MICHIGAN SUGARBEET REACh
Research Education Advisory Council

2011 Variety Trial Results
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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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Approval of Seed Varieties for the 2012 Crop

Subject to it being lawful to purchase, receive, distribute and plant the varieties specified, the Seed Committee and Board of Michigan Sugar Company approved quantities of seed for commercial planting of the following varieties for the 2012 crop:

FULLY APPROVED VARIETIES		
Unlimited Quantities		
HM-27RR	HM-133RR	SX-1260RR *This approved variety's last year to plant is 2013.*
SX-1291RR	HM-173RR	
HM-131RR	SX-1281RR	

LIMITED APPROVED VARIETIES	
Quantities not limited for 2012	
C-RR086	C-RR059
B-10RR34	C-RR074NT

SPECIALTY APPROVED VARIETIES	
Variety	**Specialty**
HM-28RR	Rhizoctonia
B-18RR4N	Nematode
B-17RR32	High Sugar
C-RR827	High Sugar
C-RR824	High Sugar
B-19RR90	High Sugar
B-19RR1N	Nematode

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Summary of Data

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Official Variety Trials • Varieties for 2012

2010-2011 Data

Variety	Approval Status	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Emerg	Cerc	Root Aphid	Rhizoc	Aph
B-19RR1N	Special Approval	$2,041	9198	264.9	34.8	18.0	94.9	Good	Poor	Fair+	Fair	Good+
B-18RR4N	Special Approval	$2,034	9179	266.5	33.1	18.1	94.8	Fair+	Poor	Fair	Fair	Good+
C-RR827	Special Approval	$2,028	9169	277.1	33.2	18.8	94.5	Fair	Poor	Good	Poor	Good-
C-RR824	Special Approval	$1,963	8862	261.5	34.0	17.9	94.4	Fair+	Poor	Good-	Poor	Good-
C-RR074NT	Limited Approval	$1,955	8813	265.8	33.2	18.2	94.4	Fair+	Fair-	Good-	Fair	Good
B-17RR32	Special Approval	$1,947	8709	254.6	34.3	17.5	94.3	Fair	Poor	Good-	Poor	Good
C-RR059	Limited Approval	$1,916	8651	268.3	32.3	18.3	94.4	Good-	Fair-	Fair+	Good	Good-
B-10RR34	Limited Approval	$1,870	8440	265.4	31.9	18.0	94.7	Fair+	Fair+	Fair	Good-	Poor+
B-19RR90	Special Approval	$1,831	8226	263.9	31.3	18.1	94.3	Good-	Fair	Good	Fair	Good
HM-28RR	Special Approval	$1,828	8165	251.8	32.6	17.3	94.3	Good-	Fair+	Fair	Good	Fair-
SX-1260RR	Full Approval	$1,828	8176	252.1	32.5	17.3	94.3	Fair+	Fair	Fair	Fair-	Fair
HM-173RR	Full Approval	$1,811	8059	253.8	31.9	17.6	93.9	Good	Good-	Fair+	Fair-	Good
C-RR086	Limited Approval	$1,789	8019	262.4	30.7	18.1	94.2	Fair+	Good-	Good-	Good	Poor+
SX-1291RR	Full Approval	$1,787	8044	257.2	31.4	17.7	94.3	Good	Fair+	Fair-	Good-	Fair
SX-1281RR	Full Approval	$1,764	7906	258.5	30.7	17.8	94.1	Fair	Good-	Fair+	Fair	Fair
HM-131RR	Full Approval	$1,759	7907	259.8	30.6	18.0	93.9	Fair-	Good	Good	Fair	Fair
HM-133RR	Full Approval	$1,743	7827	262.6	29.9	18.1	93.9	Fair	Good	Good-	Fair	Fair-
HM-27RR	Full Approval	$1,723	7711	256.2	30.2	17.6	94.3	Fair-	Fair+	Poor	Good	Poor+
Average		$1,861	8365	261.2	32.1	17.9	94.3					
LSD 5%		117.2	585.4	9.1	1.9	0.5	0.3					
CV%		3.0	3.3	1.7	2.8	1.3	0.2					

$/Acre: Gross dollars per acre assuming $60 payment

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Official Varieties for 2012

2010-2011 Data

Variety	Approval Status	$/Acre	Values are % of Check					Comments
			RWSA	RWST	Cerc	Rhizoc	Root Aphid	
B-19RR1N	Special Approval	$2,041	111.7	103.9	119	100	72	Fair Rhizoc / Poor Cercospora
B-18RR4N	Special Approval	$2,034	111.5	104.6	121	101	145	Fair Rhizoc / Poor Cercospora
C-RR827	Special Approval	$2,028	111.4	108.7	134	110	8	Poor Rhizoc / Poor Cercospora
C-RR824	Special Approval	$1,963	107.6	102.6	119	105	31	Poor Rhizoc / Poor Cercospora
C-RR074NT	Limited Approval	$1,955	107.0	104.3	113	99	31	Fair Rhizoc / Fair- Cercospora
B-17RR32	Special Approval	$1,947	105.8	99.9	120	105	61	Poor Rhizoc / Poor Cercospora
C-RR059	Limited Approval	$1,916	105.1	105.3	111	84	75	Good Rhizoc / Fair- Cercospora
B-10RR34	Limited Approval	$1,870	102.5	104.1	93	93	152	Good- Rhizoc / Fair+ Cercospora
B-19RR90	Special Approval	$1,831	99.9	103.5	100	100	5	Fair Rhizoc / Fair Cercospora
HM-28RR	Special Approval	$1,828	99.2	98.8	95	89	174	Good Rhizoc / Fair+ Cercospora
SX-1260RR	Full Approval	$1,828	99.3	98.9	97	102	140	Fair- Rhizoc / Fair Cercospora
HM-173RR	Full Approval	$1,811	97.9	99.6	89	102	76	Fair- Rhizoc / Good- Cercospora
C-RR086	Limited Approval	$1,789	97.4	103.0	89	83	41	Good Rhizoc / Good- Cercospora
SX-1291RR	Full Approval	$1,787	97.7	100.9	93	94	232	Good - Rhizoc / Fair+ Cercospora
SX-1281RR	Full Approval	$1,764	96.0	101.4	90	97	89	Fair Rhizoc / Good- Cercospora
HM-131RR	Full Approval	$1,759	96.0	101.9	85	97	19	Fair Rhizoc / Good Cercospora
HM-133RR	Full Approval	$1,743	95.1	103.0	85	97	37	Fair Rhizoc / Good Cercospora
HM-27RR	Full Approval	$1,723	93.7	100.5	95	86	405	Good Rhizoc / Fair+ Cercospora

$/Acre: Gross dollars per acre assuming $60 payment.
A lower value is better for Cercospora, Rhizoctonia and Root Aphid

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Rhizoctonia & Cercospora
Varieties for 2012 • Average of 2 Years

Rhizoctonia

Variety	All Values Are % of Check				Comments
	Rhizoc	RWSA	RWST	Cerc	
C-RR086	82.9	97.4	103.0	89.0	Weak on Aph
C-RR059	84.0	105.1	105.3	110.8	A little weak on Cercospora
HM-27RR	85.8	93.7	100.5	95.1	Weak on Rt Aphid and Aph
HM-28RR	88.9	99.2	98.8	95.4	Good field performance
B-10RR34	92.7	102.5	104.1	92.6	Weak on Aph
SX-1291RR	93.8	97.7	100.9	92.9	A little weak on Rt Aphid
HM-133RR	96.5	95.1	103.0	85.3	Well balanced variety
SX-1281RR	96.9	96.0	101.4	89.5	Well balanced variety
HM-131RR	97.2	96.0	101.9	85.3	Well balanced variety

Cercospora

Variety	All Values Are % of Check				Comments
	Cerc	RWSA	RWST	Rhizoc	
HM-133RR	85.3	95.1	103.0	96.5	Well balanced variety
HM-131RR	85.3	96.0	101.9	97.2	Well balanced variety
C-RR086	89.0	97.4	103.0	82.9	Weak on Aph
HM-173RR	89.1	97.9	99.6	101.8	A little weak on Rhizoc
SX-1281RR	89.5	96.0	101.4	96.9	Well balanced variety
B-10RR34	92.6	102.5	104.1	92.7	Weak on Aph
SX-1291RR	92.9	97.7	100.9	93.8	A little weak on Rt Aphid
HM-27RR	95.1	93.7	100.5	85.8	Weak on Rt Aphid
HM-28RR	95.4	99.2	98.8	88.9	Well balanced variety

NOTE: A lower value is better for Cercospora and Rhizoctonia

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High Sugar & Cyst Nematode
Varieties for 2012 • Average of 2 Years

High Sugar

Variety	All Values Are % of Check				Comments
	RWST	RWSA	Rhizoc	Cerc	
C-RR827	108.7	111.4	110.1	134.2	Poor on Cerc and Rhizoc
C-RR059	105.3	105.1	84.0	110.8	A little weak on Cerc
B-18RR4N	104.6	111.5	100.7	120.9	Nematode Var. Poor on Cerc Fair on Rhizoc
C-RR074NT	104.3	107.0	98.5	112.9	Nematode Var. Fair- on Cerc and Fair on Rhizoc
B-10RR34	104.1	102.5	92.7	92.6	Weak on Aph
B-19RR1N	103.9	111.7	100.1	119.4	Nematode Var. Poor on Cerc and Fair on Rhizoc
B-19RR90	103.5	99.9	99.6	99.5	Fair on Cerc and Rhizoc
HM-133RR	103.0	95.1	96.5	85.3	Well balanced variety
C-RR086	103.0	97.4	82.9	89.0	Weak on Aph
C-RR824	102.6	107.6	104.7	118.8	Poor on Cerc and Rhizoc
HM-131RR	101.9	96.0	97.2	85.3	Well balanced variety

Cyst Nematode

Variety	All Values Are % of Check					Comments
	Nem	RWSA	RWST	Rhizoc	Cerc	
B-18RR4N	63	111.5	104.6	100.7	120.9	Weak on Cerc and Fair on Rhizoc
B-19RR1N	68	111.7	103.9	100.1	119.4	Weak on Cerc and Fair on Rhizoc
C-RR074NT	70	107.0	104.3	98.5	112.9	Fair- on Cerc and Fair on Rhizoc

NOTE: A lower value is better for Nematode, Cercospora and Rhizoctonia

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Variety Approval "Points" System
A Variety Evaluation Tool • 2011 Data

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 easily be found. Varieties accumulate approval points based on RWSA, RWST, Cercospora, Rhizoctonia, Root Aphid, Rhizomania and emergence levels.

Variety	RWSA	RWST Actual	3X RWST Variance	Higher Points are Better					Total Points	Points % ck
				Cerc	Rhizoc	R Aph	Rzm	Emerg		
C-RR086	100.4	105.3	16.0	5	10.0	5	1.5	0	137.9	120.0
B-10RR34	100.7	105.1	15.3	6	9.5	4	2.0	0	137.5	119.7
C-RR059	103.8	104.1	12.2	1	9.5	5	2.0	0	133.6	116.3
SX-1291RR	98.6	102.9	8.8	5	9.0	3	2.5	2	128.9	112.2
B-19RR90	101.1	103.7	11.0	3	5.0	5	1.5	-1	125.7	109.4
HM-133RR	95.9	103.1	9.3	6	8.0	5	1.5	-1	124.7	108.6
HM-131RR	96.8	103.3	9.8	6	9.5	5	2.0	-5	124.2	108.1
C-RR074NT	100.6	102.7	8.1	1	7.5	5	1.5	0	123.7	107.7
HM-173RR	99.9	99.7	-1.0	6	8.0	5	2.0	3	122.9	107.0
C-RR827	108.7	107.8	23.3	-18	3.5	5	2.0	-2	122.5	106.6
SX-1281RR	97.1	101.3	3.9	6	7.0	4	2.5	-1	119.5	104.0
SX-1260 RR	99.6	100.3	0.8	4	7.5	4	2.0	1	118.9	103.5
HM-28RR	98.5	98.2	-5.4	5	9.5	4	2.5	4	118.1	102.8
B-19RR1N	107.9	103.0	9.1	-16	7.5	5	1.5	1	115.9	100.9
HM-27RR	94.9	100.8	2.4	4	10.0	1	2.0	-4	110.3	96.0
C-RR824	105.1	102.5	7.5	-18	7.0	5	2.0	1	109.7	95.5
B-18RR4N	108.4	102.3	7.0	-18	7.0	4	1.5	-1	109.0	94.9
B-17RR32	106.1	99.0	-3.1	-14	6.5	5	2.5	-3	99.9	87.0

NOTE: % check (B-32, HM-28, SX-1260, HM-50) = 100 X .9919 = 99.19 (approval level)

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Official Variety Trials

Average of Four Locations • 2011

Trial Quality: Good to Excellent
Locations: Reese, Pigeon, Ruth and Sandusky
Planted: May 5 to June 2
Harvested: October 3 to October 12

Rhizoc Control: 2 Quadris Applications Good Control
Cerc Control: 3 or 4 Applications Good Control
Seasonal Rainfall: Average 14 inches

Plot Size: 2 rows x 38 feet
Reps: 8
Row Spacing: 22-inch
Seeding Rate: 2 inch spacing thinned to 150 beets/100 feet

			RWST		Yield		Sugar		CJP	
Variety	$/Acre	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-18RR4N	**$2,090**	**8730**	251	13	**34.7**	**2**	17.2	14	**94.6**	**3**
B-19RR1N	**$2,085**	**8684**	253	8	**34.3**	**3**	17.3	13	**94.7**	**1**
C-RR827	**$2,084**	**8751**	**265**	**1**	33.1	5	**18.2**	**1**	94.3	5
B-17RR32	**$2,070**	**8539**	243	18	**35.1**	**1**	16.9	18	94.0	15
C-RR824	**$2,021**	**8463**	252	12	**33.6**	**4**	17.4	11	94.2	10
C-RR059	**$1,992**	**8359**	256	4	32.6	8	17.6	4	94.2	6
HM-173RR	$1,961	8041	245	17	32.9	7	17.1	16	93.8	19
C-RR074NT	$1,953	8098	252	10	32.2	10	17.4	9	94.2	11
B-19RR90	$1,953	8144	255	5	32.0	11	17.6	6	94.1	14
C-RR086	$1,943	8082	**259**	**2**	31.3	15	**17.8**	**2**	**94.3**	**4**
SX-1260 RR	$1,940	8017	246	16	32.5	9	17.0	17	94.2	7
B-10RR34	$1,938	8106	**258**	**3**	31.4	12	17.6	3	**94.6**	**2**
HM-28RR	$1,929	7931	241	19	32.9	6	16.7	19	94.1	13
SX-1291RR	$1,898	7935	253	9	31.4	13	17.4	8	94.2	8
SX-1281RR	$1,884	7816	249	14	31.4	14	17.3	12	93.9	16
HM-131RR	$1,870	7798	254	6	30.8	17	17.6	5	93.9	17
HM-133RR	$1,853	7722	253	7	30.5	19	17.6	7	93.8	18
HM-27RR	$1,847	7640	247	15	30.9	16	17.1	15	94.2	9
HM-50RR	$1,846	7720	252	11	30.6	18	17.4	10	94.1	12
Average	$1,956	8006	248		32.2		17.2		94.0	
LSD 5%	116.1	451.3	6.6		1.5		0.4		0.4	
CV %	4.3	4.0	1.9		3.4		1.5		0.3	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:

Very good trials in 2011. Yields were very high considering the late planting and early October harvest. Sugar levels were a little low, probably due to the shorter season. The statistics for these trials looked very good, low LSDs and CVs. Information from these trials is considered to be very reliable.

2011 Variety Trial Averages
Averages of Six Locations

FARMS: Humm Farms (Breckenridge), Fox Farms (Dover, Ontario), Meylan Farms (Auburn), Mowry Farms (Akron), Randy Sturm Farms (Pigeon), Wadsworth Farms (Sandusky)

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP
B-19RR1N	$1,898	**9137**	289	**31.8**	19.1	**95.9**
C-RR824	$1,858	**8933**	291	**30.9**	19.3	**95.6**
B-18RR4N	$1,857	**8970**	288	**31.2**	19.1	**95.8**
HM-173RR	$1,828	**8814**	287	**30.8**	19.2	95.2
C-RR827	$1,803	**8665**	**302**	29.0	**20.1**	95.4
C-RR808	$1,789	**8600**	**302**	28.7	**20.1**	95.4
HM-28RR	$1,750	8441	278	**30.5**	18.4	**95.8**
C-RR840	$1,743	8404	289	29.2	19.3	95.3
B-19RR90	$1,741	8389	**294**	28.7	**19.6**	95.4
B-17RR32	$1,730	8285	277	**30.2**	18.6	95.3
HM-133RR	$1,728	8278	**295**	28.4	**19.7**	95.3
HM-131RR	$1,707	8217	**297**	27.9	**19.8**	95.4
Average	$1,786	8594	291	29.8	19.4	95.5
LSD 5%	—	539	9	2.0	0.5	0.3
CV %	—	5	3	4.3	2.3	0.3

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:
USE COMBINED DATA WITH CAUTION. The individual trials should be evaluated when performing variety selection. A few of the trials had sugarbeet cyst nematode which would help the "Trial Averages" favor the nematode resistant varieties. Also, a few trials had high levels of Cercospora leafspot which significantly impacted individual trial results. Rhizoctonia, Aphanomyces, emergence and root aphid were also factors in some of these trials.

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Plant to Stand Trials

Average of Three Locations • 2011

Variety	$/Acre	RWSA	RWST		Yield		Sugar		CJP		Beet Pop		Dead Beets		CLS Rate	
			RWST	Rank	T/A	Rank	Sugar	Rank	CJP	Rank	100'	Rank	100'	Rank	0-9	Rank
C-RR827	**$2,022**	**9027**	**288**	**1**	31.8	5	**19.3**	**1**	95.1	9	183	5	**0.4**	**2**	0.8	3
B-18RR4N	**$2,012**	**8970**	273	6	**33.2**	**2**	18.1	8	**95.9**	**1**	171	9	**0.1**	**10**	**1.2**	**1**
C-RR824	**$1,997**	**8858**	273	5	**32.9**	**3**	18.3	6	95.3	7	**187**	**4**	**0.8**	**1**	0.8	4
B-19RR1N	**$1,994**	**8873**	269	9	**33.4**	**1**	17.9	9	**95.7**	**3**	174	7	**0.4**	**3**	**1.1**	**2**
B-17RR32	**$1,930**	**8620**	266	10	**32.6**	**4**	17.8	11	**95.6**	**4**	175	6	**0.1**	**9**	0.7	5
B-19RR90	$1,854	**8261**	**279**	**2**	30.1	8	**18.7**	**2**	95.1	8	166	11	**0.1**	**12**	0.5	10
HM-173RR	$1,828	8109	269	8	30.6	7	18.2	7	95.0	11	**203**	**1**	**0.3**	**5**	0.7	6
HM-28RR	$1,807	8000	262	12	30.9	6	17.5	12	**95.7**	**2**	**192**	**2**	**0.3**	**6**	0.6	8
SX-1281RR	$1,728	7682	272	7	28.7	9	18.3	5	95.0	10	172	8	**0.1**	**13**	0.4	12
HM-133RR	$1,716	7627	275	3	28.3	11	**18.6**	**3**	94.8	12	163	12	**0.2**	**8**	0.4	13
SX-1291RR	$1,691	7485	266	11	28.5	10	17.9	10	95.3	6	**191**	**3**	**0.2**	**7**	0.5	9
HM-131RR	$1,652	7346	273	4	27.4	13	18.5	4	94.7	13	132	13	**0.3**	**4**	0.4	11
HM-27RR	$1,643	7263	260	13	28.1	12	17.5	13	95.4	5	168	10	**0.1**	**11**	0.6	7
Average	$1,836	8163	271.1		30.5		18.2		95.3		175.1		0.3		0.7	
LSD 5%	169.5	812.2	14.0		2.2		0.9		0.4		17.2		0.8		0.3	
CV %	5.5	5.9	3.1		4.3		3.0		0.3		5.8		188.0		31.1	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:
The purpose of the Plant to Stand trials is to evaluate approved sugarbeet varieties using management practices that we recommend to growers. The trials are space planted and not thinned. Fertility levels, weed control, disease control, insect control and other cultural practices are similar to what a good grower would do. By contrast, our OVT trials receive higher maintenance than growers fields.

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Official Variety Trials Emergence

Average of 2 Years • 2010-2011

Trial Quality: Good
Locations: Total of 8 locations
Plot Size: 2 rows x 38 feet
Reps: 8
Seeding Rate: 2010: 2 inches
2011: 100 seeds planted per plot

Variety	Avg 2 yrs % Emerg	2010 % Emerg	2011 % Emerg
B-19RR1N	69.5	79.3	59.8
SX-1291RR	67.8	74.0	61.7
HM-173RR	67.1	70.2	64.0
HM-28RR	65.3	65.8	64.9
B-19RR90	65.2	74.9	55.6
C-RR059	65.1	73.2	57.0
C-RR824	63.2	67.9	58.6
SX-1260RR	63.1	66.6	59.7
B-10RR34	62.5	71.9	53.0
C-RR086	61.4	67.0	55.9
B-18RR4N	61.2	67.2	55.2
C-RR074NT	59.9	70.3	49.5
HM-50RR	59.3	64.3	54.3
B-17RR32	58.5	66.1	50.9
C-RR827	58.5	63.3	53.7
HM-133RR	58.5	61.1	55.9
SX-1281RR	57.7	60.7	54.7
HM-27RR	56.3	63.4	49.1
HM-131RR	55.2	61.9	48.5
Average	61.9	67.9	55.9

Sugarbeet Advancement

2011 Variety Trials Emergence
First and Final Counts for Five Locations

FIRST COUNTS	Cedar Pond	Fox	Meylan	Sturm	Wadsworth	
Plant Date	**4/15/11**	**5/12/11**	**5/5/11**	**5/9/11**	**5/9/11**	
Count Day	**17**	**12**	**12**	**11**	**11**	**Average**
HM-131RR	**34**	**211**	**147**	**172**	**222**	**157**
C-RR827	**36**	191	**162**	140	**217**	**149**
HM-133RR	**25**	204	**158**	**150**	**208**	**149**
C-RR824	**25**	**217**	**145**	**148**	**205**	**148**
HM-173RR	1	**215**	**149**	123	174	**132**
HM-28RR	0	**228**	137	132	155	**130**
C-RR840	3	174	116	97	178	114
C-RR808	**18**	189	132	95	134	114
B-18RR4N	1	198	138	114	106	111
B-19RR90	4	**213**	120	80	140	111
B-17RR32	5	**212**	98	95	136	109
B-19RR1N	0	200	128	96	117	108
Average	13	204	136	120	166	128
LSD 5%	17	20	20	28	36	24
CV %	76	6	9	14	13	15

FINAL COUNTS	Cedar Pond	Fox	Meylan	Sturm	Wadsworth	
Count Day		**39**	**27**	**29**	**25**	**Average**
HM-28RR		**231**	**224**	**207**	191	**213**
HM-133RR		204	**216**	**191**	**230**	**210**
HM-131RR		213	**212**	**206**	198	**207**
C-RR824	**Trial abandoned due to field being replanted.**	**221**	191	**198**	**217**	**207**
C-RR827		193	**213**	**195**	**224**	**206**
HM-173RR		**221**	201	**195**	204	**205**
BTS-19RR1N		212	**207**	**185**	**212**	**204**
B-18RR4N		205	**213**	**186**	201	**201**
C-RR808		196	203	180	194	193
B-19RR90		**217**	185	164	206	193
B-17RR32		214	173	162	183	183
C-RR840		176	174	160	201	178
Average	—	209	201	186	205	200
LSD 5%	—	16	19	23	18	18
CV %	—	5	6	7	5	6

Comments: The Mowry trial was not included in the summary because it was crust-busted prior to any counts. The Humm trial was not included because wheel tracks from fertilizer spreading impacted the emergence of some strips.

Sugarbeet Advancement

2011 Variety Trials
Rhizoctonia Dead Beet Counts, Six Locations

August Counts of Dead Beets per 1,200 Foot of Row

Variety	Fox	Humm	Meylan	Mowry	Sturm	Wadsworth	Average
HM-173RR	**4**	**1**	**5**	**0**	**2**	**12**	4
HM-133RR	**6**	**1**	**4**	**1**	**7**	**15**	6
HM-28RR	**9**	**0**	**4**	**4**	**5**	**22**	7
HM-131RR	**6**	**1**	**3**	**1**	**14**	**22**	8
C-RR840	**8**	**1**	**32**	**0**	**6**	**46**	16
B-17RR32	**35**	**3**	48	**0**	**61**	163	52
B-19RR1N	**33**	**0**	78	**0**	110	**106**	55
C-RR827	**25**	**0**	83	**0**	**86**	155	58
B-18RR4N	**36**	**2**	54	**2**	**66**	202	60
B-19RR90	**13**	**0**	**41**	**2**	121	218	66
C-RR824	**23**	**0**	92	**1**	**57**	287	77
C-RR808	**18**	**0**	129	15	122	307	99
Average	18	1	48	2	55	130	42
LSD 5%	33	3	42	13	92	133	—
CV %	110	230	52	349	100	60	—

Averages of the 3 Trials With Significant Levels of Rhizoctonia

Variety	Meylan	Sturm	Wadsworth	Average
HM-173RR	**5**	**2**	**12**	**6**
HM-133RR	**4**	**7**	**15**	**9**
HM-28RR	**4**	**5**	**22**	**10**
HM-131RR	**3**	**14**	**22**	**13**
C-RR840	**32**	**6**	**46**	**28**
B-17RR32	48	**61**	163	91
B-19RR1N	78	110	106	98
C-RR827	54	**66**	202	107
B-18RR4N	83	**86**	155	108
B-19RR90	**41**	121	218	127
C-RR824	92	**57**	287	145
C-RR808	129	122	307	186
Average	48	55	130	77
LSD 5%	42	92	133	77
CV %	52	100	60	59

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

EAST DISTRICT TRIALS

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Official Variety Trial

Buckley Creek Farms, Harbor Beach, MI • 2011

Trial Quality: Very Good
Location: Huron County
Planted: June 2
Harvested: October 6
Plot Size: 2 rows X 38', 8 reps
Row Spacing: 22-inch
Seeding Rate: 2 inches thinned to 150 beets/100 ft

Soil Info: Loam, 3.7% OM, 7 pH
Previous Crop: Wheat/Clover
Fert Levels: Above optimum
Micros: B low, Mn adequate
Added N: 123 lbs
Seasonal Rainfall: 11.7 inches

Disease Control: 2X Quadris, Rhizoc control good, 3X Cerc sprays, control good
Insect Problems: Nothing significant, sprayed Asana for lygus bugs

Variety	$/Acre	RWSA	RWST		Yield		Sugar		CJP	
			Actual	Rank	T/A	Rank	%	Rank	%	Rank
C-RR827	**$2,033**	**7978**	**249**	**2**	**32.1**	**2**	**17.5**	**1**	**93.3**	**6**
B-17RR32	**$1,965**	**7711**	227	18	**33.9**	**1**	16.3	18	92.6	15
B-18RR4N	**$1,948**	**7644**	239	8	32.0	3	16.8	13	**93.6**	**2**
B-19RR1N	**$1,946**	**7636**	**243**	**5**	31.3	6	17.0	5	**93.8**	**1**
C-RR059	**$1,943**	**7624**	**245**	**3**	31.2	7	**17.2**	**4**	**93.3**	**5**
B-10RR34	**$1,936**	**7598**	**249**	**1**	30.5	11	**17.5**	**2**	**93.5**	**3**
B-19RR90	$1,918	7524	**244**	**4**	30.9	9	**17.2**	**3**	93.1	8
C-RR824	$1,887	7406	235	12	31.5	5	16.7	14	93.0	11
C-RR074NT	$1,886	7399	239	7	31.0	8	17.0	6	93.0	10
HM-28RR	$1,846	7245	227	19	31.9	4	16.3	19	92.8	12
SX-1291RR	$1,822	7150	235	11	30.4	13	16.8	10	92.7	14
SX-1260 RR	$1,819	7138	232	14	30.7	10	16.4	17	**93.4**	**4**
C-RR086	$1,803	7076	240	6	29.6	15	16.9	8	**93.2**	**7**
HM-173RR	$1,798	7056	232	16	30.5	12	16.6	15	92.8	13
HM-131RR	$1,782	6990	232	15	30.1	14	16.8	12	92.2	19
HM-27RR	$1,762	6913	239	9	29.0	17	16.9	9	93.0	9
HM-133RR	$1,751	6871	236	10	29.1	16	17.0	7	92.5	18
HM-50RR	$1,673	6564	234	13	28.0	19	16.8	11	92.6	16
SX-1281RR	$1,649	6469	229	17	28.2	18	16.5	16	92.5	17
Average	$1,851	7252	235		30.8		16.8		92.9	
LSD 5%	114.8	450.4	8.3		1.8		0.4		0.6	
CV %	6.3	6.3	3.6		6.1		2.6		0.6	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:
Very good trial. No significant problems. Very good yield considering June 2 planting date. Sugar levels were low due to planting date and 123 pounds of nitrogen following clover.

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Official Variety Trial

Stoutenburg Farms, Sandusky, MI • 2011

Trial Quality: Good
Location: Sanilac County
Planted: May 9
Harvested: October 8
Plot Size: 2 rows X 38', 8 reps
Row Spacing: 22-inch
Seeding Rate: 2" thinned to 150 beets/100 ft

Soil Info: Loam, 3.9% OM, 7.2 pH
Previous Crop: Dry beans
Fert Levels: Above optimum
Micros: B low, Mn low-medium
Added N: 100 lbs
Seasonal Rainfall: 15 inches

Disease Control: 2X Quadris, Rhizoc control good, 3X Cerc sprays, control good
Insect Problems: Cutworms, sprayed with Asana

Variety	$/Acre	RWSA	RWST		Yield		Sugar		CJP	
			Actual	Rank	T/A	Rank	%	Rank	%	Rank
C-RR827	**$2,115**	**8499**	**267**	**1**	**31.8**	**4**	**18.0**	**1**	**95.0**	**4**
B-18RR4N	$1,950	7833	239	15	**32.7**	**1**	16.3	16	**94.8**	**8**
B-19RR1N	$1,930	7754	242	13	**32.0**	**3**	16.4	14	**95.2**	**2**
C-RR824	$1,917	7701	247	8	**31.3**	**7**	16.9	8	94.7	9
B-17RR32	$1,910	7673	235	18	**32.6**	**2**	16.2	18	94.5	12
C-RR074NT	$1,908	7665	243	12	**31.4**	**6**	16.8	11	94.3	17
C-RR086	$1,907	7663	**261**	**2**	29.3	12	**17.6**	**2**	**95.1**	**3**
HM-173RR	$1,875	7535	237	17	**31.7**	**5**	16.5	13	94.0	19
B-19RR90	$1,870	7512	250	3	30.0	11	17.1	3	94.5	14
SX-1281RR	$1,853	7445	247	6	30.1	10	17.0	5	94.4	15
SX-1260 RR	$1,833	7364	240	14	30.6	9	16.4	15	**94.8**	**6**
HM-28RR	$1,805	7252	233	19	**31.1**	**8**	16.0	19	94.5	11
C-RR059	$1,788	7184	246	9	29.1	13	16.8	10	94.7	10
HM-50RR	$1,760	7073	246	10	28.7	14	16.9	9	94.5	13
B-10RR34	$1,753	7043	245	11	28.7	15	16.6	12	**95.3**	**1**
HM-133RR	$1,731	6954	247	7	28.1	17	17.0	6	94.4	16
HM-131RR	$1,725	6932	247	5	28.0	18	17.1	4	94.3	18
SX-1291RR	$1,721	6916	248	4	28.0	19	16.9	7	**94.9**	**5**
HM-27RR	$1,685	6769	238	16	28.4	16	16.3	17	**94.8**	**7**
Average	$1,844	7409	245		30.2		16.8		94.7	
LSD 5%	132.9	534.1	9.0		1.8		0.5		0.5	
CV %	7.6	7.6	3.8		6.1		3.1		0.5	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:

This was a good quality trial. There were some problems with cutworms early in the season and Asana was applied before thinning. The final stand was good. The trial was harvested October 8, and the sugar content was a little low but tons are high. There were no problems with diseases.

Sugarbeet Advancement

Variety Trial

Fox Farms, Dover, Ontario • 2011

Trial Quality: Good
Location: Dover, Ontario
Planted: May 12
Previous Crop: Wheat/Clover
Soil Type: Clay Loam

Spacings: Rows-30"; Seeds 49,500/A
Fertilizer: Fall: 75 Lbs MAP/250 Lbs K2O; Planting - 10 Gal 28% in 10" Band; Sidedress 75 Lbs N
Tillage: Moldboard; Spring 2x Triple K
Harvest Date: November 7

Sample Date: November 7
Herbicides: 2x Glyphosate
Replicated: 3x
Fungicide: 64 DSV - Headline
123 DSV - Proline
183 DSV - Headline

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Dead Beets/ 1,200 Ft
							12 Day	19 Day	39 Day	Harv	
C-RR824	$2,305	**9935**	256	**38.8**	17.2	**95.5**	**217**	**208**	**221**	**207**	**23**
HM-28RR	$2,304	**9931**	**260**	**38.2**	17.4	**95.8**	**228**	**217**	**231**	**211**	**9**
B-17RR32	$2,219	**9567**	245	**39.0**	16.7	95.0	**212**	**205**	214	**196**	**35**
B-19RR1N	$2,183	**9419**	249	**37.8**	16.7	**95.6**	200	**222**	212	**195**	**33**
HM-173RR	$2,175	9379	257	36.5	17.3	95.3	**215**	**209**	**221**	**205**	**4**
B-18RR4N	$2,159	9307	248	37.5	16.6	**96.0**	198	**211**	205	186	**36**
HM-131RR	$2,143	9240	**268**	34.4	**18.1**	95.1	**211**	**208**	213	**195**	**6**
C-RR840	$2,134	9203	**268**	34.3	**18.1**	95.2	174	**208**	176	133	**8**
C-RR827	$2,126	9166	**260**	35.3	**17.7**	94.8	191	**208**	193	169	**25**
HM-133RR	$2,114	9118	**268**	34.1	**17.9**	95.4	204	**198**	204	**195**	**6**
C-RR808	$2,089	9010	**261**	34.5	**17.7**	95.0	189	**201**	196	162	**18**
B-19RR90	$2,058	8875	**263**	33.7	**17.8**	95.0	**213**	**220**	**217**	182	**13**
Average	$2,167	9346	259	36.2	17.4	95.3	204	210	209	186	18
LSD 5%	—	518	10	1.5	0.6	0.5	20	28 NS	16	24	33 NS
CV %	—	3	2	2.4	1.9	0.3	6	8	5	8	110

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Excellent
Rhizoctonia: Low
Quadris App: In Furrow
Cerc Leafspot: Heavy
Nematodes: None
Weather: —

Comments:
High level of late season Cercospora leafspot significantly reduced sugar quality.
The most susceptible leafspot varieties appear to be highly impacted.

Sugarbeet Advancement

Variety Trial

Wadsworth Farms Inc., Sandusky, MI • 2011

Trial Quality: Good
Location: Sanilac County
Planted: May 9
Previous Crop: Dry Beans
Soil Type: Loam

Spacings: Rows-28"; Seeds 57,000/A
Fertilizer: 2x2 - 240 Lbs 14-19-3 + Micros; Sidedress - 80 Lbs N ; Fall Potash
Tillage: Fall Dominator, Stale Seedbed
Harvest Date: November 5

Sample Date: October 17
Herbicides: 3x Glyphosate
Replicated: 3x
Fungicide: 70 DSV - Proline
135 DSV - Gem
185 DSV - Eminent

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Rhiz 1,200 Ft of Row
							11 Day	20 Day	25 Day	Harv	
B-19RR1N	$1,789	**8732**	**298**	**29.3**	19.6	**96.2**	117	—	212	—	**106**
B-18RR4N	$1,698	**8300**	291	**28.5**	19.3	**95.8**	106	—	201	—	202
C-RR827	$1,652	**8070**	**305**	26.4	**20.3**	95.4	**217**	—	**224**	—	155
B-17RR32	$1,563	7632	283	**26.9**	18.9	**95.6**	136	—	183	—	163
C-RR824	$1,562	7644	290	26.3	19.3	95.5	**205**	—	**217**	—	287
B-19RR90	$1,561	7620	**301**	25.3	**20.0**	**95.6**	140	—	206	—	218
C-RR840	$1,521	7405	291	25.6	19.5	95.3	178	—	201	—	**46**
HM-173RR	$1,499	7323	282	26.0	19.0	95.1	174	—	204	—	**12**
C-RR808	$1,482	7240	**301**	24.0	**20.1**	95.4	134	—	194	—	307
HM-133RR	$1,450	7101	**300**	23.6	**19.8**	**95.7**	**208**	—	**230**	—	**15**
HM-28RR	$1,420	6937	278	24.9	18.5	**95.6**	155	—	191	—	**22**
HM-131RR	$1,396	6821	**295**	23.1	**19.8**	95.2	**222**	—	198	—	**22**
Average	$1,549	7569	293	25.8	19.5	95.5	166	—	205	—	130
LSD 5%	—	824	12	2.6	0.7	0.7	36	—	18	—	133
CV %	—	6	2	6.0	2.2	0.4	13	—	5	—	60

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Good
Rhizoctonia: Moderate
Quadris App: In Furrow & 6-8 Leaf
Cerc Leafspot: Excellent Control
Nematodes: None confirmed, but suspected, based on results
Weather: Heavy early season rainfall

Comments:
Trial experienced excessive early season rainfall. Some seedling disease was present, but not at high levels. Rhizoctonia pressure was moderate.

CENTRAL DISTRICT TRIALS

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Official Variety Trial

Trost Farms, Pigeon, MI • 2011

Trial Quality: Excellent
Location: Huron County
Planted: May 11
Harvested: October 3
Plot Size: 2 rows X 38', 8 reps
Row Spacing: 22-inch
Seeding Rate: 2 inch thinned to 150 beets/100 ft

Soil Info: Clay loam, 3.8% OM, 7.6 pH
Previous Crop: Corn
Fert Levels: Above optimum
Micros: Adequate
Added N: 92 lbs
Seasonal Rainfall: 15.3 inches

Disease Control: 2X Quadris, Rhizoc control good, 4X Cerc sprays, control good
Insect Problems: Sprayed Asana, minor lygus and woolly bear caterpillar injury

			RWST		Yield		Sugar		CJP	
Variety	$/Acre	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-18RR4N	**$2,489**	**10619**	**256**	**5**	**41.5**	1	17.5	9	**94.7**	**3**
B-19RR1N	**$2,424**	**10225**	253	11	**40.4**	**2**	17.3	12	**94.7**	**2**
B-17RR32	**$2,396**	9785	245	17	39.9	3	17.0	16	94.0	18
C-RR824	$2,285	9818	**258**	**3**	38.1	4	**17.6**	**3**	**94.6**	**5**
C-RR059	$2,282	9880	**260**	**2**	38.0	5	**17.8**	**2**	**94.4**	**10**
C-RR827	$2,281	10001	**263**	**1**	38.0	6	**18.1**	**1**	94.2	15
B-19RR90	$2,233	9521	**256**	**6**	37.2	7	17.5	5	**94.5**	**7**
C-RR086	$2,231	9402	253	12	37.2	8	17.4	11	**94.3**	**13**
HM-173RR	$2,215	8830	239	19	36.9	9	16.7	18	93.8	19
C-RR074NT	$2,179	9091	251	13	36.3	10	17.2	13	**94.5**	**9**
HM-28RR	$2,174	8768	242	18	36.2	11	16.7	19	**94.4**	**11**
HM-27RR	$2,172	8956	248	15	36.2	12	17.0	15	**94.5**	**6**
SX-1260 RR	$2,147	8789	246	16	35.8	13	17.0	17	94.2	16
SX-1291RR	$2,140	9126	**256**	**8**	35.7	14	17.5	6	**94.5**	**8**
HM-50RR	$2,139	9131	**256**	**7**	35.6	15	17.5	10	**94.7**	**4**
SX-1281RR	$2,139	8868	249	14	35.6	16	17.2	14	94.2	14
B-10RR34	$2,126	9124	**257**	**4**	35.4	17	17.5	7	**94.8**	**1**
HM-133RR	$2,125	8997	**254**	**10**	35.4	18	**17.6**	**4**	94.1	17
HM-131RR	$2,109	8932	**254**	**9**	35.1	19	17.5	8	**94.3**	**12**

Average	$2,226	9361	252	37.1	17.3	94.4	
LSD 5%	102.6	487.8	9.2	1.7	0.5	0.5	
CV %	4.7	5.4	3.8	4.7	2.8	0.6	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:
Excellent trial, emergence was very good even though seedling disease reduced stands somewhat. Yields were very high and sugars somewhat low, probably due to late planting and early harvest.

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Plant to Stand Trial

Trost Farms, Pigeon, MI • 2011

Trial Quality: Good
Location: Huron County
Planted: May 11
Harvested: October 3
Previous Crop: Corn
Soil Type: Clay Loam

Rhizoc Control: Quadris 2 foliar applications, good control
Cerc Control: 4 applications, good control
Seasonal Rainfall: 15.3 inches

Plot Size: 4 rows x 38 feet
Reps: 6
Row Spacing: 22-inch
Seeding Rate: 4.2 inch spacing

			RWST		Yield		Sugar		CJP		Beet Pop		CLS rate		Dead Beets	
Variety	$/Acre	RWSA	RWST	Rank	T/A	Rank	Sugar	Rank	CJP	Rank	100'	Rank	0-9	Rank	100'	Rank
C-RR824	**$2,457**	**9635**	**241**	**2**	**40.0**	**1**	**16.6**	**4**	**94.2**	**4**	178	4	1.1	4	0.0	12
B-19RR1N	**$2,353**	**9229**	234	8	**39.5**	**2**	16.3	10	**94.0**	**5**	170	7	**1.5**	**2**	0.0	11
B-18RR4N	$2,317	9085	**240**	**3**	37.8	4	16.5	5	**94.7**	**1**	165	10	**1.7**	**1**	0.0	10
C-RR827	$2,293	8993	**249**	**1**	36.2	7	**17.2**	**1**	**94.0**	**6**	171	5	1.2	3	**1.0**	**1**
HM-28RR	$2,264	8879	234	6	38.0	3	16.1	12	**94.4**	**2**	**191**	**2**	0.5	8	0.5	4
HM-173RR	$2,241	8787	**239**	**5**	36.8	6	**16.7**	**3**	93.8	10	**208**	**1**	0.8	6	**0.8**	**2**
B-17RR32	$2,177	8537	232	11	36.9	5	16.0	13	**94.3**	**3**	154	11	0.9	5	0.2	7
B-19RR90	$2,153	8442	**240**	**4**	35.1	10	**16.7**	**2**	**94.0**	**7**	166	9	0.5	11	0.3	6
SX-1291RR	$2,132	8363	233	9	35.9	8	16.3	8	93.8	9	183	3	0.5	9	0.2	8
HM-27RR	$2,100	8234	233	10	35.4	9	16.3	9	93.9	8	170	8	0.6	7	0.3	5
SX-1281RR	$2,069	8114	234	7	34.7	12	16.4	6	93.7	11	171	6	0.5	10	0.2	9
HM-133RR	$2,063	8090	231	12	35.1	11	16.2	11	93.5	12	146	12	0.4	13	0.0	13
HM-131RR	$1,965	7708	230	13	33.5	13	16.3	7	93.1	13	122	13	0.4	12	**0.7**	**3**
Average	$2,199	8623	236		36.5		16.4		94.0		168.8		0.8		0.3	
LSD 5%	136.7	536.1	12.4		1.8		0.6		0.7		17.0		0.3		NS	
CV %	5.4	5.4	4.6		4.3		3.3		0.7		8.7		36.4		326.1	

$/Acre: Gross dollars per acre assuming a $60 payment.

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

Sugarbeet Advancement

Variety Trial

Randy Sturm Farms, Pigeon, MI • 2011

Trial Quality: Excellent
Location: Huron County
Planted: May 9
Previous Crop: Dry Bean
Soil Type: Loam

Spacings: Rows-28"; Seeds 56,000/A
Fertilizer: PPI: 15 Gal 28%, 7 Gal Thiosul, 2 Qt Mn, 1 Qt B; Sidedress 15 Gal 28%
Tillage: Fall-Disc Rip; Spring S Tine 1x
Harvest Date: October 27

Sample Date: October 13
Herbicides: 2x Glyphosate
Replicated: 3x
Fungicide: 53 DSV - Quadris
84 DSV - Proline
151 DSV - Gem
201 DSV - Eminent

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Dead Beets/ 1,200 Ft
							11 Day	20 Day	29 Day	Harv	
B-18RR4N	$1,905	**9006**	**287**	**31.3**	**19.0**	**96.0**	114	—	**186**	162	**66**
HM-28RR	$1,898	**8972**	280	**32.0**	18.6	**95.7**	132	—	**207**	**195**	**5**
B-19RR1N	$1,877	**8872**	**287**	**31.0**	18.9	**96.0**	96	—	**185**	155	110
HM-173RR	$1,836	**8680**	279	**31.1**	18.8	95.1	123	—	**195**	**188**	**2**
HM-131RR	$1,785	8433	**293**	28.7	**19.5**	**95.6**	**172**	—	**206**	194	**14**
C-RR824	$1,775	8393	**283**	29.6	18.9	**95.5**	**148**	—	**198**	**175**	**57**
C-RR840	$1,758	8310	276	30.1	18.5	95.2	97	—	160	149	**6**
B-19RR90	$1,721	8127	**282**	28.9	18.9	95.3	80	—	164	136	121
HM-133RR	$1,707	8069	**286**	28.2	**19.1**	**95.5**	**150**	—	**191**	**178**	**7**
C-RR808	$1,676	7908	**292**	27.2	**19.5**	95.3	95	—	180	139	122
B-17RR32	$1,664	7853	265	29.7	17.8	95.4	95	—	162	140	**61**
C-RR827	$1,645	7778	**294**	26.5	**19.6**	95.4	140	—	**195**	157	**86**
Average	$1,771	8367	284	29.5	18.9	95.5	120	—	186	164	55
LSD 5%	—	462	12	1.8	0.6	0.5	28	—	23	28	92
CV %	—	3	3	3.5	2.0	0.3	14	—	7	10	100

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Excellent
Rhizoctonia: Moderate
Quadris App: Broadcast Quadris on July 1 (late)

Cerc Leafspot: Heavy
Nematodes: None found
Weather: Good

Comments:
Yield and quality of susceptible varieties were affected by a moderate amount of Rhizoctonia root rot and high amounts of Cercospora leafspot. The Rhizoctonia level increased late in the season and was at a higher level than the dead beet counts indicate.

Sugarbeet Advancement

Variety Trial
Mowry Farms, Akron, MI • 2011

Trial Quality: Fair/Good
Location: Tuscola County
Planted: April 18
Previous Crop: Corn
Soil Type: Loam

Spacings: Rows-30"; Seeds 52,000/A
Fertilizer: 2x2 - 40-20-0 (Lbs)+ Micros; 105 Lbs N PPI
Tillage: Moldboard, Spring S Tine 1x
Harvest Date: November 5

Sample Date: October 12
Herbicides: 3x Glyphosate
Replicated: 3x
Fungicide: Proline
Gem
Eminent
Headline

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Dead Beets/ 1,200 Ft
							18 Day	20 Day	36 Day	Harv	
HM-173RR	$2,515	**12171**	**292**	**41.7**	**19.6**	**95.1**	**58**	—	**180**	—	**0**
C-RR808	$2,399	**11606**	**306**	38.0	**20.4**	**95.3**	42	—	142	—	15
B-18RR4N	$2,373	**11491**	**296**	38.8	**19.6**	**95.8**	42	—	**168**	—	**2**
C-RR824	$2,360	**11425**	**294**	38.9	**19.7**	**95.3**	**83**	—	**158**	—	**1**
B-19RR1N	$2,293	11095	288	38.5	19.2	**95.5**	**60**	—	**173**	—	**0**
C-RR840	$2,250	10877	**294**	37.0	**19.6**	**95.4**	50	—	**149**	—	**0**
C-RR827	$2,200	10644	**301**	35.4	**20.1**	**95.3**	**73**	—	133	—	**0**
B-19RR90	$2,194	10608	**299**	35.6	**20.0**	**95.3**	52	—	136	—	**2**
HM-28RR	$2,180	10565	268	**39.4**	18.0	**95.4**	46	—	**162**	—	**4**
HM-133RR	$2,157	10439	278	37.6	18.9	94.6	46	—	136	—	**1**
HM-131RR	$2,115	10233	**297**	34.5	**19.8**	**95.3**	48	—	127	—	**1**
B-17RR32	$2,010	9727	271	35.8	18.6	94.3	18	—	104	—	**0**
Average	$2,254	10907	290	37.6	19.5	95.2	52	—	147	—	2
LSD 5%	—	1011	18	2.7	0.9	0.7	29	—	35	—	13
CV %	—	5	4	4.3	2.9	0.4	34	—	14	—	349

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Poor
Rhizoctonia: Low
Quadris App: In Furrow & 4-6 Leaf

Cerc Leafspot: Excellent control
Nematodes: Detected (low level)
Weather: Heavy rainfall after planting, dry summer

Comments:
Trial population was relatively low and variable because of soil-crusting. The entire trial was crust-busted with a planter. Populations of the fastest emerging varieties may have been reduced by these efforts. The five highest population varieties had the best tonnage.

WEST DISTRICT TRIALS

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Official Variety Trial

Sylvester Farms, Reese, MI • 2011

Trial Quality: Very Good
Location: Tuscola County
Planted: May 5
Harvested: October 8
Plot Size: 2 rows X 38', 8 reps
Row Spacing: 22-inch
Seeding Rate: 2 inches thinned to 150 beets/100 ft

Soil Info: Silt Loam, 2.6% OM, 7.6 pH
Previous Crop: Wheat/Radish
Fert Levels: Optimum or above
Micros: B is low, Mn is adequate
Added N: 135 lbs
Seasonal Rainfall: 14.5 inches

Disease Control: 2X Quadris, Rhizoc control good, 3X Cerc sprays, control good
Insect Problems: Nothing significant, applied Mustang M midseason

			RWST		Yield		Sugar		CJP	
Variety	$/Acre	RWSA	Actual	Rank	T/A	Rank	%	Rank	%	Rank
B-19RR1N	**$2,038**	**9120**	**272**	7	**33.5**	**3**	18.3	13	**95.2**	**2**
B-17RR32	**$2,008**	**8986**	264	18	**34.0**	**1**	18.0	18	94.7	9
C-RR824	**$1,995**	**8927**	267	15	**33.6**	**2**	18.2	14	94.5	16
B-18RR4N	**$1,972**	**8824**	271	11	**32.6**	**5**	18.2	15	**95.3**	**1**
SX-1260 RR	**$1,961**	**8776**	266	16	**33.0**	**4**	18.2	17	94.6	12
C-RR059	**$1,955**	**8747**	271	9	**32.2**	**8**	18.5	7	94.5	14
HM-173RR	**$1,954**	**8744**	270	12	**32.4**	**6**	18.4	8	94.5	15
B-10RR34	**$1,935**	**8657**	**280**	3	30.9	11	**18.9**	**4**	**94.9**	**3**
SX-1291RR	$1,910	8548	**272**	8	31.4	10	18.4	9	**94.8**	**5**
C-RR827	$1,905	8524	**279**	4	30.5	12	**19.0**	**2**	94.6	11
SX-1281RR	$1,896	8482	270	13	31.5	9	18.4	11	94.5	13
HM-28RR	$1,891	8459	262	19	**32.3**	**7**	17.8	19	**94.8**	**7**
HM-131RR	$1,863	8336	**280**	**2**	29.7	17	**19.0**	**3**	**94.8**	**6**
C-RR074NT	$1,841	8235	**275**	**5**	29.9	14	18.6	6	**94.9**	**4**
C-RR086	$1,830	8187	**281**	**1**	29.2	19	**19.1**	**1**	94.6	10
HM-50RR	$1,813	8110	271	10	29.9	15	18.4	10	94.7	8
HM-133RR	$1,803	8068	**275**	**6**	29.4	18	**18.8**	**5**	94.5	17
B-19RR90	$1,792	8018	268	14	29.9	13	18.4	12	94.4	19
HM-27RR	$1,770	7921	266	17	29.8	16	18.2	16	94.4	18
Average	$1,902	8359	268		31.2		18.3		94.6	
LSD 5%	116.9	523.2	8.5		1.9		0.4		0.5	
CV %	6.4	6.4	3.2		6.1		2.5		0.5	

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Comments:
Very good trial. Emergence was good, but there were a few gaps, however, yield CVs were good. High tonnage and good sugars considering the planting and harvest dates. Diseases and insects were not an issue.

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Plant to Stand Trial

Sylvester Farms, Reese, MI • 2011

Trial Quality: Very good
Location: Tuscola County
Planted: May 5
Harvested: October 13
Previous Crop: Wheat/Radish

Rhizoc Control: Quadris 2 foliar applications, good control
Cerc Control: 4 applications, good control
Seasonal Rainfall: 14.54 inches

Plot Size: 4 rows x 38 feet
Reps: 6
Row Spacing: 22-inch
Seeding Rate: 4.2 inch spacing

			RWST		Yield		Sugar		CJP		Beets		CLS rate		Dead Beets	
Variety	$/Acre	RWSA	RWST	Rank	T/A	Rank	%	Rank	%	Rank	100'	Rank	0-9	Rank	100'	Rank
B-18RR4N	**$2,131**	**10162**	285	8	**35.7**	**1**	18.8	12	**96.0**	**2**	**196**	**8**	**1.5**	**1**	0.0	4
B-19RR1N	**$2,117**	**10091**	288	6	**35.0**	**3**	19.0	8	**96.1**	**1**	**209**	**2**	**1.5**	**2**	0.0	5
B-17RR32	**$2,099**	**10007**	283	10	**35.5**	**2**	18.8	11	**95.6**	**3**	**200**	**6**	1.1	5	0.0	7
C-RR827	**$2,067**	**9852**	**298**	**1**	33.1	7	**20.0**	**1**	95.1	8	**198**	**7**	1.1	3	0.0	6
C-RR824	**$2,060**	**9822**	283	9	**34.7**	**4**	18.9	10	95.4	5	**206**	**4**	1.1	4	**2.3**	**1**
HM-173RR	$1,965	9368	282	11	33.2	6	19.1	7	94.8	13	**218**	**1**	1.0	7	0.0	9
HM-28RR	$1,945	9271	278	13	33.4	5	18.6	13	95.4	4	**206**	**3**	1.0	6	0.0	8
B-19RR90	$1,879	8958	282	12	31.8	8	19.0	9	95.1	9	182	10	0.8	10	0.0	11
HM-27RR	$1,873	8930	286	7	31.3	9	19.2	6	95.2	7	178	12	0.9	8	0.0	10
SX-1281RR	$1,851	8824	**290**	**4**	30.5	11	**19.5**	**3**	94.9	12	180	11	0.6	13	0.0	13
SX-1291RR	$1,849	8815	**289**	**5**	30.6	10	19.3	5	95.3	6	**204**	**5**	0.8	9	0.2	2
HM-133RR	$1,823	8692	**293**	**2**	29.8	12	**19.7**	**2**	94.9	11	194	9	0.6	12	0.2	3
HM-131RR	$1,750	8344	**290**	**3**	28.8	13	19.5	4	95.1	10	167	13	0.8	11	0.0	12
Average	$1,955	9318	287		32.6		19.2		95.3		195		1.0		0.2	
LSD 5%	111.3	530.8	9.2		1.6		0.5		0.5		22.7		0.3		1.8	
CV %	4.9	4.9	2.8		4.4		2.4		0.5		10.1		25.8		778.2	

$/Acre: Gross dollars per acre assuming a $60 payment.

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

PIONEER · BIG CHIEF
MICHIGAN SUGAR

Plant to Stand Trial

Bender Farms, Turner, MI • 2011

Trial Quality: Fair
Location: Arenac County
Planted: May 17
Harvested: November 2
Previous Crop: Pickles/Radish

Rhizoc Control: Quadris 2 foliar applications, good control
Cerc Control: 4 applications, good control
Seasonal Rainfall: 14.71 inches

Plot Size: 4 rows x 38 feet
Reps: 6
Row Spacing: 22-inch
Seeding Rate: 4.2 inch spacing

			RWST		Yield		Sugar		CJP		Beets		CLS rate		Dead Beets	
Variety	$/Acre	RWSA	RWST	Rank	T/A	Rank	%	Rank	%	Rank	100'	Rank	0-9	Rank	100'	Rank
C-RR827	**$1,705**	**8235**	**317**	**1**	**26.0**	**2**	**20.7**	**1**	96.1	12	**179**	**3**	0.1	10	**0.3**	**5**
B-18RR4N	**$1,587**	**7664**	293	6	**26.2**	**1**	18.9	7	**97.1**	**3**	153	9	**0.3**	**2**	**0.3**	**2**
B-19RR90	**$1,529**	**7383**	**313**	**2**	**23.6**	**6**	**20.5**	**2**	96.1	10	151	10	0.1	11	0.0	13
B-17RR32	**$1,515**	**7315**	285	9	**25.6**	**4**	18.5	9	**97.0**	**4**	**169**	**6**	**0.3**	**4**	**0.2**	**7**
B-19RR1N	**$1,511**	**7298**	284	10	**25.6**	**3**	18.4	10	**96.9**	**5**	142	12	**0.3**	**3**	**1.3**	**1**
C-RR824	$1,474	7118	294	5	**24.1**	**5**	19.3	5	96.4	9	**176**	**5**	0.2	8	**0.2**	**8**
HM-173RR	$1,278	6173	285	8	21.7	7	18.7	8	96.4	8	**182**	**2**	**0.2**	**6**	0.0	11
SX-1281RR	$1,265	6108	291	7	20.9	9	19.0	6	96.5	7	**165**	**7**	0.2	9	0.0	12
HM-133RR	$1,263	6100	302	3	20.2	10	19.8	3	96.1	11	148	11	0.1	12	**0.3**	**6**
HM-131RR	$1,240	5987	300	4	19.9	11	19.8	4	95.8	13	108	13	0.0	13	0.2	9
HM-28RR	$1,211	5850	274	12	21.3	8	17.8	12	**97.2**	**1**	**179**	**4**	0.2	7	**0.3**	**4**
SX-1291RR	$1,093	5276	278	11	19.1	12	18.1	11	**96.9**	**6**	**188**	**1**	**0.2**	**5**	**0.3**	**3**
HM-27RR	$958	4624	261	13	17.6	13	17.0	13	**97.1**	**2**	157	8	**0.4**	**1**	0.0	10
Average	$1,356	6548	291		22.4		19.0		96.6		161.3		0.2		0.3	
LSD 5%	232.2	1121.1	12.0		3.4		0.7		0.5		28.2		0.2		1.1	
CV %	15.0	15.0	3.6		13.4		3.2		0.4		15.2		66.2		394.6	

$/Acre: Gross dollars per acre assuming a $60 payment.

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

Sugarbeet Advancement

Variety Trial

Meylan Farm, Auburn, MI • 2011

Trial Quality: Excellent
Location: Bay County
Planted: May 15
Previous Crop: Pickles/Radish
Soil Type: Loam

Spacings: Rows-30"; Seeds 48,500/A
Fertilizer: 2x2 - 17 Gal 19-17-0 + Micros; 80 Lbs N PPI
Tillage: Fall-Ripper, Spring-Triple K
Harvest Date: November 5

Sample Date: October 6
Herbicides: 3x Glyphosate
Replicated: 3x
Fungicide: 66 DSV - Eminent
120 DSV - Headline
186 DSV - Inspire XT

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Dead Beets/ 1,200 Ft
							12 Day	20 Day	27 Day	Harv	
B-18RR4N	$1,850	**9793**	**322**	**30.4**	**21.2**	**95.9**	138	—	**213**	**196**	54
B-19RR1N	$1,827	**9673**	315	**30.7**	20.8	**95.8**	128	—	**207**	**199**	78
C-RR824	$1,720	9104	316	28.8	20.7	**96.2**	**145**	—	191	188	92
HM-173RR	$1,711	9058	318	28.5	20.9	**95.9**	**149**	—	201	192	**5**
C-RR827	$1,710	9050	**329**	27.5	**21.5**	**96.2**	**162**	—	**213**	**197**	83
HM-28RR	$1,661	8794	313	28.1	20.4	**96.4**	137	—	**224**	**207**	**4**
C-RR808	$1,654	8751	**329**	26.6	**21.5**	**96.3**	132	—	203	181	129
B-19RR90	$1,639	8672	315	27.5	20.7	**96.0**	120	—	185	178	**41**
B-17RR32	$1,580	8360	305	27.4	20.1	**95.8**	98	—	173	160	48
C-RR840	$1,580	8358	309	27.0	20.7	95.2	116	—	174	155	**32**
HM-133RR	$1,557	8242	**322**	25.6	**21.3**	95.5	**158**	—	**216**	**216**	**4**
HM-131RR	$1,535	8131	316	25.7	20.8	**95.9**	**147**	—	**212**	**196**	**3**
Average	$1,669	8832	318	27.8	20.9	95.9	136	—	201	189	48
LSD 5%	—	575	10	1.5	0.5	0.6	20	—	19	23	42
CV %	—	4	2	3.2	1.4	0.4	9	—	6	7	52

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Excellent
Rhizoctonia: Low
Quadris App: In Furrow
Cerc Leafspot: Good Control
Nematodes: Yes
Weather: Wet spring, dry summer

Comments:
The field has sugarbeet cyst nematode. Oilseed radish was planted as a nematode trap crop and soil-building cover crop. As would be expected, both nematode varieties had significantly better RWSA than other varieties.

Sugarbeet Advancement

Variety Trial

Humm Farm, Breckenridge, MI • 2011

Trial Quality: Fair
Location: Midland County
Planted: May 8
Previous Crop: Wheat
Soil Type: Loam

Spacings: Rows-30"; Seeds 54,000/A
Fertilizer: 2x2 - 19-17-0 w/ Mn; 103 # Total N; Potash and MAP Fall Variable Rate Applied
Tillage: Fall Chisel, Stale Seedbed
Harvest Date: September 25

Sample Date: September 25
Herbicides: 2x Glyphosate
Replicated: 3x
Fungicide: 63 DSV - Eminent
113 DSV - Headline

Variety	$/Acre	RWSA	RWST	T/A	% Sugar	% CJP	Populations 100 Ft of Row				Dead Beets/ 1,200 Ft
							10 Day	20 Day	30 Day	Harv	
C-RR827	$1,455	**7284**	**320**	**22.8**	**21.2**	**95.5**	**198**	—	**222**	—	**0**
C-RR824	$1,418	**7098**	**308**	**23.1**	**20.3**	**95.8**	**233**	—	**242**	—	**0**
C-RR808	$1,415	**7082**	**320**	**22.1**	**21.3**	**95.4**	**22**4	—	**247**	—	**0**
B-19RR1N	$1,405	**7033**	296	**23.8**	19.4	**96.4**	190	—	**220**	—	**0**
HM-133RR	$1,339	**6699**	**317**	21.1	**21.1**	**95.3**	**238**	—	**235**	—	**1**
B-17RR32	$1,314	**6568**	295	**22.3**	19.7	**95.4**	164	—	184	—	**3**
HM-131RR	$1,287	**6445**	**308**	20.9	**20.6**	95.2	**236**	—	**232**	—	**1**
B-19RR90	$1,285	**6432**	**301**	**21.4**	**20.1**	**95.4**	**217**	—	**216**	—	**0**
C-RR840	$1,253	6270	295	**21.2**	19.6	**95.6**	177	—	207	—	**1**
HM-173RR	$1,251	6272	295	**21.2**	**19.9**	94.8	**216**	—	**230**	—	**1**
B-18RR4N	$1,183	5921	282	21.0	18.8	**95.5**	192	—	**218**	—	**2**
HM-28RR	$1,093	5450	266	20.6	17.6	**96.2**	**216**	—	**251**	—	**0**
Average	$1,308	6546	300	21.8	20.0	95.5	208	—	225	—	1
LSD 5%	—	902	21	2.6	1.4	1.1	45	—	42	—	NS
CV %	—	8	4	7.1	4.1	0.7	10	—	8	—	—

$/Acre: Gross dollars per acre assuming a $60 payment.
Bold: Results are not statistically different from top-ranking variety in each column.

Emergence: Excellent
Rhizoctonia: None
Quadris App: 4-6 Leaf & 8-10 Leaf
Cerc Leafspot: Excellent Control
Nematodes: None
Weather: Heavy early season rainfall, dry mid-season

Comments:
The trial had some variability due to excessive early season rainfall. Droughty conditions existed during growing season. Root aphid and Aphanomyces scarring was identified on some roots. Boron deficiency was noted. Very large differences in sugar content between varieties. This field has never had sugarbeets grown in it before.

NURSERY DATA

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Rhizoctonia Nursery

Michigan Sugar Company & USDA

Average of 2 Years, 2010-2011

Trial Quality: Good
Locations: Richville, Michigan and Fort Collins, Colorado
Plot Size: 2 rows x 25 ft, 6 reps
Inoculation: Trials were inoculated

Variety	Avg MI / USDA 2010 / 2011 0-7 Rating
C-RR086	3.7
C-RR059	3.8
HM-27RR	3.8
HM-28RR	4.0
B-10RR34	4.2
SX-1291RR	4.2
HM-133RR	4.3
SX-1281RR	4.3
HM-131RR	4.4
C-RR074NT	4.4
B-19RR90	4.5
B-19RR1N	4.5
B-18RR4N	4.5
HM-173RR	4.6
SX-1260RR	4.6
HM-50RR	4.6
C-RR824	4.7
B-17RR32	4.7
C-RR827	4.9
Average	4.3

Rhizoctonia Nursery

C & W Hecht & Brian Hecht, Richville, MI • 2011

Trial Quality: Good
Location: Saginaw County
Planted: May 10
Rated: September 12

Trial Design: RCBD, 2-inch rows x 16 Ft
Reps: 6
Inoculation: Trial was inoculated

Variety	Rhizoc Rate 0-7	Dead Beets Per Plot	Live Beets Per Plot	Canopy Vigor 0-10
C-RR086	2.1	4.5	37.0	7.9
HM-27RR	2.2	3.0	44.0	7.9
C-RR059	2.2	4.5	40.0	8.4
HM-28RR	2.3	10.6	35.9	7.0
HM-131RR	2.3	5.3	41.2	7.8
B-10RR34	2.3	10.3	37.5	7.7
SX-1291RR	2.4	9.3	37.3	7.5
HM-133RR	2.5	9.7	34.8	7.4
HM-173RR	2.6	9.2	36.8	7.4
SX-1260RR	2.6	10.0	39.3	7.5
B-19RR1N	2.7	6.2	36.3	7.6
C-RR074NT	2.7	8.2	37.2	7.1
C-RR824	2.8	12.8	30.7	7.0
SX-1281RR	2.8	11.3	34.7	7.1
HM-50RR	2.8	11.2	37.0	7.7
B-18RR4N	2.8	8.2	36.5	8.2
B-17RR32	2.8	13.5	29.8	7.2
B-19RR90	3.2	12.8	32.3	6.5
C-RR827	3.4	19.5	26.5	6.9
Average	2.7	10.2	35.0	7.3
LSD 5%	0.7	8.6	9.1	1.0
CV %	21.9	74.0	22.7	11.8

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.

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Cercospora Leafspot Nursery

Average of 2 Years • 2010-2011

Trial Quality: Good
Locations: Bay City, Richville, Blumfield and Pigeon
Plot Size: 2 rows x 25 ft
Reps: 6
Inoculation: Trials were inoculated

Variety	2 Year CLS Rate 0-9	2011 CLS Rate 0-9	2010 CLS Rate 0-9
HM-133RR	3.5	3.0	4.0
HM-131RR	3.5	3.0	4.0
HM-50RR	3.6	3.1	4.0
C-RR086	3.6	3.3	4.0
HM-173	3.7	3.0	4.4
SX-1281RR	3.7	3.1	4.3
B-10RR34	3.8	3.1	4.6
SX-1291RR	3.8	3.2	4.4
HM-27RR	3.9	3.4	4.4
HM-28RR	3.9	3.3	4.6
SX-1260RR	4.0	3.4	4.6
B-19RR90	4.1	3.5	4.7
C-RR059	4.6	3.8	5.3
C-RR074NT	4.7	3.8	5.5
C-RR824	4.8	4.4	5.3
B-19RR1N	4.9	4.4	5.4
B-17RR32	4.9	4.3	5.5
B-18RR4N	4.9	4.5	5.3
C-RR827	5.5	5.1	5.9
Average	4.2	3.6	4.7

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

Vader Farm, Unionville, MI • 2011

Trial Quality: Good
Location: Tuscola County
Planted: June 3
Evaluated: August 29
Soil Type: Sandy loam
Rainfall: 11.1 inches
Cerc Control: Good
Rhiz Control: Good
Plot Size: 2 rows X 25 ft
Reps: 6

Variety	Rating Scale 0-5	Eggs / 100 cc Soil	RWSA	RWST	T/A	% Sugar	% CJP
B-18RR4N	2.1	359	2615	157	16.7	12.2	90.3
B-19RR1N	2.2	590	2517	146	17.2	11.6	89.8
C-RR644NT	2.4	605	2571	131	19.7	11.0	87.9
B-11RR9N	2.5	701	2611	132	19.7	11.0	88.4
HM-9313RR	2.5	787	2017	153	13.2	12.3	89.4
SX-1213N RR	2.5	525	2673	157	16.9	12.3	90.2
C-RR074NT	2.6	754	2314	151	15.3	12.1	89.5
SX-1211N RR	3.0	774	1682	141	11.8	11.5	89.0
HM-50RR	3.5	642	1723	163	10.6	13.0	89.2
B-17RR32	3.5	1413	1937	143	13.5	11.5	89.5
HM-28RR	3.7	497	2026	166	12.2	12.8	90.4
Average	2.8	695.0	2244	149	15.2	11.9	89.4
LSD 5%	0.5	430.2	349.4	8.8	2.0	0.5	0.7
CV %	16.5	52.5	13.3	5.0	11.3	3.3	0.7

Bold = Nematode tolerant variety

Root Rating Scale:

0 = No cysts
1 = 1 to 2 cysts/root
2 = 3 to 5 cysts/root
3 = 6 to 12 cysts/root
4 = 13 to 25 cysts/root
5 = Over 25 cysts/root

Twenty roots rated per plot

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Root Aphid Nursery

Syngenta Seeds • Fort Collins, Colorado • 2011

Planted: April 26
Evaluated: August 22
40 beets/plot
Plot Size: 2 rows X 10 ft
Reps: 4

Variety	Root Aphid % Incidence
B-19RR90	0.8
C-RR827	1.3
HM-131RR	3.3
HM-50RR	4.3
C-RR074NT	5.3
C-RR824	5.3
HM-133RR	6.3
C-RR086	7.0
B-17RR32	10.5
B-19RR1N	12.3
C-RR059	12.8
HM-173RR	13.0
SX-1281RR	15.3
SX-1260RR	24.0
B-18RR4N	24.8
B-10RR34	26.0
HM-28RR	29.8
SX-1291RR	39.8
HM-27RR	69.5
Susc Check (38907)	86.5

Average (w/o Susc Check)	25.9
LSD 5%	16.6
CV %	43.4

Note: Varieties below 20% are considered resistant, varieties between 20% and 60% are considered to be segregating or moderately tolerant and varieties over 60% are considered to be susceptible.

Comments:

This is a field trial in an area with a history of root aphid problems. The trial is not inoculated. This study is conducted in an irrigated field and the irrigation scheduling is used to encourage root aphid infestations. Researchers evaluate each root and score them as infested or not infested. There is not an intensity scale.

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Aphanomyces Nursery

BetaSeed • Shakopee, MN • Average of 2 Years

Trial Design: RCBD, 4 rows X 30 ft and 6 reps

Evaluated: Rated late summer with a 0-9 root rating, lower numbers are better

Variety	Aphanomyces 0-9 Root Rating		
	Avg 2010 & 2011	2011	2010
B-18RR4N	3.5	3.8	3.1
B-19RR1N	4.3	4.7	4.0
HM-173RR	4.8	6.2	3.4
B-19RR90	4.8	5.0	4.6
B-17RR32	5.0	6.5	3.5
C-RR074NT	5.3	6.5	4.1
C-RR827	5.6	6.7	4.5
C-RR824	6.1	7.7	4.4
C-RR059	6.1	7.3	4.9
SX-1291RR	6.1	7.3	5.0
SX-1260RR	6.3	7.7	4.8
HM-131RR	6.3	8.0	4.5
SX-1281RR	6.4	7.8	5.0
HM-28RR	6.6	8.1	5.1
HM-133RR	6.7	7.9	5.4
HM-50RR	6.8	8.4	5.1
HM-27RR	6.9	8.2	5.5
C-RR086	6.9	8.2	5.6
B-10RR34	7.2	8.3	6.2
Average	5.9	7.1	4.7
LSD 5%		0.7	1.0
CV %		9.0	4.8

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MICHIGAN SUGAR

Aphanomyces Nursery

BetaSeed • Shakopee, MN • 2011

Planted: May 18

Evaluated: August 25 (0 to 9 scale, lower rating is better)

Trial Design: RCBD, 4 row X 30 ft

Reps: 6

Variety	Aphanomyces Root Rating 0-9	Aphanomyces Foliar Rating 0-9	Healthy Sugarbeets Per Plot 7/26/2011 # Per Plot
B-18RR4N	3.8	1.8	41.0
B-19RR1N	4.7	2.8	31.7
B-19RR90	5.0	2.9	35.8
Resistant Check	6.0	3.9	28.0
HM-173RR	6.2	3.7	33.7
B-17RR32	6.5	4.8	23.8
C-RR074NT	6.5	4.8	12.3
C-RR827	6.7	4.9	14.5
SX-1291RR	7.3	5.1	28.2
C-RR059	7.3	6.3	9.5
Moderate Check	7.4	6.9	6.8
SX-1260RR	7.7	7.1	7.8
C-RR824	7.7	6.6	9.8
SX-1281RR	7.8	7.3	7.3
HM-133RR	7.9	7.5	6.7
Susceptible Check	8.0	7.8	6.7
HM-131RR	8.0	7.8	5.2
HM-28RR	8.1	7.8	3.8
C-RR086	8.2	8.1	3.8
HM-27RR	8.2	7.6	7.2
B-10RR34	8.3	8.5	3.3
HM-50RR	8.4	7.8	4.8
Average	7.1	5.8	15.1
LSD 5%	0.7	1.2	5.9
CV %	9.0	17.2	35.1

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USDA Rhizomania Nursery

Average of 2 Locations, 2 Years, 2010 & 2011

Locations: Salina, California, 2010; Kimberly, Idaho, 2011
Plot Size: 2 rows X 25 ft, 8 or more reps
Rating Scale: 0-9 with lower being better

Variety	Avg. 2010-2011 Root Rating	2011 Root Rating	2010 Root Rating
HM-28RR	2.9	1.6	4.1
SX-1291RR	3.0	1.8	4.2
HM-27RR	3.0	1.8	4.3
C-RR059	3.0	1.9	4.2
HM-173RR	3.0	1.9	4.2
Tolerant Check	3.1	1.7	4.4
B-17RR32	3.1	1.8	4.3
SX-1260RR	3.2	2.0	4.4
C-RR824	3.3	2.0	4.6
B-19RR90	3.4	2.1	4.7
SX-1281RR	3.5	1.8	5.2
C-RR074NT	3.5	2.0	4.9
HM-133RR	3.5	2.0	5.0
B-10RR34	3.6	2.0	5.2
HM-131RR	3.6	2.0	5.3
B-18RR4N	3.7	2.2	5.3
HM-50RR	3.7	2.0	5.5
C-RR086	3.7	2.1	5.4
C-RR827	3.8	2.0	5.5
Susc. Check	4.1	2.5	5.7
B-19RR1N	4.5	2.1	6.9
Average	3.4	2.0	4.9

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MICHIGAN SUGAR

Official Variety Trials, 2011
Location Information

	Location/Grower			
	Reese Sylvester	**Ruth Roggenbuck**	**Sandusky Stoutenburg**	**Pigeon Trost**
Trial Quality	Very Good	Very Good	Good	Excellent
Planted	May 5	June 2	May 9	May 11
Harvested	Oct 12	Oct 6	Oct 8	Oct 3
Soil Type	Silt Loam	Loam	Loam	Clay Loam
Soil pH	7.6	7	7.2	7.6
Soil %OM	2.6	3.7	3.9	3.8
CEC meq/100 g	12.6	9.4	9.9	13.2
Phosphorus	Above Optimum	Above Optimum	Above Optimum	Above Optimum
Potassium	Above Optimum	Above Optimum	Above Optimum	Above Optimum
Magnesium	Above Optimum	Above Optimum	Optimum	Above Optimum
Manganese	32	29.8	18	44.6
Boron	0.4	0.7	0.2	1.6
Zinc	4.5	10.1	3.6	11
Nitrogen Added	135	123	100	92

	Seasonal Rainfall			
May	3.35	1.32	5.16	2.55
June	2.25	2.15	1.79	4.35
July	1.74	2.90	2.02	3.05
August	4.07	2.58	2.55	3.12
September	2.92	2.63	3.33	2.23
October	0.21	0.09	0.13	0.00
Total	14.54	11.67	14.98	15.3

Rainfall amounts included from month of planting to the date of harvest at each location.