
2017
VARIETY TRIAL RESULTS
GROWING THE BEST SUGARBEETS
MICHIGAN SUGARBEET
REACh
Research & Education Advisory Council

REACh/SUGARBEET ADVANCEMENT COMMITTEE LIST
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23 Voting Members

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	Permanent	
Jim Stewart	Permanent	
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	2	2019
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Dexter Auernhamer	1	2018
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Rick Leach	1	2018
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	1	2018
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Sugar Beet Seed Company (2 years)		
Rob Gerstenberger	2	2019
Agri-Business Retail (2 years)		
Jacob Hecht	2	2019
Agri-Business Manufacturing (2 years)		
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Kent Houghtaling	1	2018
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	Permanent	

Ex-Officio Members

Company	Name
Chairman of Board of Directors - MSC	Rick Gerstenberger
CEO of Michigan Sugar Company	Mark Flegenheimer

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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2017 Variety Trial Results

Table of Contents

Approval of Seed Varieties

for the 2018 Crop

Fully Approved Varieties		
Unlimited Quantities		
HM-28RR	C-G351NT	SX-1212RR
HM-173RR	C-G515	SX-RR1243
HM-NT9607RR	B-12RR2N	SX-RR1245N
HM-9616RR	B-1399	SX-RR1251
C-RR059	B-149N	

Limited Approved Varieties		
Quantities limited to 10% of acres		
C-G675	SX-RR1264	HIL-9865
B-1690	HIL-9879NT	

Specialty Approved Varieties		
Variety	**Specialty**	**Quantity**
HM-NT9617RR*	Nematode	Unlimited
B-133N*	Nematode/Rhizoc	7500 Units
C-G333NT**	Nematode/Rhizoc	Unlimited
HIL-9732NT*	Nematode	1500 Units
MA-513NT*	Nematode	1000 Units
B-1606**	Nematode/Alternaria	5000 Units

Not Tested in 2017
Varieties on a 1 year plant out
C-RR202
SX-RR1235
SX-1228RR

* Approved to plant through 2018

** Approved to plant through 2019

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Approved Varieties for 2018

Michigan Sugar Company

2016 - 2017 Data

Variety	Approval Status	$/A	All Values are % of Check																	
			RWSA	RWST	T/A	Emergence		Cercospora		Alternaria		Rhizoctonia		Root Aphid		Aphanomyces		Fusarium		Rhizomania	
C-G675	Limited Approval	$1,435	108.1	102.5	105.3	113	G+	92	G	77	G	81	G	11	G+	98	G	146	P	91	E
B-1606	Special Approval	$1,426	107.4	99.5	108.9	106	G	100	F+	88	F+	85	F	9	G+	73	G+	81	G	97	G+
B-12RR2N	Full Approval	$1,425	106.9	102.2	105.0	92	F	97	F+	94	F+	103	F-	171	F	74	G+	93	G	104	G
SX-RR1245N	Full Approval	$1,407	105.7	101.6	104.5	107	G	106	F-	99	F+	104	F-	208	P	80	G+	124	P+	92	E
B-149N	Full Approval	$1,402	105.7	98.0	107.7	101	F+	108	F-	96	F+	93	F	11	G+	100	F+	86	G	93	E
SX-RR1251	Full Approval	$1,398	105.1	101.0	104.3	96	F+	100	F+	89	F+	106	P	231	P	88	G	113	F	101	G
SX-RR1243	Full Approval	$1,391	104.8	101.2	103.4	101	F+	100	F+	94	F+	94	F	182	F	92	G	100	F+	101	G
SX-RR1264	Limited Approval	$1,374	103.7	101.7	101.7	101	F+	102	F	90	F+	95	F	48	G	81	G+	104	F+	102	G
C-G333NT	Special Approval	$1,373	103.4	99.0	104.4	99	F+	108	F-	92	F+	89	F	12	G+	108	F	77	G	101	G
B-1399	Full Approval	$1,371	103.1	98.3	105.4	107	G	81	G+	91	F+	94	F	23	G+	88	G	67	G+	96	G+
B-1690	Limited Approval	$1,366	102.9	104.0	99.2	111	G+	95	G	101	F	92	F	7	G+	90	G	76	G+	101	G
HIL-9865	Limited Approval	$1,352	102.1	103.5	98.2	103	F+	101	F	89	F+	96	F	23	G+	114	F	153	P	97	G+
C-G515	Full Approval	$1,351	101.5	100.6	101.2	101	F+	101	F	120	P	91	F	10	G+	96	G	78	G	98	G+
C-RR059	Full Approval	$1,347	101.3	102.6	99.0	107	G	101	F	125	P	95	F	20	G+	109	F	72	G+	99	G+
HIL-9732NT	Special Approval	$1,341	100.9	100.7	100.3	100	F+	118	P	103	F	104	F-	15	G+	110	F	139	P	101	G
B-133N	Special Approval	$1,334	100.1	97.1	103.7	100	F+	107	F-	98	F	71	G+	8	G+	96	F+	69	G+	101	G
MA-513NT	Special Approval	$1,332	100.3	100.0	100.4	98	F+	120	P	103	F	102	F-	15	G+	117	F	139	P	108	G
SX-RR1212	Full Approval	$1,326	100.3	99.0	100.8	93	F	109	F-	101	F	107	P	203	P	106	F	111	F	91	E
C-G351NT	Full Approval	$1,312	98.5	104.7	94.6	101	F+	93	G	96	F+	98	F	11	G+	111	F	89	G	113	G
HIL-9879NT	Limited Approval	$1,280	96.1	102.5	94.1	101	F+	73	E	87	F+	98	F	29	G+	118	F	142	P	117	F+
HM-28RR	Full Approval	$1,269	95.6	95.4	100.2	105	F+	85	G+	83	G	97	F	109	G	128	F-	136	P	100	G+
HM-173RR	Full Approval	$1,250	93.9	96.7	97.2	100	F+	98	F+	91	F+	90	F	163	F	102	F+	125	P+	101	G
HM-9616RR	Full Approval	$1,232	92.7	104.2	89.4	90	F	84	G+	77	G	79	G	19	G+	129	F-	130	P+	119	F+
HM-NT9607	Full Approval	$1,228	92.4	101.6	91.3	103	F+	92	G	94	F+	104	F-	14	G+	115	F	118	F	121	F+

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

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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Rhizoctonia & Cercospora

Varieties for 2018 - Average of 2 Years

Rhizoctonia

Variety	% of Check				Comments
	Rhizoc	RWSA	RWST	Cerc	
HM-9616RR	78.7	92.7	104.2	84.3	Lower yielding nematode tolerant variety with very high quality, fairly good Cerc, good on other traits except for Aph and Fusarium.
C-G675	81.4	107.9	102.7	91.9	High yield and quality, good Cerc, Alternaria, Rhizoc, Root Aphid and Aph tolerance, weak Fusarium tolerance.
B-1606	85.0	102.6	99.8	99.9	High yield, moderate quality, good Root Aphid, Aph, and Fusarium tolerance, fair Cerc, Alternaria and Rhizoc tolerance.
C-G333NT	88.8	103.5	99.2	107.6	Very high yielding nematode tolerant variety that is a little low on sugar, Cerc tolerance is fair to poor, other traits are in a good range.

Note: Lower values are better for Rhizoctonia and Cercospora. Rhizoctonia ratings include Sugarbeet Advancement information, the worst approved variety had a rating of 175.

Cercospora

Variety	% of Check				Comments
	Cerc	RWSA	RWST	Rhizoc	
HIL-9879NT	72.8	96.3	102.8	97.6	High quality, low yield, excellent Cerc tolerance, good Root Aphid tolerance, fair Alternaria, Rhizoc and Aph tolerance, poor Fusarium.
B-1399	81.2	103.2	98.4	94.0	A good yielding variety that is a little low on sugar that also has good Rhizoc tolerance. Other traits are also in a good range.
HM-9616RR	84.3	92.7	104.2	78.7	Low Yield, very high quality, good Cerc and very good Rhizoc tolerance, moderate Root Aphid tolerance, below average Aph, Fusarium and emergence.
HM-28RR	85.2	95.6	95.5	97.5	Low yield and quality, good Cerc and Alternaria tolerance, fair Rhizoc, Root Aphid and Aph tolerance, poor Fusarium tolerance.

Note: Lower values are better for Cercospora and Rhizoctonia

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High Quality Varieties for 2018 - Average of 2 Years

Variety	% of Check				Comments
	RWST	RWSA	Rhizoc	Cerc	
B-12RR2N	102.5	107.3	102.6	97.0	Nematode tolerance, very high yield and quality, very good Aph and fairly good Cerc, Alternaria and Fusarium tolerance, weak on Rhizoc and Root Aphids, moderate emergence.
C-G675	102.7	107.9	81.4	91.9	High yield and quality, good Cerc, Alternaria, Rhizoc, Root Aphid and Aph tolerance, weak Fusarium tolerance.
SX-RR1245N	101.7	106.0	104.4	106.1	Nematode tolerance, high yield and quality, fairly good Cerc and Alternaria tolerance, susceptible to Rhizoc and Root Aphids, good Aph and moderate Fusarium tolerance, good emergence.
SX-RR1243	101.3	104.8	94.5	100.0	High yield and quality, good Rhizoc and Aph tolerance, fair Cerc, Alternaria and Fusarium tolerance, poor Root Aphid tolerance.
SX-RR1251	101.2	105.1	106.4	100.3	High yield and quality, good Aph tolerance, fair Cerc, Alternaria and Fusarium tolerance, poor Rhizoc and Root Aphid tolerance.
SX-RR1264	101.8	103.6	94.7	102.1	High yield and quality, good Root Aphid and Aph tolerance, fair Cerc, Alternaria, Rhizoc and Fusarium tolerance.
B-1690	104.1	102.6	92.2	94.6	High yield and quality, good Cerc, Root Aphid, Aph and Fusarium tolerance. Fair Alternaria and Rhizoc tolerance.
HIL-9865	103.6	101.9	96.0	100.8	High yield and quality, good Root Aphid tolerance, fair Cerc, Alternaria, Rhizoc and Aph tolerance, poor Fusarium tolerance.
C-RR059	102.7	101.3	95.5	101.3	High yield and quality, fairly good Cerc, Rhizoc and Aph tolerance, good Fusarium tolerance, susceptible to Alternaria leaf spot, good emergence
HIL-9732NT	101.0	100.9	104.4	117.7	High yield and quality, good Root Aphid tolerance, fair Alternaria, Rhizoc and Aph tolerance, poor Cerc and Fusarium tolerance.
C-G351NT	104.8	98.6	98.3	93.2	Nematode tolerance, moderate yield, very high quality, fairly good Cerc, Rhizoc, Root Aphid and Fusarium tolerance, moderate Aph, fairly good emergence.
HIL-9879NT	102.8	96.3	97.6	72.8	High quality, low yield, excellent Cerc tolerance, good Root Aphid tolerance, fair Alternaria, Rhizoc and Aph tolerance, poor Fusarium.
HM-9616RR	104.2	92.7	78.7	84.3	Low yield, very high quality, good Cerc and Alternaria, very good Rhizoc tolerance, moderate Root Aphid tolerance, below average Aph, Fusarium and Emergence.
HM-NT9607	101.9	92.3	104.0	92.0	Nematode tolerance, moderate yield, good Cerc and Alternaria tolerance, very good Rhizoc tolerance, moderate Root aphid tolerance, below average Aph, Fusarium and Emergence.

Note: Lower values are better for Rhizoctonia and Cercospora

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Sugarbeet Cyst Nematode

Varieties for 2018 - Average of 2 Years

Variety	All Values are % of Check					Comments
	Nem*	RWSA	RWST	Rhizoc	Cerc	
C-G351NT	125.8	98.6	104.8	98.3	93.2	Moderate yielding variety with very high sugar. Fairly good on Cerc and Alternaria, fair Rhizoc tolerance. Root Aphid, Aph and Fusarium scores are good. Emergence is fair to good.
HIL-9732NT	121.5	100.9	101.0	104.4	117.7	Good yield and quality, weak on Cerc and Rhizoc, good on Root Aphids, below average on Aph and Fusarium, fairly good emergence and Alternaria.
MA-513NT	128.3	100.2	100.2	102.2	120.0	High yields and fairly good quality, weak on Cerc and Rhizoc, good on Root Aphids, below average on Aph and Fusarium, fair emergence and Alternaria tolerance.
C-G333NT	127.4	103.5	99.2	88.8	107.6	High yielding variety, quality a little low. Cerc tolerance is fair to poor but Rhizoc tolerance is good. Root Aphid, Aph, Alternaria and Fusarium scores are good. Emergence is fair.
B-12RR2N	126.4	107.3	102.5	102.6	97.0	Very high yield and quality. Very good Aph and fairly good Cerc, Alternaria and Fusarium tolerance. Weak on Rhizoc and Root Aphids, moderate emergence.
B-149N	123.7	105.7	98.1	92.8	107.9	Very high yielding variety with average quality, fairly good Rhizoc and Alternaria tolerance but poor Cerc tolerance. Root Aphid, Aph and Fusarium scores are good. Emergence is slightly below average.
SX-RR1245N	124.7	106.0	101.7	104.4	106.1	High yielding variety with fairly good quality. Fair Cerc and below average Rhizoc tolerance. Poor Root Aphid, good Aph and Alternaria, fair Fusarium tolerance. Emergence is fair/good.
HIL-9879NT	125.5	96.3	102.8	97.6	72.8	High quality, low yield, excellent Cerc tolerance, good Root Aphid tolerance,fair Alternaria, Rhizoc and Aph tolerance, poor Fusarium.
B-1606	130.4	107.4	99.8	85.0	99.9	High yield, moderate quality, good Root Aphid, Aph, and Fusarium tolerance, fair Cerc, Alternaria and Rhizoc tolerance.
HM-NT9607RR	121.7	92.3	101.9	104.0	92.0	Low yielding variety with high quality. Fair Rhizoc and good Cerc tolerance. Good Root Aphid and Alternaria tolerance, fair to poor Aph and fair Fusarium scores. Emergence is fair to good.

* The Nematode Score is an average of root ratings, yield and nematode counts

Note: Higher is better for Nematode, RWSA, and RWST. Lower is better for Cercospora and Rhizoctonia

Variety Approval "Points" System

A Variety Evaluation Tool - 2 Year Average

The Point System summary page is a great variety evaluation tool. On one page, varities can be compared, and all factors can be viewed. For all factors, a larger number is better. Look for the larger numbers to find the best varieties for a certain trait. The good and poor qualities of each variety can also be found. Varieties accumulate points based on RWSA, RWST, Cercospora, Rhizoctonia, Root Aphid, Rhizomania, Emergence, Aphanomyces, and Nematode levels.

Variety	% Check		1.5X RWSA	3X RWST	Higher Points are Better							Total	Points
	RWSA	RWST	Variance	Variance	Cerc	Rhizoc	R Aph	Rzm	Emerg	Aph	Nem	Points	% Check
C-G675	107.9	102.7	119.8	8.2	4.5	8.0	5.0	3.0	0.0	3.0	1.0	150.0	127.4
BTS-1606	107.4	99.8	118.6	-0.6	3.0	7.3	5.0	2.5	0.0	4.5	4.0	141.7	120.5
BTS-1690	102.6	104.1	106.5	12.2	4.5	5.8	5.0	2.3	0.0	4.0	1.0	138.7	117.8
BTS-12RR2N	105.0	102.1	112.5	6.2	3.0	4.0	1.5	2.0	-1.5	5.0	4.5	137.2	116.6
SX-RR1245N	103.6	101.7	109.0	5.0	2.5	3.5	1.5	2.8	2.0	4.5	4.0	134.8	114.5
C-RR059	101.5	102.6	103.7	7.9	3.0	5.5	4.5	2.5	2.0	3.0	1.5	133.6	113.5
BTS-18RR4N	103.4	101.7	108.6	5.2	2.0	3.3	4.5	1.5	0.5	4.0	4.0	133.6	113.5
BTS-149N	105.9	98.6	114.8	-4.1	0.0	5.8	5.0	2.8	1.0	3.5	4.0	132.7	112.7
SX-RR1243	105.0	101.1	112.5	3.2	2.0	5.5	1.5	2.3	1.0	3.5	1.0	132.5	112.5
HIL-9865	101.9	103.6	104.9	10.8	3.0	5.3	4.5	2.3	0.0	2.5	1.0	131.7	111.8
SX-RR1264	103.6	101.8	109.0	5.3	-1.5	5.5	4.5	2.3	0.0	4.0	1.0	131.5	111.7
C-G515	102.3	101.4	105.7	4.3	2.5	6.0	4.5	2.5	0.5	3.5	1.0	130.5	110.9
SX-RR1251	104.8	101.0	112.1	2.9	3.0	3.0	1.0	2.0	1.0	3.5	1.0	129.5	110.0
C-G351NT	97.0	104.8	92.6	14.4	4.0	4.5	4.5	1.3	0.5	3.0	2.5	127.3	108.2
C-G333NT	103.1	98.8	107.7	-3.6	1.0	6.5	5.0	2.3	0.0	3.0	4.5	126.4	107.4
BTS-1399	100.7	98.5	101.6	-4.6	7.0	5.5	4.0	2.5	1.5	4.0	1.0	122.5	104.1
HIL-9879NT	96.3	102.8	90.7	8.4	9.0	4.5	4.5	1.0	0.0	2.5	3.0	121.2	103.0
HM-9616RR	93.1	104.9	82.8	14.7	6.0	7.3	3.5	1.0	-2.0	1.5	1.0	115.7	98.3
HIL-9732NT	99.8	100.5	99.4	1.5	-1.5	3.8	4.5	2.3	0.5	2.5	2.5	115.4	98.0
SX-1212RR	101.2	99.3	103.1	-2.0	2.0	3.0	0.5	3.0	-1.0	3.0	1.0	112.6	95.7
MA-513NT	99.9	100.0	99.9	0.0	-5.0	4.0	4.5	1.8	0.5	2.5	3.5	111.6	94.8
HM-NT9607RR	90.8	102.1	76.9	6.2	4.0	3.8	5.0	1.0	0.5	2.5	2.0	101.8	86.6
HM-28RR	95.9	95.4	89.7	-13.9	5.5	6.8	2.0	1.8	1.5	2.0	1.0	96.3	81.8
HM-173RR	93.8	96.8	84.6	-9.7	5.5	5.3	1.0	2.3	0.0	2.5	1.5	92.9	78.9

% check (B-18RR4N, HM-173RR, SX-1212RR, C-RR059) = 100 X .8577 = 85.77 (approval level)

Official Variety Trial
Michigan Sugar Company
Average of 8 Locations - 2017

Trial Quality: Good
Plant/Harv: April 19/Nov 1
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches,
thinned to 200 beets/100 ft.
except Gerstenberger, Maurer, Sylvester = 170 beets/100 ft.

Locations: Crumbaugh, Maurer
Gerstenberger, SVREC
Grekowicz, Shaffner
Sylvester, Trost

Cerc Control: Very Good
see individual trials
Rhizoc Control: Very Good
see individual trials

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge		CLS*	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank	0-9	Rank
C-G675	**$1,416**	**10313**	295	6	**34.9**	**2**	19.5	6	**95.6**	**1**	**62.5**	**1**	1.1	5
SX-RR1243	**$1,400**	**10195**	292	11	**34.8**	**3**	19.5	12	**95.5**	**7**	**60.2**	**3**	1.0	3
SX-RR1264	**$1,395**	**10147**	293	7	**34.5**	**6**	19.5	9	**95.6**	**4**	55.0	19	1.3	12
B-149N	**$1,387**	**10095**	282	22	**35.6**	**1**	18.9	22	**95.4**	**15**	**59.3**	**7**	1.4	22
HIL-9865	**$1,385**	**10078**	**298**	**4**	33.7	9	**19.8**	**4**	**95.5**	**12**	57.1	18	1.3	13
SX-RR1251	**$1,379**	**10041**	291	15	**34.5**	**5**	19.4	15	**95.5**	**9**	58.6	10	1.2	9
B-1606	**$1,371**	**9994**	285	18	**34.8**	**4**	19.0	20	**95.5**	**5**	**58.9**	**9**	1.3	16
B-18RR4N	**$1,356**	**9877**	293	8	33.4	11	19.5	7	**95.5**	**6**	**59.3**	**6**	1.4	17
SX-RR1245N	**$1,350**	**9834**	292	13	33.6	10	19.4	13	**95.5**	**11**	**59.9**	**5**	1.2	10
B-12RR2N	**$1,349**	**9816**	292	10	33.4	12	19.5	11	**95.5**	**10**	48.8	25	1.4	21
SX-RR1212	**$1,344**	**9790**	285	20	**34.2**	**7**	19.0	18	95.4	19	51.4	23	1.3	15
C-G333NT	$1,339	9765	285	19	**34.1**	**8**	19.0	19	**95.4**	**14**	54.8	20	1.5	23
B-1690	$1,331	9696	**300**	**3**	32.2	17	**20.0**	**3**	**95.4**	**16**	**61.5**	**2**	1.1	7
C-G515	$1,323	9632	292	12	32.8	16	19.5	10	95.3	20	57.9	13	1.4	18
C-RR059	$1,314	9563	**297**	**5**	32.1	18	**19.8**	**5**	**95.4**	**18**	**60.0**	**4**	1.2	11
B-1399	$1,290	9403	283	21	33.1	14	18.8	23	**95.6**	**2**	**59.2**	**8**	1.0	4
B-133N	$1,288	9377	282	23	33.1	15	18.9	21	95.1	24	57.3	14	1.4	19
HIL-9732NT	$1,270	9261	287	16	32.1	19	19.3	16	95.2	21	57.2	16	1.7	25
MA-513NT	$1,263	9201	286	17	32.0	20	19.2	17	95.1	23	57.2	17	1.5	24
HM-28RR	$1,250	9114	274	25	33.2	13	18.4	25	95.2	22	58.2	12	1.4	20
C-G351NT	$1,240	9030	**302**	**2**	29.7	23	**20.1**	**2**	**95.5**	**8**	58.6	11	1.1	6
HM-173RR	$1,224	8915	279	24	31.9	21	18.8	24	94.9	25	54.0	21	1.3	14
HIL-9879NT	$1,210	8801	293	9	30.0	22	19.5	8	**95.4**	**17**	57.3	15	1.0	2
HM-9616RR	$1,198	8718	**303**	**1**	28.8	24	**20.1**	**1**	**95.6**	**3**	49.3	24	**1.0**	**0.97**
HM-NT9607	$1,136	8269	291	14	28.3	25	19.4	14	**95.4**	**13**	53.5	22	1.2	8
Average	$1,312.4	9557.1	290.0		32.83		19.36		95.40		57.09		1.26	
LSD 5%	62.1	453.2	6.0		1.4		0.3		0.2		3.2		0.2	
CV %	4.8	4.8	2.1		4.2		1.7		0.2		5.6		14.5	

***CLS:** Cercospora rating taken from the individual variety trials not from the Cercospora Nurseries. Ratings were taken one week prior to harvesting.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: For 2017, Michigan Sugar Company was able to use all 8 locations for data collection. Trials ranged in quality from fair to very good. Many of the locations received heavy rainfall in late June, but they recovered well to produce repeatable results. Trials were thinned to an average stand of 200 beets/100' of row when possible. A few locations had emergence issues and were thinned to 170 beets/100' of row. Quadris was applied in-furrow and at the 6-8 leaf stage. An average of 8 fungicide applications were made and Cercospora leafspot control was very good.

2017 Variety Trial Averages

Average of Seven Locations

Farms: Couture Flatland Farms (Ontario)
Clay Crumbaugh (Breckenridge)
DVL Farms (Ruth)
E & R Farms (Bad Axe)
Gardner Farms (Croswell)
Shaffner Brothers (Freeland)
Sylvester Farms (Quanicassee)

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP
B-149N	$1,432	**9718**	282	**34.9**	19.0	95.2
C-G515	$1,413	**9625**	294	33.1	19.7	95.0
SX-1243 RR	$1,392	**9463**	293	32.7	19.5	**95.5**
SX-1245N RR	$1,379	**9373**	296	32.1	19.7	**95.4**
C-RR059	$1,375	**9341**	292	32.4	19.7	94.9
B-12RR2N	$1,372	**9342**	294	32.1	19.6	**95.5**
B-1399	$1,359	**9247**	288	32.5	19.2	**95.5**
C-G333NT	$1,353	9196	279	33.3	18.9	95.0
C-G351NT	$1,346	9158	**304**	30.5	**20.3**	95.2
SX-1251 RR	$1,325	9001	286	31.9	19.2	95.2
Hill-9616	$1,240	8472	**302**	28.2	**20.1**	**95.4**
Hill-NT9607	$1,208	8211	288	28.8	19.3	95.2
Average	$1,349	9179	291	31.9	19.5	95.2
LSD 5%	—	473	6	1.4	0.4	0.3
CV %	—	5	2	4.2	1.8	0.3

Comments: These results are the combined data of 7 Sugarbeet Advancement Variety Trials from 2017. These trials experienced a wide variation of environmental conditions, disease pressure and soil types. Individual trial data will give the best indication on how a variety will perform given specific conditions. Field placement of varieties should be based on past history of field issues and growers ability to manage them. Varieties vary greatly in disease resistance, yield potential and quality. For example, in nematode infested fields, tolerant varieties tend to perform the best, however in 2017 none of these trials had much if any nematode pressure. Varieties may also respond differently based on soil texture (see DVL trial). Heavy June rains occurred at both the Shaffner and Crumbaugh trials. Root disease pressure (Rhizoctonia and Aphanomyces) was significant at both locations. All of these trials had some leafspot in them (Cercospora and Alternaria), but disease pressure in these trials was much lower and developed later than in 2016. The late season drought was an issue at all locations, but the Sylvester, DVL and Crumbaugh trials were probably impacted the worst. Use this data in conjunction with Michigan Sugar variety/nursery data and seed company information.

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275.

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

Plant To Stand
Michigan Sugar Company
Average of 4 Locations - 2017

Trial Quality: Good
Plant/Harv: Apr 19/Oct 18
Plots: 6 rows X 38 ft
Row Spacing: 22 inches
Seeding Rate: 4.1 inches

Locations: Crumbaugh
Gerstenberger
Shaffner
Trost

Cerc Control: Very Good
Rhizoc Control: Good to Very Good

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS		Beets/100 ft*	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank	Act.	Rank
SX-RR1251	$1,373	**9419**	**271**	**13**	**34.5**	**1**	**18.4**	**14**	**94.8**	**10**	**1.07**	**4**	**180**	**11**
SX-RR1243	$1,340	**9189**	**273**	**9**	**33.2**	**5**	**18.5**	**8**	**94.8**	**8**	**1.15**	**5**	**189**	**2**
SX-RR1212	$1,340	**9176**	**274**	**7**	**33.2**	**6**	**18.6**	**7**	**94.9**	**5**	1.38	14	159	18
B-149N	$1,335	**9152**	266	16	**34.1**	**2**	18.0	16	**94.9**	**7**	1.38	15	**185**	**5**
C-G333NT	$1,326	**9108**	264	17	**34.0**	**3**	17.9	17	**95.0**	**3**	1.30	11	167	15
SX-RR1245N	$1,309	**8981**	**280**	**2**	31.7	13	**19.0**	**2**	**94.9**	**6**	**1.17**	**6**	**194**	**1**
B-12RR2N	$1,303	**8935**	**271**	**11**	**32.6**	**7**	**18.4**	**13**	**94.8**	**9**	**1.22**	**10**	156	19
C-RR059	$1,295	**8883**	**276**	**4**	31.8	10	**18.8**	**4**	**94.7**	**12**	**1.17**	**7**	**186**	**4**
HM-28RR	$1,292	**8837**	259	18	**33.9**	**4**	17.7	19	**94.6**	**14**	1.32	12	176	12
B-18RR4N	$1,289	**8835**	**276**	**5**	31.7	12	**18.6**	**6**	**95.0**	**2**	1.48	17	**181**	**9**
B-1399	$1,287	**8801**	**273**	**8**	**32.0**	**9**	**18.4**	**11**	**95.1**	**1**	**0.99**	**1**	**183**	**8**
C-G351NT	$1,283	**8794**	**281**	**1**	31.0	16	**19.0**	**1**	**94.8**	**11**	**1.03**	**3**	**184**	**6**
HIL-9732NT	$1,266	**8679**	267	15	**32.2**	**8**	18.3	15	94.3	18	1.58	19	171	13
B-133N	$1,259	**8617**	**271**	**12**	31.6	14	**18.5**	**10**	94.5	17	1.44	16	**184**	**7**
MA-513NT	$1,245	**8525**	**270**	**14**	31.4	15	**18.4**	**12**	94.6	15	1.55	18	**181**	**10**
C-G515	$1,230	8444	**280**	**3**	29.8	18	**18.9**	**3**	**94.9**	**4**	**1.19**	**8**	**189**	**3**
HM-173RR	$1,207	8272	259	19	31.7	11	17.9	18	94.1	19	**1.22**	**9**	164	16
HM-NT9607RR	$1,195	8182	**271**	**10**	29.9	17	**18.5**	**9**	94.6	16	1.33	13	167	14
HM-9616RR	$1,190	8132	**276**	**6**	29.3	19	**18.7**	**5**	**94.7**	**13**	**1.00**	**2**	161	17
Average	$1,282.3	8787.6	271.5		32.08		18.44		94.73		1.26		176.7	
LSD 5%	N.S.	742.8	10.6		2.1		0.6		0.4		0.3		14.2	
CV %	6.1	6.0	2.8		4.7		2.2		0.3		12.3		5.7	

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: All four Plant to Stand trials planted in 2017 were taken to harvest. One trial had excellent emergence, two had average emergence, and one had below average emergence. The trial with weaker emergence was planted in late April during a planting window that experienced adverse conditions. This trial also yielded less than other trials due to the reduced stand. All trials had good sugar content based on their harvest dates. When all four trials were combined, yield averaged a respectable 32 T/A and sugar content averaged 18.4%. The average stand was 176 beets/100' which was lower because of the previously mentioned trial. Cercospora and Rhizoctonia control was good to very good in all of the trials.

OVT Emergence

Michigan Sugar Company

Average of 2 Years, 2016 - 2017

Trial Quality: Good
Locations: 2016- Rayl, Shaffner, SVREC, Stoneman Ithaca
2017- Crumbaugh, Gerstenberger, Grekowicz, Maurer, Shaffner, SVREC, Sylvester, Trost
Plot Size: 2 rows X 38 ft, 8 reps
Seeding Rate: 1.9 inch seed spacing

Variety	% Emerge
C-G675	63.8
B-1690	62.6
C-RR059	60.4
B-1399	60.3
B-1606	59.7
SX-RR1245N	59.9
HM-28RR	59.3
HM-NT9607	58.1
HIL-9865	58.1
SX-RR1264	56.6
HIL-9732NT	56.1
SX-RR1243	57.0
C-G351NT	56.7
B-149N	56.9
HM-173RR	56.3
C-G515	56.7
HIL-9879NT	57.0
B-133N	56.1
B-18RR4N	56.1
C-G333NT	55.6
MA-513NT	55.4
SX-RR1251	54.3
SX-RR1212	52.2
B-12RR2N	51.7
HM-9616RR	50.5
Average	57.1
LSD 5%	6.1
CV %	5.2

Comments: Emergence counts were taken from OVT locations after full emergence to determine % emergence.

2017 Variety Trials
Emergence Summary

Early Counts

Trial	Couture	Crumbaugh	E & R	Gardner	Shaffner	Sylvester	DVL	Average
	Ontario	Gratiot	Huron	Sanilac	Midland	Tuscola	Huron	
Plant Date	4/14/2017	4/19/2017	4/29/2017	4/29/2017	5/11/2017	4/19/2017	4/26/2017	
Count Days	13	15	16		8	14	14	
SX-1243 RR	**167**	**191**	**142**	No early count due to crusting.	**41**	**221**	78	140
SX-1245N RR	**188**	182	**111**		**52**	190	68	132
C-RR059	127	**205**	**122**		26	**198**	**109**	131
C-G351NT	112	**198**	**139**		**52**	**206**	72	130
B-1399	137	**192**	**125**		27	**203**	51	122
C-G333NT	130	178	**131**		24	**194**	75	122
C-G515	137	**195**	**112**		10	**204**	71	122
B-149N	132	**192**	**115**		22	**206**	52	120
SX-1251 RR	141	140	**112**		**53**	182	56	114
B-12RR2N	**158**	163	87		26	168	59	110
Hill-9616	145	143	69		**59**	151	69	106
Hill-NT9607	140	142	68		15	145	27	90
Average	143	177	111	—	34	189	66	120
LSD 5%	35	23	36	—	23	28	20	—
CV %	14	8	19	—	40	9	18	—

Late Counts

Trial	Couture	Crumbaugh	E & R	Gardner	Shaffner	Sylvester	DVL	Average
Count Days	34	43	39	41	29	36	42	
B-1399	**268**	**246**	**215**	**177**	**225**	**263**	**248**	235
SX-1243 RR	250	**244**	**239**	**173**	**216**	**271**	**248**	234
C-G351NT	**267**	**238**	**228**	**160**	**213**	**260**	**248**	230
SX-1245N RR	261	**237**	**231**	**165**	**212**	**261**	**242**	230
B-12RR2N	**263**	**228**	**241**	**178**	**208**	250	**232**	229
B-149N	251	**240**	**218**	**169**	**213**	**261**	**233**	226
C-G515	**263**	**235**	210	154	**207**	249	230	221
Hill-NT9607	**267**	213	**229**	**179**	**204**	234	215	220
C-RR059	256	**240**	193	153	**210**	246	**236**	219
C-G333NT	**275**	223	**219**	153	180	248	219	216
SX-1251 RR	241	195	**220**	**177**	197	244	221	214
Hill-9616	245	194	197	141	187	226	208	200
Average	259	228	220	165	206	251	232	223
LSD 5%	13	19	27	21	26	15	9	—
CV %	3	5	7	7	7	4	5	—

Comments: The counts are the number of beets per 100 foot of row. The E & R and Gardner trials were both crust busted. No early counts were done at Gardner due to low and erratic early stands from crusting and crust busting. All varieties had the standard seed treatment plus Tachigaren 20. The varieties also contained these additional seed treatments by company: Seedex - Metlock, Rhizolex, Kabina; Hilleshog - Cruiser Maxx, Clariva, Vibrance on Hill-NT9607 and just Vibrance on Hill-9616; Crystal - Kabina; Betaseed - Kabina on B-149N, Kabina + Poncho Beta on B-1399, Systiva XS on B-12RR2N. Kabina is not approved for use in Canada (Couture).

2017 Variety Trials
Rhizoctonia Dead Beet Counts

Fall Count of Dead Beets in 1200 Foot of Row

Trial Location	Crumbaugh	DVL	E & R	Gardner	Shaffner	Sylvester	Average
Hill-9616	**7**	6	**0**	**0**	**4**	**0**	**3**
C-G515	**3**	0	**0**	**4**	**13**	**0**	**3**
C-RR059	**7**	1	**0**	**1**	**18**	**0**	**5**
B-1399	**15**	0	**0**	**4**	**31**	**0**	**8**
B-149N	**33**	9	**0**	**3**	**31**	**0**	**13**
C-G333NT	**47**	2	**0**	**5**	**27**	**0**	**13**
Hill-NT9607	**57**	2	8	**3**	**50**	**2**	**20**
SX-1243 RR	**39**	5	**2**	**12**	**68**	**3**	**22**
B-12RR2N	68	3	**3**	27	114	**0**	36
C-G351NT	60	1	**4**	15	144	**1**	38
SX-1251 RR	81	2	**3**	**11**	136	**2**	39
SX-1245N RR	105	5	10	19	220	**2**	60
AVERAGE	43	3	2	9	71	1	22
LSD (5%)	46	ns	5	12	79	ns	32
CV (%)	63	167	123	83	66	240	126

Comments: Rhizoctonia dead/dying beet counts from Sugarbeet Advancement variety trials. Counts represent dead or dying beets in 1200 foot of row. This year had relatively low levels except for the Crumbaugh & Shaffner trials, which had the most severe pressure. All trials received Quadris in-furrow. All trials except for Shaffner had a foliar application at the 6-8 leaf stage.

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

East District Trials

PIONEER • BIG CHIEF
MICHIGAN SUGAR

Official Variety Trial
Michigan Sugar Company
Gerstenberger Farms, Sandusky - 2017

Trial Quality: Good
Plant/Harv: Apr 28/ Sept 21
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 170 beets/100 ft.

Soil Type: Sandy Loam
% OM: 2.1 **pH:** 6.3 **CEC:** 9.5
Nutrients: Abv Opt: P, Blw Opt: K
High: Mn Low: B
Added N: 166 lbs.
Prev Crop: Soybeans

Cerc Control: Very Good
8 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 13.43 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
SX-RR1251	**$1,120**	**7628**	**286**	**2**	**26.7**	**3**	**19.1**	**3**	**95.3**	**1**	1.69	13
C-G675	**$1,113**	**7584**	**280**	**5**	**27.1**	**1**	**18.8**	**6**	**95.2**	**3**	**1.19**	**2**
SX-RR1264	**$1,085**	**7390**	273	14	**27.0**	**2**	18.5	13	**94.8**	**14**	**1.56**	**7**
B-149N	$1,025	6981	266	21	**26.3**	**4**	18.1	19	94.6	21	1.94	20
HIL-9865	$1,023	6967	**284**	**3**	24.5	11	**19.1**	**2**	**95.1**	**5**	1.75	14
SX-RR1245N	$1,018	6935	**279**	**6**	24.9	9	**18.8**	**5**	**95.0**	**9**	1.63	9
SX-RR1243	$1,013	6902	275	10	25.1	7	18.6	9	**94.8**	**13**	**1.31**	**4**
B-18RR4N	$1,007	6861	267	19	**25.7**	**5**	18.1	20	**94.9**	**11**	1.88	19
HIL-9879NT	$991	6750	**279**	**7**	24.2	14	**18.8**	**7**	**95.0**	**6**	**1.31**	**5**
SX-RR1212	$989	6738	274	12	24.6	10	18.6	11	94.8	17	1.81	17
B-1606	$989	6735	266	20	25.3	6	18.0	21	**95.0**	**10**	1.75	15
B-12RR2N	$982	6688	274	13	24.5	12	18.5	12	**94.8**	**16**	2.19	24
HM-28RR	$959	6533	261	23	25.1	8	17.7	23	**94.9**	**12**	1.75	16
C-G515	$943	6426	268	17	23.9	15	18.3	17	94.6	20	1.81	18
C-G333NT	$934	6364	273	15	23.3	16	18.4	16	**95.0**	**7**	2.06	22
C-RR059	$934	6363	274	11	23.2	17	18.6	10	**94.8**	**15**	1.63	10
B-1399	$931	6340	276	9	23.0	18	18.5	14	**95.3**	**2**	1.63	11
B-1690	$927	6316	**277**	**8**	22.8	19	**18.8**	**8**	94.7	19	**1.19**	**3**
B-133N	$920	6270	256	24	24.4	13	17.6	24	94.3	24	1.94	21
HM-9616RR	$913	6218	**286**	**1**	21.7	24	**19.3**	**1**	**95.0**	**8**	**1.13**	**1**
MA-513NT	$907	6181	271	16	22.8	20	18.4	15	94.6	22	2.13	23
C-G351NT	$905	6162	**282**	**4**	21.9	23	**18.9**	**4**	**95.1**	**4**	**1.50**	**6**
HIL-9732NT	$853	5814	263	22	22.1	22	18.0	22	94.6	23	2.31	25
HM-173RR	$829	5651	252	25	22.5	21	17.4	25	93.9	25	1.63	12
HM-NT9607	$777	5292	267	18	19.8	25	18.1	18	94.8	18	**1.56**	**8**
Average	$963.4	6563.5	272.4		24.09		18.45		94.84		1.69	
LSD 5%	63.3	431.0	7.8		1.4		0.5		0.4		0.5	
CV %	6.7	6.7	2.9		5.9		2.5		0.5		20.8	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on April 28th and harvested on September 21st. Slight crusting and weaker overall emergence required thinning this trial to 170 beets/100'. Sugar content was good and yield was respectable considering an early delivery harvest date. Cercospora and Rhizoctonia control was very good.

Official Variety Trial
Michigan Sugar Company
Grekowicz, Port Hope - 2017

Trial Quality: Very Good
Plant/Harv: May 12/ Oct 26
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 200 beets/100 ft.

Soil Type: Sandy Loam
% OM: 3.4 **pH:** 7.5 **CEC:** 12.7
Nutrients: Above opt P, K
High: Mn Medium: B
Added N: Manure + 40 lbs.
Prev Crop: Wheat

Cerc Control: Very Good
8 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 21.73 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
B-12RR2N	**$1,870**	**13358**	**296**	**1**	**45.2**	**3**	**19.6**	**4**	**95.8**	**3**	1.60	24
B-1606	**$1,830**	**13072**	**288**	**13**	**45.4**	**1**	19.1	14	**95.8**	**2**	1.38	14
B-149N	**$1,790**	**12783**	282	20	**45.4**	**2**	18.8	19	**95.6**	**9**	1.40	15
B-18RR4N	**$1,786**	**12757**	**295**	**2**	**43.2**	**6**	**19.6**	**3**	**95.7**	**8**	1.44	16
C-G333NT	**$1,782**	**12724**	283	17	**45.0**	**4**	18.8	18	**95.7**	**6**	1.45	19
HIL-9865	$1,764	12598	**293**	**5**	**43.0**	**7**	**19.5**	**6**	**95.6**	**10**	1.30	11
SX-RR1243	$1,755	12531	282	19	**44.4**	**5**	18.8	20	**95.7**	**7**	1.25	8
C-G675	$1,729	12350	**290**	**9**	42.6	8	**19.2**	**13**	**95.8**	**4**	1.00	2
SX-RR1264	$1,684	12026	**290**	**11**	41.5	11	**19.3**	**9**	**95.5**	**13**	1.56	22
SX-RR1251	$1,674	11952	283	16	42.2	9	18.9	17	95.4	15	1.30	12
B-133N	$1,674	11952	285	15	41.9	10	19.0	15	**95.5**	**11**	1.44	17
B-1690	$1,664	11881	**292**	**7**	40.7	14	**19.5**	**5**	95.4	17	1.19	7
SX-RR1245N	$1,635	11673	**291**	**8**	40.1	17	**19.3**	**10**	**95.7**	**5**	1.25	9
C-G515	$1,633	11658	**290**	**10**	40.2	16	**19.5**	**8**	95.1	22	1.25	10
SX-RR1212	$1,619	11561	279	22	41.5	12	18.6	22	95.4	16	1.44	18
B-1399	$1,607	11475	281	21	40.9	13	18.6	23	**95.9**	**1**	1.06	3
C-RR059	$1,563	11159	**293**	**4**	38.1	20	**19.6**	**2**	95.2	21	1.06	4
MA-513NT	$1,549	11065	283	18	39.2	19	19.0	16	95.1	23	1.56	23
HIL-9732NT	$1,534	10955	279	23	39.4	18	18.7	21	95.2	20	1.75	25
HM-173RR	$1,507	10762	267	24	40.3	15	18.1	24	94.9	25	1.50	20
HM-9616RR	$1,455	10387	**292**	**6**	35.5	22	**19.5**	**7**	**95.5**	**12**	**0.75**	**1**
C-G351NT	$1,451	10360	**294**	**3**	35.3	24	**19.6**	**1**	95.3	19	1.13	5
HM-NT9607	$1,425	10176	**289**	**12**	35.2	25	**19.3**	**11**	95.4	14	1.31	13
HIL-9879NT	$1,416	10111	**287**	**14**	35.3	23	**19.3**	**12**	95.1	24	1.15	6
HM-28RR	$1,415	10104	266	25	38.0	21	17.9	25	95.3	18	1.50	21
Average	$1,632.4	11657.2	285.9		40.78		19.08		95.46		1.32	
LSD 5%	87.8	626.7	7.3		2.2		0.4		0.4		0.2	
CV %	5.5	5.5	2.6		5.5		2.2		0.4		17.6	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on May 12th and harvested on October 26th. This trial had excellent emergence and was thinned to 200 beets/100'. Favorable growing conditions throughout the season as well as low disease pressure resulted in very high yields and sugar content. Cercospora and Rhizoctonia control was very good.

Official Variety Trial
Michigan Sugar Company
Maurer, Ruth - 2017

Trial Quality: Very Good
Plant/Harv: Apr 20/ Sept 28
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 170 beets/100 ft.

Soil Type: Loam
% OM: 3.5 **pH:** 7.6 **CEC:** 13.6
Nutrients: Above Opt: P, K
High: Mn Medium: B
Added N: 140 lbs.
Prev Crop: Dry Beans

Cerc Control: Very Good
6 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 21.24 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
SX-RR1264	**$1,440**	**10620**	**301**	**8**	**35.3**	**1**	20.0	9	**95.5**	**2**	**0.88**	**17**
C-G675	**$1,406**	**10364**	**308**	**4**	**33.6**	**10**	**20.4**	**6**	**95.8**	**1**	**0.63**	**5**
SX-RR1243	**$1,401**	**10328**	**303**	**7**	**34.1**	**5**	**20.2**	**7**	**95.3**	**10**	**0.50**	**1**
B-149N	**$1,370**	**10101**	288	21	**35.0**	**2**	19.3	19	95.1	16	**0.75**	**10**
B-1606	$1,361	10035	289	19	**34.7**	**3**	19.3	20	**95.3**	**13**	1.13	24
SX-RR1251	$1,361	10031	297	10	**33.7**	**7**	19.9	10	95.1	17	**0.50**	**2**
SX-RR1245N	$1,359	10017	296	12	**33.8**	**6**	19.9	11	95.0	18	**0.63**	**6**
C-G333NT	$1,340	9876	288	20	**34.3**	**4**	19.3	21	**95.3**	**8**	1.13	25
B-18RR4N	$1,324	9758	**307**	**5**	31.7	14	**20.4**	**4**	**95.4**	**6**	**0.75**	**11**
HIL-9865	$1,319	9721	**307**	**6**	31.7	15	**20.4**	**5**	**95.5**	**3**	**0.88**	**18**
SX-RR1212	$1,296	9556	283	23	**33.7**	**8**	19.0	25	**95.4**	**7**	**0.88**	**19**
B-1399	$1,282	9448	290	17	32.6	11	19.4	18	**95.3**	**12**	**0.63**	**7**
B-1690	$1,281	9442	**310**	**1**	30.5	21	**20.6**	**2**	**95.4**	**4**	**0.63**	**8**
HM-28RR	$1,280	9440	281	25	**33.6**	**9**	19.0	24	94.8	24	**0.75**	**12**
B-133N	$1,275	9403	289	18	32.5	12	19.5	17	95.0	20	**0.88**	**20**
HM-173RR	$1,263	9313	291	15	32.0	13	19.6	16	95.0	21	**0.75**	**13**
C-G351NT	$1,256	9257	**309**	**2**	29.9	23	**20.6**	**3**	**95.4**	**5**	**0.75**	**14**
C-RR059	$1,249	9210	300	9	30.7	19	20.0	8	**95.3**	**11**	**0.50**	**3**
MA-513NT	$1,247	9193	296	11	31.0	18	19.8	12	**95.2**	**14**	1.00	22
HIL-9732NT	$1,234	9099	290	16	31.4	16	19.7	15	94.6	25	1.00	23
B-12RR2N	$1,231	9075	292	14	31.1	17	19.7	14	94.9	23	**0.88**	**21**
HM-9616RR	$1,208	8904	**309**	**3**	28.8	25	**20.7**	**1**	95.2	15	**0.50**	**4**
C-G515	$1,199	8842	296	13	29.8	24	19.8	13	**95.3**	**9**	**0.75**	**15**
HIL-9879NT	$1,178	8685	284	22	30.5	20	19.2	22	95.0	22	**0.63**	**9**
HM-NT9607	$1,166	8600	283	24	30.4	22	19.1	23	95.0	19	**0.75**	**16**
Average	$1,293.0	9532.7	295.6		32.27		19.78		95.20		0.76	
LSD 5%	69.7	513.6	7.8		1.5		0.5		0.4		0.4	
CV %	5.5	5.5	2.7		4.7		2.3		0.5		35.2	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on April 20th and harvested on September 28th. The trial was planted into a stale seedbed, and received a brief heavy rain just after planting. This caused some slight emergence issues, and the trial was thinned to 170 beets/100'. The yields and sugars were exceptional considering a late September harvest date. Cercospora and Rhizoctonia control in this trial was very good.

Plant To Stand
Michigan Sugar Company
Gerstenberger Farms, Sandusky - 2017

Trial Quality: Good
Plant/Harv: Apr 28/ Sept.21
Plots: 6 Rows X 38 ft., 6 reps
Row Spacing: 22 inches
Seeding Rate: 4.1 inches

Soil Type: Sandy Loam
% OM: 2.1 **pH:** 6.3 **CEC:** 9.4
Nutrients: Abv Opt: P, Blw Opt: K
High: Mn Low: B
Added N: 166 lbs.
Prev Crop: Soybeans

Cerc Control: Very Good
8 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 13.43 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS		Beets/100 ft	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank	Act.	Rank
B-1399	**$1,100**	**6946**	**264**	**4**	**26.3**	**3**	**18.1**	**3**	**94.4**	**2**	**1.50**	**1**	**149**	**5**
SX-RR1243	**$1,091**	**6888**	**259**	**5**	**26.6**	**2**	**17.8**	**6**	**94.2**	**5**	**1.56**	**3**	**153**	**3**
SX-RR1245	**$1,090**	**6882**	**266**	**1**	**25.8**	**5**	**18.3**	**1**	**94.3**	**4**	1.88	11	**149**	**4**
SX-RR1251	**$1,067**	**6738**	**264**	**3**	**25.5**	**6**	**18.0**	**4**	**94.8**	**1**	**1.75**	**5**	**156**	**1**
HM-28RR	**$1,034**	**6527**	243	16	**26.9**	**1**	16.8	16	**94.0**	**10**	**1.81**	**7**	**143**	**10**
B-18RR4N	**$1,013**	**6394**	**253**	**10**	**25.2**	**7**	**17.4**	**12**	**94.4**	**3**	2.13	16	**145**	**6**
SX-RR1212	**$1,011**	**6385**	**254**	**9**	**25.2**	**8**	**17.5**	**9**	**94.1**	**8**	2.13	17	110	19
B-149N	**$1,006**	**6351**	246	15	**25.8**	**4**	17.1	15	93.8	14	2.06	14	**154**	**2**
B-133N	**$983**	**6204**	247	14	**25.1**	**9**	17.3	13	93.4	17	2.00	13	**145**	**8**
B-12RR2N	**$978**	**6173**	**250**	**13**	**24.7**	**10**	17.3	14	**94.1**	**6**	**1.81**	**8**	112	17
C-RR059	**$976**	**6162**	**258**	**7**	23.9	12	**17.8**	**7**	**94.1**	**9**	**1.75**	**6**	**141**	**12**
C-G351NT	**$976**	**6161**	**265**	**2**	23.2	13	**18.2**	**2**	**94.1**	**7**	**1.63**	**4**	**138**	**13**
HM-9616RR	$945	5967	**258**	**6**	23.1	15	**17.9**	**5**	**93.9**	**13**	**1.50**	**2**	112	18
C-G333NT	$938	5918	241	17	**24.6**	**11**	16.7	19	**94.0**	**11**	1.88	12	116	15
C-G515	$915	5773	**256**	**8**	22.6	17	**17.7**	**8**	**94.0**	**12**	**1.81**	**9**	**145**	**7**
MA-513NT	$906	5721	**251**	**11**	22.7	16	**17.5**	**11**	93.7	15	2.25	18	**144**	**9**
HIL-9732NT	$869	5485	237	18	23.1	14	16.8	17	93.1	18	2.25	19	**142**	**11**
HM-NT9607RR	$841	5310	**251**	**12**	21.2	18	**17.5**	**10**	93.6	16	2.06	15	118	14
HM-173RRR	$759	4793	236	19	20.4	19	16.7	18	93.0	19	**1.81**	**10**	115	16
Average	$973.7	6146	252.5		24.32		17.50		93.95		1.87		136.2	
LSD 5%	109.0	688.2	15.1		2.0		0.8		0.7		0.3		22.5	
CV %	7.9	7.9	4.2		5.8		3.2		0.6		12.1		11.7	

**** See Cercospora Fungicide Application Page**

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on April 28th and harvested on September 21st. Slight crusting and weaker overall emergence caused the average stand in this trial to be 136 beets/100'. Sugar content was good and yield was respectable considering early delivery harvest date. Cercospora and Rhizoctonia control was very good.

Nematode Strip Trial
Michigan Sugar Company
Kirkpatrick, Sandusky - 2017

Trial Quality: Good
Location: Kirkpatrick
Plot Size: 6 rows X 114 ft., 6 reps

Cerc Control: Very Good
Rhizoc Control: Very Good

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Emerge	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	%	Rank
B-18RR4N	$1,094	8043	317.6	1	25.3	1	21.0	1	**95.6**	**3**	51.4	12
SX-1243	$1,009	7415	302.3	3	24.5	4	20.1	3	**95.4**	**7**	**60.4**	**2**
M-513NT	$992	7287	289.6	10	25.1	2	19.6	9	94.8	11	**55.5**	**8**
B-149N	$980	7201	295.4	7	24.3	5	19.7	7	**95.4**	**6**	**58.0**	**3**
C-G333NT	$973	7153	289.2	11	24.7	3	19.2	11	**95.6**	**4**	53.3	10
C-RR059	$967	7107	298.0	5	23.8	6	20.1	4	94.8	12	**60.5**	**1**
SX-1245N	$960	7058	294.4	8	23.7	7	19.5	10	**95.7**	**2**	**54.5**	**9**
B-133N	$940	6909	292.7	9	23.5	8	19.6	8	**95.2**	**9**	**55.6**	**7**
B-1399	$936	6875	296.8	6	23.1	9	19.8	6	**95.3**	**8**	**56.7**	**5**
C-G351NT	$927	6813	306.7	2	22.0	12	20.4	2	**95.4**	**5**	**56.1**	**6**
HIL-9879	$917	6740	298.2	4	22.5	11	20.0	5	**95.1**	**10**	52.6	11
HM-9732NT	$875	6433	277.6	13	22.9	10	19.0	12	94.2	14	**57.0**	**4**
B-12RR2N	$812	5964	279.4	12	21.3	13	18.5	14	**95.8**	**1**	44.3	14
HM-9607NT	$773	5680	277.3	14	20.4	14	18.8	13	94.7	13	50.5	13
Average	$939.7	6905.7	294.0		23.4		19.7		95.2		54.8	
LSD 5%	N.S.	N.S.	N.S.		N.S.		N.S.		0.8		5.5	
CV %	14.3	14.3	5.9		11.1		4.9		0.6		7.1	

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: Again in 2017, a nematode variety strip trial was planted comparing all commercial nematode varieties to a few non-nematode varieties. The overall nematode pressure in this field was lower than in the past trials and we did not see statistical significance between varieties for yield or sugar content.

Variety Trial

Couture Flatland Farms, Ontario - 2017

Trial Quality: Excellent
Planted: April 14
Harv/Samp: Sept 26 / Sept 26
Plot Size: 3 reps
Row Spacing: 30 inch
Seeding Rate: 51,000

Soil Type: Loam
Fertilizer: 2x2: 430# 9-12-8 w/ 15S, 1.5 Mn, 1 Zn; Sidedress: 28% for 150# total N
Prev Crop: Corn
Weather: Good. Dry most of the season

Cerc Control: Fair control: 1. EBDC + Cu, 2. Proline + Cu, 3. EBDC + Cu, 4. Proline + Cu, 5. Copper, 6. Proline
Rhizoc Control: Excellent control: Quadris I.F.
Other Pests: None

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							13 Day	34 Day	
SX-1243 RR	$2,446	**11614**	261	**44.5**	17.6	95.3	**167**	250	—
C-G515	$2,438	**11574**	258	**44.8**	17.4	95.2	137	**263**	—
C-RR059	$2,408	**11427**	259	**44.1**	17.5	95.2	127	256	—
B-12RR2N	$2,333	**11077**	264	41.9	17.8	95.3	**158**	**263**	—
SX-1251 RR	$2,267	10767	252	42.7	17.0	95.2	141	241	—
B-149N	$2,258	10720	242	**44.2**	16.5	95.1	132	251	—
C-G351NT	$2,257	10719	**274**	39.0	**18.4**	95.5	112	**267**	—
C-G333NT	$2,245	10659	245	**43.6**	16.6	95.0	130	**275**	—
SX-1245N RR	$2,212	10499	257	40.9	17.4	95.0	**188**	261	—
B-1399	$2,184	10368	258	40.2	17.3	95.7	137	**268**	—
Hill-9616	$2,144	10181	**284**	35.9	**18.9**	95.6	145	245	—
Hill-NT9607	$2,033	9651	253	38.2	17.0	95.6	140	**267**	—
Average	$2,269	10771	259	41.7	17.4	95.3	143	259	—
LSD 5%	—	597	13	1.7	0.7	0.6	35	13	—
CV %	—	3	3	2.3	2.3	0.3	14	3	—

Comments: This trial was planted early and harvested in early dig on September 26. This was a high yielding environment with very little Rhizoctonia. Cercospora leafspot was present but not at an overly high level and six fungicide applications were made to keep the disease in check. The season was generally dry, but not as bad as many locations in Michigan.

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275 along with the early delivery premium.

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

Variety Trial
DVL Farms, Ruth - 2017

Trial Quality: Very Good
Planted: April 26
Harv/Samp: Nov 7 / Oct 25
Plot Size: 3 reps
Row Spacing: 28"
Seeding Rate: 56,000

Soil Type: Avoca Loamy Sand
Fertilizer: Fall: 8 ton manure; 2x2: 237# 17-18-13-4S-1Mn & B; Post: 110# N by urea
Prev Crop: Wheat
Weather: Good, dry late season

Cerc Control: Good control: See below for materials
Rhizoc Control: Excellent control: Quadris I.F. & 6-8 leaf
Other Pests: Late season leaf diseases

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							14 Day	42 Day	
B-149N	$1,298	**8927**	262	**34.0**	17.4	**95.9**	52	**233**	9
SX-1243 RR	$1,289	**8862**	**271**	**32.7**	17.8	**96.4**	78	**248**	5
SX-1251 RR	$1,260	**8658**	**268**	**32.3**	17.7	**96.4**	56	221	2
SX-1245N RR	$1,256	**8637**	**271**	31.9	**17.9**	**96.0**	68	**242**	5
B-12RR2N	$1,225	**8421**	**268**	31.4	17.8	**96.0**	59	**232**	3
C-G351NT	$1,206	8290	**272**	30.5	**18.1**	95.8	72	**248**	1
B-1399	$1,196	8221	261	31.5	17.3	**96.1**	51	**248**	0
C-G333NT	$1,188	8166	255	32.0	17.1	95.7	75	219	2
C-G515	$1,150	7906	265	29.9	17.8	95.3	71	230	0
C-RR059	$1,122	7712	**268**	28.7	**17.9**	95.6	**109**	**236**	1
Hill-9616	$1,089	7485	**275**	27.2	**18.2**	**96.0**	69	208	6
Hill-NT9607	$999	6865	265	25.9	17.7	95.6	27	215	2
Average	$1,190	8179	267	30.7	17.7	95.9	66	232	3
LSD 5%	—	615	7	2.0	0.4	0.6	20	9	ns
CV %	—	4	2	3.9	1.3	0.3	18	5	167

Comments: This trial was conducted to evaluate the performance of varieties on a sandy soil type. These soil types are droughty and prone to blow out. The trial was stale seedbed planted into a wheat cover crop to help prevent blow outs. Rainfall was generally adequate through the first half of the season, but the trial became very dry in September. The dryness and leaf disease caused significant die back of the canopy late in the season. Rhizoctonia and root disease issues were very low. Interestingly, the top 5 varieties were also the top 5 varieties in the Sylvester Variety Trial which also seemed to be impacted the most by the drought. The leafspot fungicides were as follows: 1. EBDC, 2. Proline + EBDC, 3. Inspire + EBDC, 4. Eminent + EBDC, 5. EBDC 6. Copper

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275.

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

Variety Trial

E & R Farms, Bad Axe - 2017

Trial Quality: Very good
Planted: April 29
Harv/Samp: Nov 3 / Oct 25
Plot Size: 3 reps
Row Spacing: 30 inch
Seeding Rate: 59,000

Soil Type: Loam
Fertilizer: Fall manure: 16 tons; 2x2: 24.5 gal. of 16-18-0-3S w/ B & Mn; SD: 90# N
Prev Crop: Wheat w/ manure
Weather: Good weather, dry late

Cerc Control: Good control: See below for materials
Rhizoc Control: Excellent control: Quadris I.F. & 6-8 leaf
Other Pests: Root aphid, Leaf diseases

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							16 Day	39 Day	
C-G515	$1,517	**10430**	**285**	36.6	**19.4**	94.3	**112**	210	**0**
C-G351NT	$1,514	**10409**	**287**	36.3	**19.9**	93.7	**139**	**228**	**4**
B-149N	$1,471	**10106**	256	**39.5**	17.8	93.6	**115**	**218**	**0**
C-RR059	$1,470	**10102**	267	37.9	18.6	93.4	**122**	193	**0**
SX-1245N RR	$1,418	9745	**278**	35.0	19.0	94.3	**111**	**231**	10
B-1399	$1,376	9440	264	35.9	18.1	94.2	**125**	**215**	**0**
Hill-9616	$1,372	9434	**297**	31.8	**20.0**	94.7	69	197	**0**
C-G333NT	$1,370	9415	258	36.5	18.0	93.5	**131**	**219**	**0**
SX-1243 RR	$1,309	8990	264	34.1	17.9	94.9	**142**	**239**	**2**
SX-1251 RR	$1,295	8905	261	34.1	18.2	93.6	**112**	**220**	**3**
B-12RR2N	$1,293	8888	263	33.8	17.8	94.9	87	**241**	**3**
Hill-NT9607	$1,255	8624	262	32.9	18.2	93.8	68	**229**	8
Average	$1,388	9541	270	35.4	18.6	94.1	111	220	2
LSD 5%	—	634	20	1.2	0.9	ns	36	27	5
CV %	—	4	4	2.1	2.9	0.9	19	7	123

Comments: The field received 16 tons of manure in the previous fall. The trial was planted before a crusting rain event. Trial was crust busted and eventually an excellent stand established. Generally this was a high yielding environment. Root aphid was found and likely had an impact on both tonnage and sugar. Rhizoctonia levels were very low. Cercospora and Alternaria were both present, but not as bad as other trial locations. The fungicide materials used for leafspot control were as follows: 1. Eminent + EBDC, 2. Badge + EBDC, 3. Inspire + EBDC, 4. Super Tin + EBDC, 5. Enable, 6.Cuprofix

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275.

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

Variety Trial

Gardner Farms, Croswell - 2017

Trial Quality: Good
Planted: April 29
Harv/Samp: Oct 13 / Oct 12
Plot Size: 3 reps
Row Spacing: 22 inch
Seeding Rate: 65,000

Soil Type: Loam
Fertilizer: PPI: 19 gal of 28%; 2x2: 15 gal of 10-34-0; S.D.: 20 gal of 28%
Prev Crop: Soybeans
Weather: Good all season

Cerc Control: Fair Control: 1. Proline, 2. Gem + EBDC, 3. Inspire, 4. Super Tin
Rhizoc Control: Good control: Quadris I.F. and 8 leaf
Other Pests: Low Root aphid, late season leaf diseases

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							Day	41 Day	
B-1399	$1,728	**9817**	**332**	**29.6**	**22.0**	**95.3**	—	**177**	**4**
B-12RR2N	$1,717	**9759**	**335**	**29.1**	**22.2**	**95.4**	—	**178**	27
B-149N	$1,697	**9643**	323	**29.8**	21.5	**95.2**	—	**169**	**3**
SX-1245N RR	$1,662	**9437**	**330**	**28.6**	**21.9**	**95.5**	—	**165**	19
C-G515	$1,647	**9364**	327	**28.6**	**22.0**	94.7	—	154	**4**
SX-1243 RR	$1,605	**9116**	**330**	**27.6**	**22.0**	**95.1**	—	**173**	**12**
SX-1251 RR	$1,602	**9101**	320	**28.4**	21.3	**95.3**	—	**177**	**11**
C-RR059	$1,588	**9014**	**333**	**27.1**	**22.2**	**95.1**	—	153	**1**
C-G333NT	$1,553	8817	314	**28.1**	21.1	94.9	—	153	**5**
C-G351NT	$1,537	8742	**337**	25.9	**22.4**	**95.2**	—	**160**	15
Hill-NT9607	$1,481	8413	323	26.0	21.6	94.9	—	**179**	**3**
Hill-9616	$1,384	7861	326	24.2	**21.8**	94.9	—	141	**0**
Average	$1,600	9091	327	27.8	21.8	95.12	—	165	9
LSD 5%	—	973	10	2.9	0.6	0.5	—	21	12
CV %	—	6	2	6.3	1.6	0.3	—	7	83

Comments: The trial was planted before a crusting rain event. Trial was crust busted and eventually an adequate but lower than ideal stand established. Population may have had an effect on the results and trial variability. Early stand counts were not taken due to the slow and erratic establishment. A low level of Root aphid was observed during sampling. Trial had a low level of Rhizoctonia. Both Cercospora and Alternaria leaf diseases were starting to become an issue late in the season and likely had an impact on trial results.

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275 along with the early delivery premium.

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

Central District Trials

Official Variety Trial
Michigan Sugar Company
Sylvester, Fairgrove - 2017

Trial Quality: Fair
Plant/Harv: Apr 27/ Sept 20
Plots: 2 rows X 38 ft., 5 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 170 beets/100 ft.

Soil Type: Sandy Loam
% OM: 2.5 **pH:** 7.4 **CEC:** 9.8
Nutrients: Abv Opt: P, K
Medium: Mn Medium: B
Added N: 160 lbs.
Prev Crop: Wheat

Cerc Control: Very Good
7 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 9.37 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
C-G675	**$1,311**	**10070**	**306**	**12**	**33.0**	**1**	**20.5**	**13**	**95.1**	**5**	**1.81**	**8**
SX-RR1251	**$1,284**	**9859**	**310**	**10**	**31.9**	**2**	**20.8**	**9**	**94.8**	**16**	**1.88**	**11**
SX-RR1245N	**$1,258**	**9657**	**319**	**3**	**30.2**	**7**	**21.1**	**5**	**95.6**	**2**	**1.69**	**5**
HIL-9865	**$1,222**	**9383**	**311**	**8**	**30.1**	**8**	**20.9**	**8**	**94.8**	**13**	**1.88**	**10**
B-1690	**$1,201**	**9225**	**323**	**2**	28.6	17	**21.6**	**1**	**94.9**	**10**	2.13	23
SX-RR1243	**$1,198**	**9203**	**315**	**6**	29.2	12	**21.1**	**6**	**95.0**	**7**	**1.38**	**1**
HM-28RR	**$1,192**	**9151**	293	22	**31.2**	**3**	19.9	23	94.3	22	2.13	22
SX-RR1212	**$1,189**	**9133**	300	19	**30.4**	**6**	20.2	20	**94.8**	**14**	1.94	17
B-149N	**$1,183**	**9081**	292	23	**31.0**	**5**	19.8	24	94.6	18	1.94	16
B-1606	**$1,180**	**9061**	**305**	**14**	**29.7**	**9**	20.4	14	**95.0**	**6**	2.00	20
C-G333NT	**$1,168**	**8968**	288	25	**31.1**	**4**	19.7	25	94.2	23	2.00	19
B-1399	**$1,164**	**8935**	**303**	**15**	29.4	11	20.3	18	**95.1**	**4**	**1.50**	**2**
SX-RR1264	**$1,161**	**8912**	**308**	**11**	28.9	14	**20.7**	**11**	**94.9**	**12**	1.88	13
C-G515	**$1,159**	**8899**	**302**	**17**	29.5	10	20.3	17	**94.9**	**11**	1.94	14
C-RR059	**$1,142**	**8767**	**306**	**13**	28.7	16	**20.7**	**12**	94.6	19	**1.75**	**6**
HIL-9732NT	**$1,139**	**8743**	**310**	**9**	28.2	20	**20.8**	**10**	**94.9**	**9**	2.44	25
MA-513NT	**$1,133**	**8700**	299	20	29.1	13	20.3	16	94.5	21	2.38	24
B-18RR4N	$1,112	8542	300	18	28.4	19	20.3	19	**94.8**	**15**	2.00	18
B-12RR2N	$1,101	8456	**302**	**16**	28.0	21	20.4	15	**94.7**	**17**	2.06	21
HIL-9879NT	$1,099	8442	**317**	**5**	26.7	23	**21.2**	**3**	**95.0**	**8**	**1.69**	**4**
B-133N	$1,096	8415	295	21	28.5	18	20.2	21	94.1	24	1.94	15
HM-173RR	$1,093	8391	290	24	28.9	15	19.9	22	93.9	25	**1.75**	**7**
HM-9616RR	$1,092	8386	**324**	**1**	25.9	24	**21.6**	**2**	**95.2**	**3**	**1.81**	**9**
C-G351NT	$1,089	8360	**313**	**7**	26.7	22	**21.1**	**4**	94.6	20	**1.63**	**3**
HM-NT9607	$970	7445	**318**	**4**	23.4	25	**21.0**	**7**	**95.6**	**1**	1.88	12
Average	$1,157.4	8887.3	305.9		29.07		20.60		94.79		1.90	
LSD 5%	146.0	1121.0	18.4		2.9		1.0		0.8		0.4	
CV %	10.1	10.1	4.8		8.0		3.8		0.7		13.3	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted into a stale seedbed on April 27th and harvested on September 20th. Poor emergence in a few replications required the reduction of replications from 8 to 5. The remaining 5 replications provided good data. Overall emergence was slightly weaker at this location and the trial was thinned to 170 beets/100'. Yield and sugar content were exceptional considering the very low seasonal rainfall at this location. Cercospora and Rhizoctonia control in this trial was very good.

Official Variety Trial
Michigan Sugar Company
SVREC, Richville - 2017

Trial Quality: Good
Plant/Harv: Apr 17/ Nov 1
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 200 beets/100 ft.

Soil Type: Sandy Clay Loam
% OM: 2.9 **pH:** 8.1 **CEC:** 14.2
Nutrients: Abv Opt: P, Opt: K
High: Mn Low: B
Added N: 160 lbs.
Prev Crop: Wheat

Cerc Control: Very Good
9 applications**
Rhizoc Control: Good
Quadris IF T-Band, 6-8 lf
Rainfall: 21.73 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
C-G675	**$1,668**	**12767**	**314**	**4**	**40.6**	**1**	**20.4**	**4**	**96.6**	**5**	**1.63**	**6**
SX-RR1264	**$1,625**	**12434**	311	8	**40.0**	**4**	20.2	9	**96.6**	**4**	1.75	10
SX-RR1243	**$1,595**	**12203**	304	13	**40.1**	**3**	19.8	13	**96.4**	**17**	**1.50**	**4**
B-1606	**$1,583**	**12117**	300	18	**40.4**	**2**	19.5	21	**96.7**	**1**	1.75	11
HIL-9732NT	**$1,561**	**11948**	311	7	**38.4**	**9**	20.2	7	**96.6**	**9**	2.50	25
HIL-9865	$1,545	11821	**320**	**1**	37.0	17	**20.8**	**1**	**96.5**	**10**	**1.50**	**5**
SX-RR1212	$1,541	11795	301	16	**39.1**	**8**	19.6	17	**96.6**	**7**	1.88	14
C-G333NT	$1,536	11758	300	19	**39.2**	**7**	19.6	18	**96.4**	**20**	2.13	17
B-18RR4N	$1,536	11753	309	10	**38.0**	**11**	20.1	10	**96.6**	**6**	2.13	18
C-RR059	$1,535	11745	311	6	**37.8**	**13**	20.2	6	**96.5**	**12**	2.13	19
B-1690	$1,527	11686	**316**	**3**	37.0	16	**20.6**	**3**	**96.5**	**14**	**1.63**	**7**
B-149N	$1,518	11614	295	23	**39.4**	**6**	19.3	23	96.3	21	2.38	24
B-1399	$1,517	11607	292	24	**39.8**	**5**	19.0	24	**96.7**	**3**	**1.38**	**2**
SX-RR1245N	$1,512	11567	301	17	**38.4**	**10**	19.7	16	**96.5**	**16**	**1.63**	**8**
B-12RR2N	$1,502	11494	303	14	**37.9**	**12**	19.7	15	**96.7**	**2**	2.13	20
C-G515	$1,486	11370	**312**	**5**	36.5	18	**20.3**	**5**	**96.4**	**19**	2.13	21
MA-513NT	$1,479	11318	305	12	37.1	15	20.0	11	96.1	25	2.13	22
SX-RR1251	$1,472	11265	300	20	**37.6**	**14**	19.6	20	**96.5**	**15**	1.75	12
C-G351NT	$1,452	11111	**317**	**2**	35.0	22	**20.6**	**2**	**96.5**	**11**	**1.63**	**9**
B-133N	$1,376	10528	297	22	35.4	20	19.5	22	96.2	24	2.13	23
HM-173RR	$1,370	10487	299	21	35.0	21	19.6	19	96.3	22	1.75	13
HM-28RR	$1,365	10448	289	25	36.1	19	19.0	25	**96.4**	**18**	1.88	15
HM-NT9607	$1,344	10289	302	15	34.1	23	19.8	14	96.3	23	1.88	16
HIL-9879NT	$1,330	10174	307	11	33.1	24	20.0	12	**96.6**	**8**	**1.25**	**1**
HM-9616RR	$1,271	9727	310	9	31.4	25	20.2	8	**96.5**	**13**	**1.38**	**3**
Average	$1,489.9	11401.0	305.1		37.38		19.90		96.48		1.84	
LSD 5%	104.4	798.6	7.7		2.6		0.4		0.3		0.5	
CV %	7.1	7.1	2.6		7.0		2.3		0.3		18.0	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This was the first trial planted in 2017 on April 17th and it was harvested on November 1st. The emergence in this trial was excellent and it was thinned to 200 beets/100'. Yield and sugar content were very good and what would be expected of a full season field. Cercospora and Rhizoctonia control in this trial was good.

Official Variety Trial
Michigan Sugar Company
Trost Farms, Pigeon - 2017

Trial Quality: Good
Plant/Harv: May 15/ Oct 31
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 200 beets/100 ft

Soil Type: Clay Loam
% OM :3.0 **pH:** 7.4 **CEC:** 14.4
Nutrients: Abv Opt: P, Opt: K Medium: Mn Medium: B
Added N: 120 lbs.
Prev Crop: Corn

Cerc Control: Very Good 8 applications**
Rhizoc Control: Very Good Quadris IF T-Band
Rainfall: 14.58 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
SX-RR1243	**$1,706**	**12711**	295	17	**43.2**	**1**	19.3	18	**96.2**	**15**	0.88	9
B-18RR4N	**$1,705**	**12703**	**304**	**7**	**41.8**	**4**	19.8	8	**96.4**	**2**	1.06	17
B-1606	**$1,686**	**12558**	298	14	**42.1**	**3**	19.6	12	**96.2**	**14**	0.75	1
B-149N	**$1,671**	**12445**	293	20	**42.5**	**2**	19.2	20	**96.3**	**8**	1.00	13
C-G515	**$1,669**	**12432**	**311**	**1**	**40.0**	**9**	**20.4**	**1**	**96.0**	**19**	1.06	18
SX-RR1212	**$1,634**	**12171**	293	22	**41.6**	**5**	19.2	21	**96.3**	**9**	1.06	19
B-133N	**$1,624**	**12095**	293	21	**41.3**	**6**	19.2	19	**96.2**	**16**	1.13	21
HIL-9865	**$1,620**	**12067**	**305**	**4**	39.6	11	19.9	5	**96.3**	**10**	1.13	22
C-G333NT	**$1,618**	**12057**	299	12	**40.3**	**8**	19.6	13	**96.4**	**5**	0.81	6
C-G675	**$1,618**	**12052**	**303**	**9**	**39.8**	**10**	19.8	11	**96.4**	**3**	0.75	2
SX-RR1245N	**$1,614**	**12023**	294	18	**40.8**	**7**	19.4	16	**96.0**	**21**	0.88	10
B-12RR2N	**$1,611**	**11998**	**304**	**6**	39.5	12	19.9	7	**96.3**	**11**	0.88	11
SX-RR1264	**$1,557**	**11603**	298	13	38.9	14	19.5	14	**96.4**	**4**	1.13	23
B-1690	$1,553	11571	**306**	**3**	37.8	18	**20.2**	**3**	95.9	24	1.19	25
MA-513NT	$1,533	11420	301	10	37.9	17	19.8	10	**96.1**	**18**	1.00	14
SX-RR1251	$1,520	11327	291	23	39.0	13	19.1	23	**96.3**	**6**	1.00	15
C-RR059	$1,514	11277	**304**	**5**	37.1	20	**20.0**	**4**	95.9	23	0.81	7
B-1399	$1,501	11184	293	19	38.1	15	19.2	22	**96.4**	**1**	0.88	12
C-G351NT	$1,491	11108	**311**	**2**	35.7	22	**20.4**	**2**	**96.2**	**17**	0.75	3
HIL-9732NT	$1,480	11024	296	16	37.3	19	19.4	17	**96.2**	**12**	1.13	24
HN-28RR	$1,416	10552	277	25	38.1	16	18.3	25	**96.0**	**22**	1.00	16
HM-173RR	$1,380	10280	285	24	36.1	21	18.9	24	95.8	25	1.06	20
HIL-9879NT	$1,367	10182	**304**	**8**	33.5	24	19.9	6	**96.2**	**13**	0.83	8
HM-9616RR	$1,352	10070	297	15	33.9	23	19.5	15	**96.3**	**7**	0.75	4
HM-NT9607	$1,265	9421	301	11	31.3	25	19.8	9	**96.0**	**20**	0.75	5
Average	$1,548.1	11533.3	298.1		38.69		19.57		96.19		0.95	
LSD 5%	124.2	925.6	7.2		2.9		0.4		0.4		N.S.	
CV %	8.1	8.1	2.5		7.6		2.0		0.4		35.7	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on May 15th and harvested on October 31st. This trial had good emergence and was thinned to 200 beets/100'. Yield and sugar content was very good considering heavy June rains followed by weeks of dry weather in July and August. Cercospora and Rhizoctonia control in this trial was very good.

Plant To Stand

Michigan Sugar Company
Trost Farms, Pigeon - 2017

Trial Quality: Good
Plant/Harv: May 15/ Oct 17
Plots: 6 rows X 38 ft., 6 reps
Row Spacing: 22 inches
Seeding Rate: 4.1 inches

Soil Type: Clay Loam
% OM: 3.0 **pH:** 7.4 **CEC:** 14.4
Nutrients: Abv Opt: P Opt: K
Medium: Mn Medium: B
Added N: 120 lbs.
Prev Crop: Corn

Cerc Control: Very Good
8 applications**
Rhizoc Control: Very Good
Quadris IF T-Band
Rainfall: 14.23 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		Beets/100 ft.	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	Act.	Rank
C-G333NT	**$1,747**	**12491**	288	10	**43.4**	**1**	19.3	11	**95.3**	**7**	173	12
B-149N	**$1,723**	**12316**	286	12	**43.0**	**2**	19.1	12	**95.5**	**3**	196	4
SX-RR1251	**$1,721**	**12309**	288	11	**42.8**	**3**	19.3	10	**95.2**	**10**	169	16
SX-RR1243	**$1,700**	**12155**	290	8	**42.0**	**4**	19.4	8	**95.3**	**6**	187	9
SX-RR1245N	**$1,670**	**11940**	**298**	**2**	40.0	11	**19.9**	**4**	**95.5**	**2**	191	7
B-12RR2N	**$1,651**	**11807**	289	9	**40.8**	**6**	19.5	6	**95.1**	**12**	155	19
SX-RR1212	**$1,644**	**11752**	290	7	**40.5**	**7**	19.3	9	**95.5**	**1**	177	11
B-18RR4N	**$1,636**	**11694**	291	6	40.2	10	19.4	7	**95.4**	**4**	192	6
HIL-9732NT	**$1,622**	**11597**	283	13	**41.0**	**5**	19.1	13	95.0	13	156	18
C-RR059	$1,607	11487	**295**	**4**	38.9	15	**19.9**	**2**	94.9	15	195	5
B-1399	$1,572	11238	279	16	**40.3**	**9**	18.7	16	**95.4**	**5**	190	8
C-G351NT	$1,549	11073	**300**	**1**	37.0	18	**20.1**	**1**	**95.1**	**11**	204	1
B-133N	$1,548	11067	281	14	39.4	12	19.0	15	95.0	14	196	3
C-G515	$1,526	10912	**292**	**5**	37.3	17	19.6	5	**95.2**	**9**	184	10
MA-513NT	$1,497	10703	275	17	38.9	14	18.7	17	94.8	16	201	2
HM-28RR	$1,485	10620	263	19	**40.3**	**8**	17.9	19	94.6	18	172	14
HM-NT9607RR	$1,472	10527	280	15	37.7	16	19.0	14	94.7	17	167	17
HM-173RR	$1,466	10482	267	18	39.3	13	18.3	18	94.4	19	172	15
HM-9616RR	$1,437	10277	**298**	**3**	34.5	19	**19.9**	**3**	**95.3**	**8**	172	13
Average	$1,593.3	11392	286		39.85		19.21		77.24		181.6	
LSD 5%	114.0	814.9	6.8		2.7		0.4		0.4		N.S.	
CV %	6.2	6.2	2.1		5.8		1.6		0.6		19.9	

**** See Cercospora Fungicide Application Page**

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on May 15th and harvested on October 17th. The emergence in this trial averaged 181 beets/100'. Yield and sugar content were very good for a nearly full season harvested field. Cercospora and Rhizoctonia control in this trial was very good.

Variety Trial

Sylvester Farms, Quanicassee - 2017

Trial Quality: Very good
Planted: April 19
Harv/Samp: Sept 22 / Sept 21
Plot Size: 3 reps
Row Spacing: 24 inch
Seeding Rate: 65,000

Soil Type: Loam
Fertilizer: PPI: 30 gal. 28; 2x2: 36-28-0-9S + Mn & B
Prev Crop: Wheat / clover
Weather: Very dry in August & September

Cerc Control: Good Control: See below for materials
Rhizoc Control: Excellent control: Quadris I.F. & 8 leaf
Other Pests: Late season leaf disease

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							14 Day	36 Day	
SX-1243 RR	$1,801	**8235**	313	**26.3**	21.2	**94.6**	**221**	**271**	3
SX-1251 RR	$1,751	**8005**	314	**25.5**	21.3	**94.5**	182	244	2
SX-1245N RR	$1,721	**7866**	**319**	24.6	**21.4**	**94.9**	190	**261**	2
B-149N	$1,674	7647	304	**25.1**	20.7	**94.4**	**206**	**261**	0
B-12RR2N	$1,665	7607	314	24.3	21.3	**94.3**	168	250	0
B-1399	$1,663	7595	312	24.3	21.0	**94.8**	**203**	**263**	0
C-G351NT	$1,655	7564	**327**	23.1	**22.0**	**94.6**	**206**	**260**	1
C-G333NT	$1,612	7371	296	**24.9**	20.2	94.3	**194**	248	0
C-G515	$1,611	7365	306	24.1	20.9	94.0	**204**	249	0
C-RR059	$1,591	7272	301	24.2	20.8	93.4	**198**	246	0
Hill-9616	$1,549	7083	**319**	22.2	**21.5**	**94.5**	151	226	0
Hill-NT9607	$1,521	6954	307	22.7	20.7	**94.8**	145	234	2
Average	$1,651	7547	311	24.3	21.1	94.4	189	251	1
LSD 5%	—	462	12	1.4	0.7	0.6	28	15	ns
CV %	—	4	2	3.4	1.9	0.4	9	4	240

Comments: This trial was planted after wheat with a clover cover crop and established very quickly with very high stand counts. The trial looked excellent and grew vigorously through July. It became very dry in August and September which had a large effect on yield and quality. Leaf canopy die back was significant from the dry weather and late season leaf disease (Cercospora and Alternaria). The trial was dug in September and had very high sugar levels due to the drought conditions. The leafspot fungicide materials were as follows: 1. Proline + EBDC, 2. Super Tin + Copper, 3. Inspire + EBDC, 4. Super Tin + EBDC, 5. Proline + EBDC, 6. Copper

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275 along with the early delivery premium.

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

West District Trials

Official Variety Trial

Michigan Sugar Company

Crumbaugh Legacy Inc., Breckenridge - 2017

Trial Quality: Good
Plant/Harv: Apr 19/ Sept 18
Plots: 2 rows X 38 ft., 6 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 200 beets/100 ft.

Soil Type: Sandy Loam
% OM: 3.8 **pH:** 6.9 **CEC**: 12.1
Nutrients: Above Opt: P, K
High: MN Low: B
Added N: 140 lbs.
Prev Crop: Corn

Cerc Control: Very Good
6 applications**
Rhizoc Control: Good
Quadris IF T-Band, 6-8 lf
Rainfall: 18.61 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
SX-RR1251	**$1,465**	**10942**	300	13	**36.5**	**1**	20.1	15	**95.1**	**3**	**1.00**	**2**
B-149N	**$1,375**	**10270**	297	16	**34.6**	**4**	19.9	17	**95.0**	**5**	1.63	23
C-RR059	**$1,363**	**10182**	**313**	**3**	32.5	13	**21.0**	**3**	**94.9**	**8**	1.50	19
HIL-9865	**$1,355**	**10125**	295	17	**34.3**	**5**	20.0	16	94.6	19	**1.13**	**6**
B-12RR2N	**$1,354**	**10117**	310	4	32.6	11	20.6	5	**95.4**	**1**	**1.17**	**13**
HM-28RR	$1,348	10069	288	23	**35.0**	**2**	19.5	23	94.7	16	1.63	24
SX-RR1212	$1,338	9997	289	22	**34.6**	**3**	19.6	20	94.5	21	**1.13**	**7**
SX-RR1264	$1,334	9965	307	6	32.5	12	20.5	6	**95.1**	**2**	**1.00**	**3**
B-1690	$1,332	9952	308	5	32.3	16	20.8	4	94.7	17	**1.00**	**4**
SX-RR1243	$1,331	9943	300	14	33.2	6	20.2	14	**94.9**	**12**	**1.13**	**8**
C-G675	$1,321	9871	299	15	33.0	8	20.2	13	94.8	14	**1.13**	**9**
C-G515	$1,308	9770	302	11	32.4	15	20.4	11	94.6	18	1.44	17
C-G333NT	$1,304	9739	304	9	32.0	17	20.5	10	**94.9**	**9**	1.88	25
B-18RR4N	$1,301	9716	304	10	32.0	18	20.4	12	**94.9**	**7**	**1.25**	**14**
HIL-9732NT	$1,285	9604	304	8	31.6	20	20.5	7	94.8	15	1.50	20
HM-173RR	$1,282	9578	290	19	33.0	9	19.8	18	94.2	24	1.50	21
SX-RR1245N	$1,270	9488	289	21	32.8	10	19.6	21	94.5	20	**1.25**	**15**
B-1606	$1,257	9392	289	20	32.5	14	19.5	22	**94.9**	**10**	1.50	22
B-1399	$1,246	9310	283	24	33.0	7	19.1	24	94.8	13	**1.00**	**5**
B-133N	$1,237	9244	291	18	31.8	19	19.8	19	94.3	23	**1.13**	**10**
HM-9616RR	$1,229	9182	**324**	**1**	28.3	23	**21.7**	**1**	**95.0**	**4**	**1.25**	**16**
HIL-9879NT	$1,208	9028	305	7	29.6	22	20.5	9	**95.0**	**6**	**1.13**	**11**
C-G351NT	$1,200	8963	**318**	**2**	28.1	24	**21.4**	**2**	**94.9**	**11**	**1.13**	**12**
MA-513NT	$1,158	8648	278	25	31.1	21	19.1	25	94.1	25	1.44	18
HM-NT9607	$1,106	8260	301	12	27.4	25	20.5	8	94.4	22	**0.88**	**1**
Average	$1,292.3	9654.2	299.7		32.3		20.21		94.76		1.27	
LSD 5%	100.8	752.7	11.8		2.2		0.7		0.4		0.5	
CV %	6.8	6.8	3.5		6.0		3.0		0.4		28.3	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on April 19th and harvested on September 18th. Emergence in this trial was very good and it was thinned to 200 beets/100'. Heavy June rains did not seem to impact this location with its soil type and grade. Yield and sugar content were exceptional for an early delivery harvest. Very dry conditions in August helped to increase sugar content. Cercospora and Rhizoctonia control in this trial was very good.

Official Variety Trial
Michigan Sugar Company
Shaffner Brothers LLC., Freeland - 2017

Trial Quality: Good
Plant/Harv: May 10/ Sept 12
Plots: 2 rows X 38 ft., 8 reps
Row Spacing: 22 inches
Seeding Rate: 2 inches, thinned to 200 beets/100 ft.

Soil Type: Loam
% OM: 3.5 **pH:** 7.7 **CEC:** 13.7
Nutrients: Abv Opt: P Blw Opt: K Medium: Mn Medium: B
Added N: 140 lbs.
Prev Crop: Corn

Cerc Control: Very Good 6 applications**
Rhizoc Control: Very Good Quadris IF T-Band, 6-8 lf
Rainfall: 13.00 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank
SX-RR1264	**$1,278**	**8225**	260	10	**31.6**	**1**	17.4	13	**95.8**	**5**	**0.41**	**12**
HIL-9865	**$1,234**	**7945**	267	5	**29.7**	**4**	17.9	5	95.4	16	0.66	23
C-RR059	**$1,212**	**7803**	**273**	**3**	28.6	8	**18.1**	**2**	**95.9**	**4**	**0.38**	**10**
SX-RR1243	**$1,203**	**7744**	264	8	29.3	5	17.6	8	**95.7**	**6**	**0.25**	**5**
C-G515	**$1,189**	**7654**	254	17	**30.2**	**3**	17.0	17	**95.6**	**7**	0.59	22
B-1690	$1,164	7496	270	4	27.8	17	**18.1**	**3**	**95.5**	**9**	**0.19**	**1**
B-149N	$1,162	7482	246	21	**30.3**	**2**	16.6	22	**95.5**	**11**	0.50	18
C-G675	$1,157	7448	255	15	29.2	6	17.1	15	**95.5**	**12**	**0.34**	**8**
SX-RR1212	$1,145	7370	260	11	28.3	10	17.6	9	95.2	21	0.50	19
B-12RR2N	$1,140	7341	257	14	28.6	9	17.3	14	95.4	19	0.53	20
SX-RR1251	$1,138	7322	259	12	28.3	12	17.4	12	**95.5**	**13**	**0.31**	**6**
SX-RR1245N	$1,136	7315	264	7	27.7	18	17.7	6	**95.6**	**8**	0.53	21
B-133N	$1,104	7108	247	19	28.7	7	16.8	20	95.1	23	**0.44**	**14**
MA-513NT	$1,101	7087	251	18	28.2	15	17.0	18	95.2	22	0.69	24
HIL-9879NT	$1,093	7034	258	13	27.2	19	17.4	11	95.3	20	**0.19**	**2**
B-1606	$1,084	6980	247	20	28.2	13	16.6	21	**95.5**	**10**	**0.41**	**13**
B-18RR4N	$1,076	6930	261	9	26.5	22	17.5	10	**95.5**	**14**	**0.47**	**17**
B-1399	$1,076	6926	245	23	28.3	11	16.5	23	95.4	15	**0.19**	**3**
C-G351NT	$1,076	6924	**273**	**2**	25.3	23	**18.1**	**4**	**96.0**	**1**	**0.34**	**9**
HIL-9732NT	$1,072	6901	246	22	28.1	16	16.8	19	94.8	24	0.78	25
HM-9616RR	$1,067	6870	**279**	**1**	24.6	25	**18.5**	**1**	**96.0**	**2**	**0.19**	**4**
HM-173RR	$1,065	6855	254	16	27.0	21	17.1	16	95.4	17	**0.31**	**7**
HM-NT9607	$1,036	6672	265	6	25.2	24	17.6	7	**96.0**	**3**	**0.38**	**11**
C-G333NT	$1,031	6637	243	24	27.2	20	16.4	24	95.4	18	**0.44**	**15**
HM-28RR	$1,027	6614	235	25	28.2	14	16.1	25	94.7	25	**0.44**	**16**
Average	$1,122.7	7227.2	257.3		28.10		17.28		95.48		0.42	
LSD 5%	81.0	521.5	7.3		1.9		0.4		0.5		0.3	
CV %	7.3	7.3	2.9		6.7		2.4		0.5		68.4	

**** See Cercospora Fungicide Application Page**

***CLS:** Cercospora rating taken from this trial not the Cercospora Nurseries. Rating taken one week prior to harvest.

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on May 10th and harvested on September 12th. The emergence in this trial was good and it was thinned to 200 beets/100'. Heavy June rains had an impact on parts of this trial. The trial recovered well and had a very good yield and sugar content for an early delivery harvest. Cercospora and Rhizoctonia control in this trial was very good.

Plant To Stand

Michigan Sugar Company

Crumbaugh Legacy Inc., Breckenridge - 2017

Trial Quality: Good
Plant/Harv: Apr 19/ Sept 18
Plots: 6 rows X 38 Ft, 6 reps
Row Spacing: 22 inches
Seeding Rate: 4.1 inches

Soil Type: Sandy Loam
% OM: 3.8 **pH:** 6.9 **CEC:** 12.1
Nutrients: Above Opt: P, K
High: Mn, Low: B
Added N: 140 lbs.
Prev Crop: Corn

Cerc Control: Very Good
6 applications**
Rhizoc Control: Good
Quadris IF T-Band, 6-8 lf
Rainfall: 18.61 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS		Beets/100 ft	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank	Act.	Rank
SX-RR1251	**$1,521**	**10981**	284.9	12	**38.6**	**1**	19.5	13	**94.1**	**15**	**1.21**	**5**	**186**	**10**
SX-RR1243	**$1,464**	**10566**	**296**	**6**	35.6	5	**20.1**	**6**	**94.6**	**5**	**1.21**	**6**	**196**	**2**
C-G351NT	**$1,446**	**10436**	**301**	**2**	34.7	11	**20.5**	**2**	**94.4**	**9**	**1.08**	**1**	**188**	**7**
SX-RR1245N	**$1,443**	**10420**	**299**	**3**	34.8	10	**20.4**	**3**	**94.3**	**11**	**1.38**	**12**	**192**	**5**
C-RR059	**$1,440**	**10398**	**298**	**5**	35.0	7	**20.4**	**4**	**94.2**	**13**	**1.25**	**9**	**194**	**3**
C-G333NT	**$1,431**	**10328**	275	18	**37.5**	**2**	18.7	18	**94.6**	**4**	1.58	14	**181**	**12**
C-G515	**$1,422**	**10262**	**307**	**1**	33.4	16	**20.7**	**1**	**94.7**	**2**	**1.25**	**10**	**194**	**4**
B-12RR2N	**$1,413**	**10203**	**293**	**7**	34.9	8	**19.9**	**8**	**94.6**	**6**	**1.29**	**11**	169	15
HM-28RR	**$1,413**	**10203**	276	16	**37.0**	**3**	18.9	17	**94.2**	**12**	**1.21**	**7**	**182**	**11**
SX-RR1212	**$1,411**	**10186**	289	10	35.3	6	**19.8**	**9**	**94.2**	**14**	1.46	13	166	17
B-149N	**$1,405**	**10139**	276	17	**36.8**	**4**	18.7	19	**94.7**	**1**	1.71	16	**187**	**9**
B-18RR4N	**$1,386**	**10005**	**299**	**4**	33.6	15	**20.2**	**5**	**94.5**	**7**	1.63	15	**187**	**8**
B-1399	$1,345	9713	287	11	33.9	13	19.5	15	**94.7**	**3**	**1.08**	**2**	**191**	**6**
MA513NT	$1,332	9614	284	14	34.0	12	19.5	12	93.9	16	1.71	17	173	14
HIL-9732NT	$1,317	9509	282	15	33.8	14	19.5	14	93.9	18	1.75	19	168	16
B-133N	$1,312	9469	284	13	33.3	17	19.6	11	93.9	17	1.71	18	**198**	**1**
HM-173RR	$1,307	9439	272	19	34.8	9	18.9	16	93.5	19	**1.21**	**8**	164	18
HM-NT9607NT	$1,239	8946	289	9	31.0	18	19.6	10	**94.5**	**8**	**1.17**	**4**	177	13
HM-9616RR	$1,214	8765	**293**	**8**	30.0	19	**19.9**	**7**	**94.4**	**10**	**1.13**	**3**	158	19
Average	$1,382.2	9978.1	288.8		34.63		19.70		94.31		1.37		181.6	
LSD 5%	116.4	840.3	14.6		2.4		0.8		0.6		0.4		16.6	
CV %	7.3	7.3	4.4		6.1		3.8		0.5		22.3		8.0	

**** See Cercospora Fungicide Application Page**

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on April 19th and harvested on September 18th. This trial had good emergence with an average stand of 181 beets/100'. Heavy June rains did not seem to impact this location with its soil type and grade. Yield and sugar content were exceptional considering a mid-September harvest. Very dry conditions in September helped to boost sugar content. Cercospora and Rhizoctonia control in this trial was very good.

Plant To Stand

Michigan Sugar Company

Shaffner Brothers LLC, Freeland - 2017

Trial Quality: Good
Plant/Harv: May 10/ Sept 12
Plots: 6 rows X 38 ft., 4 reps
Row Spacing: 22 inches
Seeding Rate: 4.1 inches

Soil Type: Loam
% OM: 3.5 **pH:** 7.7 **CEC:** 13.7
Nutrients: Abv Opt: P Blw Opt: K
Medium: Mn Medium: B
Added N: 140 lbs.
Prev Crop: Corn

Cerc Control: Very Good
6 applications**
Rhizoc Control: Very Good
Quadris IF T-Band, 6-8 lf
Rainfall: 18.4 inches

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP		CLS		Beets/100 ft	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank	0-9	Rank	Act.	Rank
SX-RR1212	**$1,296**	**8382**	264	5	**31.8**	**2**	17.6	6	95.8	3	**0.56**	**10**	185	19
HM-173RR	**$1,295**	**8376**	260	9	**32.3**	**1**	17.5	8	95.5	12	**0.63**	**12**	206	10
HIL-9732NT	**$1,256**	**8125**	264	6	**30.9**	**5**	17.7	5	95.5	10	0.75	17	217	4
MA-513NT	**$1,246**	**8062**	269	2	**30.0**	**9**	17.9	2	95.8	2	0.69	14	204	11
HM-28RR	**$1,237**	**8000**	256	12	**31.3**	**3**	17.2	13	95.5	11	0.94	19	206	9
HM-NT9607RR	**$1,228**	**7945**	266	3	**29.9**	**10**	17.9	3	95.4	14	0.75	18	207	8
B-149N	**$1,206**	**7803**	254	14	**30.7**	**6**	17.1	14	95.4	15	**0.38**	**3**	204	12
B-133N	**$1,195**	**7730**	272	1	28.4	15	18.1	1	95.8	5	**0.63**	**13**	197	17
C-G333NT	**$1,190**	**7696**	252	16	**30.7**	**7**	16.8	18	96.0	1	**0.44**	**7**	198	16
SX-RR1251	**$1,182**	**7650**	246	19	**31.1**	**4**	16.6	19	95.3	17	**0.25**	**1**	208	7
B-12RR2N	**$1,168**	**7557**	251	17	**30.1**	**8**	16.9	16	95.6	9	**0.56**	**11**	187	18
HM-9616RR	**$1,162**	**7518**	255	13	**29.6**	**11**	17.3	12	95.1	19	**0.38**	**4**	202	14
C-G351NT	**$1,160**	**7507**	259	10	**28.9**	**13**	17.4	9	95.4	13	**0.38**	**5**	208	6
C-RR059	**$1,157**	**7484**	254	15	**29.4**	**12**	17.0	15	95.7	6	**0.50**	**8**	213	5
B-1399	$1,130	7309	263	7	27.7	17	17.6	7	95.7	8	**0.38**	**6**	203	13
B-18RR4N	$1,120	7248	260	8	27.8	16	17.4	10	95.8	4	0.69	15	199	15
SX-RR1243	$1,105	7149	248	18	**28.8**	**14**	16.8	17	95.2	18	0.69	16	**222**	**3**
C-G515	$1,056	6830	265	4	25.8	19	17.7	4	95.7	7	**0.50**	**9**	**231**	**2**
SX-RR1245N	$1,033	6682	257	11	26.0	18	17.3	11	95.3	16	**0.25**	**2**	**242**	**1**
Average	$1,180.1	7634.3	259		29.53		17.35		95.54		0.54		207.3	
LSD 5%	136.0	879.9	N.S.		3.0		N.S.		N.S.		0.5		19.7	
CV %	8.1	8.1	5.3		7.2		4.5		0.5		0.5		6.7	

**** See Cercospora Fungicide Application Page**

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

Comments: This trial was planted on May 10th and harvested on September 12th. The emergence in this trial was very good with an average stand of 207 beets/100'. The trial location received heavy rains, but it was not adversely affected by it. Yield and sugar content were good for an early delivery harvested field. Cercospora and Rhizoctonia control in this trial was very good.

Variety Trial

Clay Crumbaugh, Breckenridge - 2017

Trial Quality: Very good
Planted: April 19
Harv/Samp: Nov 9 / Oct 30
Plot Size: 3 reps
Row Spacing: 30 inch
Seeding Rate: 55,000

Soil Type: Loam
Fertilizer: 2x2: 360# 16-9-9 w/ Mn & B; Broadcast 90# N by 28%
Prev Crop: Corn
Weather: Heavy rains in June, very dry late season

Cerc Control: Good control: All with EBDC. 1. Inspire, 2. Super Tin, 3. Enable, 4. Super Tin, 5. Proline, 6. Super Tin
Rhizoc Control: Fair control: Quadris I.F. at a low rate
Other Pests: None

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							15 Day	43 Day	
B-149N	$1,621	**11136**	294	**37.9**	19.6	95.4	**192**	**240**	**33**
C-G515	$1,602	**11013**	303	**36.3**	20.2	95.3	**195**	**235**	**3**
SX-1245N RR	$1,562	**10736**	301	**35.7**	20.0	95.5	182	**237**	105
SX-1243 RR	$1,548	**10644**	304	35.0	20.2	95.6	**191**	**244**	**39**
C-RR059	$1,510	10379	299	34.7	20.0	95.1	**205**	**240**	**7**
C-G333NT	$1,508	10368	291	**35.7**	19.5	95.1	178	223	**47**
C-G351NT	$1,504	10333	**315**	32.8	**20.9**	**95.6**	**198**	**238**	60
B-12RR2N	$1,500	10311	303	34.1	20.0	**95.7**	163	**228**	68
B-1399	$1,459	10032	288	34.8	19.0	**96.0**	**192**	**246**	**15**
SX-1251 RR	$1,389	9552	290	32.9	19.4	95.3	140	195	81
Hill-9616	$1,341	9221	304	30.3	20.2	95.5	143	194	**7**
Hill-NT9607	$1,331	9148	300	30.5	19.9	95.6	142	213	57
Average	$1,490	10239	299	34.2	19.9	95.5	177	228	43
LSD 5%	—	665	6	2.4	0.3	0.4	23	19	46
CV %	—	4	1	4.1	1.0	0.3	8	5	63

Comments: This trial yielded very well considering the environmental conditions. This field has not had beets in a few decades and the trial established very well and had excellent early growth. The trial received the heavy rains that occurred in June. Many of the fields around this location had visual damage, however this location never showed any foliar or growth symptoms. The excess water did cause some Aphanomyces but not nearly as bad as what was seen in the Shaffner Variety Trial. This trial was also extremely dry in August and September. There was a level of Rhizoctonia that would have caused some yield loss in some varieties. Cercospora was present, but at a level that would not likely have much impact on trial results.

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275.

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

Variety Trial

Shaffner Brothers, Freeland - 2017

Trial Quality: Good
Planted: May 11
Harv/Samp: Nov 9 / Oct 30
Plot Size: 3 reps
Row Spacing: 22 inch
Seeding Rate: 65,000

Soil Type: Clay Loam
Fertilizer: 2x2: 25 gal 15-16-1 plus micros; Broadcast 200# urea/AMS 44-0-0
Prev Crop: Soybeans
Weather: Damaging June rains followed by dry late season

Cerc Control: Good/Fair control: 1. Inspire + EBDC, 2. Tin + EBDC, 3. Topguard + EBDC, 4. Tin + EBDC
Rhizoc Control: Moderate pressure: Quadris I.F.
Other Pests: Heavy Aphanomyces pressure, Late season leaf disease

Variety	$/A	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft. of Row		Dead Beets / 1200 Ft
							8 Day	29 Day	
B-149N	$1,432	**9847**	296	**33.3**	19.3	96.5	22	**213**	**31**
C-G515	$1,414	**9721**	**313**	**31.1**	**20.4**	96.3	10	**207**	**13**
C-G333NT	$1,393	**9575**	298	**32.1**	19.5	**96.5**	24	180	**27**
C-RR059	$1,379	**9479**	**315**	30.1	**20.6**	96.3	26	**210**	**18**
B-12RR2N	$1,358	**9332**	309	30.2	20.0	**96.8**	26	**208**	114
B-1399	$1,348	**9258**	298	**31.1**	19.4	**96.7**	27	**225**	**31**
SX-1243 RR	$1,277	8783	305	28.8	19.8	**96.5**	**41**	**216**	**68**
SX-1245N RR	$1,264	8691	**313**	27.7	**20.4**	96.4	**52**	**212**	220
C-G351NT	$1,171	8049	**314**	25.7	**20.5**	96.3	**52**	**213**	144
Hill-9616	$1,170	8037	311	25.8	20.2	**96.6**	**59**	187	**4**
SX-1251 RR	$1,167	8020	297	27.1	19.5	96.1	**53**	197	136
Hill-NT9607	$1,138	7820	307	25.5	20.1	96.3	15	**204**	**50**
Average	$1,293	8884	306	29.0	20.0	96.4	34	206	71
LSD 5%	—	764	4	2.7	0.3	0.3	23	26	79
CV %	—	5	1	5.5	0.8	0.2	40	7	66

Comments: This trial was located in a field that would normally provide very high yields. The trial received very heavy and damaging June rains and stayed saturated for a long period. Damage was obvious but the worst areas mostly extended cross ways to the trial and this is likely the reason that the coefficient of variation (CV) is unexpectedly low for a trial with this type of damage. Aphanomyces pressure was heavy. Rhizoctonia pressure was moderate to heavy in spots. Generally, varieties that score the best against the root diseases Fusarium, Apahnomyces and Rhizoctonia performed the best. Like most fields, there was some late season leaf disease, but it probably had little influence on the results compared to the root diseases.

$/A: Gross dollars per acre assuming a $40 payment and a company average RWST of 275.

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

Nursery Data

Rhizoctonia Nursery

Michigan Sugar Company

Average of 2 years, 2016-2017

Trial Quality: Good
Location: 2016 - Blumfield, 2017 - Blumfield, SVREC
Plot Size: 2 rows X 25ft, 6 reps
Inoculation: Inoculated with Rhizoctonia solani AG 2-2 IIIB

Variety	Root Rating* 0-7	Estimated Root Rot %
B-133N	**2.9**	8.8
HM-9616RR	**3.2**	9.9
C-G675	**3.3**	11.5
B-1606	3.5	14.8
C-G333NT	3.6	17.4
HM-173RR	3.7	19.0
C-G515	3.7	19.8
B-1690	3.8	20.4
B-149N	3.8	21.3
B-1399	3.8	21.8
SX-RR1243	3.9	22.3
SX-RR1264	3.9	22.5
C-RR059	3.9	23.2
HIL-9865	3.9	23.8
HM-28RR	4.0	25.4
HM-9879NT	4.0	24.8
C-G351NT	4.0	26.2
MA-513NT	4.2	29.6
B-12RR2N	4.2	29.8
HM-NT9607	4.2	31.4
SX-RR1245N	4.3	31.5
HIL-9732NT	4.3	31.4
SX-RR1251	4.3	33.5
B-18RR4N	4.4	34.0
SX-RR1212	4.4	34.4
Average	3.9	23.5
LSD 5%	0.5	
CV %	5.9	

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

***Rating System:**

0 = No Infection
1 = less than 2% infection
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
Michigan Sugar Company
Average of 2 years, 2016-2017

Trial Quality: Good
Locations: 2016 - Blumfield East, Gilford, Laker (Elkton)
2017 - Blumfield East, SVREC
Plot Size: MSC - 2 rows X 17.5 ft, 5 reps
SVREC - 2 rows X 20 ft, 5 reps
Inoculation: Trials are Inoculated

Variety	Avg of 2 Years CLS Rate 0-9	2016 CLS Rate 0-9	2017 CLS Rate 0-9
HIL-9879NT	3.3	2.7	4.0
B-1399	3.7	3.6	3.8
HM-9616RR	3.8	3.7	3.9
HM-28RR	3.9	3.5	4.3
HM-173RR	4.0	3.7	4.2
C-G675	4.1	4.1	4.2
HM-NT9607	4.2	3.6	4.8
C-G351NT	4.2	3.8	4.7
B-1690	4.3	4.0	4.5
B-12RR2N	4.4	4.1	4.7
Resistant Check	4.5	4.6	4.5
B-1606	4.5	4.2	4.9
SX-RR1243	4.5	4.1	5.0
SX-RR1251	4.5	4.3	4.8
HIL-9865	4.6	4.4	4.7
C-RR059	4.6	4.3	4.9
C-G515	4.6	4.3	4.9
B-18RR4N	4.6	4.1	5.1
SX-RR1264	4.6	4.3	5.0
SX-RR1245N	4.8	4.4	5.3
B-133N	4.8	4.6	5.0
C-G333NT	4.9	4.5	5.3
B-149N	4.9	4.5	5.3
SX-RR1212	5.0	4.4	5.5
Susceptible Check	5.0	4.6	5.4
HIL-9732NT	5.3	5.2	5.5
MA-513NT	5.4	5.1	5.8
Average	4.49	4.32	4.76

Cercospora 0-9 Rating 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: These are inoculated trials. Ratings begin when the disease level approaches economic damage. Each trial is rated at least 5 times, until most varieties begin to burn down. Ratings are averaged to provide result.

Alternaria

0-5 Ratings from Official Variety Trials

Average of 2 Years, 2016 - 2017

Trial Quality: Fair - Good
Locations: Ithaca, Breckenridge, Richville, Frankenmuth, Pigeon and Akron
Plot Size: 2 rows X 38 ft., 4 reps

Variety	Alternaria 0-5	% Check	% Injury
C-G675	1.4	76.6	1.8
HM-9616RR	1.4	77.1	1.8
HM-173RR	1.5	91.2	2.0
HM-28RR	1.5	82.5	2.0
HIL-9879NT	1.6	86.8	2.2
B-1606	1.6	87.7	2.2
HIL-9865	1.7	88.6	2.4
SX-RR1251	1.7	89.0	2.4
SX-1264	1.7	90.0	2.4
B-1399	1.7	90.7	2.4
C-G333NT	1.7	92.4	2.4
B-18RR4N	1.7	92.7	2.4
SX-RR1243	1.7	93.5	2.4
HM-NT9607	1.8	94.2	2.6
B-12RR2N	1.8	94.3	2.6
C-G351NT	1.8	95.7	2.6
B-149N	1.8	96.3	2.6
B-133N	1.8	97.8	2.6
SX-RR1245N	1.9	99.4	2.8
B-1690	1.9	100.5	2.8
SX-RR1212	1.9	101.3	2.8
MA-513NT	1.9	102.6	2.8
HIL-9732NT	1.9	103.2	2.8
C-G515	2.2	119.6	4.4
C-RR059	2.3	124.9	5.1
Average	1.8	94.7	2.6

Alternaria Rating 0-5: 1 = 1% leaf injury, 1.5 = 2% leaf injury, 2 = 3% leaf injury, 2.5 = 6.5% leaf injury

Comments: Four ratings came from the Official Variety Trials and two ratings came from the Cercospora Nurseries.

Cyst Nematode Nursery

Michigan Sugar Company

Average of 2 Years, 2016 - 2017

Trial Quality: Good
Locations: 2016 Maust, 2017 Kirkpatrick
Plot Size: 2 rows X 25ft X 6 reps

Cerc Control: Very Good
Rhizoc Control: Very Good

Variety	$/A	RWSA	RWST		Yield		Sugar		CJP	
			Lb/T	Rank	T/A	Rank	%	Rank	%	Rank
B-12RR2N	**$1,343**	**8693**	259.1	5	**34.4**	**1**	17.4	4	95.4	9
C-G333NT	**$1,233**	**8284**	257.5	6	**32.6**	**4**	17.3	7	95.5	6
B-149N	**$1,216**	**8212**	247.7	14	**33.6**	**2**	16.7	15	95.3	11
SX-RR1245N	**$1,208**	**8154**	252.5	11	**32.8**	**3**	17.0	12	95.5	7
B-18RR4N	**$1,207**	**8144**	259.5	4	**31.8**	**6**	17.4	5	95.6	4
B-1606	**$1,206**	**8108**	255.1	9	**32.3**	**5**	17.2	9	95.2	12
MA-513NT	**$1,159**	**7791**	255.5	8	**30.8**	**7**	17.3	8	95.2	13
B-133N	$1,104	**7425**	247.5	15	**30.7**	**8**	16.8	14	95.1	15
C-G351NT	$1,089	**7284**	259.9	3	**29.0**	**9**	17.5	3	95.4	8
HIL-9879NT	$1,085	**7340**	265.4	1	27.8	11	17.7	1	95.8	1
HIL-9732NT	$1,050	7051	251.5	12	28.3	10	17.1	10	95.0	16
C-RR059	$1,021	6876	257.3	7	27.2	14	17.3	6	95.6	5
HM-173RR	$1,017	6867	249.3	13	27.8	12	16.9	13	95.2	14
SX-RR1212	$999	6803	254.2	10	26.8	15	17.0	11	95.7	3
Susceptible Check	$979	6601	241.9	16	27.5	13	16.4	16	95.3	10
HM-NT9607NT	$952	6396	261.9	2	24.8	16	17.5	2	95.7	2
Average	$1,116.7	7501.8	254.7		29.9		17.2		95.4	
LSD 5%	184.0	1292.6	N.S.		5.1		N.S.		N.S.	
CV %	7.7	8.1	2.5		8.1		2.3		0.4	

$/A: Gross dollars per acre assuming a $40 payment and trial average RWST.

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

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Root Aphid Nursery

Average of 2 years

Syngenta 2016 - 2017

Variety	% Infected
B-1690	1.1
B-133N	1.2
B-1606	1.5
C-G515	1.7
C-G351NT	1.7
C-G675	1.8
B-149N	1.9
C-G333NT	2.0
B-18RR4N	2.2
HM-NT9607	2.3
HIL-9732NT	2.4
MA-513NT	2.4
HM-9616RR	3.1
C-RR059	3.3
HIL-9865	3.7
B-1399	3.8
Resistant Check	3.9
HM-9879NT	4.8
SX-RR1264	7.8
HM-28RR	17.7
HM-173RR	26.6
B-12RR2N	27.8
SX-RR1243	29.7
SX-RR1212	33.0
SX-RR1245N	33.9
SX-RR1251	37.5
Susceptible Check	46.4
Average	11.3
LSD 5%	9.4
CV %	40.6

Syngenta conducts a replicated field trial (plots 4 rows X 30 ft). Beets are rated for Root Aphids at harvest. Beta conducts a replicated greenhouse trial. Plots are evaluated for Root Aphids.

Aphanomyces Nursery

BETASEED, Shakopee, MN

Average of 2 years, 2016 - 2017

Variety	Root Rating 1 - 9 Scale	Canopy Rating 1 - 9 Scale	Stand Loss 1 - 5 Scale
Resistant Check	2.78	1.40	1.0
B-1606	3.04	1.83	1.0
B-12RR2N	3.07	1.55	1.0
SX-RR1245N	3.33	1.71	1.0
SX-RR1264	3.38	1.63	1.0
B-18RR4N	3.44	1.79	1.0
B-1399	3.65	2.21	1.0
SX-RR1251	3.68	1.80	1.0
B-1690	3.77	2.08	1.0
SX-RR1243	3.83	1.83	1.0
Moderate Check	3.84	1.92	1.0
B-133N	3.99	2.25	1.0
C-G515	4.02	2.46	1.0
C-G675	4.09	2.25	1.0
B-149N	4.18	2.63	1.0
HM-173RR	4.26	2.05	1.0
SX-RR1212	4.42	2.17	1.0
C-G333NT	4.48	2.75	1.0
C-RR059	4.54	2.67	1.0
HIL-9732NT	4.57	2.55	1.0
C-G351NT	4.61	3.00	1.0
HIL-9865	4.76	2.75	1.0
HM-NT9607	4.79	3.00	1.0
MA-513NT	4.89	3.38	1.0
HIL-9879NT	4.92	3.17	1.0
Susceptible Check	5.05	2.86	1.0
HM-28RR	5.32	3.38	1.0
HM-9616RR	5.36	3.29	1.0
Average	4.1	2.4	1.0

Root and Canopy Ratings (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.

Stand Rating (1 to 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.

Rhizomania Nursery

USDA, Kimberly, Idaho

Average of 2 Years, 2016 & 2017

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
SX-RR1212	2.0	12788	16.4	44.7	1.3
C-G675	2.0	12901	16.8	44.6	0.2
SX-RR1245N	2.0	12912	16.6	44.9	0.7
B-149N	2.0	12522	16.4	44.8	0.0
B-1399	2.1	12381	16.4	43.3	0.2
B-1606	2.1	12314	16.6	43.1	0.0
HIL-9865	2.1	12689	17.0	43.1	0.7
C-G515	2.1	12583	17.0	43.2	0.2
C-RR059	2.1	12515	17.3	42.0	0.0
HM-28RR	2.2	11492	15.9	42.0	0.2
HIL-9732NT	2.2	12390	17.0	41.9	2.5
SX-RR1243	2.2	11726	16.2	41.6	0.9
C-G333NT	2.2	12097	16.7	42.0	0.0
B-133N	2.2	11772	16.5	41.4	0.3
B-1690	2.2	12292	17.2	41.5	0.0
SX-RR1251	2.2	11899	16.5	41.4	1.7
HM-173RR	2.2	11103	16.0	40.7	0.5
SX-RR1264	2.2	11758	16.4	41.0	1.5
B-12RR2N	2.3	11952	17.1	40.4	0.2
MA-513NT	2.3	11664	17.2	39.1	2.8
B-18RR4N	2.3	10852	16.4	38.4	0.4
C-G351NT	2.4	10888	16.9	36.6	0.2
HM-9879NT	2.5	10275	16.6	35.7	2.5
HM-9616RR	2.6	10088	17.2	33.7	1.7
HM-NT9607	2.6	10051	17.1	33.4	5.0
Susceptible Check	3.8	6691	14.6	26.5	100.0
Average	2.3	11638.3	16.6	40.4	4.7
LSD 5%	0.3	1242.5	0.5	4.3	2.2
CV %	6.0	5.2	1.4	5.2	22.9

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 to 100 (worst)

Fusarium Nursery

American Crystal Sugar Company

Average of 2 years, 2016 - 2017

Trial Quality: Good
Evaluated: 4 evaluation dates towards end of season
Plot Size: 2 rows X 17 ft, 4 reps

Variety	Avg of 2 Years Rating 1-9	2016 Rating 1-9	2017 Rating 1-9
B-1399	**2.6**	2.2	3.0
B-133N	**2.7**	2.6	2.8
C-RR059	**2.8**	2.7	3.0
B-1690	**3.0**	2.6	3.3
Tolerant Check	3.0	2.5	3.4
C-G333NT	3.0	2.6	3.4
C-G515	3.0	2.8	3.2
B-1606	3.2	2.7	3.7
B-149N	3.4	3.3	3.5
C-G351NT	3.5	3.6	3.4
B-18RR4N	3.6	3.3	4.0
B-12RR2N	3.6	3.4	3.9
SX-RR1243	3.9	3.8	4.0
SX-RR1264	4.1	3.6	4.5
SX-RR1212	4.3	3.9	4.7
SX-RR1251	4.4	4.1	4.8
HM-NT9607	4.6	4.1	5.1
SX-RR1245N	4.8	4.8	4.8
HM-173RR	4.9	4.6	5.2
HM-9616RR	5.1	4.8	5.3
HM-28RR	5.3	4.9	5.7
MA-513NT	5.4	5.2	5.6
HIL-9732NT	5.4	5.1	5.8
Susceptible Check	5.5	4.7	6.3
HIL-9879NT	5.6	5.0	6.1
C-G675	5.7	5.2	6.2
HIL-9865	6.0	5.5	6.5
Average	4.2	3.7	4.5
LSD 5%	0.6		
CV%	6.5		

Rating Scale: 1 to 9 (foliar ratings) 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

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Official Variety Trials

Michigan Sugar Company

Location Information

	Breckenridge	Sandusky	Port Hope	Ruth	Freeland	Richville	Fairgrove	Pigeon
Grower	Crumbaugh	Gerstenberger	Grekowicz	Maurer	Shaffner	SVREC	Sylvester	Trost
Trial Quality	Good	Good	Very Good	Very Good	Good	Good	Fair	Good
Planted	April 19	April 28	May 12	April 20	May 10	April 17	April 27	May 15
Harvested	Sept 18	Sept 21	Oct 26	Sept 28	Sept 12	Nov 1	Sept 20	Oct 31
Soil Type	Sandy Loam	Sandy Loam	Sandy Loam	Loam	Loam	Sandy Clay Loam	Sandy Loam	Clay Loam
Soil pH	6.9	6.3	7.5	7.6	7.7	8.1	7.4	7.4
Soil OM	3.8%	2.1%	3.4%	3.5%	3.5%	2.9%	2.5%	3.0%
Phosphorus	Above Opt	Above Opt	Above Opt	Above Opt	Above Opt	Above Opt	Above Opt	Above Opt
Potassium	Above Opt	Below Opt	Above Opt	Above Opt	Below Opt	Opt	Above Opt	Above Opt
Magnesium	High	High	High	High	High	High	High	High
Manganese	High	High	High	High	Medium	High	Medium	Medium
Boron	Low	Low	Medium	Medium	Medium	Medium	Low	Medium
Zinc	High	High	High	High	High	High	High	High
Nitrogen Added	140 lbs.	166 lbs.	Manure + 40 lbs.	140 lbs.	140 lbs.	160 lbs.	160 lbs.	120 lbs.
Seasonal Rainfall*								
April	4	1.2	0.84	4.97		5.4	2.18	
May	2.05	1.09	2.83	3.87	2.21	2.24	0.71	1.72
June	9.05	5.36	8.19	6.14	6.38	4.46	4.09	4.97
July	2.03	2.68	2.95	2.34	1.37	1.28	1.46	1.73
August	1.28	2.5	2.45	3.00	2.73	2.60	0.93	2.54
September	0.2	0.6	1.58	0.92	0.31	1.6	0	1.31
October			2.89			4.15		2.31
Total	18.61	13.43	21.73	21.24	13.00	21.73	9.37	14.58

* Rainfall amounts included from 2 weeks before planting to the date of harvest at each location.

Official Variety Trials

Cercospora Fungicides: Application Dates and Products

Location	Treatment 1***	Treatment 2***	Treatment 3***	Treatment 4***	Treatment 5***
Crumbaugh	6/28 - Proline + Cuprofix	7/14 - Super Tin + EBDC*	7/24 - Inspire + EBDC*	8/9 - Super Tin + EBDC**	8/16 - Topguard + Koverall
Gerstenberger	6/21 - EBDC*	6/27 - Proline + Cuprofix	7/12 - Super Tin + EBDC*	7/26 - Inspire + EBDC*	8/8 - Super Tin + EBDC**
Grekowicz	6/27 - Proline + Cuprofix	7/17 - Super Tin + EBDC*	7/25 - Inspire + EBDC*	8/8 - Super Tin + EBDC**	8/15 - Topguard + Koverall
Maurer	6/27 - Proline + Cuprofix	7/17 - Super Tin + EBDC*	7/25 - Inspire + EBDC*	8/8 - Super Tin + EBDC**	8/15 - Topguard + Koverall
Shaffner	7/6 - Proline + EBDC*	7/14 - Super Tin + EBDC*	7/24 - Inspire + EBDC*	8/9 - Super Tin + EBDC**	8/16 - Topguard + Koverall
SVREC	6/21 - EBDC*	6/28 - Proline + Cuprofix	7/13 - Super Tin + EBDC*	7/24 - Inspire + EBDC*	8/8 - Super Tin + EBDC**
Sylvester	6/21 - EBDC*	6/27 - Proline + Cuprofix	7/13 - Super Tin + EBDC*	7/25 - Inspire + EBDC*	8/8 - Super Tin + EBDC**
Trost	6/28 - Proline + Cuprofix	7/12 - Super Tin + EBDC*	7/25 - Inspire + EBDC*	8/8 - Super Tin + EBDC**	8/16 - Topguard + Koverall

Location	Treatment 6***	Treatment 7***	Treatment 8***	Treatment 9***	Trial Cercospora Rating
Crumbaugh	8/29 - Minerva Duo + EBDC*				1.28
Gerstenberger	8/16 - Topguard + Koverall	8/31 - Minerva Duo + EBDC*	9/14 - Badge		1.67
Grekowicz	8/30 - Minerva Duo + EBDC*	9/14 - Badge	10/10 - Proline + Kocide		1.28
Maurer	8/30 - Minerva Duo + EBDC*				0.72
Shaffner	8/29 - Minerva Duo + EBDC*				0.44
SVREC	8/16 - Topguard + Koverall	9/1 - Minerva Duo + EBDC*	9/15 - Badge	10/10 - Proline + Kocide	1.81
Sylvester	8/16 - Topguard + Koverall	8/31 - Minerva Duo + EBDC*			1.89
Trost	8/30 - Minerva Duo + EBDC*	9/14 - Badge	10/10 - Proline + Kocide		0.98

* = Manzate Max.

**= Manzate Pro-Stick.

***= Masterlock included in all Treatments

Comments: Average application timing following triazoles tank mixed with EBDC's was 14 days.
Average application timing following Super Tin tank mixed with EBDC's was 10 days. (sprayed mid season during high pressure)
Average application timing following an EBDC or Copper sprayed alone was 6 days. (sprayed early or late season under reduced pressure)
Applications are made at 22.5 GPA/water and 100 PSI.
Cercospora ratings are on 0-9 scale (lower is better), economic injury begins at level of 3.

NOTES

PRESENTED IN PARTNERSHIP

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