	<0.0001

Comments: The Guza CR+ variety trial was planted on April 7 and experienced freezing conditions that impacted the stand. Early and final emergence counts were taken for each variety, not for each treatment. There was no statistical difference between the varieties for early or final emergence. The averages for early emergence were: BTS-1065, 161; BTS-1941, 158; C-G021, 141; C-G675, 142; and C-G919, 164. The averages for final emergence were: BTS-1065, 153; BTS-1941, 166; C-G021, 158; C-G675, 134; and C-G919, 135. Stand was variable throughout the field, and the counts may not reflect the highest or lowest areas. After the cold weather in the spring ended, the weather for the rest of the season was very good. The amount of Cercospora leaf spot in this trial was very low for most of the season. It was not until late September and October when the disease became prevalent. Even at that time, it was not at the level of economic impact in most cases. The 6 spray leaf spot program was as follows: 7/1 Proline, 7/16 Super Tin + Topsin, 7/29 Provysol, 8/12 Super Tin + Priaxor, 8/26 Inspire XT, 9/10 EBDC + COCS copper. The 3 spray leaf spot program was as follows: 7/1 Proline, 7/28 Super Tin + Topsin, 8/27 Provysol. All applications for both programs included an EBDC and surfactant. Net cost were calculated using the following cost: 6 spray fungicide materials \$134.39, 3 spray fungicide materials \$69.00, spray application cost \$7.36 each, \$397/unit of seed for CR+ varieties, and \$344/unit for non-CR+ varieties.

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

West District Trials





Official Variety Trial

Shaffner, Freeland - 2021

Trial Quality: Good

Planted: April 20

Harvested: September 20

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 1.9 in. thinned to
200 beets/100'

Soil Info: Silty Clay Loam

% OM: 4.0 pH: 8.0 CEC: 15.6

P: Above Opt K: Opt

Mn: High B: Medium

Prev Crop: Corn

Added N: 35 lbs. 2x2, 100 lbs. PPI

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 18.81 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-1941	\$2,630	11025	260	17	42.5	3	16.8	12	97.3	25	47.8	24
C-G049	\$2,599	10895	254	23	43.3	1	16.5	21	97.8	19	59.4	4
BTS-197N	\$2,592	10866	261	13	41.6	4	16.8	15	97.8	17	54.2	14
BTS-1065	\$2,577	10804	261	15	41.5	5	16.8	13	97.6	21	53.1	17
C-G021	\$2,546	10676	263	8	40.5	6	17.0	6	97.7	20	52.7	19
HIL-2361	\$2,530	10608	272	1	37.8	16	17.4	1	97.9	11	49.5	23
SX-2283	\$2,514	10540	261	14	40.1	7	16.8	17	98.0	9	58.2	8
HIL-2238NT	\$2,509	10520	246	25	42.5	2	16.0	25	97.5	22	59.7	3
HIL-9865	\$2,496	10464	263	10	39.8	10	16.9	7	97.8	14	47.3	25
SX-1278N	\$2,485	10418	265	5	39.6	12	17.0	5	98.0	7	60.2	1
C-G675	\$2,472	10364	261	12	39.7	11	16.8	14	97.8	16	51.6	20
SX-2294	\$2,464	10330	267	2	38.6	14	17.1	3	98.0	6	58.1	9
BTS-1606N	\$2,448	10265	256	21	40.1	8	16.5	22	97.9	10	56.8	10
C-G752NT	\$2,447	10258	258	20	39.9	9	16.6	20	98.0	8	54.0	15
SX-2295	\$2,414	10120	263	9	38.4	15	16.9	10	98.0	5	54.8	13
MA-709	\$2,408	10097	258	19	39.3	13	16.7	19	97.4	23	50.1	22
C-G932NT	\$2,323	9739	262	11	37.2	17	16.8	11	97.8	15	58.3	7
SX-2297	\$2,302	9653	267	3	35.4	22	17.1	4	98.1	4	50.6	21
SX-2201	\$2,300	9641	260	16	37.0	18	16.7	18	97.9	13	60.0	2
BTS-1703	\$2,268	9509	264	7	36.0	20	16.9	8	98.1	3	53.0	18
HIL-2332NT	\$2,218	9297	266	4	35.4	23	17.1	2	97.9	12	59.3	5
SX-2296N	\$2,215	9287	264	6	35.1	24	16.9	9	98.2	1	53.6	16
C-G919	\$2,176	9125	252	24	36.2	19	16.2	24	98.2	2	55.0	12
MA-814	\$2,165	9077	255	22	35.6	21	16.5	23	97.8	18	58.7	6
MA-813NT	\$2,066	8661	259	18	33.5	25	16.8	16	97.4	24	55.3	11
Average	\$2,406.6	10089.5	261		38.7		16.78		97.83		54.85	
LSD 5%	250.5	1050.2	8.7		3.9		0.5		0.4		8.3	
CV %	10.5	10.5	3.4		10.2		3.0		0.4		15.3	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial was planted at 1.9" seed spacing and thinned to an equivalent of 200 beets/100' of row. Frequent rains during the month of June promoted excellent canopy growth and health. This was the first OVT harvested in 2021. Considering a late September harvest, root and sugar yields were very good. Disease levels in this trial were low.



Official Variety Trial

Mininger, Middleton - 2021

Trial Quality: Very Good

Planted: April 7

Harvested: November 5

Plots: 2 Rows X 38 ft., 8 reps

Row Width: 22 in.

Seeding Rate: 1.9 in. thinned to
200 beets/100'

Soil Info: Unavailable

Prev Crop: Wheat/Rye

Added N: 35 lbs. 2x2, hog manure

Disease Pressure:

Cerc: Low/Moderate

Rhizoc: Low

Rainfall: 20.31 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G675	\$2,125	12028	238	14	50.4	2	16.3	15	95.0	18	64.8	5
C-G049	\$2,106	11921	234	20	50.9	1	16.0	21	95.0	17	64.1	7
SX-2296N	\$2,099	11878	255	4	46.6	15	17.2	2	95.3	10	58.7	18
C-G932NT	\$2,089	11820	237	15	49.8	4	16.3	13	94.8	20	63.6	9
SX-2201	\$2,065	11684	245	11	47.7	10	16.6	10	95.3	11	66.4	2
BTS-1941	\$2,057	11640	231	23	50.3	3	16.0	20	94.4	24	63.6	10
C-G021	\$2,053	11617	245	10	47.3	12	16.7	7	95.0	16	60.6	13
BTS-1065	\$2,023	11446	235	18	48.8	6	16.2	16	94.4	23	59.8	15
C-G752NT	\$2,005	11348	232	21	48.0	9	15.8	24	95.1	15	62.4	11
BTS-197N	\$2,002	11330	235	19	48.8	5	16.0	22	95.2	13	51.7	25
SX-2283	\$1,979	11201	251	6	45.4	16	16.7	6	96.0	3	59.6	16
SX-2297	\$1,976	11183	255	2	43.9	22	17.0	3	95.9	6	58.7	19
C-G919	\$1,974	11170	242	12	47.2	13	16.2	17	96.0	4	57.1	21
BTS-1703	\$1,970	11149	232	22	48.1	8	16.1	19	94.2	25	55.7	23
SX-2295	\$1,965	11122	246	9	45.3	18	16.4	11	95.9	5	63.7	8
SX-2294	\$1,964	11113	249	7	44.6	20	16.6	9	96.1	2	66.7	1
HIL-2361	\$1,963	11110	251	5	44.3	21	16.8	5	95.8	7	59.3	17
BTS-1606N	\$1,960	11094	230	25	48.3	7	15.6	25	95.1	14	61.3	12
HIL-9865	\$1,959	11088	248	8	44.8	19	16.7	8	95.6	8	55.4	24
HIL-2238NT	\$1,959	11086	237	16	47.0	14	16.3	14	94.6	22	65.1	3
MA-709	\$1,953	11055	231	24	47.7	11	15.9	23	94.6	21	59.9	14
HIL-2332NT	\$1,928	10914	255	3	42.9	23	16.9	4	96.2	1	56.6	22
MA-814	\$1,914	10832	240	13	45.4	17	16.3	12	95.2	12	64.7	6
SX-1278N	\$1,905	10782	255	1	42.2	24	17.2	1	95.4	9	64.8	4
MA-813NT	\$1,732	9800	236	17	41.4	25	16.1	18	94.8	19	58.2	20
Average	\$1,989.0	11256.4	242		46.7		16.39		95.24		60.89	
LSD 5%	166.1	939.8	10.7		3.6		0.5		0.8		9.2	
CV %	8.5	8.5	4.5		7.8		3.4		0.8		15.4	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial was originally planted on April 7th, but was replanted on May 18th due to a borderline stand.

The replanted trial provided an adequate stand to thin the trial to an equivalent of 200 beets/100' of row. Consistent weather and good fertility resulted in excellent root yield. Sugar content was low considering an early November harvest. Cercospora Leaf Spot was present at harvest, but the late onset did not appear to affect yield and sugar content as varieties with low tolerance yielded consistently with varieties with higher tolerance. Other disease control in this trial was very good.



Plant to Stand

Shaffner, Freeland - 2021

Trial Quality: Good

Planted: April 20

Harvested: September 28

Plots: 6 Rows X 38 ft., 4 reps

Row Width: 22 in.

Seeding Rate: 4.1 in.

Soil Info: Loam

% OM: 3.5 pH: 7.4 CEC: 11.2

P: Above Opt K: Above Opt

Mn: Medium B: Medium

Prev Crop: Corn

Added N: 35 lbs. 2x2, 100 lbs. PPI

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 18.81 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
BTS-1065	\$2,725	12128	258	1	47.0	4	17.2	2	96.1	6	175.6	1
C-G943	\$2,722	12113	232	22	52.2	1	15.7	21	95.6	22	139.4	13
C-G021	\$2,604	11589	250	11	46.3	5	16.7	11	96.0	8	157.3	6
SX-2295	\$2,591	11528	255	6	45.3	8	17.0	5	95.9	17	174.6	2
BTS-1606N	\$2,584	11501	238	20	48.4	3	15.9	20	95.9	12	158.2	5
SX-1278N	\$2,555	11371	257	4	44.3	11	17.0	3	96.1	5	154.7	8
C-G932NT	\$2,543	11319	253	8	44.9	9	16.9	9	95.9	13	133.8	19
BTS-1941	\$2,530	11261	232	21	48.5	2	15.6	22	95.9	15	146.8	9
SX-2283	\$2,522	11225	257	3	43.7	15	17.0	4	96.2	1	143.1	12
SX-2296N	\$2,522	11221	254	7	44.1	12	16.9	7	96.0	10	138.8	15
C-G752NT	\$2,515	11190	244	15	45.9	7	16.2	16	96.1	2	118.1	21
BTS-197N	\$2,508	11161	242	17	46.2	6	16.2	17	95.9	16	133.4	20
C-G675	\$2,457	10933	245	14	44.6	10	16.5	14	95.7	21	146.6	10
C-G919	\$2,411	10731	240	18	40.0	21	15.9	19	96.1	3	144.0	11
BTS-1703	\$2,394	10654	249	13	42.9	16	16.6	13	96.0	9	136.6	17
MA-709	\$2,379	10586	244	16	44.1	13	16.3	15	95.7	20	114.4	23
HIL-9865	\$2,370	10546	250	12	42.3	17	16.6	12	96.0	7	156.9	7
MA-814	\$2,355	10482	239	19	43.8	14	16.0	18	96.0	11	115.3	22
SX-2294	\$2,346	10441	251	10	41.7	18	16.9	8	95.4	23	138.1	16
MA-813NT	\$2,309	10274	252	9	40.8	20	16.8	10	95.9	14	139.0	14
HIL-2332NT	\$2,240	9970	257	2	38.8	22	17.2	1	95.8	18	158.4	4
SX-2297	\$2,232	9933	255	5	38.8	23	17.0	6	96.1	3	161.6	3
HIL-2238NT	\$2,113	9402	230	23	40.9	19	15.5	23	95.8	19	134.3	18
Average	\$2,457.7	10937.3	247		44.16		16.50		95.91		144.31	
LSD 5 %	287.1	1277.7	8.4		6.2		0.5		0.5		46.3	
CV %	8.3	8.3	2.4		9.9		2.0		0.4		22.8	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: The final stands in this trial were lower than desired. However, only 3 varieties were statistically lower than the other 20. Root yield was exceptional considering a mid-September harvest, and sugar content was also respectable. Disease control in this trial was good.



Plant to Stand

Mininger, Middleton - 2021

Trial Quality: Good

Planted: April 7

Harvested: November 5

Plots: 6 Rows X 38 ft., 3 reps

Row Width: 22 in.

Seeding Rate: 4.1 in.

Soil Info: Unavailable

Prev Crop: Wheat/Rye

Added N: 35 lbs. 2x2, hog manure

Disease Pressure:

Cerc: Low

Rhizoc: Low

Rainfall: 20.31 in.

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
MA-709	\$2,604	14739	269	2	54.8	4	17.7	5	96.4	1	114.1	10
C-G675	\$2,538	14364	265	5	54.3	5	18.0	2	94.9	17	107.8	19
C-G919	\$2,529	14311	251	20	56.5	2	16.9	20	94.4	22	109.5	18
SX-2297	\$2,494	14113	263	6	53.9	6	17.7	7	95.4	7	112.6	13
HIL-2238NT	\$2,487	14073	253	17	55.7	3	17.2	17	95.0	11	119.8	6
SX-2295	\$2,470	13979	269	1	52.0	13	18.0	1	95.4	8	123.9	3
SX-1278N	\$2,469	13976	257	11	53.4	9	17.0	19	95.7	4	110.9	15
BTS-1941	\$2,436	13787	245	22	57.0	1	16.5	23	95.0	16	118.1	8
C-G021	\$2,418	13685	262	7	52.3	12	17.7	4	95.2	9	103.7	21
C-G932NT	\$2,388	13515	253	16	53.8	7	17.4	15	94.4	21	111.8	14
C-G752NT	\$2,378	13457	259	10	51.9	14	17.4	14	95.6	5	125.0	2
MA-813NT	\$2,368	13402	253	18	53.1	10	17.2	16	94.8	18	122.7	5
C-G943	\$2,358	13347	262	8	51.2	16	17.4	12	95.9	2	123.9	4
SX-2296N	\$2,355	13330	253	15	52.7	11	17.5	9	94.2	23	107.8	20
SX-2294	\$2,328	13178	267	3	50.0	18	17.4	11	95.8	3	127.0	1
BTS-1703	\$2,321	13134	257	12	51.1	17	17.4	10	95.0	15	113.8	11
BTS-197N	\$2,300	13016	243	23	53.7	8	16.7	22	94.7	19	109.8	17
HIL-9865	\$2,259	12784	249	21	51.3	15	16.9	21	95.0	12	95.1	23
BTS-1606N	\$2,221	12568	256	14	49.2	19	17.6	8	94.5	20	109.8	16
MA-814	\$2,202	12463	265	4	47.0	22	17.8	3	95.4	6	114.9	9
HIL-2332NT	\$2,140	12110	257	13	47.2	21	17.4	13	95.0	14	113.8	12
BTS-1065	\$2,137	12096	252	19	47.9	20	17.1	18	95.1	10	97.7	22
SX-2283	\$2,095	11855	261	9	45.3	23	17.7	6	95.0	13	119.3	7
Average	\$2,360.7	13360.0	257		52.0		17.37		95.12		113.59	
LSD 5%	395.1	2236.1	n.s.		9.1		n.s.		1.5		n.s.	
CV %	10.1	10.1	5.7		10.7		4.5		0.9		14.9	

* See Cercospora Fungicide Application Page 48 for applications

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767.

Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial had a much lower than desired stand. The decision was made to leave the trial to compare to the Official Variety Trial at the same location. Although the stands were low, there was no statistical significance in stand between varieties. There was also no statistical significance when comparing Sugar Content or RWST. Root yield was very good, but sugar content was lower than anticipated considering an early November harvest date and early planting. Cercospora Leaf Spot was present in this trial in low levels. Disease control overall was good.

Variety Trial

Shaffner Brothers, Freeland - 2021

Trial Quality: Good
Planted: April 18
Harv/Samp: n.a. / Sept 28
Plot Size: 3 reps
Row Spacing: 22 inch
Seeding Rate: 62,000

Soil Type: Clay loam
Fertilizer: 2x2: 16 gal of 16-16-2 + micros; PPI: 100# N by urea/AMS blend; Sidedress 15 gal of 28%
Prev Crop: Corn
Weather: Dry most of spring, heavy rain end of June. Wet fall.

Cerc Control: Good control. No varieties reached economic impact, but there was enough to rate the trial. See materials below.
Rhiz Control: Fair control. In-furrow Quadris only (10 oz)
Other Pests: Fusarium, Aphanomyces

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft	Leaf Spot Rating
							20 Day	47 Day		
SX-2296N	—	—	263	—	17.6	95.4	52	189	66	2.83
C-G932NT	—	—	262	—	17.6	95.3	77	186	50	2.50
C-G752NT	—	—	261	—	17.5	95.5	55	205	53	2.33
BTS-1703	—	—	258	—	17.4	95.3	56	199	31	1.75
C-G675	—	—	257	—	17.3	95.4	52	187	32	1.83
C-G021	—	—	256	—	17.3	95.7	48	198	53	0.42
SX-2294	—	—	255	—	17.2	95.2	80	197	70	1.58
BTS-1065	—	—	253	—	17.1	95.3	63	210	60	0.58
BTS-197N	—	—	252	—	17.0	95.4	34	157	59	2.50
HIL-9865	—	—	251	—	17.0	95.5	57	171	61	2.25
BTS-1606N	—	—	248	—	16.7	95.3	57	219	8	2.50
HIL-2238NT	—	—	240	—	16.3	95.4	38	190	200	1.92
Average	—	—	255	—	17.2	95.4	56	192	62	1.92
LSD 5%	—	—	N.S.	—	N.S.	N.S.	N.S.	N.S.	54.2	0.47
CV %	—	—	3.2	—	2.8	0.3	45.4	10.3	51.8	14.36
p-value	—	—	0.0866	—	0.1070	0.7515	0.6061	0.0567	0.0001	<0.0001

Comments: Due to wet and very difficult harvest conditions in the fall, this trial was not harvested. However, the disease information here is still useful. This trial was planted on April 18. The trial had a difficult time emerging due to dry weather in the spring and variability in soil moisture. In late June, the field experienced a very heavy rain event, which damaged the beets and increased the amount of root disease. Root disease levels here were moderate, with Rhizoctonia, Aphanomyces, and Fusarium all being present. A substantial amount of Aphanomyces scarring was observed on beets while digging sugar samples. A moderate level of Cercospora leaf spot was also present at this trial. While there was generally not enough Cercospora leaf spot to cause economic damage, there was enough to rate the varieties for it. The leafspot program was as follows: 1. EBDC, 2. Tin, 3. Provysol, 4. Tin, 5. Topguard, 6. Tin. All applications included an EBDC and Reguard.

Key Points:

- Not harvested
- Emergence issues
- Heavy rain in June
- Moderate root disease levels

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Variety Trial

Chaffin Farms, Ithaca - 2021

Trial Quality: Excellent
Planted: March 23
Harv/Samp: Oct 20 / Oct 15
Plot Size: 4 reps
Row Spacing: 20 inch
Seeding Rate: 70,000

Soil Type: Clay loam & loam
Fertilizer: Fall: Dairy manure; PP: 80# N and potash
Prev Crop: Silage corn
Weather: Stand hurt by early freeze. Very good for remainder of season.

Cerc Control: Some varieties were likely above economic injury at harvest. See comments for materials.
Rhiz Control: Good control: Azoxystrobin broadcast (15 oz) + EBDC
Other Pests: None

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft	Leaf Spot Rating
							17 Day	56 Day		
BTS-1065	\$2,371	12361	241	51.2	16.4	95.1	165	170	20	1.38
C-G932NT	\$2,234	11647	232	50.2	15.7	95.2	138	157	14	3.81
C-G021	\$2,223	11589	222	52.1	15.2	95.0	149	168	10	1.13
SX-2294	\$2,179	11363	236	48.2	16.0	95.4	132	180	41	3.88
C-G675	\$2,170	11315	229	49.4	15.5	95.2	169	161	1	3.19
BTS-1606N	\$2,166	11294	229	49.4	15.6	95.5	160	131	4	3.56
SX-2296N	\$2,152	11220	240	46.8	16.2	95.2	143	175	9	4.69
C-G752NT	\$2,139	11154	224	49.7	15.4	95.1	164	177	19	3.88
BTS-197N	\$2,124	11073	226	48.9	15.5	95.4	151	151	9	4.19
HIL-2238NT	\$2,123	11068	225	49.1	15.3	95.3	122	179	60	3.81
BTS-1703	\$2,097	10933	225	48.6	15.4	95.2	151	136	3	2.69
HIL-9865	\$1,971	10275	237	43.3	16.1	95.4	112	121	7	3.50
Average	\$2,162	11274	231	48.9	15.7	95.2	146	159	16	3.31
LSD 5%	102.3	533.6	7.0	1.6	0.4	0.3	31.1	N.S.	33.4	0.89
CV %	3.3	3.3	2.1	2.3	1.7	0.2	14.8	19.4	142.6	18.8
p-value	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0435	0.0140	0.1163	0.0373	<0.0001

Comments: The Chaffin trial was the first Sugarbeet Advancement trial planted this year, planted on March 23. The beets here were damaged by freezing temperatures early, with some varieties losing more stand than others. Once this area got past the early cold weather, the weather cooperated for the rest of the season with timely and adequate rainfall. Dairy manure was applied to this field last fall. The amount of root disease present at this trial was low, but the amount of Cercospora leaf spot was likely at an economic impact level for some varieties. Ratings of 3.0 or higher are normally expected to lead to economic impact. The leaf spot program was as follows: 6/21 Inspire + Quadris, 7/5 Tin, 7/19 Minerva, 8/2 Tin, 8/16 Topguard, 8/30 Delaro, 9/15 Tin. All applications included an EBDC, surfactants, and foliar fertilizer products.

\$/A: Gross dollars per acre calculated using \$0.1767 per pound of RWSA and the early delivery adjustments.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Key Points:

- Planted early
- Frost damage, impacted stand
- Manure applied
- Yield impacting CLS
- Low root disease pressure

CR+ Variety Trial

Hrabal Farms, Breckenridge - 2021

Trial Quality: Fair
Planted: April 17
Harv/Samp: Nov 4 / Oct 20
Plot Size: 4 reps
Row Spacing: 30 inch
Seeding Rate: 57,000

Soil Type: Loam
Fertilizer: VR: P, K, lime; 2x2: 42#-26#-0#; PPI: 45 gal of 28%
Prev Crop: Corn
Weather: Significant damage from rain in late June. Good weather during most of the rest of season.

Cerc Control: Trial used a 6 spray program and 3 spray program. See comments.
Rhiz Control: Quadris: I.F: 6.4 oz + Mustang; Foliar 11 oz
Other Pests: Fusarium and Aphanomyces were significant

Variety & Spray Program	Net Revenue	Gross Revenue	RWSA	RWST	T/A	% Sugar	% CJP	Dead Beets / 1200 Ft	Leaf Spot Rating
C-G021, 6 sprays	\$1,207	\$1,588	8985	254	35.4	17.1	94.6	46	0.71
C-G919, 3 sprays	\$1,132	\$1,414	8004	246	32.4	16.7	94.4	46	2.88
C-G021, 3 sprays	\$1,097	\$1,410	7981	256	31.2	17.2	95.0	119	1.33
BTS-1065, 3 sprays	\$1,088	\$1,401	7928	255	31.0	17.2	94.6	153	1.75
BTS-1941, 3 sprays	\$1,072	\$1,385	7837	244	32.1	16.5	94.8	99	1.25
C-G919, 6 sprays	\$1,070	\$1,421	8042	246	32.7	16.7	94.9	49	1.38
BTS-1065, 6 sprays	\$1,064	\$1,445	8176	252	32.4	17.0	94.6	153	1.04
C-G675, 6 sprays	\$1,048	\$1,399	7917	250	31.5	16.9	94.7	52	2.04
Average	\$1,097	\$1,433	8109	250.4	32.4	16.9	94.7	89	1.55
LSD 5%	N.S.	N.S.	N.S.	6.5	N.S.	0.4	N.S.	77.0	0.36
CV %	15.1	11.6	11.6	1.8	11.0	1.6	0.4	58.6	15.67
p-value	0.9049	0.7366	0.7366	0.0049	0.7461	0.0062	0.6754	0.0157	<0.0001

Comments: The Hrabal CR+ variety trial was planted on April 17. This trial was severely impacted by excess rain in late June. The trial contained a large amount of root disease. The dead beet counts do not reflect the amount of disease in this trial, as near ideal weather after the damage allowed many beets to survive until harvest. For most of the season, there was very little Cercospora leaf spot present in the trial. It was not until later in the fall, particularly into September and October, that Cercospora leaf spot became prevalent in the trial. While there was enough Cercospora to rate the treatments, it did not reach the level of economic impact in most cases. The 6 spray leaf spot program was as follows: 6/23 Inspire, 7/11 Super Tin, 7/26 Topguard, 8/7 Super Tin, 8/23 Proline, 9/6 Super Tin. The 3 application program was as follows: 6/23 Inspire, 7/26 Super Tin, 8/23 Proline. All applications for both programs included an EBDC and surfactant. The entire plot also received: 6/23 1 pt of B, 7/11 5# of Moraleaf foliar, 7/26 Mustang Maxx, 8/7 5# Moraleaf. Net cost were calculated using the following cost: 6 spray fungicide materials \$110.43, 3 spray fungicide materials \$64.41, spray application cost \$7.36 each, \$397/unit of seed for CR+ varieties, and \$344/unit for non-CR+ varieties. Early and final emergence counts were taken for each variety, not for each treatment. There was no statistical difference between the varieties for early or final emergence. The averages for early emergence were: BTS-1065, 198; BTS-1941, 186; C-G021, 180; C-G675, 180; and C-G919, 180. The averages for final emergence were: BTS-1065, 243; BTS-1941, 238; C-G021, 226; C-G675, 236; and C-G919, 227.

Gross Revenue: Gross dollars per acre calculated using \$0.1767 per pound of RWSA.

Bold: Results are not statistically different from top ranking variety in each column.

N.S. – not significant

Nursery Data





Rhizoctonia Nursery

Average of 2 years, 2020 & 2021

Trial Quality: Good

Location: 2020 - SVREC, 2021 - SVREC

Plot Size: 2 Rows X 25 ft., 6 reps

Inoculation: Inoculated with Rhizoctonia Solani AG 2-2 IIIB

Variety	Root Rating*	Estimated Root
	0-7	Rot %
HIL-2361	5.1	53.8
SX-2297	5.2	56.3
HIL-2332NT	5.2	57.5
Resistant Check	5.3	58.8
C-G021	5.3	60.0
MA-709	5.3	60.0
C-G049	5.3	61.3
BTS-197N	5.4	61.3
SX-2295	5.4	62.5
C-G932NT	5.4	62.5
HIL-9865	5.4	62.5
SX-2296N	5.4	63.8
MA-814	5.5	65.0
C-G752NT	5.5	65.0
C-G919	5.5	65.0
BTS-1703	5.5	66.3
BTS-1941	5.6	66.3
BTS-1606N	5.6	66.3
C-G675	5.6	66.3
Susceptible Check	5.6	66.3
SX-2283	5.6	67.5
MA-813NT	5.7	70.0
SX-1278N	5.8	71.3
HIL-2238NT	5.8	72.5
BTS-1065	5.8	72.5
SX-2201	5.8	72.5
SX-2294	5.9	75.9
Average	5.50	64.75
LSD 5%	0.8	18.6
CV %	6.8	14.0

Bold: Results are not significantly different from the top ranking variety in each column

*Rating System:

0 = No Infection

1 = less than 2% rotted roots

2 = less than 5% rotted roots

3 = 5 to 25% rotted roots

4 = 26 to 50% rotted roots

5 = 51 to 75% rotted roots

6 = 76 to 95% rotted roots

7 = 100% rotted roots

During evaluations, roots were dug and assigned values from 0 to 7. Each plot contained approximately 50 roots and each root was rated.



Cercospora Nursery

Average of 2 years, 2020 & 2021

Trial Quality: Good

Locations:

2020 - Gilford, SVREC

2021 - Blumfield East, SVREC

Inoculation: Trials were Inoculated

Plot Size:

Gilford - 2 Rows X 17.5 ft., 5 reps

SVREC 2020 - 2 Rows X 20 ft., 5 reps

Blumfield East - 2 Rows X 25 ft., 6 reps

SVREC 2021- 2 Rows X 20 ft., 6 reps

Variety	Avg of 2 Years CLS Rate 0-9	2020 CLS Rate 0-9	2021 CLS Rate 0-9
BTS-1941	1.8	1.8	1.7
C-G021	1.9	2.0	1.7
BTS-1065	2.1	2.2	2.0
C-G049	2.1	2.3	2.0
C-G919	3.1	3.3	3.0
BTS-1703	3.4	3.5	3.4
MA-813NT	3.7	3.6	3.8
SX-2201	3.7	4.0	3.4
SX-2294	3.8	4.0	3.7
MA-709	3.9	4.0	3.7
SX-2297	3.9	3.9	3.9
HIL-2361	3.9	4.0	3.9
SX-2283	3.9	4.2	3.7
Resistant Check	3.9	4.1	3.8
SX-2295	4.0	4.0	4.0
MA-814	4.0	4.1	3.9
C-G675	4.0	4.2	3.9
HIL-2238NT	4.1	4.1	4.0
BTS-1606N	4.2	4.4	4.0
HIL-9865	4.3	4.3	4.3
C-G752NT	4.4	4.6	4.1
SX-2296N	4.5	4.6	4.5
C-G932NT	4.5	4.8	4.3
Susceptible Check	4.5	4.9	4.2
HIL-2332NT	4.6	4.6	4.6
SX-1278N	4.7	4.9	4.5
BTS-197N	4.8	5.0	4.6
Average	3.77	3.88	3.64

Cercospora Rating (0-9 Scale): 0 = no spots, 1 = very few spots, 2 = up to 10 spots/leaf, 2.5 = up to 50 spots/leaf, 3 = 100 to 200 spots/leaf (approx 3% leaf injury), 4 = up to 10 % injury, 5 = up to 25 % injury, 6 = up to 50% injury, 7 = up to 75% injury, 8 = up to 90% injury, 9 = leaves completely dead.

Comments: Trials are inoculated at or near row closure. Ratings begin when susceptible varieties are at economic impact levels. Entries in the trial are coded except the observation replication which are not used for rating purposes. All varieties will develop leafspot beyond economic impact in these trials.



Cyst Nematode Nursery

Average of 2 Years, 2020 & 2021

Trial Quality: Good

Cerc Control: Good

Locations: 2020 - Maust, 2021 - VanDenBoom

Rhizoc Control: Good

Plot Size: 2020 - 2 Rows X 25 ft., X 6 reps

Plot Size: 2021 - 2 Rows X 38 ft., X 6 reps

Variety	\$/A	RWSA	RWST		Yield		Sugar		CJP	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank
BTS-197N	\$2,433	12270	274.2	6	45.1	2	17.9	3	96.9	9
BTS-1606N	\$2,432	12249	268.9	10	46.0	1	17.4	10	97.3	3
C-G752NT	\$2,380	11996	270.7	9	44.8	3	17.6	9	97.1	7
C-G932NT	\$2,365	11922	275.6	3	43.7	4	17.8	5	97.3	4
SX-1278N	\$2,286	11512	274.3	5	42.4	5	17.8	7	97.2	5
HIL-2238NT	\$2,269	11434	273.3	7	42.2	6	17.8	4	96.8	10
SX-2296N	\$2,247	11326	283.9	1	40.3	7	18.2	1	97.6	1
Susceptible	\$2,152	10789	275.3	4	39.0	8	17.8	6	97.4	2
HIL-2332NT	\$2,144	10794	280.2	2	38.9	9	18.1	2	97.2	6
MA-813NT	\$1,963	9876	272.1	8	36.8	10	17.7	8	97.0	8
Average	\$2,267.1	11416.6	274.8		41.93		17.81		97.17	
LSD 5%	500.4	2553.9	12.1		7.1		0.7		0.5	
CV %	9.8	9.9	2.0		7.5		1.7		0.2	

\$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of \$0.1767 for 2021, and \$0.165 for 2020.

Bold: Results are not statistically different from top ranking variety in each column.



Root Aphid Nursery

Magno Seed, LLC & KWS

Average of 2 years 2020 & 2021

Variety	% Infected
BTS-1606N	4.0
C-G932NT	4.1
C-G049	4.5
BTS-1703	4.8
HIL-2332NT	4.9
BTS-197N	5.0
SX-2201	5.3
MA-814	5.6
C-G752NT	6.4
SX-2296N	6.7
HIL-9865	7.0
C-G675	7.4
BTS-1941	7.5
HIL-2361	7.8
BTS-1065	8.9
SX-2283	9.9
SX-2295	10.0
C-G919	10.0
HIL-2238NT	10.4
SX-2297	11.1
SX-2294	11.8
MA-813NT	12.2
SX-1278N	15.3
C-G021	16.3
MA-709	17.5
Average	8.6
LSD 5%	9.9
CV %	70.3

Magno conducts a replicated field trial (plots 4 Rows X 30 ft).

KWS conducts a greenhouse trial.

Beets are rated for Root Aphids at harvest.



Aphanomyces Nursery

Magno Seed LLC & KWS

Average of 2 years 2020 & 2021

Variety	Root Rating 1 - 9 Scale	Canopy Rating 1 - 9 Scale	Stand Loss 1 - 5 Scale
C-G932NT	2.4	2.2	2.1
Resistant Check	2.4	1.6	1.9
BTS-197N	2.4	3.1	2.9
SX-2294	2.5	2.0	2.7
C-G049	2.5	2.2	2.4
BTS-1941	2.5	2.8	2.6
SX-2201	2.6	1.9	2.2
BTS-1703	2.6	3.4	3.0
C-G752NT	2.6	2.8	2.7
C-G021	2.7	2.5	2.4
SX-2296N	2.7	1.8	1.9
C-G919	2.7	2.9	2.8
SX-2295	2.7	2.2	2.3
SX-1278N	2.8	2.0	1.9
SX-2297	2.8	2.7	2.7
SX-2283	2.8	2.2	2.7
HIL-2361	2.9	2.9	2.6
BTS-1065	2.9	3.0	3.1
HIL-9865	3.0	2.6	2.6
BTS-1606N	3.0	3.2	3.1
C-G675	3.1	3.3	2.8
MA-814	3.1	3.6	3.0
HIL-2332NT	3.2	2.6	2.4
MA-709	3.3	3.6	3.1
MA-813NT	3.3	4.2	3.4
HIL-2238NT	3.5	2.8	2.4
Susceptible Check	3.7	2.6	2.4
Average	2.84	2.69	2.57

Root and Canopy Ratings (1 - 9 scale): 1 = very little damage, 2 = up to 20% damage, 4 = up to 60% damage, 6 = up to 70% damage and 8 = up to 90% damage.

Stand Rating (1 - 5 scale): 1 = up to 20% loss, 2 = up to 40% loss, 3 = up to 60% loss, 4 = up to 80% loss, and 5 = up to 100% loss.

Note: Root rating is the average of Magno Seed LLC and KWS ratings. Foliar ratings and Stand Loss are from KWS only.



Rhizomania Nursery

USDA, Kimberly, Idaho

Average of 2 Years, 2020 & 2021

Trial Quality: Good

Location: Kimberly, Idaho

Plot Size: 2 Rows X 24 ft., 6 reps

Variety	Root Rating 0-9	RWSA	% Sugar	T/A	Foliar Rating 0-100
BTS-1606N	2.3	11966	18.1	41.6	0.4
BTS-1065	2.3	11776	17.9	40.4	2.6
C-G021	2.4	11913	18.2	40.5	7.5
BTS-1941	2.4	11733	17.7	41.4	0.0
C-G675	2.4	11383	17.7	37.9	1.3
HIL-2238NT	2.4	11343	17.8	39.2	2.4
C-G049	2.5	10763	17.3	41.7	0.6
C-G752NT	2.6	10839	18.2	34.5	0.2
BTS-197N	2.6	10946	18.5	34.8	0.4
C-G919	2.6	10110	17.5	36.8	1.1
HIL-9865	2.7	10463	18.0	37.1	1.6
SX-1278N	2.7	10355	17.9	36.6	1.2
C-G932NT	2.7	10526	18.5	35.1	0.1
BTS-1703	2.7	9937	17.7	35.0	0.6
MA-709	2.8	9661	17.7	35.7	3.8
SX-2201	2.9	9261	17.4	31.7	14.8
MA-814	2.9	9199	17.5	35.0	3.8
HIL-2332NT	3.0	9675	18.5	32.7	0.6
SX-2294	3.0	8709	17.2	32.5	12.1
SX-2296N	3.1	8903	17.9	32.9	1.0
SX-2283	3.1	8647	17.6	28.0	3.3
HIL-2361	3.1	8949	18.2	33.2	1.0
SX-2297	3.3	8481	18.2	32.1	2.1
SX-2295	3.4	7791	17.8	30.2	1.9
MA-813NT	3.6	7194	17.3	31.3	3.9
Susceptible Check	5.2	3842	16.0	20.7	100.0
Average	2.9	9783.4	17.78	34.94	6.47
LSD 5%	0.7	1592.8	0.5	2.6	8.1
CV %	12.0	7.9	1.3	3.7	60.8

Root Rating (1-9 scale): 1 = very little damage, 2 = up to 20% damage, 4 = up to 60% damage, 6 = up to 75% damage and 8 = up to 90% damage.

Foliar Rating: 0 = best, 100 = worst.



Fusarium Nursery

American Crystal Sugar Company

Average of 2 years, 2020 & 2021

Trial Quality: Good

Evaluated: 4 evaluation dates toward end of season

Plot Size: 2 Rows X 17 ft., 4 reps

Variety	Avg of 2 Years Rating 1-9	2020 Rating 1-9	2021 Rating 1-9
BTS-1065	2.2	1.6	2.7
C-G049	2.9	2.2	3.5
C-G752NT	3.0	2.2	3.9
C-G021	3.0	2.0	4.1
C-G932NT	3.2	1.9	4.4
BTS-1941	3.3	2.3	4.4
BTS-1606N	3.4	2.2	4.7
BTS-197N	3.5	2.3	4.8
C-G919	3.6	2.9	4.2
SX-2294	4.4	3.3	5.7
SX-2295	4.5	3.1	5.4
SX-2283	4.6	3.2	5.9
SX-1278N	4.7	3.6	6.1
BTS-1703	4.7	3.9	5.5
C-G675	4.7	3.6	5.9
HIL-2361	4.8	3.7	5.9
SX-2201	4.8	3.2	6.4
SX-2297	4.9	3.3	6.1
SX-2296N	4.9	3.5	6.5
MA-813NT	5.1	4.0	6.2
MA-709	5.1	4.2	6.0
MA-814	5.2	3.6	6.9
HIL-9865	5.3	4.7	5.9
HIL-2238NT	5.3	4.2	6.4
HIL-2332NT	5.4	4.4	6.4
Average	4.26	3.06	5.00
LSD 5%	0.9	0.6	1.0
CV %	10.1	13.45	11.7

Foliar Rating (1-9 scale): 1 = very little damage, 2 = up to 20% damage, 4 = up to 60% damage, 6 = up to 75% damage, and 8 = up to 90% damage. Values are an average of 4 ratings.



Official Variety and Plant to Stand Trials

Michigan Sugar Company

Location Information

	Sandusky	Port Hope	Ruth	Middleton	Freeland	Richville	Fairgrove	Pigeon
Grower	Gerstenberger	Grekowicz	Maurer	Mining	Shaffner	SVREC	Sylvester	Trost
Trial Quality	OVT - Fair	OVT - Very Good	OVT - Good PTS - Good	OVT - Very Good PTS - Good	OVT - Good PTS - Good	OVT - Good PTS - Good	OVT - Very Good	OVT - Very Good
Planted	Apr 23	Apr 26	Apr 22	PTS - April 7 OVT - Replant May 18	Apr 20	Apr 14	Apr 7	Replant - May 13
Harvested	Oct 6	Oct 28	OVT - Sep 30 PTS - Oct 1	Nov 5	OVT - Sep 20 PTS - Sep 28	OVT & PTS - Oct 20	Oct 13	Oct 22
Soil Texture	Clay Loam	Clay Loam	Clay Loam	N/A	Silty Clay Loam	Clay Loam	Clay Loam	Clay Loam
Soil pH	6.8	7.7	7.6	N/A	8.0	7.5	7.8	6.8
Soil OM	3.4%	5.5%	3.4%	N/A	4.0%	3.6%	3.9%	3.8%
Phosphorus	34	64	60	N/A	43	42	62	55
Potassium	85	175	191	N/A	113	152	234	143
Magnesium	151	279	243	N/A	436	392	410	270
Manganese	13.1	49.6	33.2	N/A	25.8	36.6	37	20.4
Boron	0.4	1.3	1.3	N/A	1.7	1	1.4	1
Zinc	3.2	12.1	6.9	N/A	8	7.7	13.2	7.1
Nitrogen Added	135 lbs.	35 lbs. + Dairy Manure	155 lbs.	35 lbs. + Hog Manure	135 lbs.	135 lbs.	155 lbs.	155 lbs.

Seasonal Rainfall									
April	0.14	0.29	0.2	1.08	0	0.08	0.78	X	
May	1.02	1.21	1.05	1.71	1.64	1.21	1.64	1.05	
June	3.29	2.51	2.7	5.72	5.6	5.13	3.68	1.94	
July	3.53	3.76	4.89	1.99	3.51	2.08	2.61	2.75	
August	2.29	2.28	2.03	2.69	4.25	2.52	2.67	1.61	
September	6.86	4.15	3.86	3.33	3.81	4.24	5.77	3.32	
October	0.21	2.28	0	3.79	X	1.36	0.94	1.64	
November	X	X	X	0.00	X	X	X	X	
Total	17.34	16.48	14.73	20.31	18.81	16.62	18.09		12.31



Official Variety Trials

Cercospora Fungicides: Application Dates and Products

Location	Treatment 1**	Treatment 2**	Treatment 3**	Treatment 4**
Gerstenberger	6/29 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC	8/5 - SuperTin, EBDC
Grekowicz	6/29 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC	8/5 - SuperTin, EBDC
Maurer	6/29 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC	8/5 - SuperTin, EBDC
Mininger	6/24 - EBDC	7/1 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/23 - Inspire XT, EBDC
Shaffner	6/23 - EBDC	7/6 - Delaro, Proline, EBDC	7/20 - SuperTin, Topsin, EBDC	7/30 - Inspire XT, EBDC
SVREC	6/23 - EBDC	6/30 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC
Sylvester	6/23 - EBDC	6/30 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC
Trost	6/29 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC	8/5 - SuperTin, EBDC
Vandenboom	6/23 - EBDC	6/30 - Delaro, Proline, EBDC	7/14 - SuperTin, Topsin, EBDC	7/26 - Inspire XT, EBDC

Location	Treatment 5**	Treatment 6**	Treatment 7**	Treatment 8**
Gerstenberger	8/17 - Veltyma, EBDC	8/30 - SuperTin, EBDC	X	X
Grekowicz	8/16 - Veltyma, EBDC	8/31 - SuperTin, EBDC	9/14 - Minerva, Badge SC	X
Maurer	8/17 - Veltyma, EBDC	8/31 - SuperTin, EBDC	X	X
Mininger	8/4 - SuperTin, EBDC	8/16 - Veltyma, EBDC	8/31 - SuperTin, EBDC	9/14 - Minerva, Badge SC
Shaffner	8/9 - SuperTin, EBDC	8/20 - Veltyma, EBDC	9/3 - SuperTin, EBDC	X
SVREC	8/5 - SuperTin, EBDC	8/16 - Veltyma, EBDC	8/30 - SuperTin, EBDC	9/17 - Minerva, Badge SC
Sylvester	8/6 - SuperTin, EBDC	8/16 - Veltyma, EBDC	8/31 - SuperTin, EBDC	9/16 - Minerva, Badge SC
Trost	8/17 - Veltyma, EBDC	8/31 - SuperTin, EBDC	9/14 - Minerva, Badge SC	
Vandenboom	8/6 - SuperTin, EBDC	8/16 - Veltyma, EBDC	8/31 - SuperTin, EBDC	9/16 - Minerva, Badge SC

EBDC* = Manzate Max, Koverall, or Manzate Pro-Stick

**Masterlock included in all Treatments.

Comments: Overall Cercospora Leaf Spot control was good. Environmental conditions during the months of September and October kept leafspot active and extended the need for fungicide applications. A few trials harvested late had leafspot presence near economic injury even after 7-8 fungicide applications.

Presented In Partnership



Education

(Publications, meetings, seminars, web resources, clinics, reporting sessions.)



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