

# 2014 VARIETY TRIAL RESULTS

GROWING THE BEST SUGARBEETS







# REACh/SUGARBEET ADVANCEMENT COMMITTEE LIST 2014 Voting Membership

### 24 Voting Members

Company & Name	Terms	Expire			
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Paul Pfenninger (5th Member)	Perma	anent			
Greg Clark	Perma	anent			
Jim Stewart	Perma	anent			
Lee Hubbell	Perma	anent			
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Glenn Martus	3	2017			
Dexter Auernhamer	4	2018			
Michigan Sugar Company District Growers					
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Mark Sylvester (Treasurer)	1	2015			
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Michigan Sugar Company At Large Growers					
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Michigan Sugar Company Board of Directors					
Mark Richards	1	2015			
Kent Houghtaling	1	2015			
SBA Director					
Steve Poindexter	Perma	anent			

### **Ex-Officio Members**

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

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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.







Extension









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### **2014 Variety Trial Results**

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# Approval of Seed Varieties for the 2015 Crop

Fully Approved Varieties	
Unlimited Quantities	
HM-27RR	HM-133RR
SX-1291RR	HM-173RR
HM-131RR	SX-1281RR
HM-28RR	B-10RR34
C-RR059	SX-1212RR
C-RR074NT	C-RR202
B-12RR2N	C-RR288
SX-1228RR	

Limited Approved Varietie	es
Quantities limited to 5% of a	acres
SX-RR1235	B-1399
C-G351NT	

Specialty Approved Varie	ties	
Variety	Specialty	Quantity
B-18RR4N*	Nematode	Unlimited
B-19RR1N*	Nematode	Unlimited
SX-1211NRR*	Nematode	5,000 Units
HM-NT425RR**	Nematode & Rhizoctonia	5,000 Units
C-G333NT*	Nematode & Rhizoctonia	7,500 Units
B-133N*	Nematode & Rhizoctonia	7,500 Units

<sup>\*\*</sup> Approved to plant through 2015

### **Corporate Agricultural Office**

2600 S. Euclid Avenue Bay City, Michigan 48706 Telephone (989) 686-0161 - Fax (989) 671-3714

<sup>\*</sup> Approved to plant through 2016



### **Summary of Data**





# Pioneer • Big Chief Michigan Sugar

# **Approved Varieties for 2015**

2013-2014 Data

							All	Value	All Values are % of Check	of C	heck							
Variety	Approval Status	\$/A	RWSA	RWST	Emer gence	er	Cercos pora	os	Rhizoc tonia	· ·	Root Aphid		Aphan omyces		Fusarium	ш	Rhizo mania	- E
B-12RR2N	Full Approval	\$1,838	106.4	101.2	100	Щ	111	ů.	116 F		130 F	ъ́L	) 8/	÷	) 92	G 1	07	ф
C-G333NT	Special Approval	\$1,813	105.0	98.8	100	ц	117	Ь	87 G	-b	64 (	C+	83 (	<del>+</del> 5	73 (	G	95 (	C+
B-19RR1N	Special Approval	\$1,797	104.2	98.3	101	-G	115	Ь	148 P		104 F		) 92	G+ 1	05 (	G- 1	104	ф
B-18RR4N	Special Approval	\$1,797	104.2	101.0	103	G	105	Ь	129 F	F- (	64 (	G+	06	G	93 (	G- 1	104	<del>.</del>
C-RR059	Full Approval	\$1,774	102.6	102.5	104	G	96	-9	63	9	) 69	<b>C</b> +	84 (	<b>+</b> 9	) 02	<b>9</b> +	95 (	t B
C-RR074NT	Full Approval	\$1,748	101.1	98.5	108	<del>+</del> 9	123	Ь	175 P		) //	G 1	05 (	- <del>р</del>	06	G 1	103	G
SX-RR1235	Limited Approval	\$1,732	100.2	100.4	100	ш	116	Ь	126 F	F- 1,	146 F	Р 1	05 (	С	39	<u>П</u>	02	ڻ ن
SX-1228RR	Full Approval	\$1,721	99.2	9.66	101	ь	112	F-	123 F	F- 1	26 F	P 1	101 (	G- (	112 F	4	96	9
SX-1212RR	Full Approval	\$1,718	99.2	69.3	104	G	110	Ь	112 F	1	26	P 1	112 F	Ъ,	117		) 26	G
B-1399	Limited Approval	\$1,710	99.0	69.3	103	-G	72	d+	75 G	5	73 (	G	06	g	45 (	G+ 1	01 (	G
B-133N	Special Approval	\$1,707	98.7	96.4	102	-b	107	Ь	50 G	Q+	64 (	G+ 1	00 F	Ь	) 9/	G 1	03 (	G
C-RR202	Full Approval	\$1,703	98.5	102.2	102	-9	85	G	101 G	G-	) 29	G+ 1	120 F	F- 1	130 F	F-	) 86	G
C-G351NT	Limited Approval	\$1,699	98.3	105.2	107	+9	98	-9	118 F		64 (	<b>9</b> +	87 (	Ŋ	) 8/	G 1	112 (	<b>ф</b>
SX-1211N RR	Special Approval	\$1,684	97.2	92.5	110	G+	109	Ь	111 F	1	31 F	F-	87 (	G	) 02	+9	) 66	G
C-RR288	Full Approval	\$1,658	92.6	69.3	26	F-	69	G+	9 69	9	83 (	G 1	100 (	G- 1	148 F	Ь	) 96	G
HM-173RR	Full Approval	\$1,628	93.9	97.1	89	F-	89	G	95 G	G- 1	111 F	F 1	114 F	F- 1	20 F	F- 1	07	G-
HM-28RR	Full Approval	\$1,627	94.0	92.6	105	G+	91	-b	101 G	G- 1	116 F	F- 1	112 F	F 1	130 F	F-	98 (	ß
HM-131RR	Full Approval	\$1,600	92.4	101.1	26	F-	86	G	94 G	-b	) 06	G 1	52 F	P 1	35 F	P 1	60	-b
SX-1291RR	Full Approval	\$1,548	89.3	96.2	91	F.	92	-b	77 G	G 1,	149 F	P 1	111 F	Ь	91 (	G- 1	104	-b
HM-NT425RR	Special Approval	\$1,528	88.2	7.76	93	ď	85	ß	106 F		83 (	G	108 F	Т	46	Т_	116	ф
		1.40	. 4 4 - 6			L												

A lower value is better for Cercospora, Rhizoctonia, Root Aphid, Aphanomyces, Fusarium and Rhizomania \$/A: Gross dollars per acre assuming \$50 Payment



### Rhizoctonia & Cercospora

### Varieties for 2015 - Average of 2 Years

### Rhizoctonia

Voriety		% of 0	Check		Comments			
Variety	Rhizoc	RWSA	RWST	Cerc	Comments			
B-133N	50.2	98.7	96.4	106.9	Moderate to high producing nematode tolerant variety with good overall disease tolerance.			
C-RR288	59.0	95.6	99.3	68.9	Moderate producing variety that also has very good Cerc tolerance and overall good disease tolerances.			
C-RR059	63.4	102.6	102.5	96.1	Very high producing variety with overall good disease tolerance.			
B-1399	74.7	99.0	99.3	72.0	Moderate to high producing variety that also has good overall good disease tolerance.			
SX-1291RR	76.6	89.3	96.2	91.6	Low to moderate producing variety that also has fairly good Rhizoc tolerance. Other traits (except Aph and Root Aphid) are fairly good.			
C-G333NT	86.7	105.0	98.8	116.6	Very high producing nematode tolerant variety with good overall traits except for Cerc.			

**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 0	Check		Comments
variety	Cerc	RWSA	RWST	Rhizoc	Comments
C-RR288	68.9	95.6	99.3	59.0	Moderate producing variety that also has good overall disease tolerances.
B-1399	72.0	99.0	99.3	74.7	Moderate to high producing variety that also has good overall disease tolerance.
C-RR202	84.8	98.5	102.2	101.1	Moderate to high producing variety that also has fairly good Rhizoc tolerance. Aph tolerance is marginal, however, other disease levels are fairly good.
HM-NT425RR	85.1	88.2	97.7	106.1	Low to moderate producing nematode tolerant variety with fair to good overall disease tolerance except for Fusarium.
HM-131RR	86.0	92.4	101.1	94.2	Moderate producing variety with fairly good Rhizoc tolerance. Other traits are fair to good except for Aph and Fusarium.
HM-173RR	88.9	93.9	97.1	94.8	Moderate producing variety with fairly good Rhizoc tolerance. Other traits are fair to good.

Note: Lower values are better for Cercospora and Rhizoctonia



### **High Quality**

### **Varieties for 2015 - Average of 2 Years**

Variation		% of	Check		Comments
Variety	RWST	RWSA	Rhizoc	Cerc	Comments
C-G351NT	105.2	98.3	118.1	94.6	Moderate producing nematode tolerant variety with fair Rhizoc and fairly good Cerc tolerances. Other traits including emergence are good.
C-RR059	102.5	102.6	63.4	96.1	Very high producing variety with good Rhizoc and fairly good Cerc tolerances. Other traits including emergence are good.
C-RR202	102.2	98.5	101.1	84.8	Moderate to high producing variety with fairly good Rhizoc and good Cerc tolerance. Other traits are good except for Aph and Fusarium. Emergence is fair.
B-12RR2N	101.2	106.4	116.2	111.1	Very high producing nematode tolerant variety with fair Rhizoc and poor to fair Cerc and Root Aphid ratings. Other traits including emergence are in a good range.
HM-131RR	101.1	92.4	94.2	86.0	Moderate producing variety with fairly good Rhizoc and good Cerc ratings. Other traits are good except for Aph, emergence and Fusarium.
B-18RR4N	101.0	104.2	129.4	104.9	High producing nematode tolerant variety with poor to fair Rhizoc and fair Cerc ratings. All other traits including emergence are in the fair to good range.

**Note:** Lower values are better for Rhizoctonia and Cercospora.



### **Sugarbeet Cyst Nematode**

### Varieties for 2015 - Average of 2 Years

Variativ		All Value	es are % o	of Check		Commonto
Variety	Nem*	RWSA	RWST	Rhizoc	Cerc	Comments
B-19RR1N	132.5	104.2	98.3	148.2	115.1	Very high producing nematode variety with good Aph and Rhizomania scores. Weak on Cerc and Rhizoc.
C-RR074NT	130.2	101.1	98.5	175.2	122.5	High producing nematode variety with very good emergence. Poor tolerance to Cerc and Rhizoc. Fair to good tolerance to other diseases.
B-18RR4N	129.8	104.2	101.0	129.4	104.9	Very high producing nematode variety with good emergence and Root Aphid tolerance. Cercospora tolerance is fair and Rhizoc tolerance is marginal. Good on Rhizomania and Fusarium.
B-133N	129.7	98.7	96.4	50.2	106.9	Moderate to high producing nematode variety with very good Rhizoc and Root Aphid tolerance. Tolerances to other diseases are acceptable. Quality is low.
C-G351NT	126.0	98.3	105.2	118.1	94.6	Moderate to high producing nematode variety with very high quality. Rhizoc and Cerc are fair to good and Root Aphid is good. Other diseases are in an acceptable range. Emergence is very good.
B-12RR2N	124.4	106.4	101.2	116.2	111.1	Very high yielding Nematode Variety with acceptable Rhizoc tolerance. Aph, Rhizomania and Fusarium are good. Cerc and Root Aphids are marginal.
C-G333NT	123.7	105.0	98.8	86.7	116.6	Very high producing nematode variety with good overall disease tolerance with the exception of Cercospora.
HM-NT425RR	117.7	88.2	97.7	106.1	85.1	Low to moderate producing nematode variety with good Cercospora and Rhizoc tolerance. Other disease traits are mostly in the good range.
SX-1211N RR	114.6	97.2	95.5	111.1	109.1	Moderate producing nematode variety with very good emergence. Cerc and Rhizoc tolerance is fair. Marginal on Root Aphid. Quality is low.
SX-RR1235	NA	100.2	100.4	125.6	116.2	A high producing nematode variety with poor to fair Rhizoc, Cerc and Root Aphid tolerance. This variety has not been tested in the nematode nursery.

<sup>\*</sup> The Nematode Score is an average of root ratings, yield and nematode counts

Note: Higher is better for Nematode, RWSA and RWST and 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, varieties can be compared, and all factors can be viewed. For all factors, a larger number is better. Just 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 and Emergence levels.

Variatio	DIA/C A	RWST	3X RWST		Higher Po	oints are	Bette	r	Total	Points
Variety	RWSA	Actual	Variance	Cerc	Rhizoc	R Aph	Rzm	Emerg	Points	% Check
C-RR059	102.6	102.5	7.5	4.0	7.8	5.0	2.8	2.0	131.6	108.7
C-G351NT	98.3	105.2	15.7	4.0	4.3	5.0	1.5	0.0	128.8	106.3
C-RR202	98.5	102.3	6.8	6.0	5.5	5.0	2.5	2.5	126.8	104.7
B-18RR4N	104.2	101.0	3.0	2.0	4.8	5.0	2.0	1.5	122.5	101.2
B-1399	99.0	99.3	-2.2	9.0	7.0	5.0	2.5	0.0	120.4	99.4
B-12RR2N	106.4	101.2	3.7	-0.5	4.8	3.0	1.5	1.0	119.8	98.9
C-RR288	95.6	99.3	-2.1	9.0	8.0	4.0	3.0	0.5	118.1	97.5
HM-131RR	92.4	101.1	3.4	6.5	5.0	5.0	2.0	-0.5	113.8	94.0
C-G333NT	105.0	98.8	-3.7	-3.5	6.3	5.0	3.0	0.0	112.0	92.5
SX-1212RR	99.2	99.3	-2.0	1.0	5.3	2.0	2.5	3.5	111.4	92.0
SX-1228RR	99.2	99.6	-1.2	0.5	4.5	2.0	2.5	1.5	109.0	90.0
B-19RR1N	104.2	98.3	-5.1	-2.5	3.0	4.0	2.0	1.0	106.6	88.0
B-133N	98.7	96.4	-10.9	1.5	9.5	5.0	2.3	0.0	106.1	87.6
SX-RR1235	100.2	100.4	1.1	-7.5	4.0	3.0	2.3	0.0	103.0	85.1
HM-173RR	93.9	97.2	-8.5	5.0	4.3	4.0	2.0	-2.5	98.2	81.1
C-RR074NT	101.1	98.5	-4.5	-13.0	3.8	5.0	2.3	3.0	97.6	80.6
HM-NT425RR	88.2	97.7	-7.0	6.0	5.8	4.0	1.5	-1.0	97.5	80.5
SX-1211N RR	97.2	95.5	-13.6	-0.5	5.5	3.0	2.8	3.0	97.4	80.4
HM-28RR	93.9	95.6	-13.2	5.0	3.0	3.0	3.0	2.5	97.2	80.3
SX-1291RR	89.4	96.2	-11.4	5.0	5.5	1.0	2.3	-1.5	90.2	74.5

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

**Total Points:** All columns are added together except the RWST Actual. The difference in RWST Actual from 100% is multiplied by 3 (the next column) and added in the total.

**Emergence-** Non-commercially prepared varieties have a 0.



### **Average of 6 Locations - 2014**

Planted: April 28 to June 4 Locations: Freeland, Rhizoc Control: Good Control

Harvested: September 23 to Pigeon, Quadris T-band

October 24 Wisner, and 6-8 If

Plot Size: 2 rows X 38 ft, 8 reps Frankenmuth, Cerc Control: Good Control

**Row Spacing:** 22 inch Forestville 3 Applications

Seeding Rate: 2" thinned to Sandusky

138-175 beets/100 ft

Variati	\$/A	RWSA	RW	ST	Yie	eld	Su	gar	C	JP
Variety	Ψ/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-12RR2N	\$1,905	9850	263	6	37.1	5	17.6	5	95.6	12
C-G333NT	\$1,895	9797	256	13	37.9	1	17.1	14	95.6	9
B-18RR4N	\$1,876	9740	262	7	36.8	7	17.5	7	95.7	8
SX-1228RR	\$1,884	9724	258	10	37.4	4	17.2	11	95.8	1
B-19RR1N	\$1,858	9628	254	14	37.5	3	17.0	17	95.6	10
SX-1212RR	\$1,848	9541	259	8	36.5	8	17.3	9	95.8	5
C-RR059	\$1,848	9532	265	2	35.8	12	17.7	2	95.6	11
SX-RR1235	\$1,832	9480	264	4	35.5	15	17.6	6	95.8	3
C-RR074NT	\$1,834	9479	258	11	36.5	9	17.4	8	95.3	17
C-RR202	\$1,820	9381	264	3	35.3	16	17.6	4	95.8	2
B-1399	\$1,803	9328	257	12	36.0	10	17.1	13	95.7	6
SX-1211N RR	\$1,797	9297	245	20	37.6	2	16.5	20	95.5	13
C-RR288	\$1,796	9262	259	9	35.5	14	17.3	10	95.7	7
B-133N	\$1,791	9256	249	18	37.0	6	16.8	18	95.1	19
C-G351NT	\$1,785	9208	273	1	33.4	17	18.2	1	95.8	4
HM-173RR	\$1,747	8995	252	17	35.5	13	17.0	16	95.2	18
HM-28RR	\$1,737	8969	248	19	35.9	11	16.7	19	95.4	15
HM-131RR	\$1,718	8854	263	5	33.4	18	17.6	3	95.4	14
SX-1291RR	\$1,643	8470	254	15	33.3	20	17.1	15	95.3	16
HM-NT425RR	\$1,639	8465	252	16	33.4	19	17.2	12	94.8	20
Average	\$1,803	9313	258		35.9		17.3		95.5	
LSD 5%	94.0	509.7	5.7		1.7		0.3		0.3	
CV %	4.6	4.9	2.0		4.1		1.6		0.3	

**Comments:** These trials are planted thick and thinned because of poor quality seed in experimental varieties. Emergence varied at some locations but we were able to leave a uniform stand at each location ranging from 138 to 175 beets per 100 feet. Six of the eight locations planted gave good results to use for variety approval.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **2014 Variety Trial Averages**

### **Average of 5 Locations**

Farms: Bushey Farms (Caseville)

DVL Farms (Ruth)

Gardner Farms (Croswell)

Sylvester Farms (Quanicassee)

Shaffner Farms (Freeland)

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP
SX-1212RR	\$1,693	8776	261	33.7	17.2	96.2
C-RR059	\$1,678	8679	264	33.1	17.5	95.9
SX-1228RR	\$1,668	8661	257	33.7	17.0	96.1
B-12RR2N	\$1,674	8655	265	32.8	17.4	96.4
B-18RR4N	\$1,671	8645	266	32.7	17.5	96.3
B-19RR1N	\$1,668	8618	257	33.7	17.0	96.3
C-RR202	\$1,644	8522	263	32.5	17.3	96.2
SX-1211NRR	\$1,636	8495	246	34.6	16.3	96.1
C-RR074NT	\$1,621	8382	265	31.8	17.6	96.0
HM-173RR	\$1,597	8278	258	32.2	17.1	95.8
C-RR288	\$1,574	8152	259	31.5	17.2	96.1
HM-NT425RR	\$1,512	7815	259	30.3	17.3	95.5
Average	\$1,636	8473	260	32.7	17.2	96.1
LSD 5%		514	7	1.7	0.4	0.3
CV %		5	2	4.0	1.8	0.2

Comments: These results are the combined data of the five most reliable Sugarbeet Advancement variety trials. These trials experienced a variation of environmental conditions and disease pressure. Individual trial data will give the best indication of how a variety will perform given specific environmental, disease and pest issues. Variety selection and field placement should be based on past history of field issues and growers ability to manage them. For example, known nematode fields will probably perform best with a nematode resistant variety. Varieties vary greatly in disease resistance, tonnage and quality. This year was a relatively low inoculum year when looking at Cercospora leaf spot and Rhizoctonia. All trials had good leaf spot control. Use this data in conjunction with Michigan Sugar variety/nursery trial and seed company information. All varieties had the standard seed treatment plus Tachigaren 20. The varieties also contained these additional seed treatments by company: Seedex - Metlock, Rhizolex, Kabina; Crystal - Kabina (Diamond Plated Silver); Beta - Kabina (Betashield+); Hilleshog - Cruiser Maxx.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Plant to Stand Trial**

### **Average of 3 Locations - 2014**

Plot Size: 6 rows X 38 ft, 6 reps Locations: Wisner, Pigeon, Rhizoc Control: Good Control

Row Spacing: 22 inch AuGres Quadris T-band and 6-8 If

Seeding Rate: 4.4 inch spacing Cerc Control: Good Control

3 Applications

Variety	\$/A	RWST	RW	SA	Yie	eld	Su	gar	C.	JP	Beets	100 ft
variety	φ/A	KWSI	Actual	Rank	T/A	Rank	%	Rank	%	Rank	Actual	Rank
B-19RR1N	\$1,719	9579	276	8	34.5	1	18.1	11	96.5	1	163	5
C-RR059	\$1,693	9434	294	1	32.0	6	19.2	1	96.1	8	165	4
C-RR074NT	\$1,686	9382	280	6	33.5	3	18.5	6	96.0	10	175	2
B-18RR4N	\$1,679	9352	282	4	33.1	4	18.5	4	96.2	5	162	6
SX-1211N RR	\$1,613	8968	261	14	34.4	2	17.3	14	96.3	4	185	1
B-12RR2N	\$1,604	8923	277	5	32.2	9	18.2	7	96.4	7	138	7
C-RR288	\$1,604	8942	280	7	31.7	5	18.5	9	96.2	2	161	12
C-RR202	\$1,591	8875	286	3	30.8	11	18.8	3	96.2	6	143	10
SX-1212RR	\$1,551	8627	270	12	31.9	7	17.8	12	96.3	3	159	8
HM-173RR	\$1,536	8556	274	11	31.0	10	18.2	10	95.9	11	149	9
HM-28RR	\$1,519	8444	267	13	31.7	8	17.7	13	96.1	9	173	3
HM-131RR	\$1,457	8120	286	2	28.3	14	19.0	2	95.7	13	135	13
SX-1291RR	\$1,412	7879	275	9	28.4	12	18.3	8	95.8	12	119	14
HM-NT425RR	\$1,410	7860	275	10	28.3	13	18.5	5	95.1	14	140	11
Average	\$1,577	8781	277		31.6		18.3		96.1		155	
LSD 5%	156.4	876.6	11.5		2.3		0.7		0.5		25.0	
CV %	5.9	6.0	2.5		4.3		2.3		0.3		9.6	

**Comments:** This trial includes only seed from commercially prepared varieties and the seed is space planted at 4.4 inches. Uneven emergence and natural diseases are left in the trials to better represent grower field conditions.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **OVT Emergence**

### **Average of 2 Years, 2013 - 2014**

Locations: Average of 3 locationsPlot Size: 2 rows X 38 ft, 8 repsSeeding Rate: 75 seeds planted per row

Variety	% Emerge
SX-1211N RR	68.3
C-G351NT	67.3
SX-1212RR	66.8
C-G333NT	65.6
C-RR059	65.0
B-1399	64.9
C-RR074NT	64.5
C-RR202	64.0
B-19RR1N	63.6
B-133N	63.5
HM-28RR	63.2
B-18RR4N	63.0
B-12RR2N	62.5
SX-RR1235	62.5
SX-1228RR	62.2
C-RR288	59.5
HM-131RR	57.2
SX-1291RR	57.0
HM173RR	56.2
HM-NT425RR	52.7
Average	62.5
LSD 5%	11.5
CV %	8.8

**Comments:** The emergence trial is conducted by planting a counted 75 seeds in each row so the exact number planted is know.



### **2014 Variety Trials**

### **Emergence Summary**

### **Early Counts**

Trial	Shaffner	Volmering	Sylvester	Gulick	Bushey	Gardner	
Plant Date	4/23/2014	4/25/2014	4/26/2014	5/24/2014	5/24/2014	5/26/2014	Average
Count Days	13		13	10	12	10	
C-RR202	116		69	61	156	155	101
C-RR074NT	110		84	47	162	100	101
B-12RR2N	142	Early	61	34	145	106	96
C-RR288	110	Count Not	83	40	137	108	93
B-18RR4N	105	Possible	73	37	130	109	86
C-RR059	92	Due to	71	34	145	76	86
B-19RR1N	56	Heavy	64	46	168	91	83
SX-1211NRR	38	Wheat	54	58	178	116	82
SX-1228RR	41	Cover	40	84	163	128	82
SX-1212RR	38	Crop	46	79	163	160	82
HM-173RR	42		47	57	159	99	77
HM-NT425RR	19		38	43	145	141	61
Average	76	_	61	52	154	116	86
LSD 5%	41	_	29	29	38	43	36
CV %	32	_	28	33	15	22	29

### **Late Counts**

Trial	Shaffner	Volmering	Sylvester	Gulick	Bushey	Gardner	Average
Count Days	26	35	26	27	30	28	Average
SX-1211NRR	274	249	215	141	208	201	230
C-RR074NT	273	258	227	131	180	193	226
B-19RR1N	258	257	228	120	197	182	224
B-18RR4N	270	248	223	128	169	192	220
C-RR288	271	246	216	113	178	186	220
SX-1228RR	263	249	185	135	195	192	217
SX-1212RR	243	244	179	132	188	220	215
HM-NT425RR	260	229	199	104	183	200	214
C-RR059	261	247	189	102	189	182	214
HM-173RR	260	230	203	131	183	179	211
B-12RR2N	262	240	185	107	176	187	210
C-RR202	259	245	176	107	175	195	210
Average	263	245	202	121	185	192	218
LSD 5%	13	11	25	23	27	25	15
CV %	3	3	7	11	9	8	5

Comments: The counts are the number of beets per 100 foot of row. The early counts contained a high amount of variation, in part due to soil moisture conditions (dry) after planting. The Gardner trial was not included in the early count average due to variability, mostly from soil moisture. In the late counts the Gulick trial was not included in the average due to variability. The Gardner trial was included since it emerged well after it received rain. All varieties had the standard seed treatment plus Tachigaren 20. The varieties also contained these additional seed treatments by company: Seedex - Metlock, Rhizolex, Kabina; Crystal - Kabina (Diamond Plated Silver); Beta - Kabina (Betashield+); Hilleshog - Cruiser Maxx.



### **2014 Variety Trials**

### **Rhizoctonia Dead Beet Counts**

### September Counts of Dead Beets in 1200 Foot of Row

Variety	Bushey	Gulick	Shaffner	Sylvester	Volmering	Gardner	Average
C-RR059	19	1	1	0	0		4
HM-173RR	21	1	2	0	2	P N	5
HM-NT425RR	50	1	12	2	0	t Co	13
C-RR202	36	22	6	9	2	Not Counted Pressure an	15
SX-1212RR	54	2	8	13	1	ted [ and	16
SX-1228RR	53	2	34	13	2		21
B-12RR2N	67	6	35	22	1	l iš t	26
SX-1211NRR	97	6	40	15	2	Low	32
B-19RR1N	111	7	33	19	2		34
B-18RR4N	109	7	42	30	1	Disease Canopy	38
C-RR288	169	2	27	17	0	ру	43
C-RR074NT	211	10	68	33	1		64
Average	83	5	26	15	1	_	26
LSD 5%	103	6	41	18	ns (2)	_	32
CV %	73	62	95	72	103	_	97

### Average of the 3 Trials with the Highest Levels of Rhizoctonia

Variety	Bushey	Shaffner	Sylvester	Average
C-RR059	19	1	0	7
HM-173RR	21	2	0	8
C-RR202	36	6	9	17
HM-NT425RR	50	12	2	22
SX-1212RR	54	8	13	25
SX-1228RR	53	34	13	33
B-12RR2N	67	35	22	42
SX-1211NRR	97	40	15	51
B-19RR1N	111	33	19	54
B-18RR4N	109	42	30	60
C-RR288	169	27	17	71
C-RR074NT	211	68	33	104
Average	83	26	15	41
LSD 5%	103	41	18	47
CV %	73	95	72	68

**Comments:** Rhizoctonia dead/dying beet counts from Sugarbeet Advancement variety trials. Quadris applications in trials were as follows: Bushey trial had no Quadris applied. Shaffner and Gulick trial had only one T-Band in-furrow application at planting time. Sylvester and Volmering trials both had a T-Band in-furrow and 6-8 leaf stage application of Quadris.

## **East District Trials**





### Wadsworth, Sandusky - 2014

Trial Quality: Good Soil Info: Loam Rhizoc Control: Good Control

Planted: June 4 - Replant 2.9% OM, 5.8 pH Quadris T-band at

Harvested: September 25 Above Opt Level: P planting and 6-8 If

Plot Size: 2 rows X 38 ft, 8 reps Above Opt Level: K Cerc Control: Good Control

**Row Spacing:** 22 inch High: Mn, V. Low: B 3 Applications

Seeding Rate: 2 inch thinned to Added N: 130 lbs Other Pests: Cyst Nematodes

138 beets/100 ft Prev Crop: Dry Beans present

Rainfall: 19.5 inches

Variativ	¢/A	DIACA	RW	/ST	Y	ield	Su	gar	CJP	
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-12RR2N	\$1,582	6216	205	3	30.3	8	14.6	3	93.6	11
C-RR059	\$1,571	6173	202	5	30.5	7	14.4	4	93.6	8
C-G333NT	\$1,570	6169	197	11	31.3	4	14.0	12	93.6	10
SX-1228RR	\$1,562	6140	200	8	30.7	6	14.1	8	94.0	5
HM-173RR	\$1,559	6124	193	14	31.7	1	13.9	15	93.2	15
C-G351NT	\$1,534	6028	218	1	27.7	20	15.2	1	94.1	2
C-RR288	\$1,528	6005	202	6	29.8	11	14.2	7	94.1	3
C-RR202	\$1,520	5972	210	2	28.5	17	14.7	2	94.1	1
B-133N	\$1,490	5854	185	19	31.6	2	13.6	17	92.4	19
SX-RR1235	\$1,482	5823	203	4	28.7	15	14.3	6	94.0	4
SX-1212RR	\$1,481	5819	199	9	29.2	13	14.1	9	93.8	6
SX-1211N RR	\$1,480	5815	185	18	31.3	3	13.3	19	93.6	9
C-RR074NT	\$1,471	5780	194	13	29.8	10	14.0	10	92.9	17
HM-28RR	\$1,447	5686	189	17	30.1	9	13.6	18	93.3	14
B-18RR4N	\$1,444	5674	191	16	29.6	12	13.8	16	93.2	16
HM-131RR	\$1,436	5642	201	7	28.0	19	14.3	5	93.5	12
B-19RR1N	\$1,435	5640	181	20	31.1	5	13.2	20	92.9	18
B-1399	\$1,424	5594	195	12	28.8	14	13.9	14	93.4	13
SX-1291RR	\$1,419	5576	198	10	28.3	18	14.0	13	93.7	7
HM-425RR	\$1,398	5493	192	15	28.7	16	14.0	11	92.3	20
Average	\$1,492	5861	197		29.8		14.1		93.5	
LSD 5%	99.7	391.7	7.8		1.7		0.4		0.7	
CV %	6.9	6.9	4.0		6.0		2.7		0.8	

**Comments:** This location was replanted June 4 and harvested September 25 resulting in a short growing season. Growing conditions were good resulting in a reasonable yield but low percent sugar. Cyst nematodes were present that could affect variety performance.

\$/A: Gross dollars per acre assuming a \$50 payment.



### Maurer, Forestville - 2014

Trial quality: Good Soil Info: Sandy Loam Rhizoc Control: Good Control

Planted: May 27 3.5% OM, 7.5 pH Quadris T-band at

Harvested: September 29 Above Opt Level: P planting, and 6-8 lf

Plot Size: 2 rows X 38', 8 reps Above Opt Level: K Cerc Control: Good Control

**Row Spacing:** 22 inch High: Mn, Medium: B 3 Applications

Seeding Rate: 2 inch thinned to Added N: 124 lbs. Other Pests: None

175 beets/100 ft **Prev Crop:** Wheat

Rainfall: 18.1 inches

Variate	<b>C</b> ( A	DIA/O A	RW	ST	Y	ield	Su	gar	C	JP
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
C-RR074NT	\$1,975	9430	245	7	38.6	3	16.6	7	95.3	11
SX-1212RR	\$1,971	9409	249	4	37.9	6	16.6	5	95.9	1
SX-1228RR	\$1,934	9233	240	12	38.4	4	16.2	13	95.6	4
C-RR202	\$1,931	9219	250	3	36.9	9	16.8	3	95.6	6
C-RR059	\$1,928	9206	244	9	37.9	5	16.5	9	95.3	12
B-19RR1N	\$1,878	8964	242	11	37.2	7	16.2	12	95.7	3
B-12RR2N	\$1,874	8943	243	10	36.9	10	16.4	10	95.3	13
C-G333NT	\$1,867	8911	229	19	38.9	1	15.7	19	94.9	17
C-G351NT	\$1,828	8728	251	2	34.8	17	16.9	2	95.5	8
HM-131RR	\$1,823	8704	254	1	34.3	19	17.0	1	95.5	7
C-RR288	\$1,823	8702	248	5	35.1	15	16.7	4	95.6	5
HM-28RR	\$1,811	8646	234	15	36.9	8	15.9	18	95.3	10
SX-1211N RR	\$1,807	8624	223	20	38.6	2	15.3	20	95.0	16
B-1399	\$1,806	8622	240	13	35.9	12	16.3	11	95.3	14
SX-RR1235	\$1,799	8589	244	8	35.2	14	16.5	8	95.4	9
B-18RR4N	\$1,783	8509	247	6	34.4	18	16.6	6	95.7	2
B-133N	\$1,760	8400	234	16	35.9	11	16.0	15	95.1	15
HM-173RR	\$1,736	8285	232	17	35.7	13	15.9	17	94.8	18
SX-1291RR	\$1,694	8087	232	18	35.0	16	15.9	16	94.7	19
HM-425RR	\$1,603	7653	234	14	32.7	20	16.1	14	94.7	20
Average	\$1,832	8743	241		36.4		16.3		95.3	
LSD 5%	109.4	522.1	9.3		2.2		0.5		0.5	
CV %	6.2	6.2	4.0		6.1		3.0		0.6	

**Comments:** Growing conditions were favorable for a good yield but harvest in September was a factor for lower percent sugar.

\$/A: Gross dollars per acre assuming a \$50 payment.



Row Spacing: 22 inch

Harv/Samp:

### **Variety Trial**

### **Gardner Farms, Croswell - 2014**

Trial Quality: Good Soil Info: Loam Rhizoc Control: Exc. Control: Quadris in furrrow

Planted: May 26 Fertilizer: PPI: 25 gal. 28%, 2x2: +6-8 leaf

Sep 18 / Sep 16 10 gal. of high P

Plot Size: 3 reps starter, S.D.: 30 gal. Cerc Control: Good Control: 1. Proline

28% 2. Gem & Super Tin

Seeding Rate: 68,000 Prev Crop: Corn

Weather: Excellent, rainfall all Other Pests: None

season

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	-	ations of Row	Dead Beets /
							10 Day	28 Day	1200 Ft
SX-1212RR	\$1,810	7268	205	35.4	14.4	94.2	160	220	_
B-12RR2N	\$1,773	7121	208	34.3	14.5	94.4	106	187	_
B-19RR1N	\$1,755	7049	198	35.5	13.9	94.5	91	182	_
B-18RR4N	\$1,747	7014	205	34.3	14.3	94.4	109	192	_
C-RR074NT	\$1,731	6959	206	33.7	14.5	93.9	100	193	_
SX-1228RR	\$1,727	6935	202	34.4	14.3	93.7	128	192	_
SX-1211NRR	\$1,682	6754	193	35.0	13.6	94.1	116	201	_
C-RR202	\$1,669	6724	203	33.0	14.2	94.2	155	195	_
C-RR059	\$1,673	6722	193	34.7	13.9	93.0	76	182	_
C-RR288	\$1,635	6547	200	32.8	14.1	94.1	108	186	_
HM-NT425RR	\$1,592	6400	200	32.0	14.3	93.4	141	200	_
HM-173RR	\$1,571	6309	196	32.2	13.8	93.9	99	179	_
Average	\$1,697	6817	201	33.9	14.1	94.0	116	192	_
LSD 5%	_	733	14	2.6	0.7	0.7	43	25	_
CV %	_	6	4	4.4	3.0	0.5	22	8	_

**Comments:** Trial was planted on May 26th and harvested on September 18th during early dig. Field had a history of manure application. Ample rainfall occurred on a weekly basis that mineralized organic matter from manure all season. Because of high nitrate levels from previous manure applications, fertilizer and early harvest, Amino-N levels in sugarbeet samples were extremely high which reduced quality. Foliage growth was excessive. Disease pressure from leaf spot, Rhizoctonia and Aphanomyces was non-existent. The revenue calculation (\$/A) is based on the trial average RWST and no early delivery premium. Revenue per acre would be significantly different if the 2014 company average RWST and early delivery premium were used.

\$/A: Gross dollars per acre assuming a \$50 payment.



Row Spacing: 30 inch

Harv/Samp:

### **Variety Trial**

### **DVL Farms, Ruth - 2014**

Trial Quality: Excellent Soil Info: Sand Rhizoc Control: Excellent Control: Quadris

Planted: April 25 Fertilizer: Broadcast: 95lb/ac N in-furrow + 6-8 leaf

Nov 7 / Oct 16 from urea, 2x2:

Plot Size: 3 reps 35-60-50 + micros Cerc Control: Exc. Control: 1. Proline +

EBDC, 2. EBDC, 3. Eminent

Seeding Rate: 52,000 Prev Crop: Wheat + EBDC, 4. EBDC

Weather: Good rain all summer Other Pests: None

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	•	ations of Row	Dead Beets /
							Day	35 Day	1200 Ft
SX-1212RR	\$1,761	10113	288	35.1	18.5	97.7	_	244	1
SX-1228RR	\$1,721	9879	282	35.0	18.2	97.4	_	249	2
B-12RR2N	\$1,674	9611	295	32.6	18.9	97.5	_	240	1
B-18RR4N	\$1,659	9531	291	32.8	18.6	97.6	_	248	1
SX-1211NRR	\$1,635	9390	274	34.3	17.7	97.5	_	249	2
B-19RR1N	\$1,636	9388	281	33.5	18.1	97.4	_	257	2
C-RR059	\$1,631	9368	290	32.3	18.7	97.3	_	247	0
C-RR074NT	\$1,620	9302	288	32.2	18.7	97.1	_	258	1
C-RR202	\$1,597	9166	293	31.3	18.8	97.5	_	245	2
C-RR288	\$1,559	8951	288	31.0	18.6	97.3	_	246	0
HM-173RR	\$1,486	8533	287	29.7	18.6	96.9	_	230	2
HM-NT425RR	\$1,340	7696	288	26.7	18.7	96.9	_	229	0
Average	\$1,610	9244	287	32.2	18.5	97.3	_	245	1
LSD 5%	_	538	7	1.8	0.4	0.4	_	11	ns (2)
CV %	_	3	1	3.3	1.1	0.2	_	3	103

**Comments:** This variety trial was conducted to evaluate performance of varieties on a non-traditional soil type (sand). These soil types are known to be droughty, prone to blow out and not conducive to high yields. Due to ample rainfall, this trial may not be a good indicator of how varieties would normally perform on non-irrigated droughty soils. Sugarbeets were planted into a wheat cover crop to prevent blow-out of seedlings. There was no disease issues from Rhizoctonia, Aphanomyces or Cercospora leaf spot. Typically, root aphids are the worst in dry situations. Root aphid was not an issue in this trial. From a tonnage measurement, SEEDEX varieties performed best, followed by BETA, Crystal and Hilleshog varieties being worst. There was an 8 ton yield difference between the top variety and the bottom.

\$/A: Gross dollars per acre assuming a \$50 payment.

# **Central District Trials**





### Trost, Pigeon - 2014

Trial quality: Good Soil Info: Clay Loam Rhizoc Control: Good Control

Planted:May 282.7% OM, 7.7 pHQuadris T-band atHarvested:October 8Above Opt Level: Pplanting, and 6-8 lf

Plot Size: 2 rows X 38 ft, 8 reps Above Opt Level: K Cerc Control: Good Control

 Plot Size:
 2 rows X 38 π, 8 reps
 Above Opt Level: K
 Cerc Control:
 Good Control

 Row Spacing:
 22 inch
 High: Mn, Medium: B
 3 Applications

Seeding Rate: 2" thinned to Added N: 111 lbs Other Pests: None

155 beets/100 ft Prev Crop: Corn

Rainfall: 20.1 inch

Variatio	¢/A	DIA/C A	RW	/ST	Y	ield	Su	gar	C	JP
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
SX-1228RR	\$1,703	9366	278	8	33.7	1	18.2	11	96.6	4
SX-1212RR	\$1,630	8962	271	17	33.0	3	17.8	17	96.5	6
C-RR202	\$1,629	8956	282	3	31.7	9	18.4	4	96.6	2
B-19RR1N	\$1,607	8835	272	16	32.5	5	17.8	18	96.6	3
B-133N	\$1,604	8819	272	15	32.4	6	17.9	15	96.3	12
C-RR059	\$1,599	8791	285	2	30.8	17	18.7	2	96.4	9
B-18RR4N	\$1,598	8786	279	6	31.5	11	18.3	7	96.6	5
B-1399	\$1,592	8756	280	5	31.3	13	18.2	8	96.8	1
SX-1291RR	\$1,587	8730	269	18	32.5	4	17.9	16	95.8	19
HM-173RR	\$1,581	8695	276	11	31.5	10	18.2	12	96.2	16
HM-131RR	\$1,579	8684	280	4	31.1	14	18.4	3	96.2	17
B-12RR2N	\$1,578	8677	276	10	31.4	12	18.2	9	96.2	18
C-G333NT	\$1,577	8674	273	14	31.8	8	18.0	14	96.3	14
C-RR074NT	\$1,577	8672	279	7	31.1	15	18.4	5	96.3	13
SX-1211N RR	\$1,576	8668	261	20	33.3	2	17.2	20	96.4	11
C-RR288	\$1,552	8532	275	12	31.0	16	18.1	13	96.2	15
HM-28RR	\$1,543	8488	265	19	32.0	7	17.5	19	96.4	10
SX-RR1235	\$1,506	8282	278	9	29.9	18	18.2	10	96.5	7
C-G351NT	\$1,502	8259	286	1	29.0	19	18.7	1	96.5	8
HM-425RR	\$1,428	7852	275	13	28.6	20	18.3	6	95.7	20
Average	\$1,557	8563	275		31.1		18.1		96.3	
LSD 5%	123.6	679.8	8.7		2.4		0.5		0.5	
CV %	8.1	8.1	3.2		8.0		2.6		0.5	

**Comments:** Planting was in late May and emergence was delayed by dry conditions. Considering the late emergence the yield and percent sugar are good.

\$/A: Gross dollars per acre assuming a \$50 payment.



### Vader, Wisner - 2014

Trial Quality: Good Soil Info: Sandy Clay Loam Rhizoc Control: Good Control

Planted:May 83.0% OM, 7.7 pHQuadris T-band at

Harvested: October 22 Above Opt Level: P planting and 6-8 If

Plot Size: 2 rows X 38 ft, 8 reps Above Opt Level: K Cerc Control: Good Control

Row Spacing: 22 inch High: Mn, High: B 3 Applications

Seeding Rate: 2" thinned to Added N: 124 lbs Other Pests: Low Level Cyst 165 beets/100 ft Prev Crop: Wheat/Clover Nematodes

Rainfall: 17.1 inches

Variatio	¢/A	DIA/C A	RW	ST	Y	ield	Su	gar	C	JP
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-18RR4N	\$2,055	12012	303	3	39.7	4	19.9	4	96.2	9
B-12RR2N	\$2,033	11887	307	2	38.7	6	20.1	2	96.2	8
C-G333NT	\$2,013	11768	292	11	40.3	2	19.2	11	96.1	11
C-RR074NT	\$1,987	11614	290	16	40.1	3	19.1	15	95.9	15
B-19RR1N	\$1,985	11603	295	9	39.3	5	19.4	10	96.2	10
SX-1211N RR	\$1,980	11577	283	19	40.9	1	18.6	19	96.3	4
SX-RR1235	\$1,979	11569	300	4	38.5	8	19.6	6	96.3	3
C-RR059	\$1,939	11333	300	5	37.8	9	19.7	5	96.1	12
C-G351NT	\$1,902	11119	313	1	35.6	15	20.5	1	96.1	13
SX-1228RR	\$1,850	10817	290	15	37.4	10	18.9	18	96.7	1
B-133N	\$1,849	10810	280	20	38.7	7	18.6	20	95.8	17
SX-1212RR	\$1,820	10637	292	12	36.5	12	19.2	13	96.3	5
C-RR202	\$1,808	10569	300	6	35.3	16	19.6	9	96.5	2
HM-28RR	\$1,807	10564	289	18	36.7	11	19.1	16	95.9	16
B-1399	\$1,804	10545	292	13	36.2	14	19.2	14	96.2	7
C-RR288	\$1,796	10497	290	14	36.2	13	19.1	17	96.2	6
HM-173RR	\$1,721	10061	289	17	34.8	17	19.2	12	95.7	18
HM-425RR	\$1,709	9990	293	10	34.1	18	19.6	8	95.3	20
HM-131RR	\$1,672	9777	299	7	32.7	19	19.9	3	95.6	19
SX-1291RR	\$1,630	9527	298	8	32.0	20	19.6	7	96.0	14
Average	\$1,867	10914	295		37.1		19.4		96.1	
LSD 5%	118.0	689.8	9.3		2.3		0.5		0.5	
CV %	6.5	6.5	3.2		6.2		2.9		0.5	

**Comments:** Planting early May and harvest late October helped produce exceptional percent sugar and very good yield. A low level of Cyst Nematodes was present.

**\$/A:** Gross dollars per acre assuming a \$50 payment.



### **SVREC, Frankenmuth - 2014**

Trial Quality: Good Soil Info: Clay Loam Rhizoc Control: Fair-Good Control

Planted: April 28 2.9% OM, 7.7 pH Quadris T-band at

**Harvested:** September 23 Above Opt level: P planting and 6-8 If

Plot Size: 2 rows X 38 ft, 8 reps Above Opt level: K Cerc Control: Good Control

**Row Spacing:** 22 inch High: Mn, Medium: B 3 Applications

Seeding Rate: 2" thinned to Added N: 125 lbs Other Pests: Low level 165 beets/100 ft Prev Crop: Corn Rhizoctonia

Rainfall: 18.8 inches

Variati	¢/A	DIA/C A	RW	/ST	Υ	ield	Su	gar	C	JP
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
SX-RR1235	\$2,131	11222	281	2	39.9	5	18.3	3	96.7	2
C-RR202	\$2,035	10719	268	5	40.0	4	17.6	6	96.5	6
C-RR059	\$2,025	10666	280	3	38.1	12	18.3	2	96.6	4
SX-1212RR	\$2,019	10633	263	10	40.4	2	17.4	10	96.4	10
B-18RR4N	\$2,013	10602	268	4	39.5	6	17.6	7	96.6	3
C-G333NT	\$2,005	10561	256	17	41.3	1	16.9	19	96.4	9
SX-1228RR	\$1,988	10472	261	11	40.1	3	17.2	12	96.4	8
B-12RR2N	\$1,970	10377	267	8	38.8	11	17.6	8	96.5	5
C-G351NT	\$1,947	10253	282	1	36.3	18	18.4	1	96.8	1
B-19RR1N	\$1,945	10244	260	13	39.4	8	17.2	14	96.3	12
B-1399	\$1,934	10186	258	16	39.5	7	17.0	16	96.5	7
SX-1211N RR	\$1,906	10036	255	19	39.4	9	16.9	18	96.1	17
C-RR074NT	\$1,901	10014	267	7	37.4	15	17.8	4	95.9	19
C-RR288	\$1,890	9955	263	9	37.8	14	17.4	9	96.3	13
B-133N	\$1,875	9873	260	12	38.0	13	17.2	13	96.3	14
HM-28RR	\$1,870	9851	252	20	39.0	10	16.7	20	96.2	15
HM-131RR	\$1,862	9804	268	6	36.6	17	17.6	5	96.4	11
HM-173RR	\$1,811	9539	259	15	36.9	16	17.2	15	96.1	18
HM-425RR	\$1,730	9109	259	14	35.2	19	17.3	11	95.6	20
SX-1291RR	\$1,703	8970	255	18	35.1	20	16.9	17	96.2	16
Average	\$1,928	10154	264		38.4		17.4		96.3	
LSD 5%	134.0	705.7	6.4		2.6		0.3		0.4	
CV %	7.2	7.2	2.5		7.0		2.0		0.5	

**Comments:** This was our first OVT planted and harvested early. Planting in April and good rainfall produced a very good yield. The early harvest gave a little lower percent sugar. There was a low level of Rhizoctonia.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Plant to Stand**

### Vader, Wisner - 2014

Trial Quality: Good Soil Info: Sandy Clay Loam Rhizoc Control: Good Control: Quadris T-band

Planted: May 8 3.0% OM, 7.7 pH at planting and 6-8 If

Harvested: October 22 Above Opt Level: P Cerc Control: Good Control

Plot Size: 6 rows X 38 ft, 6 reps Above Opt Level: K 3 Applications

**Row Spacing:** 22 inch High: Mn, High: B **Other Pests:** Low Level

Seedling Rate: 4.4 inch seed spacing Added N: 124 lbs Nematodes

Prev Crop: Wheat/Clover Rainfall: 17.1 inches

Variati	¢ (A	DIACA	RW	ST	Yie	eld	Su	gar	С	JP	Beets	/100 ft
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank	Actual	Rank
B-19RR1N	\$2,087	12041	289	8	41.6	1	19.0	10	96.4	4	212	5
C-RR059	\$2,074	11965	303	2	39.4	3	19.9	1	96.0	8	212	7
C-RR202	\$2,053	11842	304	1	39.0	6	19.8	5	96.5	3	215	3
B-18RR4N	\$2,033	11726	294	7	39.9	2	19.3	7	96.3	5	209	8
C-RR288	\$2,006	11574	296	5	39.1	5	19.5	6	96.2	7	214	4
C-RR074NT	\$1,954	11272	288	9	39.3	4	19.1	8	95.8	10	212	6
HM-173RR	\$1,866	10766	285	10	37.8	9	19.0	9	95.5	12	184	12
SX-1291RR	\$1,835	10590	298	4	35.6	12	19.8	3	95.4	13	184	13
B-12RR2N	\$1,826	10537	278	12	37.9	8	18.2	12	96.5	2	201	9
HM-131RR	\$1,780	10272	300	3	34.2	14	19.9	2	95.5	11	190	10
SX-1212RR	\$1,772	10225	280	11	36.5	11	18.3	11	96.8	1	223	1
HM-NT425RR	\$1,767	10197	295	6	34.6	13	19.8	4	94.9	14	178	14
SX-1211N RR	\$1,762	10168	264	14	38.7	7	17.4	14	96.3	6	224	2
HM-28RR	\$1,701	9812	265	13	37.0	10	17.6	13	96.0	9	189	11
Average	\$1,894	10928	288		37.9		19.1		96.0		203	
LSD 5%	147.8	852.5	13.2		2.4		0.8		0.5		9.9	
CV %	6.8	6.8	4.0		5.5		3.6		0.4		4.2	

**Comments:** Planting early May and harvest late October combined with good growing conditions produced very good yield and exceptional percent sugar. Cyst Nematodes may have affected the production of some varieties.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Plant to Stand Trial**

### Trost, Pigeon - 2014

Trial Quality: Good Soil Info: Clay Loam Rhizoc Control: Good Control: Quadris

Planted: May 28 2.7% OM, 7.7pH T-band at planting

Harvested: October 8 Above Opt Level: P and 6-8 If

Plot Size:6 rows X 38 ft, 6 repsAbove Opt Level: KCerc Control:Good ControlRow Spacing:22 inchHigh: Mn, Medium: B3 Applications

Seeding Rate: 4.4 inch seed spacing Added N: 111 lbs Other Pests: None

Prev Crop: Corn Rainfall: 20.1 inches

Variati	\$/A	DIAGA	RW	ST	Yi	eld	Su	gar	CJ	Р	Beets	/100 ft
Variety	<b>Φ/A</b>	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank	Actual	Rank
B-19RR1N	\$1,729	9391	274	4	34.3	1	18.0	8	96.5	1	169	4
C-RR059	\$1,693	9198	292	1	31.5	10	18.9	1	96.4	2	157	9
C-RR074NT	\$1,687	9164	274	7	33.4	4	18.2	5	95.9	8	182	3
HM-28RR	\$1,656	8996	264	11	34.1	3	17.6	13	95.7	10	188	2
B-18RR4N	\$1,647	8948	274	5	32.7	5	18.1	7	96.1	5	166	5
B-12RR2N	\$1,642	8919	280	2	31.9	7	18.4	2	96.4	3	133	11
SX-1211N RR	\$1,627	8838	259	14	34.2	2	17.2	14	95.9	7	200	1
C-RR202	\$1,608	8734	273	8	32.0	6	18.1	6	95.8	9	130	12
C-RR288	\$1,603	8709	276	3	31.6	9	18.2	4	96.2	4	161	8
SX-1212RR	\$1,543	8383	265	10	31.7	8	17.8	11	95.6	11	164	6
HM-173RR	\$1,541	8371	270	9	31.1	11	17.9	9	95.9	6	163	7
HM-131RR	\$1,447	7861	274	6	28.8	13	18.3	3	95.5	13	120	13
HM-NT425RR	\$1,413	7677	264	12	29.1	12	17.8	10	95.0	14	141	10
SX-1291RR	\$1,381	7504	264	13	28.5	14	17.7	12	95.5	12	104	14
Average	\$1,587	8621	272		31.8		18.0		95.9		155	
LSD 5%	112.5	611.0	14.6		2.1		0.7		0.8		28.5	
CV %	6.1	6.1	4.6		5.7		3.4		0.8		15.9	

**Comments:** Good growing conditions produced good yield and percent sugar even after late planting. No problems were observed.

\$/A: Gross dollars per acre assuming a \$50 payment.



Plot Size:

### **Variety Trial**

### **Bushey Farms, Caseville - 2014**

Trial Quality: Excellent Soil Info: Loam Rhizoc Control: Fair Control: No Quadris applied

Planted: May 24 Fertilizer: 10,000 gal dairy

Harv/Samp: Oct 25 / Oct 16 manure, 2x2: 12gal Cerc Control: Excellent Control: 1. Proline

28% + micros + EBDC, 2. Gem + EBDC, 3.

Eminent + EBDC

Row Spacing: 22 inch Prev Crop: Corn

3 reps

Seeding Rate: 62,000 Weather: Good Other Pests: Rhizoctonia

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP		lations . of Row	Dead Beets /
							12 Day	30 Day	1200 Ft
SX-1228RR	\$1,620	9277	285	32.6	18.8	96.1	163	195	53
C-RR202	\$1,590	9106	297	30.7	19.5	96.2	156	175	36
HM-173RR	\$1,583	9061	288	31.4	19.0	96.0	159	183	21
SX-1212RR	\$1,575	9023	284	31.7	18.8	96.1	163	188	54
C-RR059	\$1,526	8739	293	29.8	19.3	96.1	145	189	19
B-19RR1N	\$1,527	8735	289	30.3	18.9	96.4	168	197	111
HM-NT425RR	\$1,504	8621	287	30.0	19.1	95.6	145	183	50
C-RR288	\$1,455	8361	283	29.5	18.7	95.9	137	178	169
SX-1211NRR	\$1,452	8314	258	32.2	17.2	95.9	178	208	97
B-18RR4N	\$1,449	8299	290	28.6	19.1	96.2	130	169	109
B-12RR2N	\$1,396	7994	292	27.3	19.1	96.6	145	176	67
C-RR074NT	\$1,371	7843	289	27.1	19.1	95.9	162	180	211
Average	\$1,504	8614	286	30.1	18.9	96.1	154	185	83
LSD 5%	_	757	15	1.6	0.8	0.7	38	27	103
CV %	_	5	3	3.1	2.4	0.4	15	9	73

**Comments:** Trial was planted late (May 26th) and harvested on October 25th during permanent pile. Summer was relatively dry compared to other growing regions. This trial received no Quadris either in-furrow or foliar. Rhizoctonia impacted yields, especially on the most susceptible varieties. No other significant disease issues noted.

**\$/A:** Gross dollars per acre assuming a \$50 payment.



3 reps

Plot Size:

### **Variety Trial**

### Sylvester Farms, Quanicassee - 2014

Trial Quality: Excellent Soil Info: Loam Rhizoc Control: Exc Control:

Planted: April 26 Fertilizer: PPI: 30 gal 28%, 2x2: Quadris in-furrow + 6-8 leaf

Harv/Samp: Sept 18 / Sept 10 33-22-0 + S & micros Cerc Control: Exc Control: 1. Inspire XT +

EBDC, 2. Tin + EBDC, 3. Headline + EBDC, 4.Eminent + EBDC

Row Spacing: 24 inch Prev Crop: Cucumber / Radish

Seeding Rate: 65,000 Weather: Good Other Pests: Sugarbeet Cyst

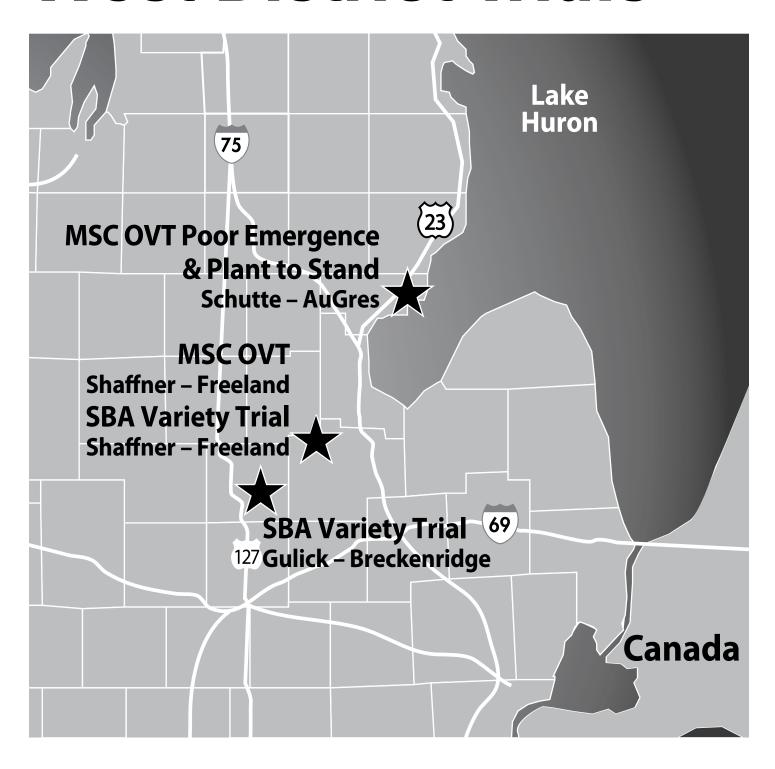
Nematode, Root Aphid

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP		ılations . of Row	Dead Beets /
	·						13 Day	26 Day	1200 Ft
B-19RR1N	\$1,687	8968	268	33.4	17.5	96.9	64	228	19
C-RR074NT	\$1,684	8949	278	32.2	18.1	96.7	84	227	33
B-18RR4N	\$1,675	8905	280	31.8	18.2	96.9	73	223	30
C-RR059	\$1,640	8720	272	32.0	17.8	96.7	71	189	0
C-RR202	\$1,637	8702	263	33.0	17.2	96.8	69	176	9
SX-1211NRR	\$1,634	8686	246	35.3	16.2	96.7	54	215	15
SX-1212RR	\$1,628	8656	267	32.4	17.4	97.0	46	179	13
B-12RR2N	\$1,603	8522	260	32.8	17.0	96.8	61	185	22
HM-173RR	\$1,597	8490	259	32.8	17.2	96.2	47	203	0
C-RR288	\$1,550	8236	269	30.6	17.6	96.8	83	216	17
SX-1228RR	\$1,531	8137	260	31.3	16.9	97.1	40	185	13
HM-NT425RR	\$1,474	7836	266	29.4	17.6	96.1	38	199	2
Average	\$1,612	8567	266	32.3	17.4	96.7	61	202	15
LSD 5%	_	439	7	1.5	0.4	0.4	29	25	18
CV %	_	3	2	2.7	1.4	0.2	28	7	72

**Comments:** Trial was planted on April 26 with excellent emergence and harvested on September 18 during early dig. Good rainfall during most of the growing season except for a short droughty period during mid-summer. Some root aphid seen on the most susceptible varieties along with sugarbeet cyst nematodes. Varieties with better root aphid/nematode resistance generally yielded higher. Trial had very low amount of any other diseases. The revenue calculation (\$/A) is based on the trial average RWST and no early delivery premium. Revenue per acre would be significantly different if the 2014 company average RWST and early delivery premium were used.

\$/A: Gross dollars per acre assuming a \$50 payment.

# **West District Trials**





### **Shaffner, Freeland - 2014**

Trial quality: Good Soil Info: Clay loam Rhizoc Control: Good Control:

Planted: May 6 3.1% OM, 7.4 pH Quadris T-band at

Harvested: October 24 Opt Level: P planting and 6-8 If

Plot Size: 2 rows X 38 ft, 8 reps Below Opt Level: K Cerc Control: Good Control

Row Spacing: 22 inch Medium: Mn, Low: B 3 Applications

Seeding Rate: 2" thinned to Added N: 130 lbs Other Pests: Low level

165 beets/100 ft Prev Crop: Wheat/Clover Rhizoctonia

Rainfall: 19.0 inches Low level

**Cyst Nematodes** 

Variates	¢ (A	DIA/O A	RW	ST	Y	ield	Su	gar	C.	JP
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-12RR2N	\$2,391	13000	280	4	46.4	1	18.7	3	95.6	10
B-18RR4N	\$2,365	12859	281	3	45.8	2	18.6	6	95.7	6
C-G333NT	\$2,335	12695	288	2	44.1	6	18.9	2	96.3	1
B-19RR1N	\$2,296	12481	274	12	45.7	3	18.2	14	95.8	4
SX-1228RR	\$2,266	12320	280	6	44.0	7	18.6	4	95.6	9
B-1399	\$2,256	12263	276	11	44.4	5	18.2	11	96.0	2
C-RR288	\$2,185	11878	273	13	43.4	8	18.2	15	95.7	7
SX-1212RR	\$2,168	11783	280	5	42.1	10	18.6	5	95.6	8
B-133N	\$2,168	11783	261	19	45.2	4	17.7	18	94.9	20
SX-RR1235	\$2,096	11395	277	8	41.1	13	18.4	10	95.8	3
C-RR074NT	\$2,090	11363	271	15	41.9	12	18.2	13	95.2	17
HM-173RR	\$2,072	11266	265	16	42.6	9	17.8	16	95.2	18
SX-1211N RR	\$2,035	11062	264	17	42.0	11	17.7	19	95.6	11
C-RR059	\$2,028	11023	277	7	39.9	16	18.5	9	95.4	14
C-G351NT	\$1,998	10862	290	1	37.4	19	19.3	1	95.7	5
C-RR202	\$1,996	10849	277	10	39.2	17	18.5	7	95.4	13
HM-425RR	\$1,967	10695	261	20	41.1	14	17.7	17	94.9	19
HM-28RR	\$1,946	10577	261	18	40.5	15	17.6	20	95.3	15
HM-131RR	\$1,934	10515	277	9	38.0	18	18.5	8	95.5	12
SX-1291RR	\$1,826	9928	271	14	36.6	20	18.2	12	95.3	16
Average	\$2,121	11530	274		42.1		18.3		95.5	
LSD 5%	136.6	742.6	10.6		2.5		0.6		0.5	
CV %	6.7	6.7	4.0		6.1		3.2		0.6	

**Comments:** Growing conditions were favorable through the growing season and later harvest produced exceptional yield and good sugar. There was a low level of Rhizoctonia by harvest. Cyst nematodes may affected the production of some varieties

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Plant to Stand Trial**

### Schutte, AuGres - 2014

Trial Quality: Fair Soil Info: Sandy Loam Rhizoc Control: Good Control, Quadris

Planted: May 29 2.1% OM, 7.1 pH T-band at planting and 6-8 If

Harvested: October 29 Above Opt Level: P Cerc Control: Good Control

Plot Size: 6 rows X 38 ft, 6 reps Above Opt Level: K 2 Applications

Row Spacing: 22 inch Medium: Mn, V. Low: B Other Pests: None

Seeding Rate: 4.4 inch seed spacing Added N: 105 lbs Rainfall: 22.6 inches

Prev Crop: Wheat

Variation	¢/A	DIACA	RW	ST	Yi	eld	Su	gar	C	JP	Beets/	100 ft
Variety	\$/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank	Actual	Rank
SX-1211N RR	\$1,451	7896	260	14	30.4	1	17.1	14	96.7	2	136	2
C-RR074NT	\$1,417	7709	279	4	27.7	2	18.3	4	96.4	7	133	3
B-18RR4N	\$1,356	7381	276	5	26.7	5	18.2	5	96.3	9	113	5
B-12RR2N	\$1,344	7315	274	6	26.7	6	18.1	6	96.2	12	79	13
B-19RR1N	\$1,342	7304	265	12	27.6	3	17.3	13	96.7	1	108	6
SX-1212RR	\$1,336	7273	264	13	27.5	4	17.3	12	96.6	4	90	11
C-RR059	\$1,312	7139	286	1	25.0	7	18.9	1	96.0	13	126	4
C-RR288	\$1,203	6544	269	8	24.3	8	17.7	9	96.2	10	107	7
HM-173RR	\$1,200	6529	269	9	24.3	9	17.7	10	96.4	6	100	9
HM-28RR	\$1,199	6525	271	7	24.1	10	17.7	8	96.6	3	141	1
HM-131RR	\$1,144	6228	284	2	21.9	11	18.7	2	96.2	11	96	10
C-RR202	\$1,111	6047	281	3	21.5	12	18.5	3	96.4	5	83	12
HM-NT425RR	\$1,049	5707	267	10	21.3	13	17.9	7	95.4	14	100	8
SX-1291RR	\$1,019	5543	265	11	21.0	14	17.5	11	96.3	8	71	14
Average	\$1,249	6796	272		25.0		17.9		96.3		105	
LSD 5%	157.2	855.3	15.0		2.7		0.8		0.5		23.2	
CV %	10.9	10.9	4.8		9.4		4.0		0.5		18.9	

**Comments:** Good emergence was prevented by a crust that formed after planting. Considering the poorer stands the late harvest helped produce good percent sugar and a reasonable yield. No problems were observed.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Variety Trial**

### **Shaffner Farms, Freeland - 2014**

Trial Quality: Good Soil Info: Loam Rhizoc Control: Good Control: Quadris

Planted: April 23 Fertilizer: PPI: 90lb/ac N from in-furrow only

Harv/Samp: Sep 19 / Sep 17 ESN/urea, 2x2: 25gal Cerc Control: Excellent Control: 1. Inspire

15-17-1 + micros XT, 2. Tin + EBDC,

Plot Size: 3 reps

Row Spacing: 30 inch

Prev Crop: Soybean

**Seeding Rate:** 55,000 **Weather:** Good **Other Pests:** Sugarbeet cyst nematode,

Rhizoctonia

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP		ılations . of Row	Dead Beets /
	,				,		13 Day	26 Day	1200 Ft
B-12RR2N	\$1,933	10027	270	37.1	17.7	96.6	142	262	35
C-RR059	\$1,898	9845	270	36.4	17.8	96.4	92	261	1
B-18RR4N	\$1,826	9475	263	36.0	17.4	96.4	105	270	42
SX-1211NRR	\$1,798	9330	256	36.4	16.9	96.4	38	274	40
SX-1228RR	\$1,748	9079	256	35.3	17.0	96.3	41	263	34
HM-173RR	\$1,734	8998	258	34.9	17.1	96.2	42	260	2
B-19RR1N	\$1,728	8951	248	36.1	16.5	96.2	56	258	33
C-RR202	\$1,715	8913	257	34.6	17.0	96.3	116	259	6
C-RR074NT	\$1,706	8859	263	33.7	17.4	96.2	110	273	68
SX-1212RR	\$1,700	8818	258	34.2	17.1	96.2	38	243	8
C-RR288	\$1,670	8666	256	33.8	16.9	96.6	110	271	27
HM-NT425RR	\$1,643	8524	254	33.5	17.0	95.7	19	260	12
Average	\$1,758	9124	259	35.2	17.1	96.3	76	263	26
LSD 5%	_	745	9	2.6	0.4	0.6	41	13	41
CV %	_	5	2	4.3	1.5	0.3	32	3	95

**Comments:** Trial was planted April 23rd and was harvested during early dig on September 17th. Good moisture conditions all season. There was some Rhizoctonia present but not at a high level. Aphanomyces was very low. Leaf spot was present at harvest, but probably not at a level that would impact the trial. Sugarbeet cyst nematodes were detected but believed to be at lower levels. The revenue calculation (\$/A) is based on the trial average RWST and no early delivery premium. Revenue per acre would be significantly different if the 2014 company average RWST and early delivery premium were used.

\$/A: Gross dollars per acre assuming a \$50 payment.



Row Spacing: 22 inch

### Variety Trial

Prev Crop:

### Gulick Farms, Breckenridge - 2014

Soil Info: **Trial Quality:** Poor Loam Rhizoc Control: Good Control:

Quadris in-furrow Planted: May 24 Fertilizer: Fall: 6000 gal. hog

manure, PPI: 20gal Good Control: 1. Inspire XT, Harv/Samp: Oct 29 / Oct 13 **Cerc Control:** 28%, 2x2: 38-28-0 + 2. Super Tin + EBDC

**Plot Size:** 3 reps micros

Wheat Seeding Rate: 64,000 Weather: Heavy damage and Other Pests: **Aphanomyces** 

rain early season

Variety	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	_	llations . of Row	Dead Beets /
							10 Day	27 Day	1200 Ft
B-12RR2N	\$1,348	7049	272	25.9	18.2	95.6	34	107	6
B-19RR1N	\$1,252	6534	265	24.7	17.6	95.9	46	120	7
SX-1212RR	\$1,250	6522	267	24.5	17.9	95.4	79	132	2
SX-1211NRR	\$1,224	6396	253	25.3	17.1	95.1	58	141	6
B-18RR4N	\$1,224	6390	262	24.5	17.5	95.6	37	128	7
SX-1228RR	\$1,193	6237	265	23.5	17.8	95.5	84	135	2
HM-173RR	\$1,110	5792	262	22.1	17.7	95.1	57	131	1
C-RR059	\$1,093	5719	266	21.5	17.9	95.2	34	102	1
HM-NT425RR	\$1,090	5692	249	22.9	17.3	93.8	43	104	1
C-RR288	\$1,084	5671	255	22.2	17.3	95.1	40	113	2
C-RR074NT	\$1,076	5615	263	21.4	17.7	95.2	47	131	10
C-RR202	\$993	5174	257	20.2	17.3	95.3	61	107	22
Average	\$1,161	6066	261	23.2	17.6	95.2	52	121	5
LSD 5%	_	773	14	3.2	0.7	0.7	29	23	6
CV %	_	8	3	8.2	2.5	0.5	33	11	62

Comments: USE TRIAL DATA WITH CAUTION. This trial was not included with Sugarbeet Advancement variety trial averages. Trial was planted on May 24th and emergence was marginal due to dry conditions after planting. An excessive hard 4-5 inch rainfall occurred in early July causing water logged anaerobic soil conditions. This rainfall damaged roots which reduced yield and trial consistency. Heavy amounts of Aphanomyces scarring on roots was seen when digging sugarbeet quality samples. Rhizoctonia disease levels were low. Varieties with the best Aphanomyces tolerance generally had better Recoverable White Sugar per Acre (RWSA).

\$/A: Gross dollars per acre assuming a \$50 payment.



### Official Variety Trial - Poor Emergence\*

### Schutte, AuGres - 2014

**Trial Quality:** Fair-Poor Planted:

May 29

Harvested: October 29

Plot Size:

2 rows X 38 ft, 8 reps

Row Spacing: 22 inch

Seeding Rate: 2 inch thinned to

175 beets/100 ft where needed

Soil Info: Sandy Loam

2.1% OM, 5.8 pH

Above Opt Level: P Above Opt Level: K

Medium: Mn, Low: B

Added N: 105 lbs

Prev Crop: Wheat Rainfall: 22.6 inches Rhizoc Control: Good Control:

Quadris T-band at planting, and 6-8 lf

**Cerc Control: Good Control** 

2 Applications

Other Pests: None

Variety	\$/A	RWSA	RW	ST	Yi	eld	Su	gar	C	JP	July 7
variety	Ψ/A	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank	Beet/100
SX-1212RR	\$1,422	8090	275	18	29.4	1	18.0	18	96.7	2	148
SX-1211N RR	\$1,391	7913	273	19	29.0	2	17.9	19	96.6	6	171
SX-RR1235	\$1,389	7900	288	6	27.4	4	18.8	8	96.6	4	144
B-19RR1N	\$1,346	7655	281	14	27.3	5	18.4	15	96.4	10	163
SX-1228RR	\$1,342	7631	273	20	28.0	3	17.9	20	96.6	5	131
C-G333NT	\$1,317	7488	287	8	26.1	6	18.7	10	96.6	3	156
C-RR074NT	\$1,305	7425	287	9	25.9	7	18.9	7	96.2	16	162
B-1399	\$1,271	7230	289	5	25.0	10	18.9	6	96.5	9	160
B-12RR2N	\$1,255	7141	281	13	25.5	8	18.5	14	96.2	17	123
B-133N	\$1,241	7061	280	15	25.2	9	18.5	13	96.0	19	168
B-18RR4N	\$1,241	7056	298	3	23.7	12	19.3	4	96.8	1	164
C-RR059	\$1,204	6847	302	2	22.7	13	19.8	2	96.2	15	154
C-RR202	\$1,169	6648	296	4	22.4	14	19.4	3	96.3	13	139
HM-173RR	\$1,162	6610	279	16	23.7	11	18.3	16	96.3	11	130
HM-28RR	\$1,090	6199	278	17	22.3	15	18.2	17	96.5	8	162
C-G351NT	\$1,085	6173	302	1	20.4	18	19.8	1	96.3	12	154
SX-1291RR	\$1,084	6164	286	10	21.6	16	18.8	9	96.3	14	113
C-RR288	\$1,077	6124	285	11	21.5	17	18.7	12	96.6	7	146
HM-131RR	\$932	5299	288	7	18.4	19	19.0	5	96.0	18	140
HM-NT425RR	\$886	5039	281	12	17.9	20	18.7	11	95.6	20	129
Average	\$1,179	6706	284		23.6		18.7		96.3		147
LSD 5%	159.8	909.1	11.7		3.1		0.7		0.5		20.3
CV %	13.8	13.8	4.2		13.2		3.7		0.5		14.1

<sup>\*</sup>Comments - This trial was not used for variety approval because a crust formed after planting and caused reduced emergence and gaps. OVT trials are planted thick (2 inch seed spacing) and thinned to 175 beets per 100 feet. We did not achieve adequate stands in this trial due to the poor emergence conditions but we did thin the plots in this trial that were thicker to 175 beets per 100 feet. The crust was uniform making this trial a test of emergence. This trial was not included in the average of OVT locations.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Nursery Data**







# Rhizoctonia Nursery Michigan Sugar Company Average of 2 years, 2013-2014

2013 - MSC at Blumfield, 2014 - USDA at SVREC and MSC at Blumfield Location:

Plot Size: 2 rows X 25 ft, 6 reps Inoculation: Trials are inoculated

Root Rating
2.8
3.0
3.0
3.2
3.3
3.4
3.4
3.4
3.4
3.5
3.6
3.6
3.6
3.6
3.6
3.7
3.8
3.8
3.9
3.9
4.8
3.5
0.7
9.2

Disease Index 0-7 Rating scale: 0 = no disease, 1 = very minor,

2 = minor (<5% rot), 3 = 6 to 25% rot, 4 = 26 to 50% rot,

5 = 51 to 75% rot, 6 = 75 to 95% rot and 7 = root completely rotted.



### Cercospora Nursery Michigan Sugar Company

### Michigan Sugar Company Average of 2 years, 2013 - 2014

Trial Quality: Good

**Locations:** 2014 - Blumfield, and SVREC, 2013 - Blumfield

Plot Size: MSC - 2 rows X 17.5 ft, 5 reps — SVREC - 2 rows X 20 ft, 6 reps

**Inoculation:** Trials are inoculated

Variety	Avg of 2 Years CLS Rate 0-9	2013 CLS Rate 0-9	2014 CLS Rate 0-9
C-RR288	3.1	2.7	3.5
B-1399	3.2	2.9	3.5
C-RR202	3.8	3.7	3.8
HM-NT425RR	3.8	3.6	3.9
HM-131RR	3.8	3.3	4.3
HM-173RR	3.9	3.5	4.4
HM-28RR	4.0	3.9	4.2
SX-1291RR	4.1	3.9	4.2
C-G351NT	4.2	3.8	4.5
C-RR059	4.3	4.1	4.4
B-18RR4N	4.6	4.4	4.9
B-133N	4.7	4.5	5.0
SX-1211N RR	4.8	4.3	5.4
SX-1212RR	4.9	4.8	4.9
B-12RR2N	4.9	4.9	4.9
SX-1228RR	4.9	4.7	5.1
B-19RR1N	5.1	5.1	5.1
SX-RR1235	5.1	5.2	5.0
C-G333NT	5.2	5.0	5.3
C-RR074NT	5.4	5.1	5.7
Average	4.4	4.2	4.6
LSD 5%	0.6		
CV %	6.4		

**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 desiccation), 4 = up to 10% leaf desiccation, 5 = up to 25% desiccated, 6 = up to 50% desiccated, 7 = up to 75% desiccated, 8 = up to 90% desiccated, 9 = leaves completely dead.



# **Cyst Nematode Nursery** Michigan Sugar Company

Average of 2 Years, 2013 - 2014

**Trial Quality:** Good

Locations: 2013 - Akron, 2014 - Deckerville

Plot Size: 2 rows X 25 ft, 6 reps

Variety	Overall Rank* % of Susc	\$/A	RWSA	RWST	T/A	% Sugar	% CJP	Root Rating* 1-5	Eggs + Nymph* 100 cc Soil
Tolerant Check	132.7	\$1,234	5876	234	25.1	16.2	94.3	2.8	3987
B-19RR1N	132.5	\$1,229	5852	242	24.2	16.5	94.8	2.6	5072
C-RR074NT	130.2	\$1,213	5774	241	23.9	16.7	94.2	2.9	4082
B-18RR4N	129.8	\$1,305	6210	244	25.4	16.7	94.9	3.1	5267
B-133N	129.7	\$1,199	5705	236	24.2	16.4	94.1	2.8	4846
C-G351NT	126.0	\$1,195	5690	244	23.3	16.7	94.6	2.8	7592
B-12RR2N	124.4	\$1,374	6540	242	27.0	16.6	94.8	3.2	9995
C-G333NT	123.7	\$1,211	5764	233	24.8	16.1	94.4	3.1	7202
HM-NT425RR	117.6	\$1,074	5111	236	21.6	16.6	93.4	3.3	6735
SX-1211NRR	114.6	\$1,125	5353	229	23.4	15.9	94.2	3.0	12412
Susc Checks	100.0	\$1,031	4907	237	20.7	16.3	94.5	3.4	17273
Average		\$1,199	5707	238	24.0	16.4	94.4	3.0	7678
LSD 5%		97.6	464.6	5.8	1.8	0.3	0.4	0.3	2739
CV %		7.0	7.0	2.1	6.6	1.7	0.3	8.5	30.6

\* Overall Rank: A higher number is better. Average of \$/A, Root Rating and Egg + Nymph counts, expressed as a percent of the Susceptible Checks.

1 to 5 scale with 1 = no nematodes and no root sprangling, and 5 = numerous cysts (> 20 per root) \* Root Rating: and / or severe root sprangling.

\* Eggs + Nymphs: Soil from rated roots collected and sent to MSU for nematode counts, expressed in number per 100 cc soil.

\$/A: Gross dollars per acre assuming a \$50 payment.



### **Root Aphid Nursery**

### Betaseed, Shakopee, MN - 2013\*\*

Variety	RA Score*
C-G351NT	1.0
C-G333NT	1.0
B-18RR4N	1.0
B-133N	1.0
Resis Check	1.1
C-RR059	1.1
C-RR202	1.1
HM-131RR	1.2
B-1399	1.3
B-1397	1.4
C-RR074NT	1.4
HM-NT425RR	1.5
C-RR288	1.6
HM-173RR	1.8
B-19RR1N	1.9
HM-28RR	2.0
B-12RR2N	2.1
SX-1211N RR	2.2
SX-RR1235	2.4
M-301RR	2.6
SX-1228RR	2.8
SX-1212RR	2.9
SX-1291RR	3.0
Susc Check	3.7
Average	1.8

<sup>\*</sup> RA Score = scale of 1-4

<sup>1 =</sup> very few root aphids, 4 = heavily infested

<sup>\*\*</sup> We do not have usable results from a 2014 nursery. We will have results from Betaseed later.



# Aphanomyces Nursery Betaseed, Shakopee, MN Average of 2 years, 2013 - 2014

Variety	Root Rating 1 - 9 Scale	Canopy Rating 1 - 9 Scale	Stand Loss 1 - 5 Scale
SX-1211N RR	3.2	2.0	1.5
B-19RR1N	3.7	3.2	1.0
BTS-12RR2N	4.1	3.3	1.0
C-RR059	4.6	3.8	1.0
C-G333NT	4.7	3.6	1.0
B-18RR4N	4.8	3.6	1.2
C-RR074NT	4.8	3.8	1.5
B-133N	5.1	4.6	1.4
C-G351NT	5.2	3.7	1.0
B-1399	5.4	4.2	1.0
SX-1291RR	5.8	4.7	1.3
HM-173RR	5.9	5.1	1.5
SX-1212RR	6.1	5.1	1.3
SX-1228RR	6.3	5.4	1.0
C-RR288	6.3	5.3	1.0
SX-RR1235	6.3	5.6	1.3
HM-NT425RR	6.4	5.5	1.2
HM-28RR	6.7	5.9	1.2
C-RR202	7.1	6.3	1.3
HM-131RR	7.2	6.5	2.0
Susc Variety	7.6	7.0	1.3
Average	5.6	4.7	1.2

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, 2013 & 2014

**Location:** Kimberly, Idaho **Plot Size:** 2 rows X 24 ft, 6 reps

Variety	RWSA	% Sugar	T/A	Root Rating 0-9	Foliar Rating 0-100
C-RR059	12090	16.5	43.0	2.2	0.0
SX-1228RR	11597	16.2	41.4	2.3	0.2
SX-1212RR	11352	16.3	40.6	2.3	0.7
C-G333NT	11345	16.0	41.8	2.2	0.0
C-RR202	11218	16.2	40.9	2.3	0.0
C-RR288	11070	15.9	41.1	2.2	0.1
C-RR074NT	10881	16.2	39.4	2.4	0.1
HM-28RR	10772	15.4	41.1	2.2	0.0
B-19RR1N	10662	15.7	39.7	2.5	0.3
B-12RR2N	10638	16.3	38.1	2.6	0.0
B-133N	10624	16.1	39.1	2.4	0.0
SX-RR1235	10537	15.8	38.9	2.4	0.2
SX-1211N RR	10493	15.5	39.8	2.3	0.1
SX-1291RR	10413	15.6	39.4	2.4	0.0
B-1399	10390	15.5	39.2	2.3	0.0
B-18RR4N	10256	15.9	37.8	2.5	0.1
HM-131RR	9666	15.9	36.0	2.5	0.1
HM-173RR	9607	15.2	37.9	2.4	0.0
C-G351NT	9395	16.4	33.2	2.6	0.0
HM-NT425RR	8620	15.9	32.5	2.6	0.0
Susceptible	5317	13.6	23.5	3.5	88.9
Average	10330	15.8	38.3	2.4	4.3
LSD 5%	1574.3	0.5	5.4	0.3	7.0
CV %	7.3	1.7	6.8	5.2	77.5

Root and Foliar Rating: Lower numbers are better.



### Fusarium Nursery

### **American Crystal Sugar Company - 2104**

Plot Size: 2 rows X 17 ft, 4 reps

**Evaluated:** Aug 14, Sept 9, and Sept 23

Variety	Rating 1-9
B-1399	1.9
B-133N	2.2
Tolerant Check	2.4
SX-1211N RR	2.9
C-RR059	2.9
C-G333NT	3.1
B-12RR2N	3.2
C-G351NT	3.2
B-19RR1N	3.4
C-RR074NT	3.8
B-18RR4N	3.9
SX-1228RR	4.7
SX-1212RR	4.9
HM-173RR	5.0
Susceptible Check	5.4
C-RR202	5.4
HM-28RR	5.4
HM-131RR	5.6
SX-RR1235	5.8
SX-1291RR	5.8
HM-NT425RR	6.1
C-RR288	6.2
Average	4.2

Rating Scale: 1 to 9

1 = no symptoms 9 = dead plants

Values are an average of 3 ratings

The trial was planted late (July 18) because the original planting did not work out.



### **Location Information, 2014**

	Wisner	Forestville	Sandusky	Pigeon	Frankenmuth	Freeland	AuGres**
Grower	Vader	Maurer	Wadsworth	Trost	SVREC	Shaffner	Schutte
Trial Quality	Good	Good	Good	Good	Good	Good	Fair-Poor
Planted	May 8	May 27	June 4, Replant	May 28	April 28	May 6	May 29
Harvested	Oct 22	Sept 29	Sept 25	Oct 8	Sept 23	Oct 24	Oct 29
Soil Type	Sandy Clay Loam	Sandy Loam	Loam	Clay Loam	Clay Loam	Clay Loam	Sandy Loam
Soil pH	7.7	7.5	5.8	7.7	7.7	7.4	7.1
Soil OM	3.0%	3.5%	2.9%	2.7%	2.9%	3.1%	2.1%
Phosphorus	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Optimum	Abv. Optimum
Potassium	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Below Optimum	Abv. Optimum
Magnesium	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum	Abv. Optimum
Manganese	High	High	High	High	High	Medium	Medium
Boron	High	Medium	Very Low	Medium	Medium	Low	Very Low
Zinc	Medium	Medium	High	Medium	Medium	Medium	High
Nitrogen Added	124 lbs	124 lbs	130 lbs	111 lbs	125 lbs	130 lbs	105 lbs

Seasonal Rainfall*								
April					0.94			
May	2.57	3.26	3.39	3.80	3.08	2.32	0.0	
June	2.45	1.94	2.46	3.36	2.74	2.38	3.85	
July	3.00	2.45	4.65	4.46	4.79	2.60	3.52	
August	4.04	6.16	3.64	2.14	4.04	5.10	7.94	
September	2.72	4.28	5.38	5.93	3.23	4.16	3.07	
October	2.30			0.42		2.48	4.24	
Total	17.08	18.09	19.52	20.11	18.82	19.04	22.62	

<sup>\*</sup> Rainfall amounts included from month of planting to the date of harvest at each location.

<sup>\*\*</sup> This trial was not used for variety approval because of poor emergence.

### **PRESENTED IN PARTNERSHIP**









### **EDUCATION**

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



Michigan Sugar Company 2600 South Euclid Avenue Bay City, MI 48706

### **RETURN SERVICE REQUESTED**

### **BROUGHT TO YOU BY THESE PARTNERS:**





