

Michigan Sugar Company

2007

Research Results

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Bay City, MI



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Michigan Sugar Company
Roundup Ready Research In Sugarbeets
Blumfield, Michigan - 2007

Comments and Summary for Following Tables

The plots were planted on May 24th. Variety: HM 9028 RR

Each Roundup Treatment included Spray Grade Ammonium Sulfate At 17 lbs/100 gallons

Crop Development: Cotyl - Jun 7, 2-4 lf - Jun 15, 6 lf - Jun 21, 8 lf - Jun 26, 10 to 12 lf - July 6.

¹ Timings: Pre treatments were applied May 24.

² Phyto: Visual Injury Symptoms. Early and late ratings.

³ % Pigweed Control: Visual Pigweed Control Rating. Average of early and late ratings.

⁴ % Lambsquarter Control: Visual Lambsquarter Control Rating. Average of early and late ratings.

Summary

Roundup Ready Monsanto Trial

Three well timed Roundup applications gave near 100 percent control of redroot pigweed and common lambsquarter in this small plot replicated trial. Weed pressure was high and fairly uniform in this trial. The addition of Nortron, Outlook, Stinger or Select did not affect weed control. Some injury was noted with these herbicides, especially when Outlook was applied at an early leaf stage. The Progress MicroRate treatment gave somewhat less weed control.

Roundup Ready Timings, Rates and Tank Mixes

Two or three well timed Roundup treatments provided nearly 100 percent weed control (pigweed and lambsquarter) in this small plot trial. Tank mixing Stinger, Nortron, Dual, Outlook or a non-ionic surfactant with Roundup did not affect weed control. Tank mixing Select with Roundup appeared to cause a minor reduction in pigweed control. Nortron applied pre-emergence also caused minor sugarbeet injury. Tanking mixing Dual and Outlook at the 4 leaf stage caused only minor and temporary sugarbeet stunting. A single Roundup application, applied either early or late did not give adequate weed control.

Roundup Ready Fungicide Tank Mixes

Roundup Original Max was tank mixed with Eminent, Gem SC, Headline and Super Tin at row closure (high pressure and high water volume). Roundup was also tank mixed with Quadris at the 2 lf and 6 lf stage at normal herbicide pressure and water volumes. No sugarbeet injury was observed with the leaf spot treatments (Eminent, Gem SC, Headline or Super Tin). Minor injury was observed when Quadris was applied at the 2 leaf stage. The injury was short lived. None of the fungicide tank mixes interfered with weed control.

Michigan Sugar Company
Roundup Ready Research - Timings, Rates and Tank Mixes
 Blumfield, MI - 2007

Trial Validity: Good

No	Treatment	Rate Per Acre	Leaf Stage ¹	Tons/Acre	% Phyto ²		% Weed Control	
					Early	Late	Lambsq ⁴	Pigw ³
1	Roundup OrigMax AMS	22 fl oz/A 17 lb/100 gal	2, 6, 10 2, 6, 10	23.65	0.0	0	99.4	98.6
2	Roundup OrigMax AMS	22 fl oz/A 17 lb/100 gal	2, 10 2, 10	23.52	0.0	0	97.6	99.4
6	Roundup OrigMax AMS Outlook	22 fl oz/A 17 lb/100 gal 1 pt/A	4, 10 4, 10 4	22.61	4.2	0	99.4	98.3
5	Roundup OrigMax AMS Dual Magnum	22 fl oz/A 17 lb/100 gal	4, 10 4, 10 4	21.94	3.3	0	98.4	98.3
3	Roundup OrigMax AMS	22 fl oz/A 17 lb/100 gal	4 4	21.71	0.0	0	87.1	87.1
4	Roundup OrigMax AMS	22 fl oz/A 17 lb/100 gal	10 10	21.18	0.0	0	91.8	92.8
7	Betamix 1.3 EC UpBeet Stinger MSO Dual Magnum	8 / 12 fl oz/A 0.125 oz/A 1 fl oz/A 1.5 % v/v 1.33 pt/A	Cot, 2 / 4, 6 Cot, 2, 4, 6 Cot, 2, 4, 6 Cot, 2, 4, 6 4	20.93	5.8	0	89.8	91.3
8	Untreated Check			12.49	0.0	0	0.0	0.0
LSD 5%				2.10	2.9	0.0	4.4	3.9
CV %				8.40	166.0	0.0	4.5	4.0
Mean				21.20	1.5	0.0	84.6	85.0

Summary on page 4

Michigan Sugar Company
Roundup Ready Research In Sugarbeets - Monsanto Trial
 Blumfield Michigan - 2007

Page 1

Trial Quality: Good

No.	Treatment	Rate	Timing ¹	Tons	%Phyto ²		% Pigw ³	% Lambsq ⁴
					Early	Late		
8	Roundup Orig Max Nortron 4 SC	22 fl oz 2.25 pts	2 lf, 6 lf, 10 lf 6 lf	28.81	2.5	0.0	99.8	100.0
2	Roundup Orig Max NIS	22 fl oz .25% v/v	2 lf, 6 lf, 10 lf 2 lf, 6 lf, 10 lf	28.79	0.0	0.0	100.0	99.1
1	Roundup Orig Max	22 fl oz	2 lf, 6 lf, 10 lf	28.76	0.0	0.0	99.8	99.1
4	Roundup Orig Max Stinger 3 EC	22 fl oz 4 fl oz	2 lf, 6 lf, 10 lf 2 lf	27.98	3.8	0.0	99.5	99.5
9	Nortron 4 SC Roundup Orig Max Nortron 4 SC	4 pts 22 fl oz 2 pts	Pre 2 lf, 6 lf, 10 lf 6 lf	27.91	7.5	0.0	99.8	99.8
7	Nortron 4 SC Roundup Orig Max	4 pts 22 fl oz	Pre 2 lf, 6 lf, 10 lf	27.76	8.8	0.0	99.5	100.0
3	Roundup Orig Max Outlook 6 EC	22 fl oz 18 fl oz	2 lf, 6 lf, 10 lf 6 lf	27.29	0.0	0.0	99.5	99.8
6	Roundup Orig Max Select 2 EC	22 fl oz 8 fl oz	2 lf, 6 lf, 10 lf 2 lf	26.83	0.0	0.0	96.3	98.8
5	Roundup Orig Max Outlook 6 EC	22 fl oz 18 fl oz	2 lf, 6 lf, 10 lf 2 lf	26.39	7.5	0.0	99.4	99.8
10	Progress 1.8 EC UPBEET Stinger MSO	5.7 oz .5 oz 1 oz 1.5%	Cot, 2 lf, 4 lf 6 lf	26.20	4.4	0.0	95.0	94.4
11	Untreated Check			19.37	0.0	0.0	0.0	0.0
LSD (P=.05)				2.66	2.21	0.00	2.52	2.66
CV				6.8	72.9	0.0	1.9	2.0
Grand Mean				26.92	2.10	0.00	89.95	90.01

Summary on page 4

Michigan Sugar Company
Roundup Ready Research - Fungicide Tank Mixes
 Blumfield, MI - 2007

Trial Validity: Good

No	Treatment	Rate Per Acre	Leaf Stage ¹	Tons/Acre	Phyto ²		% Weed Control	
					Early	Late	Lambq ⁴	R Pigw ³
3	Roundup OrigMax Quadris	22 fl oz/A 10.5 fl oz/A	2, 6, 10 6	24.53	0.8	0	99.8	97.9
6	Roundup OrigMax Gem SC	22 fl oz/A 3.6 fl oz/A	2, 6, 10, RC RC	23.59	0.0	0	98.8	98.3
5	Roundup OrigMax Eminent	22 fl oz/A 13 fl oz/A	2, 6, 10, RC RC	23.52	0.0	0	98.8	98.3
1	Roundup OrigMax	22 fl oz/A	2, 6, 10	23.28	0.0	0	99.4	98.6
7	Roundup OrigMax Super Tin	22 fl oz/A 5 oz/A	2, 6, 10, RC RC	23.06	0.0	0	98.9	98.6
4	Roundup OrigMax Headline	22 fl oz/A 9.2 fl oz/A	2, 6, 10, RC RC	22.88	0.0	0	99.8	98.8
2	Roundup OrigMax Quadris	22 fl oz/A 10.5 fl oz/A	2, 6, 10 2	22.86	2.5	0	98.0	98.4
9	Betamix 1.3 EC UpBeet Stinger MSO Dual Magnum	8 / 12 fl oz/A 0.125 oz/A 1 fl oz/A 1.5 % v/v 1.33 pt/A	Cot, 2 / 4, 6 Cot, 2, 4, 6 Cot, 2, 4, 6 Cot, 2, 4, 6 4	20.93	5.8	0	89.8	91.3
8	Untreated Check			12.49	0.0	0	0.0	0.0
LSD 5%				1.92	2.0	0.0	3.3	3.5
CV %				7.50	167.0	0.0	3.2	3.4
Mean				21.90	1.0	0.0	87.1	86.7

Summary on page 4

Michigan Sugar Company

BeetCast Cercospora Trials

Overall Summary

Seven BeetCast trials were conducted in 2007. Six of the trials were located in our low risk Cercospora areas (Green or Yellow Zones on the BeetCast Risk Management Map). Michigan Sugar has strong data to back up the 55/55 DSV spray recommendations for the Red and Orange Zones. Our recommendations to begin sprays at 70 DSV's in the Yellow Zones and at 80 DSV's or first spot in the Green Zones are based on less data.

The objectives of the 2007 BeetCast trials were to better define spray recommendations for the Croswell, Sandusky and Deckerville areas in the East and the area Northwest of Bay City. We also evaluated the effect of variety tolerance (C 355, B 5451, B 5833R, B 5534N) in a Cercospora spray program.

Data from these trials supports our current spray recommendations for the Green Zones. There were no differences in Cercospora control between 55/55, 70/55, 80/55 or Scouting treatments. However, Cercospora control dropped off dramatically if sprays were held off past 80 DSV's. 2007 was also a light year for leafspot. The Croswell and Sandusky area has had lower leafspot infestations in our plots than the Hope and Au Gres areas during the test period (2006-2007). With respect to variety tolerance, C 355 shows significant tolerance to leafspot and could get by with one less spray much of the time. The difference between 5451 and 5833R is not large enough to plan a change in spray programs. B 5534N or a variety with similar leafspot susceptibility will definitely require a more intensive spray program.

General Trial Information

	Sandusky	Deckerville	Croswell	Ruth	Hope	Twining	Breckenridge
Planted:	May 4	April 21	April 20	April 20	April 22	May 3	May 5
Harvested:	Oct. 13	Oct. 15	Oct. 15	Oct. 22	Sept. 21	xxx	xxx

Seasonal Rainfall

April	2.5	2.4	1.8	3.3	4.2	4.1	4.2
May	3.4	3.1	3.6	2.2	2.1	2.5	1.9
June	0.9	1.4	1.2	0.6	1.2	1.7	2.1
July	2.3	1.2	1.0	0.4	0.9	3.7	3.9
August	4.0	2.7	3.9	4.2	3.4	2.0	5.2
September	1.9	2.0	2.0	2.1	0.0	1.4	1.8
October	0.8	2.1	1.7	1.3	xxx	xxx	xxx
Total	15.7	14.9	14.9	14.1	11.8	18.7	19.1

All treatments applied with modified tractor plot sprayer at 100 psi and 20 gpa
 6 row plots, 30 inch rows, 35 ft long, 6 reps
 At each location and for each treatment, Eminent was applied first followed by Headline

Michigan Sugar Company
BeetCast Cercospora Trials
 Cercospora Rating Information

0.0	No Spots
0.5	Very few spots, may take 10 seconds to find a spot
1.0	Light infestation, need to search for spots, up to 5 seconds
1.5	Light infestation, many leaves without spots, see spots in 1-2 seconds
2.0	Moderate infestation, visible walking slow, no clusters, some leaves without spots
2.5	Most leaves with spots, no clusters
3.0	Heavy infestation, can see spots a few feet away, may be more than 2 spots per sq inch but not coalescing
3.5	Heavy infestation, spots are beginning to coalesce (run together)
4.0	Noticeable coalescence (larger brown spots or holes in leaves), some flagging or curling of leaves
5.0	Significant flagging and necrotic spots on leaves, regrowth in plots 25 percent or more of leaf area affected (brown or leaf falling out)
6.0	Very heavy damage to leaves, approx 50% of leaf area gone, regrowth can be significant
7.0	Well over half of the leaves desiccated or gone, regrowth can be significant
8.0	Most of the original leaves in the plot are dead, plot could be nearly regrown with new leaves which may or may not be spotted up
9.0	All of original leaves are dead, plot could be regrown with new leaves

Michigan Sugar Company
BeetCast Cercospora Trial
 Average of All Locations**
 2007

No.	Treatment	CLSrate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55	0.72	6786	258.7	17.92	93.84	26.36
4	80/55	0.83	6728	257.3	17.86	93.77	26.22
2	55/55	0.95	6854	260.4	17.97	94.02	26.32
3	70/55	0.95	6783	261.9	18.04	94.12	25.88
6	Scout/55	0.99	6667	255.4	17.74	93.78	26.18
7	Scout/Label	1.00	6720	260.6	18.03	93.89	25.78
9	1 Spray Program	1.39	6749	259.7	18.05	93.66	26.04
5	100/55	1.48	6644	258.8	17.90	93.95	25.76
8	Scout Delayed	1.53	6648	260.8	18.06	93.84	25.48
10	Untreated	2.60	6178	252.6	17.54	93.79	24.44
LSD (P=.05)		0.38	307.6	6.7	0.38	0.36	1.10
CV		26.14	3.6	2.0	1.64	0.30	3.34
Grand Mean		1.24	6675.8	258.6	17.91	93.87	25.85

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0

** The yield and quality data is the average of 5 locations: Ruth, Crosswell, Deckerville, Sandusky, and Hope. The CLSrate also contains the Twining location.

Michigan Sugar Company
BeetCast Cercospora Trial
Average of 3 Locations (Deckerville, Sandusky, Ruth) - 2007

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No.	Treatment	CLSrate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55	0.54	6831	260.8	18.06	93.79	26.18
2	55/55	0.58	6863	263.4	18.20	93.89	26.05
3	70/55	0.61	6894	268.4	18.43	94.18	25.64
6	Scout/55	0.63	6805	262.2	18.18	93.74	26.08
7	Scout/Label	0.71	6787	262.9	18.20	93.80	25.82
4	80/55	0.73	6786	260.7	18.06	93.78	26.16
9	1 Spray Program	1.14	7099	264.9	18.35	93.71	26.83
5	100/55	1.16	6859	265.0	18.32	93.85	26.04
8	Scout Delayed	1.26	6926	269.4	18.56	93.95	25.69
10	Untreated	1.86	6483	257.5	17.80	93.91	25.16
LSD (P=.05)		0.21	475.2	10.0	0.53	0.59	1.68
CV		13.58	4.2	2.3	1.75	0.38	3.93
Grand Mean		0.92	6833.4	263.5	18.22	93.86	25.97

Means for Above Treatments are an Average of 3 Varieties. See Variety Effects Below:

2	C 355	0.63	6543	263.6	18.23	93.86	24.85
1	B5451	0.95	6978	256.2	17.74	93.88	27.28
3	B 5833 R	1.19	6980	270.7	18.69	93.83	25.77
LSD 5%		0.07	162.0	3.7	0.19	0.21	0.56

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
BeetCast Cercospora Trial

Average of 3 Locations (Deckerville, Sandusky, Ruth) - 2007

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Variety Effects

No.	Treatment	Variety	CLSrate 0-9	RWSA	RWST	% Suc	% CJP	Tons/ Acre
2	55/55	B 5451	0.58	7110	256.0	17.76	93.80	27.77
1	55/55/55	B 5451	0.61	6916	250.0	17.41	93.64	27.57
6	Scout/55	B 5451	0.62	6905	255.2	17.72	93.75	27.17
3	70/55	B 5451	0.63	7032	258.6	17.74	94.38	27.09
7	Scout/Label	B 5451	0.74	6993	254.7	17.79	93.44	27.53
4	80/55	B 5451	0.81	6801	253.1	17.58	93.78	27.01
5	100/55	B 5451	1.10	7009	258.2	17.86	93.91	27.40
9	1 Spray Program	B 5451	1.15	7172	258.3	17.88	93.86	27.79
8	Scout Delayed	B 5451	1.30	7104	262.4	18.05	94.13	27.16
10	Untreated	B 5451	1.93	6733	255.4	17.59	94.13	26.31

1	55/55/55	C 355	0.38	6562	262.7	18.15	93.87	25.03
3	70/55	C 355	0.39	6489	269.6	18.50	94.19	23.96
6	Scout/55	C 355	0.42	6538	259.4	18.04	93.66	25.31
2	55/55	C 355	0.43	6351	261.1	18.15	93.63	24.37
4	80/55	C 355	0.46	6457	262.4	18.13	93.90	24.71
7	Scout/Label	C 355	0.46	6198	262.8	18.24	93.70	23.58
9	1 Spray Program	C 355	0.81	6822	264.4	18.32	93.72	25.81
5	100/55	C 355	0.82	6848	269.4	18.50	94.11	25.49
8	Scout Delayed	C 355	0.83	6598	268.5	18.54	93.89	24.54
10	Untreated	C 355	1.31	6564	255.8	17.68	93.95	25.73

1	55/55/55	B 5833R	0.65	7015	269.7	18.61	93.85	25.95
2	55/55	B 5833R	0.74	7128	273.0	18.68	94.23	26.02
3	70/55	B 5833R	0.81	7163	277.1	19.06	93.97	25.89
6	Scout/55	B 5833R	0.86	6974	271.8	18.77	93.82	25.77
7	Scout/Label	B 5833R	0.92	7168	271.2	18.57	94.25	26.34
4	80/55	B 5833R	0.93	7099	266.7	18.48	93.67	26.75
9	1 Spray Program	B 5833R	1.46	7302	272.0	18.87	93.54	26.88
5	100/55	B 5833R	1.55	6719	267.5	18.59	93.52	25.24
8	Scout Delayed	B 5833R	1.66	7076	277.1	19.11	93.84	25.39
10	Untreated	B 5833R	2.34	6153	261.2	18.13	93.65	23.45

Michigan Sugar Company

BeetCast Cercospora Trial

A. Bischer, Ruth, MI - 2007

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Trial Quality: Good

No.	Trt DSV (Actual DSV)	# Applic	CLRate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55 (Jul 19, Aug 27)	2	1.13	7561	296.1	19.81	95.21	25.56
2	55/55 (Jul 19, Aug 27)	2	1.17	7369	287.1	19.33	94.97	25.63
7	Scout/Label (Aug 13, Aug 27)	2	1.28	7060	286.8	19.35	94.87	24.59
6	Scout/55 (Aug 13)	1	1.29	7195	294.7	19.83	94.94	24.41
3	70/55 (Jul 30, Aug 27)	2	1.32	7000	286.5	19.35	94.85	24.42
4	80/55 (Aug 2, Sep 8)	2	1.42	7101	289.1	19.41	95.09	24.54
9	1 Spray Program (Aug 13)	1	1.82	7458	296.2	19.88	95.06	25.19
8	Scout Delayed (Aug 27)	1	1.86	7476	297.8	19.92	95.20	25.11
5	100/55 (Aug 15)	1	2.00	7168	294.5	19.77	95.07	24.33
10	Untreated		2.61	6845	289.4	19.33	95.36	23.61
LSD 5%			0.14	429.8	7.9	0.43	ns	1.21
CV %			9.1	8.9	4.1	3.5	0.6	7.2
Mean			1.59	7223.3	291.8	19.60	95.06	24.74

Means for Above Treatments are an Average of 3 Varieties. See Variety Effects Below:

2	C 355		1.20	6909	289.0	19.44	95.0	23.90
1	B 5451		1.63	7356	284.8	19.15	95.1	25.81
3	B 5833 R		1.93	7405	301.6	20.21	95.1	24.51
LSD 5%			0.07	235.4	4.3	0.24	ns	0.66

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Dessication and 9 = Complete Dessication. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0

Michigan Sugar Company
BeetCast Cercospora Trial

A. Bischer, Ruth, MI - 2007

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Variety Effects

No.	Treatment	Variety	CLS 0-9	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55	B 5451	1.17	7556	285.4	19.22	95.01	26.50
2	55/55	B 5451	1.21	7418	279.9	18.91	94.89	26.43
6	Scout/55	B 5451	1.33	7463	289.5	19.49	94.97	25.77
7	Scout/Label	B 5451	1.38	7124	284.0	19.23	94.75	25.10
3	70/55	B 5451	1.38	6660	270.9	18.34	94.93	24.52
4	80/55	B 5451	1.54	7261	282.6	18.98	95.18	25.67
9	1 Spray	B 5451	1.79	7623	288.5	19.35	95.15	26.43
8	Scout Delay	B 5451	1.83	7754	294.9	19.61	95.53	26.31
5	100/55	B 5451	2.04	7436	287.6	19.32	95.09	25.85
10	Untreated	B 5451	2.63	7264	285.0	19.03	95.44	25.49

3	70/55	C 355	0.79	6960	286.6	19.38	94.77	24.28
1	55/55/55	C 355	0.83	7329	295.8	19.76	95.31	24.80
6	Scout/55	C 355	0.92	6867	292.9	19.74	94.89	23.43
2	55/55	C 355	0.92	6688	276.4	18.79	94.61	24.21
4	80/55	C 355	1.04	6713	283.6	19.11	94.95	23.60
7	Scout/Label	C 355	1.04	6569	281.6	19.02	94.90	23.29
5	100/55	C 355	1.38	6983	294.8	19.76	95.14	23.64
8	Scout Delay	C 355	1.42	6953	293.7	19.73	95.02	23.71
9	1 Spray	C 355	1.50	7095	295.0	19.79	95.10	24.06
10	Untreated	C 355	2.13	6935	290.0	19.30	95.58	23.93

2	55/55	B 5833 R	1.38	8001	305.1	20.30	95.41	26.25
1	55/55/55	B 5833 R	1.38	7798	307.0	20.45	95.32	25.39
7	Scout/Label	B 5833 R	1.42	7487	294.7	19.81	94.97	25.39
6	Scout/55	B 5833 R	1.63	7257	301.8	20.27	94.96	24.03
4	80/55	B 5833 R	1.67	7330	301.1	20.15	95.14	24.35
3	70/55	B 5833 R	1.79	7379	301.9	20.32	94.85	24.45
9	1 Spray	B 5833 R	2.17	7655	305.0	20.49	94.93	25.07
8	Scout Delay	B 5833 R	2.33	7721	304.8	20.42	95.06	25.31
5	100/55	B 5833 R	2.58	7087	301.2	20.22	94.98	23.51
10	Untreated	B 5833 R	3.08	6336	293.2	19.67	95.08	21.40

Michigan Sugar Company
BeetCast Cercospora Trial
 Stoutenburg, Sandusky, MI - 2007

Page 1

Trial Quality: Good

No.	Treatment	# Applic	CLRate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55 (58/52) (Jul 30, Aug 27)	2	0.30	5533	221.7	16.10	92.16	24.95
3	70/55 (85/45) (Aug 13, Sep 8)	2	0.30	5989	242.1	17.07	93.25	24.73
2	55/55 (58/52) (Jul 30, Aug 27)	2	0.31	5912	234.8	16.90	92.32	25.40
4	80/55 (85) (Aug 13)	1	0.44	6010	224.5	16.31	92.13	26.80
7	Scout/Label (85/25) (Aug 13, Aug 27)	2	0.52	5904	230.5	16.73	92.03	25.64
6	Scout/55 (85) (Aug 13)	1	0.53	6097	232.0	16.65	92.58	26.26
5	100/55 (85) (Aug 13)	1	0.84	6113	231.1	16.63	92.41	26.69
9	1 Spray Program (85)	1	0.89	6041	225.1	16.39	91.97	26.86
8	Scout Delayed (110) (Aug 27)	1	1.00	5706	236.9	17.08	92.30	24.15
10	Untreated		1.63	5512	219.4	15.97	92.10	24.96
LSD 5%			0.14	450.6	10.0	0.54	0.57	1.79
CV %			23.67	10.7	5.4	4.05	0.85	9.36
Mean			0.68	5881.8	229.8	16.58	92.33	25.64

Means for Above Treatments are an Average of 4 Varieties. See Variety Effects Below:

2	C 355	0.29	5647	232.2	16.76	92.25	24.44
1	B 5451	0.54	6079	224.8	16.17	92.54	27.05
3	B 5833 R	0.74	5920	232.5	16.81	92.19	25.44
4	B 5534 N	1.14					
LSD 5%		0.09	285.0	6.33	0.34	0.36	1.13

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
BeetCast Cercospora Trial
 Stoutenburg, Sandusky, MI - 2007
 Page 2

Trial Quality: Good

No	Treatment	Variety	CLS 0-9	RWSA	RWST	% Suc	% CJP	Tons/ Acre	
1	55/55/55	B 5451	0.19	5353	214.2	15.51	92.39	24.79	
2	55/55	B 5451	0.19	6359	226.6	16.33	92.42	28.20	
3	70/55	B 5451	0.19	6357	239.0	16.66	93.85	26.59	
6	Scout/55	B 5451	0.31	6098	224.5	16.18	92.50	27.16	
4	80/55	B 5451	0.38	6266	220.6	16.03	92.18	28.44	
7	Scout/Label	B 5451	0.38	5924	215.8	16.03	91.25	27.45	
5	100/55	B 5451	0.56	6437	230.3	16.47	92.76	28.27	
9	1 Spray Program	B 5451	0.75	6230	221.4	15.92	92.65	28.01	
8	Scout Delayed	B 5451	0.94	6007	231.2	16.54	92.70	26.16	
10	Untreated	B 5451	1.50	5757	224.1	16.07	92.67	25.42	
1	55/55/55	C 355	0.13	5712	227.7	16.49	92.19	25.18	
2	55/55	C 355	0.13	5432	237.2	17.25	91.75	23.25	
3	70/55	C 355	0.13	5357	243.5	17.13	93.36	21.99	
4	80/55	C 355	0.13	5590	228.4	16.49	92.33	24.48	
6	Scout/55	C 355	0.13	5881	227.5	16.46	92.25	25.83	
7	Scout/Label	C 355	0.13	5560	235.7	17.21	91.67	23.68	
9	1 Spray Program	C 355	0.38	5601	228.8	16.67	91.86	24.63	
8	Scout Delayed	C 355	0.44	5637	241.0	17.34	92.33	23.35	
5	100/55	C 355	0.50	6076	236.8	16.90	92.70	25.87	
10	Untreated	C 355	0.81	5623	215.3	15.71	92.07	26.10	
1	55/55/55	B 5833 R	0.19	5532	223.3	16.31	91.90	24.88	
3	70/55	B 5833 R	0.25	6252	243.7	17.44	92.54	25.60	
2	55/55	B 5833 R	0.31	5944	240.7	17.13	92.79	24.74	
4	80/55	B 5833 R	0.50	6175	224.6	16.40	91.89	27.47	
6	Scout/55	B 5833 R	0.50	6313	244.1	17.29	93.01	25.79	
7	Scout/Label	B 5833 R	0.63	6230	240.1	16.96	93.18	25.79	
5	100/55	B 5833 R	1.00	5826	226.1	16.53	91.77	25.93	
9	1 Spray Program	B 5833 R	1.00	6293	225.2	16.57	91.42	27.94	
8	Scout Delayed	B 5833 R	1.19	5475	238.5	17.36	91.87	22.93	
10	Untreated	B 5833 R	1.81	5156	218.8	16.12	91.55	23.35	
2	55/55	B 5534 N	0.63	Sugarbeet Stand Was Too Variable To Obtain Yield					
3	70/55	B 5534 N	0.63						
1	55/55/55	B 5534 N	0.69						
4	80/55	B 5534 N	0.75						
7	Scout/Label	B 5534 N	0.94						
6	Scout/55	B 5534 N	1.19						
5	100/55	B 5534 N	1.31						
8	Scout Delayed	B 5534 N	1.44						
9	1 Spray Program	B 5534 N	1.44						
10	Untreated	B 5534 N	2.38						

Michigan Sugar Company
BeetCast Cercospora Trial
 Gordon Bros., Croswell, MI - 2007

Page 1

Trial Quality: Good

No.	Treatment	# Applic	CLSrate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55 (55/68) (Jul 20, Aug 27)	2	0.54	7038	260.9	18.04	93.97	27.01
2	55/55 (55/68) (Jul 20, Aug 27)	2	0.63	7299	260.6	18.02	93.97	28.03
3	70/55 (72/51) (Aug 2, Aug 27)	2	0.71	6964	255.7	17.77	93.79	27.21
4	80/55 (94/48) (Aug 13, Sep 8)	2	0.83	7179	258.6	18.02	93.62	27.79
6	Scout/55 (94/48) (Aug 13, Sep 8)	2	0.83	6875	250.6	17.44	93.79	27.49
7	Scout/Label (94/29) (Aug 13, Aug 27)	2	0.88	7243	259.9	18.09	93.66	27.90
5	100/55 (123) (Aug 27)	1	1.10	6587	255.2	17.84	93.52	25.84
9	1 Spray Program (94) (Aug 13)	1	1.10	6605	260.4	18.18	93.50	25.33
8	Scout Delayed (123) (Aug 27)	1	1.35	6489	251.2	17.69	93.20	25.84
10	Untreated		2.83	5968	257.9	18.08	93.32	23.14
LSD 5%			0.19	505.6	ns	.ns	ns	1.83
CV %			21.8	8.8	4.1	3.22	0.76	8.43
Mean			1.08	6826.5	257.1	17.92	93.63	26.56

Means for Above Treatments are an Average of 2 Varieties. See Variety Effects Below:

2	C 355	0.63	6345	257.1	17.93	93.59	24.68
1	B 5451	1.53	7308	257.1	17.90	93.68	28.44
LSD 5%		0.08	226.1	ns	ns	ns	0.82

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
BeetCast Cercospora Trial
 Gordon Bros., Crosswell, MI - 2007
 Page 2

Variety Effects

No.	Treatment	Variety	CLS 0-9	RWSA	RWST	% Suc	% CJP	Tons/ Acre
1	55/55/55	B 5451	0.88	7765	258.9	17.97	93.81	30.00
2	55/55	B 5451	1.00	7763	262.9	18.19	93.91	29.56
4	80/55	B 5451	1.00	7631	260.7	18.09	93.81	29.25
3	70/55	B 5451	1.29	7726	256.3	17.70	94.07	30.15
7	Scout/Label	B 5451	1.29	7579	257.1	17.94	93.57	29.50
6	Scout/55	B 5451	1.42	6910	243.9	17.18	93.30	28.43
5	100/55	B 5451	1.58	7218	252.8	17.65	93.60	28.57
9	1 Spray	B 5451	1.71	6804	263.8	18.28	93.82	25.74
8	Scout Delay	B 5451	1.83	7049	254.1	17.93	93.05	27.74
10	Untreated	B 5451	3.29	6636	260.8	18.07	93.85	25.48

3	70/55	C 355	0.13	6201	255.1	17.83	93.51	24.28
1	55/55/55	C 355	0.21	6310	262.9	18.11	94.13	24.03
2	55/55	C 355	0.25	6835	258.4	17.85	94.04	26.50
6	Scout/55	C 355	0.25	6841	257.3	17.70	94.27	26.55
7	Scout/Label	C 355	0.46	6908	262.7	18.24	93.74	26.30
9	1 Spray	C 355	0.50	6406	257.1	18.08	93.18	24.92
5	100/55	C 355	0.63	5956	257.7	18.03	93.44	23.12
4	80/55	C 355	0.67	6763	256.5	17.95	93.43	26.32
8	Scout Delay	C 355	0.88	5930	248.4	17.45	93.34	23.94
10	Untreated	C 355	2.38	5299	254.9	18.10	92.79	20.80

Michigan Sugar Company
BeetCast Cercospora Trial
 D. McConnachie, Deckerville, MI - 2007

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Trial Quality: Good

No.	Treatment	# Applic	CLRate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
3	70/55 (84/46) (Aug 13, Sep 8)	2	0.45	7695	276.8	18.87	94.44	27.79
1	55/55/55 (58/54) (Jul 30, Aug 27)	2	0.47	7399	264.6	18.26	93.99	28.03
2	55/55 (58/54) (Jul 20, Aug 27)	2	0.49	7308	268.1	18.36	94.37	27.14
4	80/55 (84/46) (Aug 13, Sep 8)	2	0.54	7246	268.6	18.47	94.12	27.14
7	Scout/Label (84/28) (Aug 13, Aug 27)	2	0.63	7395	271.4	18.52	94.49	27.22
6	Scout/55 (84/46) (Aug 13, Sep 8)	2	0.66	7124	259.7	18.05	93.70	27.58
5	100/55 (112) (Aug 27)	1	0.97	7295	269.5	18.55	94.07	27.11
9	1 Spray Program (84) (Aug 13)	1	1.08	7797	273.4	18.80	94.09	28.43
8	Scout Delayed (112) (Aug 27)	1	1.22	7597	273.4	18.69	94.35	27.83
10	Untreated		1.85	7093	263.6	18.10	94.27	26.94
LSD 5%			0.09	419.4	7.44	0.43	0.33	4.57
CV %			17.1	10.7	4.8	4.2	0.6	10.9
Mean			0.84	7384.6	268.6	18.43	94.18	27.48

Means for Above Treatments are an Average of 4 Varieties. See Variety Effects Below:

2	C 355	0.40	7072	269.6	18.47	94.31	26.23
1	B 5451	0.69	7498	259.0	17.89	94.02	28.98
3	B 5833 R	0.91	7614	278.1	19.04	94.24	27.35
4	B 5534 N	1.33					
LSD 5%		0.06	265.2	4.7	0.27	0.21	1.00

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company BeetCast Cercospora Trial

D. McConnachie, Deckerville, MI - 2007

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Variety Effects

No	Treatment	Variety	CLS 0-9	RWSA	RWST	% Suc	% CJP	Tons/ Acre
3	70/55	B 5451	0.33	8078	266.0	18.21	94.37	30.15
2	55/55	B 5451	0.33	7553	261.5	18.04	94.11	28.68
6	Scout/55	B 5451	0.42	7153	251.7	17.49	93.78	28.57
7	Scout/Label	B 5451	0.46	7931	264.2	18.12	94.33	30.04
1	55/55/55	B 5451	0.46	7838	250.4	17.51	93.53	31.42
4	80/55	B 5451	0.50	6878	256.1	17.73	93.97	26.93
5	100/55	B 5451	0.71	7155	256.6	17.78	93.89	28.08
9	1 Spray	B 5451	0.92	7664	265.0	18.37	93.78	28.93
8	Scout Delay	B 5451	1.13	7552	261.3	17.99	94.17	29.00
10	Untreated	B 5451	1.67	7178	257.1	17.68	94.29	28.04

1	55/55/55	C 355	0.17	6643	264.6	18.21	94.12	25.11
4	80/55	C 355	0.21	7068	275.2	18.79	94.42	26.05
6	Scout/55	C 355	0.21	6867	257.9	17.91	93.83	26.66
7	Scout/Label	C 355	0.21	6466	271.1	18.50	94.52	23.77
3	70/55	C 355	0.25	7148	278.6	19.00	94.43	25.60
2	55/55	C 355	0.25	6934	269.7	18.41	94.52	25.64
9	1 Spray	C 355	0.54	7771	269.3	18.49	94.20	28.73
5	100/55	C 355	0.58	7486	276.6	18.85	94.50	26.96
8	Scout Delay	C 355	0.63	7206	270.9	18.55	94.32	26.57
10	Untreated	C 355	1.00	7135	262.1	18.04	94.21	27.18

3	70/55	B 5833	0.38	7858	285.7	19.42	94.53	27.62
1	55/55/55	B 5833	0.38	7714	278.9	19.06	94.32	27.57
2	55/55	B 5833	0.54	7438	273.2	18.62	94.50	27.08
4	80/55	B 5833	0.63	7791	274.3	18.90	93.97	28.44
6	Scout/55	B 5833	0.63	7352	269.5	18.76	93.50	27.49
7	Scout/Label	B 5833	0.71	7789	278.9	18.95	94.61	27.85
5	100/55	B 5833	1.08	7245	275.1	19.01	93.82	26.28
9	1 Spray	B 5833	1.21	7957	285.9	19.54	94.28	27.63
8	Scout Delay	B 5833	1.46	8034	287.9	19.54	94.58	27.92
10	Untreated	B 5833	2.13	6967	271.6	18.60	94.31	25.59

2	55/55	B 5534N	0.83	Sugarbeet Stand Was Too Variable to Obtain Yield				
3	70/55	B 5534N	0.83					
4	80/55	B 5534N	0.83					
1	55/55/55	B 5534N	0.88					
7	Scout/Label	B 5534N	1.13					
6	Scout/55	B 5534N	1.38					
5	100/55	B 5534N	1.50					
8	Scout Delay	B 5534N	1.67					
9	1 Spray	B 5534N	1.67					
10	Untreated	B 5534N	2.63					

Michigan Sugar Company
BeetCast Cercospora Trial

Maxwell Seed Farm, Hope, MI - 2007

Trial Quality: Good

No.	Treatment	# Applic	CLRate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
2	55/55 (55/63) (Jul 24, Aug 27)	2	1.33	6087	245.5	17.07	93.87	24.81
1	55/55/55 (55/63) (Jul 24, Aug 27)	2	1.42	6401	250.4	17.40	93.87	26.23
7	Scout/Label (74/44) (Aug 3, Aug 27)	2	1.63	5843	243.3	17.00	93.68	24.40
3	70/55 (72/62) (Aug 2, Sep 13)	2	2.17	6043	240.0	16.71	93.89	25.18
6	Scout/55 (74/60) (Aug 3, Sep 13)	2	2.29	5995	254.6	17.47	94.40	23.56
4	80/55 (90/134) (Aug 10, Sep 13)	2	2.50	5974	244.8	16.92	94.17	24.47
9	1 Spray Program (95) (Aug 15)	1	2.63	6271	248.5	17.12	94.26	25.23
8	Scout Delayed (90) (Aug 10)	1	2.71	6055	243.9	16.71	94.68	24.84
5	100/55 (95) (Aug 15)	1	2.88	6382	251.5	17.25	94.49	25.38
10	Untreated		3.71	5473	232.5	16.21	93.91	23.58
LSD 5%			0.28	ns	ns	ns	ns	ns
CV %			10.2	11.8	6.2	5.01	0.78	9.4
Mean			2.33	6052.2	245.5	16.99	94.12	24.77

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: B 5451

Michigan Sugar Company
BeetCast Cercospora Trial
 Hrabal Farm, Breckenridge, MI - 2007**

Page 1

Trial Quality: Fair

No.	Treatment	# Applic	CLSrate 0-9*
1	55/55 (60/49) (Jul 21, Aug 15)	2	0.67
2	55/55/55 (60/49) (Jul 21, Aug 15)	2	0.83
6	Scout/55 (71/60) (Jul 30, Aug 27)	2	1.19
7	Scout/Label (71/36) (Jul 30, Aug 15)	2	1.23
3	70/55 (71/60) (Jul 30, Aug 27)	2	1.35
4	80/55 (83/48) (Aug 3, Aug 27)	2	1.44
5	100/55 (107) (Aug 15)	1	1.73
9	1 Spray Program (100) (Aug 10)	1	1.75
8	Scout Delayed (100) (Aug 10)	1	1.81
10	Untreated	0	2.94
LSD 5%			0.21
CV %			18.4
Mean			1.49

Means for Above Treatments are an Average of 2 Varieties.
 See Variety Effects Below.

1	C 355	1.01
2	B 5833 R	1.98
LSD 5%		0.1

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

** No harvest data was obtained because of loss to Rhizoctonia.

Michigan Sugar Company
BeetCast Cercospora Trial

Hrabal Farm, Breckenridge, MI - 2007*

Page 2

Variety Effects

No.	Treatment	Variety	CLS 0-9
2	55/55	B 5451	0.96
1	55/55/55	B 5451	1.08
6	Scout/55	B 5451	1.46
7	Scout/Label	B 5451	1.83
3	70/55	B 5451	2.04
4	80/55	B 5451	2.04
9	1 Spray	B 5451	2.21
5	100/55	B 5451	2.33
8	Scout Delay	B 5451	2.33
10	Untreated	B 5451	3.46

No	Treatment	Variety	CLS 0-9
2	55/55	C 355	0.38
1	55/55/55	C 355	0.58
7	Scout/Label	C 355	0.63
3	70/55	C 355	0.67
4	80/55	C 355	0.83
6	Scout/55	C 355	0.92
5	100/55	C 355	1.13
8	Scout Delay	C 355	1.29
9	1 Spray	C 355	1.29
10	Untreated	C 355	2.42

* No harvest data was obtained because of loss to Rhizoctonia.

Michigan Sugar Company
BeetCast Cercospora Trial
 Jurek Farms, Twining, MI - 2007**

Page 1

Trial Quality: Fair

No.	Treatment	# Applic	CLSrate 0-9*
2	55/55 (60/68) (Jul 19, Aug 27)	2	0.24
3	70/55 (71/57) (Jul 30, Aug 27)	2	0.28
7	Scout/Label (80/45) (Aug 2, Aug 27)	2	0.40
1	55/55/55 (60/68) (Jul 19, Aug 27)	2	0.43
4	80/55 (81) (Aug 2)	1	0.44
6	Scout/55 (81) (Aug 2)	1	0.58
5	100/55 (104) (Aug 14)	1	1.26
8	Scout Delayed (128) (Aug 27)	1	1.25
9	1 Spray Program (104) (Aug 14)	1	1.83
10	Untreated		2.95
LSD 5%			0.16
CV %			22.8
Mean			0.97

Means for Above Treatments are an Average of 3 Varieties.
 See Variety Effects Below:

2	C 355	0.65
1	B 5451	1.00
3	B 5833 R	1.21
LSD 5%		0.09

** No harvest data was obtained because of loss to Rhizoctonia.

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
BeetCast Cercospora Trial
 Jurek Farms, Twining, MI - 2007*
 Page 2

Variety Effects

No.	Treatment	Variety	CLS 0-9
2	55/55	B 5451	0.25
3	70/55	B 5451	0.38
7	Scout/Label	B 5451	0.38
4	80/55	B 5451	0.54
1	55/55/55	B 5451	0.58
6	Scout/55	B 5451	0.67
8	Scout Delayed	B 5451	1.17
5	100/55	B 5451	1.42
9	1 Spray Program	B 5451	1.83
10	Untreated	B 5451	3.04

3	70/55	C 355	0.08
7	Scout/Label	C 355	0.17
2	55/55	C 355	0.17
6	Scout/55	C 355	0.21
1	55/55/55	C 355	0.25
4	80/55	C 355	0.25
5	100/55	C 355	0.67
8	Scout Delayed	C 355	0.67
9	1 Spray Program	C 355	1.42
10	Untreated	C 355	2.58

2	55/55	B 5833 R	0.29
3	70/55	B 5833 R	0.38
1	55/55/55	B 5833 R	0.46
4	80/55	B 5833 R	0.52
7	Scout/Label	B 5833 R	0.67
6	Scout/55	B 5833 R	0.88
5	100/55	B 5833 R	1.71
8	Scout Delayed	B 5833 R	1.92
9	1 Spray Program	B 5833 R	2.25
10	Untreated	B 5833 R	3.25

* No harvest data was obtained because of loss to Rhizoctonia.

Michigan Sugar Company
**Effect of Pressure, Gallonage and Surfactants
on Control of Cercospora**

Blumfield, MI - 2007

Page 1

Trial Quality: Fair

No.	Treatment	CLS Rate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
7	20 GPA / 100 PSI NIS	1.71	5052	244.0	17.10	93.53	20.75
8	20 GPA / 100 PSI No Surfactant	1.75	5128	241.9	16.82	93.95	21.14
3	10 GPA / 100 PSI NIS	1.96	5193	243.8	17.04	93.66	21.24
6	20 GPA / 50 PSI No Surfactant	2.13	5248	251.2	17.38	94.05	20.97
4	10 GPA / 100 PSI No Surfactant	2.17	4901	234.7	16.60	93.22	20.89
5	20 GPA / 50 PSI 50 PSI	2.25	5232	239.0	16.77	93.53	22.08
2	10 GPA 50 PSI No Surfactant	2.29	5075	247.4	17.24	93.75	20.52
1	10 GPA 50 PSI NIS	2.42	5470	242.5	16.96	93.62	22.53
9	Untreated	3.21	4762	230.6	16.48	92.78	20.41
LSD (P=.05)		0.23	NS	NS	NS	NS	NS
CV		8.5	9.6	4.6	3.5	0.69	7.9
Grand Mean		2.21	5117.9	241.7	16.93	93.57	21.17

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Effect of Pressure, Gallonage and Surfactants
on Control of Cercospora**

Blumfield, MI - 2007

Page 2

No.	Treatment	CLS Rate 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
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Compare Gallons per Acre

2	20 GPA	1.96	5165	244.1	17.02	93.77	21.24
1	10 GPA	2.21	5160	242.1	16.96	93.56	21.30

Compare Pressure

2	100 PSI	1.90	5069	241.1	16.89	93.59	21.01
1	50 PSI	2.27	5256	245.1	17.09	93.74	21.53

Compare Fungicides

1	NIS	2.08	5237	242.3	16.97	93.59	21.65
1	Eminent						
1	Headline						
2	No Surfactant	2.08	5088	243.8	17.01	93.74	20.88
2	Eminent						
2	Headline						

LSD (P=.05)	0.119	ns	ns	ns	ns	ns
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* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
**Control of Cercospora Leafspot with
 Fungicides & Crop Oil Concentrates (COC)**
 Blumfield - 2007

Trial Quality: Good

No	Treatment	Rate	Unit	CLS 0-9*	Phyto	RWSA	RWST	%Suc	%CJP	Tons/A
6	Gem SC COC	3.4 1	fl oz/a qt/a	1.55	0.0	5885	226.1	16.24	92.59	25.99
5	Gem SC	3.4	fl oz/a	1.60	0.0	5996	227.7	16.37	92.54	26.34
1	Headline	9	fl oz/a	1.75	0.0	6193	238.0	16.92	92.92	26.00
3	Eminent	13	fl oz/a	1.80	0.0	6147	241.9	17.21	92.84	25.38
2	Headline COC	9 1	fl oz/a qt/a	1.80	1.0	5760	227.0	16.48	92.10	25.41
20	Eminent SA-140307	10 4	fl oz/a oz/a	1.85	1.0	5569	224.7	16.37	91.96	24.78
11	Enable COC Dithane	8 1 2	fl oz/a qt/a lb/a	1.85	0.0	6178	233.5	16.61	92.93	26.49
8	Gem DF COC	7 1	oz/a qt/a	1.85	0.0	5567	225.0	16.40	91.95	24.67
15	Topsin Super Tin COC	8 3.8 1	oz/a oz/a qt/a	1.90	4.2	5654	231.6	16.66	92.49	24.44
21	SA-140201	16	fl oz/a	1.95	0.0	5829	227.2	16.42	92.32	25.66
10	Enable COC	8 1	fl oz/a qt/a	1.95	0.5	5480	226.3	16.34	92.36	24.18
12	Super Tin	5	oz/a	2.05	1.0	5678	224.5	16.34	92.05	25.28
4	Eminent COC	13 1	fl oz/a qt/a	2.05	0.0	5968	230.7	16.69	92.22	25.88
19	Eminent SA-140307	13 5	fl oz/a oz/a	2.10	0.5	6016	234.0	16.85	92.39	25.70
13	Super Tin COC	5 1	oz/a qt/a	2.10	3.7	5850	237.6	16.85	93.06	24.61
7	Gem DF	7	oz/a	2.25	0.0	5908	230.0	16.73	91.97	25.70
14	Topsin Super Tin	8 3.8	oz/a oz/a	2.30	1.2	5331	232.6	16.73	92.46	22.91
9	Enable	8	fl oz/a	2.60	0.0	5754	223.8	16.32	91.96	25.71
17	Dithane COC	2 1	lb/a qt/a	2.65	1.0	5546	230.7	16.62	92.42	24.08
16	Dithane	2	lb/a	2.85	0.0	5271	224.3	16.27	92.17	23.53
18	Kocide 3000 Sticker	2 1	lb/a pt/100 gal	3.15	1.0	5350	229.0	16.47	92.51	23.39
22	UTC			3.95	0.0	4842	223.8	16.43	91.65	21.62
LSD (P=.05)				0.57	1.33	502.1	14.3	0.74	1.12	1.41
CV				20.6	153.1	6.9	4.9	3.52	0.96	4.48
Grand Mean				2.18	0.69	5716.9	229.6	16.56	92.36	24.90

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Crystal R827

Michigan Sugar Company
Control of Cercospora Leafspot in Michigan With Fungicides
 Blumfield - 2007

Trial Quality: Good

No	Treatment	Rate	Unit	CLS 0-9*	Phyto	RWSA	RWST	%Suc	%CJP	Tons/A
3	Gem SC	3.4	fl oz/a	1.60	0.0	5996	227.7	16.37	92.54	26.34
1	Headline	9	fl oz/a	1.75	0.0	6212	238.1	16.91	92.95	26.07
2	Eminent	13	fl oz/a	1.80	0.0	6147	241.9	17.21	92.84	25.38
6	Enable	8	fl oz/a	1.85	0.0	6198	234.3	16.65	92.96	26.48
	COC	1	qt/a							
	Dithane	2	lb/a							
5	Enable	8	fl oz/a	1.95	0.5	5480	226.3	16.34	92.36	24.18
	COC	1	qt/a							
7	Super Tin	5	oz/a	2.05	1.0	5678	224.5	16.34	92.05	25.28
4	Gem DF	7	oz/a	2.25	0.0	5908	230.0	16.73	91.97	25.70
8	Topsin	8	oz/a	2.30	1.2	5331	232.6	16.73	92.46	22.91
	Super Tin	3.8	oz/a							
9	Dithane	2	lb/a	2.85	0.0	5271	224.3	16.27	92.17	23.53
10	Kocide 3000	2	lb/a	3.15	1.0	5334	228.6	16.44	92.53	23.36
	Sticker	1	pt/100 gal							
11	UTC			3.95	0.0	4842	223.8	16.43	91.65	21.62
LSD (P=.05)				0.53	1.50	505.7	14.7	0.74	0.96	1.29
CV				17.9	350.0	7.0	5.0	3.52	0.80	4.10
Grand Mean				2.32	0.34	5672.4	230.2	16.58	92.41	24.62

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Crystal R827

Michigan Sugar Company
**Control of Cercospora Leafspot in Michigan with
 Proline and Gem SC**

Blumfield, MI - 2007

Trial Quality: Fair

No	Treatment	Rate	Unit	CLS 0-9*	RWSA	RWST	% Suc	% CJP	Tons/ Acre
5	Proline 4 SC	5	fl oz/a	1.58	5758	257.0	17.49	94.82	22.42
	NIS	0.125	% v/v						
	Super Tin 80% WP	5	oz/a						
4	Proline 4 SC	5	fl oz/a	1.63	6128	251.2	17.30	94.28	24.48
	Super Tin 80% WP	5	oz/a						
6	Proline 4 SC	5	fl oz/a	1.67	5866	255.2	17.45	94.58	23.03
	COC	1	% v/v						
	Super Tin 80% WP	5	oz/a						
7	Eminent 125 SL	13	fl oz/a	1.71	5205	249.5	17.10	94.56	20.84
	Super Tin 80% WP	5	oz/a						
3	Gem 4.17 SC	3.36	fl oz/a	1.79	6107	247.7	17.09	94.22	24.61
	NIS	0.25	% v/v						
	Super Tin 80% WP	5	oz/a						
2	Gem 4.17 SC	3.36	fl oz/a	1.79	5749	243.6	16.95	93.86	23.66
	Super Tin 80% WP	5	oz/a						
1	Gem 25 WG	7	oz/a	2.04	5792	247.5	17.04	94.32	23.43
	Super Tin 80% WP	5	oz/a						
8	Untreated			3.50	5835	253.9	17.37	94.56	22.95
LSD (P=.05)				0.302	ns	ns	ns	ns	ns
CV				13.03	9.4	4.3	3.09	0.71	8.24
Grand Mean				1.96	5804.9	250.7	17.22	94.40	23.18

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Evaluate Enable with Dithane for Control of
 Cercospora Leafspot in Sugarbeets**
 Blumfield, MI - 2007

Trial Quality: Fair

No.	Name	Rate	Unit	CLS 0-9* Sept 22	RWSA	RWST	%Suc	%CJP	Tons/A
4	Headline	9	FL OZ/A	1.7	6586	302.1	17.61	93.59	21.79
3	Eminent	13	FL OZ/A	1.8	6850	299.4	17.47	93.77	22.93
2	Enable	8	FL OZ/A	2.1	6714	287.8	16.83	93.59	23.25
	COC	1	% V/V						
	Dithane	2	LB/A						
5	Super Tin	5	OZ/A	2.3	6767	301.1	17.56	93.76	22.48
1	Enable	8	FL OZ/A	2.4	6323	309.1	17.99	94.68	20.33
	COC	1	% V/V						
6	Topsin M	8	OZ/A	2.5	6479	299.2	17.46	93.83	21.62
	Manzate DF	2	LB/A						
7	Topsin M	8	OZ/A	2.6	6430	295.2	17.24	94.34	21.80
	Kocide 3000	2	LB/A						
8	Untreated			3.7	6165	295.3	17.25	93.86	20.87
LSD (P=.05)				0.3	ns	12.3	0.67	0.86	2.65
CV				9.5	11.1	3.5	3.23	0.77	10.18
Grand Mean				2.4	6539.4	298.6	17.43	93.93	21.88

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Control of Cercospora Leafspot With Experimental
 Fungicides - Syngenta**

Average of 2 Locations
 2007

No.	Treatment	Rate	Rate Unit	Appl Code	CLS 0-9* 9-22	RWSA	RWST	%Suc	%CJP	Tons/A
4	A8122 (DFZ + PPZ)	7	fl oz/a	ABCD	1.15	5359	224.9	15.69	94.00	23.71
2	Difenoconazole (A7402T)	7	fl oz/a	AC	1.28	5308	218.7	15.62	93.04	24.20
	Headline 2.09 EC	9	fl oz/a	BD						
3	A8122 (DFZ + PPZ)	5	fl oz/a	ABCD	1.29	5603	231.1	16.02	94.22	24.18
8	Eminent 125 SL	13	fl oz/a	AC	1.39	5427	222.3	15.65	93.68	24.24
	Headline 2.09 EC	9	fl oz/a	BD						
5	A8122 (DFZ + PPZ)	5	fl oz/a	AC	1.53	5513	227.3	16.03	93.49	24.11
	Headline 2.09 EC	9	fl oz/a	BD						
7	A13703 (Quadris + DFZ)	8.5	fl oz/a	AC	1.67	5594	224.9	15.89	93.44	24.82
	Super Tin	2.5	oz wt/a	BD						
6	A8122 (DFZ + PPZ)	7	fl oz/a	AC	1.74	5241	223.3	15.70	93.67	23.41
	Quadris 2.08 SC	11.5	fl oz/a	BD						
1	Untreated Check				3.07	4893	212.2	15.27	92.78	22.90
LSD (P=.05)					0.53	213.4	13.5	ns	ns	1.25
CV					13.58	1.7	2.6	1.38	0.72	2.20
Grand Mean					1.64	5367.0	223.1	15.73	93.54	23.94

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Michigan Sugar Company
**Control of Cercospora Leafspot With Experimental
 Fungicides - Syngenta**
 Blumfield, MI - 2007

Trial Quality: Fair

No.	Name	Rate	Unit	Appl Code	CLS 0-9*	RWSA	RWST	%Suc	%CJP	Tons/A
4	A8122 (DFZ + PPZ)	7	fl oz/a	ABCD	1.31	6133	247.2	16.95	94.56	24.81
3	A8122 (DFZ + PPZ)	5	fl oz/a	ABCD	1.44	6396	253.1	17.19	94.96	25.35
5	A8122 (DFZ + PPZ)	5	fl oz/a	AC	1.56	6253	242.4	17.19	92.95	25.78
		Headline 2.09 EC	9	fl oz/a						
8	Eminent 125 SL	13	fl oz/a	AC	1.63	6132	236.5	16.64	93.44	25.87
		Headline 2.09 EC	9	fl oz/a						
2	Difenoconazole (A7402T)	7	fl oz/a	AC	1.63	5908	235.0	16.83	92.60	25.26
		Headline 2.09 EC	9	fl oz/a						
7	A13703 (Quadris + DFZ)	8.5	fl oz/a	AC	1.81	6320	234.9	16.67	93.02	26.99
		Super Tin	2.5	oz wt/a						
6	A8122 (DFZ + PPZ)	7	fl oz/a	AC	1.81	5931	239.5	16.73	93.76	24.77
		Quadris 2.08 SC	11.5	fl oz/a						
1	Untreated Check				3.56	5541	227.9	16.38	92.57	24.23
LSD (P=.05)					0.46	700.8	16.6	0.77	1.54	ns
CV					16.80	7.8	4.7	3.12	1.12	7.82
Grand Mean					1.84	6076.7	239.6	16.82	93.48	25.38

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Control of Cercospora Leafspot With Experimental
 Fungicides - Syngenta**
 Wegener, Bay City, MI - 2007

Trial Quality: Fair

No.	Treatment	Rate	Rate Unit	Appl Code	CLS 0-9*	RWSA	RWST	%Suc	%CJP	Tons/A
2	Difenoconazole (A7402T)	7	fl oz/a	AC	0.96	4707	202.3	14.40	93.47	23.13
	Headline 2.09 EC	9	fl oz/a	BD						
4	A8122 (DFZ + PPZ)	7	fl oz/a	ABCD	1.00	4584	202.6	14.42	93.44	22.60
8	Eminent 125 SL	13	fl oz/a	AC	1.17	4721	208.1	14.65	93.91	22.60
	Headline 2.09 EC	9	fl oz/a	BD						
3	A8122 (DFZ + PPZ)	5	fl oz/a	ABCD	1.17	4810	209.0	14.84	93.48	23.00
5	A8122 (DFZ + PPZ)	5	fl oz/a	AC	1.46	4772	212.2	14.87	94.02	22.43
	Headline 2.09 EC	9	fl oz/a	BD						
7	A13703 (Quadris + DFZ)	8.5	fl oz/a	AC	1.54	4868	214.9	15.10	93.85	22.64
	Super Tin	2.5	oz wt/a	BD						
6	A8122 (DFZ + PPZ)	7	fl oz/a	AC	1.67	4551	207.0	14.67	93.58	22.04
	Quadris 2.08 SC	11.5	fl oz/a	BD						
1	Untreated Check				2.54	4245	196.5	14.15	92.99	21.57
LSD (P=.05)					0.37	ns	16.3	0.93	0.91	ns
CV					22.0	13.0	0.7	5.37	0.82	9.55
Grand Mean					1.4	4657.3	206.6	14.64	93.59	22.50

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Evaluate Eminent with Super Tin Mixtures For
 Cercospora Control In Sugarbeets**
 Blumfield, MI - 2007

Trial Quality: Fair

No.	Treatment	Rate	Rate Unit	Appl Timing	CLS 0-9*	RWST	%Suc	%CJP
1	Eminent	13	fl oz/a	1	1.21	220.1	15.37	94.06
	Super Tin	5	oz wt/a	2				
	Headline	9	fl oz/a	3				
3	SA-140201 ¹	12.8	fl oz/a	1, 2	1.50	219.9	15.40	93.93
	Headline	9	fl oz/a	3				
2	Eminent	10	fl oz/a	1, 2	1.50	227.4	15.60	94.88
	Super Tin	4	oz wt/a	1, 2				
	Headline	9	fl oz/a	3				
4	Untreated				2.96	213.5	14.92	94.15
LSD (P=.05)					0.42	ns	ns	ns
CV					18.84	5.67	4.76	0.78
Grand Mean					1.79	220.2	15.32	94.25

¹ Treatment 3: Premix of Eminent and Super Tin

Sugarbeet Yields were not obtained.

* CLSrate 0-9: Visual Rating Scale, 0 = no disease, 3.5 = Beginning of Leaf Desiccation and 9 = Complete Desiccation. Economic Damage Begins at a CLS Rating of Approximately 2.5 to 3.0.

Variety: Beta 5833R

Michigan Sugar Company
**Control of Rhizoctonia in Sugarbeets
 With Quadris Application Timings**

Average of 4 Locations
 2007

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Dead Beets #/100ft
4	Quadris at 2-4 Leaf	5977	244.5	16.93	93.96	24.35	4.2
3	Quadris at 65°F (Cot-2 lf)	5869	242.1	16.79	94.30	24.09	4.3
1	Quadris at 50°F (Sprouted)	5753	243.5	16.86	94.11	23.54	4.9
5	Quadris at 6-8 Leaf	5705	244.1	16.94	94.00	23.23	5.7
2	Quadris at 59°F (Cotyl)	5690	238.7	16.66	93.79	23.69	5.3
6	Check	5222	232.4	16.38	93.38	22.35	11.3
LSD (P=.05)		474.0	6.1	0.31	0.48	1.72	3.2
CV		5.5	1.7	1.21	0.34	4.85	35.5
Grand Mean		5702.3	240.9	16.76	93.92	23.54	6.0

Quadris applied at 10.5 fl oz/A in 11 GPA and 30 PSI
 6502 E Nozzles, 3 MPH, 7 inch Band

Summary: Nothing has been proven about timing Quadris applications based on soil temperature. The best recommendation is to apply when the beets have 2-6 leaves.

Variety: HM 2771Rz

Michigan Sugar Company
**Control of Rhizoctonia in Sugarbeets
 With Quadris Application Timings**

Sylvester Farm, Quanicassee, MI
 2007

Trial Quality: Fair

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Dead Beets #/100ft
3	Quadris at 65°F (Cot-2 lf)	7458	262.2	17.58	95.50	28.42	0.0
1	Quadris at 50°F (Sprouted)	7438	258.8	17.49	95.14	28.72	0.7
4	Quadris at 2-4 Leaf	7431	263.7	17.84	95.00	28.18	0.3
5	Quadris at 6-8 Leaf	7164	262.9	17.70	95.30	27.19	0.0
6	Check	7083	251.8	17.22	94.61	28.11	0.0
2	Quadris at 59°F (Cotyl)	7015	257.6	17.46	94.99	27.20	0.8
LSD (P=.05)		ns	11.1	ns	ns	1.51	0.7
CV		7.1	3.6	3.02	0.55	4.53	200.3
Grand Mean		7264.6	259.5	17.55	95.09	27.97	0.3

Quadris applied at 10.5 fl oz/A in 11 GPA and 30 PSI
 6502 E Nozzles, 3 MPH, 7 inch Band

Planted: April 24 Harvested: October 8
 Variety: HM 2771Rz

Michigan Sugar Company
**Control of Rhizoctonia in Sugarbeets
 With Quadris Application Timings**

Crumbaugh Farm, Breckenridge, MI
 2007

Trial Quality: Good

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Dead Beets #/100ft
3	Quadris at 65°F (Cot-2 lf)	5736	243.7	16.90	94.05	23.54	1.3
2	Quadris at 59°F (Cotyl)	5643	240.7	16.67	94.15	23.45	1.3
4	Quadris at 2-4 Leaf	5579	235.6	16.56	93.47	23.68	1.2
5	Quadris at 6-8 Leaf	5500	243.0	16.85	94.04	22.62	1.7
1	Quadris at 50°F (Sprouted)	5101	240.0	16.67	94.02	21.23	2.2
6	Check	4915	225.1	15.99	93.12	21.82	10.3
LSD (P=.05)		550.9	15.1	0.83	0.76	1.35	4.1
CV		8.5	5.3	4.20	0.68	4.97	113.6
Grand Mean		5412.3	238.0	16.61	93.81	22.72	3.0

Quadris applied at 10.5 fl oz/A in 11 GPA and 30 PSI
 6502 E Nozzles, 3 MPH, 7 inch Band

Planted: May 7 Harvested: September 20
 Variety: HM 2771Rz

Michigan Sugar Company
**Control of Rhizoctonia in Sugarbeets
 With Quadris Application Timings**

Meylan Farm, Linwood, MI
 2007

Trial Quality: Good

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Dead Beets #/100ft
4	Quadris at 2-4 Leaf	7118	244.0	17.21	93.24	29.20	6.5
3	Quadris at 65°F (Cot-2 lf)	6509	232.7	16.59	93.87	27.98	6.3
2	Quadris at 59°F (Cotyl)	6377	230.9	16.57	92.58	27.64	7.8
1	Quadris at 50°F (Sprouted)	6324	235.1	16.74	92.86	26.91	6.8
5	Quadris at 6-8 Leaf	6175	236.8	16.87	92.86	26.07	7.7
6	Check	5205	225.8	16.27	92.44	23.18	13.7
LSD (P=.05)		705.0	12.9	ns	ns	2.92	4.9
CV		9.4	4.6	3.30	0.82	9.20	50.7
Grand Mean		6285.0	234.2	16.71	92.81	26.83	8.1

Quadris applied at 10.5 fl oz/A in 11 GPA and 30 PSI
 6502 E Nozzles, 3 MPH, 7 inch Band

Planted: May 8 Harvested: September 27
 Variety: HM 2771Rz

Michigan Sugar Company
**Control of Rhizoctonia in Sugarbeets
 With Quadris Application Timings**

Dave Helmreich, Bay City, MI
 2007

Trial Quality: Fair-Good

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Dead Beets #/100ft
1	Quadris at 50°F (Sprouted)	4148	240.2	16.55	94.41	17.28	10.0
5	Quadris at 6-8 Leaf	3980	233.7	16.33	93.81	17.05	13.3
4	Quadris at 2-4 Leaf	3779	234.7	16.09	94.13	16.34	8.7
3	Quadris at 65°F (Cot-2 lf)	3772	229.6	16.08	93.79	16.43	9.7
2	Quadris at 59°F (Cotyl)	3723	225.6	15.93	93.42	16.45	11.2
6	Check	3683	226.7	16.02	93.35	16.27	21.2
LSD (P=.05)		455.4	ns	ns	ns	ns	6.6
CV		9.9	5.6	3.70	1.10	9.40	44.7
Grand Mean		3848.0	231.2	16.17	93.82	16.64	12.4

Quadris applied at 10.5 fl oz/A in 11 GPA and 30 PSI
 6502 E Nozzles, 3 MPH, 7 inch Band

Planted: April 25 Harvested: September 27
 Variety: HM 2771Rz

Michigan Sugar Company
Vydate & Temik Control of Cyst Nematodes*
 2007
 Yoder, Bay Port, MI

No.	Name	Rate	Unit	RWSA	RWST	% Suc	% CJP	Tons/ Acre	Stand % May 29	Stand % June 21	Vigor Rating July 15
5	Untreated B 1643N			6396	255.1	94.62	25.02	17.44	85.7	85.9	9.0
4	Temik B 5451	20	LB/A	5920	255.1	94.09	23.18	17.62	76.7	63.7	8.5
3	Vydate B 5451	2	LB A/A	5759	254.3	93.63	22.61	17.74	82.9	64.3	8.8
	Vydate B 5451	2	LB A/A								
1	Vydate B 5451	2	LB A/A	5670	256.7	93.67	22.06	17.88	83.2	64.8	8.5
	Vydate B 5451	1	LB A/A								
2	Vydate B 5451	2	LB A/A	5612	256.6	93.95	21.85	17.77	84.6	66.6	8.8
	Vydate B 5451	1	LB A/A								
	Vydate B 5451	1	LB A/A								
6	Untreated B 5451			5546	259.0	94.16	21.50	17.85	80.5	68.4	8.5
LSD (P=.05)				ns	ns	ns	ns	ns	ns	ns	ns
CV				12.2	6.4	0.87	8.17	6.05	11.2	10.4	8.5
Grand Mean				5816.9	256.1	94.02	22.70	17.72	82.3	68.9	8.7

* There were no Cyst Nematodes present.

Results: There was no significant difference in any of the treatments.

Michigan Sugar Company
Strobi Yield Enhancement
 2007
 Maust, Bay Port, MI

#	Treatment	Rate	RWSA	RWST	% Suc	% CJP	Tons/A
2	Eminent Late	13 fl oz/A	6754	254.6	17.73	93.69	26.57
4	Amistar Early	3.5 oz/A	6730	258.2	17.94	93.77	26.05
5	Check		6708	259.6	17.98	93.92	25.84
1	Headline Early	9 fl oz/A	6668	246.7	17.48	93.00	27.00
3	Gem Early	7 oz/A	6638	253.1	17.73	93.44	26.17
7	Gem Late	7 oz/A	6632	256.8	18.03	93.27	25.81
6	Headline Late	9 fl oz/A	6509	253.4	17.59	93.84	25.63
9	Eminent Early	13 fl oz/A	6476	256.1	17.82	93.73	25.25
8	Amistar Late	3.5 oz/A	6442	255.7	17.91	93.41	25.20
LSD (P=.05)			ns	12.0	ns	ns	ns
CV			9.5	4.0	2.90	0.97	7.90
Grand Mean			6617.4	254.9	17.80	93.56	25.95

Plant: May 4 Harvest: October 25

Treatments applied at 20gpa and 100psi.

Michigan Sugar Company
Tachigaren
 2007

Average of 3 Locations

#	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Beets/ 100 Ft.
1	Tachigaren	7023	260.7	17.95	94.13	26.59	182.8
2	Check	6666	253.6	17.64	93.73	26.38	177.6
LSD (P=.05)		ns	ns	ns	ns	ns	ns
CV		4.2	2.32	2.06	0.27	0.9	6.0
Grand Mean		6844.8	257.17	17.79	93.93	26.5	180.2

Tachigaren at a 20 gram rate applied as a seed treatment.

Michigan Sugar Company
Tachigaren
 2007

Maust, Bay Port, MI

#	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Beets/ 100 Ft. May 29	Beets/ 100 Ft. June 8	Beets/ 100 Ft. June 21
1	Tachigaren	6828	265.0	18.12	94.45	25.75	141.7	127.7	121.1
2	Check	6378	251.5	17.54	93.68	25.49	162.4	140.0	133.6
LSD (P=.05)		ns	ns	ns	ns	ns	ns	ns	ns
CV		9.2	5.9	3.88	1.07	10.64	5.1	7.9	8.2
Grand Mean		6602.9	258.2	17.83	94.06	25.62	152.0	133.8	127.4

Bischer, Ruth, MI

#	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Beets/ 100 Ft. May 23	Beets/ 100 Ft. June 11
1	Tachigaren	8148	290.9	19.67	94.75	27.10	194.8	209.5
2	Check	7441	280.7	19.04	94.69	26.57	191.2	194.5
LSD (P=.05)		ns	ns	ns	ns	ns	ns	ns
CV		15.1	6.4	5.23	0.93	15.10	15.3	9.7
Grand Mean		7794.6	285.8	19.35	94.72	26.83	193.0	202.0

Tachigaren at a 20 gram rate applied as a seed treatment.

Michigan Sugar Company
Tachigaren
 2007

Stoutenburg, Sandusky, MI

#	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	Beets/ 100 Ft.
2	Check	6180	228.7	16.34	92.81	27.07	204.6
1	Tachigaren	6094	226.2	16.05	93.20	26.91	217.8
LSD (P=.05)		ns	ns	ns	ns	ns	ns
CV		16.1	3.4	2.51	1.05	14.60	12.3
Grand Mean		6137.3	227.4	16.19	93.00	26.99	211.2

Schwab, Kawkawlin, MI
 Stand Counts Only*

#	Treatment	Beets/ 100 Ft. May 3	Beets/ 100 Ft. May 8	Beets/ 100 Ft. May 12	Beets/ 100 Ft. May 22	Beets/ 100 Ft. June 13
2	Check	1.0	36.7	101.5	120.4	119.2
1	Tachigaren	0.6	44.4	99.8	115.0	111.7
LSD (P=.05)		ns	ns	ns	ns	ns
CV		268.8	23.0	20.4	14.6	18.9
Grand Mean		0.8	40.5	100.6	117.7	115.4

* No harvest data was taken because of Rhizoctonia.

Tachigaren at a 20 gram rate applied as a seed treatment.

Michigan Sugar Company
**Evaluate Mustang In Furrow For Control of White Grubs
 In Sugarbeets**
 Bad Axe, MI - 2007

Trial Quality: Fair

No.	Treatment	Rate	Appl Timing	Sugarbeet Stand	
				Cotyl	8 Leaf
1	Mustang	4.3 fl oz/a	At Planting In-Furrow	169	152
2	Untreated			185	172
LSD (P=.05)				ns	ns
CV				5.4	12.8
Grand Mean				177.1	161.9

Planted: Jun 14, 2007

Variety: Crystal 271

Sugarbeet Yields were not obtained.

Michigan Sugar Company
**Evaluate Lorsban PPI For Control of White Grubs
 In Sugarbeets**
 Bad Axe, MI - 2007

Trial Quality: Fair

No.	Treatment	Rate	Appl Timing	Sugarbeet Stand (B/100 ft)	
				Cotyl	8 Leaf
1	Lorsban	1 pt/A	At Planting PPI	186	198
2	Untreated			167	167
LSD (P=.05)				ns	ns
CV				18.8	10.1
Grand Mean				176.5	182.5

Planted: Jun 14, 2007

Variety: Crystal 271

Sugarbeet Yields were not obtained.

Michigan Sugar Company
Seed Treatments
 Average of 3 Locations
 2007

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	% Emerg
4	Thiram, Poncho	5485	213.9	15.85	91.40	25.39	63.8
2	Apron, Maxim, Cruiser 40	5447	213.1	15.72	91.51	25.30	59.9
3	Apron, Maxim, Cruiser 60	5096	210.5	15.65	91.26	24.06	61.0
6	Apr, Max, Cruiser, Avicta	5089	209.6	15.60	91.25	24.10	57.4
5	Apr, Max, Cruiser, Force6	5079	209.8	15.52	91.46	23.91	61.0
1	Apron XL, Maxim 4FS	5068	208.5	15.59	91.03	24.06	52.7
LSD (P=.05)		281.8	ns	ns	ns	1.06	ns
CV		3.0	2.4	1.51	0.66	2.39	11.8
Grand Mean		5210.6	210.9	15.66	91.32	24.47	59.3

Michigan Sugar Company
Seed Treatments (White Grubs Present)

Collings, Bad Axe, MI
 2007

Yield Data

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A
4	Thiram, Poncho	4276	194.6	14.48	91.54	21.96
3	Apron, Maxim, Cruiser 60	4117	190.6	14.58	90.43	21.60
2	Apron, Maxim, Cruiser 40	4048	190.5	14.48	90.67	21.28
6	Apr, Max, Cruiser, Avicta	3953	189.9	14.48	90.55	20.81
5	Apr, Max, Cruiser, Force 6	3898	191.2	14.57	90.54	20.39
1	Apron XL, Maxim 4FS	3881	184.8	14.36	89.88	21.00
LSD (P=.05)		ns	ns	ns	1.35	ns
CV		5.46	4.1	3.35	0.81	4.77
Grand Mean		4028.8	190.3	14.49	90.60	21.17

Stand Counts

No.	Treatment	Beets/ 200 Ft.	Beets/ 200 Ft.	% Beets*	Beets/ 200 Ft.	% Beets**
		6/22/2007 Cotyl 14 DA-A	7/7/2007 4-6l lf 29 DA-A	7/7/2007 6 lf 29 DA-A	8/2/2007 Row Close 55 DA-A	8/2/2007 Row Close 55 DA-A
4	Thiram, Poncho	256.7	225.3	87.7	232.3	90.7
3	Apron, Maxim, Cruiser 60	231.7	215.0	92.7	202.3	89.2
6	Apr, Max, Cruiser, Avicta	254.3	211.0	82.7	216.7	85.5
5	Apr, Max, Cruiser, Force 6	291.0	245.0	84.1	241.0	83.0
2	Apron, Maxim, Cruiser 40	264.0	221.3	83.6	209.3	79.1
1	Apron XL, Maxim 4FS	264.7	167.3	62.9	162.0	60.8
LSD (P=.05)		ns	64.9	11.0	55.4	11.7
CV		13.0	16.7	7.3	14.5	7.6
Grand Mean		260.4	214.2	82.3	210.6	81.4

* Compare stand counts July 7 to June 22.

** Compare stand counts August 2 to June 22.

Michigan Sugar Company
Seed Treatments
 Maust, Bay Port, MI - 2007

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	% Emerg May 11	% Emerg May 21	% Emerg May 29	% Emerg June 8	% Emerg June 21
2	Apron, Maxim, Cruiser 40	7158	233.9	16.70	92.80	30.63	3.2	48.3	48.4	66.6	62.4
4	Thiram, Poncho	7017	234.5	17.01	92.11	29.95	2.8	48.3	47.4	65.0	58.4
5	Apr, Max, Cruiser, Force 6	6602	236.7	16.80	93.04	27.92	3.9	50.6	48.2	65.4	61.3
3	Apron, Maxim, Cruiser 60	6437	229.0	16.61	92.13	28.21	2.7	46.3	43.7	64.0	55.1
6	Apr, Max, Cruiser, Avicta	6422	223.1	16.47	91.38	28.83	1.9	43.6	42.1	66.2	53.2
1	Apron XL, Maxim 4FS	6418	227.2	16.44	92.24	28.24	4.7	46.4	43.0	66.3	55.4
LSD (P=.05)		735.3	ns	0.50	ns	ns	2.2	5.0	6.2	ns	6.3
CV		9.2	5.4	2.50	1.72	7.59	58.8	8.9	11.5	8.2	9.3
Grand Mean		6675.6	230.7	16.67	92.28	28.96	3.2	47.3	45.5	65.6	57.6

Michigan Sugar Company
Seed Treatments
 Bebow, St. Louis, MI - 2007

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A	% Emerg June 1	% Emerg June 15	% Emerg July 3
4	Thiram, Poncho	5163	212.7	16.06	90.56	24.25	42.7	42.8	42.3
2	Apron, Maxim, Cruiser 40	5135	214.9	15.98	91.07	24.00	39.6	39.3	38.2
1	Apron XL, Maxim 4FS	4906	213.6	15.98	90.97	22.94	43.2	42.5	41.8
6	Apr, Max, Cruiser, Avicta	4891	215.8	15.84	91.81	22.65	35.4	34.0	33.6
5	Apr, Max, Cruiser, Force 6	4736	201.6	15.20	90.81	23.43	40.2	39.3	38.8
3	Apron, Maxim, Cruiser 60	4733	211.9	15.76	91.21	22.36	39.8	39.7	38.6
LSD (P=.05)		ns	ns	0.82	ns	ns	5.0	5.4	5.3
CV		10.0	6.4	4.31	1.19	7.59	10.5	11.4	11.4
Grand Mean		4927.3	211.7	15.80	91.07	23.27	40.1	39.6	38.9

Michigan Sugar Company
Boron Rates*
 2007
 Maust, Bay Port, MI

#	Treatment	Rate	Timing	RWSA	RWST	% Suc	% CJP	Tons/A
5	Boron	18 Lb/acre	Foliar	7446	265.0	18.21	94.20	28.11
4	Boron	9 Lb/acre	Foliar	7353	269.1	18.34	94.58	27.34
1	Untreated			7205	264.5	17.96	94.83	27.01
2	Boron	9 Lb/acre	At Planting	7202	266.1	18.26	94.27	27.09
3	Boron	3 Lb/acre	Foliar	7191	265.7	18.44	93.73	27.06
LSD (P=.05)				ns	ns	ns	0.97	ns
CV				5.8	3.3	2.64	0.84	4.49
Grand Mean				7279.6	266.1	18.24	94.32	27.32

* Boron was applied as Solubor

Planted: May 4 Harvested: October 25

Seed variety: Crystal R442

Michigan Sugar Company
Priming Trials
Average of 4 Locations
2007

Variety	Stand Counts Beets per 40 feet			
	Early	Middle	Late	
Prompt	X-Beet	28.8	68.0	80.3
	Non-Primed	5.6	41.0	75.3
	Improvement	23.2	27.0	5.0
# 1*	X-Beet	27.0	62.0	75.0
	Non-Primed	8.0	47.5	71.5
	Improvement	19.0	14.5	3.5
# 2*	X-Beet	26.8	63.5	72.0
	Non-Primed	8.8	46.5	68.5
	Improvement	18.0	17.0	3.5
# 3*	X-Beet	31.8	61.0	76.0
	Non-Primed	11.0	50.0	71.5
	Improvement	20.8	11.0	4.5
# 4*	X-Beet	33.8	69.0	82.8
	Non-Primed	13.4	53.5	77.5
	Improvement	20.4	15.5	5.3

AVERAGE IMPROVEMENT

X-Beet	20.3	17.0	4.4
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* Varieties #1-4 are varieties from the Red River Valley treated with XBeet.

Michigan Sugar Company
Nitrogen - Potash
 2007
 Average of 2 Years

No.	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A
	N - K ₂ O ₅					
6	100-450	5445	234.9	17.09	91.95	23.14
8	150-300	5099	229.3	16.83	91.66	21.89
7	150-150	5038	229.3	16.87	91.58	22.19
4	100-150	5029	229.3	16.55	92.37	22.00
3	50-450	5025	239.5	17.27	92.36	21.08
9	150-450	4987	220.4	16.43	91.10	22.80
1	50-150	4888	248.0	17.67	92.73	19.69
5	100-300	4843	231.2	16.90	91.83	20.98
2	50-300	4664	250.4	17.78	92.86	18.80
LSD (P=.05)		ns	20.6	1.06	1.16	3.38
CV		7.1	3.8	2.70	0.54	6.84
Grand Mean		5001.8	234.7	17.04	92.05	21.39

Michigan Sugar Company
Nitrogen - Potash
 2007
 Wegener, Bay City, MI

#	Treatment	RWSA	RWST	% Suc	% CJP	Tons/A
	N - K ₂ O ₅					
7	150-150	5387	224.4	15.92	93.17	24.27
8	150-300	5335	224.0	16.00	92.91	23.11
9	150-450	5214	205.7	15.11	91.88	25.41
6	100-450	5088	223.8	15.94	92.98	22.92
4	100-150	5072	211.9	15.21	92.86	23.85
3	50-450	4813	226.2	15.89	93.65	21.42
5	100-300	4757	217.4	15.58	92.86	21.79
2	50-300	4750	252.6	17.38	94.29	18.81
1	50-150	4599	233.3	16.40	93.47	19.63
LSD (P=.05)		735.5	26.9	ns	1.39	3.50
CV		9.9	8.1	5.75	1.01	10.58
Grand Mean		5001.7	224.4	15.94	93.12	22.36

Planted: May 7 Harvested: September 18

Seed variety: Crystal 271