
MICHIGAN SUGARBEET
REACh
Research & Education Advisory Council
2023
Variety
Trial Results

Presented In Partnership

MICHIGAN STATE UNIVERSITY | AgBioResearch

MICHIGAN STATE UNIVERSITY | Extension

UNIVERSITY of GUELPH

USDA

PIONEER • BIG CHIEF MICHIGAN SUGAR

Sugarbeet Advancement

MICHIGAN SUGARBEET REACh

Research & Education Advisory Council

Education

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

MICHIGAN SUGARBEET REACh
Research Education Advisory Council

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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2023 Variety Trial Results

Table of Contents

Approval of Seed Varieties

for the 2024 Crop

Fully Approved Varieties		
Unlimited Quantities		
BTS-1703*	HIL-9865	SX-2294*
BTS-197N	HIL-2238NT	SX-2296N
BTS-1183	HIL-2332NT	SX-2295
BTS-1122	HIL-2361	SX-2297*
C-G675*	HIL-2403	SX-2201*
C-G752NT*	MA-709*	
C-G932NT	MA-813NT*	
C-G021*		

Limited Approval Varieties		
Quantities limited to 10% of acres		
BTS-123N	C-G227	HIL-2425NT
BTS-1276	C-G229	MA-940
C-G214NT	C-G233	

Special Approval Varieties		
Variety	**Specialty**	**Quantity**
BTS-128N*	CR+, Nematode, Root Disease	10%
C-G049*	CR+, Root Disease	3000 units
C-G151*	CR+, Root Disease	5000 units
C-G206NT*	CR+, Nematode, Root Disease	10%
MA-933NT*	Nematode, Root Disease	10%

* Approved to plant through 2024

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Approved Varieties for 2024

2022 & 2023 Data

Variety	Approval Status	$/A	Values are % of Check except for Root Aphid (% Infected)									
			RWSA	RWST	T/A	Emergence	Cercospora	Rhizoctonia	Root Aphid	Aphanomyces	Fusarium	Rhizomania
C-G227	Limited Approval	$2,805	107.0	99.3	107.7	111.4 G	61.0 E	102.7 G	2.1 G	95.1 G	90.8 F+	102.6 G
BTS-1122	Fully Approved	$2,803	107.1	97.8	109.5	111.8 G	64.0 G+	120.6 F-	0.0 G	95.6 G	70.9 G	83.8 G
C-G049	Special Approval	$2,803	106.6	94.2	113.4	103.6 G	58.6 E	96.0 G	0.0 G	90.4 G	82.0 F+	100.1 G
C-G233	Limited Approval	$2,799	106.7	97.8	109.2	109.9 G	61.2 E	109.2 F	0.0 G	93.3 G	60.8 G	92.2 G
C-G206NT	Special Approval	$2,769	105.1	96.9	108.4	106.8 G	53.1 E	88.5 G	0.0 G	87.6 G	87.2 F+	84.0 G
BTS-1183*	Fully Approved	$2,755	104.8	97.9	106.8	101.2 G	60.7 E	98.9 G	0.0 G	94.1 G	79.6 G	91.5 G
BTS-128N	Special Approval	$2,717	103.2	96.9	106.5	107.7 G	55.6 E	105.8 F+	0.0 G	82.3 G	79.4 G	101.4 G
C-G151	Special Approval	$2,686	102.9	97.4	105.6	110.6 G	62.9 G+	104.1 G	0.0 G	91.6 G	69.4 G	90.8 G
C-G229	Limited Approval	$2,681	102.5	103.0	99.4	100.6 G	43.8 E	103.8 G	0.0 G	84.6 G	81.3 F+	104.5 G
BTS-123N	Limited Approval	$2,677	101.8	97.8	103.9	103.9 G	49.7 E	115.0 F-	0.0 G	98.6 G	88.8 F+	100.8 G
BTS-197N	Fully Approved	$2,672	101.9	96.4	105.8	94.5 F	113.1 F-	109.2 F	2.0 G	104.3 F+	85.9 F+	103.6 G
C-G214NT	Limited Approval	$2,654	101.2	99.0	102.1	110.6 G	57.9 E	101.8 G	0.0 G	92.3 G	80.3 G	99.9 G
C-G932NT	Fully Approved	$2,647	101.0	98.5	102.5	101.4 G	111.2 F-	109.4 F	0.0 G	70.9 G	80.0 G	96.4 G
SX-2296N*	Fully Approved	$2,634	100.4	101.5	98.8	102.3 G	117.6 F-	109.6 F	2.0 G	96.9 G	98.1 F+	105.2 G
BTS-1276	Limited Approval	$2,631	100.4	101.3	99.1	99.6 F+	44.1 E	98.7 G	4.2 G	97.8 G	77.3 G	96.6 G
HIL-2332NT*	Fully Approved	$2,581	98.1	101.7	96.6	102.7 G	115.3 F-	90.0 G	0.0 G	97.8 G	106.0 F+	101.0 G
SX-2295	Fully Approved	$2,549	96.9	97.7	99.3	99.0 F+	99.1 G	92.5 G	20.0 F	110.7 F+	99.7 F+	115.1 F+
HIL-9865*	Fully Approved	$2,533	96.7	98.9	97.8	93.8 F	106.4 F	101.4 F-	0.0 G	111.2 F+	116.3 F-	102.3 G
HIL-2361	Fully Approved	$2,524	96.0	100.8	95.3	92.3 F	98.5 G	94.9 G	0.0 G	110.2 F+	113.9 F-	114.2 F+
MA-940	Limited Approval	$2,516	95.7	101.4	94.5	93.4 F	103.2 F	86.0 G	0.0 G	126.9 F-	115.8 F-	112.9 F+
HIL-2238NT	Fully Approved	$2,512	95.2	93.5	101.6	102.8 G	96.5 G	113.0 F-	0.0 G	131.9 F-	110.2 F-	104.1 G
HIL-2403	Fully Approved	$2,510	95.3	100.2	95.0	102.1 G	97.6 G	89.4 G	2.0 G	109.8 F+	106.6 F+	121.6 F+
MA-933NT	Special Approval	$2,501	95.3	100.5	94.8	105.9 G	107.8 F	98.5 G	2.0 G	107.6 F+	108.8 F+	103.4 G
HIL-2425NT	Limited Approval	$2,492	95.1	99.7	95.3	95.6 F	82.3 G	102.7 F-	4.0 G	133.1 F-	112.1 F-	103.6 G

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

$/A: Gross dollars per acre is calculated using early delivery adjustment where necessary and a per pound payment of $0.18 for 2022, and $0.25 for 2023.

Results are combined across 2 years which includes 8 locations in 2022 and 7 locations in 2023.

*Check Variety

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Rhizoctonia

Varieties for 2024 - Average of 2022 & 2023

Variety	% of Check				Comments
	Rhizoc	RWSA	RWST	Cerc	
MA-940	86.0	95.7	101.4	103.2	New Limited Approval Variety with Very Good Rhizoctonia tolerance. Above average RWST and below average RWSA. Slight weakness to Aphanomyces and Fusarium.
C-G206NT	88.5	105.1	96.9	53.1	New Specially Approved Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. CR+ Trait for Excellent Cercospora Tolerance. Below average RWST and above average RWSA.
HIL-2403	89.4	95.3	100.2	97.6	Fully Approved Variety with Very Good Rhizoctonia tolerance. Above average RWST and below average RWSA. Good overall disease traits.
HIL-2332NT	90.0	98.1	101.7	115.3	Fully Approved Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. Above average RWST and below average RWSA. Slight weakness to Cercospora.
SX-2295	92.5	96.9	97.7	99.1	Fully Approved Variety with Very Good Rhizoctonia tolerance. Below average RWST and RWSA. Slightly weak on Aphanomyces and Root Aphid.
HIL-2361	94.9	96.0	100.8	98.5	Fully Approved Variety with Very Good Rhizoctonia tolerance. Above average RWST and below average RWSA. Slight weakness to Aphanomyces and Fusarium.
C-G049	96.0	106.6	94.2	58.6	Specially Approved Variety with Very Good Rhizoctonia tolerance. CR+ trait for Excellent Cercospora tolerance. Below average RWST and above average RWSA.
MA-933NT	98.5	95.3	100.5	107.8	Specially Approved Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. Above average RWST but below average RWSA.
BTS-1276	98.7	100.4	101.3	44.1	New Limited Approval Variety with Very Good Rhizoctonia tolerance. CR+ trait for excellent Cercospora tolerance. Above average RWSA and RWST. Slight weakness to Root Aphid.
BTS-1183	98.9	104.8	97.9	60.7	New Fully Approved Variety with Very Good Rhizoctonia tolerance. CR+ trait for excellent Cercospora tolerance. Above average RWSA and average RWST.
HIL-9865	101.4	96.7	98.9	106.4	Fully Approved Variety with Very Good Rhizoctonia tolerance. Average RWST and below average RWSA. Slight weakness to Aphanomyces and Fusarium.
C-G214NT	101.8	101.2	99.0	57.9	New Limited Approval Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. CR+ trait for excellent Cercospora tolerance.
HIL-2425NT	102.7	95.1	99.7	82.3	New Limited Approval Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. Very Good RWST and below average RWSA. Slight weakness to Root Aphid, Aphanomyces, and Fusarium.
C-G227	102.7	107.0	99.3	61.0	New Limited Approval Variety with Very Good Rhizoctonia tolerance. CR+ trait for excellent Cercospora tolerance. Above average RWSA and RWST.
C-G229	103.8	102.5	103.0	43.8	New Limited Approval Variety with Very Good Rhizoctonia tolerance. CR+ trait for excellent Cercospora tolerance. Very Good RWST and above average RWSA. Good root disease traits.

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

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Cercospora

Varieties for 2024 - Average of 2022 & 2023

Variety	% of Check				Comments
	Cerc	RWSA	RWST	Rhizoc	
C-G229	43.8	102.5	103.0	103.8	New Limited Approval Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWST and RWSA with good overall root disease traits.
BTS-1276	44.1	100.4	101.3	98.7	New Limited Approval Variety with CR+ trait for Excellent Cercospora Tolerance. Above average RWST and average RWSA. Good overall root disease traits.
BTS-123N	49.7	101.8	97.8	115.0	New Limited Approval Nematode Tolerant Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but below average RWST. Slight weakness to Rhizoctonia.
C-G206NT	53.1	105.1	96.9	88.5	New Limited Approval Nematode Tolerant Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but well below average RWST.
BTS-128N	55.6	103.2	96.9	105.8	New Limited Approval Nematode Tolerant Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but well below average RWST. Slight weakness to Rhizoctonia.
C-G214NT	57.9	101.2	99.0	101.8	New Limited Approval Nematode Tolerant Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA and average RWST. Good overall root disease traits.
C-G049	58.6	106.6	94.2	96.0	Specially Approved Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA and well below average RWST. Very good root disease traits.
BTS-1183	60.7	104.8	97.9	98.9	New Fully Approved Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but below average RWST. Very good root disease traits.
C-G227	61.0	107.0	99.3	102.7	New Limited Approval Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA and average RWST. Moderate root disease traits.
C-G233	61.2	106.7	97.8	109.2	New Limited Approval Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but below average RWST. Slight weakness to Rhizoctonia.
C-G151	62.9	102.9	97.4	104.1	Specially Approved Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA and below average RWST. Good overall root disease traits.
BTS-1122	64.0	107.1	97.8	120.6	New Fully Approved Variety with CR+ trait for Excellent Cercospora tolerance. Above average RWSA but below average RWST. Slight weakness to Rhizoctonia.
HIL-2425NT	82.3	95.1	99.7	102.7	New Limited Approval Nematode Tolerant variety with Very Good Cercospora tolerance. Below average RWSA but above average RWST. Slight weakness to Aphanomyces and Fusarium.

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

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High Quality

Varieties for 2024 - Average of 2022 & 2023

Variety	% of Check				Comments
	RWST	RWSA	Rhizoc	Cerc	
C-G229	103.0	102.5	103.8	43.8	New Limited Approval Variety with Excellent RWST and above average RWSA. CR+ trait for Excellent Cercospora Tolerance. Good overall root disease traits.
HIL-2332NT	101.7	98.1	90.0	115.3	Fully Approved Nematode Tolerant Variety with Very Good RWST and below average RWSA. Slight weakness to Cercospora. Good overall root disease traits.
SX-2296N	101.5	100.4	109.6	117.6	Fully Approved Nematode Tolerant Variety with Very Good RWST and average RWSA. Slight weakness to Cercospora and Rhizoctonia.
MA-940	101.4	95.7	86.0	103.2	New Limited Approval Variety with Very Good RWST and below average RWSA. Very Good Rhizoctonia tolerance, but slight weakness to Aphanomyces and Fusarium.
BTS-1276	101.3	100.4	98.7	44.1	New Limited Approval Variety with Very Good RWST and above average RWSA. CR+ trait for Excellent Cercospora tolerance. Good overall root disease traits.

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

Sugarbeet Cyst Nematode

Varieties for 2024 - Average of 2022 & 2023

Variety	All Values are % of Check				Comments
	RWSA	RWST	Rhizoc	Cerc	
HIL-2425NT	95.1	99.7	102.7	82.3	New Limited Approval Nematode Tolerant Variety with Very Good Cercospora tolerance. Below average RWSA but above average RWST. Slight weakness to Aphanomyces and Fusarium.
HIL-2238NT	95.2	93.5	113.0	96.5	Fully Approved Nematode Tolerant Variety. Below average RWST and RWSA. Slight weakness to Rhizoctonia, Aphanomyces, and Fusarium.
MA-933NT	95.3	100.5	98.5	107.8	Specially Approved Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. Above average RWST but below average RWSA.
HIL-2332NT	98.1	101.7	90.0	115.3	Fully Approved Nematode Tolerant Variety with Very Good Rhizoctonia tolerance. Above average RWST and below average RWSA. Slight weakness to Cercospora.
SX-2296N	100.4	101.5	109.6	117.6	Fully Approved Nematode Tolerant Variety with Very Good RWST and average RWSA. Slight weakness to Cercospora and Rhizoctonia.
C-G932NT	101.0	98.5	109.4	112.2	Fully Approved Nematode Tolerant Variety. Average RWST and RWSA. Slight weakness to Cercospora and Rhizoctonia.
C-G214NT	101.2	99.0	101.8	57.9	New Limited Approval Nematode Tolerant Variety. CR+ trait for Excellent Cercospora tolerance. Above average RWSA and average RWST. Slight weakness to Rhizoctonia.
BTS-123N	101.8	97.8	115.0	49.7	New Limited Approval Nematode Tolerant Variety. CR+ trait for Excellent Cercospora tolerance. Above average RWSA and below average RWST. Weakness to Rhizoctonia.
BTS-197N	101.9	96.4	109.2	113.1	Fully Approved Nematode Tolerant Variety. Below average RWST and above average RWSA. Slight weakness to Cercospora and Rhizoctonia.
BTS-128N	103.2	96.9	105.8	55.6	New Specially Approved Nematode Tolerant Variety. CR+ trait for Excellent Cercospora tolerance. Below average RWST and above average RWSA. Slight weakness to Rhizoctonia.
C-G206NT	105.1	96.9	88.5	53.1	New Specially Approved Nematode Tolerant Variety. CR+ trait for Excellent Cercospora tolerance. Below average RWST and above average RWSA. Very Good for Rhizoctonia.

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

Official Variety Trial

Average of 7 Locations - 2023

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, Grekowicz, Maurer, Mininger, SVREC, Sylvester, Trost

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

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G206NT	**$3,226**	**11087**	264	19	41.9	2	17.7	20	95.4	15	**57.0**	**8**
C-G049	**$3,199**	**10976**	254	24	**43.4**	**1**	17.2	24	94.9	22	54.6	12
C-G227	**$3,190**	**11006**	271	9	40.5	6	18.2	7	95.3	19	**59.7**	**1**
C-G233	**$3,173**	**10902**	266	16	41.0	3	18.0	13	94.9	23	**59.3**	**2**
BTS-1183	**$3,171**	**10920**	270	13	40.5	7	18.1	12	95.3	18	53.4	13
BTS-128N	**$3,133**	**10769**	265	17	40.6	5	17.8	19	95.6	10	**58.3**	**5**
BTS-1122	**$3,132**	**10783**	265	18	40.7	4	17.8	16	95.2	20	55.3	10
BTS-123N	$3,081	10589	267	15	39.7	8	17.8	18	**95.8**	**8**	55.0	11
C-G214NT	$3,028	10422	269	14	38.6	11	17.9	15	**95.8**	**6**	**59.2**	**3**
BTS-197N	$3,009	10368	263	21	39.5	9	17.8	17	94.9	21	46.6	22
C-G932NT	$3,004	10352	270	12	38.4	12	18.1	11	95.4	17	52.3	16
C-G229	$2,980	10260	**280**	**1**	36.5	16	**18.5**	**2**	**96.0**	**4**	52.2	17
C-G151	$2,968	10235	263	20	38.9	10	17.6	21	95.5	14	**58.3**	**4**
BTS-1276	$2,958	10170	**278**	**3**	36.6	15	**18.5**	**5**	95.7	9	50.8	19
SX-2296N	$2,928	10041	**277**	**5**	36.3	18	**18.5**	**4**	95.5	13	**55.8**	**9**
HIL-2332NT	$2,922	10021	**280**	**2**	35.8	19	**18.6**	**1**	**95.9**	**5**	**57.6**	**6**
HIL-2403	$2,908	9992	**275**	**8**	36.4	17	18.1	9	**96.1**	**3**	51.7	18
SX-2295	$2,883	9889	262	22	37.7	14	17.6	22	95.5	12	52.7	15
HIL-2238NT	$2,855	9799	256	23	38.2	13	17.4	23	94.9	24	52.8	14
HIL-2361	$2,851	9795	**276**	**7**	35.6	21	18.2	8	**96.2**	**1**	46.5	23
MA-940	$2,824	9697	**276**	**6**	35.1	23	18.2	6	**96.2**	**2**	45.1	24
HIL-9865	$2,811	9667	271	10	35.7	20	18.0	14	**95.8**	**7**	47.9	20
MA-933NT	$2,811	9662	**277**	**4**	34.8	24	**18.5**	**3**	95.6	11	**57.2**	**7**
HIL-2425NT	$2,794	9620	270	11	35.5	22	18.1	10	95.4	16	47.3	21
Average	$2,993.2	10292.6	269.4		38.24		18.01		95.53		53.61	
LSD 5%	141.8	486.8	6.0		1.4		0.3		0.4		4.2	
CV %	4.5	4.5	2.1		3.4		1.7		0.4		6.3	

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: The trials in 2023 were planted over the course of more than one month from April 14 through May 23. A couple trials had some difficulty with emergence due to crusting and their emergence data was not included in the average above (Sylvester, Maurer). Emergence overall was slightly lower than the last several years. Overall, root yield was above average and sugar content was average. Disease pressure in trials was relatively low, a couple trials had low levels of Cercospora just before harvest (SVREC, Mininger).

Plant to Stand
Average of 4 Locations - 2023

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, Sylvester, Trost

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
BTS-1183	**$3,130**	**9934**	255	7	**39.0**	**2**	**17.7**	**5**	**93.8**	**9**	128.1	9
BTS-1122	**$3,084**	**9767**	252	8	**38.9**	**3**	17.5	9	**94.0**	**8**	**139.1**	**4**
C-G151	**$3,073**	**9737**	**257**	**6**	38.0	4	17.5	8	**94.6**	**3**	**142.1**	**1**
C-G049	**$3,032**	**9617**	238	13	**40.5**	**1**	16.9	12	93.1	13	**141.3**	**2**
SX-2296N	$2,846	9014	**269**	**1**	33.6	7	**18.2**	**1**	**94.9**	**1**	**135.7**	**6**
C-G932NT	$2,734	8703	250	9	34.8	5	17.6	6	93.3	11	**132.4**	**8**
MA-933NT	$2,720	8615	**261**	**3**	33.0	10	**17.9**	**3**	**94.6**	**4**	**137.5**	**5**
HIL-2332NT	$2,694	8531	**263**	**2**	32.5	12	**18.1**	**2**	**94.2**	**5**	**139.4**	**3**
SX-2295	$2,667	8413	250	10	33.7	6	17.3	10	**94.1**	**6**	**132.6**	**7**
HIL-2403	$2,632	8343	**257**	**5**	32.5	13	**17.8**	**4**	**94.0**	**7**	126.0	10
HIL-2361	$2,622	8325	**258**	**4**	32.3	14	17.6	7	**94.7**	**2**	111.2	14
HIL-2238NT	$2,516	8015	241	11	33.3	9	16.8	14	**93.8**	**10**	125.7	11
BTS-197N	$2,500	7968	238	14	33.5	8	17.2	11	92.2	14	113.9	13
HIL-9865	$2,446	7754	238	12	32.6	11	16.8	13	93.3	12	116.0	12
Average	$2,763.8	8766.8	252		34.9		17.49		93.91		130.1	
LSD 5%	242.0	749.3	11.8		2.0		0.5		1.2		12.4	
CV%	6.1	6.0	3.3		4.0		2.2		0.9		6.7	

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25

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

Comments: Trials in 2023 experienced difficult emergence conditions, much like many growers experienced. One trial (Sylvester) was on the edge of having the need to be replanted. Overall, average root yield and sugar percentage was very close to what grower average ended up being for the 2023 season. Disease control was good to very good in all trials.

OVT Emergence

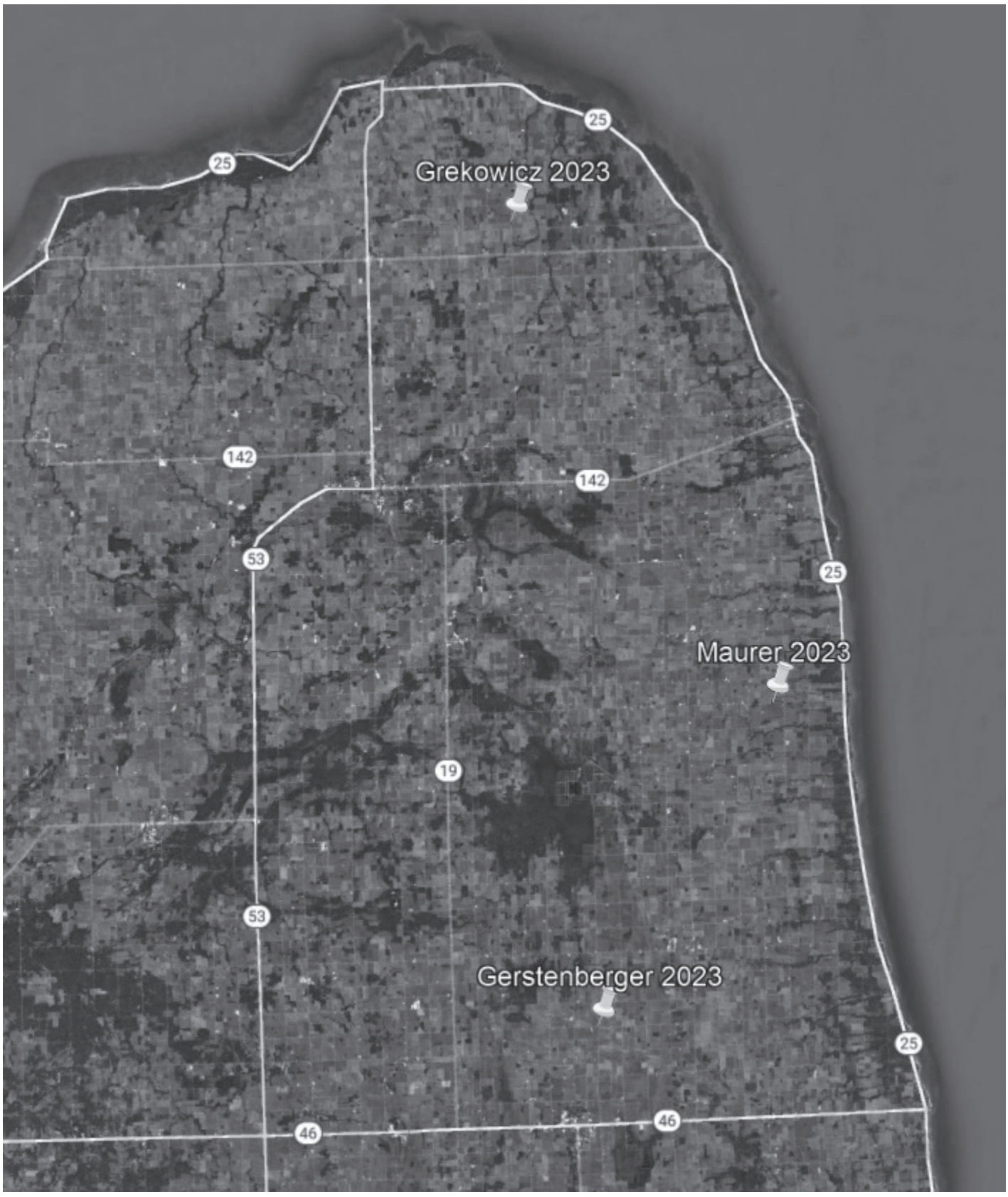
Average of 2 Years, 2022 & 2023

Locations: 2022 - Gerstenberger, Grekowicz, Maurer, Mininger, Schlicker, SVREC, Sylvester, Trost
2023 - Gerstenberger, Grekowicz, Mininger, SVREC, Trost
Plot Size: 2 Rows X 38 ft., 8 reps
Seeding Rate: 2022 - 1.9" & 4.5" seed spacing, 2023 - 1.9" seed spacing

Variety	% Emergence
BTS-1122	**61.6**
C-G227	**61.4**
C-G214NT	**60.9**
C-G151	**60.9**
C-G233	**60.5**
BTS-128N	**59.3**
C-G206NT	**58.8**
MA-933NT	**58.3**
BTS-123N	**57.2**
C-G049	**57.1**
HIL-2238NT	**56.7**
HIL-2332NT	**56.6**
SX-2296N	**56.4**
HIL-2403	**56.2**
C-G932NT	55.9
BTS-1183	55.7
C-G229	55.5
BTS-1276	54.9
SX-2295	54.5
HIL-2425NT	52.7
BTS-197N	52.1
HIL-9865	51.7
MA-940	51.5
HIL-2361	50.9
Average	56.55
LSD 5%	5.5
CV %	4.7

Comments: Emergence data is from Official Variety Trials.
Bold: Results are not statistically different from top-ranking variety in each column.

East District Trials



Official Variety Trial
Maurer, Minden City - 2023

Trial Quality: Good
Planted: May 18
Harvested: October 12
Plots: 2 Rows x 38 ft., 8 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 170 beets/100'

Soil Info: Clay Loam
Prev Crop: Dry Beans
Added N: 35 lbs. 2X2, 120 lbs. Side Dress

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 13.19 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G227	**$3,035**	**10883**	**280**	**6**	**38.9**	**2**	**18.8**	**4**	95.2	15	**52.5**	**1**
BTS-1122	**$2,962**	**10621**	**282**	**4**	37.6	4	**18.7**	**6**	**95.9**	**10**	44.0	8
C-G206NT	**$2,927**	**10495**	273	14	**38.5**	**3**	**18.4**	**11**	95.1	17	43.1	10
C-G049	$2,876	10312	259	23	**39.8**	**1**	17.7	21	94.8	22	41.3	16
C-G233	$2,839	10179	274	13	37.2	5	**18.5**	**10**	95.1	16	**51.3**	**2**
BTS-197N	$2,791	10008	275	12	36.3	7	**18.8**	**2**	94.4	23	37.8	19
C-G932NT	$2,767	9920	**279**	**8**	35.5	9	**18.9**	**1**	94.8	21	39.2	18
HIL-2403	$2,745	9843	**282**	**5**	34.8	11	**18.5**	**9**	**96.4**	**2**	37.7	20
BTS-1183	$2,696	9667	263	21	36.7	6	18.2	17	94.0	24	41.3	15
BTS-128N	$2,695	9665	272	15	35.6	8	18.2	16	95.4	13	**48.0**	**3**
HIL-9865	$2,667	9563	**277**	**9**	34.5	14	**18.4**	**12**	**95.9**	**9**	33.2	23
HIL-2332NT	$2,644	9479	**286**	**1**	33.1	17	**18.8**	**3**	**96.2**	**5**	42.3	13
C-G214NT	$2,623	9405	270	16	34.8	12	17.9	18	**96.0**	**6**	46.0	4
MA-933NT	$2,554	9157	**283**	**3**	32.4	19	**18.6**	**8**	**96.3**	**4**	43.1	9
BTS-123N	$2,542	9114	267	19	34.1	15	17.9	19	95.5	12	44.5	7
C-G229	$2,529	9067	**284**	**2**	31.9	23	**18.8**	**5**	**95.9**	**7**	44.9	6
HIL-2238NT	$2,524	9049	259	24	34.9	10	17.6	24	95.0	18	42.3	12
HIL-2425NT	$2,523	9046	270	17	33.6	16	18.2	14	94.9	20	30.5	24
C-G151	$2,520	9036	261	22	34.7	13	17.6	23	95.2	14	45.7	5
HIL-2361	$2,511	9005	**280**	**7**	32.2	21	18.3	13	**96.6**	**1**	34.4	21
SX-2296N	$2,482	8901	**276**	**11**	32.2	20	**18.7**	**7**	94.9	19	40.6	17
MA-940	$2,435	8730	**277**	**10**	31.6	24	18.2	15	**96.3**	**3**	34.3	22
SX-2295	$2,430	8715	264	20	33.0	18	17.7	22	95.7	11	41.3	14
BTS-1276	$2,400	8605	269	18	32.0	22	17.9	20	**95.9**	**8**	42.8	11
Average	$2,654.8	9519.4	273		34.8		18.30		95.47		41.76	
LSD 5%	156.7	561.9	9.7		1.7		0.5		0.8		5.8	
CV %	6.0	6.0	3.6		5.0		2.9		0.9		14.1	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This trial struggled early with soil crusting and required crust busting to get emergence. The timing of the crust busting was nearly perfect and stands improved tremendously. Adequate growing conditions thoughout the season produced slightly above average root yield and average sugar content. Foliar and root disease levels in this trial were low.

Official Variety Trial

Grekowicz, Kinde - 2023

Trial Quality: Excellent
Planted: May 18
Harvested: October 18
Plots: 2 Rows x 38 ft., 12 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 203 beets/100'

Soil Info: Sandy Loam
Prev Crop: Corn
Added N: Manure + 35 lbs. 2X2

Disease Pressure:
Cerc: Very Low
Rhizoc: Low
Rainfall: 14.82 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G227	**$3,140**	**12560**	**267**	**6**	47.1	8	**18.4**	**5**	**94.0**	**15**	**77.7**	**1**
BTS-123N	**$3,095**	**12379**	**268**	**5**	46.3	11	**18.3**	**8**	**94.6**	**7**	59.4	18
BTS-1183	**$3,075**	**12301**	252	18	**48.7**	**3**	17.5	20	**93.9**	**16**	62.2	17
BTS-128N	**$3,074**	**12295**	256	15	**48.0**	**5**	17.8	14	93.7	18	**71.3**	**2**
C-G206NT	**$3,056**	**12224**	254	17	**48.2**	**4**	17.5	19	**94.0**	**13**	67.1	5
C-G151	**$3,043**	**12170**	262	14	46.6	10	17.8	15	**94.9**	**1**	66.2	8
C-G233	**$2,996**	**11985**	251	20	47.8	6	17.6	18	93.4	20	**70.2**	**3**
C-G229	$2,977	11907	**271**	**3**	44.0	15	**18.5**	**3**	**94.4**	**11**	67.1	6
BTS-1276	$2,967	11870	**268**	**4**	44.3	14	**18.3**	**7**	**94.6**	**6**	65.2	10
BTS-197N	$2,966	11863	252	19	47.1	7	17.7	16	93.2	21	55.4	21
C-G214NT	$2,961	11844	**264**	**10**	44.8	13	**18.1**	**10**	**94.6**	**5**	69.1	4
BTS-1122	$2,958	11833	243	23	**48.7**	**2**	17.2	22	93.0	22	63.9	14
HIL-2425NT	$2,937	11749	**274**	**2**	42.9	19	**18.6**	**2**	**94.6**	**3**	55.6	20
C-G049	$2,931	11725	236	24	**49.7**	**1**	16.8	23	93.0	23	64.4	12
C-G932NT	$2,910	11642	254	16	45.8	12	17.7	17	93.8	17	56.4	19
HIL-2332NT	$2,895	11579	**274**	**1**	42.3	23	**18.7**	**1**	**94.5**	**9**	65.8	9
SX-2296N	$2,852	11409	**266**	**7**	42.9	18	**18.4**	**6**	**94.0**	**14**	65.2	11
HIL-9865	$2,848	11394	262	13	43.6	16	18.0	11	**94.2**	**12**	55.0	22
HIL-2238NT	$2,847	11389	243	22	46.8	9	17.4	21	92.7	24	64.0	13
MA-940	$2,837	11348	**266**	**8**	42.7	20	**18.2**	**9**	**94.5**	**8**	50.8	24
HIL-2361	$2,812	11249	**264**	**11**	42.7	21	17.9	13	**94.8**	**2**	51.4	23
HIL-2403	$2,806	11224	**264**	**12**	42.5	22	18.0	12	**94.6**	**4**	62.3	16
MA-933NT	$2,732	10927	**265**	**9**	41.2	24	**18.5**	**4**	93.5	19	66.6	7
SX-2295	$2,658	10631	244	21	43.6	17	16.8	24	**94.5**	**10**	63.0	15
Average	$2,932.2	11729.0	259		45.4		17.90		94.04		63.15	
LSD 5%	153.9	615.6	12.2		1.8		0.6		1.0		8.1	
CV %	5.3	5.3	4.8		4.0		3.6		1.1		13.0	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This trial was excellent from start to finish. Emergence was excellent and disease control was very good. This was the first OVT harvested during permanent pile for 2023. Root yields were very high, but sugar content was average.

Official Variety Trial

Gerstenberger, Sandusky - 2023

Trial Quality: Good
Planted: May 11
Harvested: October 4
Plots: 2 Rows x 38 ft., 10 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 203 beets/100'

Soil Info: Clay Loam
Prev Crop: Corn
Added N: 92 lbs. N, 35 lbs. 2X2

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 20.06 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G206NT	**$3,055**	**10270**	281	14	**36.5**	**1**	18.4	15	96.7	14	**55.1**	**12**
BTS-1183	**$2,977**	**10008**	284	13	**35.2**	**3**	18.5	10	96.6	18	**56.3**	**8**
C-G049	**$2,957**	**9941**	274	22	**36.2**	**2**	17.9	22	96.9	9	**56.4**	**7**
BTS-197N	**$2,937**	**9874**	287	8	**34.4**	**4**	**18.8**	**5**	96.4	21	45.4	24
C-G214NT	**$2,912**	**9792**	284	11	**34.4**	**5**	18.5	13	97.0	8	**60.3**	**2**
C-G233	**$2,868**	**9642**	284	12	**34.0**	**6**	**18.6**	**8**	96.5	20	**58.0**	**5**
SX-2296N	**$2,823**	**9493**	**295**	**1**	32.1	11	**19.1**	**1**	96.9	10	**54.5**	**14**
BTS-1122	**$2,818**	**9475**	279	18	**33.9**	**7**	18.4	16	96.2	22	**54.2**	**15**
BTS-128N	**$2,804**	**9428**	278	20	**33.9**	**8**	18.2	19	96.7	15	**57.9**	**6**
C-G932NT	$2,742	9218	**289**	**5**	31.9	12	**18.9**	**3**	96.6	17	48.5	21
SX-2295	$2,670	8978	275	21	32.7	9	17.9	21	97.0	7	**54.6**	**13**
C-G227	$2,615	8792	280	16	31.4	13	18.3	17	96.7	16	**55.3**	**11**
BTS-123N	$2,614	8790	269	24	32.6	10	17.7	24	96.6	19	**55.9**	**9**
HIL-2403	$2,576	8663	**291**	**3**	29.8	16	**18.8**	**6**	**97.2**	**2**	50.5	19
BTS-1276	$2,558	8601	**292**	**2**	29.4	18	**19.0**	**2**	96.8	12	51.7	17
C-G229	$2,555	8592	**289**	**4**	29.6	17	**18.7**	**7**	**97.1**	**5**	53.4	16
HIL-2238NT	$2,503	8415	270	23	31.1	14	17.8	23	96.1	23	**55.6**	**10**
C-G151	$2,501	8407	278	19	30.2	15	18.1	20	96.9	11	**62.1**	**1**
HIL-2332NT	$2,440	8203	287	9	28.6	21	18.5	11	**97.2**	**4**	**60.2**	**3**
HIL-2361	$2,434	8182	**288**	**7**	28.4	22	18.6	9	**97.2**	**3**	47.4	23
HIL-2425NT	$2,418	8131	279	17	29.1	19	18.5	12	96.0	24	51.3	18
HIL-9865	$2,417	8128	280	15	28.9	20	18.2	18	97.0	6	49.1	20
MA-933NT	$2,410	8103	**289**	**6**	28.0	23	**18.8**	**4**	96.8	13	**59.8**	**4**
MA-940	$2,175	7312	285	10	25.6	24	18.4	14	**97.4**	**1**	47.4	22
Average	$2,657.4	8934.9	283		31.6		18.43		96.77		54.20	
LSD 5%	285.2	958.9	7.6		3.0		0.5		0.4		8.5	
CV %	10.9	10.9	2.7		9.7		2.5		0.5		16.0	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This location was one of the driest locations during the early growing season. Notes from June indicate that very little plant growth was ocurring week to week. Rainfall in mid July prompted rapid growth, but root size in this trial never caught up to other locations. Root yield was still respectable averaging over 30 tons/a, and sugar content was respectable averaging over 18%. Root quality observed during harvest was exceptional with straight and long tap roots. Foliar and root disease levels in this trial were low.

Plant to Stand
Maurer, Minden City - 2023

Trial Quality: Good
Planted: May 18
Harvested: October 13
Plots: 6 Rows x 38 ft., 6 reps
Row Width: 22 in.
Seeding Rate: 4.1 in.

Soil Info: Clay Loam
Prev Crop: Dry Beans
Added N: 35 lbs. 2x2, 120 lbs. Side-Dress

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 13.43 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
C-G049	**$2,918**	**10463**	264	13	**39.6**	**1**	17.8	12	95.4	12	**118.1**	**7**
BTS-1183	**$2,899**	**10394**	**280**	**6**	37.2	3	**18.5**	**5**	95.8	8	114.5	10
C-G151	**$2,863**	**10267**	**280**	**5**	36.6	4	**18.4**	**6**	**96.4**	**3**	**136.6**	**1**
BTS-1122	**$2,862**	**10262**	**275**	**8**	37.3	2	**18.4**	**8**	95.5	10	**117.4**	**9**
C-G932NT	**$2,834**	**10162**	**284**	**3**	35.8	5	**19.0**	**1**	95.4	11	**119.7**	**6**
BTS-197N	**$2,780**	**9967**	**280**	**4**	35.6	6	**18.8**	**3**	95.2	14	**117.8**	**8**
SX-2296N	$2,650	9502	**285**	**2**	33.3	8	**18.8**	**4**	**96.1**	**5**	**126.6**	**3**
HIL-2332NT	$2,568	9209	**287**	**1**	32.1	12	**18.9**	**2**	**96.1**	**6**	**127.4**	**2**
HIL-2361	$2,540	9107	272	10	33.5	7	17.8	11	**96.5**	**2**	95.3	14
MA-933NT	$2,497	8954	274	9	32.7	10	18.1	10	**96.2**	**4**	**125.9**	**4**
HIL-2403	$2,496	8950	**276**	**7**	32.4	11	**18.4**	**7**	95.7	9	102.7	12
HIL-2238NT	$2,484	8908	270	11	33.0	9	18.1	9	95.3	13	114.4	11
SX-2295	$2,328	8346	267	12	31.3	14	17.5	13	**96.6**	**1**	**120.8**	**5**
HIL-9865	$2,303	8258	264	14	31.3	13	17.5	14	**96.0**	**7**	95.8	13
Average	$2,644.4	9482.0	276		34.4		18.29		95.87		116.65	
LSD 5%	197.0	706.3	10.5		2.1		0.6		0.6		21.1	
CV %	6.5	6.5	3.3		5.4		2.9		0.6		15.7	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This trial experienced soil crusting soon after planting. Crust busting was performed, but results were not ideal. Although thinner stands were present, final yield and sugar content reflect reasonable growing conditions throughout the season. Foliar and root disease levels in this trial were low.

Central District Trials

Official Variety Trial
Trost, Pigeon - 2023

Trial Quality: Good
Planted: May 23
Harvested: October 3
Plots: 2 Rows x 38 ft., 10 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 170 beets/100'

Soil Info: Sandy Clay Loam
Prev Crop: Corn
Added N: 150 lbs. Urea **+** 35 lbs. 2X2

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 14.75 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-1183	**$3,036**	**10121**	256	7	39.5	3	17.8	6	93.9	10	32.3	23
BTS-123N	**$2,971**	**9903**	251	12	39.4	4	17.3	16	94.3	6	**44.1**	**7**
BTS-128N	**$2,967**	**9889**	250	13	39.6	2	17.3	17	94.2	8	**45.0**	**4**
C-G049	**$2,954**	**9847**	232	24	**42.4**	**1**	16.6	24	92.8	22	35.3	19
C-G233	$2,813	9376	244	17	38.5	6	17.5	10	92.5	24	**43.1**	**9**
C-G227	$2,808	9359	245	16	38.1	8	17.4	14	93.0	20	**46.9**	**1**
BTS-1122	$2,800	9333	243	21	38.5	5	17.2	18	92.9	21	**40.5**	**10**
C-G206NT	$2,796	9322	243	19	38.3	7	17.1	21	93.5	14	**44.3**	**5**
C-G214NT	$2,790	9300	256	8	36.3	13	17.6	8	**94.4**	**5**	**43.3**	**8**
C-G229	$2,763	9210	**265**	**1**	34.8	17	**18.2**	**2**	**94.4**	**4**	34.4	20
MA-940	$2,756	9186	**264**	**2**	34.9	16	17.8	5	**95.1**	**1**	35.9	18
SX-2295	$2,727	9090	249	14	36.5	11	17.4	12	93.6	12	**39.8**	**12**
HIL-2361	$2,708	9028	**257**	**6**	35.1	14	17.5	9	**94.9**	**2**	**38.7**	**15**
HIL-2332NT	$2,683	8944	**258**	**5**	34.7	18	**18.0**	**4**	93.7	11	**45.4**	**3**
BTS-1276	$2,680	8933	**264**	**3**	33.9	21	**18.3**	**1**	93.9	9	33.0	22
C-G151	$2,671	8904	244	18	36.5	10	17.2	20	93.3	16	39.4	13
C-G932NT	$2,655	8849	243	20	36.4	12	17.2	19	93.1	17	38.1	16
BTS-197N	$2,654	8847	240	22	36.9	9	17.0	22	93.1	18	24.8	24
HIL-2403	$2,562	8540	253	9	33.7	22	17.4	15	**94.6**	**3**	**38.8**	**14**
HIL-9865	$2,558	8526	252	11	33.9	20	17.4	13	94.2	7	36.2	17
SX-2296N	$2,514	8380	246	15	34.0	19	17.4	11	93.1	19	**45.7**	**2**
HIL-2238NT	$2,478	8262	236	23	35.0	15	16.9	23	92.6	23	**40.1**	**11**
MA-933NT	$2,477	8257	**259**	**4**	31.9	24	**18.1**	**3**	93.6	13	**44.2**	**6**
HIL-2425NT	$2,456	8186	253	10	32.3	23	17.7	7	93.5	15	33.1	21
Average	$2,719.8	9066.4	250		36.3		17.45		93.67		39.27	
LSD 5%	198.2	660.7	7.9		2.4		0.4		0.7		8.2	
CV %	7.4	7.4	3.2		6.8		2.1		0.8		21.2	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This was the last OVT planted in 2023. Soil moisture after planting was less than desireable and created slower and less favorable germination and emergence conditions. This trial was thinned to a slightly lower stand than desired to compensate. The rest of the growing season was favorable and resulted in very good root yield and average sugar content. Foliar and root disease levels were low in this trial.

Official Variety Trial
SVREC, Richville - 2023

Trial Quality: Very Good
Planted: April 14
Harvested: November 1
Plots: 2 Rows x 38 ft., 8 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 203 beets/100'

Soil Info: Sandy Clay Loam
Prev Crop: Corn
Added N: PPI Urea/ESN blend, 125 lbs. N, 35 lbs. 2X2

Disease Pressure:
Cerc: Low to Moderate
Rhizoc: Low
Rainfall: 20.62 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G227	**$3,773**	**15090**	**322**	**3**	**46.9**	**3**	**20.2**	**5**	**98.4**	**5**	**48.4**	**3**
BTS-1183	**$3,651**	**14602**	315	12	**46.3**	**4**	19.9	12	**98.3**	**8**	43.9	13
C-G206NT	$3,609	14437	305	22	**47.3**	**2**	19.3	22	**98.1**	**18**	**46.5**	**7**
BTS-1122	$3,579	14317	315	13	45.4	5	19.8	14	**98.5**	**3**	**45.7**	**9**
C-G233	$3,573	14293	**318**	**9**	44.9	7	**20.1**	**9**	**98.0**	**20**	**52.6**	**1**
C-G049	$3,538	14150	299	23	**47.4**	**1**	19.1	23	97.8	23	**45.8**	**8**
BTS-128N	$3,488	13952	307	20	45.4	6	19.4	21	**98.3**	**7**	**46.6**	**6**
C-G932NT	$3,482	13929	**320**	**7**	43.5	9	**20.2**	**6**	**98.2**	**12**	**47.4**	**4**
C-G151	$3,480	13918	**321**	**5**	43.3	11	**20.1**	**8**	**98.5**	**1**	**51.1**	**2**
C-G229	$3,448	13793	**321**	**4**	42.9	13	**20.2**	**7**	**98.5**	**4**	36.1	20
BTS-123N	$3,446	13783	310	17	44.5	8	19.6	17	**98.2**	**13**	41.4	15
BTS-1276	$3,399	13598	**318**	**11**	42.8	14	**20.3**	**3**	97.5	24	37.0	19
C-G214NT	$3,381	13524	312	15	43.3	10	19.7	15	**98.1**	**17**	**47.4**	**5**
BTS-197N	$3,310	13242	307	21	43.1	12	19.4	20	**98.2**	**14**	44.8	10
SX-2295	$3,208	12830	309	19	41.5	16	19.5	18	**98.2**	**15**	38.8	16
HIL-2403	$3,206	12823	312	16	41.1	17	19.7	16	**98.2**	**11**	37.9	17
MA-933NT	$3,173	12691	**325**	**1**	39.1	19	**20.5**	**1**	**98.1**	**16**	44.6	11
HIL-2238NT	$3,155	12621	297	24	42.4	15	18.8	24	**98.3**	**9**	37.2	18
SX-2296N	$3,146	12583	**320**	**6**	39.3	18	**20.3**	**4**	**98.0**	**19**	43.0	14
MA-940	$3,099	12396	**320**	**8**	38.8	22	**20.1**	**10**	**98.5**	**2**	33.7	22
HIL-2332NT	$3,094	12378	**322**	**2**	38.5	23	**20.4**	**2**	97.9	21	44.1	12
HIL-2361	$3,045	12179	**318**	**10**	38.4	24	20.0	11	**98.3**	**6**	33.6	23
HIL-2425NT	$3,029	12116	312	14	38.8	20	19.8	13	97.9	22	33.5	24
HIL-9865	$2,997	11989	309	18	38.8	21	19.5	19	**98.3**	**10**	34.2	21
Average	$3,346.2	13384.7	314		42.7		19.83		98.18		42.31	
LSD 5%	164.5	658.0	7.2		1.8		0.4		0.5		7.1	
CV %	5.0	5.0	2.3		4.2		2.0		0.5		16.9	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25
Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This was the first OVT planted and last harvested in 2023. Favorable growing conditions throughout the season as well as the later harvest promoted excellent root yield and sugar content. Warmer than average September and October temperatures allowed low to moderate levels of foliar disease to present themselves after fungicide applications had ceased for the season. Root disease levels in this trial were low.

Official Variety Trial
Sylvester, Akron - 2023

Trial Quality: Good
Planted: April 26
Harvested: September 21
Plots: 2 Rows x 38 ft., 10 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 135 beets/100'

Soil Info: Sandy Clay Loam
Prev Crop: Wheat/Raddish/Rye
Added N: 35 lbs. 2X2, 120 lbs. Side-Dress

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 18.27 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
C-G233	**$3,694**	**10974**	255	20	**43.0**	**1**	17.1	18	95.6	21	**36.4**	**7**
C-G049	**$3,526**	**10475**	248	24	**42.3**	**2**	16.8	24	95.3	23	**33.6**	**13**
C-G206NT	**$3,523**	**10467**	254	21	**41.2**	**3**	16.9	23	96.1	15	**35.7**	**9**
C-G227	**$3,471**	**10314**	258	16	40.0	4	17.2	15	95.8	20	**39.2**	**3**
C-G151	$3,448	10245	259	15	39.5	5	17.2	16	96.2	10	**34.1**	**12**
BTS-1122	$3,407	10122	257	18	39.4	6	17.1	19	96.1	12	**32.4**	**15**
SX-2295	$3,334	9906	263	12	37.8	8	17.4	11	96.1	16	**31.7**	**16**
BTS-123N	$3,308	9828	263	11	37.4	11	17.3	12	**96.6**	**2**	30.5	18
C-G214NT	$3,306	9823	261	13	37.6	9	17.3	13	96.2	9	**40.1**	**1**
BTS-1276	$3,305	9819	**277**	**3**	35.4	13	**18.2**	**2**	**96.6**	**3**	**34.8**	**11**
BTS-197N	$3,275	9730	251	23	38.9	7	17.0	20	95.2	24	30.6	17
C-G229	$3,263	9695	**278**	**1**	34.9	16	**18.1**	**4**	**96.9**	**1**	**37.1**	**5**
SX-2296N	$3,228	9590	**278**	**2**	34.5	19	**18.3**	**1**	96.3	8	**39.9**	**2**
BTS-128N	$3,223	9575	256	19	37.3	12	17.0	21	96.3	7	**37.0**	**6**
HIL-2238NT	$3,193	9486	252	22	37.6	10	16.9	22	95.5	22	**30.2**	**19**
HIL-2361	$3,174	9429	269	7	35.0	14	17.7	8	96.3	6	24.2	23
HIL-2332NT	$3,173	9427	**276**	**4**	34.2	20	**18.1**	**3**	**96.5**	**4**	**35.9**	**8**
BTS-1183	$3,161	9392	268	9	35.0	15	17.7	9	96.1	14	**35.2**	**10**
MA-940	$3,114	9253	**271**	**5**	34.2	21	**17.9**	**5**	96.1	17	25.1	22
C-G932NT	$3,114	9252	267	10	34.6	18	17.6	10	**96.4**	**5**	**37.4**	**4**
HIL-2425NT	$3,028	8998	260	14	34.6	17	17.2	14	96.1	13	24.0	24
MA-933NT	$2,943	8744	**270**	**6**	32.4	23	**17.9**	**6**	95.9	19	**32.7**	**14**
HIL-9865	$2,883	8565	258	17	33.1	22	17.2	17	96.0	18	26.0	21
HIL-2403	$2,873	8536	269	8	31.7	24	17.8	7	96.1	11	27.2	20
Average	$3,248.5	9651.9	263		36.7		17.45		96.10		32.96	
LSD 5%	231.4	687.6	7.4		2.4		0.4		0.5		8.7	
CV %	7.2	7.2	2.8		6.7		2.3		0.6		26.8	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments: This trial encountered some soil crusting after planting and was crust busted. Results of the crust busting were not ideal and this trial was thinned to a lower stand than others for consistency between varieties/replications. Root yield was high and sugar content was respectable for a mid-September harvest. Foliar and root disease levels in this trial were low.

Plant to Stand
Trost, Pigeon - 2023

Trial Quality: Good
Planted: May 23
Harvested: October 3
Plots: 6 Rows x 38 ft., 6 reps
Row Width: 22 in.
Seeding Rate: 4.1 in.

Soil Info: Sandy Clay Loam
Prev Crop: Corn
Added N: 75 lbs. N, 35 lbs. 2X2

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 14.75 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
BTS-1183	**$3,024**	**10081**	**250**	**3**	**40.3**	**2**	**18.1**	**5**	**92.0**	**4**	**131.2**	**11**
C-G151	$2,762	9206	**247**	**5**	37.3	4	17.5	8	**92.9**	**2**	**150.7**	**4**
BTS-1122	$2,731	9103	234	8	39.0	3	17.5	9	**90.9**	**8**	**157.2**	**2**
C-G049	$2,680	8932	213	13	**41.9**	**1**	16.9	13	88.7	13	**141.7**	**8**
SX-2296N	$2,554	8515	**261**	**1**	32.7	12	**18.3**	**1**	**93.2**	**1**	**154.0**	**3**
MA-933NT	$2,491	8303	**249**	**4**	33.3	10	**18.2**	**2**	**91.7**	**5**	**150.3**	**5**
HIL-2238NT	$2,446	8154	229	10	35.7	5	17.0	12	**91.1**	**6**	**132.2**	**10**
HIL-2361	$2,433	8109	**251**	**2**	32.3	13	**18.1**	**4**	**92.1**	**3**	119.7	13
HIL-2403	$2,425	8084	**240**	**7**	33.7	7	**17.9**	**6**	**90.9**	**7**	**145.3**	**6**
C-G932NT	$2,393	7977	232	9	34.5	6	**17.8**	**7**	89.6	11	**144.1**	**7**
HIL-2332NT	$2,317	7723	**243**	**6**	31.8	14	**18.1**	**3**	**90.7**	**9**	**160.6**	**1**
SX-2295	$2,293	7643	228	11	33.6	8	17.3	11	**90.2**	**10**	**136.6**	**9**
HIL-9865	$2,241	7471	223	12	33.5	9	17.4	10	89.1	12	**127.9**	**12**
BTS-197N	$1,969	6563	201	14	32.9	11	16.9	14	86.7	14	110.3	14
Average	$2,482.7	8276.1	236		35.2		17.64		90.70		140.13	
LSD 5%	256.8	855.9	22.9		2.4		0.7		3.0		33.5	
CV %	9.0	9.0	8.4		6.0		3.2		2.8		20.8	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This was the last Plant to Stand trial planted in 2023 due to the wet spring. Later planting and reduced soil moisture contributed to a slightly less than desireable stand. Later planting and thinner stands still resulted in very good root yield and respectable sugar content. Clear Juice purity levels were abnormally low, likely due to the history of manure applications at this trial location.

Plant to Stand
Sylvester, Akron - 2023

Trial Quality: Fair
Planted: April 26
Harvested: September 22
Plots: 6 Rows x 38 ft., 6 reps
Row Width: 22 in.
Seeding Rate: 4.1 in.

Soil Info: Sandy Clay Loam
Prev Crop: Wheat/Raddish/Rye
Added N: 35 lbs. 2X2, 120 lbs. Side-Dress

Disease Pressure:
Cerc: Low
Rhizoc: Low
Rainfall: 18.32 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.
BTS-1122	**$3,217**	**9559**	**259**	**5**	**36.9**	**3**	17.4	6	**95.6**	**1**	81.5
C-G151	**$3,197**	**9498**	**255**	**6**	**37.2**	**2**	17.3	8	**95.1**	**4**	93.8
C-G049	**$3,088**	**9175**	244	11	**37.6**	**1**	16.7	12	**94.7**	**8**	107.3
BTS-1183	**$3,026**	**8991**	244	12	**36.9**	**4**	17.3	7	92.9	14	90.7
SX-2295	$2,830	8410	**261**	**4**	32.2	6	**17.9**	**2**	**94.3**	**10**	81.0
SX-2296N	$2,812	8355	**271**	**1**	30.8	7	**18.4**	**1**	**94.8**	**7**	84.5
C-G932NT	$2,688	7987	245	9	32.5	5	17.0	10	94.0	11	77.8
MA-933NT	$2,681	7965	**265**	**2**	30.1	9	**17.9**	**3**	**95.2**	**2**	88.4
HIL-2332NT	$2,633	7823	**263**	**3**	29.6	12	**17.8**	**4**	**95.1**	**3**	83.8
BTS-197N	$2,525	7502	245	10	30.6	8	17.0	11	93.9	12	65.5
HIL-2238NT	$2,447	7269	241	13	30.1	10	16.4	13	**95.0**	**6**	64.7
HIL-2361	$2,353	6990	252	8	27.8	13	17.1	9	**95.1**	**5**	59.3
HIL-9865	$2,287	6795	229	14	29.7	11	16.0	14	93.8	13	66.2
HIL-2403	$2,223	6605	**255**	**7**	25.9	14	17.5	5	**94.4**	**9**	67.2
Average	$2,714.7	8065.9	252		32.0		17.26		94.56		79.40
LSD 5%	384.0	1141.0	15.7		3.6		0.7		1.5		N.S.
CV %	9.9	9.9	4.4		7.8		2.9		1.1		38.0

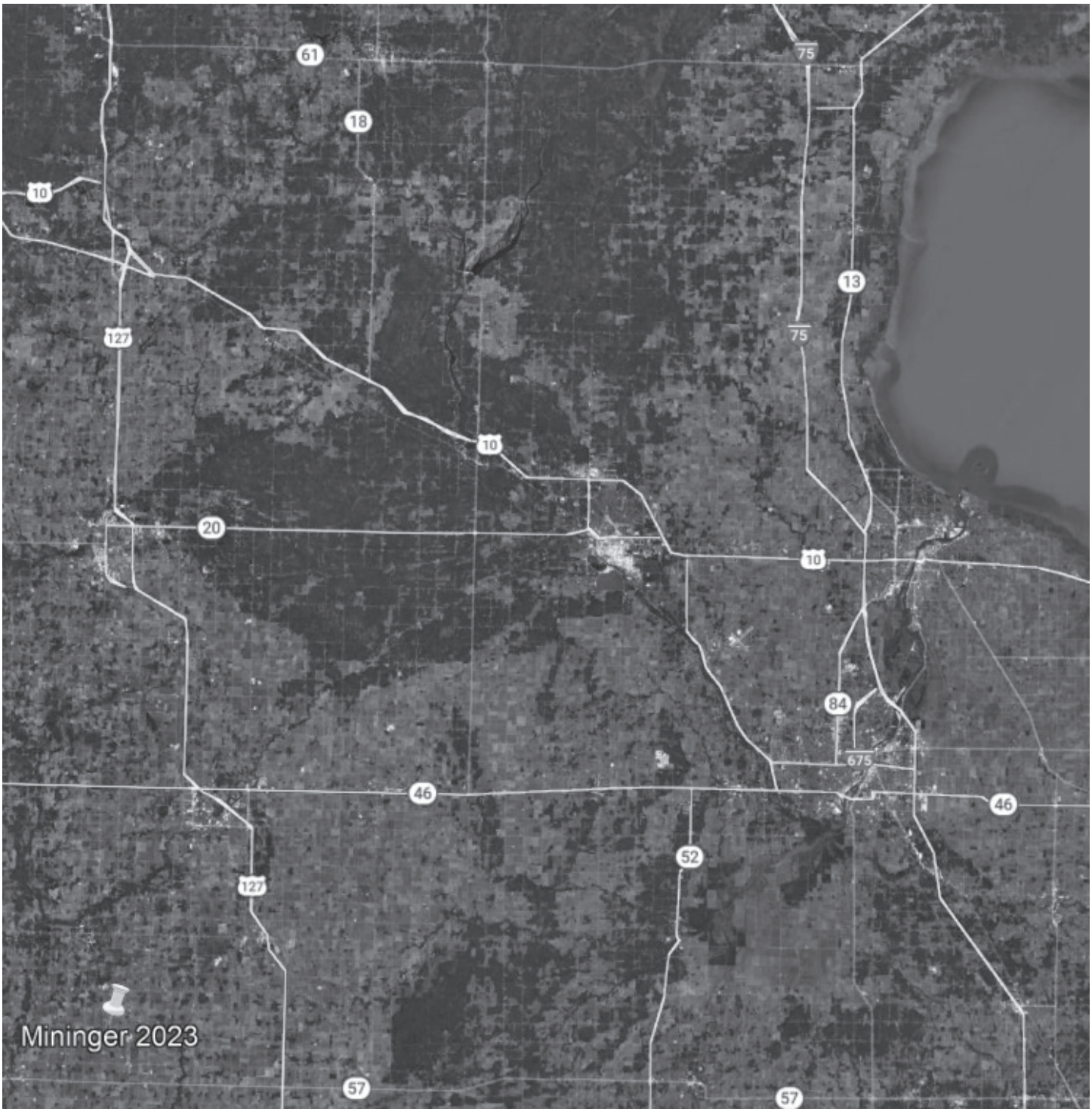
See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This trial experienced soil crusting after planting, and crust busting was minimally effective. Much lower than desired stands still resulted in respectable root yield and sugar content for a September 22 harvest date. Previous planting date studies suggest that 80 beets/100' is the point at which an earlier planted trial can out perform a later planted trial with better stands. Foliar and root disease levels in this trial were low.

West District Trials



Official Variety Trial
Mininger, Middleton - 2023

Trial Quality: Very Good
Planted: April 25
Harvested: September 18
Plots: 2 Rows x 38 ft., 8 reps
Row Width: 22 in.
Seeding Rate: 1.9 in. thinned to 203 beets/100'

Soil Info: Sandy Clay Loam
Prev Crop: Corn
Added N: Manure + 35 lbs. 2X2

Disease Pressure:
Cerc: Low to Moderate
Rhizoc: Low
Rainfall: 13.64 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emergence	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
BTS-128N	**$3,677**	**10577**	239	14	**44.4**	**2**	16.4	17	94.5	13	**70.8**	**13**
C-G206NT	**$3,614**	**10395**	239	13	**43.3**	**3**	16.5	15	94.5	12	**72.2**	**6**
C-G049	**$3,610**	**10385**	226	23	**45.9**	**1**	15.9	22	93.7	22	**71.2**	**10**
BTS-1183	**$3,599**	**10352**	248	10	41.7	6	**17.1**	**8**	94.4	15	**72.1**	**8**
BTS-123N	**$3,589**	**10323**	238	15	43.3	4	16.4	18	94.5	11	**74.3**	**2**
HIL-2403	**$3,585**	**10313**	**253**	**6**	40.8	11	17.0	10	**95.6**	**1**	**68.9**	**16**
HIL-2332NT	**$3,524**	**10136**	**259**	**1**	39.1	14	**17.6**	**2**	**95.0**	**5**	**72.3**	**5**
C-G227	**$3,492**	**10045**	243	12	41.3	7	16.8	11	94.1	18	**70.5**	**14**
SX-2296N	**$3,453**	**9933**	**256**	**4**	38.9	17	**17.3**	**4**	**95.1**	**4**	**70.8**	**11**
C-G233	$3,431	9868	237	18	41.7	5	16.7	12	93.3	23	**72.8**	**3**
BTS-1122	$3,400	9781	237	19	41.3	8	16.5	16	94.0	20	**72.2**	**7**
BTS-1276	$3,394	9762	**257**	**2**	38.1	20	**17.6**	**1**	94.5	14	**67.0**	**19**
MA-933NT	$3,392	9756	**251**	**9**	38.9	16	**17.1**	**6**	94.7	9	**70.8**	**12**
C-G932NT	$3,356	9655	237	20	40.8	10	16.3	20	94.4	16	**71.2**	**9**
MA-940	$3,356	9654	**252**	**8**	38.3	19	**17.1**	**7**	**95.2**	**3**	57.5	24
C-G229	$3,323	9558	**254**	**5**	37.7	21	**17.2**	**5**	**94.9**	**6**	**70.0**	**15**
HIL-9865	$3,304	9504	**256**	**3**	37.2	24	**17.4**	**3**	**94.9**	**7**	65.0	20
HIL-2361	$3,301	9494	**253**	**7**	37.6	22	17.0	9	**95.4**	**2**	61.3	23
HIL-2238NT	$3,257	9368	238	16	39.4	13	16.5	14	94.1	17	67.2	17
C-G214NT	$3,222	9268	237	17	39.0	15	16.3	21	94.6	10	**76.1**	**1**
HIL-2425NT	$3,169	9117	245	11	37.3	23	16.7	13	94.8	8	62.7	21
SX-2295	$3,154	9073	234	21	38.8	18	16.4	19	93.7	21	67.2	18
BTS-197N	$3,132	9010	226	22	39.9	12	15.8	23	94.0	19	62.4	22
C-G151	$3,117	8966	218	24	41.2	9	15.5	24	93.2	24	**72.7**	**4**
Average	$3,393.8	9762.2	243		40.2		16.71		94.47		69.14	
LSD 5%	234.6	674.8	9.3		2.5		0.5		0.7		7.4	
CV %	7.0	7.0	3.9		6.3		2.9		0.8		10.9	

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This was the second trial planted and first trial harvested in 2023. Yields were excellent for a September harvest. Rainfall several weeks prior to harvest prevented timely fungicide applications and a low to moderate leafspot infection occurred. Sugar content was lower than average but can be explained by the early harvest and ample rainfall the several weeks prior to harvest. Root disease levels were low.

Plant to Stand
Mininger, Middleton - 2023

Trial Quality: Very Good
Planted: April 25
Harvested: September 18
Plots: 6 Rows x 38 ft., 6 reps
Row Width: 22 in.
Seeding Rate: 4.1 in.

Soil Info: Sandy Clay Loam
Prev Crop: Corn
Added N: Manure + 35 lbs. 2X2

Disease Pressure:
Cerc: Low to Moderate
Rhizoc: Low
Rainfall: 13.87 in.

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		B/100 ft.
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.
BTS-1183	**$3,570**	**10270**	**246**	**6**	**41.7**	**3**	**16.9**	**7**	**94.6**	**7**	176.0
BTS-1122	**$3,526**	**10143**	239	10	**42.4**	**2**	16.7	8	93.9	12	200.2
C-G151	**$3,469**	**9978**	245	7	**40.7**	**4**	**17.0**	**6**	94.1	10	187.4
C-G049	**$3,441**	**9897**	230	12	**43.0**	**1**	16.2	12	93.6	13	197.9
HIL-2403	**$3,383**	**9732**	**258**	**3**	37.8	6	**17.5**	**1**	**95.0**	**6**	188.6
SX-2296N	**$3,366**	**9683**	**258**	**1**	37.5	7	**17.4**	**3**	**95.3**	**2**	177.6
HIL-2332NT	$3,256	9366	**258**	**2**	36.3	8	**17.4**	**2**	**95.1**	**5**	185.7
SX-2295	$3,216	9251	244	8	37.9	5	16.5	10	**95.3**	**3**	192.1
MA-933NT	$3,212	9239	**257**	**4**	35.9	10	**17.4**	**4**	**95.3**	**1**	185.3
HIL-2361	$3,161	9094	**256**	**5**	35.5	12	**17.3**	**5**	**95.2**	**4**	170.5
C-G932NT	$3,021	8689	239	9	36.3	9	16.6	9	94.2	9	188.1
HIL-9865	$2,952	8491	238	11	35.7	11	16.5	11	94.2	8	174.3
BTS-197N	$2,726	7842	225	13	34.8	13	16.0	13	93.1	14	162.1
HIL-2238NT	$2,686	7727	224	14	34.5	14	15.6	14	93.9	11	191.6
Average	$3,213.3	9243.0	244		37.9		16.78		94.49		184.10
LSD 5%	273.1	785.6	11.4		2.5		0.6		0.7		N.S
CV %	6.7	6.7	3.7		5.2		2.8		0.6		18.4

See Cercospora Fungicide Application Page 34 for applications

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.25.

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

Comments: This trial had the strongest emergence of the 4 Plant to Stand trials planted in 2023. Early planting as well as favorable conditions in the weeks after planting were the main factors. Timely rainfall and better than average stands resulted in very good root yield for a September 18 harvest date. Rains received in late August delayed fungicide applications by several days which allowed a low to moderate level of Cercospora Leafspot to infect this trial. Sugar content was low likely due to environmental conditions in the weeks leading up to harvest.

Nursery Data

Rhizoctonia Nursery

Average of 2 years, 2022 & 2023

Trial Quality: Good
Location: USDA
Plot Size: 2 Rows x 25 ft., 6 reps
Inoculation: Inoculated with Rhizoctonia Solani AG 2-2 IIIB

Variety	Root Rating* 0-7	Estimated Root Rot %
MA-940	**3.86**	**23.5**
C-G206NT	**3.97**	**25.0**
HIL-2403	**4.01**	**26.5**
HIL-2332NT	**4.04**	**25.5**
SX-2295	**4.15**	**29.8**
Resistant Check	**4.24**	**31.3**
HIL-2361	**4.26**	**30.0**
C-G049	**4.31**	**32.5**
MA-933NT	**4.42**	**35.0**
BTS-1276	**4.43**	**36.3**
BTS-1183	**4.44**	**36.3**
HIL-9865	**4.55**	**39.3**
C-G214NT	4.57	**38.8**
C-G227	4.61	**40.0**
HIL-2425NT	4.61	**40.0**
C-G229	4.66	41.3
C-G151	4.67	41.3
BTS-128N	4.75	43.8
C-G233	4.90	47.5
BTS-197N	4.90	47.5
C-G932NT	4.91	47.5
SX-2296N	4.92	48.8
HIL-2238NT	5.07	52.5
BTS-123N	5.16	53.8
BTS-1122	5.41	60.0
Susceptible Check	5.47	62.5
Average	4.59	39.84
LSD 5%	0.7	17.0
CV %	7.3	20.7

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 for all six replications.

Cercospora Nursery

Average of 2 years, 2022 & 2023

Trial Quality: Good

Locations:

2022 - Blumfield East, SVREC

2023 - Blumfield East, SVREC

Inoculation: Trials were Inoculated

Plot Size:

Blumfield East - 2 Rows x 25 ft., 6 Reps

SVREC - 2 Rows x 20 ft., 6 reps

Variety	Avg of 2 Years CLS Rate 0-9	2022 CLS Rate 0-9	2023 CLS Rate 0-9
C-G229	2.0	1.5	2.5
BTS-1276	2.0	1.6	2.4
BTS-123N	2.3	1.7	2.8
C-G206NT	2.4	2.0	2.9
BTS-128N	2.5	1.9	3.2
C-G214NT	2.6	2.0	3.2
C-G049	2.7	2.2	3.2
BTS-1183	2.8	2.2	3.3
C-G227	2.8	2.4	3.2
C-G233	2.8	2.2	3.3
C-G151	2.8	2.4	3.3
BTS-1122	2.9	2.5	3.3
HIL-2425NT	3.7	3.4	4.0
Resistant Check	4.2	3.7	4.8
HIL-2238NT	4.3	4.1	4.5
HIL-2403	4.4	4.1	4.7
HIL-2361	4.4	4.2	4.6
SX-2295	4.4	4.2	4.7
MA-940	4.6	4.3	5.0
HIL-9865	4.8	4.3	5.2
MA-933NT	4.9	4.2	5.6
C-G932NT	5.0	4.9	5.1
BTS-197N	5.1	4.9	5.3
HIL-2332NT	5.2	4.8	5.6
SX-2296N	5.3	5.0	5.5
Susceptible Check	6.3	6.0	6.5
Average	3.75	3.34	4.14

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 and never sprayed with fungicide. Ratings are an average of several physical ratings. Ratings end when susceptible varieties burn down. All varieties will suffer economic injury if fungicide is not applied at recommended intervals.

Cyst Nematode Nursery

Average of 2 Years, 2022 & 2023

Trial Quality: Good
Locations: 2022 - Sylvester Nematode
2023 - Sylvester Nematode
Plot Size: 2022 - 2 Rows x 38 ft., 6 reps
Plot Size: 2023 - 2 Rows x 38 ft., 6 reps

Cerc Control: Good
Rhizoc Control: Very Good

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP	
			lb/T	Rank	T/A	Rank	%	Rank	%	Rank
C-G214NT	$2,849	**11512**	287.2	5	**40.1**	**2**	18.9	8	**96.3**	**1**
BTS-128N	$2,803	**11268**	281.4	8	**40.1**	**3**	18.8	11	95.6	4
BTS-123N	$2,802	**11353**	286.5	6	**39.6**	**4**	19.1	5	95.5	6
C-G206NT	$2,762	**11119**	275.0	11	**40.4**	**1**	18.5	12	95.2	8
BTS-197N	$2,610	**10677**	282.0	7	**37.8**	**5**	19.0	6	95.1	9
SX-2296N	$2,571	**10661**	**302.6**	**1**	35.1	9	**20.0**	**1**	95.8	2
C-G932NT	$2,538	**10450**	279.3	10	**37.3**	**6**	18.8	9	95.1	10
MA-933NT	$2,507	10217	292.3	4	34.9	10	19.5	4	95.5	5
HIL-2332NT	$2,504	**10323**	**299.2**	**2**	34.3	11	**19.8**	**2**	95.7	3
HIL-2238NT	$2,497	10135	279.6	9	**36.2**	**8**	18.9	7	94.8	11
HIL-2425NT	$2,434	10057	**295.2**	**3**	34.0	12	**19.7**	**3**	95.4	7
Susceptible Check	$2,425	10097	272.5	12	**36.8**	**7**	18.8	10	94.0	12
Average	$2,608.5	10655.7	286.1		37.22		19.14		95.33	
LSD 5%	N.S.	1252.9	7.5		4.6		0.3		0.4	
CV %	7.0	5.3	1.2		5.6		0.8		0.2	

$/A: Payment calculated using early delivery adjustment where necessary, and a per pound payment of $0.18 for 2022, and $0.25 for 2023.

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

Root Aphid Nursery

Magno Seed, LLC & KWS

Average of 2 years 2022 & 2023

Variety	% Infected
MA-940	**0.0**
HIL-2361	**0.0**
HIL-2332NT	**0.0**
HIL-2238NT	**0.0**
C-G932NT	**0.0**
C-G233	**0.0**
C-G214NT	**0.0**
C-G206NT	**0.0**
C-G151	**0.0**
BTS-123N	**0.0**
BTS-1122	**0.0**
C-G229	**0.0**
BTS-128N	**0.0**
HIL-9865	**0.0**
C-G049	**0.0**
BTS-1183	**0.0**
MA-933NT	**2.0**
HIL-2403	**2.0**
BTS-197N	**2.0**
SX-2296N	**2.0**
C-G227	**2.1**
HIL-2425NT	**4.0**
BTS-1276	4.2
Resistant Check	7.0
SX-2295	20.0
Susceptible Check	58.0
Average	4.0
LSD 5%	6.2
CV %	75.8

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.

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

Aphanomyces Nursery

Magno Seed, LLC & KWS

Average of 2 years 2022 & 2023

Variety	Root Rating 1 - 9 Scale	Canopy Rating 1 - 9 Scale	Stand Loss 1 - 5 Scale
C-G932NT	2.2	1.5	1.0
Resistant Check	2.5	1.7	1.0
BTS-128N	2.6	1.4	1.0
C-G229	2.7	1.9	1.0
C-G206NT	2.8	1.5	1.0
C-G049	2.8	1.7	1.0
C-G151	2.9	1.5	1.0
C-G214NT	2.9	1.5	1.0
C-G233	2.9	1.6	1.0
BTS-1183	3.0	1.8	1.0
C-G227	3.0	1.6	1.0
BTS-1122	3.0	1.7	1.0
SX-2296N	3.0	1.9	1.0
HIL-2332NT	3.1	2.4	1.0
BTS-1276	3.1	1.6	1.0
BTS-123N	3.1	1.4	1.0
BTS-197N	3.3	2.3	1.0
MA-933NT	3.4	2.3	1.0
HIL-2403	3.5	2.3	1.0
HIL-2361	3.5	2.1	1.0
SX-2295	3.5	1.8	1.0
HIL-9865	3.5	2.0	1.0
MA-940	4.0	2.3	1.0
HIL-2238NT	4.1	3.1	1.0
HIL-2425NT	4.2	3.6	1.0
Susceptible Check	4.6	2.4	1.0
Average	3.19	1.95	1.00

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, 2022 & 2023

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-1122	**2.3**	**10652**	16.6	**37.5**	**3.0**
C-G206NT	**2.3**	**10972**	16.4	**38.4**	**1.7**
C-G151	**2.5**	**10514**	**16.8**	**36.3**	**10.3**
BTS-1183	**2.5**	**10494**	**16.8**	**36.2**	**4.5**
C-G233	**2.5**	**10242**	**16.9**	**35.5**	**1.6**
C-G932NT	**2.6**	**10077**	**17.1**	**33.8**	**0.2**
BTS-1276	**2.6**	**10103**	**17.2**	**33.6**	**3.4**
C-G214NT	**2.7**	**9506**	**16.9**	**32.6**	**3.1**
C-G049	**2.7**	**8920**	16.4	**31.7**	**3.0**
BTS-123N	**2.8**	**9092**	16.2	**32.7**	**2.4**
HIL-2332NT	**2.8**	**9109**	**16.7**	**31.8**	**0.6**
BTS-128N	**2.8**	8752	16.2	31.4	**1.3**
HIL-9865	**2.8**	**9125**	16.6	**31.9**	**4.8**
C-G227	**2.8**	**9222**	**16.9**	**31.7**	45.1
MA-933NT	**2.8**	8769	**16.7**	30.3	**2.9**
HIL-2425NT	**2.8**	8894	16.6	31.4	**0.4**
BTS-197N	**2.8**	8839	**16.9**	30.2	**2.8**
HIL-2238NT	2.9	8513	16.3	30.6	**4.5**
C-G229	2.9	**9413**	**17.3**	31.2	**1.5**
SX-2296N	2.9	8745	**16.7**	30.4	**15.1**
MA-940	3.1	7928	16.5	27.9	**1.0**
HIL-2361	3.1	7736	**16.8**	26.6	**1.8**
SX-2295	3.2	7256	16.1	26.1	30.7
HIL-2403	3.3	6515	16.4	23.1	**15.4**
Susceptible Check	4.7	3094	14.1	13.2	100.0
Average	2.8	8899.2	16.57	31.04	10.43
LSD 5%	0.5	1925.1	0.6	6.7	29.3
CV %	8.7	10.5	1.8	10.5	136.3

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.

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

Fusarium Nursery

American Crystal Sugar Company

Average of 2 years, 2022 & 2023

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	2022 Rating 1-9	2023 Rating 1-9
C-G233	2.8	3.0	2.5
C-G151	3.2	3.0	3.3
BTS-1122	3.2	3.1	3.3
BTS-1276	3.5	3.6	3.5
BTS-128N	3.6	3.9	3.3
BTS-1183	3.6	3.7	3.5
C-G932NT	3.6	3.8	3.5
C-G214NT	3.7	4.0	3.3
C-G229	3.7	3.8	3.6
C-G049	3.7	3.9	3.5
BTS-197N	3.9	4.0	3.8
C-G206NT	4.0	4.3	3.7
BTS-123N	4.0	4.3	3.8
C-G227	4.1	4.5	3.8
SX-2296N	4.5	5.0	3.9
SX-2295	4.5	5.0	4.0
HIL-2332NT	4.8	5.6	4.0
HIL-2403	4.9	5.4	4.3
MA-933NT	5.0	5.4	4.5
HIL-2238NT	5.0	5.7	4.3
HIL-2425NT	5.1	5.7	4.5
HIL-2361	5.2	5.8	4.6
MA-940	5.3	5.9	4.7
HIL-9865	5.3	6.0	4.6
Average	4.16	4.53	3.83

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

	Akron		Kinde	Middleton	Pigeon	Richville	Minden City		Sandusky
Grower	Sylvester		Grekowicz	Mininger	Trost	SVREC	Maurer		Gerstenberger
Trial Quality	OVT - Good PTS - Fair		OVT - Excellent	OVT - Very Good PTS - Very Good	OVT - Good PTS - Good	OVT - Very Good	OVT - Good PTS - Good		OVT - Good
Planted	April 26		May 18	April 25	May 23	April 14	May 18		May 11
Harvested	OVT - September 21	PTS - September 22	October 18	September 18	October 3	November 1	OVT - October 12	PTS- October 13	October 4
Soil Texture	Sandy Clay Loam		Sandy Loam	Sandy Clay Loam	Sandy Clay Loam	Sandy Clay Loam	Clay Loam		Clay Loam
Soil pH	7.4		7.6	6.4	7.0	7.7	7.4		7.2
Soil OM	2.0%		2.7%	2.6%	2.6%	2.1%	1.9%		2.8%
Phosphorus	66		131	112	146	31	82		96
Potassium	195		111	181	182	149	164		182
Magnesium	245		245	265	210	370	195		220
Manganese	42		33	33	36	42	40		35
Boron	1.2		1.5	0.7	1.2	1.5	1.4		1.1
Zinc	4		11.4	9.5	9.3	6	7.9		6.9
Nitrogen Added	35 lbs. 2x2 120 lbs. Side Dress		35 lbs. 2x2 Fall Manure	35 lbs. 2x2 Fall Manure	150 lbs. Urea PPI 35 lbs. 2x2	125 lbs. Urea/ESN PPI 35 lbs. 2x2	35 lbs. 2x2 120 lbs. Side Dress		200 lbs. Urea PPI 35 lbs. 2x2
Seasonal Rainfall									
April	0.55	0.55		0.23		1.25			
May	0.73	0.73	0.8	0.77	0.00	0.88	0.59	0.59	0.83
June	1.97	1.97	2.51	1.46	1.39	1.68	2.1	2.1	2.34
July	6.71	6.71	4.04	5.49	4.82	6.24	4.06	4.06	9.86
August	6.99	6.99	4.34	5.11	5.93	5.92	4.08	4.08	5.37
September	1.32	1.37	1.45	0.81	0.81	1.85	1.25	1.25	1.66
October			1.68		1.80	2.78	1.11	1.35	0
November						0.02			
Total	18.27	18.32	14.82	13.64	14.75	20.62	13.19	13.43	20.06

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MICHIGAN SUGAR

Official Variety Trials

Cercospora Fungicides: Application Dates and Products

Location	Treatment 1**	Treatment 2**	Treatment 3**
Gerstenberger	7/5 - EBDC	7/18 - Delaro, Proline, EBDC	8/1 - SuperTin, Topsin, EBDC
Grekowicz	7/5 - EBDC	7/18 - Delaro, Proline, EBDC	8/1 - SuperTin, Topsin, EBDC
Maurer	7/5 - EBDC	7/18 - Delaro, Proline, EBDC	8/1 - SuperTin, Topsin, EBDC
Mininger	6/28 - EBDC	7/10 - Delaro, Proline, EBDC	7/25 - SuperTIn, Topsin, EBDC
SVREC	6/30 - EBDC	7/10 - Delaro, Proline, EBDC	7/24 - SuperTin, Topsin, EBDC
Sylvester	6/29 - EBDC	7/10 - Delaro, Proline, EBDC	7/24 - SuperTin, Topsin, EBDC
Trost	7/11 - Delaro, Proline, EBDC	7/26 - SuperTin, Topsin, EBDC	8/9 - Veltyma, EBDC

Location	Treatment 4**	Treatment 5**	Treatment 6*
Gerstenberger	8/14 - Veltyma, EBDC	8/28 - SuperTin, EBDC	9/8 - Propulse, Badge SC
Grekowicz	8/14 - Veltyma, EBDC	8/28 - SuperTin, EBDC	9/11 - Propulse, Badge SC
Maurer	8/14 - Veltyma, EBDC	8/28 - SuperTin, EBDC	9/8 - Propulse, Badge SC
Mininger	8/8 - Veltyma, EBDC	8/24 - SuperTin, EBDC	
SVREC	8/8 - Veltyma, EBDC	8/21 - SuperTin, EBDC	9/6 - Propulse, Badge SC
Sylvester	8/8 - Veltyma, EBDC	8/21 - SuperTin, EBDC	9/6 - Propulse, Badge SC
Trost	8/28 - SuperTin, EBDC	9/11 - Propulse, Badge SC	

EBDC* = Manzate Maxx or Manzate Pro-Stick

**MasterLock included in all Treatments.

Comments: Cercospora control in 2023 was mostly good to very good. Dry conditions at the begininng of the season slowed plant growth and delayed spray program start dates. Control was excellent in all trials until rains in late August and early September delayed the timing of some fungicide applications. The Mininger and SVREC locations experienced a low to moderate level of Cercospora leading up to harvest. Warmer than normal conditions in late September and early October likely warranted an additional application of fungicide at some locations.

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