

# RESULTS OF AMERICAN CRYSTAL'S 2014 OFFICIAL CODED VARIETY TRIALS

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American Crystal's coded variety trials are designed to provide an unbiased evaluation of the genetic potential of sugarbeet variety entries under several different environments. The two-year average of these evaluations then are used to establish a list of approved varieties which ensures the use of high quality, productive varieties to maximize returns for growers and the cooperative as a whole.

This report presents data from the 2014 American Crystal and Minn-Dak official trials and describes the procedures and cultural practices involved in the trials.

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## ***Procedures and Cultural Practices***

Sugarbeet official variety testing was conducted both in the Crystal and Minn-Dak areas of the Red River Valley by American Crystal Sugar Company personnel at the Technical Services Center.

All Crystal and Minn-Dak entries were coded by KayJay Ag Services. The seed then was sent to American Crystal Technical Services Center at Moorhead for official testing.

Soil type and disease pressure was observed for each of the trial sites (table 5). This information relates to the current year's results, not the multiple year summary results.

Eleven official yield trial sites were planted in the Crystal area with nine harvested. Three Minn-Dak official yield trial sites were planted with two harvested. A fourth Minn-Dak site was not planted due to wet soil conditions that persisted into June. We continued plant-to-stand trials (4.5 inch spacing) to evaluate the commercial and experimental varieties. Seed companies had the option of treating seed with Tachigaren, insecticide and a Rhizoctonia seed treatment fungicide. Aphanomyces yield trials were planted at two locations with the potential for disease development. Plots were planted crosswise (90°) to the cooperators' normal farming operations, where possible. Row spacing was 22 inches. Plot rows for all official trials were maintained at 44 feet with about 37 feet harvested. An alpha lattice plot design was used for all trials. Planting was performed with two 12-row vacuum planters, which included a SRES and a Hege. The SRES GPS controlled planter was used for all yield trial sites in 2014 and gave good single seed spacing (with proper seed size) which facilitated emergence counts. Emergence counts were taken on one 44 foot row of each plot to be harvested. Multiple seedlings were counted as a single plant if they emerged less than one inch apart. The stands in all of the plant-to-stand coded trials were refined by removing doubles (multiple seedlings less than 1.5 inches apart) by hand but were not further reduced.

Eight ACSC sites were used for variety approval calculations (Casselson, Ada, Climax, Crookston, Grand Forks, Alvarado, St Thomas, Stephen, Bathgate). Two sites were abandoned due to water damage (Averill, Buxton). The Climax site experienced moderate to severe Aphanomyces (data in table 3). The Climax site was harvested but not included in variety approval calculations and kept separate for consideration by growers for special growing conditions (tables 3). The two

Aphanomyces yield trials (Kindred, Georgetown) were abandoned due to minimal root scaring symptoms. Two RRV Rhizoctonia nurseries were abandoned due to lack of infection. One MDFC site was abandoned due to non-uniform growth (Breckenridge). Rhizomania was visually observed at the Breckenridge site in 2014. Rhizoctonia was less prevalent in 2014 following Rhizoctonia fungicide seed treatment on many varieties and an application of Quadris, band treatment at the 6-10 leaf stage. Based upon yield and sugar performance and demonstration plot observations, root aphids likely had minimal impact in 2014. Root aphids were observed at 5 of 11 ACSC yield sites and one MDFC yield site. ACSC does not run root aphid evaluation nurseries, but seed companies may know tolerance levels of their varieties.

Roundup Powermax with Event and full rates of fungicides were applied using a pickup sprayer driven down the alleys. Hand weeding was used where necessary. All yield trials were treated with Quadris banded in the 6 leaf stage for Rhizoctonia control. Proline/Agri Tin, Topsin/Agri Tin, and Headline were used for Cercospora control in 2014. Ground spraying was conducted by ACSC technical staff.

RR varieties with commercial seed were planted in four-row, six replication trials. The RR experimental entries were planted in smaller two-row, four replication trials. Two applications of Roundup were made in the 4-6 (32 oz) and 8-12 (22 oz) leaf stages.

All plot rows were measured for total length after approximately 2.5 feet at each end were removed at the end of August, with skips greater than 60 inches (including short rows) being measured for adjustment purposes. Harvest was performed with two modified four-row harvesters (4310 and 4310A John Deere). All harvested beets of each plot were used for yield determination while one sample (approx 25 lbs) for sugar and impurity analysis was obtained from each plot. Quality analysis was performed at the ACSC Technical Services quality lab in Moorhead.

Varieties were planted in disease nurseries in North Dakota, Minnesota and Michigan to evaluate varieties for disease tolerance.

ACSC adjusts the Cercospora, Aphanomyces, Rhizoctonia and Fusarium nursery data each year to provide a consistent target for variety approval criteria.

In January 2009, the ACSC Seed Committee exempted the currently approved conventional varieties from continued variety testing – 31 conventional varieties are approved for sale in 2014; many of these varieties were not tested since 2008. Conventional trials were discontinued in 2012. Data for conventional varieties tested in previous years can be found in the 2013 Sugarbeet Research and Extension Report.

#### Acknowledgements

Thanks to the beet seed companies for their participation in the official variety testing program and to all grower-cooperators, agricultural, and beet seed staffs for their assistance. Special thanks are extended to Dr. Mohamed Khan for CR nursery infection, Randy Nelson and Robert Dregseth for RRV disease ratings, USDA staff in Michigan for CR and Rhizoctonia nursery ratings. The Betaseed staff for Aphanomyces and Cercospora ratings in the Shakopee area, Germains Seed Technology for seed treatments and Kay Jay Ag Services for sampling and coding all variety entries.

**Table 1. Varieties Meeting ACSC Approval Criteria for the 2015 Sugarbeet Crop ++**

<b>Roundup Ready®</b>	Full Market	Aph Spec	Rhc Spec	High Rzm	<b>Conventional</b>	Full Market	Aph Spec	Rhc Spec	High Rzm
BTS 80RR32	Yes			Hi Rzm	Beta 1100R	Yes			
BTS 80RR52	Yes	Aph	Rhc	Hi Rzm	Beta 1115R	Yes	Aph		
BTS 81RR17	Yes	Aph		Hi Rzm	Beta 1125R	Yes	Aph		
BTS 82RR22	Yes	Aph		Hi Rzm	Beta 1135R	Yes		Rhc	
BTS 82RR28	Yes			Hi Rzm	Beta 1140R	Yes			
BTS 82RR33	Yes			Hi Rzm	Beta 1301R	Yes	Aph	Rhc	
BTS 82RR80	Yes			Hi Rzm	Beta 1305R	Yes			
BTS 8337	New	Aph		Hi Rzm	Beta 1833R	No		Rhc	
BTS 8354	New	Aph	Rhc	Hi Rzm	Crystal R308	Yes			
BTS 8363	New			Hi Rzm	Crystal R431	Yes			
BTS 8390	New			Hi Rzm	Crystal R434	Yes			
BTS 83CN	New	Aph	Rhc	Hi Rzm	Crystal R760	Yes			
BTS 89RR83	Yes		Rhc	Hi Rzm	Crystal R761	Yes	Aph		Hi Rzm
Crystal 093RR	Yes			Hi Rzm	Crystal R869	Yes			
Crystal 095RR	Yes			Hi Rzm	Hilleshög 3035Rz	Yes		Rhc	
Crystal 101RR	Yes	Aph		Hi Rzm	Hilleshög 3052Rz	Yes			
Crystal 246RR	Yes	Aph		Hi Rzm	Holly 317	Yes			
Crystal 247RR	Yes			Hi Rzm	Holly 701	Yes			
Crystal 355RR	New	Aph	Rhc	Hi Rzm	Seedex Sonic	Yes			
Crystal 765RR	Yes				Seedex SX0873TT (Deuce)	Yes			Hi Rzm
Crystal 768RR	Yes				Seedex Triton	Yes			
Crystal 875RR	Yes	Aph	Rhc		Seedex Vault (SX0842)	Yes			
Crystal 981RR	Yes	Aph		Hi Rzm	SESVanderhave H46519	Yes			
Crystal 985RR	Yes				SESVanderhave H46531	Yes			
Crystal 986RR	Yes				SESVanderhave H46711	Yes			
Hilleshög 4022RR	Yes		Rhc		SESVanderhave H48607TT	Yes			Hi Rzm
Hilleshög 4094RR	Yes		Rhc		SESVanderhave H46714	No		Rhc	
Hilleshög 4300RR (9300)	Yes				SESVanderhave H48716TT	Yes			Hi Rzm
Hilleshög 4302RR (9302)	Yes		Rhc		SESVanderhave H48717TT	Yes			Hi Rzm
Hilleshög 4303RR (9303)	Yes				SESVanderhave H46801	Yes			
Hilleshög 4448RR (9448)	Yes				SESVanderhave H48810TT	Yes			Hi Rzm
Hilleshög 9517RR	New								
Hilleshög 9528RR	New								
Maribo MA102RR	Yes	Aph							
Maribo MA104RR	Yes		Rhc						
Maribo 305RR	New								
Seedex RR0832	New								
Seedex VictorRR	Yes			Hi Rzm					
Seedex VisionRR	Yes								
Seedex Xavier RR (0816)	Yes	Aph							
Seedex Yukon RR (0828N)	Yes	Aph							
Seedex Zenith RR (0829N)	Yes								
SESVdh 36175RR	Yes								
SESVdh 36271RR	Yes			Hi Rzm					
SESVdh 36272RR	Yes								
SESVdh 36273RR	Yes								
SESVdh 36918RR	Yes								
SESVdh RR333	New								
SESVdh RR336	New								

**Conventional variety testing was voluntary since 2009.**  
**Data for SOME conventional varieties are from 2008 only.**

++Roundup Ready sugarbeets are subject to the ACSC RRSB Bolter Destruction Policy

Roundup Ready® is a registered trademark of Monsanto Company.

Aph Spec = variety meets Aphanomyces specialty requirements

Rhc Spec = variety meets Rhizoctonia specialty requirements

Hi Rzm = variety has high Rhizomania tolerance (Dual Rzm resistance) as submitted by seed company

New = newly approved

Created 10-30-2014.

Table 2. Performance Data of RR Varieties During 2012, 2013, 2014 Growing Seasons (All Locations Combined) + + +

Variety @	Yrs Com	Rev/Ton ++					Rev/Acre ++					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emerg		Bolter / Ac		CR +		Aph Root+		Rhizoc.+		Fusarium+		Rzm +	
		14	2 Yr	2Y%	3Yr#	3Y%	14	2 Yr	2Y%	3Yr#	3Yr%	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr	14	2 Yr
Previous Approved # locations		8	14		20		8	14		20		8	14	8	14	8	14	8	14	8	14	8	14	8	14	3	5	2	4	2	4	2	4		
BTS 80RR32	3	52.05	53.64	100	56.49	101	1519	1532	107	1625	108	308	317	8965	9082	16.40	17.01	29.1	28.7	1.02	1.15	81	75	0	0	4.69	4.75	5.1	5.1	3.6	3.9	2.7	3.3		HiRzm
BTS 80RR52	3	55.49	55.17	103	57.33	103	1530	1529	107	1610	107	318	322	8777	8947	16.97	17.33	27.6	27.9	1.05	1.24	78	74	0	0	4.22	4.37	4.0	4.0	4.4	4.1	2.8	3.2		HiRzm
BTS 81RR17	2	54.39	53.72	100	55.81	100	1443	1407	98	1517	101	315	317	8381	8339	16.87	17.15	26.7	26.4	1.12	1.28	79	77	0	0	3.96	4.20	3.4	3.6	4.1	4.1	3.0	3.1		HiRzm
BTS 82RR22	1	59.11	59.46	111	61.63	111	1515	1519	106	1617	108	330	336	8447	8597	17.52	17.96	25.6	25.6	1.03	1.15	78	79	5	27	4.55	4.66	4.2	4.3	4.9	5.0	4.8	5.1		HiRzm
BTS 82RR28	1	54.27	54.34	101	55.75	100	1548	1550	108	1633	109	315	319	8970	9129	16.79	17.19	28.5	28.7	1.05	1.22	81	80	23	11	4.62	4.57	4.8	4.7	4.1	4.1	2.4	2.6		HiRzm
BTS 82RR33	1	53.75	54.22	101	56.67	102	1596	1599	112	1752	117	313	319	9260	9431	16.66	17.10	29.5	29.7	1.00	1.14	78	77	5	2	4.70	4.69	5.6	5.5	4.2	4.3	2.9	3.0		HiRzm
BTS 82RR80	1	56.81	56.62	106	58.44	105	1519	1457	102	1560	104	323	327	8610	8433	17.13	17.51	26.6	25.9	1.01	1.17	81	80	0	16	4.62	4.62	4.0	4.3	4.9	4.7	3.2	3.7		HiRzm
BTS 89RR83	4	50.61	51.46	96	53.89	97	1474	1458	102	1564	104	303	310	8831	8819	16.14	16.64	29.1	28.6	0.98	1.13	78	76	0	0	4.61	4.76	5.1	4.6	4.0	3.7	3.8	4.1		HiRzm
Crystal 093RR	3	58.18	58.20	109	60.02	108	1565	1564	109	1627	109	327	332	8800	8946	17.36	17.74	27.0	27.1	1.02	1.15	83	81	18	11	4.88	5.04	4.7	4.6	4.5	4.4	3.6	3.8		HiRzm
Crystal 095RR	3	54.34	54.98	103	57.33	103	1488	1496	104	1571	105	315	321	8600	8759	16.81	17.27	27.2	27.3	1.07	1.20	79	75	0	0	4.60	4.68	4.6	4.8	4.5	4.5	4.4	4.8		HiRzm
Crystal 101RR	3	53.96	53.94	101	55.52	100	1566	1550	108	1617	108	314	318	9092	9153	16.79	17.18	29.0	28.9	1.11	1.27	80	79	0	0	4.26	4.44	3.4	3.6	4.8	4.8	2.7	3.0		HiRzm
Crystal 246RR	1	54.00	54.29	101	56.39	101	1529	1560	109	1712	114	314	319	8869	9201	16.68	17.11	28.2	28.9	0.99	1.15	80	75	14	7	4.52	4.50	4.5	4.7	4.0	4.3	3.0	3.6		HiRzm
Crystal 247RR	1	54.06	54.46	102	57.06	102	1613	1579	110	1697	113	314	320	9330	9282	16.67	17.12	29.6	29.1	0.97	1.13	74	70	5	2	4.20	4.39	5.0	5.1	4.4	4.5	2.8	3.3		HiRzm
Crystal 765RR	6	57.91	58.10	108	60.48	108	1507	1509	105	1622	108	326	331	8469	8616	17.34	17.73	25.9	26.0	1.04	1.16	79	76	0	0	4.73	4.77	6.0	5.9	4.5	4.7	4.1	4.4		Rzm
Crystal 768RR	6	54.66	55.20	103	57.38	103	1459	1469	102	1588	106	316	322	8449	8601	16.89	17.35	26.8	26.8	1.10	1.25	75	74	0	0	4.84	4.95	4.8	4.8	4.5	4.3	4.1	4.5		Rzm
Crystal 875RR	5	53.73	52.74	98	55.23	99	1452	1435	100	1504	100	313	314	8440	8557	16.79	16.95	26.9	27.3	1.14	1.25	77	75	0	14	4.12	4.45	3.1	3.4	4.0	4.3	4.5	4.6		Rzm
Crystal 981RR	1	54.16	53.31	100	54.71	98	1530	1500	105	1593	106	314	316	8865	8916	16.81	17.09	28.2	28.4	1.10	1.31	78	72	5	2	4.89	4.99	3.8	3.7	4.8	4.3	2.7	3.2		HiRzm
Crystal 985RR	4	53.14	53.95	101	56.49	101	1376	1399	98	1488	99	311	318	8046	8273	16.62	17.07	25.8	26.1	1.07	1.16	82	78	0	0	4.22	4.36	3.3	3.6	4.5	4.6	4.2	4.3		Rzm
Crystal 986RR	3	57.01	57.74	108	60.48	108	1561	1541	108	1641	109	323	330	8842	8843	17.10	17.59	27.3	26.9	0.94	1.07	79	75	0	0	4.61	4.70	4.6	4.6	4.1	4.3	4.2	4.7		Rzm
Hilleshog 4022RR	6	50.73	51.86	97	54.55	98	1256	1302	91	1412	94	304	311	7534	7844	16.35	16.83	24.9	25.3	1.17	1.26	78	75	0	0	4.54	4.43	4.6	4.6	3.8	3.6	4.8	4.7		Rzm
Hilleshog 4094RR	5	52.66	52.28	98	54.64	98	1345	1332	93	1425	95	310	313	7914	7972	16.61	16.88	25.6	25.5	1.13	1.25	79	75	0	0	4.46	4.47	4.5	4.6	3.5	3.5	4.8	4.7		Rzm
Hilleshog 4300RR	2	52.14	51.56	96	54.18	97	1373	1326	93	1451	97	308	310	8084	7978	16.48	16.68	26.2	25.7	1.08	1.17	65	71	0	0	4.20	4.47	4.9	4.6	3.8	4.0	4.1	3.9		Rzm
Hilleshog 4302RR	1	54.77	55.16	103	57.91	104	1435	1418	99	1490	99	316	322	8260	8278	16.81	17.22	26.1	25.7	0.99	1.10	76	71	0	0	4.52	4.38	4.2	4.5	3.6	3.4	5.0	5.1		Rzm
Hilleshog 4303RR	1	57.92	57.04	107	59.52	107	1499	1474	103	1538	103	326	328	8405	8471	17.30	17.54	25.7	25.8	0.98	1.13	72	72	0	0	4.82	4.83	4.6	4.7	5.4	5.3	6.3	6.0		Rzm
Hilleshog 4448RR(9448)	1	56.95	55.98	105	58.82	105	1685	1600	112	1645	110	323	325	9535	9289	17.10	17.32	29.4	28.7	0.95	1.08	75	72	0	0	5.28	5.25	4.8	4.8	4.7	5.1	4.7	5.0		Rzm
Maribo MA102RR	NC	57.51	56.14	105	58.69	105	1636	1600	112	1630	109	325	325	9247	9274	17.17	17.30	28.4	28.5	0.91	1.02	74	74	0	0	5.54	5.29	5.0	4.6	4.3	4.9	5.4	5.3		Rzm
Maribo MA104RR	1	57.57	57.71	108	59.64	107	1326	1299	91	1371	91	325	330	7487	7449	17.23	17.63	23.1	22.6	0.99	1.10	77	67	0	0	3.58	3.72	5.9	5.3	3.6	3.8	5.5	5.6		Rzm
Seedex Victor RR	4	50.91	50.86	95	54.92	98	1391	1358	95	1477	99	304	308	8275	8220	16.17	16.48	27.1	26.7	0.97	1.08	80	75	0	0	5.14	4.82	4.9	4.9	3.9	4.2	4.0	4.5		HiRzm
Seedex Vision RR	3	53.82	54.57	102	57.84	104	1436	1398	98	1524	102	313	320	8306	8189	16.62	17.07	26.3	25.6	0.96	1.06	76	70	0	2	5.50	5.34	5.5	5.5	4.4	4.6	4.0	4.6		Rzm
Seedex Xavier RR	2	55.35	54.51	102	57.26	103	1465	1386	97	1529	102	318	320	8388	8119	16.84	17.06	26.3	25.4	0.94	1.07	71	70	0	5	5.43	5.14	5.4	4.9	4.3	4.5	4.7	5.1		Rzm
Seedex Yukon RR(828N)	1	52.42	52.52	98	55.28	99	1344	1348	94	1471	98	309	313	7914	8071	16.44	16.79	25.6	25.9	1.00	1.11	79	75	0	0	4.85	4.77	2.8	3.6	4.3	4.6	2.9	3.2		Rzm
Seedex Zenith RR(829N)	1	50.31	51.51	96	54.94	99	1249	1278	89	1423	95	302	310	7487	7710	16.15	16.68	24.7	24.9	1.04	1.17	79	73	5	2	4.53	4.65	2.9	4.2	4.6	--	3.0	3.6		Rzm
SV 36175RR	2	52.87	54.04	101	55.95	100	1342	1342	94	1468	98	310	318	7872	7931	16.50	17.01	25.4	25.0	0.99	1.09	81	77	5	2	4.54	4.57	3.4	3.8	4.2	4.3	3.5	4.0		Rzm
SV 36271RR	1	48.51	50.74	95	54.32	97	1179	1258	88	1414	94	297	308	7189	7641	15.87	16.55	24.2	24.8	1.04	1.15	79	68	0	9	4.21	4.33	3.4	4.5	4.3	4.1	3.3	--		HiRzm
SV 36272RR	1	56.08	56.44	105	58.63	105	1382	1418	99	1574	105	320	326	7876	8215	16.93	17.35	24.5	25.2	0.92	1.03	78	75	0	0	4.61	4.55	5.0	5.0	4.3	4.5	4.1	--		Rzm
SV 36273RR	1	52.63	53.60	100	56.19	101	1454	1415	99	1505	100	310	317	8525	8366	16.44	16.96	27.5	26.4	0.97	1.10	73	64	0	0	5.05	4.86	5.6	5.5	3.9	4.3				

Table 3. Performance Data of RR Aphanomyces Specialty Varieties - Under Aphanomyces Conditions (Relative to Susceptible Checks) approved for  
2015 Growing Season +++

Description	Years Comm	Rev/Ton			Rev/Acre			Rec/Ton		Rec/Acre		Sugar		Yield		CR Rating +		Aph Root +			Fusarium +		Rhizoctonia +		
		2014	2 Yr	%Sus	2014	2 Yr	%Sus	2014	2 Yr	2014	2 Yr	2014	2 Yr	2014	2 Yr	14	13	14	13	2 Yr	14	13	14	13	
BTS 80RR52	3	48.75	46.10	104	1454	1275	159	297.3	292.4	8876	8074	15.98	15.85	29.9	27.6	4.22	4.52	4.0	4.0	4.0	2.8	3.6	4.4	3.8	
BTS 81RR17	2	48.14	43.90	99	1462	1247	155	295.4	285.2	8969	8062	15.96	15.59	30.4	28.2	3.96	4.45	3.4	3.9	3.6	3.0	3.2	4.1	4.1	
BTS 82RR22	1	54.92	52.28	118	1544	1343	167	316.7	312.7	8904	7971	16.91	16.79	28.1	25.3	4.55	4.77	4.2	4.4	4.3	4.8	5.5	4.9	5.2	
BTS 8337	NC	53.35	50.02	113	1664	1464	182	312.9	305.8	9762	8910	16.72	16.49	31.3	29.1	4.52	4.75	3.7	3.7	3.7	3.8	4.4	4.1	4.5	
BTS 8354	NC	50.12	47.09	106	1464	1307	163	302.2	296.0	8825	8181	16.32	16.07	29.2	27.6	4.39	4.80	4.4	4.3	4.4	3.2	3.6	4.0	3.5	
BTS 83CN	NC	45.27	43.36	98	1356	1249	156	286.3	283.6	8557	8131	15.40	15.34	29.9	28.6	4.60	4.36	4.2	4.3	4.2	3.1	3.2	4.0	3.3	
Crystal 101RR	3	50.52	45.47	103	1621	1401	175	302.9	290.2	9727	8906	16.28	15.79	32.1	30.6	4.26	4.63	3.4	3.8	3.6	2.7	3.3	4.8	4.7	
Crystal 246RR	1	48.65	45.48	103	1438	1242	155	297.0	290.4	8778	7885	15.86	15.64	29.6	27.1	4.52	4.48	4.5	4.9	4.7	3.0	4.2	4.0	4.6	
Crystal 355RR	NC	51.84	48.10	108	1653	1395	174	307.9	299.3	9811	8589	16.54	16.22	31.8	28.4	4.58	4.89	4.2	4.5	4.3	3.1	3.4	4.1	3.5	
Crystal 875RR	5	41.72	40.85	92	1119	1148	143	275.3	275.7	7394	7750	14.85	15.03	26.9	28.1	4.12	4.77	3.1	3.8	3.4	4.5	4.8	4.0	4.5	
Crystal 981RR	1	49.60	44.28	100	1545	1325	165	300.0	286.3	9345	8479	16.09	15.59	31.2	29.4	4.89	5.09	3.8	3.5	3.7	2.7	3.8	4.8	3.7	
Maribo MA102RR	NC	48.02	45.90	103	1372	1146	143	295.3	292.1	8437	7220	15.67	15.67	28.6	24.6	5.54	5.03	5.0	4.3	4.6	5.4	5.2	4.3	5.5	
Seedex Xavier RR	2	45.38	43.69	98	1127	1045	130	286.7	284.7	7124	6798	15.26	15.32	24.9	23.8	5.43	4.85	5.4	4.4	4.9	4.7	5.5	4.3	4.6	
Seedex Yukon RR(828N)	1	41.95	40.38	91	1177	1081	135	276.0	274.1	7762	7297	14.79	14.82	28.2	26.5	4.85	4.69	2.8	4.3	3.6	2.9	3.5	4.3	4.8	
Aph Susc Checks		46.60	44.36		825	803		290.6	286.8	5128	5111	15.61	15.54	17.6	17.6										
Mean of Aph Specialty Varieties		48.45	45.49		1428	1262		296.6	290.6	8734	8018	15.90	15.73	29.4	27.5										

%Susc = % of susceptible varieties.

+ Aph ratings are from Shakopee & Kindred (res=4.4, susc=5.5). CR ratings are from Rosemount, Michigan & Foxhome (res=4.5, susc=5.2).

Created 11-3-2014.

+ Fusarium ratings from Mhd (mod res=4.5, mod susc=5.7). Rhizoctonia ratings from Ft Collins, Mhd and Michigan (res=3, susc=5+).

+++ 2014 Data from Climax. 2013 Data from Kindred and Climax.

++ 2014 Revenue estimates based on a \$55.98 beet payment at 17.5% sugar and 1.5% loss to molasses. 2013 estimates based on a \$53.20 beet payment. Revenue does not consider hauling or production costs.

Table 4. Official Trial Disease Nurseries 2012 - 2014 (Varieties tested in 2014)  
Cercospora, Aphanomyces, Rhizoctonia & Fusarium

Code	Description +	< 4.5 CR > 5.2					< 4.4 Aph > 5.5					< 3.8 Rhizoctonia > 5.0					< 3.0 Fusarium > 5.0				
		14 Mean	13 Mean	12 Mean	2 Yr Mean	3 Yr Mean	14 Mean	13 Mean	12 Mean	2 Yr Mean	3 Yr Mean	14 Mean	13 Mean	12 Mean	2 Yr Mean	3 Yr Mean	14 Mean	13 Mean	12 Mean	2 Yr Mean	3 Yr Mean
ACSC Commercial																					
527	BTS 80RR32	4.69	4.81	4.66	4.75	4.72	5.06	5.04	4.43	5.05	4.85	3.56	4.28	3.88	3.92	3.91	2.71	3.87	2.46	3.29	3.01
573	BTS 80RR52	4.22	4.52	4.40	4.37	4.38	4.01	4.01	4.04	4.01	4.02	4.36	3.77	3.73	4.07	3.96	2.84	3.64	2.77	3.24	3.08
506	BTS 81RR17	3.96	4.45	4.36	4.20	4.26	3.36	3.87	3.25	3.62	3.50	4.06	4.10	4.00	4.08	4.06	3.01	3.23	2.50	3.12	2.91
508	BTS 82RR22	4.55	4.77	4.65	4.66	4.66	4.25	4.41	3.95	4.33	4.20	4.85	5.19	4.61	5.02	4.89	4.76	5.52	4.79	5.14	5.02
517	BTS 82RR28	4.62	4.52	4.66	4.57	4.60	4.84	4.62	4.51	4.73	4.65	4.11	4.17	3.94	4.14	4.08	2.44	2.85	2.00	2.64	2.43
515	BTS 82RR33	4.70	4.68	4.74	4.69	4.71	5.59	5.40	5.11	5.49	5.36	4.20	4.36	4.09	4.28	4.22	2.86	3.05	2.27	2.95	2.73
578	BTS 82RR80	4.62	4.62	4.77	4.62	4.67	4.02	4.56	3.37	4.29	3.98	4.95	4.54	4.63	4.75	4.71	3.18	4.29	3.12	3.74	3.53
593	BTS 89RR83	4.61	4.91	4.89	4.76	4.81	5.12	4.04	3.62	4.58	4.26	4.03	3.45	3.58	3.74	3.69	3.77	4.39	3.39	4.08	3.85
531	Crystal 093RR	4.88	5.20	4.82	5.04	4.97	4.69	4.54	4.19	4.61	4.47	4.46	4.39	4.43	4.42	4.43	3.59	4.01	3.45	3.80	3.69
585	Crystal 095RR	4.60	4.75	4.83	4.68	4.73	4.60	5.05	4.63	4.83	4.76	4.49	4.59	4.57	4.54	4.55	4.39	5.20	4.06	4.79	4.55
588	Crystal 101RR	4.26	4.63	4.71	4.44	4.53	3.45	3.80	2.97	3.62	3.40	4.84	4.74	4.75	4.79	4.78	2.73	3.27	2.95	3.00	2.99
564	Crystal 246RR	4.52	4.48	4.49	4.50	4.49	4.51	4.90	3.85	4.71	4.42	4.01	4.62	4.31	4.32	4.31	2.99	4.17	3.30	3.58	3.49
505	Crystal 247RR	4.20	4.57	4.68	4.39	4.48	5.05	5.21	3.68	5.13	4.65	4.41	4.58	4.48	4.50	4.49	2.84	3.79	2.32	3.31	2.98
512	Crystal 765RR	4.73	4.82	4.70	4.77	4.75	6.01	5.79	5.69	5.90	5.83	4.50	4.88	3.87	4.69	4.42	4.15	4.75	4.10	4.45	4.33
572	Crystal 768RR	4.84	5.05	5.37	4.95	5.09	4.76	4.80	3.91	4.78	4.49	4.51	4.10	4.39	4.31	4.33	4.14	4.84	4.20	4.49	4.40
502	Crystal 875RR	4.12	4.77	4.26	4.45	4.39	3.11	3.76	2.71	3.43	3.19	4.04	4.53	4.00	4.29	4.19	4.51	4.79	4.45	4.65	4.58
548	Crystal 981RR	4.89	5.09	5.15	4.99	5.05	3.79	3.55	3.08	3.67	3.47	4.85	3.75	4.45	4.30	4.35	2.70	3.80	2.87	3.25	3.12
521	Crystal 985RR	4.22	4.49	4.41	4.36	4.37	3.29	3.89	3.15	3.59	3.44	4.50	4.61	4.40	4.55	4.50	4.21	4.42	3.51	4.31	4.05
554	Crystal 986RR	4.61	4.80	4.78	4.70	4.73	4.63	4.67	4.41	4.65	4.57	4.12	4.54	4.31	4.33	4.32	4.16	5.20	4.30	4.68	4.55
501	Hilleshög 4022RR	4.54	4.33	4.36	4.43	4.41	4.59	4.65	4.11	4.62	4.45	3.82	3.39	3.29	3.60	3.50	4.79	4.67	4.71	4.73	4.73
504	Hilleshög 4094RR	4.46	4.47	4.34	4.47	4.42	4.47	4.73	3.72	4.60	4.30	3.52	3.42	3.28	3.47	3.41	4.83	4.57	4.47	4.70	4.62
543	Hilleshög 4300RR	4.20	4.74	4.82	4.47	4.59	4.94	4.23	4.16	4.58	4.44	3.79	4.12	4.56	3.95	4.16	4.13	3.76	3.59	3.94	3.83
591	Hilleshög 4302RR	4.52	4.23	4.34	4.38	4.36	4.20	4.82	4.20	4.51	4.41	3.58	3.32	3.63	3.45	3.51	5.05	5.11	4.33	5.08	4.83
618	Hilleshög 4303RR	4.82	4.85	4.62	4.83	4.76	4.65	4.75	4.00	4.70	4.47	5.38	5.24	5.20	5.31	5.27	6.29	5.70	5.44	5.99	5.81
528	Hilleshög 4448RR(9448)	5.28	5.21	4.82	5.25	5.11	4.78	4.73	5.66	4.76	5.06	4.73	5.42	--	5.07	--	4.71	5.22	--	4.97	--
603	Maribo MA104RR	3.58	3.87	3.82	3.72	3.76	5.90	4.71	4.46	5.31	5.02	3.56	3.99	3.98	3.77	3.84	5.50	5.60	4.75	5.55	5.29
526	Seedex Victor RR	5.14	4.51	4.41	4.82	4.69	4.86	4.90	4.68	4.88	4.81	3.94	4.51	4.57	4.22	4.34	4.01	4.94	4.21	4.48	4.39
586	Seedex Vision RR	5.50	5.17	4.49	5.34	5.06	5.54	5.41	5.17	5.47	5.37	4.44	4.71	4.61	4.57	4.59	4.01	5.21	5.05	4.61	4.76
587	Seedex Xavier RR	5.43	4.85	4.43	5.14	4.90	5.41	4.42	4.19	4.91	4.67	4.34	4.60	4.71	4.47	4.55	4.73	5.52	5.27	5.13	5.17
541	Seedex Yukon RR(828N)	4.85	4.69	4.72	4.77	4.75	2.77	4.35	4.06	3.56	3.73	4.33	4.84	4.25	4.59	4.48	2.88	3.54	4.14	3.21	3.52
557	Seedex Zenith RR(829N)	4.53	4.76	4.84	4.65	4.71	2.93	5.42	3.90	4.18	4.09	4.57	--	--	--	--	2.98	4.27	3.38	3.62	3.50
523	SV 36175RR	4.54	4.60	4.22	4.57	4.45	3.40	4.29	4.10	3.85	3.93	4.20	4.50	4.32	4.35	4.34	3.50	4.45	4.65	3.98	4.24
583	SV 36271RR	4.21	4.45	4.65	4.33	4.44	3.36	5.55	4.85	4.46	4.59	4.32	3.95	4.40	4.14	4.23	3.35	NE	--	--	--
546	SV 36272RR	4.61	4.49	4.17	4.55	4.43	4.98	5.01	5.15	4.99	5.04	4.31	4.61	--	4.46	--	4.10	NE	--	--	--
599	SV 36273RR	5.05	4.68	4.19	4.86	4.64	5.59	5.31	3.10	5.45	4.67	3.94	4.70	4.47	4.32	4.37	4.60	NE	--	--	--
552	SV 36918RR	4.84	4.61	4.28	4.73	4.58	4.72	5.00	4.69	4.86	4.81	4.77	4.82	4.66	4.80	4.75	5.52	5.56	5.00	5.54	5.36
ACSC Experimental																					
606	BTS 8337	4.52	4.75	--	4.63	--	3.68	3.69	--	3.68	--	4.06	4.55	--	4.30	--	3.78	4.38	--	4.08	--
549	BTS 8354	4.39	4.80	--	4.59	--	4.44	4.30	--	4.37	--	4.04	3.49	--	3.77	--	3.25	3.58	--	3.42	--
510	BTS 8363	3.85	3.92	--	3.88	--	5.03	4.91	--	4.97	--	4.24	3.88	--	4.06	--	3.39	4.34	--	3.87	--
569	BTS 8390	4.28	4.43	--	4.36	--	5.03	4.75	--	4.89	--	4.30	4.38	--	4.34	--	3.03	3.14	--	3.08	--
597	BTS 83CN	4.60	4.36	--	4.48	--	4.16	4.34	--	4.25	--	4.01	3.29	--	3.65	--	3.13	3.21	--	3.17	--
613	BTS 8402	4.54	--	--	--	--	5.05	--	--	--	--	4.98	--	--	--	--	2.23	--	--	--	--
503	BTS 8404	4.48	--	--	--	--	4.82	--	--	--	--	4.58	--	--	--	--	3.14	--	--	--	--
602	BTS 8405	4.14	--	--	--	--	4.93	--	--	--	--	4.75	--	--	--	--	2.87	--	--	--	--
605	BTS 8406	4.03	--	--	--	--	6.15	--	--	--	--	4.43	--	--	--	--	3.07	--	--	--	--
584	BTS 8408	5.00	--	--	--	--	4.33	--	--	--	--	4.25	--	--	--	--	3.22	--	--	--	--
525	BTS 840N	3.99	--	--	--	--	4.61	--	--	--	--	4.31	--	--	--	--	3.12	--	--	--	--
566	Crystal 355RR	4.58	4.89	--	4.73	--	4.15	4.51	--	4.33	--	4.07	3.55	--	3.81	--	3.14	3.43	--	3.29	--
550	Crystal 359RR	5.16	5.32	--	5.24	--	4.92	4.44	--	4.68	--	4.18	4.04	--	4.11	--	2.21	2.60	--	2.40	--
545	Crystal 464RR	4.01	--	--	--	--	3.01	--	--	--	--	4.67	--	--	--	--	3.85	--	--	--	--
539	Crystal 465RR	5.01	--	--	--	--	4.86	--	--	--	--	4.81	--	--	--	--	2.16	--	--	--	--
607	Crystal 466RR	4.64	--	--	--	--	5.30	--	--	--	--	4.36	--	--	--	--	3.42	--	--	--	--
518	Crystal 467RR	4.40	--	--	--	--	4.33	--	--	--	--	4.03	--	--	--	--	2.61	--	--	--	--
611	Crystal 468RR	4.49	--	--	--	--	4.31	--	--	--	--	4.05	--	--	--	--	2.77	--	--	--	--
530	Crystal 469RR	5.28	--	--	--	--	5.06	--	--	--	--	4.32	--	--	--	--	2.40	--	--	--	--
537	Hilleshög 9517RR	4.39	4.67	--	4.53	--	3.89	3.66	--	3.78	--	4.04	3.62	--	3.83	--	3.40	3.77	--	3.59	--
574	Hilleshög 9528RR	4.97	4.72	--	4.84	--	5.44	4.51	--	4.98	--	3.83	4.17	--	4.00	--	4.80	--	--	--	--
577	Hilleshög 9601RR	4.77	--	--	--	--	6.12	--	--	--	--	3.67	--	--	--	--	--	--	--	--	--
619	Hilleshög 9602RR	4.67	--	--	--	--	4.55	--	--	--	--	4.12	--	--	--	--	--	--	--	--	--
568	Hilleshög 9604RR	5.47	--	--	--	--	4.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--
522	Hilleshög 9610RR	4.46	--	--	--	--	5.04	--	--	--	--	3.41	--	--	--	--	--	--	--	--	--
533	Hilleshög 9613RR	4.97	--	--	--	--	5.66	--	--	--	--	3.95	--	--	--	--	--	--	--	--	--
565	Hilleshög 9615RR	4.33	--	--	--	--	5.87	--	--	--	--	--	--	--	--	--	3.35	--	--	--	--
547	Hilleshög 9620RR	5.																			

Table 4. Official Trial Disease Nurseries 2012 - 2014 (Varieties tested in 2014)

## Cercospora, Aphanomyces, Rhizoctonia &amp; Fusarium

Code	Description +	< 4.5 CR > 5.2					< 4.4 Aph > 5.5					< 3.8 Rhizoctonia > 5.0					< 3.0 Fusarium > 5.0				
		14	13	12	2 Yr	3 Yr	14	13	12	2 Yr	3 Yr	14	13	12	2 Yr	3 Yr	14	13	12	2 Yr	3 Yr
Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
514 SV RR243		4.79	--	--	--	--	5.71	--	--	--	--	4.79	--	--	--	--	5.05	--	--	--	--
553 SV RR244TT		5.51	--	--	--	--	5.67	--	--	--	--	3.84	--	--	--	--	4.56	--	--	--	--
511 SV RR245N		4.59	--	--	--	--	4.38	--	--	--	--	4.21	--	--	--	--	3.51	--	--	--	--
542 SV RR246		4.54	--	--	--	--	5.67	--	--	--	--	3.63	--	--	--	--	4.28	--	--	--	--
576 SV RR247		4.14	--	--	--	--	5.95	--	--	--	--	3.84	--	--	--	--	--	--	--	--	--
509 SV RR248		4.41	--	--	--	--	6.05	--	--	--	--	4.38	--	--	--	--	--	--	--	--	--
609 SV RR333		4.81	4.86	--	4.83	--	5.33	5.48	--	5.41	--	4.39	4.32	--	4.36	--	4.10	--	--	--	--
529 SV RR336		4.53	4.75	--	4.64	--	5.50	4.53	--	5.01	--	4.29	3.93	--	4.11	--	4.29	--	--	--	--
MDFC Commercial																					
616 BTS 70RR99		4.20	4.72	4.33	4.46	4.42	3.57	4.52	NR	4.04	NA	3.90	4.38	3.85	4.14	4.04	3.46	3.58	2.78	3.52	3.27
532 BTS 72RR22		3.91	4.18	4.31	4.04	4.13	2.33	3.21	3.19	2.77	2.91	5.18	4.72	4.50	4.95	4.80	4.10	4.26	--	4.18	--
555 BTS 72RR95		4.34	4.37	4.57	4.35	4.43	4.17	3.80	3.93	3.98	3.96	4.56	3.77	3.02	4.17	3.78	3.02	2.67	--	2.85	--
615 Crystal RR012		4.59	4.76	4.54	4.68	4.63	3.83	4.78	NR	4.31	NA	4.09	3.69	3.27	3.89	3.68	3.38	3.63	2.85	3.50	3.28
561 Crystal RR228		4.19	4.39	4.33	4.29	4.30	2.35	3.36	3.49	2.85	3.06	4.48	4.40	4.41	4.44	4.43	4.40	4.69	--	4.55	--
559 Crystal RR260		4.34	4.34	4.58	4.34	4.42	4.67	4.28	4.37	4.48	4.44	4.51	3.71	4.60	4.11	4.27	2.75	3.27	--	3.01	--
612 Crystal RR299		4.51	4.35	4.48	4.43	4.45	4.70	4.96	4.04	4.83	4.57	4.03	3.85	4.22	3.94	4.04	3.88	4.06	--	3.97	--
556 Crystal RR830		4.69	4.57	4.60	4.63	4.62	3.92	4.62	NR	4.27	NA	3.72	3.66	3.91	3.69	3.76	4.10	4.23	3.45	4.17	3.93
501 Hilleshog 4022RR		4.54	4.33	4.36	4.43	4.41	4.59	4.65	4.11	4.62	4.45	3.82	3.39	3.29	3.60	3.50	4.79	4.67	4.71	4.73	4.73
538 Hilleshog 4062RR		4.58	4.54	4.38	4.56	4.50	3.83	4.46	NR	4.14	NA	3.40	3.63	3.54	3.52	3.52	4.97	4.64	4.73	4.81	4.78
528 Hilleshog 4448RR(9449 MD)		5.28	5.05	4.66	5.17	5.00	4.78	4.70	4.46	4.74	4.65	4.73	4.81	--	4.77	--	4.71	4.98	--	4.85	--
579 Seedex Vapor RR(995)		4.94	4.87	4.48	4.91	4.77	5.50	4.64	NR	5.07	NA	4.48	4.65	4.25	4.57	4.46	4.70	5.19	4.68	4.95	4.86
563 Seedex Yuma RR(924)		5.11	4.46	4.74	4.78	4.77	5.41	4.46	4.63	4.94	4.83	4.19	4.63	4.16	4.41	4.33	4.53	NR	--	NA	--
MDFC Experimental																					
598 BTS 7373		4.58	4.75	--	4.66	--	2.72	3.53	--	3.12	--	4.50	3.88	--	4.19	--	3.87	--	--	--	--
544 BTS 73MN		4.37	4.63	--	4.50	--	3.93	3.96	--	3.94	--	4.06	3.53	--	3.79	--	3.16	--	--	--	--
604 BTS 7438		4.45	--	--	--	--	3.85	--	--	--	--	4.06	--	--	--	--	--	--	--	--	--
614 BTS 7447		4.58	--	--	--	--	4.52	--	--	--	--	5.03	--	--	--	--	--	--	--	--	--
582 BTS 7481		4.41	--	--	--	--	4.80	--	--	--	--	4.10	--	--	--	--	--	--	--	--	--
600 Crystal D352NT		4.67	4.53	--	4.60	--	3.80	4.12	--	3.96	--	3.91	3.17	--	3.54	--	2.49	--	--	--	--
516 Crystal D425NT		4.06	--	--	--	--	4.47	--	--	--	--	3.96	--	--	--	--	--	--	--	--	--
560 Crystal D488		4.99	--	--	--	--	4.23	--	--	--	--	4.44	--	--	--	--	--	--	--	--	--
591 Hilleshog 4302RR		4.52	4.23	4.34	4.38	4.36	4.20	4.82	4.20	4.51	4.41	3.58	3.32	3.63	3.45	3.51	5.05	5.11	4.33	5.08	4.83
537 Hilleshog 9517RR		4.39	4.67	--	4.53	--	3.89	3.66	--	3.78	--	4.04	3.62	--	3.83	--	3.40	3.77	--	3.59	--
574 Hilleshog 9528RR		4.97	4.72	--	4.84	--	5.44	4.51	--	4.98	--	3.83	4.17	--	4.00	--	4.80	--	--	--	--
577 Hilleshog 9601RR		4.77	--	--	--	--	6.12	--	--	--	--	3.67	--	--	--	--	--	--	--	--	--
619 Hilleshog 9602RR		4.67	--	--	--	--	4.55	--	--	--	--	4.12	--	--	--	--	--	--	--	--	--
522 Hilleshog 9610RR		4.46	--	--	--	--	5.04	--	--	--	--	3.41	--	--	--	--	--	--	--	--	--
533 Hilleshog 9613RR		4.97	--	--	--	--	5.66	--	--	--	--	3.95	--	--	--	--	--	--	--	--	--
565 Hilleshog 9615RR		4.33	--	--	--	--	5.87	--	--	--	--	--	--	--	--	--	3.35	--	--	--	--
547 Hilleshog 9620RR		5.79	--	--	--	--	2.94	--	--	--	--	--	--	--	--	--	3.88	--	--	--	--
589 Maribo MA102RR(108)		5.54	5.48	5.12	5.51	5.38	4.99	4.44	3.18	4.71	4.20	4.30	5.53	4.86	4.91	4.90	5.37	5.10	5.05	5.23	5.17
594 Maribo 109RR		4.68	--	--	--	--	5.00	--	--	--	--	3.33	--	--	--	--	--	--	--	--	--
551 Maribo 301		4.92	--	--	--	--	3.16	--	--	--	--	4.66	--	--	--	--	2.65	--	--	--	--
524 Maribo 408		5.29	--	--	--	--	4.70	--	--	--	--	4.70	--	--	--	--	--	--	--	--	--
596 Maribo 409		5.28	--	--	--	--	5.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--
558 Seedex SX0929RR		4.81	4.58	4.02	4.70	4.47	4.38	5.46	3.80	4.92	4.54	4.41	4.65	3.82	4.53	4.29	4.82	5.73	4.09	5.28	4.88
601 Seedex RR0941		4.67	--	--	--	--	3.93	--	--	--	--	4.19	--	--	--	--	4.86	--	--	--	--
507 Seedex RR0942		4.61	--	--	--	--	5.64	--	--	--	--	4.08	--	--	--	--	--	--	--	--	--
536 Seedex RR0943TT		5.53	--	--	--	--	5.45	--	--	--	--	3.67	--	--	--	--	--	--	--	--	--
617 Seedex RR0944		4.00	--	--	--	--	3.95	--	--	--	--	4.38	--	--	--	--	4.18	--	--	--	--
580 Seedex RR0945		4.17	--	--	--	--	4.95	--	--	--	--	4.62	--	--	--	--	4.83	--	--	--	--
567 Seedex RR0946		4.14	--	--	--	--	4.96	--	--	--	--	4.26	--	--	--	--	4.07	--	--	--	--
620 SV RR631		4.88	4.78	--	4.83	--	4.98	5.04	--	5.01	--	4.36	4.37	--	4.37	--	4.04	--	--	--	--
540 SV RR632N		4.56	4.79	--	4.68	--	4.79	4.69	--	4.74	--	4.31	4.60	--	4.46	--	5.29	4.28	--	4.78	--
519 SV RR633		5.39	4.83	--	5.11	--	3.72	4.69	--	4.21	--	4.15	3.44	--	3.80	--	3.22	--	--	--	--
592 SV RR744		4.25	--	--	--	--	5.41	--	--	--	--	3.85	--	--	--	--	4.03	--	--	--	--
610 SV RR745		5.10	--	--	--	--	6.14	--	--	--	--	4.34	--	--	--	--	4.71	--	--	--	--
581 SV RR746		4.87	--	--	--	--	4.62	--	--	--	--	4.20	--	--	--	--	--	--	--	--	--
570 SV RR747		4.73	--	--	--	--	4.67	--	--	--	--	4.10	--	--	--	--	--	--	--	--	--

CR ratings on a scale of 1-9. Good &lt; 4.5, Poor &gt; 5.2

Aph root ratings on a scale of 1-9. Good &lt; 4.4, Poor &gt; 5.5. Specialty level is 4.4.

Rhizoctonia ratings on a scale of 1-7. Good &lt; 3.8, Poor &gt; 5.0. Specialty level is 3.82.

Fusarium ratings on a scale of 1-9. Good &lt; 3.0, Poor &gt; 5.0

NE indicates variety was not entered into disease nursery.

NR indicates variety was not rated due to lack of Tach seed trl.

NA indicates average rating could not be determined.

Green highlighted ratings indicate specialty or good resistance.

Red highlighted ratings indicate level of concern for some fields.

+ Rhizoctonia and Fusarium ratings are optional in first year of testing.

Created 11-3-2014.

Table 5. Planting & Harvest Dates, Previous Crop and Disease Levels for 2014 ACSC Official Trial Sites \*

Location	District / Trial Type	Cooperator	Planting Date	Harvest Date	Preceding Crop	Soil Type	Diseases Present @						Comments
							Aph	Rhc	Rzm	Fus	Maggot	Rt Aphid	
Casselton	Mhd/Hlb	Howe Seed Farm	5/22	9/12	Soybeans	Medium Light	L-M	M	N	N	N	N	
Averill	Mhd/Hlb	Oberg Farms	5/24	Abandoned	Corn	Medium Light	NA	NA	NA	NA	NA	NA	Water damage
Ada	Mhd/Hlb	Corey Jacobson	5/4	10/27	Wheat	Medium Heavy	N	L-M	N	N	N	N	Rhc spots
Buxton	Mhd/Hlb	Mark Osland	5/24	Abandoned	Wheat	Medium	N	M	N	N	N	N	Water damage
Crookston	EGF/Crk	Dennis Deboer	5/21	10/16	Wheat	Medium Light	N	N	N	L	N	N	Fus in demos
Climax	EGF/Crk	Curt & Scott Knutson	5/23	10/8	Wheat	Medium Light	M-V	L	N	N	N	N	
Grand Forks	EGF/Crk	Drees Farming Assc.	5/16	9/19	Wheat	Medium	N	M	N	N	M	L	Some large Rhc spots
Alvarado	EGF/Crk	Jared Sands	5/18	10/11	Wheat	Medium Heavy	N-L	L	N	N	N	L	
St Thomas	Dtn	Kennelly Farms	5/27	9/25	Wheat	Medium Light	N	N	N	L	L-M	L	
Stephen	Dtn	Hvidsten Farms	5/17	10/10	Wheat	Heavy	N	N	N	N	N	L	
Bathgate	Dtn	Troy Demars	5/29	9/27	Wheat	Heavy	L-M	N	N	N	N	L	
Kindred Aph	Specialty Aph	Nipstad Farms	5/30	Abandoned	Wheat	Medium Heavy	L	L	N	N	N	N	Water damage, sprangled beets
Georgetown Aph	Specialty Aph	Hoff Farms	5/23	Abandoned	Soybeans	Medium	L	N	N	N	N	N	Water damage, sprangled beets
Mhd Fus	Fusarium	Nelson Farms	6/4	NA	Wheat	Medium	NA	N	N	V	N	NA	
Mhd So. Fus	Fusarium	Oberg Farms	5/30	NA	Soybeans	Medium	NA	L	N	V	N	NA	
Mhd Rhc-E	Rhc Nurs	ACSC Tech Services Ctr	6/3	Abandoned	Soybeans	Heavy	L	M	N	N	N	L	Light disease pressure
Mhd Rhc-W	Rhc Nurs	ACSC Tech Services Ctr	6/3	9/16	Soybeans	Heavy	L	M-V	N	N	N	N	
NWROC Rhc	Rhc Nurs	Albert Sims	5/22	Abandoned	Corn	Medium Heavy	NA	L-M	N	N	N	N	Light disease pressure
Foxhome CR	Cercospora	Kevin Etzler	6/9	NA	Soybeans	Medium	NA	N	N	N	N	N	Some water damage
Barnesville	Minn-Dak	Maier Farms	5/28	10/4	Wheat	Medium	L	L	L-M	N	N	L	
Breckenridge	Minn-Dak	Jeremy Tischer	5/28	Abandoned	Wheat	Medium Light	NA	NA	NA	NA	NA	NA	Water damage
Fairmount	Minn-Dak	Wayne Miller	5/28	10/5	Wheat	Medium Light	L	N	N	N	N	L	Some weak stands
Norcross	Minn-Dak	Vipond Grain Farms	Not Planted	NA	Corn	Medium	NA	NA	NA	NA	NA	NA	Very wet in spring

\* Fertilizer applied in accordance to cooperative recommendations.

@ Disease notes for Aph., Rhizoc., Rhizomania, Fusarium, Root Maggot and Root Aphids were based upon visual evaluations (N=none, L=light, M=moderate, V=severe, NA=not observed)

Created 10-31-2014



Table 6. Seed Treatments Used on Approved Varieties in Official Variety Trials in 2014

Description	Years in Trial	Years ** Comm.	Fungicide (Rhizoctonia)	Insecticide (Spring Tails & Maggots)	Tachigaren Rate (Aphanomyces)	Priming (Emergence)	Fungicide (Damping Off)
<b>ACSC Commercial</b>							
BTS 80RR32	5	3	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 80RR52	5	3	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 81RR17	4	2	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR22	3	1	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR28	3	1	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR33	3	1	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR80	3	1	Kabina 12g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 89RR83	6	4	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
Crystal 093RR	5	3	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 095RR	5	3	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 101RR	4	3	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 246RR	3	1	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 247RR	3	1	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 765RR	8	6	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 768RR	8	6	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 875RR	7	5	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 981RR	6	1	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 985RR	6	4	NA	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 986RR	6	3	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Hilleshög 4022RR	9	6	NA	NA	45	XBEET	Apron XL Maxim
Hilleshög 4094RR	7	5	NA	Cruiser Maxx	NA	NA	Apron XL Maxim
Hilleshög 4300RR	4	2	NA	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög 4302RR	4	1	NA	NA	45	NA	Apron XL Maxim
Hilleshög 4303RR	4	1	NA	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög 4448RR(9448)	3	1	NA	Cruiser Maxx	NA	XBEET	Apron XL Maxim
Maribo MA104RR	4	1	NA	Cruiser Maxx	20	XBEET	Apron XL Maxim
Seedex Victor RR	6	4	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
Seedex Vision RR	6	3	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
Seedex Xavier RR	4	2	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
Seedex Yukon RR(828N)	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
Seedex Zenith RR(829N)	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
SV 36175RR	4	2	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
SV 36271RR	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
SV 36272RR	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
SV 36273RR	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
SV 36918RR	6	3	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
<b>ACSC Experimental</b>							
BTS 8337	2	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8354	2	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8363	2	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8390	2	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 83CN	2	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8402	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8404	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8405	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8406	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8408	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
BTS 840N	1	NC	Kabina 12g	Poncho Beta	20	NA	Allegiance Thiram
Crystal 355RR	2	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 359RR	2	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 464RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 465RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 466RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 467RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 468RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 469RR	1	NC	Kabina 12g	Poncho Beta	45	XBEET	Allegiance Thiram
Hilleshög 9517RR	2	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9528RR	2	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9601RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9602RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9604RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9610RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9613RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9615RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9620RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA102RR	4	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 109RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 301	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 305	2	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 402	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 403	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Seedex RR0832	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
Seedex RR842	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram

Table 6. Seed Treatments Used on Approved Varieties in Official Variety Trials in 2014

Description	Years in Trial	Years ** Comm.	Fungicide (Rhizoctonia)	Insecticide (Spring Tails & Maggots)	Tachigaren Rate (Aphanomyces)	Priming (Emergence)	Fungicide (Damping Off)
Seedex RR844TT	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
Seedex RR846	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
Seedex RR848	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR241	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR242TT	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR243	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR244TT	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR245N	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR246	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR247	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR248	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR333	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
SV RR336	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	20	NA	Seabring Thiram
<b>MDFC Commercial</b>							
BTS 70RR99	5	3	Kabina 12g	NA	NA	NA	Allegiance Thiram
BTS 72RR22	3	1	Kabina 12g	NA	NA	NA	Allegiance Thiram
BTS 72RR95	3	1	Kabina 12g	NA	NA	NA	Allegiance Thiram
Crystal RR012	5	3	NA	NA	NA	Prime	Allegiance Thiram
Crystal RR228	3	1	NA	NA	NA	Prime	Allegiance Thiram
Crystal RR260	3	1	NA	NA	NA	Prime	Allegiance Thiram
Crystal RR299	3	1	NA	NA	NA	Prime	Allegiance Thiram
Crystal RR830	7	5	NA	NA	NA	Prime	Allegiance Thiram
Hilleshög 4022RR	9	6	NA	NA	NA	XBEET	Apron XL Maxim
Hilleshög 4062RR	7	5	NA	NA	NA	NA	Apron XL Maxim
Hilleshög 4448RR(9449 MD)	3	1	NA	Cruiser Maxx	NA	XBEET	Apron XL Maxim
Seedex Vapor RR(995)	6	3	Metlock/Rizolex/Kabina 7g	Nipsit	NA	XBEET	Seabring Thiram
Seedex Yuma RR(924)	3	1	Metlock/Rizolex/Kabina 7g	Nipsit	45	XBEET	Seabring Thiram
<b>MDFC Experimental</b>							
BTS 7373	2	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
BTS 73MN	2	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7438	1	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7447	1	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7481	1	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D352NT	2	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D425NT	1	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D488	1	NC	Kabina 12g	Poncho Beta	45	NA	Allegiance Thiram
Hilleshög 4302RR	4	1	NA	NA	45	NA	Apron XL Maxim
Hilleshög 9517RR	2	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9528RR	2	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9601RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9602RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9610RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9613RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9615RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9620RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA102RR(108)	4	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 109RR	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 301	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 408	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 409	1	NC	NA	Cruiser Maxx	20	NA	Apron XL Maxim
Seedex SX0929RR	3	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0941	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0942	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0943TT	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0944	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0945	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
Seedex RR0946	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR631	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR632N	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR633	2	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR744	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR745	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR746	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram
SV RR747	1	NC	Metlock/Rizolex/Kabina 7g	Nipsit	45	NA	Seabring Thiram

Seed received by ACSC without Tachigaren was treated with Tachigaren for the Aphanomyces nurseries.  
NA indicates no treatment applied in this category.

**Table 7.**  
**2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials**  
**8 sites - All Characters**

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %	
<b>Commercial Trial</b>																			
BTS 80RR32	111	307.7	98	8965	107	1.02	52.05	96	1519	105	16.40	29.08	278	1485	296	0	81.3	7.6	
BTS 80RR52	107	318.4	101	8777	104	1.05	55.49	102	1530	105	16.97	27.56	224	1530	322	0	78.1	6.8	
BTS 81RR17	101	315.0	100	8381	100	1.12	54.39	100	1443	99	16.87	26.69	233	1625	352	0	79.5	7.0	
BTS 82RR22	135	329.8	105	8447	100	1.03	59.11	109	1515	104	17.52	25.59	235	1491	313	5	78.4	6.8	
BTS 82RR28	106	314.6	100	8970	107	1.05	54.27	100	1548	107	16.79	28.49	251	1577	307	23	80.7	6.4	
BTS 82RR33	109	313.0	100	9260	110	1.00	53.75	99	1596	110	16.66	29.47	279	1513	274	5	77.6	6.7	
BTS 82RR80	114	322.6	103	8610	102	1.01	56.81	105	1519	105	17.13	26.63	212	1481	309	0	81.4	8.9	
BTS 89RR83	121	303.1	96	8831	105	0.98	50.61	93	1474	101	16.14	29.14	246	1489	272	0	78.2	6.7	
Crystal 093RR	104	326.9	104	8800	105	1.02	58.18	107	1565	108	17.36	26.95	204	1498	318	18	82.9	7.2	
Crystal 095RR	134	314.8	100	8600	102	1.07	54.34	100	1488	102	16.81	27.22	260	1547	321	0	78.5	6.5	
Crystal 101RR	122	313.7	100	9092	108	1.11	53.96	100	1566	108	16.79	28.95	291	1678	308	0	80.4	6.7	
Crystal 246RR	136	313.8	100	8869	105	0.99	54.00	100	1529	105	16.68	28.22	247	1482	280	14	79.7	7.3	
Crystal 247RR	120	314.0	100	9330	111	0.97	54.06	100	1613	111	16.67	29.58	249	1510	260	5	73.9	6.2	
Crystal 765RR	108	326.0	104	8469	101	1.04	57.91	107	1507	104	17.34	25.92	290	1472	307	0	78.7	6.7	
Crystal 768RR	102	315.8	100	8449	100	1.10	54.66	101	1459	100	16.89	26.82	272	1590	327	0	75.2	7.6	
Crystal 875RR	103	312.9	99	8440	100	1.14	53.73	99	1452	100	16.79	26.90	295	1594	352	0	77.4	7.8	
Crystal 981RR	113	314.3	100	8865	105	1.10	54.16	100	1530	105	16.81	28.17	313	1646	298	5	78.2	7.2	
Crystal 985RR	127	311.1	99	8046	96	1.07	53.14	98	1376	95	16.62	25.83	269	1533	322	0	82.4	7.2	
Crystal 986RR	115	323.2	103	8842	105	0.94	57.01	105	1561	107	17.10	27.33	259	1373	273	0	79.4	8.3	
Hilleshög 4022RR	125	303.5	97	7534	90	1.17	50.73	94	1256	86	16.35	24.88	313	1592	371	0	78.2	6.5	
Hilleshög 4094RR	117	309.6	98	7914	94	1.13	52.66	97	1345	93	16.61	25.59	280	1588	349	0	79.0	6.5	
Hilleshög 4300RR	105	307.9	98	8084	96	1.08	52.14	96	1373	94	16.48	26.17	320	1564	307	0	64.7	7.2	
Hilleshög 4302RR	132	316.2	101	8260	98	0.99	54.77	101	1435	99	16.81	26.05	273	1470	279	0	75.8	6.1	
Hilleshög 4303RR	118	326.1	104	8405	100	0.99	57.92	107	1499	103	17.30	25.66	233	1490	289	0	72.0	6.1	
Hilleshög 4448RR(9448)	110	323.0	103	9535	113	0.95	56.95	105	1685	116	17.10	29.43	219	1391	283	0	74.6	4.5	
Maribo MA104RR	124	325.0	103	7487	89	0.99	57.57	106	1326	91	17.23	23.05	247	1437	292	0	76.6	7.7	
Seedex Victor RR	112	304.1	97	8275	98	0.97	50.91	94	1391	96	16.17	27.08	253	1455	271	0	79.5	6.8	
Seedex Vision RR	133	313.2	100	8306	99	0.96	53.82	99	1436	99	16.62	26.32	235	1426	279	0	76.1	6.9	
Seedex Xavier RR	130	318.0	101	8388	100	0.94	55.35	102	1465	101	16.84	26.27	216	1417	272	0	70.9	8.2	
Seedex Yukon RR(828N)	129	308.8	98	7914	94	1.00	52.42	97	1344	92	16.44	25.63	238	1440	307	0	79.2	6.7	
Seedex Zenith RR(829N)	116	302.2	96	7487	89	1.04	50.31	93	1249	86	16.15	24.73	242	1488	318	5	78.9	9.0	
SV 36175RR	128	310.2	99	7872	94	0.99	52.87	98	1342	92	16.50	25.36	241	1455	293	5	80.5	7.4	
SV 36271RR	126	296.6	94	7189	85	1.04	48.51	89	1179	81	15.87	24.17	251	1541	308	0	78.6	9.7	
SV 36272RR	131	320.3	102	7876	94	0.92	56.08	103	1382	95	16.93	24.52	190	1421	267	0	77.8	7.6	
SV 36273RR	119	309.5	98	8525	101	0.97	52.63	97	1454	100	16.44	27.45	255	1456	271	0	72.5	5.3	
SV 36918RR	123	315.2	100	7846	93	1.00	54.45	100	1361	94	16.76	24.76	219	1501	295	0	69.2	7.8	
<b>Experimental Trial (Comm status)</b>																			
BTS 8337	222	329.6	105	8220	98	0.97	58.93	109	1468	101	17.46	24.98	230	1470	281	14	76.6	5.4	
BTS 8354	241	317.7	101	8027	95	1.11	55.23	102	1393	96	17.00	25.31	243	1593	350	0	76.8	4.9	
BTS 8363	233	311.8	99	8978	107	0.96	53.37	98	1539	106	16.55	28.77	217	1465	276	95	77.5	4.5	
BTS 8390	208	304.3	97	9209	109	1.03	51.08	94	1546	106	16.25	30.25	290	1582	270	0	77.5	5.1	
BTS 83CN	223	313.7	100	8618	102	0.95	53.99	100	1481	102	16.64	27.50	230	1448	266	0	76.9	3.8	
Crystal 355RR	234	321.1	102	8272	98	1.08	56.28	104	1447	100	17.13	25.83	244	1570	331	0	78.5	4.8	
Hilleshög 9517RR	247	323.8	103	7589	90	1.07	57.11	105	1339	92	17.27	23.44	294	1573	309	0	71.1	4.8	
Hilleshög 9528RR	237	325.6	104	8908	106	0.93	57.69	106	1577	109	17.22	27.39	214	1414	270	0	77.5	4.2	
Maribo MA102RR	216	325.0	103	9247	110	0.91	57.51	106	1636	113	17.17	28.43	203	1354	270	0	74.1	3.4	
Maribo 305	232	315.3	100	8914	106	0.88	54.51	101	1541	106	16.66	28.26	205	1283	263	0	81.7	3.3	
Seedex RR0832	227	318.8	101	8672	103	0.98	55.58	103	1513	104	16.93	27.16	234	1513	269	0	76.7	5.0	
SV RR333	212	316.9	101	8551	102	0.98	54.99	101	1485	102	16.83	26.97	214	1477	292	0	75.6	4.5	
SV RR336	226	316.0	100	8627	103	0.95	54.71	101	1493	103	16.75	27.29	206	1394	291	0	77.4	4.2	
Trial Mean		314.5		8415		1.03	54.21		1453		16.75	26.71	254	1507	302		77.4	7.1	
Coef. of Var. (%)		3.1		6.1		7.2	5.8		7.8		2.7	5.3	19.1	5.5	13.4		8.9	35.8	
Mean LSD (0.05)		5.3		359		0.04	1.69		75		0.24	1.04	26	44	23		3.4	1.2	
Mean LSD (0.01)		7.0		473		0.06	2.23		99		0.32	1.37	34	57	30		4.5	1.5	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**	

\* 2014 Data from 8 sites

Analysed 10/24/2014 12:05

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 14ACExp8

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 8.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Casselton ND - All Characters

Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %
<b>Commercial Trial</b>																		
BTS 80RR32	111	247.0	96	7658	105	1.20	32.71	91	1012	99	13.56	31.04	387	1738	329	0	79.8	13.2
BTS 80RR52	107	269.1	105	8078	111	1.09	39.75	111	1195	117	14.56	29.55	261	1679	304	0	76.9	6.8
BTS 81RR17	101	256.6	100	7405	102	1.21	35.77	100	1035	102	14.05	28.88	290	1820	350	0	80.6	8.3
BTS 82RR22	135	274.0	107	7814	107	1.17	41.30	115	1177	116	14.87	28.70	312	1715	335	0	74.6	8.2
BTS 82RR28	106	258.2	101	7646	105	1.19	36.28	101	1075	106	14.09	29.87	346	1767	330	0	77.0	11.5
BTS 82RR33	109	255.7	100	7979	109	1.14	35.48	99	1099	108	13.93	31.52	379	1821	259	0	78.0	9.4
BTS 82RR80	114	270.6	105	7681	105	1.05	40.24	112	1142	112	14.59	28.36	246	1662	282	0	80.0	13.2
BTS 89RR83	121	239.0	93	7480	103	1.14	30.14	84	941	92	13.08	31.44	334	1697	306	0	77.9	9.5
Crystal 093RR	104	277.5	108	8268	113	1.04	42.42	119	1266	124	14.91	30.18	213	1681	280	0	82.7	10.9
Crystal 095RR	134	251.9	98	6979	96	1.21	34.26	96	944	93	13.80	28.10	366	1739	340	0	77.2	11.2
Crystal 101RR	122	254.4	99	7893	108	1.24	35.05	98	1091	107	13.96	30.99	352	1838	347	0	80.4	11.9
Crystal 246RR	136	254.0	99	7623	105	1.08	34.94	98	1055	104	13.79	29.55	334	1622	282	0	78.3	10.3
Crystal 247RR	120	245.2	96	7609	104	1.09	32.14	90	1007	99	13.36	30.92	350	1694	268	0	68.8	9.6
Crystal 765RR	108	260.6	102	6981	96	1.22	37.05	104	993	97	14.26	26.77	397	1726	344	0	75.9	9.5
Crystal 768RR	102	267.1	104	7814	107	1.16	39.13	109	1144	112	14.52	29.27	304	1762	320	0	74.7	9.4
Crystal 875RR	103	258.1	101	7428	102	1.24	36.24	101	1046	103	14.14	28.62	371	1727	367	0	78.6	10.9
Crystal 981RR	113	254.5	99	7833	107	1.26	35.11	98	1081	106	13.99	30.64	422	1850	329	0	73.4	10.1
Crystal 985RR	127	244.4	95	7090	97	1.18	31.88	89	931	91	13.41	28.72	331	1721	338	0	77.5	9.3
Crystal 986RR	115	275.6	107	8342	114	0.99	41.84	117	1268	125	14.76	30.28	299	1497	258	0	77.3	8.4
Hilleshög 4022RR	125	246.0	96	6879	94	1.30	32.38	90	900	88	13.59	28.29	407	1754	389	0	74.8	11.9
Hilleshög 4094RR	117	251.6	98	7366	101	1.29	34.16	95	989	97	13.86	29.52	436	1733	380	0	77.1	8.7
Hilleshög 4300RR	105	250.4	98	6885	94	1.16	33.80	94	925	91	13.69	27.48	458	1688	286	0	62.2	11.9
Hilleshög 4302RR	132	256.9	100	7069	97	1.08	35.87	100	986	97	13.94	27.35	399	1633	258	0	73.8	10.4
Hilleshög 4303RR	118	271.6	106	6807	93	1.02	40.55	113	1020	100	14.60	24.57	286	1587	261	0	64.9	9.1
Hilleshög 4448RR(9448)	110	263.7	103	7953	109	1.02	38.03	106	1143	112	14.22	30.19	293	1606	255	0	66.2	8.1
Maribo MA104RR	124	267.7	104	6630	91	1.05	39.32	110	974	96	14.42	25.01	333	1600	269	0	77.0	12.4
Seedex Victor RR	112	241.8	94	6468	89	1.07	31.05	87	844	83	13.17	26.27	325	1609	286	0	78.9	8.2
Seedex Vision RR	133	245.9	96	6317	87	1.09	32.35	90	845	83	13.38	25.46	320	1667	283	0	75.3	11.9
Seedex Xavier RR	130	262.7	102	6898	95	1.01	37.72	105	1001	98	14.13	26.31	271	1615	257	0	71.8	11.6
Seedex Yukon RR(828N)	129	260.9	102	7412	102	1.10	37.13	104	1055	104	14.16	28.23	307	1631	308	0	77.2	7.5
Seedex Zenith RR(829N)	116	238.0	93	6401	88	1.19	29.83	83	818	80	13.08	26.21	335	1680	353	0	78.6	11.0
SV 36175RR	128	258.2	101	7002	96	1.09	36.28	101	992	97	14.00	26.72	334	1670	285	0	76.4	8.8
SV 36271RR	126	238.2	93	5676	78	1.13	29.89	84	712	70	13.05	23.85	340	1714	300	0	79.0	13.6
SV 36272RR	131	267.2	104	7097	97	1.00	39.14	109	1041	102	14.35	26.66	250	1625	253	0	77.3	7.9
SV 36273RR	119	250.7	98	7187	99	1.15	33.88	95	973	96	13.66	28.85	392	1683	302	0	74.0	6.8
SV 36918RR	123	255.2	99	6681	92	1.14	35.33	99	932	92	13.90	26.09	256	1692	344	0	66.1	8.9
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	263.8	103	7358	101	1.18	37.98	106	1055	104	14.36	27.70	340	1716	339	0	73.2	6.2
BTS 8354	241	255.3	99	7412	102	1.28	35.52	99	1037	102	14.03	28.86	313	1779	397	0	74.9	4.6
BTS 8363	233	254.6	99	8152	112	1.03	35.34	99	1138	112	13.78	31.67	244	1603	282	0	74.6	4.8
BTS 8390	208	249.3	97	8054	111	1.10	33.81	94	1095	108	13.58	32.12	330	1785	255	0	74.6	5.5
BTS 83CN	223	252.7	98	7731	106	1.08	34.80	97	1064	105	13.72	30.45	325	1647	283	0	72.4	3.7
Crystal 355RR	234	261.2	102	7621	105	1.18	37.23	104	1083	106	14.23	29.05	332	1731	335	0	80.7	3.3
Hilleshög 9517RR	247	273.1	106	7085	97	1.13	40.65	114	1055	104	14.80	25.85	341	1689	306	0	73.8	6.0
Hilleshög 9528RR	237	261.6	102	8134	112	1.05	37.35	104	1164	114	14.15	30.87	324	1604	268	0	74.6	4.2
Maribo MA102RR	216	267.9	104	8469	116	0.98	39.17	109	1243	122	14.41	31.45	310	1561	244	0	72.9	5.0
Maribo 305	232	256.6	100	8403	115	1.02	35.92	100	1182	116	13.88	32.57	308	1480	300	0	78.4	2.5
Seedex RR0832	227	261.4	102	7466	102	1.14	37.28	104	1072	105	14.23	28.28	316	1827	273	0	74.7	3.7
SV RR333	212	261.5	102	7557	104	1.14	37.32	104	1080	106	14.22	28.72	289	1631	333	0	72.7	3.7
SV RR336	226	256.5	100	7500	103	1.06	35.91	100	1044	103	13.89	29.10	297	1609	295	0	74.2	3.1
Trial Mean		256.7		7287		1.13	35.79		1018		13.97	28.35	334	1693	307		75.6	10.0
Coeff. of Var. (%)		4.1		8.1		7.5	9.3		11.7		3.5	6.7	19.5	5.5	14.1		6.1	36.7
Mean LSD (0.05)		14.0		768		0.11	4.48		159		0.65	2.27	85	120	55		5.7	4.6
Mean LSD (0.01)		18.6		1015		0.14	5.91		210		0.86	3.00	112	158	72		7.5	6.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

\* 2014 Data from Casselton ND

Analyzed 10/22/2014 08:53

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148301

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 9.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Ada MN - All Characters

Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %	
<b>Commercial Trial</b>																			
BTS 80RR32	111	306.2	97	11562	108	0.95	51.58	95	1950	106	16.26	37.63	148	1471	295	0	77.1	6.6	
BTS 80RR52	107	320.3	102	11621	109	1.01	56.08	103	2037	111	17.04	36.46	128	1505	335	0	72.3	6.1	
BTS 81RR17	101	309.4	98	10879	102	1.18	52.61	97	1855	101	16.65	34.94	144	1624	437	0	74.9	7.4	
BTS 82RR22	135	330.9	105	10538	99	1.05	59.46	110	1902	103	17.58	31.61	149	1476	373	0	73.2	8.2	
BTS 82RR28	106	309.9	99	11254	105	1.08	52.77	97	1911	104	16.59	36.72	147	1607	361	0	73.5	5.5	
BTS 82RR33	109	315.2	100	11254	105	1.00	54.45	100	1942	105	16.75	35.79	155	1617	289	32	65.1	5.4	
BTS 82RR80	114	318.0	101	10963	103	1.08	55.35	102	1911	104	16.97	34.24	138	1463	397	0	81.0	8.8	
BTS 89RR83	121	301.8	96	10589	99	0.94	50.19	93	1762	96	16.03	35.08	167	1517	263	0	67.8	7.6	
Crystal 093RR	104	325.3	103	11237	105	1.06	57.69	106	1982	108	17.33	34.76	144	1492	372	0	82.5	8.5	
Crystal 095RR	134	318.9	101	11511	108	1.04	55.62	103	2001	109	16.98	36.15	142	1489	362	0	70.4	5.8	
Crystal 101RR	122	312.6	99	11820	111	1.09	53.62	99	2028	110	16.72	37.75	167	1713	330	0	74.0	5.6	
Crystal 246RR	136	310.6	99	11161	104	1.02	52.98	98	1901	103	16.55	35.98	169	1514	326	0	73.4	7.6	
Crystal 247RR	120	314.1	100	11026	103	0.98	54.09	100	1906	103	16.67	34.75	163	1503	302	32	69.6	7.0	
Crystal 765RR	108	328.9	105	10864	102	1.08	58.84	109	1922	104	17.54	33.44	180	1519	368	0	72.1	4.9	
Crystal 768RR	102	309.4	98	10326	97	1.12	52.61	97	1737	94	16.60	33.91	174	1591	385	0	69.7	8.2	
Crystal 875RR	103	322.4	103	11158	104	1.13	56.76	105	1955	106	17.24	34.63	157	1592	392	0	71.9	6.6	
Crystal 981RR	113	318.8	101	11902	111	1.07	55.61	103	2065	112	17.02	37.49	160	1717	318	0	77.0	5.3	
Crystal 985RR	127	316.5	101	11398	107	1.07	54.88	101	1985	108	16.89	35.72	155	1491	371	0	80.5	6.9	
Crystal 986RR	115	324.3	103	10324	97	0.95	57.36	106	1816	99	17.17	32.00	145	1384	318	0	68.5	13.1	
Hilleshög 4022RR	125	296.2	94	10027	94	1.29	48.39	89	1645	89	16.09	33.60	222	1604	488	0	71.6	4.8	
Hilleshög 4094RR	117	307.1	98	9766	91	1.12	51.88	96	1653	90	16.48	31.84	171	1619	376	0	78.4	5.9	
Hilleshög 4300RR	105	305.4	97	10212	96	1.13	51.33	95	1723	94	16.39	33.08	224	1663	348	0	60.7	5.6	
Hilleshög 4302RR	132	321.0	102	10419	97	0.96	56.29	104	1831	99	17.01	32.62	150	1473	297	0	74.1	5.6	
Hilleshög 4303RR	118	327.3	104	11417	107	1.01	58.32	108	2033	110	17.38	34.86	136	1544	326	0	68.3	5.2	
Hilleshög 4448RR(9448)	110	330.5	105	12202	114	0.88	59.33	109	2197	119	17.41	36.79	110	1366	283	0	73.8	4.3	
Maribo MA104RR	124	327.0	104	9990	93	0.93	58.22	107	1787	97	17.28	30.31	139	1445	290	0	67.1	7.9	
Seedex Victor RR	112	295.8	94	10173	95	1.01	48.28	89	1659	90	15.81	34.48	228	1513	295	0	72.6	5.3	
Seedex Vision RR	133	314.5	100	10164	95	0.93	54.25	100	1747	95	16.66	32.59	124	1400	306	0	69.4	7.6	
Seedex Xavier RR	130	314.4	100	10792	101	0.97	54.20	100	1861	101	16.68	34.46	131	1434	318	0	59.2	7.4	
Seedex Yukon RR(828N)	129	307.6	98	9879	92	0.93	52.03	96	1666	90	16.31	32.32	132	1425	287	0	74.8	7.0	
Seedex Zenith RR(829N)	116	303.9	97	9848	92	0.97	50.84	94	1647	89	16.16	32.41	137	1471	315	0	70.9	10.1	
SV 36175RR	128	304.6	97	9975	93	0.96	51.07	94	1666	90	16.19	32.98	154	1428	305	0	78.5	7.7	
SV 36271RR	126	297.3	95	9018	84	1.03	48.76	90	1462	79	15.91	30.83	170	1548	326	0	70.9	10.3	
SV 36272RR	131	322.2	102	10128	95	0.87	56.70	105	1770	96	16.99	31.63	108	1362	278	0	61.6	6.6	
SV 36273RR	119	310.6	99	9791	92	0.94	53.00	98	1676	91	16.47	31.50	139	1524	271	0	55.6	5.2	
SV 36918RR	123	317.8	101	9690	91	0.97	55.28	102	1707	93	16.85	30.02	126	1498	309	0	66.8	9.9	
<b>Experimental Trial (Comm status)</b>																			
BTS 8337	222	338.5	108	11729	110	0.98	61.88	114	2144	116	17.87	34.78	134	1461	319	95	78.5	5.9	
BTS 8354	241	318.6	101	10585	99	1.15	55.55	103	1835	100	17.09	33.37	145	1588	426	0	81.2	5.9	
BTS 8363	233	314.5	100	12200	114	0.97	54.24	100	2116	115	16.67	38.43	129	1479	307	194	72.3	5.1	
BTS 8390	208	308.5	98	12732	119	1.00	52.35	97	2153	117	16.40	41.56	170	1592	293	0	76.0	6.3	
BTS 83CN	223	315.6	100	11391	107	0.97	54.57	101	1967	107	16.72	36.28	157	1426	317	0	74.5	5.4	
Crystal 355RR	234	322.7	103	11320	106	1.13	56.85	105	1985	108	17.24	35.40	141	1572	404	0	75.3	4.4	
Hilleshög 9517RR	247	325.3	103	10346	97	1.12	57.67	106	1831	99	17.38	31.84	171	1642	366	0	67.8	5.2	
Hilleshög 9528RR	237	329.2	105	12183	114	0.90	58.89	109	2172	118	17.34	37.28	119	1376	292	0	77.7	4.8	
Maribo MA102RR	216	325.9	104	12236	114	0.95	57.85	107	2159	117	17.23	38.15	128	1385	328	0	71.5	3.9	
Maribo 305	232	315.5	100	12105	113	0.87	54.55	101	2088	113	16.63	38.58	147	1318	261	0	82.9	3.4	
Seedex RR0832	227	325.7	104	11577	108	0.92	57.79	107	2046	111	17.20	35.74	131	1485	280	0	73.3	7.8	
SV RR333	212	317.4	101	11682	109	0.98	55.14	102	2025	110	16.83	36.80	140	1559	293	0	63.6	4.5	
SV RR336	226	323.9	103	11479	107	0.89	57.23	106	2023	110	17.07	35.66	114	1342	298	0	72.8	4.0	
Trial Mean		314.4		10691		1.02	54.19		1842		16.74	34.04	154	1517	334		71.4	7.0	
Coef. of Var. (%)		3.7		6.1		10.1	6.9		8.1		3.1	5.4	30.3	6.2	18.2		12.2	31.9	
Mean LSD (0.05)		14.8		904		0.13	4.72		204		0.66	2.54	58	117	80		11.6	2.7	
Mean LSD (0.01)		19.6		1194		0.18	6.23		270		0.87	3.35	77	154	105		15.4	3.6	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**	

\* 2014 Data from Ada MN

Analysed 10/22/2014 09:22

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148303

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 10.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Climax MN - Heavy Aphanomyces Pressure - All Characters

Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %	
<b>Commercial Trial</b>																			
BTS 80RR32	111	279.1	96	7894	99	1.05	42.94	92	1213	94	15.00	28.33	232	1562	310	0	82.2	4.3	
BTS 80RR52	107	297.3	102	8876	111	1.11	48.75	104	1454	113	15.98	29.87	184	1593	372	0	80.6	6.0	
BTS 81RR17	101	295.4	101	8969	112	1.18	48.14	103	1462	114	15.96	30.37	172	1665	414	0	75.9	6.1	
BTS 82RR22	135	316.7	109	8904	111	1.07	54.92	117	1544	120	16.91	28.11	164	1595	349	0	75.7	6.7	
BTS 82RR28	106	293.3	101	8815	110	1.08	47.48	101	1426	111	15.75	30.13	192	1638	335	0	79.2	5.3	
BTS 82RR33	109	294.6	101	8440	106	1.05	47.88	102	1369	106	15.77	28.74	195	1747	275	0	81.4	5.2	
BTS 82RR80	114	303.0	104	9600	120	1.09	50.56	108	1601	124	16.24	31.69	147	1548	376	0	83.7	5.6	
BTS 89RR83	121	289.1	99	8444	106	1.03	46.13	99	1347	105	15.48	29.24	185	1645	293	0	78.3	5.5	
Crystal 093RR	104	309.7	106	9490	119	0.94	52.71	113	1616	126	16.43	30.62	143	1472	287	32	81.7	4.8	
Crystal 095RR	134	308.8	106	9363	117	1.06	52.40	112	1592	124	16.50	30.29	153	1537	356	0	77.1	5.1	
Crystal 101RR	122	302.9	104	9727	122	1.14	50.52	108	1621	126	16.28	32.10	195	1678	363	0	82.6	6.7	
Crystal 246RR	136	297.0	102	8778	110	1.01	48.65	104	1438	112	15.86	29.59	180	1611	288	0	77.8	5.9	
Crystal 247RR	120	303.2	104	9298	116	0.98	50.62	108	1553	121	16.14	30.62	171	1583	278	0	75.6	5.8	
Crystal 765RR	108	290.6	100	5128	64	1.08	46.60	100	825	64	15.61	17.60	236	1793	275	0	80.1	6.4	
Crystal 768RR	102	283.6	97	7633	95	1.02	44.37	95	1192	93	15.20	26.96	219	1647	273	0	85.4	6.1	
Crystal 875RR	103	275.3	95	7394	92	1.09	41.72	89	1119	87	14.85	26.92	235	1737	298	0	79.5	8.4	
Crystal 981RR	113	300.0	103	9345	117	1.09	49.60	106	1545	120	16.09	31.19	208	1728	310	0	83.0	8.1	
Crystal 985RR	127	299.4	103	9377	117	1.03	49.41	106	1549	120	16.00	31.31	161	1516	334	0	79.6	7.4	
Crystal 986RR	115	272.0	93	7361	92	0.96	40.67	87	1102	86	14.56	27.01	240	1504	258	0	86.6	5.6	
Hilleshög 4022RR	125	287.1	99	7684	96	1.08	45.49	97	1218	95	15.43	26.81	221	1619	326	0	64.6	6.1	
Hilleshög 4094RR	117	280.6	96	7096	89	1.11	43.43	93	1097	85	15.14	25.35	242	1721	312	0	64.2	5.0	
Hilleshög 4300RR	105	279.5	96	6946	87	1.00	43.06	92	1069	83	14.97	24.84	235	1580	267	0	79.9	7.5	
Hilleshög 4302RR	132	302.7	104	8179	102	0.91	50.46	108	1364	106	16.05	26.99	186	1503	240	0	74.9	5.5	
Hilleshög 4303RR	118	301.9	104	7706	96	0.93	50.21	107	1283	100	16.02	25.49	161	1518	254	0	74.2	6.0	
Hilleshög 4448RR(9448)	110	302.2	104	6728	84	0.87	50.32	107	1119	87	15.98	22.30	162	1392	242	0	54.7	4.1	
Maribo MA104RR	124	301.7	104	7351	92	0.93	50.15	107	1219	95	16.02	24.40	184	1491	261	0	75.7	6.6	
Seedex Victor RR	112	290.5	100	7610	95	0.90	46.58	99	1222	95	15.42	26.16	176	1455	247	0	80.4	6.7	
Seedex Vision RR	133	282.6	97	7121	89	0.91	44.07	94	1111	86	15.04	25.15	176	1535	229	0	85.4	6.6	
Seedex Xavier RR	130	286.7	98	7124	89	0.92	45.38	97	1127	88	15.26	24.86	170	1541	243	0	74.6	6.9	
Seedex Yukon RR(828N)	129	276.0	95	7762	97	0.99	41.95	90	1177	91	14.79	28.16	197	1545	290	0	87.8	6.9	
Seedex Zenith RR(829N)	116	273.1	94	7341	92	1.00	41.04	88	1103	86	14.65	26.86	210	1558	283	0	83.5	7.8	
SV 36175RR	128	283.9	97	7681	96	0.91	44.46	95	1204	94	15.11	26.98	182	1416	266	0	85.4	7.0	
SV 36271RR	126	270.7	93	6811	85	1.06	40.26	86	1011	79	14.59	25.17	218	1700	290	0	87.3	9.0	
SV 36272RR	131	280.9	96	7092	89	0.91	43.52	93	1096	85	14.95	25.36	175	1548	229	0	88.9	7.5	
SV 36273RR	119	284.6	98	7491	94	0.90	44.70	95	1176	91	15.13	26.29	176	1514	229	0	79.4	6.0	
SV 36918RR	123	291.1	100	7330	92	0.95	46.77	100	1177	91	15.51	25.19	173	1531	268	0	77.0	6.7	
<b>Experimental Trial (Comm status)</b>																			
BTS 8337	222	312.9	107	9762	122	1.06	53.35	114	1664	129	16.72	31.29	171	1507	364	0	72.8	4.7	
BTS 8354	241	302.2	104	8825	110	1.21	50.12	107	1464	114	16.32	29.19	171	1693	430	0	73.1	2.8	
BTS 8363	233	289.6	99	8604	108	1.08	46.31	99	1378	107	15.56	29.74	194	1605	347	0	69.9	3.4	
BTS 8390	208	290.0	100	9994	125	1.07	46.40	99	1604	125	15.57	34.42	220	1695	301	0	77.2	3.8	
BTS 83CN	223	286.3	98	8557	107	1.10	45.27	97	1356	105	15.40	29.93	200	1580	358	0	76.3	3.1	
Crystal 355RR	234	307.9	106	9811	123	1.14	51.84	111	1653	128	16.54	31.82	171	1556	412	0	81.0	3.1	
Hilleshög 9517RR	247	291.2	100	8166	102	1.17	46.79	100	1309	102	15.74	28.15	267	1685	366	0	79.0	4.0	
Hilleshög 9528RR	237	301.5	103	7577	95	0.83	49.89	107	1253	97	15.95	25.21	160	1301	243	0	66.4	3.0	
Maribo MA102RR	216	295.3	101	8437	105	0.88	48.02	103	1372	107	15.67	28.63	140	1432	249	0	72.7	2.2	
Maribo 305	232	288.0	99	7332	92	0.86	45.80	98	1165	91	15.28	25.59	163	1391	241	0	71.0	2.5	
Seedex RR0832	227	291.0	100	8514	106	1.05	46.74	100	1366	106	15.61	29.37	205	1544	336	0	80.3	4.9	
SV RR333	212	275.5	95	7596	95	0.96	42.00	90	1155	90	14.73	27.69	188	1511	270	0	83.9	3.8	
SV RR336	226	282.6	97	8379	105	0.91	44.17	94	1313	102	15.05	29.56	163	1450	253	0	79.8	3.3	
Trial Mean		291.3		7997		1.01	46.83		1287		15.57	27.42	190	1582	292		79.0	6.3	
Coeff. of Var. (%)		3.1		5.5		7.4	6.2		7.1		2.7	5.3	17.2	5.9	11.9		10.1	31.6	
Mean LSD (0.05)		10.7		536		0.09	3.41		112		0.49	1.74	38	114	41		9.2	2.4	
Mean LSD (0.01)		14.1		707		0.12	4.49		147		0.65	2.30	50	151	55		12.2	3.1	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**	

\* 2014 Data from Climax MN

Analyzed 10/22/2014 12:20

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148306

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 11.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Crookston MN - All Characters

Description @	Rec/T Code	Rec/T lbs. %Mean	Rec/A lbs. %Mean	Loss Mol %	Rev/T \$ ++ %Mean	Rev/T \$ ++ %Mean	Rev/A %	Rev/A T/A	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %		
<b>Commercial Trial</b>																		
BTS 80RR32	111	316.2	99	10243	107	1.06	54.78	97	1773	105	16.87	32.30	271	1432	342	0	79.3	8.2
BTS 80RR52	107	317.1	99	9370	98	1.20	55.07	98	1629	97	17.06	29.41	240	1564	424	0	82.1	7.9
BTS 81RR17	101	318.9	99	9442	98	1.23	55.65	99	1647	98	17.17	29.56	224	1641	435	0	80.7	6.6
BTS 82RR22	135	342.7	107	9862	103	1.05	63.24	112	1819	108	18.20	28.68	224	1474	342	0	79.7	6.8
BTS 82RR28	106	319.5	100	10191	106	1.13	55.82	99	1776	106	17.10	31.85	269	1544	365	32	78.5	7.7
BTS 82RR33	109	322.1	100	10697	111	1.08	56.64	101	1882	112	17.18	33.16	261	1537	329	0	73.5	6.4
BTS 82RR80	114	327.1	102	9497	99	1.07	58.26	104	1694	101	17.43	29.02	219	1449	365	0	80.6	9.5
BTS 89RR83	121	306.0	95	9948	104	1.06	51.51	92	1676	100	16.36	32.42	266	1487	331	0	81.0	7.7
Crystal 093RR	104	322.8	101	9759	102	1.16	56.88	101	1719	102	17.31	30.30	234	1564	402	0	83.4	8.0
Crystal 095RR	134	315.3	98	9572	100	1.23	54.47	97	1651	98	17.00	30.49	295	1578	427	0	78.8	5.9
Crystal 101RR	122	318.7	99	9951	104	1.23	55.55	99	1734	103	17.16	31.23	317	1683	387	0	81.3	7.7
Crystal 246RR	136	319.6	100	10392	108	1.08	55.85	99	1815	108	17.06	32.49	263	1497	344	0	78.2	7.0
Crystal 247RR	120	322.5	101	10814	113	1.07	56.77	101	1904	113	17.18	33.53	261	1555	316	0	70.9	6.2
Crystal 765RR	108	331.0	103	9374	98	1.10	59.49	106	1685	100	17.65	28.39	285	1451	361	0	73.2	6.4
Crystal 768RR	102	325.7	102	9583	100	1.21	57.81	103	1703	101	17.50	29.48	297	1585	407	0	75.4	6.0
Crystal 875RR	103	320.3	100	9653	101	1.29	56.09	100	1690	100	17.30	30.20	268	1630	466	0	76.0	6.2
Crystal 981RR	113	316.7	99	10114	105	1.17	54.94	98	1752	104	17.01	31.87	334	1641	349	0	77.8	5.5
Crystal 985RR	127	317.6	99	8895	93	1.13	55.22	98	1547	92	17.02	28.00	248	1572	372	0	76.4	6.1
Crystal 986RR	115	336.5	105	10008	104	0.94	61.25	109	1825	108	17.76	29.78	247	1277	298	0	78.5	7.1
Hilleshög 4022RR	125	309.0	96	8857	92	1.27	52.47	93	1500	89	16.72	28.72	332	1673	419	0	78.9	6.7
Hilleshög 4094RR	117	317.0	99	9196	96	1.24	55.03	98	1597	95	17.08	29.10	265	1648	423	0	76.8	8.2
Hilleshög 4300RR	105	311.7	97	8850	92	1.19	53.33	95	1510	90	16.77	28.45	352	1607	364	0	54.2	5.9
Hilleshög 4302RR	132	324.4	101	9778	102	1.08	57.37	102	1731	103	17.30	30.09	268	1540	332	0	67.6	6.8
Hilleshög 4303RR	118	334.7	104	9422	98	1.08	60.68	108	1707	101	17.82	28.01	246	1530	338	0	63.1	5.9
Hilleshög 4448RR(9448)	110	327.2	102	10538	110	1.10	58.29	104	1876	111	17.46	32.10	237	1409	389	0	66.8	4.6
Maribo MA104RR	124	324.4	101	8870	92	1.13	57.38	102	1570	93	17.34	27.31	282	1488	375	0	79.4	8.8
Seedex Victor RR	112	320.7	100	9627	100	1.00	56.19	100	1690	100	17.04	30.03	239	1405	320	0	80.4	6.5
Seedex Vision RR	133	326.0	102	9737	101	0.95	57.90	103	1731	103	17.25	29.90	213	1325	309	0	74.1	6.7
Seedex Xavier RR	130	325.6	101	9330	97	1.02	57.78	103	1655	98	17.31	28.75	226	1380	346	0	70.3	8.6
Seedex Yukon RR(828N)	129	309.7	97	9450	98	1.15	52.69	94	1606	95	16.64	30.71	263	1499	399	0	74.5	6.9
Seedex Zenith RR(829N)	116	307.7	96	8772	91	1.11	52.07	93	1486	88	16.49	28.44	252	1508	369	32	77.2	8.5
SV 36175RR	128	312.6	97	9218	96	1.09	53.61	95	1582	94	16.73	29.45	284	1388	372	0	77.8	7.0
SV 36271RR	126	302.0	94	8041	84	1.10	50.23	89	1339	80	16.20	26.58	255	1547	347	0	74.8	10.7
SV 36272RR	131	329.4	103	9314	97	0.95	59.00	105	1672	99	17.44	28.25	182	1409	304	0	74.6	7.1
SV 36273RR	119	328.4	102	10444	109	0.99	58.65	104	1868	111	17.41	31.81	217	1416	314	0	74.9	4.8
SV 36918RR	123	321.0	100	8710	91	1.04	56.29	100	1527	91	17.07	27.22	218	1516	319	0	60.0	8.5
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	330.6	103	8965	93	1.10	59.26	105	1604	95	17.64	27.08	236	1424	390	0	81.0	4.0
BTS 8354	241	317.0	99	8940	93	1.22	55.07	98	1550	92	17.08	28.42	277	1562	428	0	71.7	4.6
BTS 8363	233	319.5	100	10424	109	1.09	55.85	99	1818	108	17.08	32.56	213	1458	377	95	78.8	3.0
BTS 8390	208	293.0	91	9707	101	1.24	47.60	85	1579	94	15.88	33.12	365	1611	384	0	80.0	4.6
BTS 83CN	223	322.0	100	9424	98	0.99	56.58	101	1648	98	17.11	29.45	201	1437	311	0	82.5	3.0
Crystal 355RR	234	324.2	101	9334	97	1.23	57.28	102	1649	98	17.43	28.77	232	1543	457	0	80.6	4.6
Hilleshög 9517RR	247	323.8	101	8481	88	1.26	57.17	102	1500	89	17.45	26.11	315	1613	422	0	70.7	4.7
Hilleshög 9528RR	237	331.6	103	9900	103	1.05	59.61	106	1774	105	17.63	30.07	191	1407	367	0	75.4	3.9
Maribo MA102RR	216	328.9	103	10652	111	1.00	58.76	104	1892	112	17.47	32.77	177	1367	347	0	78.4	3.4
Maribo 305	232	314.8	98	10114	105	1.09	54.36	97	1749	104	16.83	31.96	204	1346	410	0	84.1	3.2
Seedex RR0832	227	316.6	99	9157	95	1.09	54.92	98	1594	95	16.92	28.83	245	1517	344	0	81.7	3.1
SV RR333	212	312.0	97	8957	93	1.15	53.51	95	1539	91	16.75	28.71	218	1504	408	0	73.4	4.0
SV RR336	226	314.6	98	9588	100	1.10	54.31	97	1650	98	16.84	30.66	226	1374	409	0	70.1	4.7
Trial Mean		320.8		9598		1.11	56.23		1683		17.15	29.92	260	1512	364		75.3	7.1
Coef. of Var. (%)		3.0		5.7		6.9	5.4		7.4		2.5	4.8	17.6	5.0	12.2		8.3	40.4
Mean LSD (0.05)		11.8		654		0.10	3.78		150		0.53	1.66	59	98	57		7.4	3.4
Mean LSD (0.01)		15.6		863		0.13	4.98		199		0.70	2.19	78	129	75		9.8	4.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

\* 2014 Data from Crookston MN

Analysed 10/22/2014 08:26

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148305

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 12.  
 2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
 Grand Forks ND - All Characters

Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %
<b>Commercial Trial</b>																		
BTS 80RR32	111	295.9	97	7022	107	1.12	48.30	95	1143	104	15.93	23.64	375	1529	325	0	81.0	4.4
BTS 80RR52	107	316.0	104	7397	112	1.03	54.70	107	1282	116	16.84	23.31	263	1538	296	0	78.8	5.1
BTS 81RR17	101	304.5	100	7222	110	1.12	51.04	100	1209	110	16.34	23.69	301	1625	320	0	86.7	4.0
BTS 82RR22	135	317.3	104	6894	105	1.10	55.13	108	1196	108	16.96	21.67	328	1475	335	0	77.5	4.6
BTS 82RR28	106	307.0	101	7469	113	1.08	51.84	102	1260	114	16.43	24.42	306	1585	306	0	85.3	3.6
BTS 82RR33	109	300.7	99	7695	117	1.03	49.84	98	1281	116	16.07	25.51	341	1484	273	0	83.0	3.5
BTS 82RR80	114	298.6	98	6203	94	1.14	49.16	96	1011	92	16.05	21.05	309	1577	352	0	82.3	5.0
BTS 89RR83	121	295.1	97	7694	117	1.04	48.05	94	1256	114	15.80	25.94	314	1503	288	0	81.4	2.6
Crystal 093RR	104	317.4	104	7139	108	1.06	55.17	108	1244	113	16.93	22.37	258	1505	321	32	80.9	4.5
Crystal 095RR	134	304.7	100	6613	100	1.08	51.10	100	1103	100	16.31	21.85	317	1570	307	0	78.6	4.2
Crystal 101RR	122	299.2	98	7155	109	1.19	49.34	97	1184	107	16.14	23.98	364	1702	333	0	79.1	3.8
Crystal 246RR	136	311.5	102	6901	105	1.00	53.28	105	1182	107	16.58	22.08	257	1490	285	63	82.2	4.8
Crystal 247RR	120	307.0	101	8222	125	1.02	51.84	102	1393	126	16.37	26.68	291	1561	265	0	77.1	3.6
Crystal 765RR	108	316.8	104	6922	105	1.08	54.96	108	1202	109	16.92	21.88	391	1461	302	0	81.7	3.8
Crystal 768RR	102	305.2	100	6584	100	1.14	51.27	101	1104	100	16.39	21.73	359	1647	317	0	75.3	5.3
Crystal 875RR	103	301.3	99	6466	98	1.16	50.02	98	1076	97	16.22	21.58	378	1601	334	0	78.9	5.3
Crystal 981RR	113	297.9	98	6369	97	1.14	48.93	96	1045	95	16.04	21.51	385	1662	298	0	80.6	4.4
Crystal 985RR	127	303.5	100	6123	93	1.14	50.73	100	1022	93	16.30	20.16	356	1565	342	0	82.4	4.1
Crystal 986RR	115	303.0	100	7282	110	1.05	50.56	99	1215	110	16.20	23.98	353	1459	297	0	85.1	5.5
Hilleshög 4022RR	125	300.9	99	5156	78	1.19	49.91	98	854	77	16.23	17.10	356	1631	358	0	83.2	3.4
Hilleshög 4094RR	117	303.1	100	5807	88	1.17	50.61	99	963	87	16.34	19.09	341	1607	360	0	84.8	3.3
Hilleshög 4300RR	105	293.3	96	6432	98	1.21	47.46	93	1037	94	15.87	21.98	402	1664	350	0	65.1	4.1
Hilleshög 4302RR	132	314.1	103	6284	95	1.03	54.11	106	1084	98	16.72	19.97	295	1463	296	0	82.2	3.4
Hilleshög 4303RR	118	309.0	102	6076	92	1.00	52.47	103	1033	94	16.46	19.51	306	1455	277	0	83.8	3.6
Hilleshög 4448RR(9448)	110	319.3	105	8295	126	0.93	55.76	109	1442	131	16.89	26.15	250	1375	271	0	78.0	2.4
Maribo MA104RR	124	320.9	105	5591	85	1.02	56.27	110	977	88	17.05	17.47	288	1452	297	0	80.2	4.5
Seedex Victor RR	112	286.7	94	6385	97	1.07	45.35	89	1011	92	15.41	22.20	323	1567	292	0	78.8	4.4
Seedex Vision RR	133	296.2	97	5899	89	1.03	48.39	95	961	87	15.84	20.05	323	1493	283	0	78.4	4.8
Seedex Xavier RR	130	314.3	103	7002	106	1.03	54.15	106	1212	110	16.75	22.17	283	1492	294	0	79.6	5.5
Seedex Yukon RR(828N)	129	302.2	99	5794	88	1.03	50.31	99	964	87	16.15	19.18	306	1423	306	0	84.7	4.5
Seedex Zenith RR(829N)	116	299.5	98	5368	81	1.07	49.46	97	886	80	16.05	18.03	303	1468	323	0	80.5	7.2
SV 36175RR	128	296.5	97	6023	91	1.07	48.50	95	982	89	15.90	20.45	314	1512	312	0	86.5	5.2
SV 36271RR	126	294.9	97	5657	86	1.11	47.97	94	911	83	15.83	19.43	256	1645	335	0	79.1	6.5
SV 36272RR	131	311.9	102	5517	84	0.91	53.40	105	940	85	16.49	17.88	218	1417	259	0	85.8	5.2
SV 36273RR	119	298.0	98	6768	103	1.02	48.98	96	1121	102	15.94	22.59	330	1432	286	0	74.0	4.0
SV 36918RR	123	290.4	95	5915	90	1.16	46.55	91	943	85	15.68	20.31	363	1609	344	0	72.7	5.1
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	325.5	107	5784	88	0.95	57.66	113	1029	93	17.22	17.71	283	1435	245	0	77.2	5.4
BTS 8354	241	314.5	103	6298	96	1.09	54.21	106	1086	98	16.81	20.01	286	1652	292	0	79.0	4.5
BTS 8363	233	304.3	100	6615	100	1.01	50.98	100	1114	101	16.21	21.60	279	1570	258	95	84.4	3.4
BTS 8390	208	305.6	100	7458	113	1.03	51.36	101	1254	114	16.31	24.43	349	1576	254	0	81.7	3.5
BTS 83CN	223	308.3	101	7046	107	0.99	52.24	102	1196	108	16.40	22.81	296	1495	255	0	76.2	3.1
Crystal 355RR	234	317.3	104	6414	97	1.05	55.07	108	1118	101	16.91	20.11	322	1587	273	0	79.2	3.9
Hilleshög 9517RR	247	317.5	104	5416	82	1.10	55.14	108	942	85	16.97	17.02	372	1569	295	0	70.6	4.6
Hilleshög 9528RR	237	323.2	106	6959	106	0.87	56.94	112	1232	112	17.02	21.39	243	1364	221	0	89.9	3.9
Maribo MA102RR	216	324.4	107	7435	113	0.88	57.30	112	1315	119	17.09	22.88	227	1364	231	0	83.4	2.2
Maribo 305	232	313.3	103	6568	100	0.84	53.84	106	1130	102	16.51	20.92	245	1284	221	0	89.6	2.7
Seedex RR0832	227	320.6	105	7181	109	0.97	56.11	110	1259	114	16.99	22.34	248	1516	250	0	82.9	5.2
SV RR333	212	316.1	104	6190	94	0.91	54.69	107	1076	97	16.70	19.42	252	1406	236	0	80.2	5.0
SV RR336	226	313.4	103	6776	103	0.91	53.85	106	1166	106	16.58	21.57	240	1402	241	0	86.1	3.4
Trial Mean		304.3		6593		1.08	50.97		1104		16.29	21.68	319	1535	309		80.4	4.4
Coef. of Var. (%)		3.2		7.3		6.8	6.0		9.3		2.8	6.0	18.3	6.1	11.0		8.6	29.5
Mean LSD (0.05)		13.0		624		0.10	4.16		134		0.60	1.73	79	124	47		8.4	1.5
Mean LSD (0.01)		17.2		824		0.13	5.49		177		0.80	2.28	104	164	62		11.1	2.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Grand Forks ND

Analysed 10/22/2014 09:54

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148307

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.



Table 13.

2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Alvarado MN - All Characters

Description @	Rec/T Code	Rec/T lbs.	Rec/A %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %
<b>Commercial Trial</b>																		
BTS 80RR32	111	341.7	101	9953	108	0.86	62.90	101	1838	109	17.95	29.07	195	1256	263	0	77.5	5.3
BTS 80RR52	107	335.7	99	9162	99	1.05	60.98	98	1663	99	17.84	27.35	209	1375	371	0	76.9	5.0
BTS 81RR17	101	342.9	101	8759	95	1.03	63.29	102	1617	96	18.19	25.59	193	1478	336	0	76.8	6.4
BTS 82RR22	135	351.4	103	8868	96	1.03	66.01	106	1664	99	18.59	25.25	198	1377	354	32	77.7	4.7
BTS 82RR28	106	334.1	98	9522	103	1.01	60.47	97	1725	102	17.70	28.42	209	1420	324	0	80.0	4.2
BTS 82RR33	109	333.1	98	10423	113	0.92	60.16	97	1892	112	17.56	31.04	238	1282	285	0	77.2	5.3
BTS 82RR80	114	350.9	103	9361	102	0.91	65.85	106	1750	104	18.45	26.70	158	1304	300	0	74.8	6.7
BTS 89RR83	121	336.9	99	9995	109	0.88	61.39	99	1826	108	17.73	29.57	177	1334	263	0	76.2	3.2
Crystal 093RR	104	339.9	100	9051	98	1.01	62.33	100	1657	98	18.00	26.56	197	1377	342	32	80.7	3.4
Crystal 095RR	134	346.8	102	9456	103	0.92	64.53	104	1756	104	18.26	27.28	180	1345	292	0	76.2	4.5
Crystal 101RR	122	339.1	100	9671	105	1.00	62.07	100	1773	105	17.94	28.38	210	1528	290	0	81.5	4.5
Crystal 246RR	136	333.8	98	9777	106	0.93	60.38	97	1773	105	17.63	29.23	228	1321	290	32	79.2	5.3
Crystal 247RR	120	340.4	100	10393	113	0.85	62.47	100	1900	113	17.89	30.79	186	1306	252	0	72.7	4.8
Crystal 765RR	108	350.9	103	9422	102	0.93	65.85	106	1764	105	18.48	26.89	233	1284	296	0	77.6	5.9
Crystal 768RR	102	336.0	99	8601	93	1.03	61.10	98	1567	93	17.82	25.59	246	1407	336	0	75.6	6.4
Crystal 875RR	103	333.3	98	8900	97	1.09	60.24	97	1612	95	17.75	26.59	248	1451	368	0	76.1	5.8
Crystal 981RR	113	338.2	100	9385	102	1.02	61.78	99	1713	101	17.92	27.87	263	1515	288	0	80.1	6.2
Crystal 985RR	127	337.1	99	8254	90	0.97	61.42	99	1508	89	17.82	24.47	213	1335	312	0	82.8	4.4
Crystal 986RR	115	348.9	103	9549	104	0.84	65.20	105	1781	106	18.28	27.41	185	1202	263	0	81.7	5.7
Hilleshög 4022RR	125	326.9	96	8491	92	1.14	58.19	93	1509	89	17.49	26.19	278	1414	408	0	74.0	5.6
Hilleshög 4094RR	117	333.5	98	8978	97	1.04	60.29	97	1624	96	17.71	26.88	221	1439	344	0	74.7	4.7
Hilleshög 4300RR	105	334.1	98	8718	95	0.92	60.48	97	1578	93	17.62	26.03	218	1326	277	0	67.2	5.9
Hilleshög 4302RR	132	339.6	100	9452	103	0.92	62.25	100	1733	103	17.90	27.77	224	1314	278	0	75.8	3.5
Hilleshög 4303RR	118	350.4	103	9583	104	0.93	65.67	105	1793	106	18.46	27.42	202	1338	296	0	75.0	5.1
Hilleshög 4448RR(9448)	110	351.1	103	10569	115	0.85	65.91	106	1981	117	18.40	30.10	158	1191	279	0	73.8	2.9
Maribo MA104RR	124	352.2	104	8007	87	0.94	66.25	106	1504	89	18.55	22.73	213	1306	303	0	75.1	4.8
Seedex Victor RR	112	330.4	97	9225	100	0.88	59.29	95	1661	98	17.40	27.81	194	1290	269	0	79.5	4.5
Seedex Vision RR	133	345.5	102	9738	106	0.88	64.10	103	1808	107	18.16	28.21	176	1225	291	0	76.8	4.9
Seedex Xavier RR	130	344.2	101	9543	104	0.83	63.70	102	1764	105	18.03	27.69	174	1230	252	0	73.5	5.8
Seedex Yukon RR(828N)	129	330.6	97	8540	93	0.93	59.37	95	1533	91	17.48	25.89	195	1301	309	0	78.5	4.9
Seedex Zenith RR(829N)	116	327.1	96	8229	89	0.97	58.26	94	1467	87	17.31	25.13	184	1312	329	0	77.2	7.2
SV 36175RR	128	338.5	100	8541	93	0.89	61.89	99	1560	92	17.84	25.43	163	1310	281	0	77.6	5.9
SV 36271RR	126	317.0	93	8032	87	1.00	55.04	88	1394	83	16.84	25.35	209	1371	329	0	82.9	5.9
SV 36272RR	131	351.5	103	8833	96	0.88	66.03	106	1659	98	18.44	25.14	131	1357	273	0	78.2	5.8
SV 36273RR	119	336.2	99	9683	105	0.87	61.15	98	1754	104	17.68	28.88	169	1294	271	0	71.7	4.0
SV 36918RR	123	348.0	102	8913	97	0.83	64.91	104	1661	98	18.25	25.68	151	1301	248	0	67.1	5.3
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	356.0	105	8885	96	0.93	67.45	108	1683	100	18.74	25.00	161	1365	288	0	71.8	4.6
BTS 8354	241	340.8	100	8578	93	1.06	62.64	101	1577	93	18.10	25.14	180	1456	368	0	71.2	2.8
BTS 8363	233	338.1	100	10198	111	0.91	61.74	99	1862	110	17.82	30.29	179	1255	299	95	75.9	4.3
BTS 8390	208	333.5	98	9875	107	0.95	60.32	97	1786	106	17.65	29.53	220	1388	287	0	73.6	4.2
BTS 83CN	223	338.4	100	8824	96	0.86	61.84	99	1613	96	17.77	26.10	177	1270	254	0	71.5	2.3
Crystal 355RR	234	345.7	102	8701	94	1.02	64.17	103	1615	96	18.31	25.16	177	1452	340	0	73.3	4.6
Hilleshög 9517RR	247	351.9	104	8412	91	0.95	66.14	106	1582	94	18.56	23.83	235	1365	292	0	72.7	3.6
Hilleshög 9528RR	237	350.4	103	10318	112	0.89	65.66	105	1934	115	18.41	29.45	176	1301	270	0	72.2	3.0
Maribo MA102RR	216	349.3	103	10429	113	0.85	65.29	105	1950	116	18.31	29.80	172	1156	284	0	67.9	2.6
Maribo 305	232	341.0	100	9959	108	0.81	62.70	101	1831	108	17.87	29.24	169	1112	268	0	80.0	2.4
Seedex RR0832	227	345.5	102	9309	101	0.90	64.10	103	1728	102	18.20	26.94	186	1359	265	0	72.0	3.1
SV RR333	212	343.3	101	9523	103	0.90	63.42	102	1759	104	18.07	27.75	161	1266	300	0	73.9	4.4
SV RR336	226	339.4	100	9288	101	0.89	62.18	100	1702	101	17.87	27.31	156	1212	310	0	72.9	3.9
Trial Mean		339.7		9210		0.94	62.26		1688		17.93	27.12	201	1339	302		76.7	5.1
Coef. of Var. (%)		2.9		4.9		7.8	5.1		6.4		2.5	4.2	18.3	4.1	15.1		7.1	39.3
Mean LSD (0.05)		12.9		553		0.09	4.10		134		0.59	1.38	45	74	56		6.8	2.4
Mean LSD (0.01)		17.0		730		0.12	5.41		177		0.78	1.83	59	97	74		8.9	3.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

\* 2014 Data from Alvarado MN

Analyzed 10/22/2014 10:00

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148308

^ Vigor not collected. Bolter &amp; emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 14.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
St Thomas ND - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$++	Rev/T %Mean	Rev/A \$++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %
<b>Commercial Trial</b>																		
BTS 80RR32	111	279.6	95	6384	106	0.99	43.10	90	985	100	14.97	22.81	376	1264	292	0	78.7	6.2
BTS 80RR52	107	300.3	102	6378	105	0.99	49.71	103	1056	107	16.00	21.23	295	1287	315	0	73.8	8.5
BTS 81RR17	101	302.9	103	6100	101	1.06	50.53	105	1018	103	16.20	20.15	320	1377	334	0	75.6	8.5
BTS 82RR22	135	310.3	105	5985	99	0.95	52.90	110	1020	104	16.46	19.25	313	1286	277	0	73.1	5.9
BTS 82RR28	106	299.9	102	6477	107	0.98	49.57	103	1077	109	15.98	21.45	311	1396	275	63	79.3	6.0
BTS 82RR33	109	296.6	100	6691	111	0.95	48.51	101	1091	111	15.77	22.65	400	1208	265	0	76.6	9.3
BTS 82RR80	114	310.2	105	6175	102	0.97	52.87	110	1058	107	16.48	19.84	298	1299	299	0	80.0	10.2
BTS 89RR83	121	285.0	97	6319	104	0.91	44.83	93	997	101	15.16	22.11	319	1245	256	0	77.4	7.7
Crystal 093RR	104	306.5	104	6557	108	1.02	51.68	107	1106	112	16.34	21.38	280	1338	325	0	79.3	8.4
Crystal 095RR	134	296.3	100	6223	103	1.00	48.41	101	1014	103	15.82	21.02	363	1307	300	0	73.9	8.0
Crystal 101RR	122	294.9	100	6891	114	1.06	48.00	100	1123	114	15.81	23.30	394	1425	302	0	76.3	6.0
Crystal 246RR	136	296.9	101	6334	105	0.90	48.63	101	1038	105	15.75	21.43	314	1252	252	0	77.0	8.6
Crystal 247RR	120	288.3	98	6647	110	0.97	45.88	95	1054	107	15.38	23.17	392	1273	266	0	68.8	6.7
Crystal 765RR	108	303.6	103	6458	107	1.01	50.75	106	1083	110	16.19	21.18	437	1211	298	0	76.8	9.1
Crystal 768RR	102	297.0	101	6513	108	1.04	48.64	101	1068	108	15.89	21.95	363	1324	322	0	69.6	8.9
Crystal 875RR	103	288.8	98	5867	97	1.04	46.05	96	932	95	15.48	20.39	425	1234	319	0	72.1	10.7
Crystal 981RR	113	292.6	99	6443	107	1.05	47.25	98	1041	106	15.68	21.99	433	1291	309	0	73.8	9.2
Crystal 985RR	127	292.0	99	5668	94	1.04	47.06	98	915	93	15.64	19.39	369	1318	318	0	78.7	8.3
Crystal 986RR	115	298.0	101	6558	108	1.00	48.97	102	1075	109	15.90	22.09	421	1184	307	0	77.5	8.6
Hilleshög 4022RR	125	289.7	98	5522	91	1.05	46.33	96	886	90	15.54	18.94	373	1306	332	0	80.0	7.6
Hilleshög 4094RR	117	294.4	100	5320	88	1.05	47.81	99	862	88	15.77	18.13	334	1316	343	0	75.2	9.4
Hilleshög 4300RR	105	294.8	100	5921	98	1.01	47.96	100	961	98	15.76	20.11	387	1285	303	0	65.6	9.8
Hilleshög 4302RR	132	293.3	99	5630	93	0.94	47.47	99	908	92	15.61	19.29	353	1229	273	0	80.3	7.9
Hilleshög 4303RR	118	304.6	103	6004	99	1.03	51.07	106	1005	102	16.27	19.71	308	1343	331	0	67.0	7.7
Hilleshög 4448RR(9448)	110	306.2	104	6782	112	0.89	51.60	107	1141	116	16.20	22.15	289	1150	274	0	76.0	5.9
Maribo MA104RR	124	302.7	103	5166	85	0.95	50.45	105	853	87	16.07	17.31	305	1210	298	0	67.7	8.3
Seedex Victor RR	112	294.7	100	6419	106	0.88	47.91	100	1043	106	15.61	21.76	296	1181	252	0	76.5	9.0
Seedex Vision RR	133	291.7	99	6077	100	0.92	46.96	98	982	100	15.51	20.76	335	1217	267	0	71.5	8.4
Seedex Xavier RR	130	295.3	100	5891	97	0.91	48.10	100	957	97	15.68	20.01	288	1231	275	0	64.1	10.6
Seedex Yukon RR(828N)	129	290.2	98	5471	90	0.95	46.49	97	876	89	15.47	18.87	308	1253	293	0	78.5	9.2
Seedex Zenith RR(829N)	116	284.1	96	5215	86	0.98	44.53	93	816	83	15.18	18.36	342	1283	291	0	74.3	10.6
SV 36175RR	128	285.8	97	5262	87	0.97	45.08	94	836	85	15.27	18.17	307	1263	305	0	75.4	9.6
SV 36271RR	126	283.1	96	5058	84	0.98	44.23	92	790	80	15.14	17.88	358	1250	298	0	73.8	10.5
SV 36272RR	131	294.8	100	5324	88	0.93	47.94	100	873	89	15.67	17.92	297	1195	295	0	75.7	10.0
SV 36273RR	119	284.0	96	6160	102	0.95	44.51	93	967	98	15.16	21.66	360	1230	280	0	64.4	6.9
SV 36918RR	123	298.9	101	5808	96	0.95	49.25	102	957	97	15.89	19.46	277	1227	309	0	65.3	8.8
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	308.9	105	6181	102	0.89	52.34	109	1046	106	16.33	20.02	309	1178	257	0	72.0	7.4
BTS 8354	241	302.6	103	5583	92	1.00	50.40	105	930	94	16.14	18.45	311	1278	319	0	74.8	8.6
BTS 8363	233	290.6	98	6054	100	0.91	46.70	97	972	99	15.43	20.85	311	1198	269	95	75.5	7.1
BTS 8390	208	289.5	98	6597	109	0.93	46.36	96	1056	107	15.40	22.79	355	1273	250	0	70.7	7.5
BTS 83CN	223	293.8	100	6366	105	0.88	47.66	99	1034	105	15.58	21.64	325	1219	239	0	72.6	4.8
Crystal 355RR	234	299.5	101	6063	100	1.01	49.45	103	1001	102	15.98	20.25	342	1350	291	0	68.7	7.4
Hilleshög 9517RR	247	303.9	103	5419	90	1.05	50.77	106	904	92	16.23	17.88	405	1379	300	0	71.1	7.4
Hilleshög 9528RR	237	311.6	106	5977	99	0.90	53.15	111	1021	104	16.46	19.16	307	1203	260	0	76.9	5.8
Maribo MA102RR	216	306.8	104	5783	96	0.84	51.69	108	973	99	16.18	18.87	287	1045	263	0	70.1	5.1
Maribo 305	232	297.8	101	5684	94	0.76	48.92	102	932	95	15.67	19.12	257	981	234	0	86.5	6.3
Seedex RR0832	227	308.5	105	6710	111	0.97	52.22	109	1135	115	16.39	21.77	316	1255	298	0	69.2	6.0
SV RR333	212	298.6	101	6195	102	0.93	49.16	102	1019	103	15.85	20.77	296	1285	262	0	75.6	6.3
SV RR336	226	291.8	99	6282	104	0.88	47.06	98	1013	103	15.47	21.53	284	1120	270	0	72.2	6.4
Trial Mean		295.2		6047		0.98	48.08		985		15.74	20.48	343	1269	296		74.2	8.5
Coeff. of Var. (%)		2.9		6.2		6.1	5.7		8.2		2.6	5.2	15.3	6.7	10.4		9.3	23.9
Mean LSD (0.05)		10.7		498		0.07	3.40		106		0.51	1.42	67	107	37		8.5	2.4
Mean LSD (0.01)		14.1		658		0.10	4.49		139		0.67	1.88	88	141	49		11.3	3.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from St Thomas ND

Analyzed 10/22/2014 11:25

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148309

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 15.

## 2014 Performance of Approved Varieties - ACSC Commercial &amp; Experimental Official Trials

## Stephen MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %
<b>Commercial Trial</b>																		
BTS 80RR32	111	356.5	100	11346	110	0.86	67.63	100	2151	110	18.69	31.78	165	1512	204	0	88.9	7.9
BTS 80RR52	107	357.6	100	10286	100	0.92	67.99	101	1956	100	18.81	28.73	161	1599	234	0	76.4	10.1
BTS 81RR17	101	350.7	99	9754	95	1.00	65.77	97	1829	94	18.53	27.84	162	1683	267	0	75.8	8.5
BTS 82RR22	135	371.7	104	10260	100	0.85	72.46	107	1998	103	19.43	27.64	155	1501	204	0	85.0	9.7
BTS 82RR28	106	364.4	102	11124	108	0.89	70.13	104	2141	110	19.11	30.54	159	1598	210	41	82.2	5.9
BTS 82RR33	109	363.3	102	11365	111	0.85	69.78	103	2182	112	19.01	31.33	156	1520	199	0	82.4	8.9
BTS 82RR80	114	362.7	102	10946	106	0.83	69.59	103	2103	108	18.97	30.10	132	1446	215	0	86.5	12.2
BTS 89RR83	121	339.4	95	10636	103	0.86	62.16	92	1947	100	17.83	31.36	157	1529	206	0	83.0	8.3
Crystal 093RR	104	376.2	106	10369	101	0.85	73.89	110	2036	104	19.66	27.53	133	1477	216	77	89.5	8.2
Crystal 095RR	134	360.1	101	10912	106	0.94	68.77	102	2085	107	18.94	30.29	165	1660	229	0	88.7	7.3
Crystal 101RR	122	361.0	101	11240	109	0.95	69.05	102	2149	110	19.00	31.21	206	1710	208	0	84.4	7.0
Crystal 246RR	136	353.4	99	10909	106	0.85	66.63	99	2057	106	18.52	30.91	161	1527	192	0	76.8	8.4
Crystal 247RR	120	362.6	102	11574	113	0.83	69.55	103	2221	114	18.96	31.93	151	1553	181	0	75.1	5.9
Crystal 765RR	108	374.5	105	10824	105	0.88	73.38	109	2120	109	19.60	28.93	169	1516	217	0	84.6	7.8
Crystal 768RR	102	357.0	100	10125	98	0.94	67.77	100	1921	99	18.78	28.44	175	1617	232	0	70.3	9.6
Crystal 875RR	103	354.7	100	10132	99	1.03	67.05	99	1915	98	18.76	28.63	216	1748	255	0	84.2	9.0
Crystal 981RR	113	359.7	101	11047	107	0.93	68.63	102	2108	108	18.91	30.68	212	1629	209	0	83.0	7.9
Crystal 985RR	127	353.9	99	9933	97	0.90	66.80	99	1874	96	18.60	28.10	185	1562	216	0	86.3	9.7
Crystal 986RR	115	365.1	103	10636	103	0.83	70.38	104	2049	105	19.09	29.17	180	1417	204	0	83.4	8.9
Hilleshög 4022RR	125	345.7	97	8801	86	0.93	64.18	95	1635	84	18.21	25.43	184	1604	228	0	85.2	8.4
Hilleshög 4094RR	117	347.2	98	9288	90	0.94	64.66	96	1731	89	18.30	26.70	203	1605	228	0	77.6	7.1
Hilleshög 4300RR	105	354.1	99	10521	102	0.90	66.86	99	1987	102	18.60	29.72	195	1576	208	0	65.8	6.7
Hilleshög 4302RR	132	348.6	98	9743	95	0.89	65.11	97	1819	93	18.32	27.96	204	1488	219	0	78.4	6.1
Hilleshög 4303RR	118	365.6	103	10161	99	0.85	70.54	105	1959	101	19.13	27.84	170	1489	203	0	69.3	7.9
Hilleshög 4448RR(9448)	110	355.0	100	11463	111	0.87	67.15	100	2169	111	18.62	32.29	173	1473	220	0	77.0	4.2
Maribo MA104RR	124	364.3	102	9118	89	0.84	70.12	104	1757	90	19.06	24.95	169	1415	215	0	81.0	6.7
Seedex Victor RR	112	348.9	98	10279	100	0.83	65.21	97	1922	99	18.28	29.43	168	1464	197	0	85.2	10.1
Seedex Vision RR	133	354.1	99	10430	101	0.88	66.86	99	1968	101	18.59	29.49	165	1534	218	0	79.2	5.2
Seedex Xavier RR	130	362.3	102	10022	97	0.81	69.46	103	1921	99	18.92	27.66	144	1456	188	0	70.9	9.0
Seedex Yukon RR(828N)	129	338.5	95	9139	89	0.92	61.88	92	1669	86	17.84	27.02	164	1488	257	0	82.6	10.0
Seedex Zenith RR(829N)	116	339.5	95	9447	92	0.94	62.20	92	1732	89	17.91	27.78	162	1540	259	0	83.8	10.2
SV 36175RR	128	349.3	98	9583	93	0.91	65.33	97	1794	92	18.38	27.40	162	1505	247	41	84.2	7.7
SV 36271RR	126	331.5	93	9151	89	0.93	59.66	88	1648	85	17.50	27.60	175	1562	241	0	83.4	9.4
SV 36272RR	131	360.2	101	9181	89	0.81	68.80	102	1753	90	18.82	25.48	135	1408	205	0	83.0	10.9
SV 36273RR	119	344.0	97	10391	101	0.87	63.65	94	1921	99	18.07	30.25	183	1502	205	0	79.8	5.4
SV 36918RR	123	362.1	102	10095	98	0.85	69.39	103	1936	99	18.95	27.87	141	1485	211	0	74.5	6.8
<b>Experimental Trial (Comm status)</b>																		
BTS 8337	222	369.5	104	9596	93	0.80	71.69	106	1860	95	19.29	25.91	143	1472	179	0	75.4	5.6
BTS 8354	241	358.6	101	8948	87	0.95	68.30	101	1703	87	18.87	25.01	153	1672	232	0	73.5	4.7
BTS 8363	233	348.8	98	10048	98	0.81	65.23	97	1876	96	18.26	28.93	144	1507	179	95	73.6	5.1
BTS 8390	208	346.8	97	10904	106	0.89	64.59	96	2032	104	18.22	31.57	177	1636	187	0	75.5	4.0
BTS 83CN	223	348.6	98	9889	96	0.83	65.18	97	1847	95	18.27	28.45	139	1439	210	0	79.2	4.5
Crystal 355RR	234	356.7	100	9164	89	0.94	67.67	100	1734	89	18.76	25.82	155	1581	248	0	82.3	6.3
Hilleshög 9517RR	247	355.2	100	8324	81	0.95	67.21	100	1576	81	18.71	23.46	220	1627	219	0	71.5	4.1
Hilleshög 9528RR	237	365.6	103	10131	99	0.76	70.46	104	1949	100	19.05	27.84	135	1396	169	0	76.0	3.8
Maribo MA102RR	216	359.2	101	10949	106	0.79	68.47	101	2087	107	18.76	30.54	136	1421	193	0	73.1	2.6
Maribo 305	232	351.4	99	10629	103	0.74	66.04	98	2000	103	18.32	30.19	149	1288	175	0	76.1	3.4
Seedex RR0832	227	345.3	97	9956	97	0.86	64.13	95	1850	95	18.14	28.82	170	1556	194	0	74.4	5.2
SV RR333	212	353.5	99	9858	96	0.86	66.69	99	1860	95	18.55	27.88	141	1520	214	0	77.8	4.4
SV RR336	226	357.1	100	10148	99	0.87	67.82	101	1922	99	18.74	28.56	143	1517	223	0	81.6	4.2
Trial Mean		356.0		10284		0.89	67.46		1949		18.69	28.89	169	1539	218		80.8	8.1
Coeff. of Var. (%)		2.4		4.5		4.7	4.0		5.5		2.2	3.9	13.4	3.9	8.8		10.0	34.4
Mean LSD (0.05)		11.4		633		0.06	3.62		145		0.54	1.57	31	82	27		10.1	3.6
Mean LSD (0.01)		15.0		837		0.08	4.79		192		0.72	2.07	41	109	35		13.4	4.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Stephen MN

Analyzed 10/22/2014 11:28

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148310

^ Vigor not collected. Bolter &amp; emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 16.  
2014 Performance of Approved Varieties - ACSC Commercial & Experimental Official Trials  
Bathgate ND - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %	Tare %	
<b>Commercial Trial</b>																			
BTS 80RR32	111	319.5	97	7709	101	1.10	55.83	95	1339	99	17.07	24.24	309	1672	297	0	87.9	8.2	
BTS 80RR52	107	330.8	101	7737	102	1.09	59.42	101	1398	103	17.63	23.52	234	1699	298	0	88.9	4.5	
BTS 81RR17	101	332.7	101	7526	99	1.18	60.02	102	1360	100	17.81	22.49	239	1782	348	0	86.9	6.4	
BTS 82RR22	135	338.3	103	7507	99	1.05	61.81	105	1373	101	17.97	21.99	230	1637	295	0	86.4	6.2	
BTS 82RR28	106	329.3	100	7905	104	1.08	58.96	100	1414	104	17.54	24.27	252	1717	288	32	85.9	6.7	
BTS 82RR33	109	320.2	97	7869	103	1.08	56.03	95	1371	101	17.09	24.52	306	1667	277	0	84.4	6.3	
BTS 82RR80	114	341.8	104	8066	106	0.98	62.95	107	1481	109	18.07	23.98	194	1640	258	0	86.9	5.5	
BTS 89RR83	121	318.8	97	7864	103	1.01	55.61	95	1382	102	16.96	24.42	237	1615	264	0	82.3	7.4	
Crystal 093RR	104	349.9	106	8075	106	0.97	65.52	111	1506	111	18.47	22.99	166	1535	282	0	84.2	5.7	
Crystal 095RR	134	327.8	100	7904	104	1.09	58.47	99	1405	103	17.48	24.18	241	1683	309	0	86.7	5.6	
Crystal 101RR	122	332.1	101	8282	109	1.14	59.83	102	1489	110	17.74	25.10	307	1832	281	0	86.2	6.2	
Crystal 246RR	136	333.1	101	7866	103	1.01	60.17	102	1413	104	17.66	23.68	232	1630	266	0	92.2	7.1	
Crystal 247RR	120	328.3	100	8494	112	0.99	58.63	100	1548	114	17.42	25.26	225	1671	238	0	86.5	6.0	
Crystal 765RR	108	338.7	103	6982	92	1.05	61.95	105	1271	94	17.99	20.64	253	1610	295	0	86.1	6.3	
Crystal 768RR	102	332.1	101	7819	103	1.13	59.84	102	1398	103	17.73	23.94	251	1805	301	0	86.7	6.9	
Crystal 875RR	103	325.8	99	8106	107	1.15	57.83	98	1441	106	17.44	25.03	278	1779	317	0	84.7	7.8	
Crystal 981RR	113	335.8	102	8123	107	1.13	61.01	104	1475	109	17.92	24.12	283	1865	278	32	85.2	8.3	
Crystal 985RR	127	325.3	99	6989	92	1.07	57.66	98	1230	91	17.32	21.76	274	1668	289	0	94.0	8.4	
Crystal 986RR	115	334.7	102	7930	104	0.95	60.67	103	1432	105	17.68	23.88	238	1541	246	0	81.8	8.8	
Hilleshög 4022RR	125	311.6	95	6635	87	1.23	53.29	91	1135	84	16.81	21.50	369	1753	350	0	80.3	3.8	
Hilleshög 4094RR	117	321.0	98	7438	98	1.14	56.31	96	1294	95	17.19	23.25	276	1728	333	0	86.1	4.7	
Hilleshög 4300RR	105	319.1	97	7527	99	1.12	55.69	95	1307	96	17.07	23.65	312	1690	308	0	77.0	7.5	
Hilleshög 4302RR	132	332.0	101	7564	99	1.03	59.80	102	1358	100	17.63	22.78	281	1616	268	0	76.2	4.9	
Hilleshög 4303RR	118	343.9	105	7817	103	1.02	63.62	108	1452	107	18.22	22.87	219	1638	275	0	82.6	4.7	
Hilleshög 4448RR(9448)	110	332.3	101	8663	114	1.02	59.91	102	1554	114	17.63	26.37	238	1562	285	0	85.0	2.8	
Maribo MA104RR	124	343.7	105	6539	86	1.02	63.54	108	1194	88	18.21	19.35	241	1577	285	0	84.2	8.7	
Seedex Victor RR	112	311.2	95	7603	100	1.00	53.17	90	1292	95	16.56	24.31	262	1582	264	0	83.4	7.6	
Seedex Vision RR	133	332.0	101	7822	103	0.97	59.80	102	1402	103	17.57	23.63	213	1555	263	0	85.1	5.6	
Seedex Xavier RR	130	324.8	99	7547	99	0.94	57.51	98	1343	99	17.18	23.29	203	1494	252	0	81.2	7.2	
Seedex Yukon RR(828N)	129	322.7	98	7296	96	1.00	56.84	97	1285	95	17.14	22.62	234	1500	292	0	85.0	4.4	
Seedex Zenith RR(829N)	116	319.5	97	6677	88	1.05	55.82	95	1165	86	17.03	21.00	218	1639	299	0	87.2	7.7	
SV 36175RR	128	335.6	102	7267	95	0.96	60.96	104	1308	96	17.74	21.61	203	1576	254	0	88.5	7.4	
SV 36271RR	126	311.4	95	6705	88	1.03	53.24	91	1137	84	16.60	21.77	229	1669	280	0	83.9	10.4	
SV 36272RR	131	328.1	100	7437	98	0.98	58.57	100	1321	97	17.38	22.82	207	1572	267	0	84.5	7.4	
SV 36273RR	119	321.4	98	7656	101	0.99	56.43	96	1347	99	17.07	23.64	258	1581	252	0	85.1	4.8	
SV 36918RR	123	329.3	100	7027	92	1.00	58.93	100	1258	93	17.47	21.23	210	1656	262	0	83.5	9.2	
<b>Experimental Trial (Comm status)</b>																			
BTS 8337	222	344.7	105	7395	97	1.02	63.74	108	1372	101	18.27	21.64	234	1704	252	0	84.7	4.5	
BTS 8354	241	332.2	101	7767	102	1.14	59.84	102	1401	103	17.76	23.54	228	1801	322	0	89.2	4.1	
BTS 8363	233	327.5	100	8363	110	0.99	58.39	99	1505	111	17.38	25.60	207	1640	249	95	85.6	2.8	
BTS 8390	208	310.7	95	8488	112	1.11	53.21	91	1458	107	16.66	27.28	319	1780	271	0	87.6	5.6	
BTS 83CN	223	328.7	100	8496	112	1.01	58.78	100	1528	113	17.46	25.65	218	1654	255	0	87.3	3.7	
Crystal 355RR	234	341.3	104	7753	102	1.12	62.68	107	1439	106	18.20	22.56	258	1731	312	0	86.4	3.8	
Hilleshög 9517RR	247	337.9	103	7441	98	1.06	61.61	105	1360	100	17.96	22.06	274	1703	264	0	72.0	3.0	
Hilleshög 9528RR	237	334.3	102	8090	106	1.09	60.50	103	1476	109	17.82	24.09	233	1644	316	0	79.1	3.9	
Maribo MA102RR	216	338.4	103	8392	110	0.98	61.76	105	1544	114	17.91	24.58	186	1568	267	0	75.5	2.4	
Maribo 305	232	330.8	101	8008	105	0.91	59.39	101	1445	106	17.47	24.25	174	1472	249	0	76.0	2.4	
Seedex RR0832	227	325.7	99	8169	107	1.00	57.83	98	1455	107	17.28	25.14	240	1602	256	0	83.7	5.9	
SV RR333	212	332.9	101	8926	117	1.05	60.06	102	1611	119	17.70	26.92	200	1633	302	0	85.9	4.3	
SV RR336	226	332.7	101	8093	106	1.00	60.01	102	1465	108	17.65	24.33	172	1606	284	0	89.2	4.1	
Trial Mean		328.7		7610		1.05	58.77		1358		17.49	23.21	248	1651	284		85.1	6.6	
Coeff. of Var. (%)		2.8		5.9		6.0	4.9		7.0		2.4	5.4	17.4	5.1	10.9		8.1	43.2	
Mean LSD (0.05)		12.1		569		0.08	3.85		124		0.57	1.68	56	109	41		8.1	3.6	
Mean LSD (0.01)		16.0		751		0.11	5.09		163		0.75	2.22	74	145	54		10.7	4.7	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns	*	

\* 2014 Data from Bathgate ND

Analysed 10/22/2014 11:38

Created 10-27-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 148311

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs

Table 17.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
8 sites - All Characters

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	329.6	104	8220	96	0.97	58.93	107	1468	99	17.46	24.98	230	1470	281	14	76.6	5.4
BTS 8354	241	317.7	100	8027	94	1.11	55.23	101	1393	94	17.00	25.31	243	1593	350	0	76.8	4.9
BTS 8363	233	311.8	98	8978	105	0.96	53.37	97	1539	104	16.55	28.77	217	1465	276	95	77.5	4.5
BTS 8390	208	304.3	96	9209	108	1.03	51.08	93	1546	105	16.25	30.25	290	1582	270	0	77.5	5.1
BTS 83CN	223	313.7	99	8618	101	0.95	53.99	98	1481	100	16.64	27.50	230	1448	266	0	76.9	3.8
BTS 8402	215	316.0	100	8346	98	1.03	54.70	100	1443	98	16.84	26.43	257	1500	309	0	84.1	3.8
BTS 8404	244	318.5	101	8518	100	1.00	55.48	101	1485	101	16.94	26.70	203	1454	317	0	76.9	4.0
BTS 8405	219	332.2	105	8828	104	0.93	59.74	109	1586	107	17.55	26.60	164	1410	289	0	75.6	4.4
BTS 8406	236	323.7	102	8561	100	1.00	57.10	104	1508	102	17.19	26.50	226	1482	300	0	74.0	3.3
BTS 8408	217	320.1	101	8613	101	1.15	55.99	102	1506	102	17.16	26.90	268	1621	368	0	75.3	6.4
BTS 840N	206	311.6	98	7483	88	1.12	53.32	97	1280	87	16.70	24.02	243	1634	347	0	81.0	4.7
Crystal 355RR	234	321.1	101	8272	97	1.08	56.28	102	1447	98	17.13	25.83	244	1570	331	0	78.5	4.8
Crystal 359RR	242	312.7	99	9165	108	1.07	53.68	98	1572	107	16.71	29.34	283	1559	315	14	75.1	4.7
Crystal 464RR	201	320.4	101	8507	100	1.05	56.08	102	1489	101	17.08	26.54	243	1550	317	0	82.0	5.4
Crystal 465RR	220	320.2	101	8756	103	1.05	56.01	102	1530	104	17.06	27.38	269	1513	315	14	83.3	3.9
Crystal 466RR	230	317.6	100	9000	106	1.02	55.19	101	1564	106	16.90	28.35	237	1516	300	635	69.7	4.1
Crystal 467RR	221	310.7	98	9159	107	1.02	53.05	97	1564	106	16.56	29.50	291	1534	278	0	75.9	4.9
Crystal 468RR	202	308.4	97	8708	102	1.00	52.32	95	1479	100	16.41	28.24	264	1448	291	0	80.7	4.4
Crystal 469RR	249	318.1	100	8995	106	1.12	55.36	101	1563	106	17.03	28.35	271	1647	334	0	76.4	4.0
Hilleshög 9517RR	247	323.8	102	7589	89	1.07	57.11	104	1339	91	17.27	23.44	294	1573	309	0	71.1	4.8
Hilleshög 9528RR	237	325.6	103	8908	105	0.93	57.69	105	1577	107	17.22	27.39	214	1414	270	0	77.5	4.2
Hilleshög 9601RR	203	309.2	98	7642	90	1.08	52.62	96	1299	88	16.55	24.73	352	1514	308	0	66.3	3.7
Hilleshög 9602RR	205	311.0	98	9085	107	0.95	53.14	97	1551	105	16.50	29.25	247	1459	257	0	81.8	3.9
Hilleshög 9604RR	211	306.4	97	8831	104	1.03	51.72	94	1490	101	16.35	28.81	248	1518	302	14	79.3	3.6
Hilleshög 9610RR	245	313.0	99	7626	89	0.94	53.80	98	1307	89	16.60	24.43	259	1414	258	0	68.4	4.4
Hilleshög 9613RR	224	297.1	94	8025	94	1.13	48.83	89	1313	89	15.99	27.13	316	1595	337	0	78.6	3.6
Hilleshög 9615RR	231	315.0	99	8043	94	1.10	54.40	99	1388	94	16.85	25.57	294	1519	345	0	76.7	6.5
Hilleshög 9620RR	210	314.2	99	8418	99	1.07	54.15	99	1448	98	16.78	26.82	282	1550	313	23	78.5	4.4
Maribo 109RR	225	334.2	106	7705	90	0.96	60.38	110	1390	94	17.69	23.05	201	1440	291	0	73.0	3.7
Maribo 301	209	324.5	102	8063	95	1.04	57.38	104	1427	97	17.28	24.79	265	1550	302	0	78.4	5.0
Maribo 305	232	315.3	100	8914	105	0.88	54.51	99	1541	104	16.66	28.26	205	1283	263	0	81.7	3.3
Maribo 402	213	313.9	99	8507	100	0.94	54.04	98	1468	99	16.64	27.04	230	1410	268	0	83.4	4.7
Maribo 403	228	316.8	100	9679	114	0.91	54.96	100	1679	114	16.76	30.52	219	1380	259	0	79.0	3.4
Maribo MA102RR	216	325.0	103	9247	109	0.91	57.51	105	1636	111	17.17	28.43	203	1354	270	0	74.1	3.4
Seedex RR0832	227	318.8	101	8672	102	0.98	55.58	101	1513	103	16.93	27.16	234	1513	269	0	76.7	5.0
Seedex RR842	235	320.8	101	8923	105	0.93	56.18	102	1564	106	16.98	27.78	215	1440	259	14	74.2	3.6
Seedex RR844TT	218	318.4	101	9036	106	0.95	55.46	101	1574	107	16.87	28.36	194	1477	269	0	74.3	4.1
Seedex RR846	243	310.2	98	9042	106	1.01	52.91	96	1542	104	16.53	29.14	257	1462	306	0	73.4	3.6
Seedex RR848	246	311.8	98	8884	104	0.97	53.40	97	1522	103	16.57	28.48	253	1428	282	0	71.4	3.4
SV RR241	214	314.3	99	8335	98	0.95	54.17	99	1437	97	16.68	26.51	205	1408	287	14	76.6	4.5
SV RR242TT	229	308.4	97	9231	108	0.97	52.33	95	1567	106	16.39	29.91	224	1458	280	0	77.1	3.9
SV RR243	207	317.5	100	8437	99	0.96	55.18	100	1466	99	16.84	26.56	230	1482	264	0	69.0	3.8
SV RR244TT	240	302.2	95	9328	109	0.94	50.41	92	1555	105	16.05	30.87	211	1408	277	0	72.2	3.3
SV RR245N	238	315.1	100	7652	90	0.97	54.46	99	1320	89	16.73	24.31	224	1417	295	0	75.7	5.9
SV RR246	248	330.3	104	7803	92	0.94	59.15	108	1396	95	17.46	23.63	189	1483	263	0	74.4	5.5
SV RR247	239	331.5	105	7667	90	0.99	59.53	108	1376	93	17.58	23.15	225	1492	292	0	73.3	4.9
SV RR248	204	313.9	99	8037	94	1.00	54.04	98	1386	94	16.70	25.56	216	1549	287	36	69.3	4.5
SV RR333	212	316.9	100	8551	100	0.98	54.99	100	1485	101	16.83	26.97	214	1477	292	0	75.6	4.5
SV RR336	226	316.0	100	8627	101	0.95	54.71	100	1493	101	16.75	27.29	206	1394	291	0	77.4	4.2
Root Aphid Susc Chk	250	320.0	101	7899	93	0.97	55.94	102	1384	94	16.98	24.62	210	1507	277	0	68.7	5.8
Hilleshög 4012RR(Check)	251	313.7	99	8238	97	1.02	53.98	98	1418	96	16.71	26.24	288	1465	298	0	79.9	5.1
Crystal 875RR(Check)	252	313.7	99	8532	100	1.13	54.00	98	1470	100	16.82	27.18	291	1595	348	0	78.7	5.3
BTS 80RR52(Check)	253	319.3	101	8643	101	1.04	55.74	102	1509	102	17.01	27.06	217	1530	317	0	78.8	5.0
BTS 81RR17(Check)	254	313.3	99	8423	99	1.13	53.86	98	1447	98	16.80	26.91	245	1625	361	0	81.3	5.4
Trial Mean		316.7		8522		1.01	54.91		1476		16.85	26.94	242	1492	297		76.3	4.5
Coeff. of Var. (%)		2.4		5.7		6.9	4.3		6.7		2.1	5.3	17.0	5.4	13.1		8.9	29.9
Mean LSD (0.05)		4.9		371		0.04	1.52		72		0.22	1.15	27	48	24		4.4	0.9
Mean LSD (0.01)		6.4		488		0.06	2.00		95		0.29	1.52	36	64	32		5.8	1.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from 8 sites

10/24/2014 12:05

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 14ACExp8

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 18.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Casselton ND - All Characters

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Tare	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	/Ac ^	%^	%
BTS 8337	222	263.8	102	7358	96	1.18	37.98	103	1055	97	14.36	27.70	340	1716	339	0	73.2	6.2
BTS 8354	241	255.3	98	7412	96	1.28	35.52	97	1037	95	14.03	28.86	313	1779	397	0	74.9	4.6
BTS 8363	233	254.6	98	8152	106	1.03	35.34	96	1138	104	13.78	31.67	244	1603	282	0	74.6	4.8
BTS 8390	208	249.3	96	8054	105	1.10	33.81	92	1095	100	13.58	32.12	330	1785	255	0	74.6	5.5
BTS 83CN	223	252.7	97	7731	100	1.08	34.80	95	1064	98	13.72	30.45	325	1647	283	0	72.4	3.7
BTS 8402	215	261.0	101	7749	101	1.14	37.18	101	1110	102	14.20	29.44	342	1634	320	0	82.9	3.5
BTS 8404	244	256.9	99	7600	99	1.17	36.00	98	1066	98	14.01	29.37	267	1690	359	0	78.9	4.5
BTS 8405	219	278.4	107	8274	108	1.00	42.19	115	1259	115	14.95	29.43	215	1569	281	0	75.7	3.8
BTS 8406	236	267.3	103	7759	101	1.12	39.01	106	1128	103	14.48	28.84	313	1675	311	0	75.7	3.3
BTS 8408	217	261.8	101	7763	101	1.30	37.43	102	1113	102	14.38	29.41	337	1845	390	0	75.0	6.1
BTS 840N	206	259.2	100	6442	84	1.23	36.67	100	916	84	14.19	24.51	303	1816	361	0	74.6	3.6
Crystal 355RR	234	261.2	101	7621	99	1.18	37.23	101	1083	99	14.23	29.05	332	1731	335	0	80.7	3.3
Crystal 359RR	242	257.6	99	8489	110	1.16	36.19	98	1196	110	14.04	32.88	371	1727	307	0	73.4	3.5
Crystal 464RR	201	264.1	102	7647	99	1.17	38.09	104	1114	102	14.40	28.61	310	1755	325	0	74.5	5.5
Crystal 465RR	220	260.7	100	7866	102	1.16	37.08	101	1125	103	14.20	29.81	371	1671	324	0	77.7	3.8
Crystal 466RR	230	253.0	98	7645	99	1.14	34.86	95	1054	97	13.78	29.93	358	1777	282	477	67.0	4.8
Crystal 467RR	221	250.6	97	7920	103	1.12	34.18	93	1075	99	13.64	31.56	346	1691	296	0	72.1	5.3
Crystal 468RR	202	255.5	98	7720	100	1.14	35.62	97	1070	98	13.91	30.15	316	1669	323	0	76.2	5.7
Crystal 469RR	249	263.6	102	8262	107	1.21	37.91	103	1186	109	14.37	31.32	328	1802	339	0	76.6	3.3
Hilleshög 9517RR	247	273.1	105	7085	92	1.13	40.65	111	1055	97	14.80	25.85	341	1689	306	0	73.8	6.0
Hilleshög 9528RR	237	261.6	101	8134	106	1.05	37.35	102	1164	107	14.15	30.87	324	1604	268	0	74.6	4.2
Hilleshög 9601RR	203	258.7	100	7097	92	1.09	36.53	99	1006	92	14.05	27.15	386	1652	275	0	65.5	4.3
Hilleshög 9602RR	205	251.0	97	8550	111	1.07	34.30	93	1173	108	13.63	33.83	351	1624	270	0	78.5	2.9
Hilleshög 9604RR	211	252.2	97	7865	102	1.03	34.64	94	1081	99	13.65	30.76	259	1571	294	0	72.1	3.3
Hilleshög 9610RR	245	261.3	101	6861	89	0.97	37.25	101	973	89	14.05	26.11	285	1515	248	0	71.5	5.9
Hilleshög 9613RR	224	230.3	89	7726	100	1.23	28.33	77	961	88	12.73	33.18	465	1763	315	0	73.2	3.5
Hilleshög 9615RR	231	260.9	101	7119	93	1.15	37.15	101	1012	93	14.19	27.17	337	1739	297	0	72.0	6.3
Hilleshög 9620RR	210	262.2	101	8150	106	1.13	37.53	102	1166	107	14.23	30.83	338	1658	317	0	78.8	4.5
Maribo 109RR	225	273.4	105	7205	94	1.07	40.75	111	1077	99	14.76	26.10	284	1564	307	0	74.0	4.1
Maribo 301	209	267.8	103	7757	101	1.15	39.14	107	1139	105	14.55	28.78	307	1668	333	0	82.5	4.3
Maribo 305	232	256.6	99	8403	109	1.02	35.92	98	1182	108	13.88	32.57	308	1480	300	0	78.4	2.5
Maribo 402	213	259.8	100	7738	101	0.99	36.85	100	1094	100	14.00	29.68	314	1521	253	0	78.0	4.5
Maribo 403	228	261.6	101	8695	113	0.96	37.33	102	1243	114	14.06	32.86	253	1492	260	0	74.0	3.8
Maribo MA102RR	216	267.9	103	8469	110	0.98	39.17	107	1243	114	14.41	31.45	310	1561	244	0	72.9	5.0
Seedex RR0832	227	261.4	101	7466	97	1.14	37.28	101	1072	98	14.23	28.28	316	1827	273	0	74.7	3.7
Seedex RR842	235	264.6	102	7873	102	1.02	38.22	104	1144	105	14.28	29.41	280	1612	259	0	76.8	2.7
Seedex RR844TT	218	262.7	101	8148	106	1.02	37.67	103	1170	107	14.18	30.83	235	1649	270	0	76.9	3.7
Seedex RR846	243	250.5	97	7957	103	1.13	34.17	93	1081	99	13.64	31.52	354	1626	319	0	75.8	3.7
Seedex RR848	246	259.3	100	7794	101	1.06	36.69	100	1109	102	14.04	29.75	294	1667	271	0	74.2	4.0
SV RR241	214	260.7	100	7393	96	1.10	37.07	101	1059	97	14.15	27.93	309	1613	312	0	76.2	3.9
SV RR242TT	229	253.4	98	7959	103	1.05	35.00	95	1105	101	13.74	30.93	294	1616	279	0	73.5	3.7
SV RR243	207	258.3	100	7571	98	1.04	36.39	99	1072	98	13.98	29.23	312	1636	261	0	67.9	3.3
SV RR244TT	240	246.2	95	8049	105	1.03	32.93	90	1075	99	13.35	32.58	282	1517	298	0	70.6	4.7
SV RR245N	238	257.8	99	7048	92	1.08	36.26	99	992	91	13.99	27.21	349	1608	291	0	77.3	5.9
SV RR246	248	267.9	103	7008	91	1.06	39.15	107	1030	95	14.48	25.88	284	1688	265	0	74.4	5.0
SV RR247	239	271.1	104	7234	94	1.15	40.08	109	1067	98	14.70	26.68	335	1613	341	0	77.7	5.4
SV RR248	204	254.3	98	7164	93	1.09	35.23	96	998	92	13.82	27.90	301	1672	288	0	73.4	5.8
SV RR333	212	261.5	101	7557	98	1.14	37.32	102	1080	99	14.22	28.72	289	1631	333	0	72.7	3.7
SV RR336	226	256.5	99	7500	97	1.06	35.91	98	1044	96	13.89	29.10	297	1609	295	0	74.2	3.1
Root Aphid Susc Chk	250	260.2	100	6866	89	1.14	36.95	101	977	90	14.15	26.25	296	1820	280	0	70.8	5.5
Hilleshög 4012RR(Check)	251	256.5	99	7618	99	1.06	35.89	98	1071	98	13.90	29.49	376	1565	269	0	74.9	4.6
Crystal 875RR(Check)	252	252.4	97	7475	97	1.23	34.71	94	1029	94	13.84	29.54	379	1709	357	0	74.8	3.5
BTS 80RR52(Check)	253	269.7	104	7711	100	1.12	39.68	108	1138	104	14.62	28.43	256	1704	313	0	74.3	3.9
BTS 81RR17(Check)	254	261.7	101	7725	100	1.20	37.37	102	1110	102	14.29	29.08	286	1812	351	0	75.9	4.9
Trial Mean		259.5		7693		1.10	36.74		1090		14.09	29.46	316	1665	302		74.8	4.3
Coeff. of Var. (%)		2.8		4.7		5.6	5.7		6.8		2.5	4.0	18.1	6.0	10.6		7.1	29.0
Mean LSD (0.05)		11.9		566		0.10	3.41		115		0.57	1.93	91	147	50		7.8	1.9
Mean LSD (0.01)		15.7		748		0.13	4.51		152		0.76	2.54	120	193	67		10.3	2.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns	**

\* 2014 Data from Casselton ND

10/22/2014 08:53

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148301

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 19.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Ada MN - All Characters

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	338.5	106	11729	102	0.98	61.88	110	2144	107	17.87	34.78	134	1461	319	95	78.5	5.9
BTS 8354	241	318.6	100	10585	92	1.15	55.55	99	1835	91	17.09	33.37	145	1588	426	0	81.2	5.9
BTS 8363	233	314.5	98	12200	106	0.97	54.24	97	2116	105	16.67	38.43	129	1479	307	194	72.3	5.1
BTS 8390	208	308.5	96	12732	111	1.00	52.35	93	2153	107	16.40	41.56	170	1592	293	0	76.0	6.3
BTS 83CN	223	315.6	99	11391	99	0.97	54.57	97	1967	98	16.72	36.28	157	1426	317	0	74.5	5.4
BTS 8402	215	318.0	99	11600	101	0.97	55.33	99	2015	100	16.89	36.40	185	1448	313	0	86.1	3.3
BTS 8404	244	328.4	103	11051	96	0.99	58.65	105	1962	98	17.40	34.16	111	1433	352	0	75.7	4.0
BTS 8405	219	338.9	106	12418	108	0.95	61.99	111	2258	112	17.89	37.17	107	1422	332	0	68.6	5.4
BTS 8406	236	316.6	99	10998	95	1.10	54.88	98	1913	95	16.92	34.60	147	1550	388	0	64.9	3.5
BTS 8408	217	325.8	102	11285	98	1.20	57.83	103	2000	99	17.48	34.78	146	1617	461	0	70.8	6.7
BTS 840N	206	309.8	97	10877	94	1.13	52.76	94	1846	92	16.63	35.10	126	1632	397	0	88.6	4.5
Crystal 355RR	234	322.7	101	11320	98	1.13	56.85	101	1985	99	17.24	35.40	141	1572	404	0	75.3	4.4
Crystal 359RR	242	310.6	97	12230	106	1.11	53.01	95	2089	104	16.61	39.22	149	1636	368	0	68.3	5.5
Crystal 464RR	201	323.4	101	12079	105	1.13	57.08	102	2128	106	17.30	37.32	148	1649	380	0	84.2	5.1
Crystal 465RR	220	326.5	102	11254	98	0.99	58.05	104	1991	99	17.32	34.78	165	1508	312	0	86.1	5.2
Crystal 466RR	230	320.4	100	12374	107	1.02	56.12	100	2153	107	17.05	38.91	136	1507	346	383	68.6	4.6
Crystal 467RR	221	319.2	100	11646	101	0.97	55.72	99	2032	101	16.93	36.58	162	1512	305	0	76.0	6.0
Crystal 468RR	202	315.3	98	11943	104	1.00	54.49	97	2067	103	16.75	37.88	164	1490	322	0	79.5	5.3
Crystal 469RR	249	314.5	98	12186	106	1.17	54.25	97	2105	105	16.89	38.62	150	1616	424	0	76.2	4.6
Hilleshög 9517RR	247	325.3	102	10346	90	1.12	57.67	103	1831	91	17.38	31.84	171	1642	366	0	67.8	5.2
Hilleshög 9528RR	237	329.2	103	12183	106	0.90	58.89	105	2172	108	17.34	37.28	119	1376	292	0	77.7	4.8
Hilleshög 9601RR	203	304.3	95	10269	89	1.16	51.03	91	1714	85	16.39	33.75	237	1641	379	0	57.9	3.4
Hilleshög 9602RR	205	315.4	99	12255	106	0.89	54.51	97	2115	105	16.63	39.12	141	1464	253	0	86.6	4.9
Hilleshög 9604RR	211	315.4	99	12532	109	0.94	54.53	97	2154	107	16.71	40.14	140	1569	274	0	86.6	3.9
Hilleshög 9610RR	245	313.6	98	10702	93	0.97	53.95	96	1846	92	16.62	34.16	176	1513	289	0	61.4	3.3
Hilleshög 9613RR	224	292.2	91	11504	100	1.25	47.18	84	1860	92	15.87	39.27	199	1663	457	0	83.9	5.0
Hilleshög 9615RR	231	322.8	101	11267	98	1.17	56.87	101	1990	99	17.30	34.68	183	1592	413	0	80.0	6.4
Hilleshög 9620RR	210	309.3	97	11494	100	1.15	52.60	94	1947	97	16.61	37.58	183	1616	394	0	80.9	6.6
Maribo 109RR	225	337.5	105	10744	93	0.99	61.53	110	1948	97	17.86	32.08	120	1491	336	0	62.4	3.6
Maribo 301	209	336.1	105	11334	98	1.03	61.09	109	2052	102	17.83	33.84	132	1613	332	0	73.3	6.7
Maribo 305	232	315.5	99	12105	105	0.87	54.55	97	2088	104	16.63	38.58	147	1318	261	0	82.9	3.4
Maribo 402	213	319.7	100	11399	99	0.94	55.89	100	1990	99	16.91	35.57	130	1482	289	0	85.2	5.9
Maribo 403	228	322.0	101	13396	116	0.86	56.62	101	2352	117	16.97	41.50	120	1439	240	0	75.0	3.2
Maribo MA102RR	216	325.9	102	12236	106	0.95	57.85	103	2159	107	17.23	38.15	128	1385	328	0	71.5	3.9
Seedex RR0832	227	325.7	102	11577	100	0.92	57.79	103	2046	102	17.20	35.74	131	1485	280	0	73.3	7.8
Seedex RR842	235	331.8	104	12354	107	0.89	59.73	107	2219	110	17.48	37.03	114	1467	267	0	66.3	4.0
Seedex RR844TT	218	323.3	101	12316	107	0.92	57.04	102	2168	108	17.08	38.32	110	1525	273	0	68.3	3.8
Seedex RR846	243	306.0	96	11106	96	1.13	51.54	92	1860	92	16.43	36.57	182	1612	378	0	60.6	3.0
Seedex RR848	246	323.6	101	11449	99	0.87	57.14	102	2006	100	17.04	35.84	120	1387	269	0	65.6	3.6
SV RR241	214	312.4	98	10593	92	0.90	53.58	96	1817	90	16.52	33.92	131	1448	274	0	66.8	4.8
SV RR242TT	229	312.7	98	12493	108	0.91	53.69	96	2142	107	16.55	39.99	121	1477	280	0	73.8	3.0
SV RR243	207	332.8	104	11041	96	0.88	60.05	107	1990	99	17.49	33.29	120	1472	243	0	63.6	3.5
SV RR244TT	240	299.0	93	12355	107	1.01	49.29	88	2024	101	15.95	41.77	127	1538	328	0	62.4	2.8
SV RR245N	238	320.7	100	11014	96	1.01	56.22	100	1930	96	17.05	34.32	142	1438	353	0	69.1	6.0
SV RR246	248	337.6	105	11243	98	0.92	61.56	110	2051	102	17.78	33.21	114	1522	269	0	73.0	5.6
SV RR247	239	339.4	106	10381	90	0.94	62.17	111	1907	95	17.88	30.50	122	1430	300	0	56.4	4.9
SV RR248	204	314.5	98	10622	92	0.95	54.25	97	1827	91	16.66	33.90	115	1617	272	0	58.2	5.6
SV RR333	212	317.4	99	11682	101	0.98	55.14	98	2025	101	16.83	36.80	140	1559	293	0	63.6	4.5
SV RR336	226	323.9	101	11479	100	0.89	57.23	102	2023	101	17.07	35.66	114	1342	298	0	72.8	4.0
Root Aphid Susc Chk	250	333.6	104	10385	90	0.88	60.29	108	1870	93	17.55	31.16	114	1435	255	0	56.4	5.9
Hilleshög 4012RR(Check)	251	313.8	98	10749	93	1.05	54.02	96	1849	92	16.73	34.23	177	1474	360	0	73.0	6.7
Crystal 875RR(Check)	252	317.8	99	11033	96	1.14	55.29	99	1924	96	17.02	34.62	175	1602	394	0	80.2	6.7
BTS 80RR52(Check)	253	326.5	102	11780	102	0.96	58.04	104	2086	104	17.28	36.41	101	1514	314	0	77.0	5.7
BTS 81RR17(Check)	254	307.8	96	10845	94	1.22	52.12	93	1837	91	16.63	35.00	152	1604	456	0	85.2	6.5
Trial Mean		320.2		11521		1.01	56.05		2011		17.01	36.13	143	1516	330		73.2	4.9
Coef. of Var. (%)		2.8		6.3		7.7	5.0		7.3		2.5	6.1	18.4	5.4	14.5		10.4	27.0
Mean LSD (0.05)		14.0		1090		0.13	4.43		227		0.65	3.14	40	123	79		10.6	2.0
Mean LSD (0.01)		18.5		1439		0.17	5.86		300		0.86	4.15	53	162	105		14.0	2.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Ada MN

10/22/2014 09:22

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148303

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 20.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Ada MN - All Characters

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/A %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	338.5	106	11729	102	0.98	61.88	110	2144	107	17.87	34.78	134	1461	319	95	78.5	5.9
BTS 8354	241	318.6	100	10585	92	1.15	55.55	99	1835	91	17.09	33.37	145	1588	426	0	81.2	5.9
BTS 8363	233	314.5	98	12200	106	0.97	54.24	97	2116	105	16.67	38.43	129	1479	307	194	72.3	5.1
BTS 8390	208	308.5	96	12732	111	1.00	52.35	93	2153	107	16.40	41.56	170	1592	293	0	76.0	6.3
BTS 83CN	223	315.6	99	11391	99	0.97	54.57	97	1967	98	16.72	36.28	157	1426	317	0	74.5	5.4
BTS 8402	215	318.0	99	11600	101	0.97	55.33	99	2015	100	16.89	36.40	185	1448	313	0	86.1	3.3
BTS 8404	244	328.4	103	11051	96	0.99	58.65	105	1962	98	17.40	34.16	111	1433	352	0	75.7	4.0
BTS 8405	219	338.9	106	12418	108	0.95	61.99	111	2258	112	17.89	37.17	107	1422	332	0	68.6	5.4
BTS 8406	236	316.6	99	10998	95	1.10	54.88	98	1913	95	16.92	34.60	147	1550	388	0	64.9	3.5
BTS 8408	217	325.8	102	11285	98	1.20	57.83	103	2000	99	17.48	34.78	146	1617	461	0	70.8	6.7
BTS 840N	206	309.8	97	10877	94	1.13	52.76	94	1846	92	16.63	35.10	126	1632	397	0	88.6	4.5
Crystal 355RR	234	322.7	101	11320	98	1.13	56.85	101	1985	99	17.24	35.40	141	1572	404	0	75.3	4.4
Crystal 359RR	242	310.6	97	12230	106	1.11	53.01	95	2089	104	16.61	39.22	149	1636	368	0	68.3	5.5
Crystal 464RR	201	323.4	101	12079	105	1.13	57.08	102	2128	106	17.30	37.32	148	1649	380	0	84.2	5.1
Crystal 465RR	220	326.5	102	11254	98	0.99	58.05	104	1991	99	17.32	34.78	165	1508	312	0	86.1	5.2
Crystal 466RR	230	320.4	100	12374	107	1.02	56.12	100	2153	107	17.05	38.91	136	1507	346	383	68.6	4.6
Crystal 467RR	221	319.2	100	11646	101	0.97	55.72	99	2032	101	16.93	36.58	162	1512	305	0	76.0	6.0
Crystal 468RR	202	315.3	98	11943	104	1.00	54.49	97	2067	103	16.75	37.88	164	1490	322	0	79.5	5.3
Crystal 469RR	249	314.5	98	12186	106	1.17	54.25	97	2105	105	16.89	38.62	150	1616	424	0	76.2	4.6
Hilleshög 9517RR	247	325.3	102	10346	90	1.12	57.67	103	1831	91	17.38	31.84	171	1642	366	0	67.8	5.2
Hilleshög 9528RR	237	329.2	103	12183	106	0.90	58.89	105	2172	108	17.34	37.28	119	1376	292	0	77.7	4.8
Hilleshög 9601RR	203	304.3	95	10269	89	1.16	51.03	91	1714	85	16.39	33.75	237	1641	379	0	57.9	3.4
Hilleshög 9602RR	205	315.4	99	12255	106	0.89	54.51	97	2115	105	16.63	39.12	141	1464	253	0	86.6	4.9
Hilleshög 9604RR	211	315.4	99	12532	109	0.94	54.53	97	2154	107	16.71	40.14	140	1569	274	0	86.6	3.9
Hilleshög 9610RR	245	313.6	98	10702	93	0.97	53.95	96	1846	92	16.62	34.16	176	1513	289	0	61.4	3.3
Hilleshög 9613RR	224	292.2	91	11504	100	1.25	47.18	84	1860	92	15.87	39.27	199	1663	457	0	83.9	5.0
Hilleshög 9615RR	231	322.8	101	11267	98	1.17	56.87	101	1990	99	17.30	34.68	183	1592	413	0	80.0	6.4
Hilleshög 9620RR	210	309.3	97	11494	100	1.15	52.60	94	1947	97	16.61	37.58	183	1616	394	0	80.9	6.6
Maribo 109RR	225	337.5	105	10744	93	0.99	61.53	110	1948	97	17.86	32.08	120	1491	336	0	62.4	3.6
Maribo 301	209	336.1	105	11334	98	1.03	61.09	109	2052	102	17.83	33.84	132	1613	332	0	73.3	6.7
Maribo 305	232	315.5	99	12105	105	0.87	54.55	97	2088	104	16.63	38.58	147	1318	261	0	82.9	3.4
Maribo 402	213	319.7	100	11399	99	0.94	55.89	100	1990	99	16.91	35.57	130	1482	289	0	85.2	5.9
Maribo 403	228	322.0	101	13396	116	0.86	56.62	101	2352	117	16.97	41.50	120	1439	240	0	75.0	3.2
Maribo MA102RR	216	325.9	102	12236	106	0.95	57.85	103	2159	107	17.23	38.15	128	1385	328	0	71.5	3.9
Seedex RR0832	227	325.7	102	11577	100	0.92	57.79	103	2046	102	17.20	35.74	131	1485	280	0	73.3	7.8
Seedex RR842	235	331.8	104	12354	107	0.89	59.73	107	2219	110	17.48	37.03	114	1467	267	0	66.3	4.0
Seedex RR844TT	218	323.3	101	12316	107	0.92	57.04	102	2168	108	17.08	38.32	110	1525	273	0	68.3	3.8
Seedex RR846	243	306.0	96	11106	96	1.13	51.54	92	1860	92	16.43	36.57	182	1612	378	0	60.6	3.0
Seedex RR848	246	323.6	101	11449	99	0.87	57.14	102	2006	100	17.04	35.84	120	1387	269	0	65.6	3.6
SV RR241	214	312.4	98	10593	92	0.90	53.58	96	1817	90	16.52	33.92	131	1448	274	0	66.8	4.8
SV RR242TT	229	312.7	98	12493	108	0.91	53.69	96	2142	107	16.55	39.99	121	1477	280	0	73.8	3.0
SV RR243	207	332.8	104	11041	96	0.88	60.05	107	1990	99	17.49	33.29	120	1472	243	0	63.6	3.5
SV RR244TT	240	299.0	93	12355	107	1.01	49.29	88	2024	101	15.95	41.77	127	1538	328	0	62.4	2.8
SV RR245N	238	320.7	100	11014	96	1.01	56.22	100	1930	96	17.05	34.32	142	1438	353	0	69.1	6.0
SV RR246	248	337.6	105	11243	98	0.92	61.56	110	2051	102	17.78	33.21	114	1522	269	0	73.0	5.6
SV RR247	239	339.4	106	10381	90	0.94	62.17	111	1907	95	17.88	30.50	122	1430	300	0	56.4	4.9
SV RR248	204	314.5	98	10622	92	0.95	54.25	97	1827	91	16.66	33.90	115	1617	272	0	58.2	5.6
SV RR333	212	317.4	99	11682	101	0.98	55.14	98	2025	101	16.83	36.80	140	1559	293	0	63.6	4.5
SV RR336	226	323.9	101	11479	100	0.89	57.23	102	2023	101	17.07	35.66	114	1342	298	0	72.8	4.0
Root Aphid Susc Chk	250	333.6	104	10385	90	0.88	60.29	108	1870	93	17.55	31.16	114	1435	255	0	56.4	5.9
Hilleshög 4012RR(Check)	251	313.8	98	10749	93	1.05	54.02	96	1849	92	16.73	34.23	177	1474	360	0	73.0	6.7
Crystal 875RR(Check)	252	317.8	99	11033	96	1.14	55.29	99	1924	96	17.02	34.62	175	1602	394	0	80.2	6.7
BTS 80RR52(Check)	253	326.5	102	11780	102	0.96	58.04	104	2086	104	17.28	36.41	101	1514	314	0	77.0	5.7
BTS 81RR17(Check)	254	307.8	96	10845	94	1.22	52.12	93	1837	91	16.63	35.00	152	1604	456	0	85.2	6.5
Trial Mean		320.2		11521		1.01	56.05		2011		17.01	36.13	143	1516	330		73.2	4.9
Coeff. of Var. (%)		2.8		6.3		7.7	5.0		7.3		2.5	6.1	18.4	5.4	14.5		10.4	27.0
Mean LSD (0.05)		14.0		1090		0.13	4.43		227		0.65	3.14	40	123	79		10.6	2.0
Mean LSD (0.01)		18.5		1439		0.17	5.86		300		0.86	4.15	53	162	105		14.0	2.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Ada MN

10/22/2014 09:22

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148303

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.



Table 21.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Crookston MN - All Characters

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Tare	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	/Ac ^	%^	%
BTS 8337	222	330.6	104	8965	95	1.10	59.26	107	1604	98	17.64	27.08	236	1424	390	0	81.0	4.0
BTS 8354	241	317.0	100	8940	95	1.22	55.07	100	1550	94	17.08	28.42	277	1562	428	0	71.7	4.6
BTS 8363	233	319.5	101	10424	110	1.09	55.85	101	1818	111	17.08	32.56	213	1458	377	95	78.8	3.0
BTS 8390	208	293.0	92	9707	103	1.24	47.60	86	1579	96	15.88	33.12	365	1611	384	0	80.0	4.6
BTS 83CN	223	322.0	101	9424	100	0.99	56.58	103	1648	100	17.11	29.45	201	1437	311	0	82.5	3.0
BTS 8402	215	318.5	100	9364	99	1.19	55.51	101	1626	99	17.12	29.52	270	1472	431	0	85.2	3.3
BTS 8404	244	325.4	103	9691	102	1.12	57.64	105	1718	105	17.40	29.76	189	1459	419	0	77.5	4.0
BTS 8405	219	335.9	106	9726	103	1.06	60.94	111	1763	107	17.87	28.92	170	1427	386	0	83.5	3.9
BTS 8406	236	332.0	105	9691	102	1.07	59.74	108	1740	106	17.69	29.21	203	1485	363	0	73.7	3.0
BTS 8408	217	325.2	102	9310	98	1.36	57.58	104	1645	100	17.60	28.61	261	1671	510	0	74.0	6.0
BTS 840N	206	315.8	100	7852	83	1.26	54.67	99	1360	83	17.05	24.85	245	1608	462	0	81.2	4.0
Crystal 355RR	234	324.2	102	9334	99	1.23	57.28	104	1649	101	17.43	28.77	232	1543	457	0	80.6	4.6
Crystal 359RR	242	311.5	98	10280	109	1.25	53.33	97	1767	108	16.82	32.75	285	1533	454	0	77.3	3.4
Crystal 464RR	201	322.7	102	9272	98	1.21	56.83	103	1635	100	17.35	28.63	245	1571	425	0	82.8	5.6
Crystal 465RR	220	313.7	99	9302	98	1.29	54.03	98	1600	98	16.97	29.72	342	1557	453	0	84.8	3.7
Crystal 466RR	230	320.0	101	9806	104	1.19	56.00	102	1714	105	17.19	30.72	245	1527	422	765	72.6	3.5
Crystal 467RR	221	310.1	98	10274	109	1.21	52.91	96	1751	107	16.71	33.03	307	1594	389	0	75.8	3.6
Crystal 468RR	202	309.4	97	9655	102	1.07	52.68	96	1650	101	16.54	31.06	249	1415	358	0	80.6	3.9
Crystal 469RR	249	320.2	101	10076	107	1.26	56.06	102	1757	107	17.26	31.71	234	1679	447	0	72.0	3.5
Hilleshög 9517RR	247	323.8	102	8481	90	1.26	57.17	104	1500	91	17.45	26.11	315	1613	422	0	70.7	4.7
Hilleshög 9528RR	237	331.6	105	9900	105	1.05	59.61	108	1774	108	17.63	30.07	191	1407	367	0	75.4	3.9
Hilleshög 9601RR	203	306.5	97	8532	90	1.27	51.78	94	1438	88	16.59	27.73	418	1493	419	0	60.2	3.4
Hilleshög 9602RR	205	312.0	98	9799	104	1.07	53.50	97	1670	102	16.68	31.74	249	1491	342	0	81.3	5.8
Hilleshög 9604RR	211	297.5	94	9066	96	1.26	49.00	89	1490	91	16.12	30.45	277	1551	458	0	74.6	3.4
Hilleshög 9610RR	245	304.0	96	8503	90	1.18	51.01	93	1415	86	16.37	28.17	348	1438	388	0	69.4	5.3
Hilleshög 9613RR	224	291.6	92	8886	94	1.45	47.16	86	1437	88	16.01	30.54	345	1730	536	0	75.5	3.8
Hilleshög 9615RR	231	304.9	96	9360	99	1.40	51.30	93	1580	96	16.62	30.72	370	1570	522	0	70.4	5.4
Hilleshög 9620RR	210	313.9	99	9300	98	1.21	54.08	98	1594	97	16.91	29.88	276	1543	426	0	79.7	4.0
Maribo 109RR	225	343.3	108	8984	95	1.05	63.20	115	1643	100	18.22	26.40	181	1418	372	0	76.5	3.1
Maribo 301	209	324.7	102	9621	102	1.21	57.44	104	1699	104	17.44	29.83	279	1543	422	0	77.4	3.8
Maribo 305	232	314.8	99	10114	107	1.09	54.36	99	1749	107	16.83	31.96	204	1346	410	0	84.1	3.2
Maribo 402	213	311.8	98	9711	103	1.18	53.43	97	1659	101	16.77	31.26	265	1496	416	0	86.6	4.1
Maribo 403	228	324.0	102	10442	110	1.02	57.22	104	1831	112	17.24	32.57	218	1336	356	0	79.0	3.3
Maribo MA102RR	216	328.9	104	10652	113	1.00	58.76	107	1892	115	17.47	32.77	177	1367	347	0	78.4	3.4
Seedex RR0832	227	316.6	100	9157	97	1.09	54.92	100	1594	97	16.92	28.83	245	1517	344	0	81.7	3.1
Seedex RR842	235	315.7	99	9784	103	1.11	54.65	99	1692	103	16.90	30.91	277	1455	364	0	72.9	3.9
Seedex RR844TT	218	326.6	103	10116	107	1.07	58.04	105	1795	109	17.41	30.98	195	1452	372	0	66.1	3.9
Seedex RR846	243	314.4	99	10197	108	1.17	54.25	98	1759	107	16.88	32.45	243	1481	422	0	77.0	4.1
Seedex RR848	246	299.7	94	9545	101	1.20	49.68	90	1579	96	16.18	31.95	319	1445	420	0	69.8	2.8
SV RR241	214	313.6	99	8941	95	1.09	54.00	98	1536	94	16.78	28.56	225	1384	397	95	76.6	3.8
SV RR242TT	229	305.8	96	10414	110	1.13	51.57	94	1760	107	16.43	33.81	211	1536	394	0	71.6	3.5
SV RR243	207	314.8	99	9159	97	1.12	54.36	99	1579	96	16.87	29.18	239	1507	386	0	75.5	4.7
SV RR244TT	240	307.3	97	10543	111	1.00	52.04	94	1779	108	16.38	34.44	217	1350	335	0	67.4	3.1
SV RR245N	238	320.0	101	8570	91	1.08	56.00	102	1499	91	17.08	26.78	201	1420	382	0	74.0	5.9
SV RR246	248	329.9	104	8764	93	1.05	59.07	107	1568	96	17.56	26.46	190	1444	355	0	79.2	5.7
SV RR247	239	327.4	103	9032	95	1.11	58.28	106	1609	98	17.49	27.45	233	1477	380	0	69.8	4.2
SV RR248	204	325.3	103	9673	102	1.10	57.60	104	1712	104	17.37	29.77	189	1558	367	0	70.2	3.3
SV RR333	212	312.0	98	8957	95	1.15	53.51	97	1539	94	16.75	28.71	218	1504	408	0	73.4	4.0
SV RR336	226	314.6	99	9588	101	1.10	54.31	98	1650	101	16.84	30.66	226	1374	409	0	70.1	4.7
Root Aphid Susc Chk	250	323.6	102	8238	87	1.15	57.11	104	1452	89	17.33	25.38	215	1558	393	0	66.3	5.4
Hilleshög 4012RR(Check)	251	310.2	98	9280	98	1.22	52.95	96	1584	97	16.73	29.74	296	1557	416	0	71.8	2.9
Crystal 875RR(Check)	252	325.4	103	9582	101	1.25	57.68	105	1702	104	17.52	29.45	258	1606	449	0	75.3	5.0
BTS 80RR52(Check)	253	317.2	100	9732	103	1.17	55.11	100	1689	103	17.03	30.54	230	1521	413	0	86.3	4.0
BTS 81RR17(Check)	254	313.6	99	9151	97	1.30	54.02	98	1575	96	16.98	29.19	244	1708	463	0	84.3	3.7
Trial Mean		317.3		9460		1.17	55.14		1640		17.03	29.88	251	1505	406		76.2	4.0
Coeff. of Var. (%)		2.8		5.5		9.1	5.0		6.8		2.2	4.9	20.4	5.3	15.7		9.0	29.7
Mean LSD (0.05)		14.2		770		0.18	4.41		170		0.60	2.15	83	127	104		10.4	1.7
Mean LSD (0.01)		18.7		1018		0.23	5.82		225		0.80	2.85	110	168	137		13.8	2.2
Sig Lvl		**		**		**	**		**		**	**	**	*		**	**	**

\* 2014 Data from Crookston MN

10/22/2014 08:26

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148305

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 22.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Grand Forks ND - All Characters

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Tare	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	/Ac ^	%^	%
BTS 8337	222	325.5	104	5784	88	0.95	57.66	107	1029	91	17.22	17.71	283	1435	245	0	77.2	5.4
BTS 8354	241	314.5	100	6298	96	1.09	54.21	100	1086	96	16.81	20.01	286	1652	292	0	79.0	4.5
BTS 8363	233	304.3	97	6615	101	1.01	50.98	94	1114	98	16.21	21.60	279	1570	258	95	84.4	3.4
BTS 8390	208	305.6	97	7458	114	1.03	51.36	95	1254	111	16.31	24.43	349	1576	254	0	81.7	3.5
BTS 83CN	223	308.3	98	7046	107	0.99	52.24	97	1196	106	16.40	22.81	296	1495	255	0	76.2	3.1
BTS 8402	215	312.5	100	6765	103	1.08	53.54	99	1164	103	16.70	21.55	322	1561	303	0	86.9	2.5
BTS 8404	244	322.2	103	7066	108	0.98	56.64	105	1248	110	17.09	21.82	229	1480	271	0	80.7	3.5
BTS 8405	219	327.7	104	7437	113	0.90	58.35	108	1328	117	17.27	22.63	182	1397	248	0	77.5	3.7
BTS 8406	236	326.7	104	6450	98	1.00	58.03	107	1144	101	17.33	19.80	267	1448	289	0	76.2	2.8
BTS 8408	217	314.6	100	6891	105	1.15	54.24	100	1188	105	16.88	21.91	330	1651	327	0	80.5	5.8
BTS 840N	206	296.4	94	5736	87	1.06	48.48	90	939	83	15.89	19.35	321	1655	270	0	84.2	4.0
Crystal 355RR	234	317.3	101	6414	98	1.05	55.07	102	1118	99	16.91	20.11	322	1587	273	0	79.2	3.9
Crystal 359RR	242	312.3	99	6834	104	1.00	53.49	99	1173	104	16.60	21.83	287	1518	263	0	86.1	5.4
Crystal 464RR	201	314.2	100	6669	102	1.04	54.09	100	1153	102	16.74	21.13	308	1544	283	0	84.9	3.5
Crystal 465RR	220	325.2	104	7720	118	0.98	57.56	107	1365	121	17.25	23.75	250	1469	278	0	88.4	2.6
Crystal 466RR	230	314.8	100	7199	110	1.00	54.30	101	1244	110	16.73	22.80	293	1478	272	383	73.0	3.1
Crystal 467RR	221	312.8	100	8181	125	1.01	53.63	99	1405	124	16.64	26.10	333	1540	249	0	83.7	4.6
Crystal 468RR	202	302.2	96	6617	101	0.98	50.31	93	1110	98	16.08	21.71	316	1453	254	0	91.6	3.7
Crystal 469RR	249	311.0	99	6755	103	1.11	53.10	98	1156	102	16.66	21.66	372	1567	308	0	82.7	4.8
Hilleshög 9517RR	247	317.5	101	5416	83	1.10	55.14	102	942	83	16.97	17.02	372	1569	295	0	70.6	4.6
Hilleshög 9528RR	237	323.2	103	6959	106	0.87	56.94	105	1232	109	17.02	21.39	243	1364	221	0	89.9	3.9
Hilleshög 9601RR	203	297.8	95	5040	77	1.12	48.92	91	835	74	16.01	16.77	429	1588	297	0	73.3	3.0
Hilleshög 9602RR	205	311.8	99	6949	106	0.93	53.34	99	1192	105	16.51	22.18	271	1469	227	0	91.6	3.4
Hilleshög 9604RR	211	303.2	97	6805	104	1.04	50.61	94	1139	101	16.20	22.40	326	1474	296	0	90.4	5.1
Hilleshög 9610RR	245	316.1	101	5289	81	0.86	54.69	101	917	81	16.65	16.70	264	1392	203	0	76.7	4.2
Hilleshög 9613RR	224	298.2	95	4978	76	1.05	49.05	91	817	72	15.96	16.75	332	1577	275	0	89.1	2.8
Hilleshög 9615RR	231	312.9	100	5618	86	1.02	53.67	99	968	86	16.65	17.85	338	1458	279	0	89.6	7.5
Hilleshög 9620RR	210	308.8	98	6145	94	1.09	52.39	97	1043	92	16.53	19.92	382	1610	278	0	88.9	3.7
Maribo 109RR	225	330.5	105	5655	86	0.92	59.25	110	1020	90	17.43	16.97	256	1421	237	0	79.7	3.6
Maribo 301	209	313.7	100	5374	82	1.06	53.97	100	927	82	16.74	17.05	334	1522	294	0	88.9	5.1
Maribo 305	232	313.3	100	6568	100	0.84	53.84	100	1130	100	16.51	20.92	245	1284	221	0	89.6	2.7
Maribo 402	213	314.7	100	6197	94	0.90	54.27	101	1074	95	16.63	19.51	250	1360	243	0	88.4	5.2
Maribo 403	228	310.4	99	7557	115	0.94	52.89	98	1293	114	16.46	24.24	258	1384	263	0	78.5	3.0
Maribo MA102RR	216	324.4	103	7435	113	0.88	57.30	106	1315	116	17.09	22.88	227	1364	231	0	83.4	2.2
Seedex RR0832	227	320.6	102	7181	109	0.97	56.11	104	1259	111	16.99	22.34	248	1516	250	0	82.9	5.2
Seedex RR842	235	315.2	100	6957	106	0.92	54.43	101	1208	107	16.68	21.87	253	1439	236	0	85.4	3.7
Seedex RR844TT	218	314.6	100	7049	107	0.88	54.25	100	1220	108	16.60	22.27	196	1461	216	0	81.2	3.2
Seedex RR846	243	313.7	100	7338	112	0.90	53.95	100	1264	112	16.58	23.33	252	1383	235	0	75.0	4.3
Seedex RR848	246	310.4	99	6938	106	0.92	52.90	98	1185	105	16.43	22.29	296	1427	221	0	78.2	3.8
SV RR241	214	314.0	100	6681	102	0.88	54.03	100	1152	102	16.58	21.20	222	1345	241	0	77.2	3.6
SV RR242TT	229	310.7	99	7227	110	0.89	53.00	98	1235	109	16.43	23.21	238	1390	239	0	82.9	2.7
SV RR243	207	323.8	103	6977	106	0.89	57.11	106	1238	109	17.07	21.42	233	1475	215	0	68.3	4.1
SV RR244TT	240	295.4	94	7271	111	0.87	48.18	89	1191	105	15.64	24.46	260	1329	227	0	83.7	2.7
SV RR245N	238	310.0	99	5955	91	0.99	52.76	98	1014	90	16.49	19.20	263	1465	276	0	80.7	5.7
SV RR246	248	328.4	105	5160	79	0.97	58.57	109	925	82	17.38	15.63	232	1542	251	0	75.3	5.0
SV RR247	239	329.3	105	5488	84	1.02	58.86	109	982	87	17.48	16.62	251	1582	271	0	77.0	4.0
SV RR248	204	310.6	99	5665	86	1.00	52.97	98	971	86	16.53	18.10	263	1505	272	0	77.7	4.5
SV RR333	212	316.1	101	6190	94	0.91	54.69	101	1076	95	16.70	19.42	252	1406	236	0	80.2	5.0
SV RR336	226	313.4	100	6776	103	0.91	53.85	100	1166	103	16.58	21.57	240	1402	241	0	86.1	3.4
Root Aphid Susc Chk	250	319.6	102	6527	99	0.97	55.79	103	1144	101	16.94	20.32	213	1541	255	0	75.5	5.5
Hilleshög 4012RR(Check)	251	314.7	100	5956	91	0.97	54.27	101	1022	90	16.70	19.03	308	1462	240	0	84.7	5.5
Crystal 875RR(Check)	252	309.2	99	6756	103	1.15	52.53	97	1147	101	16.61	21.88	338	1584	349	0	89.4	5.4
BTS 80RR52(Check)	253	306.1	98	7318	112	1.06	51.58	96	1234	109	16.37	23.86	290	1547	299	0	80.2	3.7
BTS 81RR17(Check)	254	306.4	98	7011	107	1.09	51.65	96	1185	105	16.42	22.84	314	1633	302	0	88.9	4.8
Trial Mean		313.8		6561		0.99	53.99		1131		16.67	20.85	284	1488	262		82.1	4.1
Coeff. of Var. (%)		2.6		7.2		6.1	4.8		8.2		2.3	6.6	14.7	5.2	10.2		9.1	32.6
Mean LSD (0.05)		13.2		777		0.10	4.17		153		0.62	2.27	65	117	44		10.5	1.9
Mean LSD (0.01)		17.5		1027		0.13	5.51		203		0.83	3.00	85	154	58		13.8	2.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Grand Forks ND

10/22/2014 09:54

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148307

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 23.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
Alvarado MN - All Characters

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/A %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	356.0	105	8885	95	0.93	67.45	108	1683	98	18.74	25.00	161	1365	288	0	71.8	4.6
BTS 8354	241	340.8	100	8578	92	1.06	62.64	100	1577	92	18.10	25.14	180	1456	368	0	71.2	2.8
BTS 8363	233	338.1	99	10198	109	0.91	61.74	99	1862	109	17.82	30.29	179	1255	299	95	75.9	4.3
BTS 8390	208	333.5	98	9875	106	0.95	60.32	97	1786	104	17.65	29.53	220	1388	287	0	73.6	4.2
BTS 83CN	223	338.4	99	8824	94	0.86	61.84	99	1613	94	17.77	26.10	177	1270	254	0	71.5	2.3
BTS 8402	215	331.8	97	8744	94	1.00	59.79	96	1575	92	17.60	26.20	195	1372	344	0	79.1	3.3
BTS 8404	244	335.5	99	8834	95	0.98	60.95	98	1605	94	17.77	26.27	177	1310	350	0	68.6	2.3
BTS 8405	219	352.8	104	9278	99	0.87	66.44	106	1746	102	18.54	26.26	126	1228	300	0	71.2	2.4
BTS 8406	236	346.7	102	9418	101	0.94	64.47	103	1751	102	18.29	27.18	191	1271	325	0	70.5	3.2
BTS 8408	217	343.1	101	9167	98	1.06	63.35	101	1692	99	18.22	26.77	214	1459	356	0	77.6	4.1
BTS 840N	206	334.9	98	8202	88	1.08	60.74	97	1488	87	17.85	24.51	183	1484	376	0	74.5	3.3
Crystal 355RR	234	345.7	102	8701	93	1.02	64.17	103	1615	94	18.31	25.16	177	1452	340	0	73.3	4.6
Crystal 359RR	242	332.7	98	9896	106	1.00	60.05	96	1786	104	17.65	29.75	254	1428	309	0	69.5	3.6
Crystal 464RR	201	344.2	101	8638	92	1.00	63.69	102	1598	93	18.22	25.20	194	1362	343	0	80.6	6.3
Crystal 465RR	220	334.3	98	9510	102	1.01	60.56	97	1723	100	17.75	28.35	232	1358	345	0	79.4	3.3
Crystal 466RR	230	336.7	99	10093	108	1.00	61.32	98	1838	107	17.87	29.83	222	1374	340	869	64.3	3.0
Crystal 467RR	221	330.7	97	9687	104	0.99	59.43	95	1740	101	17.55	29.23	250	1417	302	0	71.6	3.9
Crystal 468RR	202	323.8	95	9432	101	0.92	57.21	92	1667	97	17.12	29.07	241	1281	287	0	78.8	2.6
Crystal 469RR	249	337.7	99	9741	104	1.06	61.61	99	1778	104	17.95	28.88	236	1512	331	0	72.2	2.8
Hilleshög 9517RR	247	351.9	103	8412	90	0.95	66.14	106	1582	92	18.56	23.83	235	1365	292	0	72.7	3.6
Hilleshög 9528RR	237	350.4	103	10318	110	0.89	65.66	105	1934	113	18.41	29.45	176	1301	270	0	72.2	3.0
Hilleshög 9601RR	203	329.3	97	8556	92	0.95	58.99	94	1533	89	17.42	26.02	279	1253	301	0	71.5	2.4
Hilleshög 9602RR	205	344.6	101	10189	109	0.88	63.82	102	1887	110	18.12	29.54	181	1292	264	0	72.8	2.4
Hilleshög 9604RR	211	333.5	98	10360	111	0.97	60.29	96	1873	109	17.65	30.98	210	1369	312	0	75.4	3.4
Hilleshög 9610RR	245	341.7	100	8966	96	0.89	62.91	101	1650	96	18.00	26.23	209	1287	269	0	64.9	2.3
Hilleshög 9613RR	224	337.3	99	9684	104	0.92	61.49	98	1766	103	17.77	28.68	202	1335	277	0	77.5	1.4
Hilleshög 9615RR	231	332.3	98	8554	92	1.05	59.93	96	1543	90	17.67	25.83	252	1322	378	0	74.3	6.6
Hilleshög 9620RR	210	339.1	100	9413	101	0.95	62.05	99	1723	100	17.92	27.80	238	1339	296	0	73.7	2.9
Maribo 109RR	225	350.5	103	8782	94	0.96	65.69	105	1646	96	18.49	25.08	196	1205	356	0	65.6	2.6
Maribo 301	209	353.5	104	8800	94	0.92	66.65	107	1659	97	18.61	24.93	200	1349	275	0	76.2	4.1
Maribo 305	232	341.0	100	9959	107	0.81	62.70	100	1831	107	17.87	29.24	169	1112	268	0	80.0	2.4
Maribo 402	213	347.9	102	9796	105	0.83	64.86	104	1827	106	18.22	28.21	151	1250	245	0	77.2	2.8
Maribo 403	228	336.5	99	10961	117	0.83	61.23	98	1996	116	17.67	32.55	195	1142	268	0	80.0	2.7
Maribo MA102RR	216	349.3	103	10429	112	0.85	65.29	104	1950	114	18.31	29.80	172	1156	284	0	67.9	2.6
Seedex RR0832	227	345.5	101	9309	100	0.90	64.10	103	1728	101	18.20	26.94	186	1359	265	0	72.0	3.1
Seedex RR842	235	341.9	100	9497	102	0.83	62.96	101	1749	102	17.95	27.75	165	1245	256	0	73.5	3.7
Seedex RR844TT	218	339.4	100	9698	104	0.91	62.17	99	1776	104	17.90	28.55	174	1240	312	0	75.3	4.1
Seedex RR846	243	339.2	100	10072	108	0.90	62.09	99	1844	107	17.87	29.69	175	1296	290	0	75.5	2.5
Seedex RR848	246	331.1	97	9937	106	0.92	59.54	95	1787	104	17.50	30.02	220	1215	313	0	68.0	2.4
SV RR241	214	337.0	99	9553	102	0.90	61.41	98	1741	101	17.77	28.29	147	1267	304	0	80.7	4.4
SV RR242TT	229	336.7	99	10535	113	0.89	61.30	98	1918	112	17.75	31.24	189	1288	275	0	73.2	3.9
SV RR243	207	337.2	99	9189	98	0.92	61.46	98	1675	98	17.80	27.23	212	1348	281	0	60.7	2.8
SV RR244TT	240	331.8	97	10469	112	0.86	59.76	96	1885	110	17.47	31.46	153	1229	277	0	74.5	2.6
SV RR245N	238	340.5	100	8474	91	0.92	62.52	100	1556	91	17.97	24.90	173	1246	317	0	70.2	3.9
SV RR246	248	353.9	104	8566	92	0.89	66.77	107	1617	94	18.61	24.05	156	1315	278	0	63.1	5.2
SV RR247	239	354.9	104	7655	82	0.93	67.09	107	1448	84	18.69	21.65	167	1380	295	0	77.4	4.2
SV RR248	204	340.3	100	9293	99	0.94	62.46	100	1706	99	17.97	27.21	174	1346	307	95	66.2	4.1
SV RR333	212	343.3	101	9523	102	0.90	63.42	101	1759	103	18.07	27.75	161	1266	300	0	73.9	4.4
SV RR336	226	339.4	100	9288	99	0.89	62.18	99	1702	99	17.87	27.31	156	1212	310	0	72.9	3.9
Root Aphid Susc Chk	250	342.5	101	8941	96	0.91	63.16	101	1649	96	18.05	26.14	171	1315	292	0	63.1	3.8
Hilleshög 4012RR(Check)	251	342.2	101	9039	97	0.96	63.06	101	1666	97	18.07	26.47	224	1338	301	0	75.8	2.4
Crystal 875RR(Check)	252	337.2	99	8959	96	1.05	61.46	98	1634	95	17.92	26.55	246	1455	337	0	79.6	4.1
BTS 80RR52(Check)	253	341.1	100	8981	96	1.01	62.72	100	1651	96	18.07	26.41	190	1344	359	0	74.5	4.4
BTS 81RR17(Check)	254	333.6	98	8882	95	1.10	60.33	97	1607	94	17.80	26.57	213	1504	379	0	82.2	5.8
Trial Mean		340.4		9347		0.94	62.50		1716		17.98	27.46	195	1321	306		73.1	3.5
Coeff. of Var. (%)		2.2		5.0		6.8	3.7		5.6		1.9	4.7	14.9	5.2	13.9		7.2	34.9
Mean LSD (0.05)		10.3		656		0.09	3.25		135		0.47	1.88	41	108	63		8.5	1.8
Mean LSD (0.01)		13.5		866		0.12	4.29		178		0.63	2.48	55	143	83		11.2	2.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Alvarado MN

10/22/2014 10:00

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148308

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 24.  
2014 Performance of Varieties - ACSC Experimental RR Official Trial  
St Thomas ND - All Characters

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	308.9	104	6181	102	0.89	52.34	107	1046	105	16.33	20.02	309	1178	257	0	72.0	7.4
BTS 8354	241	302.6	102	5583	92	1.00	50.40	103	930	93	16.14	18.45	311	1278	319	0	74.8	8.6
BTS 8363	233	290.6	98	6054	100	0.91	46.70	96	972	98	15.43	20.85	311	1198	269	95	75.5	7.1
BTS 8390	208	289.5	97	6597	109	0.93	46.36	95	1056	106	15.40	22.79	355	1273	250	0	70.7	7.5
BTS 83CN	223	293.8	99	6366	105	0.88	47.66	98	1034	104	15.58	21.64	325	1219	239	0	72.6	4.8
BTS 8402	215	296.8	100	5755	95	0.94	48.58	99	942	95	15.76	19.41	344	1177	283	0	75.7	6.5
BTS 8404	244	290.2	98	6176	102	0.95	46.58	95	991	99	15.46	21.29	324	1158	304	0	70.4	5.9
BTS 8405	219	308.6	104	6279	103	0.91	52.25	107	1060	106	16.34	20.42	247	1223	285	0	66.9	6.9
BTS 8406	236	304.6	102	6599	109	0.94	50.98	104	1104	111	16.17	21.68	290	1293	274	0	71.8	4.4
BTS 8408	217	304.3	102	6425	106	1.06	50.90	104	1074	108	16.26	21.14	353	1366	325	0	60.2	8.5
BTS 840N	206	303.2	102	5594	92	1.00	50.58	104	933	94	16.17	18.45	270	1394	300	0	75.9	7.4
Crystal 355RR	234	299.5	101	6063	100	1.01	49.45	101	1001	101	15.98	20.25	342	1350	291	0	68.7	7.4
Crystal 359RR	242	291.6	98	6699	110	1.01	46.99	96	1078	108	15.58	22.99	433	1183	308	0	71.2	5.8
Crystal 464RR	201	307.4	103	6189	102	0.95	51.85	106	1044	105	16.32	20.14	340	1245	280	0	77.5	6.5
Crystal 465RR	220	303.7	102	6264	103	0.99	50.73	104	1046	105	16.18	20.64	376	1230	298	0	78.7	7.0
Crystal 466RR	230	304.9	102	6407	105	0.90	51.12	105	1074	108	16.16	21.00	301	1161	273	1058	67.9	6.7
Crystal 467RR	221	290.7	98	6789	112	0.96	46.71	96	1088	109	15.50	23.44	460	1252	246	0	72.4	5.6
Crystal 468RR	202	287.2	97	6209	102	0.93	45.64	93	986	99	15.29	21.63	372	1142	281	0	80.1	6.1
Crystal 469RR	249	299.8	101	6696	110	1.03	49.55	101	1107	111	16.01	22.32	387	1326	301	0	66.7	4.8
Hilleshög 9517RR	247	303.9	102	5419	89	1.05	50.77	104	904	91	16.23	17.88	405	1379	300	0	71.1	7.4
Hilleshög 9528RR	237	311.6	105	5977	98	0.90	53.15	109	1021	103	16.46	19.16	307	1203	260	0	76.9	5.8
Hilleshög 9601RR	203	284.1	95	5764	95	1.07	44.71	92	907	91	15.29	20.28	513	1238	314	0	59.2	6.2
Hilleshög 9602RR	205	292.6	98	6546	108	0.90	47.30	97	1060	106	15.53	22.33	352	1183	248	0	77.0	5.9
Hilleshög 9604RR	211	293.4	99	6064	100	1.00	47.54	97	981	99	15.66	20.71	375	1296	286	0	81.5	5.1
Hilleshög 9610RR	245	289.3	97	5670	93	0.94	46.29	95	906	91	15.39	19.62	390	1176	269	0	74.2	7.0
Hilleshög 9613RR	224	284.8	96	5497	90	1.03	44.90	92	868	87	15.27	19.29	413	1290	300	0	73.1	6.1
Hilleshög 9615RR	231	301.3	101	5834	96	1.01	49.99	102	967	97	16.08	19.39	381	1265	305	0	77.0	9.2
Hilleshög 9620RR	210	293.8	99	5565	92	1.02	47.66	98	905	91	15.69	18.91	370	1305	304	0	78.5	7.2
Maribo 109RR	225	319.5	107	5172	85	0.86	55.59	114	901	91	16.83	16.16	263	1126	265	0	78.8	5.9
Maribo 301	209	299.8	101	4998	82	1.03	49.55	101	827	83	16.01	16.65	392	1332	298	0	76.5	8.2
Maribo 305	232	297.8	100	5684	94	0.76	48.92	100	932	94	15.67	19.12	257	981	234	0	86.5	6.3
Maribo 402	213	296.5	100	5627	93	0.86	48.50	99	920	92	15.67	18.99	264	1165	252	0	77.7	5.6
Maribo 403	228	303.1	102	6849	113	0.87	50.53	103	1140	115	16.02	22.63	301	1139	253	0	85.7	4.2
Maribo MA102RR	216	306.8	103	5783	95	0.84	51.69	106	973	98	16.18	18.87	287	1045	263	0	70.1	5.1
Seedex RR0832	227	308.5	104	6710	110	0.97	52.22	107	1135	114	16.39	21.77	316	1255	298	0	69.2	6.0
Seedex RR842	235	299.8	101	6664	110	0.90	49.53	101	1098	110	15.88	22.29	296	1189	262	0	63.8	5.4
Seedex RR844TT	218	300.1	101	6482	107	0.93	49.62	102	1072	108	15.94	21.60	297	1292	260	0	70.1	5.4
Seedex RR846	243	281.1	94	6452	106	0.93	43.75	90	1004	101	14.99	22.96	419	1106	277	0	65.5	5.1
Seedex RR848	246	288.9	97	6718	111	0.91	46.14	94	1070	107	15.37	23.35	362	1170	260	0	60.3	3.4
SV RR241	214	287.5	97	5940	98	0.87	45.74	94	945	95	15.25	20.67	269	1122	273	0	67.6	6.1
SV RR242TT	229	283.7	95	6467	106	0.96	44.55	91	1015	102	15.16	22.83	350	1230	287	0	68.7	6.3
SV RR243	207	294.4	99	6364	105	0.96	47.89	98	1035	104	15.67	21.61	338	1266	277	0	66.8	4.6
SV RR244TT	240	284.4	96	6655	110	0.82	44.77	92	1048	105	15.05	23.39	280	1106	236	0	65.0	4.2
SV RR245N	238	289.6	97	5284	87	0.92	46.40	95	846	85	15.39	18.25	343	1189	266	0	74.3	7.8
SV RR246	248	312.9	105	5884	97	0.87	53.57	110	1006	101	16.52	18.83	245	1195	261	0	74.0	6.6
SV RR247	239	314.4	106	5422	89	0.95	54.03	111	931	94	16.68	17.25	318	1235	288	0	63.4	7.8
SV RR248	204	291.7	98	5667	93	0.98	47.01	96	912	92	15.57	19.45	333	1306	288	0	64.0	5.4
SV RR333	212	298.6	100	6195	102	0.93	49.16	101	1019	102	15.85	20.77	296	1285	262	0	75.6	6.3
SV RR336	226	291.8	98	6282	103	0.88	47.06	96	1013	102	15.47	21.53	284	1120	270	0	72.2	6.4
Root Aphid Susc Chk	250	303.0	102	5497	90	0.89	50.51	103	917	92	16.05	18.14	281	1167	269	0	66.6	9.7
Hilleshög 4012RR(Check)	251	293.2	99	5650	93	0.96	47.48	97	913	92	15.62	19.31	426	1064	306	0	89.2	9.9
Crystal 875RR(Check)	252	292.6	98	6288	104	1.05	47.30	97	1016	102	15.67	21.50	417	1297	317	0	70.4	8.3
BTS 80RR52(Check)	253	300.7	101	5983	98	0.97	49.81	102	989	99	16.00	19.94	283	1318	294	0	72.1	7.9
BTS 81RR17(Check)	254	298.7	100	6074	100	1.06	49.18	101	1001	101	16.00	20.33	340	1283	356	0	71.7	8.0
Trial Mean		297.6		6075		0.95	48.86		996		15.83	20.45	337	1222	280		72.3	6.5
Coeff. of Var. (%)		2.1		6.4		7.0	3.9		7.3		1.8	6.0	15.1	7.1	11.6		10.2	17.6
Mean LSD (0.05)		9.7		607		0.09	3.01		113		0.46	1.92	78	126	46		11.1	1.8
Mean LSD (0.01)		12.9		802		0.12	3.97		149		0.61	2.53	103	166	60		14.7	2.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from St Thomas ND

10/22/2014 11:25

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148309

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

**Table 25.**  
**2014 Performance of Varieties - ACSC Experimental RR Official Trial**  
**Stephen MN - All Characters**

<b>Adjusted to Comm. Trial Status</b>	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Tare	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	/Ac ^	%^	%
BTS 8354	222	369.5	105	9596	98	0.80	71.69	108	1860	101	19.29	25.91	143	1472	179	0	75.4	5.6
BTS 8363	241	358.6	101	8948	91	0.95	68.30	102	1703	92	18.87	25.01	153	1672	232	0	73.5	4.7
BTS 8367	233	348.8	99	10048	102	0.81	65.23	98	1876	102	18.26	28.93	144	1507	179	95	73.6	5.1
BTS 83CN	208	346.8	98	10904	111	0.89	64.59	97	2032	110	18.22	31.57	177	1636	187	0	75.5	4.0
BTS 8402	223	348.6	99	9889	101	0.83	65.18	98	1847	100	18.27	28.45	139	1439	210	0	79.2	4.5
BTS 8404	215	352.7	100	9899	101	0.87	66.42	100	1856	100	18.51	28.26	160	1564	201	0	83.9	4.4
BTS 8405	244	358.3	101	10392	106	0.85	68.16	102	1984	107	18.77	28.89	125	1461	225	0	76.8	5.1
BTS 8406	219	370.3	105	9835	100	0.79	71.93	108	1910	103	19.33	26.49	105	1411	204	0	75.2	4.9
BTS 8408	236	358.4	101	9971	102	0.82	68.20	102	1896	103	18.75	27.98	129	1432	213	0	73.9	3.4
BTS 840N	217	354.3	100	10347	105	0.97	66.95	100	1952	106	18.69	29.17	200	1625	246	0	78.2	7.8
BTS 85RR02	206	350.6	99	8498	87	0.98	65.79	99	1592	86	18.51	24.32	163	1688	252	0	82.2	7.3
Crystal 356RR	234	356.7	101	9164	93	0.94	67.67	101	1734	94	18.76	25.82	155	1581	248	0	82.3	6.3
Crystal 464RR	242	358.0	101	10360	106	0.94	68.07	102	1967	106	18.83	29.06	181	1664	214	0	70.0	4.7
Crystal 465RR	201	355.3	100	9854	100	0.86	67.24	101	1862	101	18.64	27.88	153	1561	203	0	77.8	6.8
Crystal 466RR	220	359.0	102	10078	103	0.93	68.42	103	1919	104	18.88	28.04	168	1577	237	95	81.9	3.9
Crystal 467RR	230	357.3	101	10612	108	0.85	67.87	102	2018	109	18.74	29.56	151	1536	202	576	66.9	4.7
Crystal 468RR	221	345.9	98	10381	106	0.90	64.31	96	1931	104	18.19	30.07	199	1584	199	0	69.7	5.9
Crystal 469RR	202	348.8	99	10145	103	0.90	65.23	98	1888	102	18.34	29.22	168	1506	236	0	76.2	4.0
Crystal 539RR	249	363.8	103	10623	108	0.93	69.87	105	2036	110	19.11	29.29	175	1694	203	0	74.8	3.6
Hilleshög 9522RR	247	355.2	100	8324	85	0.95	67.21	101	1576	85	18.71	23.46	220	1627	219	0	71.5	4.1
Hilleshög 9531RR	237	365.6	103	10131	103	0.76	70.46	106	1949	105	19.05	27.84	135	1396	169	0	76.0	3.8
Hilleshög 9610RR	203	355.8	101	8491	87	0.87	67.42	101	1611	87	18.68	23.79	192	1575	190	0	71.1	4.4
Hilleshög AgateRR	205	343.6	97	10312	105	0.82	63.61	95	1911	103	18.01	29.99	170	1519	175	0	76.1	3.6
Hilleshög 9613RR	211	333.9	94	10068	103	0.93	60.57	91	1828	99	17.62	30.15	185	1608	222	95	75.5	2.9
Hilleshög 9615RR	245	348.6	99	8294	85	0.74	65.18	98	1553	84	18.18	23.72	151	1341	162	0	63.0	4.5
Hilleshög 9620RR	224	330.9	94	9292	95	0.96	59.63	89	1674	91	17.49	28.14	219	1552	247	0	73.2	4.4
Hilleshög 9602RR	231	351.3	99	9480	97	0.94	66.02	99	1778	96	18.50	27.04	198	1507	251	0	74.0	5.7
Hilleshög Agate	210	355.3	100	9379	96	0.90	67.23	101	1773	96	18.66	26.52	193	1588	203	0	70.2	3.0
Maribo 202RR	225	368.7	104	8287	84	0.83	71.42	107	1611	87	19.27	22.34	130	1538	190	0	70.5	4.0
Maribo 306RR	209	360.0	102	9326	95	0.95	68.71	103	1774	96	18.95	25.99	202	1644	224	0	74.4	3.6
Maribo 307RR	232	351.4	99	10629	108	0.74	66.04	99	2000	108	18.32	30.19	149	1288	175	0	76.1	3.4
Maribo 409	213	349.9	99	10101	103	0.78	65.56	98	1888	102	18.29	29.05	142	1412	180	0	85.3	3.5
Maribo 9363	228	346.8	98	11280	115	0.80	64.60	97	2104	114	18.16	32.50	165	1463	176	0	80.1	4.4
Maribo 105RR	216	359.2	102	10949	112	0.79	68.47	103	2087	113	18.76	30.54	136	1421	193	0	73.1	2.6
Seedex RR0835	227	345.3	98	9956	101	0.86	64.13	96	1850	100	18.14	28.82	170	1556	194	0	74.4	5.2
Seedex RR848	235	355.8	101	10193	104	0.85	67.43	101	1927	104	18.66	28.76	151	1510	204	95	73.1	4.0
Seedex RR0935	218	354.9	100	10260	105	0.84	67.12	101	1939	105	18.59	28.98	138	1526	196	0	74.2	4.2
Seedex RR0936	243	355.0	100	10803	110	0.89	67.16	101	2036	110	18.64	30.63	151	1538	218	0	72.5	2.4
Seedex RR0937NTT	246	352.5	100	10682	109	0.89	66.36	100	2010	109	18.51	30.30	170	1494	222	0	73.3	3.9
SESVdh RR244TT	214	353.8	100	9848	100	0.83	66.78	100	1854	100	18.53	28.00	127	1457	215	0	79.3	3.2
SESVdh RR245N	229	339.5	96	10129	103	0.86	62.35	94	1855	100	17.85	29.91	151	1525	208	0	86.6	4.0
SESVdh RR246	207	349.0	99	9340	95	0.82	65.29	98	1744	94	18.28	26.91	144	1479	194	0	68.3	4.1
SESVdh RR247	240	339.9	96	10416	106	0.84	62.47	94	1910	103	17.85	30.79	146	1468	214	0	71.0	4.1
SESVdh RR248	238	351.4	99	8085	82	0.84	66.04	99	1519	82	18.43	23.02	151	1430	223	0	80.4	7.7
SESVdh RR331	248	364.0	103	8508	87	0.78	69.97	105	1630	88	19.00	23.48	123	1470	172	0	74.2	6.3
SESVdh RR332	239	372.1	105	8999	92	0.84	72.45	109	1755	95	19.46	24.03	137	1486	205	0	79.8	5.2
SESVdh RR333	204	347.7	98	9224	94	0.92	64.89	97	1725	93	18.30	26.44	142	1597	229	0	67.5	4.3
SESVdh RR336	212	353.5	100	9858	100	0.86	66.69	100	1860	101	18.55	27.88	141	1520	214	0	77.8	4.4
SESVdh RR633	226	357.1	101	10148	103	0.87	67.82	102	1922	104	18.74	28.56	143	1517	223	0	81.6	4.2
Red Beet Hybrid	250	347.3	98	9280	95	0.84	64.75	97	1732	94	18.21	26.74	148	1523	195	0	72.4	6.1
Hilleshög 4012RR(Check)	251	349.7	99	10071	103	0.91	65.49	98	1881	102	18.40	28.86	211	1550	216	0	84.4	3.4
Crystal 875RR(Check)	252	349.0	99	10021	102	1.02	65.27	98	1877	102	18.46	28.67	214	1734	255	0	75.4	5.7
BTS 80RR52(Check)	253	361.3	102	10128	103	0.93	69.12	104	1934	105	19.00	28.13	156	1599	238	0	81.9	5.6
BTS 81RR17(Check)	254	352.7	100	10023	102	1.01	66.42	100	1889	102	18.64	28.40	169	1697	264	0	77.4	5.7
Trial Mean		353.5		9812		0.87	66.69		1849		18.55	27.82	160	1533	210		75.6	4.6
Coeff. of Var. (%)		1.7		4.0		4.7	2.8		4.7		1.6	3.5	10.4	3.1	11.7		7.8	27.3
Mean LSD (0.05)		8.9		601		0.06	2.78		129		0.44	1.54	26	77	36		9.3	1.9
Mean LSD (0.01)		11.8		794		0.08	3.67		170		0.58	2.03	34	102	48		12.3	2.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2014 Data from Stephen MN

10/22/2014 11:28

Created 10-27-2014.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148310

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 26.

## 2014 Performance of Varieties - ACSC Experimental RR Official Trial

## Bathgate ND - All Characters

Adjusted to Comm. Trial Status Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter /Ac ^	Emerg. %^	Tare %
BTS 8337	222	344.7	104	7395	93	1.02	63.74	108	1372	96	18.27	21.64	234	1704	252	0	84.7	4.5
BTS 8354	241	332.2	101	7767	98	1.14	59.84	101	1401	98	17.76	23.54	228	1801	322	0	89.2	4.1
BTS 8363	233	327.5	99	8363	106	0.99	58.39	99	1505	105	17.38	25.60	207	1640	249	95	85.6	2.8
BTS 8390	208	310.7	94	8488	107	1.11	53.21	90	1458	102	16.66	27.28	319	1780	271	0	87.6	5.6
BTS 83CN	223	328.7	100	8496	107	1.01	58.78	99	1528	107	17.46	25.65	218	1654	255	0	87.3	3.7
BTS 8402	215	333.9	101	7306	92	1.10	60.39	102	1336	94	17.81	21.72	233	1783	293	0	93.0	3.3
BTS 8404	244	331.0	100	7411	94	1.04	59.48	100	1340	94	17.59	22.35	214	1636	286	0	85.0	2.5
BTS 8405	219	345.0	105	7621	96	0.99	63.82	108	1422	100	18.25	22.15	167	1615	271	0	85.6	4.4
BTS 8406	236	335.5	102	7497	95	1.04	60.87	103	1367	96	17.84	22.40	266	1695	252	0	83.6	2.5
BTS 8408	217	331.0	100	7846	99	1.15	59.46	100	1410	99	17.70	23.82	290	1715	330	0	85.8	5.6
BTS 840N	206	320.7	97	6810	86	1.26	56.28	95	1196	84	17.29	21.27	311	1795	374	0	89.0	3.6
Crystal 355RR	234	341.3	103	7753	98	1.12	62.68	106	1439	101	18.20	22.56	258	1731	312	0	86.4	3.8
Crystal 359RR	242	327.2	99	8443	107	1.17	58.30	98	1508	106	17.55	25.92	300	1821	311	95	86.9	6.1
Crystal 464RR	201	334.8	101	7871	99	1.10	60.66	102	1437	101	17.86	23.52	239	1721	306	0	91.4	3.4
Crystal 465RR	220	334.4	101	8250	104	1.09	60.53	102	1502	105	17.84	24.60	238	1744	290	0	91.0	2.3
Crystal 466RR	230	330.6	100	8145	103	1.06	59.33	100	1471	103	17.59	24.67	204	1772	277	576	77.9	2.3
Crystal 467RR	221	327.3	99	8494	107	1.04	58.35	99	1527	107	17.41	26.04	267	1715	248	0	84.9	3.9
Crystal 468RR	202	319.9	97	8235	104	1.07	56.03	95	1450	102	17.08	25.84	289	1658	278	0	83.6	4.3
Crystal 469RR	249	336.3	102	7778	98	1.24	61.13	103	1423	100	18.05	23.09	290	1971	321	0	87.6	4.4
Hilleshög 9517RR	247	337.9	102	7441	94	1.06	61.61	104	1360	95	17.96	22.06	274	1703	264	0	72.0	3.0
Hilleshög 9528RR	237	334.3	101	8090	102	1.09	60.50	102	1476	103	17.82	24.09	233	1644	316	0	79.1	3.9
Hilleshög 9601RR	203	331.0	100	7651	97	1.11	59.48	100	1389	97	17.67	22.90	328	1695	285	0	71.2	2.3
Hilleshög 9602RR	205	317.3	96	8346	105	1.02	55.22	93	1455	102	16.89	26.34	250	1620	262	0	90.3	2.5
Hilleshög 9604RR	211	320.7	97	8383	106	1.08	56.29	95	1476	103	17.12	26.03	196	1748	291	0	78.3	2.3
Hilleshög 9610RR	245	330.2	100	6988	88	0.99	59.21	100	1265	89	17.52	20.93	216	1642	246	0	65.6	2.0
Hilleshög 9613RR	224	312.3	95	6732	85	1.16	53.69	91	1164	82	16.78	21.44	322	1886	276	0	80.6	1.8
Hilleshög 9615RR	231	331.8	101	7128	90	1.14	59.74	101	1290	90	17.73	21.43	269	1704	327	0	76.4	5.4
Hilleshög 9620RR	210	332.7	101	8109	102	1.09	60.00	101	1478	104	17.73	23.96	259	1737	284	194	78.7	3.3
Maribo 109RR	225	348.3	106	7273	92	1.04	64.81	109	1362	95	18.48	20.77	188	1738	270	0	77.4	2.7
Maribo 301	209	340.9	103	7677	97	1.05	62.53	106	1414	99	18.12	22.29	249	1735	260	0	78.3	3.7
Maribo 305	232	330.8	100	8008	101	0.91	59.39	100	1445	101	17.47	24.25	174	1472	249	0	76.0	2.4
Maribo 402	213	313.9	95	7930	100	1.06	54.19	92	1371	96	16.74	25.29	293	1607	281	0	88.6	6.5
Maribo 403	228	328.9	100	8504	107	1.02	58.83	99	1524	107	17.47	25.86	232	1622	269	0	78.8	2.8
Maribo MA102RR	216	338.4	103	8392	106	0.98	61.76	104	1544	108	17.91	24.58	186	1568	267	0	75.5	2.4
Seedex RR0832	227	325.7	99	8169	103	1.00	57.83	98	1455	102	17.28	25.14	240	1602	256	0	83.7	5.9
Seedex RR842	235	338.1	102	8451	107	0.98	61.66	104	1544	108	17.88	25.07	188	1596	259	0	78.5	2.3
Seedex RR844TT	218	323.9	98	8604	109	1.02	57.29	97	1526	107	17.22	26.68	201	1682	266	0	84.9	4.2
Seedex RR846	243	318.0	96	8476	107	1.10	55.44	94	1490	104	17.02	26.62	291	1641	309	0	86.6	3.6
Seedex RR848	246	326.5	99	8196	103	1.04	58.09	98	1470	103	17.38	24.99	229	1612	294	0	80.2	3.3
SV RR241	214	333.7	101	7976	101	1.03	60.32	102	1448	101	17.73	23.85	202	1618	292	0	92.9	5.9
SV RR242TT	229	320.8	97	8879	112	1.04	56.33	95	1563	110	17.09	27.69	245	1611	287	0	86.0	4.1
SV RR243	207	329.5	100	8036	101	1.06	59.02	100	1456	102	17.56	24.23	246	1689	279	0	78.8	2.8
SV RR244TT	240	314.1	95	9467	119	1.05	54.25	92	1635	115	16.77	30.16	203	1709	279	0	84.4	2.1
SV RR245N	238	328.5	100	6967	88	0.97	58.70	99	1252	88	17.41	21.13	190	1536	266	0	80.2	4.2
SV RR246	248	345.2	105	7640	96	0.99	63.88	108	1418	99	18.27	22.24	175	1665	261	0	83.2	4.2
SV RR247	239	340.5	103	7258	92	1.06	62.42	105	1335	94	18.10	21.35	254	1735	266	0	82.9	3.8
SV RR248	204	325.4	99	7474	94	1.09	57.73	98	1338	94	17.36	22.89	236	1786	284	194	78.4	3.5
SV RR333	212	332.9	101	8926	113	1.05	60.06	101	1611	113	17.70	26.92	200	1633	302	0	85.9	4.3
SV RR336	226	332.7	101	8093	102	1.00	60.01	101	1465	103	17.65	24.33	172	1606	284	0	89.2	4.1
Root Aphid Susc Chk	250	331.4	100	7629	96	1.07	59.61	101	1380	97	17.64	22.87	240	1731	278	0	78.0	4.4
Hilleshög 4012RR(Check)	251	328.9	100	7659	97	1.09	58.82	99	1372	96	17.54	23.31	274	1699	289	0	85.2	5.7
Crystal 875RR(Check)	252	325.8	99	7982	101	1.16	57.85	98	1423	100	17.46	24.60	297	1771	319	0	85.5	3.7
BTS 80RR52(Check)	253	332.9	101	7691	97	1.10	60.05	101	1386	97	17.73	23.17	225	1707	313	0	83.5	4.8
BTS 81RR17(Check)	254	330.7	100	7697	97	1.15	59.37	100	1391	97	17.69	23.28	230	1782	331	0	83.3	3.5
Trial Mean		330.1		7924		1.07	59.21		1427		17.58	24.01	240	1694	284		83.0	3.7
Coeff. of Var. (%)		2.3		6.1		5.6	4.0		6.8		2.1	5.8	15.3	4.8	9.7		8.4	48.0
Mean LSD (0.05)		11.7		685		0.09	3.61		136		0.56	2.09	60	130	45		10.5	2.6
Mean LSD (0.01)		15.4		904		0.12	4.77		179		0.74	2.76	80	172	59		13.9	3.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	*

\* 2014 Data from Bathgate ND

10/22/2014 11:38

Created 10-27-2014.

^ Vigor not collected. Bolter &amp; emergence not adjusted to commercial status. Bolter / Ac based upon 45,000 plants / Ac.

Trial # = 148311

@ Some varieties not approved for sale. Refer to approval list for approval status.

++ Revenue estimates are based on a \$55.98 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 27  
Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2015

Description	Approval Status	Rec/Ton				Rev/Acre				R/T + \$/A Bench	Cercospora Rating +				
					%				%				2 Yr	3 Yr	
		2013	2014	2 Yr	Bench	2013	2014	2 Yr	Bench		2012	2013	2014	Mean	Mean
<b>Previously Approved (3 Yr)</b>														<=5.40	
BTS 80RR32	Approved	326.8	307.7	317.3	100.2	1544	1519	1531.5	106.6	206.8	4.66	4.81	4.69	4.72	
BTS 80RR52	Approved	325.5	318.4	322.0	101.7	1527	1530	1528.5	106.4	208.1	4.40	4.52	4.22	4.38	
BTS 81RR17	Approved	319.5	315.0	317.3	100.2	1371	1443	1407.0	98.0	198.1	4.36	4.45	3.96	4.26	
BTS 82RR22	Approved	342.6	329.8	336.2	106.2	1523	1515	1519.1	105.8	211.9	4.65	4.77	4.55	4.66	
BTS 82RR28	Approved	324.1	314.6	319.4	100.8	1552	1548	1550.0	107.9	208.8	4.66	4.52	4.62	4.60	
BTS 82RR33	Approved	325.1	313.0	319.0	100.7	1603	1596	1599.3	111.4	212.1	4.74	4.68	4.70	4.71	
BTS 82RR80	Approved	331.0	322.6	326.8	103.2	1396	1519	1457.3	101.5	204.7	4.77	4.62	4.62	4.67	
BTS 89RR83	Approved	317.0	303.1	310.1	97.9	1442	1474	1458.0	101.5	199.4	4.89	4.91	4.61	4.81	
Crystal 093RR	Approved	336.7	326.9	331.8	104.8	1563	1565	1564.0	108.9	213.7	4.82	5.20	4.88	4.97	
Crystal 095RR	Approved	328.0	314.8	321.4	101.5	1504	1488	1496.0	104.2	205.7	4.83	4.75	4.60	4.73	
Crystal 101RR	Approved	322.4	313.7	318.1	100.4	1534	1566	1550.0	107.9	208.4	4.71	4.63	4.26	4.53	
Crystal 246RR	Approved	324.7	313.8	319.3	100.8	1591	1529	1560.0	108.6	209.4	4.49	4.48	4.52	4.49	
Crystal 247RR	Approved	325.7	314.0	319.8	101.0	1546	1613	1579.4	110.0	211.0	4.68	4.57	4.20	4.48	
Crystal 765RR	Approved	336.9	326.0	331.5	104.7	1511	1507	1509.0	105.1	209.7	4.70	4.82	4.73	4.75	
Crystal 768RR	Approved	328.4	315.8	322.1	101.7	1479	1459	1469.0	102.3	204.0	5.37	5.05	4.84	5.09	
Crystal 875RR	Approved	315.1	312.9	314.0	99.2	1417	1452	1434.5	99.9	199.0	4.26	4.77	4.12	4.39	
Crystal 981RR	Approved	317.5	314.3	315.9	99.8	1471	1530	1500.3	104.5	204.2	5.15	5.09	4.89	5.05	
Crystal 985RR	Approved	325.2	311.1	318.2	100.5	1422	1376	1399.0	97.4	197.9	4.41	4.49	4.22	4.37	
Crystal 986RR	Approved	337.5	323.2	330.4	104.3	1521	1561	1541.0	107.3	211.6	4.78	4.80	4.61	4.73	
Hilleshög 4022RR	Approved	319.3	303.5	311.4	98.3	1348	1256	1302.0	90.7	189.0	4.36	4.33	4.54	4.41	
Hilleshög 4094RR	Approved	315.6	309.6	312.6	98.7	1318	1345	1331.5	92.7	191.4	4.34	4.47	4.46	4.42	
Hilleshög 4300RR	Approved	312.6	307.9	310.3	98.0	1279	1373	1326.0	92.3	190.3	4.82	4.74	4.20	4.59	
Hilleshög 4302RR	Approved	328.0	316.2	322.1	101.7	1401	1435	1418.0	98.7	200.4	4.34	4.23	4.52	4.36	
Hilleshög 4303RR	Approved	330.1	326.1	328.1	103.6	1448	1499	1473.5	102.6	206.2	4.62	4.85	4.82	4.76	
Hilleshög 4448RR(9448)	Approved	326.3	323.0	324.6	102.5	1516	1685	1600.4	111.4	213.9	4.82	5.21	5.28	5.11	
Maribo MA102RR	Approved	325.4	325.0	325.2	102.7	1564	1636	1600.0	111.4	214.1	4.88	5.03	5.54	5.15	
Maribo MA104RR	Approved	335.9	325.0	330.4	104.3	1272	1326	1298.8	90.4	194.8	3.82	3.87	3.58	3.76	
Seedex Victor RR	Approved	312.0	304.1	308.1	97.3	1324	1391	1357.5	94.5	191.8	4.41	4.51	5.14	4.69	
Seedex Vision RR	Approved	327.1	313.2	320.2	101.1	1360	1436	1398.0	97.3	198.4	4.49	5.17	5.50	5.06	
Seedex Xavier RR	Approved	321.5	318.0	319.8	101.0	1306	1465	1385.5	96.5	197.4	4.43	4.85	5.43	4.90	
Seedex Yukon RR(828N)	Approved	318.1	308.8	313.5	99.0	1351	1344	1347.6	93.8	192.8	4.72	4.69	4.85	4.75	
Seedex Zenith RR(829N)	Approved	318.4	302.2	310.3	98.0	1306	1249	1277.5	88.9	186.9	4.84	4.76	4.53	4.71	
SV 36175RR	Approved	326.7	310.2	318.5	100.6	1342	1342	1342.0	93.4	194.0	4.22	4.60	4.54	4.45	
SV 36271RR	Approved	319.3	296.6	307.9	97.2	1337	1179	1257.9	87.6	184.8	4.65	4.45	4.21	4.44	
SV 36272RR	Approved	332.3	320.3	326.3	103.0	1454	1382	1418.2	98.7	201.8	4.17	4.49	4.61	4.43	
SV 36273RR	Approved	324.7	309.5	317.1	100.1	1376	1454	1414.8	98.5	198.6	4.19	4.68	5.05	4.64	
SV 36918RR	Approved	323.0	315.2	319.1	100.8	1306	1361	1333.5	92.8	193.6	4.28	4.61	4.84	4.58	
<b>Candidates for Approval (2 Yr)</b>														<=5.20	
BTS 8337	Approved	337.2	329.6	333.4	105.3	1535	1468	1501.4	104.5	209.8	--	4.75	4.52	4.63	--
BTS 8354	Approved	327.7	317.7	322.7	101.9	1387	1393	1390.0	96.8	198.7	--	4.80	4.39	4.59	--
BTS 8363	Approved	321.6	311.8	316.7	100.0	1571	1539	1554.9	108.3	208.3	--	3.92	3.85	3.88	--
BTS 8390	Approved	313.1	304.3	308.7	97.5	1564	1546	1554.8	108.3	205.7	--	4.43	4.28	4.36	--
BTS 83CN	Approved	329.1	313.7	321.4	101.5	1445	1481	1463.3	101.9	203.4	--	4.36	4.60	4.48	--
Crystal 355RR	Approved	331.6	321.1	326.3	103.0	1468	1447	1457.3	101.5	204.5	--	4.89	4.58	4.73	--
Crystal 359RR	Not Approved	316.7	312.7	314.7	99.4	1560	1572	1566.3	109.1	208.4	--	5.32	5.16	5.24	--
Hilleshög 9517RR	Approved	333.7	323.8	328.7	103.8	1335	1339	1336.8	93.1	196.9	--	4.67	4.39	4.53	--
Hilleshög 9528RR	Approved	327.0	325.6	326.3	103.0	1454	1577	1515.6	105.5	208.6	--	4.72	4.97	4.84	--
Maribo 305	Approved	323.9	315.3	319.6	100.9	1529	1541	1534.5	106.8	207.8	--	4.63	4.83	4.73	--
Seedex RR0832	Approved	325.0	318.8	321.9	101.7	1448	1513	1480.6	103.1	204.7	--	4.78	4.89	4.83	--
SV RR333	Approved	324.5	316.9	320.7	101.3	1437	1485	1461.0	101.7	203.0	--	4.86	4.81	4.83	--
SV RR336	Approved	313.0	316.0	314.5	99.3	1459	1493	1475.8	102.8	202.1	--	4.75	4.53	4.64	--
<b>Benchmark Varieties</b>		2012	2013	2014		2012	2013	2014							
Beta 85RR02(Check)	Benchmark	358.6				1583									
Crystal 539RR	Benchmark														
Crystal 658RR	Benchmark	349.0	314.8			1693	1323								
Hilleshög 4012RR	Benchmark	344.9	318.0	313.7		1605	1356	1418							
Crystal 875RR	Benchmark	351.1	315.1	312.9		1642	1417	1452							
BTS 80RR52	Benchmark		325.5	318.4			1527	1530							
BTS 81RR17	Benchmark			315.0				1443							
Benchmark mean		350.90	318.35	315.00	316.7	1630.8	1405.8	1466.8	1436.26						

+ All Cercospora readings 2012-2014 were adjusted to 1982 basis.

Variety approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating must not exceed 5.20 (1982 adjusted data), 3a) R/T >= 100% of Bench or 3b) R/T >= 97% and R/T + \$/A >= 202% of Bench. 3 yrs of data may be considered for initial approval.

Created 10-29-2014.

Bench for 2014 added Beta 81RR17 and dropped Crystal 658RR.

To maintain approval, the 3-year Cercospora rating must not exceed 5.40 (1982 adjusted data).

Table 28  
 Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

Description	Approval ^ Likely	Rec/Ton		Rev/Acre		R/T + \$/A	CR Rating ^^
		%		%		Bench	2014
		2014	Bench	2014	Bench		
<b>Candidates for Retesting (1 Yr)</b>							
BTS 8402	On Track	316.0	100.3	1443	98.4	198.7	4.54
BTS 8404	On Track	318.5	101.1	1485	101.2	202.3	4.48
BTS 8405	On Track	332.2	105.5	1586	108.1	213.6	4.14
BTS 8406	On Track	323.7	102.8	1508	102.8	205.5	4.03
BTS 8408	On Track	320.1	101.6	1506	102.7	204.3	5.00
BTS 840N	Not On Track	311.6	98.9	1280	87.3	186.2	3.99
Crystal 464RR	On Track	320.4	101.7	1489	101.5	203.2	4.01
Crystal 465RR	On Track	320.2	101.6	1530	104.3	205.9	5.01
Crystal 466RR	On Track	317.6	100.8	1564	106.6	207.4	4.64
Crystal 467RR	On Track	310.7	98.6	1564	106.6	205.2	4.40
Crystal 468RR	Not On Track	308.4	97.9	1479	100.8	198.7	4.49
Crystal 469RR	Not On Track	318.1	101.0	1563	106.5	207.5	5.28
Hilleshög 9601RR	Not On Track	309.2	98.2	1299	88.5	186.7	4.77
Hilleshög 9602RR	On Track	311.0	98.7	1551	105.8	204.5	4.67
Hilleshög 9604RR	Not On Track	306.4	97.3	1490	101.6	198.9	5.47
Hilleshög 9610RR	Not On Track	313.0	99.4	1307	89.1	188.5	4.46
Hilleshög 9613RR	Not On Track	297.1	94.3	1313	89.5	183.8	4.97
Hilleshög 9615RR	On Track	315.0	100.0	1388	94.6	194.7	4.33
Hilleshög 9620RR	Not On Track	314.2	99.7	1448	98.7	198.5	5.79
Maribo 109RR	On Track	334.2	106.1	1390	94.8	200.9	4.68
Maribo 301	On Track	324.5	103.0	1427	97.3	200.3	4.92
Maribo 402	Not On Track	313.9	99.6	1468	100.1	199.7	4.76
Maribo 403	Not On Track	316.8	100.6	1679	114.4	215.0	5.23
Seedex RR842	On Track	320.8	101.8	1564	106.7	208.5	4.90
Seedex RR844TT	Not On Track	318.4	101.1	1574	107.3	208.4	5.46
Seedex RR846	On Track	310.2	98.5	1542	105.1	203.6	4.83
Seedex RR848	On Track	311.8	99.0	1522	103.8	202.8	4.71
SV RR241	Not On Track	314.3	99.8	1437	98.0	197.7	4.35
SV RR242TT	Not On Track	308.4	97.9	1567	106.8	204.7	5.69
SV RR243	On Track	317.5	100.8	1466	100.0	200.7	4.79
SV RR244TT	Not On Track	302.2	95.9	1555	106.0	201.9	5.51
SV RR245N	On Track	315.1	100.0	1320	90.0	190.0	4.59
SV RR246	On Track	330.3	104.8	1396	95.2	200.0	4.54
SV RR247	On Track	331.5	105.2	1376	93.8	199.0	4.14
SV RR248	Not On Track	313.9	99.6	1386	94.5	194.1	4.41
<b>Benchmarks</b>							
Hilleshög 4012RR		313.7	99.6	1418	96.7		
Crystal 875RR		312.9	99.3	1452	99.0		
BTS 80RR52		318.4	101.1	1530	104.3		
BTS 81RR17		315.0	100.0	1443	98.4		
Benchmark Mean		315.0		1467			

^ NOT = not on track for approval. On Track = data is tracking for potential approval.

Created 10-29-2014.

^^ All Cercospora readings 2014 were adjusted to 1982 basis.

Full market approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating must not exceed 5.20 (1982 adjusted data),

3a) R/T >= 100% of Bench or 3b) R/T >= 97% and R/T + \$/A equal to 202 of Bench.

Bench for 2014 added Beta 81RR17 and dropped Crystal 658RR.





Table 30  
Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2015

Description	Approval Status	Disease Index +					Cercospora Rating **				
		2012	2013	2014	2 Yr Mean	3 Yr Mean	2012	2013	2014	2 Yr Mean	3 Yr Mean
<b>Previously Approved (3 Yr)</b>											
BTS 80RR52	Approved	3.73	3.77	4.36	4.07	3.96	4.40	4.52	4.22	4.37	4.38
BTS 89RR83	Approved	3.58	3.45	4.03	3.74	3.69	4.89	4.91	4.61	4.76	4.81
Crystal 875RR	Approved	4.00	4.53	4.04	4.29	4.19	4.26	4.77	4.12	4.45	4.39
Hilleshög 4022RR	Approved	3.29	3.39	3.82	3.60	3.50	4.36	4.33	4.54	4.43	4.41
Hilleshög 4094RR	Approved	3.28	3.42	3.52	3.47	3.41	4.34	4.47	4.46	4.47	4.42
Hilleshög 4302RR	Approved	3.63	3.32	3.58	3.45	3.51	4.34	4.23	4.52	4.38	4.36
Maribo MA104RR	Approved	3.98	3.99	3.56	3.77	3.84	3.82	3.87	3.58	3.72	3.76
<b>RR Candidates for Approval (2 Yr)</b>											
BTS 80RR32	Not Approved	3.88	4.28	3.56	3.92	3.91	4.66	4.81	4.69	4.75	4.72
BTS 81RR17	Not Approved	4.00	4.10	4.06	4.08	4.06	4.36	4.45	3.96	4.20	4.26
BTS 82RR22	Not Approved	4.61	5.19	4.85	5.02	4.89	4.65	4.77	4.55	4.66	4.66
BTS 82RR28	Not Approved	3.94	4.17	4.11	4.14	4.08	4.66	4.52	4.62	4.57	4.60
BTS 82RR33	Not Approved	4.09	4.36	4.20	4.28	4.22	4.74	4.68	4.70	4.69	4.71
BTS 82RR80	Not Approved	4.63	4.54	4.95	4.75	4.71	4.77	4.62	4.62	4.62	4.67
BTS 8337	Not Approved	--	4.55	4.06	4.30	--	--	4.75	4.52	4.63	--
BTS 8354	Not Approved	--	3.49	4.04	3.77	--	--	4.80	4.39	4.59	--
BTS 8363	Not Approved	--	3.88	4.24	4.06	--	--	3.92	3.85	3.88	--
BTS 8390	Not Approved	--	4.38	4.30	4.34	--	--	4.43	4.28	4.36	--
BTS 83CN	Approved	--	3.29	4.01	3.65	--	--	4.36	4.60	4.48	--
Crystal 093RR	Not Approved	4.43	4.39	4.46	4.42	4.43	4.82	5.20	4.88	5.04	4.97
Crystal 095RR	Not Approved	4.57	4.59	4.49	4.54	4.55	4.83	4.75	4.60	4.68	4.73
Crystal 101RR	Not Approved	4.75	4.74	4.84	4.79	4.78	4.71	4.63	4.26	4.44	4.53
Crystal 246RR	Not Approved	4.31	4.62	4.01	4.32	4.31	4.49	4.48	4.52	4.50	4.49
Crystal 247RR	Not Approved	4.48	4.58	4.41	4.50	4.49	4.68	4.57	4.20	4.39	4.48
Crystal 355RR	Not Approved	--	3.55	4.07	3.81	--	--	4.89	4.58	4.73	--
Crystal 359RR	Not Approved	--	4.04	4.18	4.11	--	--	5.32	5.16	5.24	--
Crystal 765RR	Not Approved	3.87	4.88	4.50	4.69	4.42	4.70	4.82	4.73	4.77	4.75
Crystal 768RR	Not Approved	4.39	4.10	4.51	4.31	4.33	5.37	5.05	4.84	4.95	5.09
Crystal 981RR	Not Approved	4.45	3.75	4.85	4.30	4.35	5.15	5.09	4.89	4.99	5.05
Crystal 985RR	Not Approved	4.40	4.61	4.50	4.55	4.50	4.41	4.49	4.22	4.36	4.37
Crystal 986RR	Not Approved	4.31	4.54	4.12	4.33	4.32	4.78	4.80	4.61	4.70	4.73
Hilleshög 4300RR	Not Approved	4.56	4.12	3.79	3.95	4.16	4.82	4.74	4.20	4.47	4.59
Hilleshög 4303RR	Not Approved	5.20	5.24	5.38	5.31	5.27	4.62	4.85	4.82	4.83	4.76
Hilleshög 4448RR(9448)	Not Approved	--	5.42	4.73	5.07	--	4.82	5.21	5.28	5.25	5.11
Hilleshög 9517RR	Not Approved	--	3.62	4.04	3.83	--	--	4.67	4.39	4.53	--
Hilleshög 9528RR	Not Approved	--	4.17	3.83	4.00	--	--	4.72	4.97	4.84	--
Maribo MA102RR	Not Approved	4.70	5.53	4.30	4.91	4.84	4.88	5.03	5.54	5.29	5.15
Seedex Victor RR	Not Approved	4.57	4.51	3.94	4.22	4.34	4.41	4.51	5.14	4.82	4.69
Seedex Vision RR	Not Approved	4.61	4.71	4.44	4.57	4.59	4.49	5.17	5.50	5.34	5.06
Seedex Xavier RR	Not Approved	4.71	4.60	4.34	4.47	4.55	4.43	4.85	5.43	5.14	4.90
Seedex Yukon RR(828N)	Not Approved	4.25	4.84	4.33	4.59	4.48	4.72	4.69	4.85	4.77	4.75
Seedex Zenith RR(829N)	<2 Yrs	--	--	4.57	--	--	4.84	4.76	4.53	4.65	4.71
SV 36175RR	Not Approved	4.32	4.50	4.20	4.35	4.34	4.22	4.60	4.54	4.57	4.45
SV 36271RR	Not Approved	4.40	3.95	4.32	4.14	4.23	4.65	4.45	4.21	4.33	4.44
SV 36272RR	Not Approved	--	4.61	4.31	4.46	--	4.17	4.49	4.61	4.55	4.43
SV 36273RR	Not Approved	4.47	4.70	3.94	4.32	4.37	4.19	4.68	5.05	4.86	4.64
SV 36918RR	Not Approved	4.66	4.82	4.77	4.80	4.75	4.28	4.61	4.84	4.73	4.58
SV RR333	Not Approved	--	4.32	4.39	4.36	--	--	4.86	4.81	4.83	--
SV RR336	Not Approved	--	3.93	4.29	4.11	--	--	4.75	4.53	4.64	--
<b>Susceptible Checks</b>											
Rhiz Chk#08 CRY539RR	Susc Chk	5.06	5.09	4.73							
Rhiz Chk#11 BETA87RR68	Susc Chk	3.81									
Rhiz Chk#24 BETA86RR88	Susc Chk	4.75	4.82	4.91							
Rhiz Chk#25 HILL4043RR	Susc Chk	4.95	4.77	4.66							
Rhiz Chk#27 HILL4012RR	Susc Chk	4.69	5.12	4.52							
Rhiz Chk#29 BETA87RR58	Susc Chk	4.76	4.81	4.53							
Rhiz Chk#30 SES36711RR	Susc Chk	4.46	4.75	4.21							
Rhiz Chk#31 HILL4000RR	Susc Chk	5.04	5.22	4.76							
Rhiz Chk#32 HILL4010RR	Susc Chk	4.99	4.44	4.99							
Rhiz Chk#34 BETA86RR66	Susc Chk	4.51	4.31	4.48							
Rhiz Chk#35 SES36812RR	Susc Chk	4.53	4.13	4.63							
Rhiz Chk#36 BETA85RR02	Susc Chk		4.27	4.50							
Rhiz Chk#37 SES36918RR	Susc Chk		4.75	4.61							
Susceptible Hybrid Mean		4.69	4.71	4.63	4.67	4.68				5.20	5.40
Approval Criteria ++		3.82	3.82	3.82	3.82	4.21					

+ Disease Index is based on a scale of 0 (healthy) to 7 (plant dead). Rhc ratings were adjusted based on check performance.

+2014 data from Michigan and 1 Mhd site. 2013 data from Ft Collins and 1 Mhd site. 2012 data from 3 RRV sites.

++ Candidates must have better tolerance than susc. check mean \* 80%. To maintain approval, tolerance must be better than susc. check mean \* 90%.

\*\* All readings 2012-2014 were adjusted based on check performance.

Excluded from Susc Mean

Table 31.  
Varieties Meeting MDFC Approval Criteria for the 2015 Sugarbeet Crop ++

<b>Roundup Ready ®</b>	Approval Status	Aph Spec	Rhc Spec
ACH RR012	Established	Aph	Rhc
ACH RR830	Established	Aph	Rhc
ACH RR228	Established	Aph	
ACH RR260	Specialty	Aph	
ACH RRD352	Specialty	Aph	Rhc
BTS 70RR99	Established	Aph	
BTS 72RR22	Established	Aph	
BTS 72RR95	Specialty	Aph	Rhc
BTS 7373	Test Mrkt	Aph	
BTS 73MN (73MN)	Test Mrkt	Aph	Rhc
HM 4022RR	Specialty	Aph	Rhc
HM 4062RR	Specialty	Aph	Rhc
HM 4448RR	Established		
HM 9517RR	Specialty	Aph	
Maribo MA102RR *	Test Mrkt	Aph	
Seedex Vapor	Established		
SV RR631	Test Mrkt		
SV RR632N	Test Mrkt		
SV RR633	Test Mrkt	Aph	Rhc

Aph Spec = variety meets Aphanomyces specialty requirements of 4.45 or less Aph root rating.

Rhc Spec = variety meets Rhizoctonia specialty requirements of 3.82 or less of Rhc root rating.

\* Last year of sales.

Roundup Ready ® is a registered trademark of Monsanto Company.

Table 32.

## Three Year Performance Summary of Minn-Dak Entries in 2014 MDFC (All Locations). \*

Description @	Years Comm Seed +	Rec. Sugar / Ton (pounds)			Rec. Sugar / Acre (pounds)			Sugar Content (%)			Root Yield (Tons / Acre)			Field Emergence (%)		Cercospora (1=Ex,9=Poor)		Aphanomyces Root Rating		Rhizoctonia (1=Ex,7=Poor)		Fusarium (1=Ex,9=Poor)		Bolters / Ac	
		2014	Mean	3 Yr % Est.	2014	Mean	3 Yr % Est.	2014	Mean	3 Yr % Est.	2014	Mean	App.	2014	Mean	2014	Mean	2014	Mean	2013	2014	2013	2014	2013	2014
		2014	Mean	3 Yr % Est.	2014	Mean	3 Yr % Est.	2014	Mean	3 Yr % Est.	2014	Mean	App.	2014	Mean	2014	Mean	2014	Mean	2013	2014	2013	2014	2013	2014
<b>Established Varieties</b>																									
BTS 70RR99	3	313.3	327.0	102	9050	10258	105	16.9	17.7	102	28.8	31.3	103	57	58	4.20	4.42	3.57	NA	4.4	3.9	3.6	3.5	0	0
Crystal RR012	3	321.5	331.3	103	8672	9902	101	17.3	17.9	103	27.0	29.8	98	55	61	4.59	4.63	3.83	NA	3.7	4.1	3.6	3.4	0	50
Crystal RR830	5	296.1	312.2	97	9274	10212	105	15.9	16.8	97	31.2	32.6	107	59	63	4.69	4.62	3.92	NA	3.7	3.7	4.2	4.1	0	81
Hilleshög 4022RR	6	289.2	314.0	98	8067	9156	94	15.9	17.1	99	28.0	29.1	96	56	62	4.54	4.41	4.59	4.45	3.4	3.8	4.7	4.8	0	0
Hilleshög 4062RR	5	301.7	315.8	99	8398	9290	95	16.4	17.2	99	27.9	29.3	97	57	64	4.58	4.50	3.83	NA	3.6	3.4	4.6	5.0	0	0
Seedex Vapor RR(995)	3	303.4	321.4	100	7907	9737	100	16.3	17.3	100	26.0	30.2	99	54	61	4.94	4.77	5.50	NA	4.6	4.5	5.2	4.7	0	0
<b>Specialty, Conditional &amp; Candidates</b>																									
BTS 72RR22	1	316.6	326.9	102	8652	9957	102	17.1	17.7	102	27.3	30.2	100	61	65	3.91	4.13	2.33	2.91	4.7	5.2	4.3	4.1	0	0
BTS 72RR95	1	304.9	315.5	98	8109	9449	97	16.6	17.2	99	26.5	29.7	98	58	65	4.34	4.43	4.17	3.96	3.8	4.6	2.7	3.0	0	0
Crystal RR228	1	336.5	339.3	106	9493	10441	107	17.9	18.2	105	28.2	30.8	101	57	61	4.19	4.30	2.35	3.06	4.4	4.5	4.7	4.4	0	32
Crystal RR260	1	295.7	314.1	98	9756	11068	113	16.1	17.0	98	32.9	35.0	115	55	66	4.34	4.42	4.67	4.44	3.7	4.5	3.3	2.7	0	0
Crystal RR299	1	299.0	316.0	99	8963	10533	108	16.2	17.0	98	29.8	32.9	108	56	66	4.51	4.45	4.70	4.57	3.9	4.0	4.1	3.9	0	608
Hilleshög 4448RR(9449 MD)	NC	309.8	326.8	102	9357	10022	103	16.6	17.6	101	30.1	30.5	100	53	60	5.28	5.00	4.78	4.65	4.8	4.7	5.0	4.7	0	0
Maribo MA102RR(108)	NC	322.5	330.7	103	9976	10092	103	17.2	17.7	102	30.7	30.2	100	73	66	5.54	5.38	4.99	4.20	5.5	4.3	5.1	5.4	0	0
Seedex SX092RR	NC	303.0	319.8	100	8406	9386	96	16.3	17.2	99	27.7	29.4	97	66	65	4.81	4.47	4.38	4.54	4.6	4.4	5.7	4.8	0	0
Seedex Yuma RR(924)	1	288.9	317.1	99	7724	9525	98	15.6	17.1	99	26.7	29.7	98	48	55	5.11	4.77	5.41	4.83	--	4.2	NR	4.5	0	0
<b>Test Market Candidates</b>																									
BTS 7373	NC	326.8	319.9	105	9150	9345	107	17.5	17.2	105	27.9	29.1	101	70	70	4.58	4.66	2.72	3.12	3.9	4.5	--	3.9	0	0
BTS 73MN	NC	309.1	303.6	100	9010	9015	103	16.5	16.3	99	29.1	29.6	103	72	73	4.37	4.50	3.93	3.94	3.5	4.1	--	3.2	0	0
Crystal D352NT	NC	298.0	297.8	98	8964	8848	101	16.2	16.2	98	29.8	29.6	103	81	80	4.67	4.60	3.80	3.96	3.2	3.9	--	2.5	0	0
Hilleshög 9517RR	NC	313.4	315.2	104	7853	8413	96	16.9	17.1	104	25.0	26.7	93	60	63	4.39	4.53	3.89	3.78	3.6	4.0	3.8	3.4	0	0
SV RR631	NC	306.9	306.2	101	9412	9072	104	16.5	16.5	100	30.3	29.6	103	68	71	4.88	4.83	4.98	5.01	4.4	4.4	--	4.0	0	0
SV RR632N	NC	315.9	307.8	101	8729	8774	100	16.8	16.5	100	27.5	28.3	98	65	67	4.56	4.68	4.79	4.74	4.6	4.3	4.3	5.3	0	0
SV RR633	NC	306.4	303.8	100	9596	9165	105	16.5	16.4	99	31.0	30.0	104	74	67	5.39	5.11	3.72	4.21	3.4	4.2	--	3.2	0	0
<b>First Year Varieties</b>																									
BTS 7438	NC	299.8		99	8909		104	16.1		98	29.8		106	77		4.45		3.85		4.1		--		0	
BTS 7447	NC	321.7		106	9169		107	17.2		105	28.4		101	79		4.58		4.52		5.0		--		0	
BTS 7481	NC	308.2		101	8799		103	16.6		101	28.4		101	75		4.41		4.80		4.1		--		0	
Crystal D425NT	NC	297.6		98	7902		92	16.2		99	26.3		94	78		4.06		4.47		4.0		--		0	
Crystal D488	NC	309.4		102	8923		104	16.8		102	28.8		103	74		4.99		4.23		4.4		--		0	
Hilleshög 4302RR	1	314.2		103	8701		102	16.8		102	27.5		98	73		4.52		4.20		3.6			5.0	0	
Hilleshög 9528RR	NC	316.4		104	9352		109	16.9		103	29.7		105	73		4.97		5.44		3.8			4.8	0	
Hilleshög 9601RR	NC	293.5		96	8507		99	16.0		97	28.9		103	63		4.77		6.12		3.7		--		0	
Hilleshög 9602RR	NC	306.4		101	9247		108	16.4		100	30.1		107	75		4.67		4.55		4.1		--		0	
Hilleshög 9610RR	NC	312.3		103	8455		99	16.7		102	27.0		96	71		4.46		5.04		3.4		--		0	
Hilleshög 9613RR	NC	284.8		94	9048		106	15.6		95	31.5		112	78		4.97		5.66		3.9		--		0	
Hilleshög 9615RR	NC	308.4		101	8158		95	16.7		102	26.3		94	75		4.33		5.87		--		--		3.4	0
Hilleshög 9620RR	NC	303.6		100	8335		97	16.4		99	27.3		97	77		5.79		2.94		--			3.9	0	
Maribo 109RR	NC	331.4		109	8173		95	17.6		107	24.5		87	71		4.68		5.00		3.3		--		0	
Maribo 301	NC	297.7		98	8289		97	16.2		98	27.8		99	79		4.92		3.16		4.7			2.7	0	
Maribo 408	NC	301.8		99	8974		105	16.3		99	29.7		105	70		5.29		4.70		--		--		0	
Maribo 409	NC	299.8		99	9556		112	16.2		98	31.7		113	73		5.28		5.06		--		--		0	
Seedex RR0941	NC	301.5		99	8653		101	16.1		98	28.9		103	64		4.67		3.93		4.2			4.9	0	
Seedex RR0942	NC	334.5		110	7871		92	17.7		108	23.5		83	69		4.61		5.64		4.1		--		0	
Seedex RR0943TT	NC	306.2		101	9443		110	16.5		100	30.7		109	72		5.53		5.45		3.7		--		0	
Seedex RR0944	NC	318.1		105	8306		97	17.0		103	26.0		92	71		4.00		3.95		4.4			4.2	0	
Seedex RR0945	NC	317.0		104	8383		98	16.9		103	26.4		94	65		4.17		4.95		4.6			4.8	0	
Seedex RR0946	NC	316.1		104	8262		96	16.9		103	25.9		92	68		4.14		4.96		4.3			4.1	0	
SV RR744	NC	332.2		109	8247		96	17.8		108	24.7		88	65		4.25		5.41		3.8			4.0	0	
SV RR745	NC	314.2		103	8175		95	16.7		102	26.1		93	67		5.10		6.14		4.3			4.7	0	
SV RR746	NC	326.5		107	9565		112	17.4		106	29.1		104	72		4.87		4.62		4.2		--		0	
SV RR747	NC	304.5		100	9204		108	16.3		99	30.1		107	68		4.73		4.67		4.1		--		0	
Established Variety Mean		304.2	320.3		8561	9759.3		16.4	17.3		28.1	30.4													
Established Variety - 2 Yr Mean			304.0			8747.3																			

\* 2014 Barnesville &amp; Fairmount. 2013 Breckenridge &amp; Fairmount. 2012 Barnesville, Fairmount &amp; Norcross.

Established variety mean based upon 6 varieties.

+ Years Comm Seed indicates how long commercial seed has been

Table 33.

2014 Performance of Approved Varieties - MDFC Commercial Official Trials

2 sites - All Characters

Description @	Code	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Tare
		lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	per Ac	%	%
<b>Commercial Trial</b>														
BTS 70RR99	152	313.3	102	9050	102	1.23	16.90	28.80	271	1859	360	0.0	57.1	4.7
BTS 72RR22	160	316.6	103	8652	98	1.27	17.10	27.27	296	1887	372	0.0	61.2	6.2
BTS 72RR95	163	304.9	100	8109	92	1.39	16.64	26.54	354	1894	441	0.0	57.7	5.4
Crystal RR012	162	321.5	105	8672	98	1.20	17.27	26.95	259	1843	346	49.5	55.4	6.2
Crystal RR228	151	336.5	110	9493	107	1.13	17.94	28.22	229	1811	315	31.5	57.3	4.6
Crystal RR260	159	295.7	97	9756	110	1.29	16.07	32.91	417	1980	321	0.0	55.4	4.1
Crystal RR299	157	299.0	98	8963	101	1.28	16.22	29.83	389	1917	338	607.5	55.9	4.8
Crystal RR830	156	296.1	97	9274	105	1.11	15.91	31.18	318	1757	274	81.0	59.5	3.9
Hilleshög 4022RR	158	289.2	95	8067	91	1.43	15.89	27.98	443	1948	431	0.0	56.2	3.6
Hilleshög 4062RR	153	301.7	99	8398	95	1.32	16.40	27.86	346	1918	384	0.0	56.5	3.6
Hilleshög 4448RR(9448)	155	309.8	101	9357	106	1.14	16.63	30.07	295	1673	326	0.0	53.0	3.5
Seedex Vapor RR(995)	154	303.4	99	7907	90	1.09	16.26	25.99	294	1770	268	0.0	54.2	4.7
Seedex Yuma RR(924)	161	288.9	94	7724	87	1.18	15.62	26.70	386	1761	303	0.0	47.8	4.1
RR Filler #06	164	303.8	99	8948	101	1.32	16.52	29.34	386	2001	351	63.0	61.5	4.6
RR Filler #02b	165	310.2	101	10089	114	1.14	16.65	32.59	350	1843	267	31.5	58.3	3.9
<b>Experimental Trial (Comm status)</b>														
BTS 7373	326	326.8	107	9150	104	1.13	17.49	27.89	251	1896	280	0.0	70.1	3.1
BTS 73MN	333	309.1	101	9010	102	1.04	16.52	29.05	248	1767	243	0.0	71.8	3.0
BTS 7438	311	299.8	98	8909	101	1.12	16.12	29.82	325	1760	285	0.0	77.3	4.3
BTS 7447	310	321.7	105	9169	104	1.11	17.21	28.42	238	1803	295	0.0	79.1	2.9
BTS 7481	307	308.2	101	8799	100	1.13	16.57	28.37	229	1801	308	0.0	75.0	3.0
Crystal D352NT	316	298.0	97	8964	102	1.27	16.19	29.83	323	1895	360	0.0	81.2	3.7
Crystal D425NT	318	297.6	97	7902	89	1.33	16.24	26.33	312	1955	392	0.0	78.0	3.7
Crystal D488	304	309.4	101	8923	101	1.35	16.84	28.83	336	1954	404	0.0	73.8	4.4
Hilleshög 4302RR	302	314.2	103	8701	99	1.06	16.81	27.47	284	1760	250	0.0	73.3	3.2
Hilleshög 9517RR	328	313.4	102	7853	89	1.27	16.94	24.98	347	1903	350	0.0	60.0	3.2
Hilleshög 9528RR	308	316.4	103	9352	106	1.09	16.91	29.65	253	1689	303	0.0	72.7	2.4
Hilleshög 9601RR	301	293.5	96	8507	96	1.31	15.99	28.86	509	1850	346	0.0	63.4	2.6
Hilleshög 9602RR	322	306.4	100	9247	105	1.07	16.42	30.06	325	1773	247	0.0	74.7	2.4
Hilleshög 9610RR	334	312.3	102	8455	96	1.07	16.70	26.96	325	1693	260	0.0	71.4	2.9
Hilleshög 9613RR	331	284.8	93	9048	102	1.34	15.61	31.46	405	2012	359	0.0	78.2	2.6
Hilleshög 9615RR	312	308.4	101	8158	92	1.28	16.73	26.34	374	1897	353	0.0	74.7	5.3
Hilleshög 9620RR	335	303.6	99	8335	94	1.15	16.35	27.27	331	1883	273	0.0	77.2	3.1
Maribo MA102RR	305	322.5	105	9976	113	1.01	17.17	30.73	248	1652	251	0.0	72.8	2.7
Maribo 109RR	309	331.4	108	8173	93	1.05	17.65	24.48	238	1648	283	0.0	71.4	2.7
Maribo 301	317	297.7	97	8289	94	1.31	16.19	27.82	386	1850	386	0.0	78.8	5.0
Maribo 408	330	301.8	99	8974	102	1.19	16.29	29.65	370	1923	285	0.0	70.3	4.2
Maribo 409	320	299.8	98	9556	108	1.18	16.19	31.75	244	1862	330	0.0	73.1	2.8
Seedex SX0929RR	306	303.0	99	8406	95	1.16	16.30	27.67	308	1927	276	0.0	66.4	3.5
Seedex RR0941	314	301.5	99	8653	98	1.02	16.09	28.95	308	1616	253	0.0	63.7	2.6
Seedex RR0942	327	334.5	109	7871	89	0.97	17.72	23.48	185	1727	223	0.0	69.5	4.1
Seedex RR0943TT	324	306.2	100	9443	107	1.12	16.47	30.69	256	1741	311	0.0	72.4	2.6
Seedex RR0944	329	318.1	104	8306	94	1.05	16.98	26.01	250	1747	254	0.0	70.8	4.0
Seedex RR0945	336	317.0	104	8383	95	1.07	16.91	26.45	232	1862	253	0.0	64.6	3.2
Seedex RR0946	303	316.1	103	8262	94	1.07	16.89	25.88	275	1751	259	0.0	68.5	4.1
SV RR631	313	306.9	100	9412	107	1.16	16.53	30.31	304	1757	315	0.0	68.4	3.1
SV RR632N	315	315.9	103	8729	99	1.02	16.85	27.49	243	1805	221	0.0	64.9	3.5
SV RR633	321	306.4	100	9596	109	1.18	16.51	31.05	304	1739	340	0.0	73.6	2.6
SV RR744	323	332.2	109	8247	93	1.09	17.76	24.71	257	1769	280	0.0	64.7	3.9
SV RR745	332	314.2	103	8175	93	0.97	16.69	26.07	227	1763	199	0.0	67.2	4.3
SV RR746	325	326.5	107	9565	108	1.08	17.44	29.13	277	1816	253	0.0	72.4	2.9
SV RR747	319	304.5	100	9204	104	1.06	16.29	30.05	276	1709	266	0.0	67.7	2.7
Crystal RR830(Check)	337	299.7	98	9251	105	1.08	16.06	30.80	307	1814	238	0.0	76.3	3.1
Hilleshög 4062RR(Check)	338	299.7	98	8653	98	1.33	16.30	28.81	341	1863	412	0.0	76.5	3.0
BTS 70RR99(Check)	339	311.6	102	8817	100	1.25	16.85	28.23	286	1857	370	0.0	74.5	5.5
Trial Mean		306.0		8831		1.23	16.54	28.81	335	1857	340	58.5	56.5	4.5
Coeff. of Var. (%)		3.9		5.3		8.2	3.2	4.1	22.5	4.0	14.9		9.3	30.7
Mean LSD (0.05)		10.8		603		0.09	0.48	1.79	92	67	48		4.8	1.1
Mean LSD (0.01)		14.3		837		0.12	0.63	2.49	127	89	63		6.4	1.5
Sig Mrk		**		**		**	**	**	**	**	**		**	**

\* 2014 Data from 2 sites

10/08/2014 09:49

Created 10-20-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 14MDExp

Bolters per acre are based upon 45,000 plants per acre.

Table 34.  
2014 Performance of Approved Varieties - MDFC Commercial Official Trials  
Barnesville MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
<b>Commercial Trial</b>														
BTS 70RR99	152	301.7	102	7828	99	1.27	16.37	26.03	309	1835	383	0.0	54.6	4.3
BTS 72RR22	160	306.7	104	7754	99	1.29	16.62	25.33	355	1881	372	0.0	62.4	5.7
BTS 72RR95	163	295.9	100	7130	91	1.47	16.27	24.13	458	1871	470	0.0	56.2	5.0
Crystal RR012	162	314.4	106	7821	99	1.22	16.95	24.85	306	1845	341	0.0	58.2	6.3
Crystal RR228	151	326.9	110	8809	112	1.14	17.47	26.99	260	1833	308	63.0	55.9	3.8
Crystal RR260	159	285.9	97	9012	115	1.33	15.63	31.54	486	1995	323	0.0	57.7	3.7
Crystal RR299	157	283.1	96	7867	100	1.37	15.52	27.83	521	1947	356	733.5	53.8	4.1
Crystal RR830	156	288.2	97	8232	105	1.14	15.53	28.60	370	1750	281	0.0	57.7	4.1
Hilleshög 4022RR	158	283.1	96	7465	95	1.48	15.63	26.43	521	1955	438	0.0	57.9	3.2
Hilleshög 4062RR	153	290.1	98	7414	94	1.40	15.89	25.64	441	1896	412	0.0	57.9	3.2
Hilleshög 4448RR(9448)	155	301.9	102	8320	106	1.15	16.26	27.43	337	1652	324	0.0	53.0	2.8
Seedex Vapor RR(995)	154	291.4	98	6557	83	1.19	15.76	22.65	372	1777	313	0.0	54.4	4.4
Seedex Yuma RR(924)	161	280.9	95	6753	86	1.18	15.23	23.97	450	1718	291	0.0	49.4	3.8
RR Filler #06	164	290.7	98	7884	100	1.35	15.89	27.21	503	1950	344	0.0	59.2	3.7
RR Filler #02b	165	297.1	100	9192	117	1.23	16.09	31.07	463	1837	300	63.0	56.2	3.3
<b>Experimental Trial (Comm status)</b>														
BTS 7373	326	324.3	110	8068	103	1.11	17.35	24.87	258	1901	262	0.0	69.6	2.7
BTS 73MN	333	305.1	103	7866	100	1.05	16.32	25.93	291	1784	231	0.0	75.6	2.8
BTS 7438	311	289.8	98	7675	98	1.16	15.65	26.86	397	1737	295	0.0	78.9	4.1
BTS 7447	310	317.3	107	7972	101	1.08	16.97	25.16	251	1779	272	0.0	78.8	2.5
BTS 7481	307	300.9	102	7449	95	1.17	16.23	24.64	250	1793	332	0.0	73.7	2.6
Crystal D352NT	316	288.6	98	7867	100	1.34	15.76	27.31	402	1924	373	0.0	83.8	2.6
Crystal D425NT	318	293.5	99	7019	89	1.35	16.03	23.93	353	1947	394	0.0	76.6	3.2
Crystal D488	304	305.7	103	7937	101	1.37	16.67	25.98	390	1950	396	0.0	73.6	3.5
Hilleshög 4302RR	302	309.3	105	7837	100	1.08	16.58	25.24	332	1769	245	0.0	70.7	2.9
Hilleshög 9517RR	328	312.9	106	6875	87	1.14	16.80	21.93	366	1865	256	0.0	59.3	2.6
Hilleshög 9528RR	308	312.1	105	8053	102	1.05	16.66	25.76	284	1703	256	0.0	72.9	1.8
Hilleshög 9601RR	301	281.2	95	7357	93	1.33	15.42	26.09	598	1805	338	0.0	63.9	2.4
Hilleshög 9602RR	322	296.1	100	7931	101	1.11	15.94	26.83	383	1787	247	0.0	71.2	2.0
Hilleshög 9610RR	334	307.3	104	7856	100	1.13	16.51	25.41	359	1697	293	0.0	74.9	2.3
Hilleshög 9613RR	331	275.1	93	8064	102	1.38	15.15	29.12	508	1954	356	0.0	76.6	1.9
Hilleshög 9615RR	312	301.1	102	7028	89	1.31	16.39	23.42	428	1931	349	0.0	79.6	5.2
Hilleshög 9620RR	335	294.5	100	6747	86	1.11	15.86	22.90	395	1779	244	0.0	82.1	2.7
Maribo MA102RR	305	310.4	105	8731	111	1.02	16.58	28.10	280	1652	251	0.0	71.8	2.0
Maribo 109RR	309	321.7	109	7364	94	1.10	17.21	22.80	279	1640	305	0.0	76.6	2.2
Maribo 301	317	298.0	101	7443	95	1.31	16.21	24.84	416	1837	372	0.0	79.8	6.0
Maribo 408	330	289.5	98	7617	97	1.22	15.69	26.56	450	1906	283	0.0	70.8	3.7
Maribo 409	320	296.1	100	8587	109	1.12	15.92	29.20	248	1869	281	0.0	72.5	2.5
Seedex SX0929RR	306	294.1	99	7172	91	1.17	15.88	24.52	351	1921	273	0.0	65.8	3.3
Seedex RR0941	314	293.4	99	7451	95	1.07	15.74	25.75	383	1589	270	0.0	63.9	2.5
Seedex RR0942	327	326.5	110	6747	86	0.96	17.29	20.75	209	1740	207	0.0	69.4	3.3
Seedex RR0943TT	324	305.9	103	8628	110	1.11	16.42	28.13	271	1700	306	0.0	71.9	2.3
Seedex RR0944	329	303.2	102	7220	92	1.08	16.27	23.72	304	1707	272	0.0	72.4	3.2
Seedex RR0945	336	312.9	106	7108	90	1.06	16.69	22.85	256	1821	244	0.0	59.2	3.0
Seedex RR0946	303	304.7	103	7062	90	1.09	16.36	23.12	322	1780	253	0.0	68.3	2.9
SV RR631	313	297.5	101	8196	104	1.15	16.04	27.41	363	1711	302	0.0	72.3	2.8
SV RR632N	315	311.5	105	7812	99	1.11	16.71	25.28	299	1895	251	0.0	61.9	3.3
SV RR633	321	292.4	99	8150	104	1.13	15.76	27.63	355	1683	292	0.0	76.2	2.8
SV RR744	323	325.3	110	7338	93	1.13	17.46	22.57	330	1796	278	0.0	64.0	3.2
SV RR745	332	309.4	105	6343	81	0.96	16.43	20.45	260	1649	208	0.0	68.4	5.2
SV RR746	325	317.7	107	8666	110	1.07	16.98	26.89	284	1766	249	0.0	74.6	2.5
SV RR747	319	298.6	101	8329	106	1.09	16.03	28.04	324	1738	262	0.0	69.3	2.2
Crystal RR830(Check)	337	286.4	97	7878	100	1.15	15.47	27.55	382	1773	277	0.0	77.4	3.0
Hilleshög 4062RR(Check)	338	292.0	99	7748	98	1.37	15.95	26.67	404	1845	423	0.0	78.0	2.6
BTS 70RR99(Check)	339	301.6	102	7849	100	1.29	16.37	26.04	334	1863	376	0.0	76.1	3.1
Trial Mean		295.9		7869		1.28	16.07	26.65	410	1849	350	0.0	56.3	4.1
Coeff. of Var. (%)		4.0		5.8		7.7	3.2	4.7	20.6	3.8	13.5		7.5	30.2
Mean LSD (0.05)		15.1		573		0.13	0.65	1.57	106	87	63		5.3	1.4
Mean LSD (0.01)		20.1		762		0.17	0.87	2.08	140	116	84		7.0	1.9
Sig Mrk		**		**		**	**	**	**	**	**		**	**

\* 2014 Data from Barnesville MN

10/07/2014 13:44

Created 10-20-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 146301

Bolters per acre are based upon 45,000 plants per acre.

Table 35.

2014 Performance of Approved Varieties - MDFC Commercial Official Trials  
Fairmount ND - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
<b>Commercial Trial</b>														
BTS 70RR99	152	324.9	103	10278	105	1.20	17.43	31.57	242	1882	340	0.0	59.3	5.1
BTS 72RR22	160	326.2	103	9484	97	1.25	17.58	29.25	246	1893	372	0.0	59.7	6.8
BTS 72RR95	163	314.2	99	9077	93	1.31	17.03	28.94	253	1920	413	0.0	59.5	5.9
Crystal RR012	162	329.4	104	9599	98	1.17	17.62	29.01	198	1844	351	99.0	53.1	6.1
Crystal RR228	151	344.6	109	10147	104	1.13	18.36	29.42	210	1794	323	0.0	57.8	5.5
Crystal RR260	159	305.7	97	10464	107	1.25	16.52	34.33	348	1967	319	0.0	52.8	4.4
Crystal RR299	157	313.9	99	10056	103	1.19	16.89	31.79	273	1886	323	477.0	57.0	5.5
Crystal RR830	156	303.7	96	10292	105	1.07	16.28	33.75	260	1764	266	157.5	60.8	3.8
Hilleshög 4022RR	158	295.0	93	8676	89	1.38	16.12	29.55	365	1937	423	0.0	55.2	4.1
Hilleshög 4062RR	153	313.3	99	9393	96	1.23	16.90	30.06	237	1935	356	0.0	55.9	4.1
Hilleshög 4448RR(9448)	155	319.3	101	10450	107	1.12	17.07	32.67	247	1693	325	0.0	53.0	4.1
Seedex Vapor RR(995)	154	316.2	100	9276	95	0.98	16.78	29.35	199	1758	219	0.0	54.9	4.9
Seedex Yuma RR(924)	161	297.5	94	8738	89	1.17	16.04	29.43	318	1808	315	0.0	46.5	4.3
RR Filler #06	164	317.2	100	10001	102	1.29	17.16	31.48	269	2048	359	126.0	64.1	5.5
RR Filler #02b	165	321.8	102	10953	112	1.06	17.16	34.10	248	1853	238	0.0	60.4	4.4
<b>Experimental Trial (Comm status)</b>														
BTS 7373	326	325.0	103	10174	104	1.17	17.45	31.00	284	1887	314	0.0	70.6	3.6
BTS 73MN	333	307.7	97	10138	104	1.03	16.47	32.45	216	1734	270	0.0	67.5	3.1
BTS 7438	311	310.1	98	10231	104	1.09	16.61	33.08	261	1782	276	0.0	75.3	4.4
BTS 7447	310	324.1	102	10419	106	1.18	17.39	32.17	271	1830	342	0.0	79.8	3.2
BTS 7481	307	313.3	99	10242	105	1.10	16.80	32.49	244	1806	287	0.0	77.2	3.8
Crystal D352NT	316	301.2	95	9991	102	1.22	16.34	32.23	277	1862	374	0.0	77.6	4.9
Crystal D425NT	318	297.2	94	8741	89	1.34	16.23	28.86	286	1967	407	0.0	79.3	4.1
Crystal D488	304	312.5	99	9819	100	1.35	16.93	31.56	277	1961	421	0.0	73.3	5.4
Hilleshög 4302RR	302	316.9	100	9469	97	1.06	16.92	29.72	264	1748	266	0.0	76.1	3.5
Hilleshög 9517RR	328	307.0	97	8799	90	1.47	16.84	28.20	385	1945	502	0.0	61.0	3.8
Hilleshög 9528RR	308	320.0	101	10729	110	1.15	17.14	33.80	214	1671	364	0.0	72.9	3.4
Hilleshög 9601RR	301	306.8	97	9694	99	1.32	16.63	31.64	414	1900	372	0.0	62.9	2.7
Hilleshög 9602RR	322	318.6	101	10673	109	1.04	16.97	33.74	252	1758	250	0.0	79.0	2.8
Hilleshög 9610RR	334	317.7	100	8870	91	0.99	16.87	28.10	281	1682	211	0.0	66.9	3.7
Hilleshög 9613RR	331	294.3	93	9995	102	1.32	16.01	33.92	280	2078	371	0.0	80.3	3.1
Hilleshög 9615RR	312	313.9	99	9280	95	1.25	16.96	29.31	309	1844	372	0.0	68.4	5.6
Hilleshög 9620RR	335	311.9	99	10152	104	1.22	16.83	32.57	255	2005	321	0.0	71.0	3.6
Maribo MA102RR	305	335.9	106	11239	115	0.99	17.80	33.59	220	1651	247	0.0	73.7	3.4
Maribo 109RR	309	343.2	109	8901	91	0.99	18.15	26.02	201	1658	254	0.0	64.2	2.9
Maribo 301	317	294.8	93	9043	92	1.35	16.06	30.71	359	1865	426	0.0	77.3	3.8
Maribo 408	330	314.7	100	10464	107	1.17	16.92	33.12	289	1935	297	0.0	70.1	4.7
Maribo 409	320	298.2	94	10401	106	1.27	16.22	34.35	256	1848	408	0.0	73.7	3.3
Seedex SX0929RR	306	314.3	99	9717	99	1.16	16.84	31.16	284	1923	279	0.0	67.5	3.6
Seedex RR0941	314	312.8	99	9940	102	0.97	16.59	32.34	208	1646	234	0.0	62.8	2.9
Seedex RR0942	327	340.3	108	9071	93	1.00	18.07	26.50	188	1706	256	0.0	69.6	4.9
Seedex RR0943TT	324	302.1	96	10113	103	1.15	16.28	33.16	261	1797	320	0.0	72.9	2.7
Seedex RR0944	329	336.6	106	9433	96	0.99	17.83	28.27	156	1784	223	0.0	68.3	5.0
Seedex RR0945	336	315.6	100	9709	99	1.14	16.95	30.28	270	1906	292	0.0	71.7	3.4
Seedex RR0946	303	327.1	103	9476	97	1.06	17.42	28.75	250	1715	286	0.0	68.8	5.2
SV RR631	313	314.1	99	10618	108	1.16	16.90	33.40	241	1818	333	0.0	64.0	3.3
SV RR632N	315	315.1	100	9576	98	0.93	16.75	29.85	204	1692	207	0.0	68.6	3.6
SV RR633	321	319.3	101	11128	114	1.27	17.25	34.67	280	1805	426	0.0	70.5	2.2
SV RR744	323	339.5	107	9123	93	1.04	18.03	26.93	147	1740	287	0.0	65.1	4.6
SV RR745	332	318.0	101	10329	105	1.00	16.91	32.63	204	1899	197	0.0	65.8	3.4
SV RR746	325	337.0	107	10403	106	1.11	17.94	31.12	254	1867	252	0.0	69.6	3.4
SV RR747	319	307.0	97	9942	102	1.03	16.41	31.97	231	1661	279	0.0	65.8	3.3
Crystal RR830(Check)	337	315.6	100	10755	110	0.99	16.76	34.33	219	1852	190	0.0	74.0	3.0
Hilleshög 4062RR(Check)	338	305.5	97	9459	97	1.29	16.58	30.69	283	1879	405	0.0	74.8	3.7
BTS 70RR99(Check)	339	320.8	101	9750	100	1.22	17.27	30.37	236	1849	367	0.0	72.8	8.3
Trial Mean		316.2		9792		1.19	17.00	30.98	261	1865	329	0.0	56.7	5.0
Coeff. of Var. (%)		4.1		4.7		8.7	3.5	3.6	25.1	4.4	16.4		11.3	31.8
Mean LSD (0.05)		16.8		607		0.14	0.76	1.38	88	106	73		8.4	1.8
Mean LSD (0.01)		22.4		808		0.19	1.01	1.83	117	141	98		11.2	2.4
Sig Mrk		**		**		**	**	**	**	**	**		*	*

\* 2014 Data from Fairmount ND

10/08/2014 08:32

Created 10-20-2014.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial.

Trial # = 146303

Bolters per acre are based upon 45,000 plants per acre.

Table 36.

2014 Aphanomyces Readings for Official Trial Entries  
Betaseed Nursery - Shakopee, MN & Betaseed Replant - Shakopee, MN

Chk++ Code	Description	Foliar <sup>^</sup>		Root <sup>^^</sup>		Foliar <sup>^</sup>		Root <sup>^^</sup>		2014 Average		Multi-Year Average				2013		2012		Trial Yrs \$S
		Unadjusted		Adjusted		Unadjusted		Adjusted		Foliar	Root	Foliar		Root		Foliar <sup>^</sup>	Rt.Lnd <sup>^^</sup>	Foliar <sup>^</sup>	Rt.Lnd <sup>^^</sup>	
		Shak #2 9/8	Shak #2 8/13	Shak #2 9/17	Shak #2 8/27	Shak #2 9/8	Shak #2 8/13	Shak #2 9/17	Shak #2 8/27	2 Yr	3 Yr	2 Yr	3 Yr	2 Yr	3 Yr					
616	BTS 70RR99	1.97	3.65	3.71	4.69	1.70	2.19	3.30	3.83	1.95	3.57	2.39	NR	4.04	NR	2.83	4.52	NR	NR	5
532	BTS 72RR22	1.32	3.15	2.20	3.30	1.14	1.89	1.96	2.70	1.52	2.33	1.85	1.93	2.77	2.91	2.17	3.21	2.10	3.19	3
556	BTS 72RR95	2.08	4.03	4.70	5.08	1.80	2.42	4.18	4.15	2.11	4.17	2.22	2.24	3.98	3.96	2.34	3.80	2.27	3.93	3
598	BTS 7373	1.56	3.24	2.49	3.94	1.35	1.95	2.22	3.22	1.65	2.72	1.80	--	3.12	--	1.96	3.53	--	--	2
544	BTS 73MN	1.96	3.29	4.66	4.54	1.69	1.98	4.15	3.71	1.83	3.93	2.03	--	3.94	--	2.23	3.96	--	--	2
604	BTS 7439	2.27	3.50	4.44	4.60	1.96	2.10	3.95	3.76	2.03	3.85	--	--	--	--	--	--	--	--	1
582	BTS 7447	2.70	4.74	5.15	5.46	2.33	2.85	4.58	4.46	2.59	4.52	--	--	--	--	--	--	--	--	1
614	BTS 7481	3.31	4.41	5.50	5.75	2.86	2.65	4.89	4.70	2.75	4.80	--	--	--	--	--	--	--	--	1
573	BTS 80RR32	2.45	6.75	4.75	7.22	2.12	4.05	4.23	5.90	3.08	5.06	3.17	3.01	5.05	4.85	3.26	5.04	2.69	4.43	5
575	BTS 80RR52	2.32	4.16	4.35	5.07	2.00	2.50	3.87	4.14	2.25	4.01	2.30	2.33	4.01	4.02	2.34	4.01	2.41	4.04	5
506	BTS 81RR17	1.90	4.12	3.27	4.67	1.64	2.47	2.91	3.32	2.06	3.36	2.11	1.95	3.62	3.50	2.16	3.87	1.65	3.25	4
508	BTS 82RR22	2.40	4.25	4.78	5.19	2.07	2.55	4.25	4.24	2.31	4.25	2.55	2.27	4.33	4.20	2.79	4.41	1.71	3.95	3
517	BTS 82RR28	3.58	4.68	5.47	5.88	3.09	2.81	4.87	4.80	2.95	4.84	2.77	2.80	4.73	4.65	2.59	4.62	2.87	4.51	3
515	BTS 82RR33	3.56	6.89	6.17	6.97	3.07	4.14	5.49	5.69	3.61	5.59	3.25	3.14	5.49	5.36	2.89	5.40	2.92	5.11	3
578	BTS 82RR80	2.14	3.46	4.54	4.89	1.85	2.08	4.04	4.00	1.96	4.02	2.23	2.06	4.29	3.98	2.49	4.56	1.72	3.37	3
606	BTS 8337	1.57	4.86	3.13	5.60	1.36	2.92	2.78	4.58	2.14	3.68	2.22	--	3.68	--	2.31	3.69	--	--	2
548	BTS 8373	2.22	5.68	4.39	6.09	1.92	3.41	3.91	4.98	2.66	4.44	2.56	--	4.37	--	2.46	4.40	--	--	2
569	BTS 8393	3.14	6.42	4.93	6.95	1.71	3.86	4.39	5.68	3.28	5.03	3.17	--	4.97	--	3.07	4.91	--	--	2
597	BTS 8390	2.51	6.79	4.46	7.45	2.17	4.08	3.97	6.09	3.12	5.03	3.09	--	4.89	--	3.05	4.75	--	--	2
515	BTS 83CN	1.85	5.03	4.37	5.42	1.60	3.02	3.89	4.43	2.31	4.16	2.63	--	4.25	--	2.95	4.34	--	--	2
617	BTS 8402	2.88	6.23	4.94	6.98	2.50	3.74	4.39	5.70	3.12	5.05	--	--	--	--	--	--	--	--	1
503	BTS 8404	3.60	4.59	5.60	5.71	3.11	2.76	4.98	4.67	2.93	4.82	--	--	--	--	--	--	--	--	1
602	BTS 8405	2.58	5.55	5.28	6.32	2.23	3.33	4.70	5.16	2.78	4.93	--	--	--	--	--	--	--	--	1
605	BTS 8406	4.80	6.84	7.02	7.42	4.14	4.11	6.25	6.06	4.13	6.15	--	--	--	--	--	--	--	--	1
584	BTS 8408	2.17	4.64	4.25	5.96	1.87	2.79	3.78	4.87	2.33	4.33	--	--	--	--	--	--	--	--	1
525	BTS 840N	1.77	5.45	4.49	6.40	1.53	3.27	3.99	5.23	2.40	4.61	--	--	--	--	--	--	--	--	1
593	BTS 89RR83	3.65	6.20	5.34	6.72	3.15	3.72	4.75	5.49	3.44	5.12	2.97	2.63	4.58	4.26	2.51	4.04	1.94	3.62	6
531	Crystal 093RR	3.60	5.83	4.84	6.21	3.11	3.50	4.31	5.07	3.30	4.69	2.91	2.81	4.61	4.47	2.52	4.54	2.62	4.19	5
585	Crystal 095RR	4.23	4.81	5.21	5.59	3.65	2.89	4.64	4.57	3.27	4.60	3.21	3.01	4.83	4.76	3.15	5.05	2.62	4.63	5
588	Crystal 101RR	2.07	3.37	4.25	3.81	1.79	2.02	3.78	3.11	1.91	3.45	2.11	2.04	3.62	3.40	2.32	3.80	1.88	2.97	4
564	Crystal 246RR	2.23	5.36	4.57	6.07	1.93	3.22	4.07	4.96	2.57	4.51	2.83	2.68	4.71	4.42	3.09	4.90	2.37	3.85	3
518	Crystal 247RR	2.57	5.91	5.26	6.63	2.22	3.55	4.68	5.42	2.88	5.05	2.99	2.69	5.13	4.65	3.10	5.21	2.07	3.68	3
566	Crystal 356RR	1.94	4.76	4.06	5.75	1.68	2.86	3.61	4.70	2.27	4.15	2.58	--	4.33	--	2.50	4.51	--	--	2
550	Crystal 359RR	3.02	4.98	5.76	5.78	2.61	2.99	5.12	4.72	2.80	4.92	2.52	--	4.68	--	2.24	4.44	--	--	2
545	Crystal 447RR	0.98	2.85	2.49	4.65	0.85	1.71	2.22	3.80	1.28	3.01	--	--	--	--	--	--	--	--	1
539	Crystal 465RR	3.48	4.97	5.39	6.03	3.00	2.98	4.80	4.93	2.99	4.86	--	--	--	--	--	--	--	--	1
607	Crystal 466RR	3.56	6.00	5.89	6.55	3.07	3.60	5.24	5.35	3.34	5.30	--	--	--	--	--	--	--	--	1
518	Crystal 467RR	2.38	4.61	4.63	5.55	2.05	2.77	4.12	4.53	2.41	4.33	--	--	--	--	--	--	--	--	1
611	Crystal 469RR	2.33	4.21	4.38	5.77	2.01	2.53	3.90	4.74	2.27	4.31	--	--	--	--	--	--	--	--	1
630	Crystal 469RR	3.65	5.41	5.86	6.01	3.15	3.25	5.21	4.91	3.20	5.08	--	--	--	--	--	--	--	--	1
512	Crystal 765RR	5.84	6.73	6.80	7.52	5.04	4.04	5.87	6.14	4.54	6.01	4.21	3.95	5.90	5.83	3.89	5.79	3.42	5.69	8
572	Crystal 768RR	2.99	4.20	5.65	5.49	2.58	2.52	5.03	4.49	2.55	4.76	2.60	2.31	4.78	4.49	2.66	4.80	1.73	3.91	8
502	Crystal 875RR	2.09	2.90	4.20	3.03	1.80	1.74	3.74	2.48	1.77	3.11	1.96	1.91	3.43	3.19	2.14	3.76	1.81	2.71	7
548	Crystal 981RR	2.20	4.29	3.87	5.07	1.90	2.58	3.44	4.14	2.24	3.79	2.24	2.06	3.67	3.47	2.24	3.55	1.70	3.08	6
521	Crystal 985RR	1.62	2.53	4.08	3.60	1.40	1.52	3.63	2.94	1.46	3.29	1.87	1.81	3.59	3.44	2.27	3.89	1.69	3.15	6
554	Crystal 986RR	2.50	3.79	5.80	5.01	2.16	2.28	5.16	4.09	2.22	4.63	2.35	2.35	4.65	4.57	2.48	4.67	2.34	4.41	6
600	Crystal D352NT	2.44	2.72	4.65	4.23	2.11	1.63	4.14	3.46	1.87	3.80	2.08	--	3.96	--	2.29	4.12	--	--	2
516	Crystal D355NT	2.39	5.01	4.73	5.79	2.06	3.01	4.21	4.73	2.54	4.47	--	--	--	--	--	--	--	--	2
560	Crystal D488	2.05	4.19	4.66	5.27	1.77	2.52	4.15	4.31	2.14	4.23	--	--	--	--	--	--	--	--	1
615	Crystal RR012	1.85	3.40	4.32	4.68	1.60	2.04	3.84	3.82	1.82	3.83	2.32	NR	4.31	NR	2.82	4.78	NR	NR	5
561	Crystal RR228	1.61	2.82	2.39	3.14	1.39	1.69	2.13	2.57	1.54	2.35	1.79	1.92	2.85	3.06	2.04	3.36	2.18	3.49	3
599	Crystal RR260	1.99	4.85	5.12	5.86	1.72	2.91	4.56	4.79	2.32	4.67	2.51	2.63	4.48	4.44	2.70	4.28	2.87	4.37	3
612	Crystal RR299	2.70	4.26	5.46	5.57	2.33	2.56	4.86	4.55	2.44	4.70	2.77	2.59	4.83	4.57	3.10	4.96	2.24	4.04	3
556	Crystal RR830	2.05	4.79	3.72	5.55	1.77	2.88	3.31	4.53	2.32	3.92	2.46	NR	4.27	NR	2.59	4.62	NR	NR	7
501	Hilleshög 4022RR	5.26	4.10	4.42	5.50	4.54	2.46	4.68	4.49	3.50	4.59	3.15	3.04	4.62	4.45	2.80	4.65	2.81	4.11	9
538	Hilleshög 4062RR	2.94	3.39	4.36	4.63	2.54	2.04	3.88	3.78	2.29	3.83	2.48	NR	4.14	NR	2.67	4.46	NR	NR	7
504	Hilleshög 4094RR	3.45	3.88	5.36	5.10	2.98	2.33	4.77	4.17	2.65	4.47	2.73	2.65	4.60	4.30	2.81	4.73	2.48	3.72	7
513	Hilleshög 4300RR	5.26	4.88	6.00	5.56	4.54	2.93	5.34	4.54	3.74	4.94	3.08	3.01	4.58	4.44	2.43	4.23	2.86	4.16	4
591	Hilleshög 4302RR	3.42	3.17	5.41	4.38	2.95	1.90	4.81	3.58	2.43	4.20	2.47	2.46	4.51	4.41	2.51	4.82	2.43	4.20	4
618	Hilleshög 4303RR	3.57	4.48	5.25	5.66	3.08	2.69	4.67	4.62	2.89	4.65	2.85	2.77	4.70	4.47	2.81	4.75	2.61	4.00	4
527	Hilleshög 4448RR(9448)	3.79	5.83	5.27	5.97	3.27	3.50	4.69	4.88	3.39	4.78	3.31	3.55	4.76	5.06	3.22	4.73	4.03	5.66	3
537	Hilleshög 9517RR	2.65	3.58	4.42	4.72	2.29	2.15	3.93	3.86	2.32	3.89	2.01	--	3.78	--	1.79	3.66	--	--	2
574	Hilleshög 9528RR	4.53	6.64	5.84	6.96	3.91	3.99	5.20	5.69	3.95	5.44	3.36	--	4.98	--	2.78	4.51	--	--	2
577	Hilleshög 9601RR	6.37	6.42	6.97	7.38	5.50	3.86	6.20	6.03	4.68	6.12	--	--	--	--	--	--	--	--	1
619	Hilleshög 9602RR	2.71	4.54	5.02	5.66	2.34	2.73	4.47	4.62	2.53	4.55	--	--	--	--	--	--	--	--	1
568	Hilleshög 9604RR	3.47																		



Table 36.  
 2014 Aphanomyces Readings for Official Trial Entries  
 Betaseed Nursery - Shakopee, MN & Betaseed Replant - Shakopee, MN

Chk++ Code	Description	Foliar <sup>^</sup>		Root <sup>^^</sup>		Foliar <sup>^</sup>		Root <sup>^^</sup>		2014 Average		Multi-Year Average Root				2013		2012		Trial Yrs \$S
		Unadjusted	Shak #2	Unadjusted	Shak #2	Adjusted	Shak #2	Adjusted	Shak #2	Adjusted	Foliar	Root	2 Yr	3 Yr	2 Yr	3 Yr	Foliar <sup>^</sup>	Rt.Indx <sup>^^</sup>	Foliar <sup>^</sup>	
575	Seedex RR0832	3.34	6.31	5.36	6.55	2.88	3.79	4.77	5.35	3.34	5.06	3.11	--	4.80	--	2.89	4.54	--	--	2
601	Seedex RR0941	2.87	2.40	5.55	3.58	2.48	1.44	4.94	2.92	1.96	3.93	--	--	--	--	--	--	--	--	1
507	Seedex RR0942	4.74	6.66	5.99	7.28	4.09	4.00	5.33	5.95	4.05	5.64	--	--	--	--	--	--	--	--	1
536	Seedex RR0943TT	4.94	5.46	6.55	6.21	4.27	3.28	5.83	5.07	3.77	5.45	--	--	--	--	--	--	--	--	1
617	Seedex RR0944	2.67	3.61	4.51	4.75	2.31	2.17	4.01	3.88	2.24	3.95	--	--	--	--	--	--	--	--	1
580	Seedex RR0945	2.84	5.03	5.25	6.39	2.45	3.02	4.67	5.22	2.74	4.95	--	--	--	--	--	--	--	--	1
567	Seedex RR0946	5.31	4.54	6.08	5.51	4.58	2.73	5.41	4.50	3.66	4.96	--	--	--	--	--	--	--	--	1
520	Seedex RR842	4.12	6.69	6.38	7.29	3.56	4.02	5.68	5.96	3.79	5.82	--	--	--	--	--	--	--	--	1
571	Seedex RR844TT	3.09	6.75	6.46	7.27	2.67	4.05	5.75	5.94	3.36	5.84	--	--	--	--	--	--	--	--	1
590	Seedex RR846	4.03	7.20	6.09	7.49	3.48	4.32	5.42	6.12	3.90	5.77	--	--	--	--	--	--	--	--	1
513	Seedex RR848	3.34	6.45	5.86	7.28	2.88	3.87	5.21	5.95	3.38	5.58	--	--	--	--	--	--	--	--	1
558	Seedex SX0929RR	3.41	4.16	5.22	5.03	2.94	2.50	4.64	4.11	2.72	4.38	3.34	2.97	4.92	4.54	3.95	5.46	2.25	3.80	3
579	Seedex Vapor RR(995)	4.71	5.99	6.17	6.75	4.07	3.60	5.49	5.51	3.83	5.50	3.15	NR	5.07	NR	2.46	4.64	NR	NR	6
526	Seedex Victor RR	3.67	4.68	5.58	5.81	3.17	2.81	4.96	4.75	2.99	4.86	3.08	3.14	4.88	4.81	3.18	4.90	3.25	4.68	6
586	Seedex Vision RR	4.12	5.21	6.20	6.81	3.56	3.13	5.52	5.56	3.34	5.54	3.47	3.38	5.47	5.37	3.60	5.41	3.21	5.17	6
587	Seedex Xavier RR	3.81	5.86	5.92	6.79	3.29	3.52	5.27	5.55	3.40	5.41	2.98	2.76	4.91	4.67	2.55	4.42	2.31	4.19	4
541	Seedex Yukon RR(828N)	1.40	1.90	3.48	3.00	1.21	1.14	3.10	2.45	1.17	2.77	2.13	2.29	3.56	3.73	3.09	4.35	2.61	4.06	3
563	Seedex Yuma RR(924)	3.76	6.11	6.02	6.69	3.25	3.67	5.36	5.47	3.46	5.41	3.21	3.12	4.94	4.83	2.97	4.46	2.94	4.63	3
557	Seedex Zenith RR(829N)	2.67	2.01	3.84	3.00	2.31	1.21	3.42	2.45	1.76	2.93	2.80	2.62	4.18	4.09	3.85	5.42	2.25	3.90	3
523	SESVdh 36175RR	1.56	1.94	4.60	3.31	1.35	1.17	4.09	2.70	1.26	3.40	1.93	2.03	3.85	3.93	2.61	4.29	2.22	4.10	4
583	SESVdh 36271RR	1.60	3.82	3.68	4.23	1.38	2.29	3.27	3.46	1.84	3.36	2.71	2.80	4.46	4.59	3.59	5.55	2.98	4.85	3
546	SESVdh 36272RR	2.87	5.13	5.23	6.50	2.48	3.08	4.65	5.31	2.78	4.98	2.99	3.07	4.99	5.04	3.20	5.01	3.22	5.15	3
599	SESVdh 36273RR	3.19	6.46	6.18	6.96	2.75	3.88	5.50	5.69	3.32	5.59	3.32	2.62	5.45	4.67	3.33	5.31	1.21	3.10	3
552	SESVdh 36918RR	2.36	4.97	5.16	5.94	2.04	2.98	4.59	4.85	2.51	4.72	2.94	2.73	4.86	4.81	3.37	5.00	2.30	4.69	6
595	SESVdh RR241	3.52	7.20	5.22	7.59	3.04	4.42	4.64	6.20	3.68	5.42	--	--	--	--	--	--	--	--	1
562	SESVdh RR242TT	5.90	8.30	7.10	8.39	5.09	4.98	6.32	6.85	5.04	6.59	--	--	--	--	--	--	--	--	1
514	SESVdh RR243	4.07	6.56	6.30	7.11	3.51	3.94	5.60	5.81	3.73	5.71	--	--	--	--	--	--	--	--	1
553	SESVdh RR244TT	4.98	6.45	6.39	6.92	4.30	3.87	5.68	5.65	4.09	5.67	--	--	--	--	--	--	--	--	1
511	SESVdh RR245N	1.83	4.57	4.76	5.55	1.58	2.74	4.23	4.53	2.16	4.38	--	--	--	--	--	--	--	--	1
542	SESVdh RR246	3.73	7.10	5.72	7.64	3.22	4.26	5.09	6.24	3.74	5.67	--	--	--	--	--	--	--	--	1
576	SESVdh RR247	3.65	7.76	6.23	7.78	3.15	4.66	5.54	6.36	3.91	5.95	--	--	--	--	--	--	--	--	1
509	SESVdh RR248	5.10	8.02	6.23	8.02	4.40	4.82	5.54	6.55	4.61	6.05	--	--	--	--	--	--	--	--	1
609	SESVdh RR333	3.87	5.60	6.05	6.47	3.34	3.36	5.38	5.29	3.35	5.33	3.42	--	5.41	--	3.48	5.48	--	--	2
529	SESVdh RR336	2.89	6.91	5.71	7.25	2.50	4.15	5.08	5.92	3.32	5.50	2.99	--	5.01	--	2.66	4.53	--	--	2
620	SESVdh RR631	4.80	4.47	6.20	5.45	4.14	2.68	5.52	4.45	3.41	4.98	3.29	--	5.01	--	3.16	5.04	--	--	2
540	SESVdh RR632N	3.22	5.22	5.36	5.90	2.78	3.14	4.77	4.82	2.96	4.79	2.93	--	4.74	--	2.91	4.69	--	--	2
519	SESVdh RR633	1.56	4.17	4.14	4.60	1.35	2.50	3.68	3.76	1.93	3.72	2.37	--	4.21	--	2.81	4.69	--	--	2
592	SESVdh RR744	5.38	6.01	6.39	6.29	4.65	3.61	5.68	5.14	4.13	5.41	--	--	--	--	--	--	--	--	1
610	SESVdh RR745	6.11	6.83	6.84	7.58	5.28	4.10	6.09	6.19	4.69	6.14	--	--	--	--	--	--	--	--	1
581	SESVdh RR746	4.15	4.63	5.06	5.80	3.58	2.78	4.50	4.74	3.18	4.62	--	--	--	--	--	--	--	--	1
570	SESVdh RR747	3.74	4.22	5.93	4.98	3.23	2.53	5.28	4.07	2.88	4.67	--	--	--	--	--	--	--	--	1
1	1001 Aph Chk-22 CRY5539RR	3.03	5.03	5.31	5.84	2.62	3.02	4.72	4.77	2.82	4.75	2.95	2.50	4.49	3.91	3.09	4.24	1.59	2.75	10
1	1002 Aph Chk-29 BETA86RR44	5.44	7.19	6.22	7.46	4.70	4.32	5.53	6.09	4.51	5.81	3.92	3.88	5.59	5.55	3.33	5.36	3.81	5.47	9
1	1003 Aph Chk-30 BETA86RR66	4.29	5.42	5.78	6.07	3.70	3.26	5.14	4.96	3.48	5.05	3.14	3.28	4.78	4.86	2.80	4.51	3.57	5.02	9
1	1004 Aph Chk-26 HILL4022RR	3.68	6.86	5.56	7.23	3.18	4.12	4.95	5.91	3.65	5.43	3.18	2.93	5.08	4.79	2.70	4.73	2.45	4.21	9
1	1005 Aph Chk-35 BETA87RR58	3.08	4.39	6.08	5.86	2.66	2.64	5.41	4.79	2.65	5.10	2.77	2.87	5.14	5.26	2.90	5.17	3.07	5.49	8
1	1006 Aph Chk-39 CRY5879RR	4.20	5.96	6.64	6.62	3.63	3.58	5.91	5.41	3.60	5.66	3.67	3.56	5.95	6.09	3.75	6.24	3.34	6.38	4
1	1007 Aph Chk-42 BETA78RR10	2.95	4.16	6.12	5.46	2.55	2.50	5.44	4.46	2.52	4.95	3.02	2.66	5.13	4.54	3.51	5.30	1.95	3.38	4
1	1008 Aph Chk-33 CRY5768RR	2.45	4.73	4.94	5.94	2.12	2.84	4.39	4.85	2.48	4.62	2.80	2.45	4.96	4.55	3.13	5.29	1.75	3.75	8
1	1009 Aph Chk-31 BETA86RR88	3.03	4.42	5.33	5.83	2.62	2.65	4.74	4.76	2.64	4.75	2.86	2.82	4.87	4.76	3.08	4.99	2.74	4.55	9
1	1010 Aph Chk-18 BETA85RR02	2.03	2.59	3.46	3.47	1.75	1.56	3.08	2.83	1.65	2.96	1.93	2.22	3.23	3.50	2.21	3.50	2.79	4.04	10
1	1011 Aph Chk-34 HILL4000RR	4.23	5.82	6.05	6.69	3.65	3.50	5.38	5.47	3.57	5.42	3.51	3.80	5.30	5.48	3.44	5.18	4.37	5.83	8
1	1012 Aph Chk-41 CRY5765RR	4.78	7.16	6.42	7.59	4.13	4.30	5.71	6.20	4.21	5.96	4.02	3.82	5.98	6.01	3.82	6.01	3.44	6.07	4
1	1013 Aph Chk-36 BETA87RR68	4.48	5.35	6.50	6.57	3.87	3.21	5.78	5.37	3.54	5.58	3.50	3.29	5.75	5.55	3.47	5.92	2.88	5.15	8
1	1014 Aph Chk-28 HILL4010RR	4.15	7.52	5.88	7.49	3.58	4.52	5.23	6.12	4.05	5.68	3.71	NR	5.49	NR	3.37	5.31	NR	NR	9
1	1015 Aph Chk-40 CRY5878RR	4.46	4.31	6.17	6.03	3.85	2.59	5.49	4.93	3.22	5.21	3.46	3.06	5.48	5.03	3.70	5.74	2.26	4.13	4
1	1016 Aph Chk-43 BTS80RR32	3.72	6.12	5.56	6.57	3.21	3.68	4.95	5.37	3.44	5.16	3.35	3.13	5.10	4.88	3.26	5.04	2.69	4.43	1
1	1017 ACAPMODRR	3.05	5.41	5.56	6.64	2.63	3.25	4.95	5.42	2.94	5.19	2.90	2.72	5.05	4.77	2.85	4.91	2.36	4.21	8
1	1018 ACAPRESRR	1.65	3.54	4.51	4.92	1.42	1.13	4.01	4.02	1.78	4.02	2.12	2.04	4.17	3.87	2.47	4.33	1.89	3.25	9
1	1019 AP CHK SUS HYB#3	5.78	7.29	6.60	7.89	4.99	4.38	5.87	6.45	4.68	6.16	4.22	3.95	6.04	5.96	3.75	5.93	3.42	5.79	8
1	1020 AP CHK SUS HYB#4	4.40	5.83	6.60	6.62	3.80	3.50	5.87	5.41	3.65	5.64	3.48	3.38	5.58	5.48	3.31	5.52	3.18	5.29	8
1	1021 AP CHK MOD RES RR#2	3.87	6.49	5.66	7.08	3.34	3.90	5.04	5.78	3.62	5.41	3.34	3.67	5.18	5.42	3.05	4.94	4.33	5.92	8
1	1022 ACAPMODRR	2.84	5.31	5.57	5.98	2.45	3.19	4.96	4.89	2.82	4.92	2.84	2.68	4.92	4.68	2.85	4.91	2.36	4.21	8
1	1023 ACAPRESRR	1.79	4.07	4.09	5.17	1.55	2.44	3.64	4.22	1.99	3.93	2.23	2.12	4.13	3.84	2.47	4.33	1.89	3.25	9
1	1024 AP CHK SUS HYB#3	4.07	7.15	6.40	7.77	3.51	4.29	5.69	6.35	3.90	6.02	3.83	3.69	5.97	5.91	3.75	5.93	3.42	5.79	8
1	1025 AP CHK																			

Table 37.  
2014 Cercospora Ratings for Official Trial Entries  
Betased (Rosemount MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

Chk	Code	Description	Adjusted to 1982 Basis ++			All Data Adjusted to 1982 Basis					Trial Yrs \$
			Rosemt. Avg	BSDF Avg	Foxhome Avg	2014*** Mean	2 Yr Mean	3 Yr Mean	2013 Mean	2012 Mean	
			6 Dates+	4 Dates+	7 Dates+						
	616	BTS 70RR99	3.85	4.61	4.13	4.20	4.46	4.42	4.72	4.33	5
	532	BTS 72RR22	3.69	4.09	3.94	3.91	4.04	4.13	4.18	4.31	3
	555	BTS 72RR95	4.43	4.32	4.26	4.34	4.35	4.43	4.37	4.57	3
	598	BTS 7373	4.35	4.61	4.77	4.58	4.66		4.75		2
	544	BTS 73MN	4.07	4.65	4.39	4.37	4.50		4.63		2
	604	BTS 7438	4.35	4.69	4.30	4.45					1
	614	BTS 7447	4.46	4.76	4.52	4.58					1
	582	BTS 7481	4.12	4.68	4.43	4.41					1
	527	BTS 80RR32	4.38	4.74	4.96	4.69	4.75	4.72	4.81	4.66	5
	573	BTS 80RR52	4.03	4.27	4.36	4.22	4.37	4.38	4.52	4.40	5
	506	BTS 81RR17	3.76	4.05	4.08	3.96	4.20	4.26	4.45	4.36	4
	508	BTS 82RR22	4.28	4.81	4.55	4.55	4.66	4.66	4.77	4.65	3
	517	BTS 82RR28	4.57	4.59	4.71	4.62	4.57	4.60	4.52	4.66	3
	515	BTS 82RR33	4.68	4.80	4.63	4.70	4.69	4.71	4.68	4.74	3
	578	BTS 82RR80	4.23	4.71	4.93	4.62	4.62	4.67	4.62	4.77	3
	606	BTS 8337	4.34	4.46	4.77	4.52	4.63		4.75		2
	549	BTS 8354	4.47	4.61	4.08	4.39	4.59		4.80		2
	510	BTS 8363	3.75	3.99	3.82	3.85	3.88		3.92		2
	569	BTS 8390	4.23	4.04	4.58	4.28	4.36		4.43		2
	597	BTS 83CN	4.39	4.60	4.82	4.60	4.48		4.36		2
	613	BTS 8402	4.39	4.66	4.56	4.54					1
	503	BTS 8404	4.40	4.76	4.28	4.48					1
	602	BTS 8405	4.11	4.35	3.95	4.14					1
	605	BTS 8406	3.73	4.08	4.28	4.03					1
	584	BTS 8408	5.19	5.02	4.78	5.00					1
	525	BTS 840N	3.73	4.17	4.09	3.99					1
	593	BTS 89RR83	4.37	4.70	4.78	4.61	4.76	4.81	4.91	4.89	6
	531	Crystal 093RR	5.15	4.83	4.68	4.88	5.04	4.97	5.20	4.82	5
	585	Crystal 095RR	4.12	4.57	5.11	4.60	4.68	4.73	4.75	4.83	5
	588	Crystal 101RR	3.72	4.81	4.26	4.26	4.44	4.53	4.63	4.71	4
	564	Crystal 246RR	4.50	4.45	4.61	4.52	4.50	4.49	4.48	4.49	3
	505	Crystal 247RR	4.07	4.29	4.24	4.20	4.39	4.48	4.57	4.68	3
	566	Crystal 355RR	4.34	4.58	4.82	4.58	4.73		4.89		2
	550	Crystal 359RR	5.22	5.25	5.01	5.16	5.24		5.32		2
	545	Crystal 464RR	3.55	4.34	4.15	4.01					1
	539	Crystal 465RR	5.15	4.95	4.95	5.01					1
	607	Crystal 466RR	4.27	4.59	5.06	4.64					1
	518	Crystal 467RR	4.28	4.28	4.64	4.40					1
	611	Crystal 468RR	4.19	4.71	4.57	4.49					1
	530	Crystal 469RR	5.51	4.97	5.37	5.28					1
	512	Crystal 765RR	4.46	4.95	4.78	4.73	4.77	4.75	4.82	4.70	8
	572	Crystal 768RR	4.81	4.75	4.96	4.84	4.95	5.09	5.05	5.37	8
	502	Crystal 875RR	3.87	4.61	4.37	4.12	4.45	4.39	4.77	4.26	7
	548	Crystal 981RR	4.50	5.32	4.86	4.89	4.99	5.05	5.09	5.15	6
	521	Crystal 985RR	3.96	4.60	4.10	4.22	4.36	4.37	4.49	4.41	6
	554	Crystal 986RR	4.63	4.59	4.61	4.61	4.70	4.73	4.80	4.78	6
	600	Crystal D352NT	4.59	4.85	4.57	4.67	4.60		4.53		2
	516	Crystal D425NT	3.82	4.26	4.10	4.06					1
	560	Crystal D488	5.46	4.73	4.79	4.99					1
	615	Crystal RR012	4.47	4.72	4.58	4.59	4.68	4.63	4.76	4.54	5
	561	Crystal RR228	3.95	4.58	4.06	4.19	4.29	4.30	4.39	4.33	3
	559	Crystal RR260	4.35	4.40	4.28	4.34	4.34	4.42	4.34	4.58	3
	612	Crystal RR299	4.55	4.33	4.66	4.51	4.43	4.45	4.35	4.48	3
	556	Crystal RR830	4.41	4.81	4.86	4.69	4.63	4.62	4.57	4.60	7
	501	Hilleshög 4022RR	4.39	4.60	4.61	4.54	4.43	4.41	4.33	4.36	9
	538	Hilleshög 4062RR	4.63	4.55	4.56	4.58	4.56	4.50	4.54	4.38	7
	504	Hilleshög 4094RR	4.43	4.28	4.67	4.46	4.47	4.42	4.47	4.34	7
	543	Hilleshög 4300RR	4.15	4.15	4.31	4.20	4.47	4.59	4.74	4.82	4
	591	Hilleshög 4302RR	4.35	4.53	4.69	4.52	4.38	4.36	4.23	4.34	4
	618	Hilleshög 4303RR	4.62	5.05	4.79	4.82	4.83	4.76	4.85	4.62	4
	528	Hilleshög 4448RR(9448)	5.82	5.13	4.89	5.28	5.25	5.11	5.21	4.82	3
	537	Hilleshög 9517RR	3.92	4.94	4.30	4.39	4.53		4.67		2
	574	Hilleshög 9528RR	5.65	4.81	4.44	4.97	4.84		4.72		2
	577	Hilleshög 9601RR	5.01	4.68	4.61	4.77					1
	619	Hilleshög 9602RR	4.96	4.43	4.61	4.67					1
	568	Hilleshög 9604RR	5.84	5.10	5.46	5.47					1
	522	Hilleshög 9610RR	4.40	4.55	4.42	4.46					1
	533	Hilleshög 9613RR	5.34	4.81	4.74	4.97					1
	565	Hilleshög 9615RR	4.00	4.44	4.55	4.33					1
	547	Hilleshög 9620RR	5.46	6.14	5.75	5.79					1
	589	Maribo MA102RR	6.14	5.37	5.12	5.54	5.29	5.15	5.03	4.88	4
	603	Maribo MA104RR	2.98	3.97	3.78	3.58	3.72	3.76	3.87	3.82	4
	594	Maribo 109RR	5.16	4.43	4.44	4.68					1
	551	Maribo 301	4.56	5.41	4.80	4.92					1
	608	Maribo 305	5.01	4.80	4.68	4.83	4.73		4.63		2
	535	Maribo 402	4.56	4.97	4.75	4.76					1
	534	Maribo 403	5.87	4.92	4.91	5.23					1
	524	Maribo 408	5.33	5.21	5.34	5.29					1
	596	Maribo 409	5.70	4.98	5.16	5.28					1
	558	Seedex SX0929RR	5.13	5.06	4.24	4.81	4.70	4.47	4.58	4.02	3
	575	Seedex RR0832	4.96	5.14	4.56	4.89	4.83		4.78		2

Table 37.  
2014 Cercospora Ratings for Official Trial Entries  
Betasede (Rosemount MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

Chk	Code	Description	Adjusted to 1982 Basis ++			All Data Adjusted to 1982 Basis					Trial Yrs	\$\$
			Rosemt. Avg	BSDF Avg	Foxhome Avg	2014*** Mean	2 Yr Mean	3 Yr Mean	2013 Mean	2012 Mean		
			6 Dates+	4 Dates+	7 Dates+							
	601	Seedex RR0941	4.74	4.71	4.56	4.67						1
	507	Seedex RR0942	4.50	4.55	4.77	4.61						1
	536	Seedex RR0943TT	5.39	5.27	5.93	5.53						1
	617	Seedex RR0944	3.75	4.23	4.01	4.00						1
	580	Seedex RR0945	4.04	4.52	3.94	4.17						1
	567	Seedex RR0946	3.70	4.45	4.26	4.14						1
	520	Seedex RR842	5.17	5.08	4.46	4.90						1
	571	Seedex RR844TT	5.19	5.58	5.63	5.46						1
	590	Seedex RR846	4.91	4.69	4.88	4.83						1
	513	Seedex RR848	4.63	4.65	4.86	4.71						1
	579	Seedex Vapor RR(995)	5.21	4.84	4.78	4.94	4.91	4.77	4.87	4.48		6
	526	Seedex Victor RR	5.15	5.21	5.07	5.14	4.82	4.69	4.51	4.41		6
	586	Seedex Vision RR	5.61	5.28	5.62	5.50	5.34	5.06	5.17	4.49		6
	587	Seedex Xavier RR	5.58	5.24	5.46	5.43	5.14	4.90	4.85	4.43		4
	541	Seedex Yukon RR(828N)	4.87	4.79	4.89	4.85	4.77	4.75	4.69	4.72		3
	563	Seedex Yuma RR(924)	5.00	5.24	5.08	5.11	4.78	4.77	4.46	4.74		3
	557	Seedex Zenith RR(829N)	4.83	4.33	4.43	4.53	4.65	4.71	4.76	4.84		3
	523	SV 36175RR	4.73	4.31	4.58	4.54	4.57	4.45	4.60	4.22		4
	583	SV 36271RR	4.14	4.29	4.22	4.21	4.33	4.44	4.45	4.65		3
	546	SV 36272RR	4.43	4.56	4.84	4.61	4.55	4.43	4.49	4.17		3
	599	SV 36273RR	4.95	5.23	4.97	5.05	4.86	4.64	4.68	4.19		3
	552	SV 36918RR	4.99	4.84	4.70	4.84	4.73	4.58	4.61	4.28		6
	595	SV RR241	4.40	4.26	4.40	4.35						1
	562	SV RR242TT	5.92	5.12	6.02	5.69						1
	514	SV RR243	4.88	4.79	4.71	4.79						1
	553	SV RR244TT	5.86	5.18	5.49	5.51						1
	511	SV RR245N	4.75	4.75	4.28	4.59						1
	542	SV RR246	4.76	4.47	4.40	4.54						1
	576	SV RR247	3.99	4.39	4.04	4.14						1
	509	SV RR248	4.34	4.47	4.43	4.41						1
	609	SV RR333	4.75	4.92	4.75	4.81	4.83		4.86			2
	529	SV RR336	4.38	4.70	4.52	4.53	4.64		4.75			2
	620	SV RR631	4.76	4.74	5.14	4.88	4.83		4.78			2
	540	SV RR632N	4.59	4.74	4.36	4.56	4.68		4.79			2
	519	SV RR633	5.52	5.07	5.59	5.39	5.11		4.83			2
	592	SV RR744	4.20	4.47	4.08	4.25						1
	610	SV RR745	5.16	4.99	5.15	5.10						1
	581	SV RR746	4.75	4.91	4.97	4.87						1
	570	SV RR747	5.20	4.08	4.91	4.73						1
1	1101	CR Chk-19 CRY539RR	5.07	5.21	5.22	5.17	5.10	5.16	5.03	5.27		10
1	1102	CR Chk-31 BETA86RR88	4.57	4.76	4.47	4.60	4.57	4.66	4.55	4.82		9
1	1103	CR CHK-37 SES36711RR	5.49	5.36	5.13	5.33	5.20	5.07	5.06	4.82		8
1	1104	CR Chk-30 BETA86RR66	5.32	5.05	5.22	5.20	5.15	5.09	5.10	4.98		9
1	1105	CR Chk-34 HILL4000RR	4.78	5.28	4.45	4.84	4.83	4.79	4.82	4.71		8
1	1106	CR CHK-36 BETA87RR68	4.74	5.06	5.01	4.94	4.80	4.74	4.67	4.61		8
1	1107	CR Chk-24 HILL4012RR	5.16	5.17	5.48	5.27	5.34	5.34	5.42	5.33		9
1	1108	CR Chk-35 BETA87RR58	4.91	4.86	5.03	4.94	5.11	5.18	5.28	5.32		8
1	1109	CR Chk-33 HILL4043RR	5.38	4.44	4.65	4.82	4.76	4.72	4.70	4.64		8
1	1110	CR Chk-17 BETA85RR02	4.16	4.20	4.65	4.34	4.49	4.69	4.65	5.07		10
1	1111	CR Chk-28 HILL4010RR	5.22	5.06	5.28	5.19	5.31	5.29	5.43	5.24		9
1	1112	CR Chk-29 BETA86RR44	4.96	5.30	5.15	5.13	5.08	5.03	5.03	4.93		9
	1113	CR CHK MOD SUS HYB#3	5.32	5.26	5.46	5.35	5.16	5.09	4.96	4.96		10
	1114	CR CHK MOD RES HYB#4	4.11	4.63	4.28	4.34	4.47	4.40	4.59	4.28		7
	1115	CR CHK MOD SUS HYB#3	5.11	5.07	5.30	5.16	5.06	5.03	4.96	4.96		10
	1116	CR CHK MOD RES HYB#4	3.94	4.65	3.96	4.18	4.39	4.35	4.59	4.28		7
	1117	CR CHK MOD SUS HYB#3	5.12	5.24	5.18	5.18	5.07	5.03	4.96	4.96		10
	1118	CR CHK MOD RES HYB#4	4.02	4.43	4.45	4.30	4.45	4.39	4.59	4.28		7
+++	589	Maribo MA102RR(108 MD)	6.14	5.37	5.12	5.54	5.51	5.38	5.48	5.12		4
+++	528	Hilleshög 4448RR(9449 MD)	5.82	5.13	4.89	5.28	5.17	5.00	5.05	4.66		3
12		Check Mean	4.98	4.98	4.98	4.98						
		Trial Mean	4.65	4.73	4.69							
		Coeff. of Var. (%)	6.41	6.41	8.19							
		F Value	18.18	4.87	6.39							
		Mean LSD (0.05)	0.39	0.48	0.49							
		Mean LSD (0.01)	0.51	0.62	0.66							
		Sig Lvl	**	**	**							
		Adj Factor	1.0500	1.0829	1.0757							

\* Lower numbers indicate better Cercospora resistance (1-Ex,9=Poor).

++ Ratings adjusted to 1982 basis (5.5 equivalent in 1978-81 CR nurseries). Ratings adjusted on the basis of checks.

Chk = varieties used to adjust CR readings to 1982 basis. Ratings \* (factor) = Adj Rating.

\$\$ Trial years indicates how many years the entry has been in the official trials.

+++ Some varieties are listed twice due to name changes between ACSC & MDFC markets. Created 10-21-2014.

Table 38.  
2014 Rhizoctonia Ratings for OVT Entries  
Rhizoctonia Nursery - BSDF & ACSC West Site

Sus Chk	Chk @	Code	Description	Unadjusted		Adjusted		Adj 2014 Mean	2 Yr Mean	3 Yr Mean	Adj 2013 Mean	Adj 2012 Mean	Years
				BSDF 9/10	TSC-W 9/18	BSDF 9/10	TSC-W 9/18						
		616	BTS 70RR99	3.56	3.92	3.21	4.59	3.90	4.14	4.04	4.38	3.85	5
		532	BTS 72RR22	5.75	4.43	5.18	5.19	5.18	4.95	4.80	4.72	4.50	3
		555	BTS 72RR95	5.41	3.63	4.87	4.25	4.56	4.17	3.78	3.77	3.02	3
		598	BTS 7373	5.37	3.56	4.84	4.17	4.50	4.19	--	3.88	--	2
		544	BTS 73MN	4.78	3.25	4.31	3.81	4.06	3.79	--	3.53	--	2
		604	BTS 7438	4.45	3.51	4.01	4.11	4.06	--	--	--	--	1
		614	BTS 7447	5.41	4.43	4.87	5.19	5.03	--	--	--	--	1
		582	BTS 7481	4.56	3.49	4.11	4.09	4.10	--	--	--	--	1
		527	BTS 80RR32	3.70	3.23	3.33	3.78	3.56	3.92	3.91	4.28	3.88	5
		573	BTS 80RR52	5.12	3.51	4.61	4.11	4.36	4.07	3.96	3.77	3.73	5
		506	BTS 81RR17	4.79	3.25	4.32	3.81	4.06	4.08	4.06	4.10	4.00	4
		508	BTS 82RR22	5.43	4.11	4.89	4.81	4.85	5.02	4.89	5.19	4.61	3
		517	BTS 82RR28	4.62	3.47	4.16	4.06	4.11	4.14	4.08	4.17	3.94	3
		515	BTS 82RR33	4.40	3.79	3.96	4.44	4.20	4.28	4.22	4.36	4.09	3
		578	BTS 82RR80	5.59	4.15	5.04	4.86	4.95	4.75	4.71	4.54	4.63	3
		606	BTS 8337	4.52	3.45	4.07	4.04	4.06	4.30	--	4.55	--	2
		549	BTS 8354	4.65	3.33	4.19	3.90	4.04	3.77	--	3.49	--	2
		510	BTS 8363	5.04	3.37	4.54	3.95	4.24	4.06	--	3.88	--	2
		569	BTS 8390	4.89	3.58	4.41	4.19	4.30	4.34	--	4.38	--	2
		597	BTS 83CN	4.27	3.56	3.85	4.17	4.01	3.65	--	3.29	--	2
		613	BTS 8402	5.71	4.11	5.14	4.81	4.98	--	--	--	--	1
		503	BTS 8404	5.16	3.85	4.65	4.51	4.58	--	--	--	--	1
		602	BTS 8405	5.29	4.05	4.77	4.74	4.75	--	--	--	--	1
		605	BTS 8406	5.04	3.69	4.54	4.32	4.43	--	--	--	--	1
		584	BTS 8408	4.77	3.59	4.30	4.20	4.25	--	--	--	--	1
		525	BTS 840N	5.13	3.42	4.62	4.01	4.31	--	--	--	--	1
		593	BTS 89RR83	4.83	3.17	4.35	3.71	4.03	3.74	3.69	3.45	3.58	6
		531	Crystal 093RR	5.16	3.65	4.65	4.27	4.46	4.42	4.43	4.39	4.43	5
		585	Crystal 095RR	5.09	3.75	4.59	4.39	4.49	4.54	4.55	4.59	4.57	5
		588	Crystal 101RR	5.50	4.03	4.95	4.72	4.84	4.79	4.78	4.74	4.75	4
		564	Crystal 246RR	4.55	3.35	4.10	3.92	4.01	4.32	4.31	4.62	4.31	3
		505	Crystal 247RR	5.21	3.53	4.69	4.13	4.41	4.50	4.49	4.58	4.48	3
		566	Crystal 355RR	4.54	3.46	4.09	4.05	4.07	3.81	--	3.55	--	2
		550	Crystal 359RR	4.62	3.58	4.16	4.19	4.18	4.11	--	4.04	--	2
		545	Crystal 464RR	5.36	3.85	4.83	4.51	4.67	--	--	--	--	1
		539	Crystal 465RR	5.37	4.09	4.84	4.79	4.81	--	--	--	--	1
		607	Crystal 466RR	4.93	3.66	4.44	4.29	4.36	--	--	--	--	1
		518	Crystal 467RR	4.75	3.22	4.28	3.77	4.03	--	--	--	--	1
		611	Crystal 468RR	4.58	3.39	4.13	3.97	4.05	--	--	--	--	1
		530	Crystal 469RR	4.59	3.84	4.14	4.50	4.32	--	--	--	--	1
		512	Crystal 765RR	4.97	3.86	4.48	4.52	4.50	4.69	4.42	4.88	3.87	8
		572	Crystal 768RR	5.29	3.63	4.77	4.25	4.51	4.31	4.33	4.10	4.39	8
		502	Crystal 875RR	4.10	3.75	3.69	4.39	4.04	4.29	4.19	4.53	4.00	7
		548	Crystal 981RR	5.54	4.02	4.99	4.71	4.85	4.30	4.35	3.75	4.45	6
		521	Crystal 985RR	4.91	3.90	4.42	4.57	4.50	4.55	4.50	4.61	4.40	6
		554	Crystal 986RR	4.02	3.94	3.62	4.61	4.12	4.33	4.32	4.54	4.31	6
		600	Crystal D352NT	4.41	3.28	3.97	3.84	3.91	3.54	--	3.17	--	2
		516	Crystal D425NT	4.31	3.45	3.88	4.04	3.96	--	--	--	--	1
		560	Crystal D488	5.01	3.72	4.51	4.36	4.44	--	--	--	--	1
		615	Crystal RR012	4.70	3.37	4.23	3.95	4.09	3.89	3.68	3.69	3.27	5
		561	Crystal RR228	4.67	4.06	4.21	4.75	4.48	4.44	4.43	4.40	4.41	3
		559	Crystal RR260	4.94	3.90	4.45	4.57	4.51	4.11	4.27	3.71	4.60	3
		612	Crystal RR299	4.44	3.47	4.00	4.06	4.03	3.94	4.04	3.85	4.22	3
		556	Crystal RR830	3.90	3.35	3.51	3.92	3.72	3.69	3.76	3.66	3.91	7
		501	Hillesög 4022RR	3.69	3.68	3.32	4.31	3.82	3.60	3.50	3.39	3.29	9
		538	Hillesög 4062RR	3.53	3.09	3.18	3.62	3.40	3.52	3.52	3.63	3.54	7
		504	Hillesög 4094RR	3.80	3.09	3.42	3.62	3.52	3.47	3.41	3.42	3.28	7
		543	Hillesög 4300RR	4.14	3.29	3.73	3.85	3.79	3.95	4.16	4.12	4.56	4
		591	Hillesög 4302RR	3.77	3.21	3.40	3.76	3.58	3.45	3.51	3.32	3.63	4
		618	Hillesög 4303RR	5.89	4.66	5.31	5.46	5.38	5.31	5.27	5.24	5.20	4
		528	Hillesög 4448RR(9448)	5.29	4.00	4.77	4.68	4.73	5.07	--	5.42	--	3
		537	Hillesög 9517RR	4.55	3.40	4.10	3.98	4.04	3.83	--	3.62	--	2
		574	Hillesög 9528RR	4.06	3.41	3.66	3.99	3.83	4.00	--	4.17	--	2
		577	Hillesög 9601RR	3.93	3.24	3.54	3.79	3.67	--	--	--	--	1
		619	Hillesög 9602RR	4.24	3.78	3.82	4.43	4.12	--	--	--	--	1
		522	Hillesög 9610RR	3.81	2.89	3.43	3.38	3.41	--	--	--	--	1
		533	Hillesög 9613RR	4.26	3.46	3.84	4.05	3.95	--	--	--	--	1
		594	Maribo 109RR	3.46	3.03	3.12	3.55	3.33	--	--	--	--	1
		551	Maribo 301	5.48	3.74	4.94	4.38	4.66	--	--	--	--	1
		608	Maribo 305	5.68	3.52	5.12	4.12	4.62	--	--	--	--	2
		535	Maribo 402	3.96	3.55	3.57	4.16	3.86	--	--	--	--	1
		589	Maribo MA102RR	4.72	3.72	4.25	4.36	4.30	4.91	4.84	5.53	4.70	4
		603	Maribo MA104RR	3.73	3.21	3.36	3.76	3.56	3.77	3.84	3.99	3.98	4
		575	Seedex RR0832	4.95	3.62	4.46	4.24	4.35	4.39	--	4.43	--	2
		601	Seedex RR0941	4.82	3.45	4.34	4.04	4.19	--	--	--	--	1
		507	Seedex RR0942	4.60	3.43	4.14	4.02	4.08	--	--	--	--	1
		536	Seedex RR0943TT	4.47	2.83	4.03	3.31	3.67	--	--	--	--	1
		617	Seedex RR0944	4.90	3.71	4.41	4.35	4.38	--	--	--	--	1
		580	Seedex RR0945	5.08	3.99	4.58	4.67	4.62	--	--	--	--	1
		567	Seedex RR0946	4.94	3.48	4.45	4.08	4.26	--	--	--	--	1
		520	Seedex RR842	4.76	3.56	4.29	4.17	4.23	--	--	--	--	1

Table 38.  
2014 Rhizoctonia Ratings for OVT Entries  
Rhizoctonia Nursery - BSDF & ACSC West Site

Sus Chk	Chk @	Code	Description	Unadjusted		Adjusted		Adj 2014	2 Yr Mean	3 Yr Mean	Adj 2013	Adj 2012	Years
				BSDF 9/10	TSC-W 9/18	BSDF 9/10	TSC-W 9/18						
		571	Seedex RR844TT	4.74	3.44	4.27	4.03	4.15	--	--	--	--	1
		590	Seedex RR846	5.45	3.79	4.91	4.44	4.67	--	--	--	--	1
		513	Seedex RR848	4.84	3.85	4.36	4.51	4.43	--	--	--	--	1
		558	Seedex SX0929RR	4.86	3.80	4.38	4.45	4.41	4.53	4.29	4.65	3.82	3
		579	Seedex Vapor RR(995)	5.13	3.71	4.62	4.35	4.48	4.57	4.46	4.65	4.25	6
		526	Seedex Victor RR	4.48	3.28	4.04	3.84	3.94	4.22	4.34	4.51	4.57	6
		586	Seedex Vision RR	5.52	3.33	4.97	3.90	4.44	4.57	4.59	4.71	4.61	6
		587	Seedex Xavier RR	4.91	3.64	4.42	4.26	4.34	4.47	4.55	4.60	4.71	4
		541	Seedex Yukon RR(828N)	4.78	3.72	4.31	4.36	4.33	4.59	4.48	4.84	4.25	3
		563	Seedex Yuma RR(924)	4.67	3.57	4.21	4.18	4.19	4.41	4.33	4.63	4.16	3
		557	Seedex Zenith RR(829N)	5.63	3.48	5.07	4.08	4.57	--	--	NE	--	3
		523	SV 36175RR	4.27	3.88	3.85	4.54	4.20	4.35	4.34	4.50	4.32	4
		583	SV 36271RR	5.37	3.25	4.84	3.81	4.32	4.14	4.23	3.95	4.40	3
		546	SV 36272RR	4.83	3.64	4.35	4.26	4.31	4.46	--	4.61	--	3
		599	SV 36273RR	4.39	3.35	3.95	3.92	3.94	4.32	4.37	4.70	4.47	3
		552	SV 36918RR	5.67	3.79	5.11	4.44	4.77	4.80	4.75	4.82	4.66	6
		595	SV RR241	5.34	3.46	4.81	4.05	4.43	--	--	--	--	1
		562	SV RR242TT	4.26	3.44	3.84	4.03	3.93	--	--	--	--	1
		514	SV RR243	5.31	4.09	4.78	4.79	4.79	--	--	--	--	1
		553	SV RR244TT	4.38	3.19	3.95	3.74	3.84	--	--	--	--	1
		511	SV RR245N	4.70	3.57	4.23	4.18	4.21	--	--	--	--	1
		542	SV RR246	3.94	3.17	3.55	3.71	3.63	--	--	--	--	1
		576	SV RR247	4.51	3.08	4.06	3.61	3.84	--	--	--	--	1
		509	SV RR248	5.07	3.58	4.57	4.19	4.38	--	--	--	--	1
		609	SV RR333	4.79	3.82	4.32	4.47	4.39	4.36	--	4.32	--	2
		529	SV RR336	5.19	3.34	4.68	3.91	4.29	4.11	--	3.93	--	2
		620	SV RR631	5.17	3.47	4.66	4.06	4.36	4.37	--	4.37	--	2
		540	SV RR632N	4.89	3.60	4.41	4.22	4.31	4.46	--	4.60	--	2
		519	SV RR633	4.58	3.57	4.13	4.18	4.15	3.80	--	3.44	--	2
		592	SV RR744	4.52	3.09	4.07	3.62	3.85	--	--	--	--	1
		610	SV RR745	5.00	3.57	4.50	4.18	4.34	--	--	--	--	1
		581	SV RR746	4.80	3.48	4.32	4.08	4.20	--	--	--	--	1
		570	SV RR747	4.77	3.34	4.30	3.91	4.10	--	--	--	--	1
1	1	1301	Rhiz Chk#08 CRY5539RR	5.45	3.88	4.91	4.54	4.73	4.91	4.96	5.09	5.06	6
	1	1302	Rhiz Chk#17 HILL4022RR	4.09	2.98	3.68	3.49	3.59	3.22	3.24	2.85	3.27	6
		1303	Rhiz Chk#20 CRY5765RR	5.20	3.65	4.68	4.27	4.48	4.41	4.23	4.35	3.87	6
	1	1304	Rhiz Chk#21 CRY5768RR	5.17	3.93	4.66	4.60	4.63	4.56	4.47	4.50	4.28	6
1	1	1305	Rhiz Chk#24 BETA86RR88	5.32	4.30	4.79	5.04	4.91	4.87	4.83	4.82	4.75	6
1	1	1306	Rhiz Chk#25 HILL4043RR	5.14	4.00	4.63	4.68	4.66	4.71	4.79	4.77	4.95	6
1	1	1307	Rhiz Chk#26 BETA86RR44	4.67	4.05	4.21	4.74	4.48	4.38	4.52	4.29	4.78	6
1	1	1308	Rhiz Chk#27 HILL4012RR	5.78	3.28	5.21	3.84	4.52	4.82	4.78	5.12	4.69	6
1	1	1309	Rhiz Chk#28 CRY5658RR	4.57	3.41	4.12	3.99	4.06	4.13	4.13	4.21	4.12	9
1	1	1310	Rhiz Chk#29 BETA87RR58	4.94	3.94	4.45	4.61	4.53	4.67	4.70	4.81	4.76	8
1	1	1311	Rhiz Chk#30 SES36711RR	4.65	3.61	4.19	4.23	4.21	4.48	4.47	4.75	4.46	8
1	1	1312	Rhiz Chk#31 HILL4000RR	5.58	3.83	5.03	4.49	4.76	4.99	5.00	5.22	5.04	8
1	1	1313	Rhiz Chk#32 HILL4010RR	5.57	4.24	5.02	4.97	4.99	4.71	4.81	4.44	4.99	9
1	1	1314	Rhiz Chk#33 BETA77RR74	4.03	3.20	3.63	3.75	3.69	3.67	3.61	3.66	3.50	8
1	1	1315	Rhiz Chk#34 BETA86RR66	4.47	4.22	4.03	4.94	4.48	4.40	4.43	4.31	4.51	9
1	1	1316	Rhiz Chk#35 SES36812RR	5.46	3.71	4.92	4.35	4.63	4.38	4.43	4.13	4.53	7
1	1	1317	Rhiz Chk#36 BETA85RR02	4.73	4.04	4.26	4.73	4.50	4.39	4.51	4.27	4.76	10
1	1	1318	Rhiz Chk#37 SES36918RR	4.71	4.25	4.24	4.98	4.61	4.68	4.68	4.75	4.66	6
		1319	Rhiz Chk#39 HILL4300RR	4.57	3.39	4.12	3.97	4.04	4.08	4.24	4.12	4.56	5
		1320	RES RHC #1	3.71	3.00	3.34	3.51	3.43	3.17	3.24	2.91	3.38	9
		1321	MOD RHC #6	4.65	3.76	4.19	4.40	4.30	4.23	4.14	4.17	3.97	9
		1322	SUS RHC #3	5.20	4.04	4.68	4.73	4.71	5.25	5.12	5.80	4.86	10
		1323	SUS RHC #9	5.38	4.29	4.85	5.02	4.94	5.02	4.90	5.11	4.66	6
		1324	MOD RHC #5	4.65	3.92	4.19	4.59	4.39	4.47	4.52	4.55	4.63	9
		1325	RES RHC #2	4.00	3.14	3.60	3.68	3.64	3.39	3.45	3.15	3.56	7
		1326	SUS RHC #3	5.10	4.26	4.59	4.99	4.79	5.30	5.15	5.80	4.86	10
		1327	SUS RHC #9	6.09	4.42	5.49	5.18	5.33	5.22	5.03	5.11	4.66	6
		1328	MOD RHC #6	4.76	3.59	4.29	4.20	4.25	4.21	4.13	4.17	3.97	9
		1329	SUS RHC #10	6.27	4.25	5.65	4.98	5.31	--	--	--	--	1
		1330	SUS RHC #9	4.71	3.68	4.24	4.31	4.28	4.69	4.68	5.11	4.66	6
		528	Hilleshoq 4448RR(9449 MD)	5.29	4.00	4.77	4.68	4.73	4.77	--	4.81	--	3
		589	Maribo MA102RR(108 MD)	4.72	3.72	4.25	4.36	4.30	4.91	4.60	5.53	3.98	4
12	17		Mean of Check Varieties	4.986	3.867	4.492	4.529	4.511	4.523	4.544	4.535	4.585	
			Mean of Susc Checks	5.123	3.947	4.615	4.623	4.619	4.645	4.676	4.671	4.736	
			Trial Mean	4.80	3.63	4.32	4.25						
			Coeff. of Var. (%)	14.01	11.10	14.01	11.10						
			F Value	2.61	3.48	2.61	3.48						
			Mean LSD (0.05)	0.98	0.53	0.88	0.62						
			Mean LSD (0.01)	1.29	0.69	1.16	0.81						
			Sig Lvl	**	**	**	**						
			Adjustment Factor	0.9009	1.1712								

++ Adjustment is based upon check varieties.  
NE indicates variety was not entered into nursery.

Table 39.  
2014 Fusarium Readings for Official Trial Entries  
ACSC Nurseries - (Two Moorhead, MN Sites)

Chk @	Code	Description	Unadjusted		Adjusted		Adj			Adj	Adj	Years
			N Mhd 3 Dates+	S Mhd 3 Dates+	N Mhd 3 Dates+	S Mhd 3 Dates+	2014 Mean	2 Yr Mean	3 Yr Mean	2013 Mean	2012 Mean	
616	BTS 71RR22		4.62	3.35	3.54	3.38	3.46	3.52	3.27	3.58	2.78	5
532	BTS 72RR50		5.54	3.94	4.24	3.97	4.10	4.18	--	4.26	--	3
555	BTS 7315		4.37	2.68	3.34	2.70	3.02	2.85	--	2.67	--	3
598	BTS 73MN		5.38	3.60	4.12	3.63	3.87	--	--	--	--	2
544	BTS 7438		4.45	2.89	3.41	2.91	3.16	--	--	--	--	2
527	BTS 80RR35		3.52	2.70	2.69	2.72	2.71	3.29	3.01	3.87	2.46	5
573	BTS 80RR57		3.72	2.81	2.85	2.83	2.84	3.24	3.08	3.64	2.77	5
506	BTS 81RR17		4.32	2.70	3.31	2.72	3.01	3.12	2.91	3.23	2.50	4
508	BTS 82RR22		6.47	4.54	4.95	4.57	4.76	5.14	5.02	5.52	4.79	3
517	BTS 82RR28		3.10	2.49	2.37	2.51	2.44	2.64	2.43	2.85	2.00	3
515	BTS 82RR33		3.79	2.80	2.90	2.82	2.86	2.95	2.73	3.05	2.27	3
578	BTS 82RR80		4.12	3.19	3.15	3.21	3.18	3.74	3.53	4.29	3.12	3
606	BTS 8337		4.72	3.91	3.61	3.94	3.78	4.08	--	4.38	--	2
549	BTS 8354		4.47	3.05	3.42	3.07	3.25	3.42	--	3.58	--	2
510	BTS 8363		5.00	2.93	3.83	2.95	3.39	3.87	--	4.34	--	2
569	BTS 8390		3.39	3.43	2.59	3.46	3.03	3.08	--	3.14	--	2
597	BTS 83CN		4.18	3.03	3.20	3.05	3.13	3.17	--	3.21	--	2
613	BTS 8402		2.70	2.37	2.07	2.39	2.23	--	--	--	--	1
503	BTS 8404		4.53	2.79	3.47	2.81	3.14	--	--	--	--	1
602	BTS 8405		3.99	2.66	3.05	2.68	2.87	--	--	--	--	1
605	BTS 8406		4.55	2.64	3.48	2.66	3.07	--	--	--	--	1
584	BTS 8408		4.40	3.04	3.37	3.06	3.22	--	--	--	--	1
525	BTS 840N		4.03	3.14	3.08	3.16	3.12	--	--	--	--	1
593	BTS 89RR83		5.49	3.32	4.20	3.35	3.77	4.08	3.85	4.39	3.39	6
531	Crystal 093RR		5.01	3.33	3.83	3.36	3.59	3.80	3.69	4.01	3.45	5
585	Crystal 095RR		5.60	4.46	4.29	4.49	4.39	4.79	4.55	5.20	4.06	5
588	Crystal 101RR		3.50	2.76	2.68	2.78	2.73	3.00	2.99	3.27	2.95	4
564	Crystal 246RR		4.02	2.89	3.08	2.91	2.99	3.58	3.49	4.17	3.30	3
505	Crystal 247RR		3.91	2.66	2.99	2.68	2.84	3.31	2.98	3.79	2.32	3
566	Crystal 355RR		4.48	2.84	3.43	2.86	3.14	3.29	--	3.43	--	2
550	Crystal 359RR		2.68	2.35	2.05	2.37	2.21	2.40	--	2.60	--	2
545	Crystal 464RR		5.23	3.67	4.00	3.70	3.85	--	--	--	--	1
539	Crystal 465RR		2.85	2.13	2.18	2.15	2.16	--	--	--	--	1
607	Crystal 466RR		4.69	3.23	3.59	3.25	3.42	--	--	--	--	1
518	Crystal 467RR		3.36	2.62	2.57	2.64	2.61	--	--	--	--	1
611	Crystal 468RR		3.89	2.54	2.98	2.56	2.77	--	--	--	--	1
530	Crystal 469RR		3.11	2.41	2.38	2.43	2.40	--	--	--	--	1
512	Crystal 765RR		5.38	4.15	4.12	4.18	4.15	4.45	4.33	4.75	4.10	8
572	Crystal 768RR		5.54	4.01	4.24	4.04	4.14	4.49	4.40	4.84	4.20	8
502	Crystal 875RR		5.96	4.43	4.56	4.46	4.51	4.65	4.58	4.79	4.45	7
548	Crystal 981RR		3.69	2.55	2.82	2.57	2.70	3.25	3.12	3.80	2.87	6
521	Crystal 985RR		5.72	4.01	4.38	4.04	4.21	4.31	4.05	4.42	3.51	6
554	Crystal 986RR		5.28	4.24	4.04	4.27	4.16	4.68	4.55	5.20	4.30	6
600	Crystal D352NT		3.16	2.55	2.42	2.57	2.49	--	--	--	--	2
615	Crystal RR012		5.14	2.80	3.93	2.82	3.38	3.50	3.28	3.63	2.85	5
561	Crystal RR228		5.53	4.53	4.23	4.56	4.40	4.55	--	4.69	--	3
559	Crystal RR260		4.20	2.26	3.21	2.28	2.75	3.01	--	3.27	--	3
612	Crystal RR299		5.40	3.60	4.13	3.63	3.88	3.97	--	4.06	--	3
556	Crystal RR830		5.59	3.90	4.28	3.93	4.10	4.17	3.93	4.23	3.45	7
501	Hilleshög 4022RR		6.49	4.58	4.97	4.62	4.79	4.73	4.73	4.67	4.71	9
538	Hilleshög 4062RR		6.72	4.77	5.14	4.81	4.97	4.81	4.78	4.64	4.73	7
504	Hilleshög 4094RR		6.66	4.52	5.10	4.55	4.83	4.70	4.62	4.57	4.47	7
543	Hilleshög 4300RR		6.14	3.53	4.70	3.56	4.13	3.94	3.83	3.76	3.59	4
591	Hilleshög 4302RR		7.10	4.63	5.43	4.67	5.05	5.08	4.83	5.11	4.33	4
618	Hilleshög 4303RR		8.09	6.34	6.19	6.39	6.29	5.99	5.81	5.70	5.44	4
528	Hilleshög 4448RR(9448)		6.96	4.07	5.33	4.10	4.71	4.97	--	5.22	--	3
537	Hilleshög 9517RR		4.66	3.21	3.57	3.23	3.40	3.59	--	3.77	--	2
574	Hilleshög 9528RR		6.63	4.49	5.07	4.52	4.80	--	--	--	--	2
565	Hilleshög 9615RR		4.93	2.91	3.77	2.93	3.35	--	--	--	--	1
547	Hilleshög 9620RR		5.21	3.74	3.99	3.77	3.88	--	--	--	--	1
551	Maribo 301		3.69	2.46	2.82	2.48	2.65	--	--	--	--	1
608	Maribo 305		7.33	4.59	5.61	4.63	5.12	--	--	--	--	2
589	Maribo MA102RR		7.57	4.91	5.79	4.95	5.37	5.29	5.26	5.21	5.19	4
603	Maribo 104RR		7.83	4.98	5.99	5.02	5.50	5.55	5.29	5.60	4.75	4
575	Seedex RR0832		6.17	5.18	4.72	5.22	4.97	--	--	--	--	2
601	Seedex RR0941		6.08	5.02	4.65	5.06	4.86	--	--	--	--	1

Table 39.  
2014 Fusarium Readings for Official Trial Entries  
ACSC Nurseries - (Two Moorhead, MN Sites)

Chk @	Code	Description	Unadjusted		Adjusted		Adj			Adj	Adj	Years
			N Mhd 3 Dates+	S Mhd 3 Dates+	N Mhd 3 Dates+	S Mhd 3 Dates+	2014 Mean	2 Yr Mean	3 Yr Mean	2013 Mean	2012 Mean	
	617	Seedex RR0944	5.22	4.33	3.99	4.36	4.18	--	--	--	--	1
	580	Seedex RR0945	5.91	5.09	4.52	5.13	4.83	--	--	--	--	1
	567	Seedex RR0946	5.32	4.03	4.07	4.06	4.07	--	--	--	--	1
	520	Seedex RR842	5.82	3.99	4.45	4.02	4.24	--	--	--	--	1
	513	Seedex RR848	5.13	3.95	3.93	3.98	3.95	--	--	--	--	1
	558	Seedex SX0929RR	6.38	4.73	4.88	4.77	4.82	5.28	4.88	5.73	4.09	3
	579	Seedex Vapor RR(995)	6.39	4.48	4.89	4.51	4.70	4.95	4.86	5.19	4.68	6
	526	Seedex Victor RR	5.55	3.74	4.25	3.77	4.01	4.48	4.39	4.94	4.21	6
	586	Seedex Vision RR	5.01	4.16	3.83	4.19	4.01	4.61	4.76	5.21	5.05	6
	587	Seedex Xavier RR	5.94	4.88	4.55	4.92	4.73	5.13	5.17	5.52	5.27	4
	541	Seedex Yukon RR(828N)	3.82	2.82	2.92	2.84	2.88	3.21	3.52	3.54	4.14	3
	563	Seedex Yuma RR(924)	5.43	4.87	4.16	4.91	4.53	--	--	NR	--	3
	557	Seedex Zenith RR(829N)	3.96	2.90	3.03	2.92	2.98	3.62	3.54	4.27	3.38	3
	523	SESVdh 36175RR	4.89	3.23	3.74	3.25	3.50	3.98	4.20	4.45	4.65	4
	583	SESVdh 36271RR	4.31	3.37	3.30	3.40	3.35	NE	--	5.85	--	3
	546	SESVdh 36272RR	5.66	3.83	4.33	3.86	4.10	NE	--	NE	--	3
	599	SESVdh 36273RR	6.03	4.55	4.61	4.58	4.60	NE	--	NE	--	3
	552	SESVdh 36918RR	7.15	5.53	5.47	5.57	5.52	5.54	5.36	5.56	5.00	6
	595	SESVdh RR241	5.86	4.01	4.48	4.04	4.26	--	--	--	--	1
	514	SESVdh RR243	6.81	4.86	5.21	4.90	5.05	--	--	--	--	1
	553	SESVdh RR244TT	5.81	4.63	4.45	4.67	4.56	--	--	--	--	1
	511	SESVdh RR245N	4.78	3.33	3.66	3.36	3.51	--	--	--	--	1
	542	SESVdh RR246	5.83	4.06	4.46	4.09	4.28	--	--	--	--	1
	609	SESVdh RR333	5.50	3.96	4.21	3.99	4.10	--	--	--	--	2
	529	SESVdh RR336	5.73	4.17	4.38	4.20	4.29	--	--	--	--	2
	620	SESVdh RR631	4.98	4.23	3.81	4.26	4.04	--	--	--	--	2
	540	SESVdh RR632N	7.04	5.15	5.39	5.19	5.29	5.26	--	5.22	--	2
	519	SESVdh RR633	4.68	2.84	3.58	2.86	3.22	--	--	--	--	2
	592	SESVdh RR744	5.23	4.03	4.00	4.06	4.03	--	--	--	--	1
	610	SESVdh RR745	5.89	4.87	4.51	4.91	4.71	--	--	--	--	1
1	1201	Fus Chk #07 CRY5658RR	4.06	2.72	3.11	2.74	2.92	3.53	3.92	4.14	4.71	9
1	1202	Fus Chk #08 HILL4000RR	7.83	6.51	5.99	6.56	6.28	4.70	4.03	3.13	2.68	8
1	1203	Fus Chk #09 HILL4010RR	7.90	5.64	6.05	5.68	5.86	5.91	6.15	5.95	6.62	9
1	1204	Fus Chk #12 HILL4012RR	7.80	5.95	5.97	6.00	5.98	5.84	5.94	5.70	6.14	9
1	1205	Fus Chk #13 HILL4043RR	7.68	6.08	5.88	6.13	6.00	5.85	5.81	5.69	5.72	8
1	1206	Fus Chk #14 BETA86RR44	7.37	5.45	5.64	5.49	5.57	5.52	5.91	5.48	6.70	9
1	1207	Fus Chk #16 BETA87RR58	6.65	5.33	5.09	5.37	5.23	5.46	5.40	5.68	5.30	6
1	1208	Fus Chk #17 CRY5765RR	5.22	3.93	3.99	3.96	3.98	4.58	4.65	5.18	4.79	6
1	1209	Fus Chk #18 CRY5768RR	6.26	4.99	4.79	5.03	4.91	4.70	4.65	4.49	4.54	6
1	1210	Fus Chk #26 BETA87RR68	6.10	4.19	4.67	4.22	4.44	4.69	4.51	4.94	4.13	5
	1211	FS CHECK RES RR #1	3.70	3.11	2.83	3.13	2.98	3.95	4.15	4.92	4.54	4
	1212	FS CHECK SUS RR #2	7.33	6.00	5.61	6.05	5.83	4.39	3.72	2.95	2.39	4
	1213	FS CHK MOD RR RES #2	5.34	3.81	4.09	3.84	3.96	4.79	4.71	5.63	4.54	8
	1214	FS CHK MOD RR SUS #1	5.97	5.18	4.57	5.22	4.89	4.72	4.74	4.54	4.79	8
	1215	FS CHECK SUS RR #2	7.91	6.07	6.05	6.12	6.08	4.52	3.81	2.95	2.39	4
	1216	FS CHK SUS RR#10	6.94	5.18	5.31	5.22	5.27	--	--	--	--	1
	1217	FS CHECK RES RR #1	3.80	2.19	2.91	2.21	2.56	3.74	4.01	4.92	4.54	4
	1218	FS CHK SUS RR#10	7.13	5.34	5.46	5.38	5.42	--	--	--	--	1
	589	Maribo MA102RR (108 MD)	7.57	4.91	5.79	4.95	5.37	5.23	5.17	5.10	5.05	4
	528	Hilleshög 4448RR(9449 MD)	6.96	4.07	5.33	4.10	4.71	4.85	--	4.98	--	3
10		Mean of 10 Check Varieties	6.69	5.08	5.12	5.12	5.12	5.08	5.10	5.04	5.13	
		Trial Mean	5.32	3.87	4.07	3.90	3.95					
		Coef. of Var. (%)	11.31	12.50	11.31	12.50						
		F Value	17.23	23.03	17.23	23.03						
		Mean LSD (0.05)	0.89	0.61	0.68	0.61						
		Mean LSD (0.01)	1.17	0.81	0.90	0.82						
		Sig Lvl	**	**								
		Adjustment Factor	0.7652	1.0077								

@ Adjustment is based upon 10 RR varieties.

Lower numbers indicate better tolerance (1=Ex, 9=Poor).

+ Average rating based upon multiple rating dates.

NE indicates variety was not evaluated into disease nursery.

Table 40. Herbicides and Fungicides Applied to ACSC & MDAK Official Trials

Area	Location	Herbicide			Fungicide		
		Spray Dates	Herbicide & Rate	Water Used/Method	Spray Dates	Fungicide Used	Water Used/Method
ACSC	Casselton	6/13,7/7	RU1,RU2**	10 gal. (Ground)	6/25	Quadris	18.5 gal. (Ground)
					7/29,8/12,8/26	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Ada	6/4,7/7	RU1,RU2	10 gal. (Ground)	6/4	Quadris	18.5 gal. (Ground)
					7/29,8/13,8/26	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Crookston	6/25,7/21	RU1,RU2	10 gal. (Ground)	7/3	Quadris	18.5 gal. (Ground)
					8/1,8/13,8/30	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Climax	6/10,7/7	RU1,RU2	10 gal. (Ground)	7/3	Quadris	18.5 gal. (Ground)
					8/1,8/15,8/30	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Grand Forks	6/13,7/7	RU1,RU2	10 gal. (Ground)	7/4	Quadris	18.5 gal. (Ground)
					7/31,8/13,8/29	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Alvarado	6/13,7/7	RU1,RU2	10 gal. (Ground)	7/4	Quadris	18.5 gal. (Ground)
					8/1,8/15,8/29	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	St. Thomas	6/17,7/11	RU1,RU2	10 gal. (Ground)	7/8	Quadris	18.5 gal. (Ground)
					8/2,8/15,8/29	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Stephen	6/13,7/7	RU1,RU2	10 gal. (Ground)	7/4	Quadris	18.5 gal. (Ground)
					8/1,8/15,8/29	App. 1/App. 2/App. 3	15 gal. (Ground)
ACSC	Bathgate	6/17,7/11	RU1,RU2	10 gal. (Ground)	7/8	Quadris	18.5 gal. (Ground)
					8/2,8/15,8/29	App. 1/App. 2/App. 3	15 gal. (Ground)
MDAK	Barnesville	6/25*,7/17	RU1,RU2	10 gal. (Ground)	7/5	Quadris	18.5 gal. (Ground)
					7/29,8/12,8/26	App. 1/App. 2/App. 3	15 gal. (Ground)
MDAK	Fairmount	6/20*,7/17	RU1,RU2	10 gal. (Ground)	7/9	Quadris	18.5 gal. (Ground)
					7/29,8/12,9/2	App. 1/App. 2/App. 3	15 gal. (Ground)

Ground applications made by beet seed personnel from Crystal Technical Services Center.

RU1 = Roundup Powermax (32 oz./A), Event (1 gal./100 gal water).

\* Applied by air

RU2 = Roundup Powermax (22 oz./A), Event (1 gal./100 gal water).

\*\*4oz./A Stinger added

Counter 20G was applied at 9.0 lbs./A at Grand Forks and St. Thomas .

Quadris applied at 14oz./A

App.1=Agritin(8oz./A), Proline(5oz./A)

App. 2 = Agritin (8oz./A), Topsin(5.6oz/A)

App. 3 = Headline (12oz./A)