RESULTS OF AMERICAN CRYSTAL'S 2015 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 2015 American Crystal and Minn-Dak official trials and describes the procedures and cultural practices involved in the trials.

Table	Area	Information in the Table
1	ACSC	ACSC approved varieties for 2016
2	ACSC	Multi-year performance of approved varieties (all locations combined)
3	ACSC	Performance of ACSC Aph specialty varieties
4	ACSC & MD	Disease ratings for ACSC & MD tested varieties (multiple diseases)
5	ACSC & MD	Official trial sites, cooperators, plant and harvest dates, soil types and disease notes
6	ACSC & MD	Seed treatments applied to seed used in the official coded variety trials
7-19	ACSC	2015 ACSC variety trials and combined
20-23	ACSC	Approval calculations for ACSC market
24	MD	Minn-Dak approved varieties for 2016
25	MD	Multi-year performance of approved varieties in MDFC growing area
26-28	MD	2015 Minn-Dak variety trials and combined
29	ACSC & MD	Aphanomyces disease nursery ratings
30	ACSC & MD	Cercospora disease nursery ratings
31	ACSC & MD	Rhizoctonia disease nursery ratings
32	ACSC & MD	Fusarium disease nursery ratings
33	ACSC & MD	Herbicides and fungicides applied to official trials

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.

Thirteen official yield trial sites were planted in the Crystal area with twelve harvested. Four Minn-Dak official yield trial sites were planted with two harvested . 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. 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 15 of 17 yield trial sites in 2015 and gave good single seed spacing 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.

Ten ACSC sites were used for variety approval calculations (Casselton, Averill, Halstad, Perley, Hillsboro, Climax, Scandia, Grand Forks, Alvarado, St. Thomas). One site was abandoned due to non-uniform residue (Stephen). Two sites experienced moderate to severe Aphanomyces (Kindred & Cavalier) and this Aphanomyces yield trial data is in table 3. Based upon susceptible plot observations, root aphids had only a slight effect on varieties in 2015. Two MDFC sites were abandoned due to gaps, short rows and moderate to heavy Rhizoctonia infection (Barnesville and Norcross).

Rhizoctonia was less prevalent in 2015 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 2015. Root aphids were observed at 6 of 13 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. Topsin/Agri Tin, Pro, and Headline were used for Cercospora control in 2015 (table 33). 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.

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.

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 2016; 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 2016 Sugarbeet Crop ++

Roundup Ready ®	Full Market	Aph Spec	Rhc Spec	High Rzm
BTS 80RR32	Yes		Rhc	Hi Rzm
BTS 80RR52	Yes	Aph	Rhc	Hi Rzm
BTS 82RR28	Yes			Hi Rzm
BTS 82RR33	Yes			Hi Rzm
BTS 8337	Yes	Aph		Hi Rzm
BTS 8363	Yes			Hi Rzm
BTS 8390	Yes			Hi Rzm
BTS 83CN	Yes	Aph	Rhc	Hi Rzm
BTS 8405	New			Hi Rzm
Crystal 093RR	Yes			Hi Rzm
Crystal 101RR	Yes	Aph		Hi Rzm
Crystal 246RR	Yes	Aph +		Hi Rzm
Crystal 247RR	Yes			Hi Rzm
Crystal 355RR	Yes	Aph	Rhc	Hi Rzm
Crystal 359RR	New			Hi Rzm
Crystal 467RR	New	Aph		Hi Rzm
Crystal 875RR	Yes	Aph	Rhc +	
Crystal 981RR	Yes	Aph		Hi Rzm
Crystal 986RR	Yes			
Hilleshög 4022RR	Yes	Aph	Rhc	
Hilleshög 4094RR	Yes		Rhc	
Hilleshög 4302RR	Yes		Rhc	
Hilleshög 4448RR	Yes			
Hilleshög 9517RR	Yes	Aph		Hi Rzm
Hilleshög 9528RR	Yes	Aph		Hi Rzm
Maribo 102	Yes +	Aph +		
Maribo 109	New	Aph	Rhc	Hi Rzm
Maribo 301	New			Hi Rzm
Maribo 305	Yes			
Seedex Savannah RR(842)	New			
Seedex Canyon RR(844TT)	New			Hi Rzm
Seedex Cruze RR(846)	New			Hi Rzm
Seedex Terrain RR(848)	New			Hi Rzm
Seedex Winchester RR(832)	Yes	Aph		Hi Rzm
Seedex Yukon RR	Yes	Aph		
SESVdh 36272RR	Yes			Hi Rzm
SESVdh 36273RR	Yes			
SESVdh RR241	New	Aph		Hi Rzm
SESVdh RR243	New			
SESVdh RR244TT	New			Hi Rzm
SESVdh RR333	Yes			Hi Rzm
SESVdh RR336	Yes	Aph		

Conventional	Full Market	Aph Spec	Rhc Spec	High Rzm
Beta 1100R	Yes			
Beta 1115R	Yes	Aph		
Beta 1125R	Yes	Aph		
Beta 1135R	Yes		Rhc	
Beta 1140R	Yes			
Beta 1301R	Yes	Aph	Rhc	
Beta 1305R	Yes			
Beta 1833R	No		Rhc	
Crystal R308	Yes			
Crystal R431	Yes			
Crystal R434	Yes			
Crystal R760	Yes			
Crystal R761	Yes	Aph		Hi Rzm
Crystal R869	Yes			
Hilleshög 3035Rz	Yes		Rhc	
Hilleshög 3052Rz	Yes			
Holly 317	Yes			
Holly 701	Yes			
Seedex Sonic	Yes			
Seedex SX0873TT (Deuce)	Yes			Hi Rzm
Seedex Triton	Yes			
Seedex Vault (SX0842)	Yes			
SESVanderhave H46519	Yes			
SESVanderhave H46531	Yes			
SESVanderhave H46711	Yes			
SESVanderhave H48607TT	Yes			Hi Rzm
SESVanderhave H46714	No		Rhc	
SESVanderhave H48716TT	Yes			Hi Rzm
SESVanderhave H48717TT	Yes			Hi Rzm
SESVanderhave H46801	Yes			
SESVanderhave H48810TT	Yes			Hi Rzm

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

Aph Spec = variety meets Aphanomyces specialty requirements
Rhc Spec = variety meets Rhizoctonia specialty requirements
Hi Rzm = may perform better under severe Rzm.
New = newly approved

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+ Previously approved varieties not meeting current approval standards may be sold in 2016. Continued testing in 2016 will allow sales in 2017.

Table 2. Performance Data of RR Varieties During 2013, 2014, 2015 Growing Seasons (All Locations Combined) +++

	Yrs	Rev/Ton ++					Rev/Acre ++					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emerg		Bolter / Ac		CR +		Aph Root+		Rhizoc.+			Fusarium+			Rzm+
Variety @	Com	15	2 Yr	2Y%	3Yr#	3Y%	15	2 Yr	2Y%	3Yr#	3Yr%	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	2 Yr	15	14	2 Yr	15	14	2 Yr	
Previous Approved # locations	→	10	18		24		10	18		24		10	18	10	18	10	18	10	18	10	18	10	18	10	18	3	6	1	3	4	2	6	2	2	4	
BTS 80RR32	4	53.03	52.54	98	53.44	100	1728	1624	106	1597	107	314	311	10201	9583	16.84	16.62	32.4	30.8	1.15	1.09	72	76	0	0	4.92	4.81	5.1	5.1	4.0	3.6	3.8	2.7	2.7	2.7	Hi
BTS 80RR52	4	54.21	54.85	102	54.85	103	1701	1616	106	1586	107	318	318	9958	9368	17.12	17.05	31.3	29.4	1.24	1.15	71	74	0	0	4.11	4.17	3.2	3.6	3.9	4.4	4.2	2.8	2.8	2.8	Hi
BTS 82RR28	2	52.74	53.51	100	53.80	101	1699	1624	106	1600	108	313	314	10079	9525	16.96	16.88	32.1	30.3	1.30	1.18	66	73	0	11	4.89	4.76	4.1	4.5	4.0	4.1	4.1	2.5	2.4	2.5	Hi
BTS 82RR33	2	54.00	53.88	100	54.15	102	1773	1685	110	1657	111	317	315	10381	9821	17.00	16.83	32.7	31.1	1.14	1.07	70	74	5	5	4.58	4.64	5.6	5.6	4.2	4.2	4.2	2.7	2.9	2.8	Hi
BTS 8337	1	59.46	59.19	110	58.87	110	1756	1612	105	1586	107	334	332	9843	9032	17.83	17.65	29.3	27.2	1.13	1.05	75	76	5	9	4.49	4.51	2.6	3.1	3.9	4.1	4.0	3.7	3.8	3.7	Hi
BTS 8363	1	51.66	52.52	98	52.90	99	1732	1635	107	1614	108	310	311	10360	9669	16.61	16.58	33.4	31.1	1.13	1.05	75	76	0	47	3.83	3.84	4.8	4.9	4.1	4.2	4.2	2.8	3.4	3.1	Hi
BTS 8390	1	50.21	50.64	94	50.81	95	1707	1626	106	1606	108	305	305	10330	9770	16.48	16.36	33.7	32.0	1.22	1.13	69	73	0	0	4.04	4.16	4.3	4.6	NE	4.3	--	NE	3.0	--	Hi
BTS 83CN	1	53.50	53.74	100	54.44	102	1689	1585	104	1539	103	315	315	9948	9283	16.89	16.76	31.5	29.5	1.12	1.04	71	74	0	0	4.65	4.63	3.8	4.0	3.9	4.0	3.9	2.7	3.1	2.9	Hi
Crystal 093RR	4	56.73	57.46	107	57.71	108	1742	1654	108	1623	109	326	326	9983	9392	17.45	17.41	30.6	28.8	1.18	1.10	74	78	32	25	4.76	4.82	3.9	4.3	4.0	4.5	4.2	3.2	3.6	3.4	Hi
Crystal 101RR	4	52.94	53.45	100	53.61	101	1618	1592	104	1573	106	314	314	9575	9334	17.02	16.91	30.5	29.7	1.33	1.22	65	73	0	0	4.65	4.46	3.3	3.4	4.6	4.8	4.7	2.6	2.7	2.7	Hi
Crystal 246RR	2	52.15	53.08	99	53.57	100	1703	1616	106	1608	108	311	313	10147	9508	16.71	16.70	32.5	30.4	1.15	1.07	71	76	5	9	4.49	4.51	5.0	4.8	4.2	4.0	4.1	3.0	3.0	3.0	Hi
Crystal 247RR	2	54.48	54.27	101	54.47	102	1812	1713	112	1657	111	319	316	10569	9950	17.05	16.86	33.1	31.3	1.13	1.05	71	72	5	5	4.19	4.19	4.9	5.0	4.3	4.4	4.4	2.5	2.8	2.7	Hi
Crystal 355RR	NC	54.87	55.57	104	55.91	105	1624	1535	100	1513	102	320	321	9445	8858	17.28	17.21	29.4	27.6	1.26	1.17	75	77	18	9	4.43	4.50	3.3	3.7	NE	4.1	--	NE	3.1	--	Hi
Crystal 875RR	6	51.30	52.52	98	52.26	98	1490	1471	96	1453	98	309	311	8933	8687	16.77	16.78	28.9	27.9	1.34	1.24	70	74	0	0	4.21	4.16	2.5	2.8	4.1	4.0	4.1	4.4	4.5	4.4	Rzm
Crystal 981RR	2	52.28	53.22	99	52.97	99	1594	1562	102	1532	103	312	313	9473	9169	16.96	16.89	30.3	29.2	1.38	1.24	71	74	0	2	5.05	4.97	3.3	3.5	4.4	4.8	4.6	2.4	2.7	2.6	Hi
Crystal 986RR	4	55.44	56.23	105	56.97	107	1646	1604	105	1576	106	322	322	9528	9185	17.17	17.14	29.5	28.4	1.10	1.02	69	74	0	0	4.97	4.79	3.9	4.2	4.1	4.1	4.1	3.9	4.2	4.0	Rzm
Hilleshög 4022RR	7	51.20	50.97	95	51.64	97	1513	1385	91	1372	92	308	306	9062	8298	16.70	16.53	29.2	27.1	1.29	1.23	69	74	0	0	4.37	4.45	3.7	4.2	3.5	3.8	3.6	4.0	4.8	4.4	Rzm
Hilleshög 4094RR	6	50.22	51.44	96	51.59	97	1504	1425	93	1389	93	305	307	9105	8510	16.55	16.58	29.7	27.7	1.29	1.21	72	76	0	0	4.30	4.38	4.6	4.5	3.4	3.5	3.5	3.8	4.8	4.3	Rzm
Hilleshög 4302RR	2	54.81	54.79	102	55.04	103	1624	1530	100	1487	100	320	318	9431	8846	17.10	16.96	29.4	27.7	1.12	1.06	66	71	0	0	4.13	4.33	4.0	4.1	3.7	3.6	3.6	4.0	5.0	4.5	Rzm
Hilleshög 4448RR	2	56.36	56.66	106	56.11	105	1818	1752	115	1673	112	324	324	10447	9991	17.28	17.19	32.1	30.8	1.06	1.01	77	76	0	0	5.29	5.29	2.8	3.8	3.9	4.7	4.3	NE	4.7	--	Rzm
Hilleshög 9517RR	1	55.22	56.17	105	56.52	106	1482	1410	92	1385	93	321	322	8587	8088	17.30	17.28	26.7	25.1	1.27	1.17	69	70	0	0	4.03	4.21	3.1	3.5	3.7	4.0	3.8	2.8	3.4	3.1	Hi
Hilleshög 9528RR	1	55.79	56.74	106	56.24	106	1762	1669	109	1598	107	323	324	10166	9537	17.21	17.22	31.4	29.4	1.08	1.01	70	74	0	0	5.16	5.06	3.0	4.2	4.1	3.8	4.0	4.0	4.8	4.4	Hi
Maribo 102	1	56.85	57.18	107	56.38	106	1873	1755	115	1691	114	326	325	10713	9980	17.33	17.25	32.8	30.6	1.03	0.97	74	74	0	0	5.77	5.66	2.8	3.9	4.1	4.3	4.2	4.5	5.4	5.0	Rzm
Maribo 305	NC	51.45	52.98	99	53.43	100	1634	1587	104	1568	105	309	312	9769	9342	16.51	16.58	31.5	29.9	1.04	0.96	70	76	0	0	4.76	4.79	4.8	4.9	3.8	4.6	4.2	5.0	5.1	--	Rzm
SV 36272RR	2	55.13	55.61	104	56.00	105	1509	1446	95	1448	97	321	320	8743	8310	17.06	17.00	27.2	25.8	1.03	0.98	62	70	0	0	3.88	4.25	4.0	4.5	4.4	4.3	4.4	4.1	4.1	4.1	Hi
SV 36273RR	2	52.77	52.70	98	53.32	100	1554	1504	98	1461	98	313	311	9194	8860	16.74	16.59	29.3	28.4	1.08	1.03	66	69	9	5	4.03	4.54	4.4	5.0	4.3	3.9	4.1	4.6	4.6	4.6	Rzm
SV RR333	NC	54.78	54.88	102	54.76	103	1775	1630	107	1566	105	320	318	10345	9448	17.13	16.98	32.3	29.6	1.11	1.05	71	73	0	0	4.54	4.67	3.5	4.4	4.1	4.4	4.3	NE	4.1	--	Hi
SV RR336	1	51.62	53.17	99	52.49	98	1528	1510	99	1493	100	310	313	9148	8887	16.61	16.68	29.5	28.4	1.13	1.04	70	74	0	0	3.94	4.24	2.8	4.1	4.4	4.3	4.3	3.3	4.3	3.8	Rzm
SX Winchester RR(832)	1	56.02	55.80	104	55.42	104	1580	1547	101	1514	102	323	321	9099	8886	17.25	17.09	28.1	27.6	1.09	1.04	69	73	0	0	3.67	4.28	3.1	4.1	4.3	4.3	4.3	4.0	5.0	4.5	Hi
SX Yukon RR	2	48.73	50.58	94	51.26	96	1507	1426	93	1401	94	301	305	9272	8593	16.16	16.30	30.8	28.2	1.14	1.07	72	75	0	0	4.75	4.80	3.2	3.0	NE	4.3	--	NE	2.9	--	Rzm
Newly Approved																																				
BTS 8405	NC	56.74	58.24	109	--	--	1721	1653	108	--	--	326	329	9863	9346	17.44	17.50	30.1	28.3	1.10	1.02	70	73	0	0	4.05	4.09	4.8	4.9	4.4	4.8	4.6	2.8	2.9	2.8	Hi
Crystal 359RR	NC	50.11	51.90	97	52.00	98	1659	1616	106	1597	107	304	309	10026	9595	16.55	16.63	32.7	31.0	1.34	1.21	67	71	0	7	5.19	5.17	4.5	4.7	3.9	4.2	4.0	2.5	2.2	2.3	Hi
Crystal 467RR	NC	52.15	52.60	98	--	--	1765	1664	109	--	--	311	311	10506	9833	16.74	16.65	33.6	31.6	1.18	1.10	68	72	0	0	4.34	4.37	3.6	3.9	4.0	4.0	4.0	2.5	2.6	2.5	Hi
Maribo 109	NC	59.15	59.76	111	--	--	1568	1479	97	--	--	334	334	8839	8272	17.86	17.77	26.3	24.7	1.12	1.04	67	70	0	0	4.56	4.62	3.5	4.3	3.7	3.3	3.5	3.6	--	--	Hi
Maribo 301	NC	53.12	55.25	103	--	--	1567	1497	98	--	--	314	319	9238	8650	16.99	17.14	29.3	27.0	1.27	1.16	70	74	9	5	4.85	4.89	3.3	3.2	4.1	4.7	4.4	2.6	2.7	2.6	Hi
SV RR241	NC	54.16	54.17	101	--	--	1638	1538	101	--	--	318	316	9565	8950	16.97	16.82	29.9	28.2	1.06	1.01	71	74	0	7	3.83	4.09	2.9	4.1	4.0	4.4	4.2	5.1	4.3	4.7	Hi
SV RR243	NC	54.04	54.61	102	--	--	1622	1544	101	--	--	317	317	9498	8967	16.99	16.92	29.9	28.2	1.10	1.03	70	69	27	14	3.63	4.21	2.5	4.1	4.1	4.8	4.4	4.1	5.1	4.6	Rzm
SV RR244TT	NC	53.73	52.07	97	--	--	1687	1621	106	--	--	316	309	9899	9613	16.95	16.50	31.2	31.0	1.12	1.03	69	71	18	9	4.17	4.84	4.2	4.9	4.2	3.8	4.0	3.9	4.6	4.2	Hi
SX Canyon RR(844TT)	NC	53.22	54.34	101	--	--	1680	1627	106	--	--	315	317	9900	9468	16.86	16.86	31.4	29.9	1.10	1.03	69	72	9	5	4.02	4.74	3.6	4.7	4.2	4.1	4.2	3.9	--	--	Hi
SX Cruze RR(846)	NC	51.54	52.22	97	--	--	1642	1592	104	--	--	309	310	9821	9431	16.63	16.58	31.6	30.4	1.17	1.09	64	69	9	5	4.57	4.70	4.1	5.0	4.2	4.7	4.4	NE	--	--	Hi
SX Savannah RR(842)	NC	53.66	54.92	102	--	--	1625	1595	104	--	--	316	318	9546	9234	16.94	16.96	30.1	28.9	1.12	1.03	63	69	0	7	4.36	4.63	3.6	4.7	4.2	4.2	4.2	5.5	4.2	4.9	Rzm
SX Terrain RR(848)	NC	53.73	53.57	100	--	--	1685	1603	105	--	--	316	314	9897	9391	16.96	16.77	31.2	29.8	1.13	1.05	65	68	0	0	4.80	4.75	3.7	4.6	4.2	4.4	4.3	4.4	4.0	4.2	Hi
Benchmark var. mean		52.83	53.61		53.31		1597	1529		1488		313	314	9452	8956	16.93	16.88	30.1	28.5	1.26	1.17	71	75													

3 Yr is mean of 3 years data, 3 Y% is 3-Yr mean as % of benchmark varieties. 2 Yr is mean of 2 years data, 2 Y% is 2-Yr mean as % of benchmark varieties. Emergence is % of planted seeds producing a 4 leaf beet.

++ 2015 Revnue estimate based on a $54.96 beet payment (5-yr ave) at 17.5% suga and 1.5% loss to molasses. 2014 Revenue estimates based on a $55.98 beet payment and 2013 based on $53.20. Revenue does not consider hauling or production costs.

+ Aph ratings from Shakopee (res.=4.4, susc=5.5). CR from Randolph MN, Foxhome MN & Michigan (res.=4.5, susc=5.2). Fusarium from RRV (res.=3.0, susc=5.0). Rhizoc. from Mhd, NWROC & Mich (res.=3.8, susc=5). Hi may perform better under severe Rzm.

Bolters /Ac are based upon a plant stand of 45,000.

+++ Sites include Casselton, Reynolds, Alvarado, Grafton, St Thomas, Hallock in 2013.

NE indicates variety not entered into nursery. -- data not available.

+++ Sites include Casselton, Ada, Crookston, Grand Forks, Alvarado, St Thomas, Stephen, Bathgate in 2014.

Created 1-7-2016.

+++ Sites include Casselton, Averill, Perley, Halstad, Hillsboro, Climax, Scandia, Grand Forks, Alvarado, St Thomas in 2015.

Table 3. Performance Data of RR Aphanomyces Specialty Varieties - Under Aphanomyces Conditions (Relative to Susceptible Checks) approved for 2016 Growing Season +++

	Years	Rev/Ton			Rev/Acre			Rec/Ton		Rec/Acre		Sugar		Yield		CR Rating +		Aph Root +			Fusarium +		Rhizoctonia +	
Description	Comm	2015	2 Yr	%Sus	2015	2 Yr	%Sus	2015	2 Yr	2015	2 Yr	2015	2 Yr	2015	2 Yr	15	14	15	14	2 Yr	15	14	15	14
# of locations		2	3	3	2	3	3	2	3	2	3	2	3	2	3	3	3	1	2	3	2	2	4	2
Previously Approved																								
BTS 80RR52	4	39.06	43.91	102	1012	1233	169	270.2	283.8	6966	7921	15.07	15.53	25.6	27.7	4.11	4.22	3.2	4.0	3.6	2.8	2.8	3.9	4.4
BTS 8337	1	46.79	50.07	116	1142	1403	192	294.4	303.7	7047	8405	16.14	16.43	23.5	27.4	4.49	4.52	2.6	3.7	3.1	3.7	3.8	3.9	4.1
BTS 83CN	1	39.07	42.17	98	1059	1207	165	270.2	278.2	7269	7913	14.91	15.16	26.8	28.3	4.65	4.60	3.8	4.2	4.0	2.7	3.1	3.9	4.0
Crystal 101RR	4	34.40	42.46	99	826	1224	168	255.6	279.3	6086	7907	14.44	15.36	23.6	27.8	4.65	4.26	3.3	3.4	3.4	2.6	2.7	4.6	4.8
Crystal 246RR	2	35.59	42.12	98	815	1127	154	259.4	278.2	5854	7316	14.42	15.14	22.4	26.0	4.49	4.52	5.0	4.5	4.8	3.0	3.0	4.2	4.0
Crystal 355RR	NC	40.90	46.37	108	994	1323	181	276.3	292.1	6671	8241	15.40	15.97	23.9	27.9	4.43	4.58	3.3	4.2	3.7	NE	3.1	NE	4.1
Crystal 875RR	6	37.94	39.83	92	940	1029	141	266.7	271.0	6516	6955	15.04	14.95	24.2	25.6	4.21	4.12	2.5	3.1	2.8	4.4	4.5	4.1	4.0
Crystal 981RR	2	34.33	41.97	97	841	1193	163	255.4	277.7	6094	7720	14.44	15.27	23.4	27.3	5.05	4.89	3.3	3.8	3.5	2.4	2.7	4.4	4.8
Maribo 102	1	42.71	45.37	105	1025	1198	164	281.6	288.5	6634	7535	15.45	15.56	23.1	25.9	5.77	5.54	2.8	5.0	3.9	4.5	5.4	4.1	4.3
SX Yukon RR	2	32.86	37.41	87	853	1015	139	250.8	263.4	6348	7055	14.15	14.47	24.9	26.5	4.75	4.85	3.2	2.8	3.0	NE	2.9	NE	4.3
Newly Approved																								
Crystal 467RR	NC	34.00	40.76	95	873	1245	170	253.4	273.5	6409	8198	14.16	14.97	25.0	29.5	4.34	4.40	3.6	4.3	3.9	2.5	2.6	4.0	4.0
Hilleshög 4022RR	7	37.37	41.43	96	946	1082	148	264.9	276.0	6658	7171	14.86	15.15	25.0	25.9	4.37	4.54	3.7	4.6	4.2	4.0	4.8	3.5	3.8
Hilleshög 9517RR	1	41.00	43.89	102	961	1135	155	276.3	283.8	6441	7304	15.46	15.60	23.3	25.7	4.03	4.39	3.1	3.9	3.5	2.8	3.4	3.7	4.0
Hilleshög 9528RR	1	41.21	45.55	106	906	1079	148	276.9	289.2	5987	6782	15.22	15.58	21.3	23.3	5.16	4.97	3.0	5.4	4.2	4.0	4.8	4.1	3.8
Maribo 109	NC	40.75	47.00	109	896	1035	142	275.9	294.2	5929	6421	15.23	15.89	21.0	21.6	4.56	4.68	3.5	5.0	4.3	3.6	--	3.7	3.3
SX Winchester RR(832)	1	39.02	42.88	99	857	1111	152	270.1	280.6	5790	7152	14.95	15.28	21.1	25.2	3.67	4.89	3.1	5.1	4.1	4.0	5.0	4.3	4.3
SV RR241	NC	39.32	41.63	97	1036	1137	156	271.1	276.5	7040	7498	14.99	15.01	25.5	26.9	3.83	4.35	2.9	5.4	4.1	5.1	4.3	4.0	4.4
SV RR336	1	37.06	40.61	94	896	1104	151	263.9	273.3	6247	7313	14.67	14.86	23.3	26.4	3.94	4.53	2.8	5.5	4.1	3.3	4.3	4.4	4.3
Aph Susc Checks		39.59	43.09		636	730		272.0	281.3	4288	4708	15.16	15.39	15.5	16.5									
Mean of Aph Specialty Varieties		38.52	43.08		938	1160		268.5	281.3	6444	7489	14.94	15.34	23.7	26.4									

%Susc = % of susceptible varieties.

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

Created 11-03-2015.

+ Fusarium ratings from Mhd (res=3.0, susc=5.0). Rhizoctonia ratings from Ft Collins, Mhd and Michigan (res=3.8, susc=5).

+++ 2015 Data from Kindred and Cavalier. 2014 Data from Climax.

++ 2015 Revenue estimates based on a $54.96 beet payment at 17.5% sugar and 1.5% loss to molasses. 2014 estimates based on a $55.98 beet payment. Revenue does not consider hauling or production costs.

Table 4. Official Trial Disease Nurseries 2013 - 2015 (Varieties tested in 2015)
Cercospora, Aphanomyces, Rhizoctonia & Fusarium

		CR					Aph					Rhizoctonia					Fusarium					Rzm
		15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	
Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	High Rzm
	ACSC Commercial																					
519	BTS 80RR32	4.92	4.69	4.81	4.81	4.81	5.14	5.06	5.04	5.10	5.08	4.02	3.56	4.28	3.79	3.95	2.70	2.71	3.87	2.70	3.09	Hi Rzm
572	BTS 80RR52	4.11	4.22	4.52	4.17	4.28	3.24	4.01	4.01	3.62	3.75	3.95	4.36	3.77	4.15	4.03	2.83	2.84	3.64	2.83	3.10	Hi Rzm
602	BTS 82RR28	4.89	4.62	4.52	4.76	4.68	4.15	4.84	4.62	4.49	4.53	4.01	4.11	4.17	4.06	4.10	2.55	2.44	2.85	2.49	2.61	Hi Rzm
502	BTS 82RR33	4.58	4.70	4.68	4.64	4.65	5.63	5.59	5.40	5.61	5.54	4.18	4.20	4.36	4.19	4.25	2.70	2.86	3.05	2.78	2.87	Hi Rzm
596	BTS 8337	4.49	4.52	4.75	4.51	4.59	2.55	3.68	3.69	3.12	3.31	3.87	4.06	4.55	3.96	4.16	3.72	3.78	4.38	3.75	3.96	Hi Rzm
527	BTS 8363	3.83	3.85	3.92	3.84	3.86	4.77	5.03	4.91	4.90	4.90	4.12	4.24	3.88	4.18	4.08	2.85	3.39	4.34	3.12	3.53	Hi Rzm
626	BTS 8390	4.04	4.28	4.43	4.16	4.25	4.26	5.03	4.75	4.65	4.68	NE	4.30	4.38	NE	NE	NE	3.03	3.14	NE	NE	Hi Rzm
576	BTS 83CN	4.65	4.60	4.36	4.63	4.54	3.79	4.16	4.34	3.98	4.10	3.86	4.01	3.29	3.94	3.72	2.68	3.13	3.21	2.91	3.01	Hi Rzm
549	Crystal 093RR	4.76	4.88	5.20	4.82	4.95	3.86	4.69	4.54	4.28	4.36	3.96	4.46	4.39	4.21	4.27	3.22	3.59	4.01	3.41	3.61	Hi Rzm
515	Crystal 101RR	4.65	4.26	4.63	4.46	4.51	3.31	3.45	3.80	3.38	3.52	4.64	4.84	4.74	4.74	4.74	2.64	2.73	3.27	2.69	2.88	Hi Rzm
539	Crystal 246RR	4.49	4.52	4.48	4.51	4.50	4.99	4.51	4.90	4.75	4.80	4.19	4.01	4.62	4.10	4.27	3.00	2.99	4.17	3.00	3.39	Hi Rzm
587	Crystal 247RR	4.19	4.20	4.57	4.19	4.32	4.94	5.05	5.21	5.00	5.07	4.33	4.41	4.58	4.37	4.44	2.51	2.84	3.79	2.67	3.05	Hi Rzm
591	Crystal 875RR	4.21	4.12	4.77	4.16	4.37	2.49	3.11	3.76	2.80	3.12	4.11	4.04	4.53	4.08	4.23	4.35	4.51	4.79	4.43	4.55	
534	Crystal 981RR	5.05	4.89	5.09	4.97	5.01	3.25	3.79	3.55	3.52	3.53	4.40	4.85	3.75	4.63	4.33	2.43	2.70	3.80	2.56	2.97	Hi Rzm
523	Crystal 986RR	4.97	4.61	4.80	4.79	4.79	3.87	4.63	4.67	4.25	4.39	4.06	4.12	4.54	4.09	4.24	3.89	4.16	5.20	4.02	4.41	
537	Hilleshög 4022RR	4.37	4.54	4.33	4.45	4.41	3.75	4.59	4.65	4.17	4.33	3.47	3.82	3.39	3.64	3.56	3.98	4.79	4.67	4.39	4.48	
513	Hilleshög 4094RR	4.30	4.46	4.47	4.38	4.41	4.60	4.47	4.73	4.53	4.60	3.44	3.52	3.42	3.48	3.46	3.82	4.83	4.57	4.32	4.40	
561	Hilleshög 4302RR	4.13	4.52	4.23	4.33	4.29	4.02	4.20	4.82	4.11	4.35	3.70	3.58	3.32	3.64	3.53	4.05	5.05	5.11	4.55	4.74	
615	Hilleshög 4448RR	5.29	5.28	5.21	5.29	5.26	2.80	4.78	4.73	3.79	4.11	3.92	4.73	5.42	4.32	4.69	NE	4.71	5.22	NE	NE	
590	Hilleshög 9517RR	4.03	4.39	4.67	4.21	4.36	3.09	3.89	3.66	3.49	3.55	3.66	4.04	3.62	3.85	3.77	2.79	3.40	3.77	3.10	3.32	Hi Rzm
562	Hilleshög 9528RR	5.16	4.97	4.72	5.06	4.95	2.97	5.44	4.51	4.20	4.31	4.10	3.83	4.17	3.96	4.03	4.00	4.80	--	4.40	--	Hi Rzm
545	Maribo 102	5.77	5.54	5.03	5.66	5.45	2.78	4.99	4.30	3.88	4.02	4.07	4.30	5.53	4.19	4.63	4.55	5.37	5.21	4.96	5.04	
508	SX Winchester RR(832)	3.67	4.89	4.78	4.28	4.44	3.07	5.06	4.54	4.06	4.22	4.28	4.35	4.43	4.32	4.35	3.95	4.97	--	4.46	--	Hi Rzm
625	SX Yukon RR	4.75	4.85	4.69	4.80	4.76	3.16	2.77	4.35	2.97	3.43	NE	4.33	4.84	NE	NE	NE	2.88	3.54	NE	NE	
574	SV 36272RR	3.88	4.61	4.49	4.25	4.33	3.97	4.98	5.01	4.47	4.65	4.39	4.31	4.61	4.35	4.44	4.09	4.10	NE	4.09	NE	Hi Rzm
605	SV 36273RR	4.03	5.05	4.68	4.54	4.59	4.38	5.59	5.31	4.99	5.09	4.25	3.94	4.70	4.10	4.30	4.58	4.60	NE	4.59	NE	
530	SV RR336	3.94	4.53	4.75	4.24	4.41	2.78	5.50	4.53	4.14	4.27	4.38	4.29	3.93	4.34	4.20	3.32	4.29	--	3.81	--	
	ACSC Experimental																					
569	BTS 8405	4.05	4.14	--	4.09	--	4.82	4.93	--	4.87	--	4.40	4.75	--	4.58	--	2.81	2.87	--	2.84	--	Hi Rzm
585	BTS 8408	5.41	5.00	--	5.20	--	4.52	4.33	--	4.42	--	4.19	4.25	--	4.22	--	3.30	3.22	--	3.26	--	Hi Rzm
570	BTS 8500	4.45	--	--	--	--	3.54	--	--	--	--	4.19	--	--	--	--	2.41	--	--	--	--	Hi Rzm
512	BTS 8512	4.12	--	--	--	--	3.91	--	--	--	--	4.28	--	--	--	--	2.70	--	--	--	--	Hi Rzm
553	BTS 8524	4.40	--	--	--	--	3.33	--	--	--	--	4.14	--	--	--	--	2.88	--	--	--	--	Hi Rzm
567	BTS 8536	4.08	--	--	--	--	3.86	--	--	--	--	4.41	--	--	--	--	2.37	--	--	--	--	Hi Rzm
606	BTS 8548	4.44	--	--	--	--	4.80	--	--	--	--	3.98	--	--	--	--	2.80	--	--	--	--	Hi Rzm
610	BTS 8560	3.61	--	--	--	--	3.01	--	--	--	--	4.42	--	--	--	--	NE	--	--	--	--	Hi Rzm
509	BTS 8572	4.60	--	--	--	--	4.05	--	--	--	--	3.85	--	--	--	--	2.54	--	--	--	--	Hi Rzm
517	BTS 8584	4.96	--	--	--	--	4.41	--	--	--	--	4.04	--	--	--	--	3.30	--	--	--	--	Hi Rzm
622	Crystal 355RR	4.43	4.58	4.89	4.50	4.63	3.26	4.15	4.51	3.71	3.98	NE	4.07	3.55	NE	NE	NE	3.14	3.43	NE	NE	Hi Rzm
566	Crystal 359RR	5.19	5.16	5.32	5.17	5.22	4.49	4.92	4.44	4.71	4.62	3.90	4.18	4.04	4.04	4.04	2.46	2.21	2.60	2.33	2.42	Hi Rzm
580	Crystal 467RR	4.34	4.40	--	4.37	--	3.55	4.33	--	3.94	--	3.97	4.03	--	4.00	--	2.46	2.61	--	2.53	--	Hi Rzm
578	Crystal 572RR	4.65	--	--	--	--	4.33	--	--	--	--	3.89	--	--	--	--	2.36	--	--	--	--	Hi Rzm
573	Crystal 573RR	4.15	--	--	--	--	3.69	--	--	--	--	4.25	--	--	--	--	3.02	--	--	--	--	Hi Rzm
558	Crystal 574RR	4.30	--	--	--	--	2.93	--	--	--	--	4.16	--	--	--	--	2.00	--	--	--	--	Hi Rzm
557	Crystal 575RR	4.53	--	--	--	--	3.88	--	--	--	--	4.18	--	--	--	--	2.90	--	--	--	--	Hi Rzm
555	Crystal 576RR	4.55	--	--	--	--	3.24	--	--	--	--	3.68	--	--	--	--	2.46	--	--	--	--	Hi Rzm
603	Crystal 577RR	4.59	--	--	--	--	5.57	--	--	--	--	4.29	--	--	--	--	3.14	--	--	--	--	Hi Rzm
503	Crystal 578RR	4.93	--	--	--	--	4.52	--	--	--	--	4.03	--	--	--	--	2.42	--	--	--	--	Hi Rzm
621	Crystal 579RR	4.94	--	--	--	--	4.54	--	--	--	--	4.25	--	--	--	--	NE	--	--	--	--	Hi Rzm
565	Hilleshög HIL9704	5.08	--	--	--	--	3.76	--	--	--	--	4.36	--	--	--	--	5.61	--	--	--	--	Hi Rzm
540	Hilleshög HIL9705	4.88	--	--	--	--	4.23	--	--	--	--	4.25	--	--	--	--	5.05	--	--	--	--	Hi Rzm
618	Hilleshög HIL9706	5.72	--	--	--	--	2.67	--	--	--	--	4.09	--	--	--	--	--	--	--	--	--	Hi Rzm
522	Hilleshög HIL9707	4.60	--	--	--	--	3.52	--	--	--	--	4.21	--	--	--	--	3.68	--	--	--	--	Hi Rzm
529	Hilleshög HIL9708	5.04	--	--	--	--	4.69	--	--	--	--	4.04	--	--	--	--	3.69	--	--	--	--	Hi Rzm
584	Hilleshög HIL9709	4.63	--	--	--	--	5.82	--	--	--	--	3.90	--	--	--	--	3.63	--	--	--	--	Hi Rzm
607	Hilleshög HIL9710	4.55	--	--	--	--	3.48	--	--	--	--	3.89	--	--	--	--	2.87	--	--	--	--	Hi Rzm
543	Hilleshög HIL9711	5.06	--	--	--	--	3.01	--	--	--	--	4.11	--	--	--	--	3.85	--	--	--	--	Hi Rzm
514	Hilleshög HIL9713	4.46	--	--	--	--	5.75	--	--	--	--	4.24	--	--	--	--	4.84	--	--	--	--	Hi Rzm
599	Hilleshög HIL9714	4.53	--	--	--	--	6.45	--	--	--	--	3.59	--	--	--	--	4.91	--	--	--	--	Hi Rzm
518	Hilleshög HIL9602	4.66	4.67	--	4.67	--	4.67	4.55	--	4.61	--	3.91	4.12	--	4.02	--	--	--	--	--	--	Hi Rzm
554	Maribo 109	4.56	4.68	--	4.62	--	3.54	5.00	--	4.27	--	3.67	3.33	--	3.50	--	3.58	--	--	--	--	Hi Rzm
507	Maribo 301	4.85	4.92	--	4.89	--	3.28	3.16	--	3.22	--	4.10	4.66	--	4.38	--	2.56	2.65	--	2.60	--	Hi Rzm
524	Maribo MA305	4.76	4.83	4.63	4.79	4.74	4.76	4.99	4.93	4.88	4.89	3.83	4.62	--	4.22	--	5.02	5.12	--	5.07	--	
504	Maribo 402	4.60	4.76	--	4.68	--	4.24	4.31	--	4.27	--	3.87	3.86	--	3.86	--	3.99	--	--	--	--	
520	Maribo MA500	5.53	--	--	--	--	3.80	--	--	--	--	4.15	--	--	--	--	4.52	--	--	--	--	Hi Rzm
535	Maribo MA501	3.73	--	--	--	--	5.87	--	--	--	--	4.33	--	--	--	--	4.13	--	--	--	--	Hi Rzm
600	Maribo MA502	5.04	--	--	--	--	2.93	--	--	--	--	4.14	--	--	--	--	2.33	--	--	--	--	Hi Rzm
586	Maribo MA503	3.56	--	--	--	--	3.60	--	--	--	--	3.70	--	--	--	--	4.16	--	--	--	--	Hi Rzm
577	Maribo MA504	5.25	--	--	--	--	4.60	--	--	--	--	3.98	--	--	--	--	4.11	--	--	--	--	Hi Rzm
550	Seedex RR0855	5.02	--	--	--	--	6.68	--	--	--	--	4.25	--	--	--	--	4.64	--	--	--	--	Hi Rzm
594	Seedex RR0856	5.37	--	--	--	--	4.53	--	--	--	--	4.16	--	--	--	--	4.87	--	--	--	--	Hi Rzm
525	Seedex RR0857	3.90	--	--	--	--	3.60	--	--	--	--	4.02	--	--	--	--	3.71	--	--	--	--	
552	Seedex RR0858	4.15	--	--	--	--	3.40	--	--	--	--	4.21	--	--	--	--	5.12	--	--	--	--	
556	SX Savannah RR(842)	4.36	4.90	--	4.63	--	3.57	5.82	--	4.70	--	4.20	4.23	--	4.21	--	5.47	4.24	--	4.85	--	
571	SX Canyon RR(844TT)	4.02	5.46	--	4.74	--	3.59	5.84	--	4.71	--	4.22	4.15	--	4.19	--	3.85	--	--	--	--	Hi Rzm
617	SX Cruze RR(846)	4.57	4.83	--	4.70	--	4.14	5.77	--	4.95	--	4.18	4.67	--	4.43	--	NE	--	--	--	--	Hi Rzm

Table 4. Official Trial Disease Nurseries 2013 - 2015 (Varieties tested in 2015)
Cercospora, Aphanomyces, Rhizoctonia & Fusarium

		CR					Aph					Rhizoctonia					Fusarium					Rzm
		15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	15	14	13	2 Yr	3 Yr	
Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	High Rzm
604	SX Terrain RR(848)	4.80	4.71	--	4.75	--	3.69	5.58	--	4.63	--	4.24	4.43	--	4.34	--	4.35	3.95	--	4.15	--	Hi Rzm
598	SV RR241	3.83	4.35	--	4.09	--	2.87	5.42	--	4.15	--	3.97	4.43	--	4.20	--	5.12	4.26	--	4.69	--	Hi Rzm
588	SV RR243	3.63	4.79	--	4.21	--	2.49	5.71	--	4.10	--	4.09	4.79	--	4.44	--	4.06	5.05	--	4.56	--	
608	SV RR244TT	4.17	5.51	--	4.84	--	4.23	5.67	--	4.95	--	4.18	3.84	--	4.01	--	3.86	4.56	--	4.21	--	Hi Rzm
616	SV RR333	4.54	4.81	4.86	4.67	4.74	3.46	5.33	5.48	4.40	4.76	4.11	4.39	4.32	4.25	4.28	NE	4.10	--	NE	NE	Hi Rzm
563	SV RR350	4.91	--	--	--	--	5.06	--	--	--	--	4.35	--	--	--	--	4.60	--	--	--	--	Hi Rzm
623	SV RR351	4.62	--	--	--	--	3.53	--	--	--	--	NE	--	--	--	--	NE	--	--	--	--	
612	SV RR352	4.48	--	--	--	--	5.73	--	--	--	--	4.44	--	--	--	--	NE	--	--	--	--	
579	SV RR353	3.72	--	--	--	--	2.75	--	--	--	--	3.96	--	--	--	--	4.84	--	--	--	--	Hi Rzm
	MDFC Commercial																					
601	BTS 70RR99	4.34	4.20	4.72	4.27	4.42	3.25	3.57	4.52	3.41	3.78	3.86	3.90	4.38	3.88	4.05	2.79	3.46	3.58	3.12	3.27	Hi Rzm
506	BTS 7373	4.66	4.58	4.75	4.62	4.66	2.72	2.72	3.53	2.72	2.99	3.81	4.50	3.88	4.16	4.07	3.43	3.87	--	3.65	--	Hi Rzm
597	BTS 73MN	4.61	4.37	4.63	4.49	4.54	3.99	3.93	3.96	3.96	3.96	3.81	4.06	3.53	3.93	3.80	2.84	3.16	--	3.00	--	Hi Rzm
582	Crystal D352	4.81	4.67	4.53	4.74	4.67	3.38	3.80	4.12	3.59	3.77	3.54	3.91	3.17	3.73	3.54	2.42	2.49	--	2.46	--	Hi Rzm
538	Crystal RR012	4.61	4.59	4.76	4.60	4.65	3.87	3.83	4.78	3.85	4.16	3.99	4.09	3.69	4.04	3.92	2.96	3.38	3.63	3.17	3.32	Hi Rzm
564	Crystal RR228	4.24	4.19	4.39	4.22	4.27	2.84	2.35	3.36	2.59	2.85	3.98	4.48	4.40	4.23	4.29	3.44	4.40	4.69	3.92	4.18	Hi Rzm
542	Crystal RR260	3.98	4.34	4.34	4.16	4.22	4.07	4.67	4.28	4.37	4.34	4.04	4.51	3.71	4.28	4.09	2.73	2.75	3.27	2.74	2.92	Hi Rzm
536	Crystal RR830	5.06	4.69	4.57	4.88	4.77	3.82	3.92	4.62	3.87	4.12	3.71	3.72	3.66	3.71	3.70	2.98	4.10	4.23	3.54	3.77	Hi Rzm
537	Hilleshög 4022RR	4.37	4.54	4.33	4.45	4.41	3.75	4.59	4.65	4.17	4.33	3.47	3.82	3.39	3.64	3.56	3.98	4.79	4.67	4.39	4.48	
501	Hilleshög 4062RR	4.39	4.58	4.54	4.48	4.50	4.49	3.83	4.46	4.16	4.26	3.44	3.40	3.63	3.42	3.49	4.04	4.97	4.64	4.51	4.55	
590	Hilleshög 9517RR	4.03	4.39	4.67	4.21	4.36	3.09	3.89	3.66	3.49	3.55	3.66	4.04	3.62	3.85	3.77	2.79	3.40	3.77	3.10	3.32	Hi Rzm
614	SV RR633	5.43	5.39	4.83	5.41	5.22	3.36	3.72	4.69	3.54	3.92	4.02	4.15	3.44	4.09	3.87	NE	3.22	--	NE	--	
	MDFC Experimental																					
627	BTS 7438	4.79	4.45	--	4.62	--	3.59	3.85	--	3.72	--	NE	4.06	--	NE	--	NE	--	--	--	--	Hi Rzm
521	BTS 7510	4.63	--	--	--	--	3.70	--	--	--	--	4.33	--	--	--	--	3.12	--	--	--	--	Hi Rzm
575	BTS 7520	4.95	--	--	--	--	3.11	--	--	--	--	4.06	--	--	--	--	3.02	--	--	--	--	Hi Rzm
595	BTS 7540	3.85	--	--	--	--	3.10	--	--	--	--	3.96	--	--	--	--	2.64	--	--	--	--	Hi Rzm
531	BTS 7550	4.57	--	--	--	--	3.64	--	--	--	--	4.01	--	--	--	--	2.62	--	--	--	--	Hi Rzm
548	BTS 7570	4.71	--	--	--	--	4.45	--	--	--	--	3.82	--	--	--	--	2.89	--	--	--	--	Hi Rzm
547	Crystal D508	4.63	--	--	--	--	4.00	--	--	--	--	4.11	--	--	--	--	2.70	--	--	--	--	Hi Rzm
559	Crystal D518	3.98	--	--	--	--	2.94	--	--	--	--	4.31	--	--	--	--	2.13	--	--	--	--	Hi Rzm
532	Crystal D558	4.22	--	--	--	--	5.07	--	--	--	--	3.92	--	--	--	--	3.33	--	--	--	--	Hi Rzm
561	Hilleshög 4302RR	4.13	4.52	4.23	4.33	4.29	4.02	4.20	4.82	4.11	4.35	3.70	3.58	3.32	3.64	3.53	4.05	5.05	5.11	4.55	4.74	
562	Hilleshög 9528RR	5.16	4.97	4.72	5.06	4.95	2.97	5.44	4.51	4.20	4.31	4.10	3.83	4.17	3.96	4.03	4.00	4.80	--	4.40	--	Hi Rzm
518	Hilleshög HIL9602	4.66	4.67	--	4.67	--	4.67	4.55	--	4.61	--	3.91	4.12	--	4.02	--	--	--	--	--	--	Hi Rzm
544	Hilleshög HIL9712	5.07	--	--	--	--	3.48	--	--	--	--	3.96	--	--	--	--	4.01	--	--	--	--	Hi Rzm
593	Hilleshög HIL9726	4.97	--	--	--	--	3.42	--	--	--	--	4.56	--	--	--	--	5.13	--	--	--	--	Hi Rzm
583	Hilleshög HIL9727	4.72	--	--	--	--	3.34	--	--	--	--	3.96	--	--	--	--	3.76	--	--	--	--	Hi Rzm
511	Hilleshög HIL9728	4.96	--	--	--	--	3.92	--	--	--	--	3.94	--	--	--	--	3.73	--	--	--	--	Hi Rzm
620	Hilleshög HIL9729	4.77	--	--	--	--	5.00	--	--	--	--	3.71	--	--	--	--	--	--	--	--	--	Hi Rzm
546	Hilleshög HIL9730	4.74	--	--	--	--	3.29	--	--	--	--	3.92	--	--	--	--	2.77	--	--	--	--	Hi Rzm
619	Hilleshög HIL9731	4.94	--	--	--	--	2.53	--	--	--	--	3.79	--	--	--	--	--	--	--	--	--	Hi Rzm
510	Hilleshög HIL9755	5.24	--	--	--	--	3.03	--	--	--	--	3.82	--	--	--	--	4.21	--	--	--	--	Hi Rzm
507	Maribo 301	4.85	4.92	--	4.89	--	3.28	3.16	--	3.22	--	4.10	4.66	--	4.38	--	2.56	2.65	--	2.60	--	Hi Rzm
551	Maribo 408	5.13	5.29	--	5.21	--	4.19	4.70	--	4.45	--	4.02	--	--	--	--	4.18	--	--	--	--	
568	Maribo 409	5.36	5.28	--	5.32	--	3.98	5.06	--	4.52	--	4.58	--	--	--	--	6.58	--	--	--	--	
533	Maribo MA510	5.03	--	--	--	--	2.47	--	--	--	--	4.07	--	--	--	--	2.53	--	--	--	--	Hi Rzm
592	Maribo MA511	4.94	--	--	--	--	2.84	--	--	--	--	4.13	--	--	--	--	2.77	--	--	--	--	Hi Rzm
609	Maribo MA512	4.00	--	--	--	--	3.29	--	--	--	--	3.67	--	--	--	--	--	--	--	--	--	Hi Rzm
624	Maribo MA528	5.88	--	--	--	--	2.53	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
541	Seedex RR0941	4.80	4.67	--	4.73	--	3.15	3.93	--	3.54	--	3.91	4.19	--	4.05	--	3.25	4.86	--	4.05	--	
613	Seedex RR0951	5.13	--	--	--	--	4.34	--	--	--	--	4.04	--	--	--	--	NE	--	--	--	--	Hi Rzm
560	Seedex RR0952	4.63	--	--	--	--	3.76	--	--	--	--	4.44	--	--	--	--	4.69	--	--	--	--	
505	Seedex RR0953	4.43	--	--	--	--	3.86	--	--	--	--	4.32	--	--	--	--	4.60	--	--	--	--	
528	SV RR631	4.29	4.88	4.78	4.58	4.65	3.52	4.98	5.04	4.25	4.51	4.09	4.36	4.37	4.23	4.28	5.21	4.04	--	4.62	--	
526	SV RR654	4.31	--	--	--	--	4.87	--	--	--	--	3.89	--	--	--	--	4.73	--	--	--	--	
516	SV RR655	3.83	--	--	--	--	3.41	--	--	--	--	3.86	--	--	--	--	5.31	--	--	--	--	Hi Rzm
589	SV RR656	4.32	--	--	--	--	4.65	--	--	--	--	4.02	--	--	--	--	3.53	--	--	--	--	
611	SV RR746	4.84	4.87	--	4.86	--	3.90	4.62	--	4.26	--	4.12	4.20	--	4.16	--	NE	--	--	--	--	
581	SV RR747	4.07	4.73	--	4.40	--	4.08	4.67	--	4.38	--	4.18	4.10	--	4.14	--	4.82	--	--	--	--	

CR ratings on a scale of 1-9. Good < 4.5, Poor > 5.2

Aph root ratings on a scale of 1-9. Good < 4.4, Poor > 5.5. Specialty level is 4.4.

Rhizoctonia ratings on a scale of 1-7. Good < 3.8, Poor > 5.0. Specialty level is 3.82.

Fusarium ratings on a scale of 1-9. Good < 3.0, Poor > 5.0

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

Created 1-5-2016.

NE indicates variety was not entered into disease nursery.

Hi Rzm = may perform better under severe Rzm.

Table 5. Planting & Harvest Dates, Previous Crop and Disease Levels for 2015 ACSC & MDFC Official Trial Sites *

Location	District / Trial Type	Cooperator	Planting Date	Harvest Date	Preceeding Crop	Soil Type	Diseases Present @						Comments
							Aph	Rhc	Rzm	Fus	Maggot	Rt Aphid	
Kindred ND	Mhd/Hlb	Scott Nipstad	5/4	9/3	Soybeans	Medium	M-V	M	L	N	N	L	Rhc infection following Aph
Casselton	Mhd/Hlb	Todd Weber	5/4	10/5	Wheat	Medium/Light	L	L	L-M	N	N	N	Water damage in part of site.
Averill MN	Mhd/Hlb	Ernie Oberg	4/25	10/11	Corn	Light	L-M	L	M	L-M	N	N	Some weaker stands. Late season CR.
Halstad MN	Mhd/Hlb	Peter Steen	4/23	10/9	Wheat	Medium/Heavy	L	L	L-M	N	N	M	Some heavy residue stunting
Hillsboro ND	EGF/Crk	Mark Steenson	4/24	10/3	Wheat	Medium	L	L-M	L	N	N	L	
Perley MN	EGF/Crk	Tim Hoff	4/30	10/10	Wheat	Medium	L	N	N	N	N	L	Slightly weaker stands
Climax ND	EGF/Crk	Scott Knutson	5/5	9/28	Wheat	Medium/Light	L-M	N	L-M	N	N	N	
Scandia MN	EGF/Crk	Dennis Deboer	4/25	10/1	Wheat	Medium	L	N	M	L	N	L	Slight water stunting in comm. reps 3 & 4
Grand Forks ND	EGF/Crk	Robert Drees	5/1	9/11	Wheat	Medium/Light	L	M-V	N	N	L	N	Thin stands in part of experimental trial
Alvarado MN	EGF/Crk	Brent Riopelle	4/27	9/27	Wheat	Medium/Heavy	L-M	L	N	N	N	L	Thin stands in rep 2 of exp. trial.
St Thomas	Dtn	Tom Kennelly	4/29	9/22	Wheat	Medium/Light	N	M	N	N	L-M	N	Some areas of Rhc.
Stephen	Dtn	Peter Hvidsten	4/28	Abandon	Wheat	Medium/Heavy	NA	M	NA	N	NA	N	Abandoned - heavy crop residue
Cavalier	Dtn	Robert Vivatson	4/26	9/16	Wheat	Medium	M-V	L	N	N	N	L	Wet in spring. Aph pressure was heavy.
Mhd Rhc-E	Rhc Nurs	Jon Hickel	6/5	7/24	Soybeans	Medium/Heavy	L	V	N	L	N	L	
Mhd Rhc-W	Rhc Nurs	Jon Hickel	6/10	8/4	Soybeans	Medium/Heavy	L	V	N	L-M	N	L	Some Fusarium present
Mhd SE Fus	Fusarium	Ernie Oberg	6/9	8/15	Corn	Medium	NA	L	N	V	NA	NA	Some Rhizoctonia present
Mhd Fus	Fusarium	Kevin Nelson	5/23	8/21	Soybeans	Medium	NA	N	N	V	NA	NA	
Barnesville	Minn-Dak	Roger,Rick&Andy Maier	4/16	Abandon	Wheat	Medium	L	M	L-M	M	N	N	stunted rows, short rows
Foxhome MN	Minn-Dak	Mike&Dave Hasbargen	5/2	10/7	Wheat	Medium	M	L-M	N	N	N	N	Standing water in spring. Late season CR.
Fairmount	Minn-Dak	Wayne Miller	5/2	10/6	Wheat	Medium	L	M-V	M	N	N	N	Water stunting, mod hail. Late season CR.
Norcross	Minn-Dak	Mark Vipond	4/17	Abandon	Corn	Medium/Light	L-M	M-V	N	N	N	N	Short rows, late season Rhc
Kindred Aph	Aph Nurs	Scott Nipstad	5/4	9/1	Soybeans	Medium	V	M-V	N	N	N	L	Rhc confounded Aph rating
Climax Aph	Aph Nurs	Scott Knutson	5/9	Abandoned	Wheat	Medium/Light	L-M	N	L-M	N	N	N	Not enough Aph to rate
Shakopee MN	Aph Nurs	Patrick O'Boyle	5/4	8/26	NA	NA	NA	NA	NA	NA	NA	NA	
NWROC Rhc	Rhc Nurs	Albert Sims	5/9	7/29	Corn	Medium/Light	L	V	N	N	N	N	
BSDF Rhc	Rhc Nurs	Mitch McGrath	5/1	8/18	NA	NA	NA	V	NA	NA	NA	NA	
Foxhome CR	Cercospora	Kevin Etzler	5/9	9/8	Wheat	Medium	NA	L	NA	L	NA	NA	Some Fusarium and Rhizoctonia.
BSDF CR	CR Nurs	Mitch McGrath	4/30	9/3	Wheat	NA	NA	NA	NA	NA	NA	NA	
Randolph MN CR	Cercospora	Patrick O'Boyle	5/1	8/6	Wheat	NA	NA	NA	NA	NA	NA	NA	Center pivot irrigation.

* 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 12-4-2015

Table 6. Seed Treatments Used on Approved Varieties in Official Variety Trials in 2015

Description	Years in Trial	Years ** Comm.	Fungicide (Rhizoctonia)	Insecticide (Spring Tails & Maggots)	Tachigaren Rate (Aphanomyces)	Priming (Emergence)	Fungicide (Damping Off)
ACSC Commercial							
BTS 80RR32	6	4	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 80RR52	6	4	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR28	4	2	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 82RR33	4	2	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 8337	3	1	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 8363	3	1	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 8390	3	1	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
BTS 83CN	3	1	Kabina 14g	Poncho Beta	20	Ultipro	Allegiance Thiram
Crystal 093RR	6	4	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 101RR	5	4	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 246RR	4	2	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 247RR	4	2	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 875RR	8	6	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 981RR	7	2	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 986RR	7	4	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Hilleshög 4022RR	10	7	Kabina 14g	NA	45	XBEET	Apron XL Maxim
Hilleshög 4094RR	8	6	Kabina 14g	Cruiser Maxx	45	XBEET	Apron XL Maxim
Hilleshög 4302RR	5	2	Kabina 14g	Cruiser Maxx	NA	XBEET	Apron XL Maxim
Hilleshög 4448RR	4	2	Kabina 14g	NA	45	XBEET	Apron XL Maxim
Hilleshög 9517RR	3	1	Kabina 14g	NA	NA	XBEET	Apron XL Maxim
Hilleshög 9528RR	3	1	Kabina 14g	NA	NA	XBEET	Apron XL Maxim
Maribo 102	5	1	Kabina 14g	Cruiser Maxx	20	XBEET	Apron XL Maxim
SX Winchester RR(832)	3	1	Metlock/Rizolex/Kabina 7g	NipsIt	45	XBEET	Sebring Thiram
SX Yukon RR	4	2	Metlock/Rizolex/Kabina 7g	NipsIt	45	XBEET	Sebring Thiram
SV 36272RR	4	2	Metlock/Rizolex/Kabina 7g	NipsIt	45	XBEET	Sebring Thiram
SV 36273RR	4	2	Metlock/Rizolex/Kabina 7g	NipsIt	45	XBEET	Sebring Thiram
SV RR336	3	1	Metlock/Rizolex/Kabina 7g	NipsIt	45	XBEET	Sebring Thiram
ACSC Experimental							
BTS 8405	2	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8408	2	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8500	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8512	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8524	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8536	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8548	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8560	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8572	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
BTS 8584	1	NC	Kabina 14g	Poncho Beta	20	NA	Allegiance Thiram
Crystal 355RR	3	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 359RR	3	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 467RR	2	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 572RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 573RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 574RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 575RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 576RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 577RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 578RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Crystal 579RR	1	NC	Kabina 14g	Poncho Beta	45	XBEET	Allegiance Thiram
Hilleshög HIL9704	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9705	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9706	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9707	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9708	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9709	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9710	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9711	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9713	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9714	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög 9602RR	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 109	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 301	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA305	3	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 402	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA500	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA501	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA502	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA503	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo MA504	1	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Seedex RR0855	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
Seedex RR0856	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
Seedex RR0857	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
Seedex RR0858	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SX Savannah RR(842)	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SX Canyon RR(844TT)	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SX Cruze RR(846)	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SX Terrain RR(848)	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR241	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR243	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR244TT	2	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR333	3	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR350	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR351	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR352	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR353	1	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram

Table 6. Seed Treatments Used on Approved Varieties in Official Variety Trials in 2015

Description	Years in Trial	Years ** Comm.	Fungicide (Rhizoctonia)	Insecticide (Spring Tails & Maggots)	Tachigaren Rate (Aphanomyces)	Priming (Emergence)	Fungicide (Damping Off)
MDFC Commercial							
BTS 70RR99	6	4	Kabina 14g	NA	NA	NA	Allegiance Thiram
BTS 7373	3	1	Kabina 14g	NA	NA	NA	Allegiance Thiram
BTS 73MN	3	1	Kabina 14g	NA	NA	NA	Allegiance Thiram
Crystal D352	3	1	Kabina 14g	NA	NA	NA	Allegiance Thiram
Crystal RR012	6	4	Kabina 14g	NA	NA	NA	Allegiance Thiram
Crystal RR228	4	2	Kabina 14g	NA	NA	NA	Allegiance Thiram
Crystal RR260	4	2	Kabina 14g	NA	NA	NA	Allegiance Thiram
Crystal RR830	8	6	Kabina 14g	NA	NA	NA	Allegiance Thiram
Hilleshög 4022RR	10	7	Kabina 14g	NA	NA	XBEET	Apron XL Maxim
Hilleshög 4062RR	8	6	Kabina 14g	NA	NA	NA	Apron XL Maxim
Hilleshög 9517RR	3	1	Kabina 14g	NA	NA	XBEET	Apron XL Maxim
SV RR633	3	1	Kabina 14g	Cruiser Maxx	NA	XBEET	Maxim Apron XL Thiram
MDFC Experimental							
BTS 7438	2	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7510	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7520	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7540	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7550	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
BTS 7570	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D508	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D518	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
Crystal D558	1	NC	Kabina 14g	Poncho Beta	45	NA	Allegiance Thiram
Hilleshög 4302RR	2	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög 9528RR	2	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög 9602RR	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Hilleshög HIL9712	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9726	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9727	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9728	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9729	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9730	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9731	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Hilleshög HIL9755	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo 301	2	NC	Kabina 14g	Cruiser Maxx	20	NA	Apron XL Maxim
Maribo 408	2	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo 409	2	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo MA510	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo MA511	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo MA512	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Maribo MA528	1	NC	Kabina 14g	Cruiser Maxx	45	NA	Apron XL Maxim
Seedex RR0941	2	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
Seedex RR0951	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
Seedex RR0952	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
Seedex RR0953	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
SV RR631	3	NC	Kabina 14g	NipsIt	20	NA	Sebring Thiram
SV RR654	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
SV RR655	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
SV RR656	1	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
SV RR746	2	NC	Kabina 14g	NipsIt	45	NA	Sebring Thiram
SV RR747	2	NC	Kabina 14g	NipsIt	45	NA	Sebring 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. 2015 Performance of Approved Varieties - ACSC Official Trials

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Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	313.9	100	10201	108	1.15	53.03	100	1728	108	16.84	32.42	290	1535	374	0	72	4.5
BTS 80RR52	123	317.7	101	9958	105	1.24	54.21	103	1701	106	17.12	31.30	241	1623	441	0	71	5.2
BTS 82RR28	107	313.0	100	10079	107	1.30	52.74	100	1699	106	16.96	32.12	275	1671	467	0	66	4.0
BTS 82RR33	103	317.0	101	10381	110	1.14	54.00	102	1773	111	17.00	32.69	306	1600	350	5	70	4.5
BTS 8337	102	334.1	107	9843	104	1.13	59.46	113	1756	110	17.83	29.34	228	1551	380	5	75	4.7
BTS 8363	101	309.7	99	10360	110	1.13	51.66	98	1732	108	16.61	33.41	271	1503	374	0	75	4.7
BTS 8390	121	305.1	97	10330	109	1.22	50.21	95	1707	107	16.48	33.73	335	1665	382	0	69	4.7
BTS 83CN	120	315.4	101	9948	105	1.12	53.50	101	1689	106	16.89	31.51	252	1561	362	0	71	4.3
Crystal 093RR	109	325.5	104	9983	106	1.18	56.73	107	1742	109	17.45	30.62	220	1555	417	32	74	4.5
Crystal 101RR	124	313.7	100	9575	101	1.33	52.94	100	1618	101	17.02	30.48	307	1754	456	0	65	4.7
Crystal 246RR	126	311.2	99	10147	107	1.15	52.15	99	1703	107	16.71	32.53	302	1517	374	5	71	5.1
Crystal 247RR	115	318.5	102	10569	112	1.13	54.48	103	1812	113	17.05	33.10	269	1575	356	5	71	4.6
Crystal 875RR	118	308.5	98	8933	95	1.34	51.30	97	1490	93	16.77	28.90	342	1652	474	0	70	5.2
Crystal 981RR	116	311.6	99	9473	100	1.38	52.28	99	1594	100	16.96	30.32	348	1763	474	0	71	4.9
Crystal 986RR	122	321.5	103	9528	101	1.10	55.44	105	1646	103	17.17	29.51	297	1409	367	0	69	4.9
Hilleshög 4022RR	111	308.2	98	9062	96	1.29	51.20	97	1513	95	16.70	29.24	321	1621	454	0	69	4.0
Hilleshög 4094RR	104	305.1	97	9105	96	1.29	50.22	95	1504	94	16.55	29.74	342	1622	445	0	72	4.3
Hilleshög 4302RR	127	319.5	102	9431	100	1.12	54.81	104	1624	102	17.10	29.36	301	1527	353	0	66	4.3
Hilleshög 4448RR	105	324.4	104	10447	111	1.06	56.36	107	1818	114	17.28	32.11	229	1401	368	0	77	4.0
Hilleshög 9517RR	119	320.8	102	8587	91	1.27	55.22	105	1482	93	17.30	26.69	348	1637	418	0	69	5.6
Hilleshög 9528RR	114	322.6	103	10166	108	1.08	55.79	106	1762	110	17.21	31.41	256	1434	359	0	70	4.4
Maribo 102	106	325.9	104	10713	113	1.03	56.85	108	1873	117	17.33	32.77	234	1373	350	0	74	3.8
Seedex Winchester RR(832)	108	323.3	103	9099	96	1.09	56.02	106	1580	99	17.25	28.08	248	1534	343	0	69	4.7
Seedex Yukon RR	125	300.5	96	9272	98	1.14	48.73	92	1507	94	16.16	30.79	290	1501	377	0	72	4.8
SV 36272RR	110	320.5	102	8743	92	1.03	55.13	104	1509	94	17.06	27.17	218	1499	324	0	62	5.0
SV 36273RR	113	313.1	100	9194	97	1.08	52.77	100	1554	97	16.74	29.27	277	1450	348	9	66	4.4
SV RR336	112	309.5	99	9148	97	1.13	51.62	98	1528	96	16.61	29.51	284	1492	373	0	70	5.0
BTS 81RR17(Check)	128	307.6	98	9486	100	1.33	51.00	97	1574	99	16.72	30.78	269	1711	481	0	77	5.4
Experimental Trial (Comm status)																		
BTS 8405	250	326.2	104	9863	104	1.10	56.74	107	1721	108	17.44	30.09	196	1448	396	0	70	2.6
BTS 8408	222	312.8	100	9516	101	1.44	52.66	100	1612	101	17.07	30.20	345	1710	542	0	69	3.1
BTS 8500	235	312.8	100	10312	109	1.16	52.66	100	1738	109	16.81	32.93	247	1553	394	9	72	2.6
BTS 8512	233	318.8	102	9997	106	1.17	54.52	103	1713	107	17.13	31.27	253	1553	402	0	74	2.5
BTS 8524	256	306.9	98	10458	111	1.20	50.86	96	1742	109	16.55	33.90	276	1657	390	0	74	3.0
BTS 8536	229	303.8	97	9636	102	1.39	49.92	94	1592	100	16.56	31.54	304	1686	523	0	75	2.9
BTS 8548	216	317.3	101	10294	109	1.17	54.04	102	1758	110	17.05	32.32	312	1606	363	0	69	2.2
BTS 8560	239	320.5	102	9906	105	1.17	55.03	104	1706	107	17.21	30.76	232	1517	413	0	68	2.4
BTS 8572	207	327.4	104	9847	104	1.10	57.12	108	1719	108	17.51	30.03	207	1472	391	0	76	2.4
BTS 8584	254	325.1	104	9485	100	1.18	56.40	107	1645	103	17.45	29.18	201	1575	417	0	75	2.6
Crystal 355RR	255	320.0	102	9445	100	1.26	54.87	104	1624	102	17.28	29.41	259	1659	445	18	75	3.3
Crystal 359RR	215	304.4	97	10026	106	1.34	50.11	95	1659	104	16.55	32.72	348	1697	463	0	67	2.4
Crystal 467RR	251	311.1	99	10506	111	1.18	52.15	99	1765	110	16.74	33.61	344	1633	358	0	68	2.6
Crystal 572RR	211	327.9	105	9864	104	1.12	57.28	108	1724	108	17.55	30.07	204	1485	401	0	76	3.4
Crystal 573RR	205	323.8	103	10120	107	1.12	56.02	106	1756	110	17.34	31.12	237	1486	389	0	76	3.1
Crystal 574RR	230	311.2	99	10711	113	1.15	52.20	99	1800	113	16.72	34.38	259	1553	385	0	74	2.3
Crystal 575RR	248	313.0	100	10416	110	1.23	52.74	100	1759	110	16.89	33.21	258	1622	433	0	72	3.0
Crystal 576RR	206	314.9	101	9749	103	1.23	53.33	101	1654	104	16.99	30.86	297	1571	433	0	73	2.6
Crystal 577RR	236	314.1	100	10170	108	1.15	53.06	100	1724	108	16.87	32.21	305	1587	357	0	63	2.3
Crystal 578RR	252	320.5	102	10436	110	1.11	55.02	104	1797	113	17.16	32.43	263	1531	360	0	75	3.1
Crystal 579RR	225	311.5	99	10122	107	1.31	52.30	99	1704	107	16.88	32.37	289	1648	468	0	74	2.3
Hilleshög HIL9704	213	320.3	102	9481	100	1.09	54.96	104	1632	102	17.14	29.42	274	1520	341	0	60	2.4
Hilleshög HIL9705	201	299.7	96	9106	96	1.29	48.68	92	1492	93	16.28	30.09	345	1599	456	0	64	1.9
Hilleshög HIL9706	253	320.3	102	10544	112	1.08	54.97	104	1812	113	17.13	32.84	249	1385	379	0	76	2.0
Hilleshög HIL9707	228	316.1	101	9111	96	1.13	53.68	102	1552	97	16.95	28.69	252	1504	385	0	67	2.4
Hilleshög HIL9708	223	323.3	103	9753	103	1.09	55.85	106	1694	106	17.29	29.96	264	1441	370	0	74	2.2
Hilleshög HIL9709	203	323.8	103	9378	99	1.09	56.04	106	1630	102	17.32	28.73	266	1455	362	0	72	1.8
Hilleshög HIL9710	247	310.3	99	9171	97	1.23	51.93	98	1541	96	16.75	29.36	405	1592	388	0	70	2.8
Hilleshög HIL9711	241	315.4	101	9889	105	1.09	53.45	101	1682	105	16.89	31.14	270	1443	364	0	72	2.2
Hilleshög HIL9713	224	311.0	99	8367	89	1.31	52.11	99	1404	88	16.86	26.81	416	1540	459	0	64	2.9
Hilleshög HIL9714	208	300.8	96	9944	105	1.32	49.02	93	1627	102	16.34	32.89	338	1602	472	0	76	2.3
Hilleshög 9602	214	305.8	98	9599	102	1.11	50.52	96	1593	100	16.42	31.27	307	1504	356	0	72	2.6
Maribo 109	212	334.0	107	8839	94	1.12	59.15	112	1568	98	17.86	26.30	234	1466	398	0	67	2.4
Maribo 301	218	314.3	100	9238	98	1.27	53.12	101	1567	98	16.99	29.26	347	1614	436	9	70	2.8
Maribo 305	232	308.8	99	9769	103	1.04	51.45	97	1634	102	16.51	31.50	257	1363	350	0	70	2.0
Maribo 402	246	313.0	100	9664	102	1.11	52.75	100	1635	102	16.78	30.70	278	1500	360	0	78	2.4
Maribo MA500	231	300.6	96	10078	107	1.19	48.96	93	1648	103	16.23	33.35	300	1526	411	0	73	1.9
Maribo MA501	238	313.0	100	9514	101	1.25	52.76	100	1609	101	16.91	30.19	325	1571	435	0	67	2.4
Maribo MA502	249	313.2	100	9940	105	1.27	52.80	100	1682	105	16.93	31.55	347	1661	424	0	75	2.3
Maribo MA503	237	306.5	98	9829	104	1.05	50.74	96	1633	102	16.40	31.88	301	1325	356	0	73	2.2
Maribo MA504	245	318.1	102	10886	115	1.08	54.29	103	1865	117	17.02	34.02	279	1429	361	0	76	1.8
Seedex RR0855	234	302.2	96	9718	103	1.19	49.43	94	1596	100	16.30	32.01	233	1644	394	0	67	2.2
Seedex RR0856	227	323.9	103	10550	112	1.09	56.07	106	1831	115	17.32	32.48	221	1508	362	0	72	2.3
Seedex RR0857	257	320.3	102	9049	96	1.09	54.98	104	1559	98	17.14	28.08	258	1564	339	0	64	2.3
Seedex RR0858	243	326.8	104	9580	101	1.03	56.93	108	1676	105	17.40	29.16	263	1458	313	0	73	3.1
Seedex Savannah RR(842)	226	316.1	101	9546	101	1.12	53.66	102	1625	102	16.94	30.08	267	1552	357	0	63	2.7
Seedex Canyon RR(844TT)	220	314.6	100	9900	105	1.10	53.22	101	1680	105	16.86	31.37	253	1494	367	9	69	2.6
Seedex Cruze RR(846)	209	309.1	99	9821	104	1.17	51.54	98	1642	103	16.63	31.64	262	1499	410	9	64	2.1
Seedex Terrain RR(848)	244	316.3	101	9897	105	1.13	53.73	102	1685	105	16.96	31.18	273	1526	373	0	65	2.7
SV RR241	242	317.7	101	9565	101	1.06	54.16	103	1638	103	16.97	29.94	232	1484	340	0	71	3.2
SV RR243	221	317.3	101	9498	100	1.10	54.04	102	1622	102	16.99	29.89	253	1526	357	27	70	3.0
SV RR244TT	240	316.3	101	9899	105	1.12	53.73	102	1687	106	16.95	31.18	252	1514	377	18	69	2.5
SV RR333	204	319.7	102	10345	109	1.11	54.78	104	1775	111	17.13	32.30	231	1514	374	0	71	2.4
SV RR350	219	308.5	98	9601	102	1.13	51.36	97	1602	100	16.58	31.02	252	1614	359	0	67	2.7
SV RR351	210	320.9	102	9417	100	1.12	55.13	104	1621	101	17.19	29.28	273	1585	351	9	61	1.9
SV RR352	202	324.0	103	9086	96	1.13	56.10	106	1576	99	17.36	27.93	290	1495	377	0	66	2.4
SV RR353	217	317.3	101	9773	103	1.06	54.04	102	1669	104	16.95	30.71	231	1470	346	0	74	3.4
Root Aphid Susc Chk#1	258	319.6	102	9196	97	1.12	54.73	104	1583	99	17.12	28.56	254	1543	366	0	62	3.1
AP CHK MOD RES RR#3	259	314.1	100	9253	98	1.08	53.05	100	1571	98	16.80	29.28	251	1475	352	0	69	2.7
AP CHK SUS HYB#3	260	320.2	102	9339	99	1.16	54.95	104	1608	101	17.19	29.00	335	1491	384	0	70	2.6
BTS 81RR17(Check)	261	309.4	99	9544	101	1.37	51.62	98	1596	100	16.83	30.80	278	1724	503	18	77	3.1
BTS 80RR52(Check)	262	317.2	101	9780	103	1.23	54.01	102	1668	104	17.10	30.75	246	1619	433	0	69	3.0
Crystal 875RR(Check)	263	310.4	99	9257	98	1.32	51.95	98	1554	97	16.83	29.73	324	1646	466	0	73	3.1
Hilleshög 4302RR (Check)	264	316.4	101	9227	98	1.11	53.74	102	1571	98	16.95	29.07	304	1524	346	0	63	2.3
Benchmark Mean		313.3		9452		1.26	52.83		1597		16.93	30.09	288	1628	437		71	5.0
Comm Trial Mean		315.6		9706		1.18	53.57		1651		16.96	30.68	282	1562	394		70	4.7
Coeff. of Var. (%)		3.9		5.5		8.1	7.3		8.1		3.4	4.2	20.9	5.4	13.8		9.0	37
Mean LSD (0.05)		5.7		267		0.05	1.81		62.3		0.27	0.76	29	46	31		3	0.7
Mean LSD (0.01)		7.5		351		0.07	2.38		82.1		0.36	1.01	38	60	41		4	0.9
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

* 2015 Data from 10 Sites Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 15ACExp10

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 8. 2015 Performance of All Varieties - ACSC Official Trials

Kindred ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	249.6	98	4569	85	1.90	32.49	94	598	84	14.39	18.19	527	2197	697	0	71	2.1
BTS 80RR52	123	258.5	101	5565	104	1.93	35.33	102	749	105	14.84	21.56	446	2153	760	0	67	3.3
BTS 82RR28	107	243.6	95	4983	93	1.84	30.58	89	622	87	14.03	20.40	473	2131	689	0	64	3.8
BTS 82RR33	103	246.9	96	4716	88	1.74	31.61	92	607	85	14.07	19.00	550	2207	557	0	70	4.5
BTS 8337	102	273.0	107	4859	91	1.74	39.94	116	722	101	15.42	17.57	448	2161	608	0	69	4.6
BTS 8363	101	234.2	92	4449	83	1.81	27.57	80	510	71	13.51	19.29	541	2133	634	0	74	4.4
BTS 8390	121	226.1	88	3830	72	1.86	24.99	72	427	60	13.19	16.89	665	2193	616	0	70	3.8
BTS 83CN	120	257.4	101	5695	106	1.70	34.97	101	773	108	14.57	22.34	473	2086	589	0	66	3.3
Crystal 093RR	109	254.1	99	4412	82	1.81	33.91	98	583	81	14.51	17.56	399	2138	684	0	71	3.0
Crystal 101RR	124	242.1	95	4269	80	1.99	30.09	87	514	72	14.08	17.79	526	2235	757	0	59	4.4
Crystal 246RR	126	246.2	96	4309	81	1.74	31.39	91	541	76	14.04	17.75	563	2122	579	0	66	7.7
Crystal 247RR	115	240.1	94	4322	81	1.75	29.44	85	528	74	13.77	17.97	553	2210	566	0	69	5.2
Crystal 875RR	118	248.0	97	4888	91	2.01	31.97	93	630	88	14.42	19.80	495	2134	803	0	68	5.6
Crystal 981RR	116	230.8	90	4233	79	2.06	26.47	77	485	68	13.60	18.39	635	2261	758	0	70	2.9
Crystal 986RR	122	264.4	103	5041	94	1.71	37.21	108	709	99	14.93	19.16	523	1994	603	0	69	4.7
Hilleshög 4022RR	111	252.8	99	5441	102	1.85	33.50	97	723	101	14.50	21.42	514	2160	670	0	63	3.0
Hilleshög 4094RR	104	250.4	98	4593	86	1.92	32.74	95	595	83	14.41	18.64	547	2168	704	0	63	3.7
Hilleshög 4302RR	127	264.2	103	5603	105	1.67	37.13	108	787	110	14.88	21.16	471	2073	572	0	55	2.7
Hilleshög 4448RR	105	280.5	110	5124	96	1.51	42.35	123	776	108	15.52	17.99	320	1971	527	0	79	4.0
Hilleshög 9517RR	119	258.2	101	5273	99	1.99	35.23	102	713	100	14.90	20.74	545	2124	774	0	61	4.9
Hilleshög 9528RR	114	263.2	103	3794	71	1.62	36.84	107	529	74	14.79	14.51	449	2003	560	63	63	4.0
Maribo 102	106	261.9	102	4383	82	1.63	36.42	106	607	85	14.74	16.69	442	2009	569	0	78	3.2
SX Winchester RR(832)	108	247.5	97	3772	71	1.80	31.81	92	481	67	14.17	15.43	543	2186	615	0	62	3.8
SX Yukon RR	125	227.5	89	4505	84	2.04	25.43	74	504	70	13.42	19.79	582	2108	805	0	64	5.1
SV 36272RR	110	256.8	100	4391	82	1.73	34.79	101	595	83	14.56	17.07	461	2098	617	0	59	4.0
SV 36273RR	113	244.6	96	3925	73	1.79	30.89	90	495	69	14.02	16.09	551	2110	622	0	60	3.6
SV RR336	112	249.8	98	4153	78	1.79	32.54	94	545	76	14.26	16.57	553	2047	641	0	70	4.1
BTS 81RR17(Check)	128	253.1	99	5339	100	1.85	33.61	97	698	98	14.50	21.35	419	2212	688	0	69	3.3
Experimental Trial (Comm status)																		
BTS 8405	250	257.2	100	4644	87	1.74	34.86	101	628	88	14.62	18.04	366	2041	669	0	71	1.8
BTS 8408	222	238.4	93	4431	83	2.07	29.44	85	557	78	13.92	18.29	497	2243	835	0	74	2.9
BTS 8500	235	248.5	97	5218	98	1.77	32.38	94	675	94	14.21	21.11	433	2113	649	0	75	2.6
BTS 8512	233	248.2	97	5174	97	1.94	32.30	94	668	93	14.33	20.91	491	2087	776	0	69	2.0
BTS 8524	256	234.1	91	5635	105	1.86	28.20	82	680	95	13.54	23.98	478	2201	677	0	76	3.3
BTS 8536	229	228.2	89	5307	99	2.03	26.50	77	614	86	13.39	23.36	587	2211	777	0	76	3.0
BTS 8548	216	224.6	88	3925	73	2.00	25.46	74	443	62	13.16	17.50	672	2289	695	0	68	3.3
BTS 8560	239	263.5	103	4579	86	1.76	36.68	106	631	88	14.96	17.47	370	2041	678	0	71	3.0
BTS 8572	207	264.0	103	5561	104	1.67	36.85	107	783	109	14.92	20.84	361	2012	614	0	78	3.3
BTS 8584	254	249.2	97	4395	82	1.81	32.56	94	583	81	14.28	17.43	371	2203	674	0	78	2.2
Crystal 355RR	255	263.5	103	5191	97	1.83	36.68	106	716	100	15.03	19.70	395	2182	695	0	76	3.7
Crystal 359RR	215	229.0	89	5481	102	2.01	26.71	77	635	89	13.41	24.17	655	2152	749	0	74	2.7
Crystal 467RR	251	232.8	91	4854	91	1.82	27.83	81	576	81	13.44	20.90	599	2173	602	0	75	4.0
Crystal 572RR	211	264.1	103	5144	96	1.70	36.87	107	714	100	14.95	19.47	364	2009	649	0	77	3.6
Crystal 573RR	205	254.2	99	4271	80	1.76	33.99	99	571	80	14.49	16.73	421	1999	683	0	82	4.5
Crystal 574RR	230	235.7	92	5562	104	1.93	28.66	83	674	94	13.68	23.63	470	2179	738	0	78	2.1
Crystal 575RR	248	254.6	99	5058	95	1.82	34.13	99	671	94	14.56	19.90	369	2224	678	0	78	3.1
Crystal 576RR	206	248.8	97	5468	102	1.94	32.44	94	707	99	14.37	22.08	501	2065	774	0	75	2.6
Crystal 577RR	236	219.5	86	4022	75	1.90	23.98	69	445	62	12.82	18.13	652	2250	631	0	65	3.7
Crystal 578RR	252	247.4	97	4945	92	1.74	32.04	93	637	89	14.12	20.03	491	2068	615	0	79	2.2
Crystal 579RR	225	244.6	96	5759	108	1.88	31.23	90	730	102	14.08	23.55	470	2157	715	0	80	2.3
Hilleshög HIL9704	213	242.2	95	3553	66	1.72	30.54	89	468	65	13.82	14.04	474	2145	575	0	60	2.8
Hilleshög HIL9705	201	227.8	89	3389	63	1.73	26.40	77	399	56	13.09	14.62	475	2075	611	0	68	2.6
Hilleshög HIL9706	253	238.9	93	4214	79	1.59	29.58	86	516	72	13.53	17.62	370	1951	564	0	78	2.8
Hilleshög HIL9707	228	255.8	100	4395	82	1.77	34.46	100	588	82	14.55	17.08	445	2032	672	0	69	2.5
Hilleshög HIL9708	223	273.3	107	4700	88	1.52	39.50	114	670	94	15.27	17.22	395	1886	524	0	76	2.5
Hilleshög HIL9709	203	261.1	102	3938	74	1.75	36.00	104	539	75	14.84	15.06	417	2074	655	0	74	1.5
Hilleshög HIL9710	247	245.1	96	5152	96	1.99	31.37	91	646	90	14.20	21.19	602	2172	741	0	63	3.2
Hilleshög HIL9711	241	250.2	98	4474	84	1.67	32.85	95	581	81	14.20	17.94	454	2019	584	0	77	2.6
Hilleshög HIL9713	224	259.2	101	4351	81	1.90	35.44	103	595	83	14.87	16.85	606	2113	691	0	72	3.3
Hilleshög HIL9714	208	247.4	97	5144	96	1.81	32.03	93	669	93	14.20	20.87	486	2138	652	0	79	2.3
Hilleshög HIL9602	214	249.7	98	4311	81	1.69	32.72	95	562	78	14.20	17.23	397	2056	613	0	72	2.4
Maribo 109	212	252.1	99	4289	80	1.68	33.40	97	580	81	14.31	16.71	436	1979	604	0	77	2.8
Maribo 301	218	233.8	91	4612	86	1.89	28.14	82	564	79	13.55	19.47	580	2105	696	0	85	4.1
Maribo MA305	232	239.6	94	3925	73	1.60	29.78	86	483	67	13.60	16.48	424	1893	573	0	78	2.6
Maribo 402	246	267.2	104	5016	94	1.66	37.75	109	703	98	15.06	18.76	426	2032	581	0	76	2.1
Maribo MA500	231	219.6	86	3239	61	1.90	24.01	70	362	51	12.83	14.58	587	2058	720	0	78	4.3
Maribo MA501	238	224.7	88	3566	67	1.84	25.50	74	404	56	13.06	15.87	494	2151	678	0	70	2.8
Maribo MA502	249	220.4	86	3844	72	1.77	24.23	70	426	59	12.78	17.37	515	2135	619	0	78	7.4
Maribo MA503	237	242.6	95	5112	96	1.64	30.66	89	645	90	13.79	20.96	503	1929	573	0	84	2.0
Maribo MA504	245	252.1	99	3843	72	1.59	33.41	97	506	71	14.25	15.26	418	1969	540	0	79	2.3
Seedex RR0855	234	257.0	100	4632	87	1.66	34.81	101	626	87	14.55	18.00	357	2084	592	95	73	2.7
Seedex RR0856	227	253.5	99	4887	91	1.68	33.81	98	644	90	14.40	19.52	393	2096	588	0	73	2.5
Seedex RR0857	257	252.1	99	4568	85	1.84	33.39	97	602	84	14.47	18.13	501	2198	661	0	64	3.0
Seedex RR0858	243	255.9	100	4481	84	1.77	34.48	100	608	85	14.57	17.35	485	2151	616	0	72	3.7
SX Savannah RR(842)	226	251.8	98	4572	85	1.80	33.33	97	605	85	14.38	18.02	480	2223	618	0	66	2.2
SX Canyon RR(844TT)	220	252.9	99	5261	98	1.75	33.62	97	700	98	14.42	20.78	451	2147	610	0	76	1.9
SX Cruze RR(846)	209	245.7	96	5432	102	1.82	31.53	91	687	96	14.11	22.32	459	2087	690	0	65	2.0
SX Terrain RR(848)	244	252.7	99	4524	85	1.86	33.58	97	596	83	14.50	18.08	458	2178	687	0	65	2.0
SV RR241	242	249.9	98	5163	97	1.76	32.77	95	670	94	14.28	20.68	399	2190	622	0	77	2.3
SV RR243	221	244.3	95	4404	82	1.83	31.14	90	553	77	14.04	18.17	514	2191	642	0	71	3.8
SV RR244TT	240	249.0	97	5124	96	1.73	32.50	94	657	92	14.21	20.90	434	2111	610	0	74	2.8
SV RR333	204	248.6	97	4663	87	1.73	32.40	94	598	84	14.18	18.98	421	2129	604	0	76	2.6
SV RR350	219	219.8	86	3961	74	1.79	24.08	70	439	61	12.74	17.80	531	2154	606	0	69	3.2
SV RR351	210	254.3	99	4608	86	1.86	34.03	99	611	85	14.58	18.23	472	2190	680	0	68	1.8
SV RR352	202	266.3	104	4611	86	1.70	37.50	109	650	91	15.07	17.31	441	2078	591	0	73	2.7
SV RR353	217	266.8	104	5373	100	1.64	37.65	109	757	106	15.05	20.13	376	2055	584	0	81	2.7
Root Aphid Susc Chk#1	258	249.5	97	4618	86	1.82	32.66	95	599	84	14.31	18.64	429	2149	680	0	66	2.7
AP CHK MOD RES RR#3	259	234.4	92	4161	78	1.66	28.29	82	507	71	13.39	17.52	439	2163	535	0	75	3.0
AP CHK SUS HYB#3	260	248.0	97	2986	56	1.94	32.21	93	384	54	14.32	12.14	603	2153	712	0	75	3.3
BTS 81RR17(Check)	261	266.1	104	5607	105	2.00	37.43	108	777	109	15.27	21.21	396	2190	825	0	78	3.0
BTS 80RR52(Check)	262	254.0	99	5433	102	1.83	33.93	98	722	101	14.55	21.47	425	2183	680	0	75	1.9
Crystal 875RR(Check)	263	242.1	95	5529	103	1.97	30.50	88	695	97	14.04	22.89	533	2148	767	0	75	3.4
Hilleshög 4302RR (Check)	264	261.7	102	4825	90	1.66	36.18	105	671	94	14.78	18.29	477	2052	550	0	69	3.0
Benchmark Mean		256.0		5349		1.87	34.51		716		14.66	20.97	458	2143	706		65	3.7
Comm Trial Mean		250.9		4658		1.81	32.90		609		14.36	18.61	508	2129	652		67	4.0
Coeff. of Var. (%)		7.8		13.2		9.8	19.0		21.8		6.1	11.6	16.4	3.1	17.5		9.9	53
Mean LSD (0.05)		24.6		762		0.23	7.87		164.4		1.09	2.71	106	82	145		8	2.5
Mean LSD (0.01)		32.6		1007		0.30	10.40		217.4		1.44	3.58	141	108	191		11	3.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

* 2015 Data from Kindred ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158301

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 9. 2015 Performance of All Varieties - ACSC Official Trials

Casselton ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	322.4	100	10952	108	1.25	55.73	100	1892	107	17.37	34.00	266	1697	420	0	74	5.3
BTS 80RR52	123	321.8	100	10347	102	1.34	55.55	99	1785	101	17.44	32.18	205	1783	492	0	68	5.6
BTS 82RR28	107	321.4	100	11188	110	1.42	55.42	99	1928	110	17.49	34.83	213	1807	539	0	67	3.6
BTS 82RR33	103	326.2	101	11446	112	1.32	56.95	102	1998	113	17.63	35.13	285	1767	450	0	76	4.9
BTS 8337	102	342.3	106	10238	101	1.18	62.08	111	1854	105	18.30	29.95	189	1696	396	0	75	4.9
BTS 8363	101	326.4	101	10860	107	1.16	57.00	102	1895	108	17.47	33.31	197	1586	402	0	79	5.8
BTS 8390	121	318.3	99	10878	107	1.31	54.43	97	1864	106	17.22	34.07	271	1798	438	0	76	7.3
BTS 83CN	120	326.9	101	10734	105	1.21	57.18	102	1875	107	17.55	32.91	186	1717	415	0	74	3.6
Crystal 093RR	109	335.0	104	10555	104	1.33	59.73	107	1881	107	18.07	31.51	183	1718	506	41	77	5.5
Crystal 101RR	124	320.7	99	10514	103	1.49	55.18	99	1809	103	17.53	32.80	248	1941	549	0	65	4.6
Crystal 246RR	126	328.8	102	10777	106	1.15	57.78	103	1894	108	17.60	32.76	234	1552	395	0	79	6.0
Crystal 247RR	115	334.6	104	11831	116	1.16	59.63	107	2109	120	17.89	35.37	220	1714	361	0	69	3.9
Crystal 875RR	118	320.9	99	9826	97	1.43	55.26	99	1694	96	17.48	30.55	246	1826	535	0	73	5.6
Crystal 981RR	116	323.4	100	10302	101	1.48	56.04	100	1785	101	17.66	31.88	280	1894	544	0	70	4.3
Crystal 986RR	122	337.3	104	10358	102	1.15	60.49	108	1859	106	18.01	30.69	201	1525	412	0	71	4.8
Hilleshög 4022RR	111	324.2	100	9872	97	1.28	56.30	101	1713	97	17.48	30.44	197	1720	465	0	70	3.9
Hilleshög 4094RR	104	314.7	97	10104	99	1.39	53.25	95	1711	97	17.12	32.10	268	1770	510	0	78	5.1
Hilleshög 4302RR	127	337.1	104	10421	102	1.22	60.40	108	1867	106	18.07	30.98	214	1707	414	0	68	3.7
Hilleshög 4448RR	105	331.6	103	11128	109	1.17	58.67	105	1968	112	17.75	33.56	185	1543	426	0	84	4.9
Hilleshög 9517RR	119	324.1	100	9124	90	1.45	56.25	101	1585	90	17.66	28.08	280	1835	538	0	70	4.7
Hilleshög 9528RR	114	336.3	104	10860	107	1.19	60.18	108	1942	110	18.01	32.32	201	1519	445	0	67	4.9
Maribo 102	106	340.5	105	11876	117	1.14	61.52	110	2145	122	18.16	34.85	173	1442	436	0	81	3.2
SX Winchester RR(832)	108	338.9	105	9696	95	1.14	61.00	109	1744	99	18.09	28.65	205	1674	365	0	67	4.7
SX Yukon RR	125	311.4	96	10189	100	1.22	52.21	93	1709	97	16.79	32.70	201	1587	453	0	68	5.0
SV 36272RR	110	332.2	103	9451	93	1.11	58.87	105	1674	95	17.72	28.52	168	1597	375	0	60	6.8
SV 36273RR	113	330.7	102	10072	99	1.10	58.37	105	1775	101	17.63	30.47	193	1496	388	0	70	4.1
SV RR336	112	327.9	102	10204	100	1.16	57.47	103	1790	102	17.56	31.11	182	1533	425	0	78	5.0
BTS 81RR17(Check)	128	311.4	96	10121	99	1.51	52.21	93	1696	96	17.08	32.48	221	1904	583	0	78	6.1
Experimental Trial (Comm status)																		
BTS 8405	250	336.7	104	10805	106	1.24	60.20	108	1935	110	18.09	32.04	152	1608	469	0	67	2.9
BTS 8408	222	314.1	97	10385	102	1.59	53.14	95	1752	100	17.27	33.13	294	1901	611	0	64	2.3
BTS 8500	235	324.7	101	11252	111	1.24	56.45	101	1957	111	17.48	34.60	193	1695	439	95	60	2.0
BTS 8512	233	322.5	100	10776	106	1.37	55.74	100	1862	106	17.49	33.48	245	1674	524	0	71	2.1
BTS 8524	256	317.8	98	11060	109	1.29	54.29	97	1891	107	17.18	34.78	248	1779	432	0	71	2.7
BTS 8536	229	320.0	99	10582	104	1.49	54.99	98	1819	103	17.49	33.06	235	1820	588	0	70	2.4
BTS 8548	216	326.7	101	11138	109	1.31	57.08	102	1943	110	17.65	34.20	226	1704	474	0	69	2.0
BTS 8560	239	319.8	99	9847	97	1.43	54.92	98	1685	96	17.42	30.95	263	1830	528	0	61	2.6
BTS 8572	207	342.7	106	10907	107	1.13	62.08	111	1975	112	18.29	31.83	157	1591	392	0	76	2.8
BTS 8584	254	339.3	105	10746	106	1.25	60.97	109	1931	110	18.21	31.69	162	1693	461	0	72	2.5
Crystal 355RR	255	335.9	104	10194	100	1.34	59.93	107	1814	103	18.13	30.43	194	1821	486	95	69	3.9
Crystal 359RR	215	324.8	101	10833	106	1.36	56.48	101	1877	107	17.59	33.48	250	1779	487	0	67	2.3
Crystal 467RR	251	316.5	98	10894	107	1.36	53.88	96	1852	105	17.18	34.47	328	1893	427	0	65	2.7
Crystal 572RR	211	341.3	106	10814	106	1.23	61.62	110	1948	111	18.29	31.74	186	1578	463	0	75	4.2
Crystal 573RR	205	331.3	103	10987	108	1.19	58.50	105	1940	110	17.78	33.15	210	1612	424	0	75	4.8
Crystal 574RR	230	324.4	100	11317	111	1.15	56.35	101	1956	111	17.39	35.03	203	1618	388	0	74	2.8
Crystal 575RR	248	331.2	103	11338	111	1.33	58.46	105	1997	113	17.88	34.32	169	1761	494	0	80	3.6
Crystal 576RR	206	326.9	101	10389	102	1.26	57.15	102	1816	103	17.61	31.79	239	1666	438	0	73	2.7
Crystal 577RR	236	326.1	101	10696	105	1.28	56.85	102	1854	105	17.59	33.02	262	1763	432	0	66	2.4
Crystal 578RR	252	338.5	105	11166	110	1.17	60.72	109	2000	114	18.10	33.06	212	1673	390	0	75	3.6
Crystal 579RR	225	321.5	100	11439	112	1.38	55.45	99	1968	112	17.45	35.63	234	1844	493	0	74	2.3
Hilleshög HIL9704	213	343.2	106	10830	106	1.10	62.23	111	1964	112	18.28	31.52	182	1590	359	0	57	1.4
Hilleshög HIL9705	201	316.8	98	9811	96	1.45	53.98	97	1670	95	17.29	30.97	277	1764	561	0	68	1.7
Hilleshög HIL9706	253	325.9	101	10981	108	1.21	56.79	102	1911	109	17.50	33.71	218	1504	455	0	69	2.0
Hilleshög HIL9707	228	326.7	101	10529	103	1.25	57.06	102	1837	104	17.60	32.29	231	1604	458	0	65	2.2
Hilleshög HIL9708	223	338.0	105	10686	105	1.09	60.60	108	1915	109	18.00	31.62	194	1497	379	0	70	3.2
Hilleshög HIL9709	203	335.6	104	10738	105	1.15	59.83	107	1915	109	17.94	32.02	213	1527	406	0	68	2.1
Hilleshög HIL9710	247	326.9	101	10119	99	1.35	57.15	102	1766	100	17.71	30.95	311	1786	465	0	67	2.9
Hilleshög HIL9711	241	325.4	101	10636	104	1.18	56.64	101	1850	105	17.47	32.75	206	1590	420	0	75	2.1
Hilleshög HIL9713	224	323.0	100	8871	87	1.47	55.94	100	1530	87	17.63	27.58	317	1742	568	0	59	3.2
Hilleshög HIL9714	208	320.1	99	10711	105	1.30	55.02	99	1839	104	17.30	33.50	242	1696	464	0	73	4.2
Hilleshög HIL9602	214	321.1	99	10384	102	1.27	55.32	99	1787	102	17.33	32.36	233	1664	453	0	73	2.7
Maribo 109	212	335.9	104	10275	101	1.15	59.93	107	1830	104	17.97	30.67	208	1543	412	0	74	2.8
Maribo 301	218	334.5	104	10173	100	1.35	59.48	106	1808	103	18.09	30.43	247	1781	487	0	69	3.7
Maribo MA305	232	330.8	102	9900	97	1.13	58.35	104	1744	99	17.69	29.92	221	1578	383	0	64	2.9
Maribo 402	246	330.4	102	10587	104	1.24	58.24	104	1865	106	17.78	32.06	227	1644	442	0	75	2.6
Maribo MA500	231	316.2	98	10559	104	1.32	53.78	96	1799	102	17.12	33.34	245	1672	488	0	65	1.6
Maribo MA501	238	324.7	101	10582	104	1.35	56.43	101	1838	104	17.59	32.63	278	1585	524	0	66	2.3
Maribo MA502	249	330.7	102	10819	106	1.36	58.32	104	1908	108	17.90	32.72	248	1776	494	0	73	2.9
Maribo MA503	237	324.8	101	10509	103	1.10	56.48	101	1826	104	17.35	32.38	204	1433	397	0	69	2.4
Maribo MA504	245	337.4	105	11824	116	1.11	60.41	108	2115	120	18.00	35.05	201	1475	401	0	72	1.6
Seedex RR0855	234	316.5	98	11056	109	1.28	53.91	97	1882	107	17.12	34.94	146	1778	465	0	70	2.2
Seedex RR0856	227	340.0	105	11042	108	1.16	61.21	110	1988	113	18.20	32.49	172	1644	404	0	71	2.4
Seedex RR0857	257	331.6	103	9325	92	1.22	58.58	105	1646	93	17.81	28.16	229	1683	409	0	62	1.9
Seedex RR0858	243	337.1	104	9790	96	1.06	60.32	108	1752	100	17.94	29.02	221	1598	314	0	63	3.5
SX Savannah RR(842)	226	327.7	102	9986	98	1.16	57.38	103	1750	99	17.55	30.40	205	1615	393	0	64	2.6
SX Canyon RR(844TT)	220	334.0	103	10909	107	1.17	59.33	106	1931	110	17.88	32.78	186	1604	411	0	74	4.2
SX Cruze RR(846)	209	321.9	100	10185	100	1.39	55.55	99	1758	100	17.48	31.68	237	1703	538	0	57	1.9
SX Terrain RR(848)	244	321.9	100	10710	105	1.30	55.57	99	1846	105	17.40	33.34	220	1713	467	0	69	1.9
SV RR241	242	331.7	103	10099	99	1.12	58.61	105	1782	101	17.72	30.48	211	1627	360	0	68	4.5
SV RR243	221	332.5	103	10264	101	1.18	58.86	105	1810	103	17.81	31.02	193	1663	395	0	69	2.0
SV RR244TT	240	324.5	101	10706	105	1.36	56.39	101	1859	106	17.59	32.99	186	1715	523	0	71	2.2
SV RR333	204	323.9	100	10999	108	1.27	56.19	101	1903	108	17.47	34.02	210	1674	463	0	65	2.0
SV RR350	219	325.0	101	10178	100	1.19	56.53	101	1773	101	17.44	31.26	187	1706	405	0	68	3.6
SV RR351	210	329.4	102	10593	104	1.26	57.91	104	1857	105	17.74	32.25	234	1685	443	0	68	1.6
SV RR352	202	325.8	101	9325	92	1.37	56.78	102	1619	92	17.67	28.76	256	1650	534	0	63	2.0
SV RR353	217	334.5	104	9719	95	1.16	59.50	107	1725	98	17.89	29.11	183	1631	406	0	77	2.8
Root Aphid Susc Chk#1	258	335.7	104	9724	96	1.16	59.86	107	1725	98	17.97	29.19	191	1670	392	0	57	2.9
AP CHK MOD RES RR#3	259	335.4	104	10328	101	1.17	59.77	107	1839	104	17.95	30.84	180	1567	427	0	71	4.0
AP CHK SUS HYB#3	260	338.8	105	10512	103	1.25	60.82	109	1890	107	18.20	31.02	241	1617	450	0	72	2.4
BTS 81RR17(Check)	261	317.6	98	10261	101	1.51	54.24	97	1751	99	17.39	32.31	207	1918	589	0	80	3.7
BTS 80RR52(Check)	262	326.6	101	10746	106	1.31	57.06	102	1876	107	17.66	32.91	191	1788	474	0	74	3.3
Crystal 875RR(Check)	263	317.0	98	9729	96	1.49	54.04	97	1657	94	17.34	30.72	259	1844	576	0	70	3.3
Hilleshög 4302RR (Check)	264	329.9	102	9979	98	1.18	58.08	104	1758	100	17.69	30.25	229	1670	386	0	65	2.1
Benchmark Mean		322.8		10179		1.38	55.86		1761		17.52	31.55	222	1805	506		72	5.3
Comm Trial Mean		327.4		10497		1.27	57.33		1837		17.64	32.08	218	1691	453		72	4.9
Coeff. of Var. (%)		2.9		4.1		6.8	5.3		5.7		2.4	3.6	16.9	4.3	11.8		9.2	40
Mean LSD (0.05)		12.8		585		0.12	4.09		141.9		0.57	1.56	50	100	74		9	2.6
Mean LSD (0.01)		17.0		774		0.16	5.41		187.8		0.76	2.06	66	133	97		12	3.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

* 2015 Data from Casselton ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158302

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 10. 2015 Performance of All Varieties - ACSC Official Trials

Averill MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	336.7	103	10912	110	1.15	60.30	106	1953	113	17.99	32.25	407	1451	356	0	54	3.1
BTS 80RR52	123	339.2	104	10527	107	1.29	61.08	108	1893	110	18.24	31.29	310	1598	459	0	59	4.3
BTS 82RR28	107	335.5	103	10566	107	1.37	59.92	106	1885	109	18.15	31.54	385	1692	473	0	55	2.7
BTS 82RR33	103	336.9	103	10549	107	1.21	60.35	106	1890	110	18.06	31.46	473	1560	349	0	58	3.4
BTS 8337	102	348.5	107	9864	100	1.20	64.07	113	1812	105	18.63	28.26	309	1531	408	0	65	3.8
BTS 8363	101	327.8	101	10765	109	1.27	57.47	101	1887	110	17.65	32.90	389	1557	422	0	61	2.7
BTS 8390	121	326.9	100	10611	107	1.33	57.15	101	1854	108	17.67	32.48	547	1620	398	0	50	3.9
BTS 83CN	120	334.0	103	10571	107	1.24	59.43	105	1879	109	17.95	31.81	347	1587	415	0	56	3.4
Crystal 093RR	109	351.6	108	10502	106	1.21	65.04	115	1941	113	18.80	29.80	303	1538	421	63	58	3.4
Crystal 101RR	124	335.0	103	10062	102	1.38	59.74	105	1793	104	18.13	30.08	419	1768	448	0	53	3.8
Crystal 246RR	126	334.7	103	10840	110	1.24	59.67	105	1934	112	17.99	32.64	412	1542	401	32	55	2.8
Crystal 247RR	115	337.9	104	10622	108	1.23	60.69	107	1906	111	18.12	31.23	408	1588	379	0	59	3.3
Crystal 875RR	118	320.6	98	9035	91	1.41	55.16	97	1557	90	17.44	28.22	529	1519	492	0	52	3.9
Crystal 981RR	116	319.1	98	10027	102	1.50	54.68	96	1715	100	17.45	31.52	534	1808	485	0	59	3.9
Crystal 986RR	122	314.4	97	8644	88	1.17	53.18	94	1464	85	16.90	27.43	489	1391	360	0	51	3.4
Hilleshög 4022RR	111	323.8	99	9851	100	1.29	56.19	99	1708	99	17.48	30.38	445	1553	422	0	54	2.1
Hilleshög 4094RR	104	313.0	96	9284	94	1.31	52.72	93	1561	91	16.94	29.48	480	1614	404	0	57	2.7
Hilleshög 4302RR	127	325.1	100	9870	100	1.15	56.60	100	1719	100	17.41	30.36	450	1472	334	0	56	3.4
Hilleshög 4448RR	105	338.2	104	10257	104	1.09	60.77	107	1839	107	17.99	30.38	371	1336	351	0	63	2.8
Hilleshög 9517RR	119	338.2	104	9233	93	1.23	60.76	107	1658	96	18.13	27.37	499	1560	358	0	52	4.8
Hilleshög 9528RR	114	330.1	101	10040	102	1.12	58.19	103	1766	103	17.61	30.14	392	1349	360	0	59	2.5
Maribo 102	106	345.7	106	10657	108	1.08	63.15	111	1945	113	18.38	30.97	357	1308	360	0	55	1.7
SX Winchester RR(832)	108	342.6	105	9419	95	1.10	62.19	110	1708	99	18.23	27.57	353	1529	318	0	50	3.5
SX Yukon RR	125	307.0	94	9092	92	1.21	50.81	90	1506	87	16.56	29.71	453	1465	379	0	59	3.7
SV 36272RR	110	334.2	103	8888	90	1.04	59.49	105	1585	92	17.75	26.47	277	1433	322	0	57	3.4
SV 36273RR	113	324.3	100	9690	98	1.05	56.33	99	1684	98	17.27	29.89	388	1404	302	0	56	3.0
SV RR336	112	312.8	96	9214	93	1.16	52.67	93	1553	90	16.81	29.50	392	1503	356	0	59	3.1
BTS 81RR17(Check)	128	317.6	98	10072	102	1.42	54.21	96	1718	100	17.30	31.64	401	1704	499	0	62	3.9
Experimental Trial (Comm status)																		
BTS 8405	250	349.7	107	10124	103	1.12	64.00	113	1865	108	18.62	28.64	257	1397	403	0	70	1.6
BTS 8408	222	319.2	98	9790	99	1.56	54.83	97	1685	98	17.49	30.55	536	1651	576	0	60	2.3
BTS 8500	235	326.5	100	9377	95	1.20	57.02	100	1657	96	17.51	28.31	353	1520	388	0	63	2.3
BTS 8512	233	331.6	102	9776	99	1.30	58.56	103	1737	101	17.87	29.55	391	1580	442	0	62	1.7
BTS 8524	256	328.4	101	10550	107	1.16	57.59	101	1873	109	17.58	31.73	369	1550	360	0	64	1.3
BTS 8536	229	317.5	98	9797	99	1.52	54.31	96	1673	97	17.37	30.85	437	1734	562	0	62	2.1
BTS 8548	216	336.5	103	9648	98	1.18	60.02	106	1719	100	18.02	28.77	473	1507	339	0	58	1.7
BTS 8560	239	339.8	104	9417	95	1.19	61.01	107	1694	98	18.20	27.65	330	1492	403	0	59	2.1
BTS 8572	207	350.5	108	9930	101	1.09	64.23	113	1824	106	18.66	28.29	268	1378	379	0	67	1.6
BTS 8584	254	349.0	107	8144	82	1.14	63.80	112	1479	86	18.64	23.67	229	1495	408	0	69	2.3
Crystal 355RR	255	339.2	104	10161	103	1.31	60.84	107	1813	105	18.30	30.22	349	1648	448	0	66	2.7
Crystal 359RR	215	313.2	96	10032	102	1.52	53.03	93	1705	99	17.13	31.93	581	1622	538	0	54	2.4
Crystal 467RR	251	326.8	100	10408	105	1.28	57.10	101	1835	107	17.60	31.37	478	1648	372	0	54	1.7
Crystal 572RR	211	343.4	105	9765	99	1.16	62.08	109	1784	104	18.34	28.08	312	1405	410	0	66	2.6
Crystal 573RR	205	349.4	107	10045	102	1.10	63.92	113	1855	108	18.59	28.48	321	1386	357	0	65	2.1
Crystal 574RR	230	330.4	101	11076	112	1.14	58.18	102	1961	114	17.68	33.14	351	1465	368	0	64	1.6
Crystal 575RR	248	327.2	100	10673	108	1.35	57.21	101	1863	108	17.71	32.60	414	1640	456	0	57	2.5
Crystal 576RR	206	330.3	101	10381	105	1.34	58.17	102	1844	107	17.84	31.19	480	1571	451	0	61	2.3
Crystal 577RR	236	339.2	104	10788	109	1.20	60.83	107	1967	114	18.14	31.28	493	1500	354	0	54	1.0
Crystal 578RR	252	351.4	108	10760	109	1.16	64.50	114	1976	115	18.77	30.54	349	1475	382	0	63	1.7
Crystal 579RR	225	327.4	101	10613	107	1.39	57.32	101	1873	109	17.73	32.12	430	1636	485	0	64	1.7
Hilleshög HIL9704	213	330.2	101	9291	94	1.11	58.13	102	1627	95	17.66	28.23	414	1369	348	0	54	1.5
Hilleshög HIL9705	201	300.9	92	7904	80	1.35	49.34	87	1296	75	16.39	26.26	550	1543	438	0	37	1.4
Hilleshög HIL9706	253	332.3	102	9962	101	1.08	58.75	103	1749	102	17.74	30.17	335	1235	374	0	59	1.4
Hilleshög HIL9707	228	332.0	102	9580	97	1.13	58.66	103	1687	98	17.77	28.86	317	1462	375	0	66	1.7
Hilleshög HIL9708	223	341.6	105	9720	98	1.12	61.55	108	1753	102	18.24	28.46	370	1326	383	0	71	1.4
Hilleshög HIL9709	203	342.9	105	9299	94	1.13	61.94	109	1672	97	18.33	27.20	396	1352	377	0	71	1.2
Hilleshög HIL9710	247	323.4	99	9988	101	1.26	56.06	99	1740	101	17.42	30.52	585	1527	362	0	59	2.2
Hilleshög HIL9711	241	318.3	98	10402	105	1.12	54.54	96	1795	104	17.04	32.29	422	1329	352	0	62	1.0
Hilleshög HIL9713	224	322.0	99	7838	79	1.30	55.67	98	1358	79	17.39	24.32	586	1411	421	0	50	1.8
Hilleshög HIL9714	208	303.4	93	10259	104	1.45	50.07	88	1702	99	16.59	33.53	518	1574	523	0	68	1.7
Hilleshög HIL9602	214	298.5	92	8982	91	1.23	48.60	86	1477	86	16.13	29.99	493	1441	389	0	66	1.9
Maribo 109	212	360.1	111	8597	87	1.15	67.12	118	1609	93	19.19	23.52	312	1387	411	0	53	1.2
Maribo 301	218	320.1	98	9695	98	1.30	55.10	97	1674	97	17.29	30.23	508	1569	404	0	57	2.4
Maribo MA305	232	325.7	100	9268	94	1.00	56.78	100	1605	93	17.34	28.62	380	1239	302	0	54	2.1
Maribo 402	246	323.1	99	10281	104	1.04	55.98	99	1782	103	17.23	31.71	336	1405	310	0	70	1.9
Maribo MA500	231	306.5	94	10258	104	1.26	51.00	90	1709	99	16.59	33.50	506	1473	411	0	59	1.4
Maribo MA501	238	323.1	99	8425	85	1.32	55.99	99	1467	85	17.46	25.88	482	1541	439	0	55	2.4
Maribo MA502	249	328.9	101	10705	108	1.32	57.73	102	1870	109	17.77	32.93	552	1594	405	0	62	1.6
Maribo MA503	237	311.9	96	9679	98	1.16	52.63	93	1645	96	16.76	30.75	497	1264	383	0	65	2.1
Maribo MA504	245	319.5	98	10244	104	1.14	54.90	97	1778	103	17.11	31.44	407	1362	371	0	69	1.4
Seedex RR0855	234	322.2	99	8927	90	1.19	55.74	98	1552	90	17.30	27.55	313	1546	390	0	55	1.6
Seedex RR0856	227	337.5	104	11102	112	1.15	60.32	106	1982	115	18.06	32.88	303	1447	399	0	62	1.5
Seedex RR0857	257	335.5	103	9695	98	1.11	59.73	105	1735	101	17.91	28.95	371	1490	322	0	58	1.8
Seedex RR0858	243	340.7	105	10171	103	1.09	61.27	108	1852	108	18.13	29.42	378	1397	335	0	64	2.5
SX Savannah RR(842)	226	325.8	100	9891	100	1.16	56.83	100	1718	100	17.49	30.39	379	1465	370	0	51	1.7
SX Canyon RR(844TT)	220	322.0	99	9838	100	1.07	55.65	98	1708	99	17.19	30.48	332	1367	332	0	58	2.0
SX Cruze RR(846)	209	310.7	95	9808	99	1.24	52.27	92	1652	96	16.78	31.66	391	1496	423	0	57	1.6
SX Terrain RR(848)	244	327.4	101	9929	101	1.12	57.27	101	1750	102	17.49	29.93	394	1380	347	0	54	2.2
SV RR241	242	332.0	102	10174	103	1.05	58.68	103	1819	106	17.67	30.40	326	1403	329	0	55	1.7
SV RR243	221	334.0	103	9973	101	1.03	59.27	104	1771	103	17.78	29.88	310	1405	313	0	59	2.7
SV RR244TT	240	344.7	106	10576	107	1.05	62.48	110	1926	112	18.33	30.65	334	1335	336	0	55	2.0
SV RR333	204	338.4	104	10760	109	1.13	60.61	107	1946	113	18.06	31.60	290	1374	405	0	57	2.1
SV RR350	219	313.1	96	9705	98	1.20	53.00	93	1656	96	16.84	30.59	406	1544	360	0	54	1.8
SV RR351	210	327.7	101	8763	89	1.22	57.40	101	1533	89	17.62	26.73	459	1555	361	0	49	1.1
SV RR352	202	329.1	101	9381	95	1.25	57.78	102	1648	96	17.72	28.63	462	1473	420	0	53	1.9
SV RR353	217	331.2	102	10233	104	1.09	58.44	103	1820	106	17.66	30.67	323	1310	371	0	58	2.3
Root Aphid Susc Chk#1	258	332.8	102	9650	98	1.14	58.90	104	1722	100	17.78	28.51	339	1518	356	0	46	1.4
AP CHK MOD RES RR#3	259	311.3	96	8857	90	1.14	52.43	92	1496	87	16.72	28.33	385	1402	370	0	54	1.4
AP CHK SUS HYB#3	260	325.7	100	8868	90	1.22	56.79	100	1545	90	17.51	27.02	547	1376	376	0	57	2.0
BTS 81RR17(Check)	261	320.3	98	9975	101	1.44	55.18	97	1710	99	17.45	31.45	380	1693	526	0	67	2.1
BTS 80RR52(Check)	262	331.4	102	10179	103	1.28	58.52	103	1808	105	17.85	30.58	326	1561	451	0	56	2.4
Crystal 875RR(Check)	263	320.2	98	9603	97	1.41	55.12	97	1652	96	17.40	29.96	548	1577	471	0	59	2.0
Hilleshög 4302RR (Check)	264	330.6	102	9747	99	1.14	58.23	103	1717	100	17.70	29.52	434	1463	335	0	58	1.8
Benchmark Mean		325.6		9876		1.32	56.76		1722		17.60	30.38	422	1573	446		57	3.9
Comm Trial Mean		330.4		9988		1.23	58.29		1761		17.75	30.24	411	1535	394		57	3.3
Coeff. of Var. (%)		4.5		6.6		9.1	8.1		9.4		3.9	4.6	19.7	5.7	14.1		11.5	35
Mean LSD (0.05)		18.1		791		0.14	5.76		201.0		0.85	1.71	100	110	69		7	1.4
Mean LSD (0.01)		23.9		1045		0.18	7.62		265.6		1.12	2.26	132	146	91		10	1.8
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	*

* 2015 Data from Averill MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158303

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 11. 2015 Performance of All Varieties - ACSC Official Trials

Halstad MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	344.9	102	12019	111	0.94	62.91	104	2186	112	18.17	34.96	165	1402	295	0	70	8.5
BTS 80RR52	123	339.6	100	11422	105	1.13	61.21	101	2053	105	18.08	33.78	166	1630	381	0	71	8.9
BTS 82RR28	107	340.2	101	11473	106	1.12	61.40	101	2060	106	18.13	33.90	167	1699	359	0	61	7.7
BTS 82RR33	103	334.7	99	12073	111	1.01	59.66	98	2151	110	17.72	36.13	174	1586	299	32	70	8.0
BTS 8337	102	361.1	107	11265	104	0.96	68.07	112	2122	109	19.02	31.23	130	1529	292	0	81	9.0
BTS 8363	101	316.7	94	11792	109	1.09	53.89	89	2010	103	16.92	37.16	228	1553	345	0	69	8.2
BTS 8390	121	319.3	94	12362	114	1.14	54.73	90	2122	109	17.12	38.77	216	1697	356	0	68	4.7
BTS 83CN	120	344.9	102	11548	107	0.94	62.92	104	2109	108	18.20	33.33	150	1487	280	0	72	7.0
Crystal 093RR	109	347.0	103	11275	104	1.14	63.59	105	2067	106	18.47	32.76	138	1599	410	32	71	6.7
Crystal 101RR	124	340.8	101	11092	102	1.15	61.61	101	2003	103	18.20	32.60	175	1751	359	0	66	8.1
Crystal 246RR	126	335.6	99	11424	105	0.96	59.94	99	2038	105	17.73	34.33	183	1507	277	0	68	8.6
Crystal 247RR	115	339.4	100	12036	111	1.03	61.17	101	2161	111	18.00	35.54	170	1583	318	32	71	9.7
Crystal 875RR	118	340.0	101	10667	98	1.18	61.33	101	1931	99	18.20	31.08	184	1744	385	0	68	9.1
Crystal 981RR	116	335.3	99	11072	102	1.29	59.83	98	1976	101	18.05	32.94	211	1793	441	0	72	8.3
Crystal 986RR	122	343.6	102	11515	106	1.02	62.48	103	2098	108	18.20	33.46	195	1465	333	0	68	7.9
Hilleshög 4022RR	111	320.0	95	9922	92	1.25	54.95	90	1706	88	17.25	30.93	231	1662	443	0	65	8.2
Hilleshög 4094RR	104	326.5	97	10883	100	1.15	57.03	94	1899	97	17.47	33.56	229	1670	365	0	71	8.1
Hilleshög 4302RR	127	342.0	101	10889	101	0.99	62.00	102	1978	102	18.10	31.62	186	1535	291	0	70	8.2
Hilleshög 4448RR	105	343.9	102	12194	113	0.98	62.59	103	2226	114	18.18	35.46	154	1384	329	0	74	7.2
Hilleshög 9517RR	119	339.8	100	9789	90	1.13	61.28	101	1756	90	18.12	29.07	244	1640	354	0	66	7.9
Hilleshög 9528RR	114	342.2	101	11922	110	1.07	62.04	102	2168	111	18.20	34.59	162	1457	380	0	70	5.8
Maribo 102	106	341.9	101	12305	114	1.00	61.95	102	2229	114	18.08	36.15	188	1398	339	0	69	6.4
SX Winchester RR(832)	108	339.1	100	10638	98	1.04	61.07	101	1913	98	18.00	31.28	179	1543	334	0	70	8.2
SX Yukon RR	125	328.7	97	11245	104	1.05	57.74	95	1981	102	17.50	33.91	198	1561	327	0	70	6.6
SV 36272RR	110	337.0	100	10691	99	1.00	60.40	99	1914	98	17.87	31.64	157	1520	311	0	63	5.5
SV 36273RR	113	343.0	101	11416	105	0.98	62.32	103	2073	106	18.12	33.35	154	1458	313	0	64	5.3
SV RR336	112	324.6	96	10812	100	1.06	56.42	93	1877	96	17.30	33.24	234	1550	324	0	66	8.2
BTS 81RR17(Check)	128	331.1	98	10353	96	1.25	58.51	96	1831	94	17.80	31.30	178	1743	435	0	71	8.1
Experimental Trial (Comm status)																		
BTS 8405	250	345.4	102	11213	104	0.97	62.97	104	2055	105	18.24	32.24	136	1463	314	0	67	3.7
BTS 8408	222	339.0	100	11340	105	1.30	61.02	100	2040	105	18.23	33.39	218	1704	469	0	67	2.7
BTS 8500	235	337.2	100	12120	112	0.97	60.47	100	2176	112	17.83	36.01	146	1527	294	0	73	3.9
BTS 8512	233	341.5	101	11428	105	0.98	61.79	102	2075	107	18.05	33.23	155	1523	297	0	71	3.3
BTS 8524	256	327.5	97	12615	116	1.07	57.51	95	2219	114	17.45	38.51	176	1685	320	0	75	3.4
BTS 8536	229	335.1	99	11555	107	1.22	59.81	98	2059	106	17.96	34.57	171	1723	422	0	74	3.6
BTS 8548	216	347.1	103	12814	118	0.93	63.51	105	2327	119	18.30	37.07	178	1546	249	0	71	2.6
BTS 8560	239	343.4	102	11652	108	1.06	62.35	103	2136	110	18.23	33.72	174	1503	359	0	64	3.3
BTS 8572	207	345.8	102	10792	100	0.99	63.09	104	1977	101	18.29	31.00	123	1505	329	0	73	2.8
BTS 8584	254	352.8	104	11312	104	1.04	65.25	107	2108	108	18.69	31.72	129	1570	340	0	70	3.6
Crystal 355RR	255	343.6	102	10310	95	1.18	62.42	103	1871	96	18.35	30.10	166	1698	395	0	72	3.6
Crystal 359RR	215	336.2	99	12202	113	1.15	60.17	99	2190	112	17.94	36.32	212	1759	346	0	64	2.4
Crystal 467RR	251	332.8	98	12468	115	1.06	59.15	97	2228	114	17.71	37.02	212	1646	310	0	65	3.5
Crystal 572RR	211	350.1	104	11126	103	1.07	64.43	106	2048	105	18.58	31.75	139	1548	367	0	75	4.3
Crystal 573RR	205	347.6	103	12102	112	1.00	63.65	105	2219	114	18.39	34.63	135	1505	332	0	74	3.2
Crystal 574RR	230	332.4	98	12035	111	1.03	58.99	97	2148	110	17.65	36.12	167	1608	314	0	64	2.7
Crystal 575RR	248	333.2	99	11763	109	1.11	59.25	98	2102	108	17.76	35.31	167	1648	365	0	65	3.0
Crystal 576RR	206	335.9	99	10884	100	1.05	60.09	99	1941	100	17.85	32.51	167	1527	349	0	69	3.7
Crystal 577RR	236	348.2	103	12193	113	0.93	63.83	105	2246	115	18.35	34.85	155	1569	248	0	62	3.4
Crystal 578RR	252	345.9	102	12193	113	0.96	63.13	104	2226	114	18.26	35.30	167	1511	281	0	69	2.5
Crystal 579RR	225	342.5	101	11903	110	1.10	62.08	102	2159	111	18.24	34.56	167	1639	361	0	73	3.8
Hilleshög HIL9704	213	352.9	104	11161	103	0.92	65.29	107	2067	106	18.57	31.60	141	1529	257	0	63	3.2
Hilleshög HIL9705	201	338.3	100	11189	103	1.07	60.82	100	2012	103	17.99	32.92	185	1638	327	0	61	2.7
Hilleshög HIL9706	253	345.2	102	12300	114	0.99	62.92	104	2252	116	18.25	35.45	161	1480	317	0	68	2.9
Hilleshög HIL9707	228	342.5	101	10193	94	1.02	62.09	102	1862	96	18.14	29.53	152	1510	333	0	66	3.1
Hilleshög HIL9708	223	356.3	105	11877	110	0.93	66.30	109	2209	113	18.75	33.40	151	1471	281	0	76	2.0
Hilleshög HIL9709	203	350.1	104	10834	100	0.95	64.43	106	2000	103	18.46	30.80	163	1496	281	0	72	2.3
Hilleshög HIL9710	247	350.2	104	11321	105	1.03	64.44	106	2092	107	18.54	32.24	205	1657	284	0	70	2.9
Hilleshög HIL9711	241	348.5	103	11538	107	0.95	63.93	105	2111	108	18.39	33.14	156	1456	297	0	72	2.3
Hilleshög HIL9713	224	338.2	100	10296	95	1.18	60.78	100	1846	95	18.08	30.51	278	1589	381	0	69	3.9
Hilleshög HIL9714	208	321.9	95	11898	110	1.19	55.81	92	2060	106	17.27	36.97	223	1617	408	0	70	2.3
Hilleshög HIL9602	214	337.8	100	11622	107	0.95	60.65	100	2090	107	17.84	34.33	183	1527	262	0	67	4.7
Maribo 109	212	357.8	106	10118	93	1.08	66.74	110	1906	98	18.98	27.83	186	1496	370	0	65	2.6
Maribo 301	218	333.4	99	10426	96	1.16	59.32	98	1860	95	17.82	31.33	246	1637	370	0	70	3.5
Maribo MA305	232	329.8	98	12547	116	0.94	58.21	96	2216	114	17.44	38.06	160	1387	300	0	71	2.0
Maribo 402	246	340.3	101	11366	105	1.01	61.42	101	2062	106	18.03	33.29	172	1569	307	0	80	2.8
Maribo MA500	231	321.3	95	12094	112	1.12	55.62	92	2099	108	17.18	37.43	205	1554	383	0	72	2.8
Maribo MA501	238	348.1	103	11839	109	1.10	63.81	105	2173	112	18.51	34.02	177	1596	365	0	73	2.7
Maribo MA502	249	342.1	101	11879	110	1.11	61.99	102	2144	110	18.21	34.70	192	1687	342	0	74	2.5
Maribo MA503	237	334.1	99	11899	110	0.88	59.53	98	2126	109	17.60	35.41	177	1327	264	0	66	2.5
Maribo MA504	245	345.8	102	12641	117	0.92	63.10	104	2308	118	18.22	36.37	161	1478	264	0	73	2.6
Seedex RR0855	234	324.4	96	11367	105	1.11	56.56	93	1992	102	17.33	34.99	174	1729	344	0	70	2.7
Seedex RR0856	227	345.0	102	11603	107	0.94	62.87	103	2113	108	18.19	33.67	139	1535	275	0	68	3.9
Seedex RR0857	257	348.4	103	10982	101	0.98	63.89	105	2015	103	18.41	31.43	151	1589	286	0	63	2.5
Seedex RR0858	243	348.3	103	11848	109	0.89	63.85	105	2174	112	18.31	33.95	174	1395	261	0	68	3.5
SX Savannah RR(842)	226	336.4	99	11102	102	1.03	60.23	99	1988	102	17.85	33.01	183	1617	305	0	65	3.3
SX Canyon RR(844TT)	220	340.0	101	11110	103	0.96	61.31	101	2011	103	17.96	32.56	138	1541	285	0	55	3.5
SX Cruze RR(846)	209	338.1	100	11093	102	0.96	60.72	100	1989	102	17.87	33.02	145	1461	307	0	68	2.9
SX Terrain RR(848)	244	347.7	103	11442	106	0.98	63.67	105	2100	108	18.37	32.91	140	1538	303	0	65	3.0
SV RR241	242	342.2	101	12077	111	0.91	62.01	102	2202	113	18.03	34.88	139	1453	274	0	74	2.9
SV RR243	221	336.5	100	11200	103	0.99	60.27	99	1998	103	17.82	33.48	153	1483	320	194	68	5.1
SV RR244TT	240	336.2	99	11199	103	0.93	60.17	99	2009	103	17.75	33.31	153	1534	260	95	66	3.3
SV RR333	204	341.0	101	12075	111	0.94	61.64	101	2197	113	18.01	34.87	128	1537	277	0	66	3.3
SV RR350	219	333.8	99	11775	109	1.01	59.42	98	2102	108	17.70	35.20	147	1639	299	0	67	3.3
SV RR351	210	346.5	102	10766	99	1.08	63.30	104	1980	102	18.41	30.79	191	1622	342	0	53	2.5
SV RR352	202	352.4	104	10800	100	0.96	65.13	107	1991	102	18.59	30.58	164	1536	278	0	63	3.4
SV RR353	217	329.8	98	11334	105	0.94	58.24	96	2014	103	17.45	33.97	144	1460	293	0	73	5.2
Root Aphid Susc Chk#1	258	350.8	104	11327	105	0.98	64.62	106	2094	107	18.52	32.39	138	1569	294	0	62	3.7
AP CHK MOD RES RR#3	259	338.1	100	10471	97	0.95	60.74	100	1881	97	17.86	30.80	145	1459	300	0	67	3.9
AP CHK SUS HYB#3	260	348.5	103	10627	98	0.98	63.92	105	1959	101	18.43	30.24	178	1544	288	0	69	2.9
BTS 81RR17(Check)	261	329.4	97	11372	105	1.29	58.06	96	2006	103	17.75	34.57	200	1758	454	0	75	3.6
BTS 80RR52(Check)	262	342.9	101	10375	96	1.07	62.20	102	1894	97	18.22	29.86	153	1636	344	0	71	3.4
Crystal 875RR(Check)	263	332.2	98	10774	99	1.21	58.93	97	1919	98	17.81	32.36	201	1701	406	0	68	3.5
Hilleshög 4302RR (Check)	264	348.3	103	10810	100	0.98	63.85	105	1974	101	18.41	30.99	159	1557	288	0	62	2.3
Benchmark Mean		338.2		10833		1.14	60.76		1948		18.05	31.95	178	1663	373		70	8.6
Comm Trial Mean		337.2		11289		1.07	60.47		2023		17.94	33.50	184	1577	346		69	7.6
Coeff. of Var. (%)		3.7		5.7		8.7	6.6		7.9		3.1	4.4	28.6	5.4	14.5		8.0	29
Mean LSD (0.05)		14.2		790		0.11	4.53		192.4		0.63	1.85	61	103	62		7	2.7
Mean LSD (0.01)		18.7		1044		0.15	5.98		254.3		0.84	2.45	80	136	82		10	3.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	*

* 2015 Data from Halstad MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158304

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 12. 2015 Performance of All Varieties - ACSC Official Trials

Hillsboro ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	338.0	99	12978	112	0.95	60.70	99	2334	112	17.85	38.37	225	1498	254	0	76	3.9
BTS 80RR52	123	342.6	101	11971	104	1.05	62.17	101	2175	104	18.18	34.83	188	1655	308	0	77	5.2
BTS 82RR28	107	340.1	100	12496	108	1.00	61.38	100	2249	108	18.01	36.87	201	1619	271	0	69	5.7
BTS 82RR33	103	343.0	101	12068	105	0.91	62.31	102	2194	105	18.06	35.08	198	1538	221	0	74	4.2
BTS 8337	102	359.4	106	12300	107	0.92	67.55	110	2308	111	18.89	34.39	162	1540	242	0	77	4.4
BTS 8363	101	332.3	98	12656	110	0.87	58.89	96	2243	108	17.48	38.08	194	1446	220	0	76	4.3
BTS 8390	121	331.6	98	12498	108	0.95	58.68	96	2214	106	17.54	37.63	229	1663	215	0	73	7.4
BTS 83CN	120	335.0	99	12044	104	0.93	59.75	97	2147	103	17.68	35.94	182	1522	252	0	72	4.9
Crystal 093RR	109	354.0	104	11848	103	0.95	65.83	107	2202	106	18.66	33.50	148	1540	275	0	79	4.0
Crystal 101RR	124	329.4	97	11634	101	1.05	57.95	94	2047	98	17.52	35.38	260	1697	264	0	68	5.1
Crystal 246RR	126	337.8	99	12491	108	0.91	60.65	99	2240	108	17.80	37.18	214	1495	231	0	75	5.5
Crystal 247RR	115	340.0	100	12535	109	0.85	61.34	100	2268	109	17.85	36.79	191	1477	199	0	73	4.6
Crystal 875RR	118	331.0	97	10907	95	1.13	58.48	95	1929	93	17.68	33.05	292	1657	331	0	74	5.5
Crystal 981RR	116	347.9	102	12005	104	0.99	63.87	104	2205	106	18.38	34.47	235	1575	260	0	74	5.4
Crystal 986RR	122	353.5	104	12160	105	0.92	65.66	107	2249	108	18.60	34.55	210	1470	247	0	71	5.1
Hilleshög 4022RR	111	344.3	101	12022	104	1.01	62.71	102	2192	105	18.22	34.88	206	1561	290	0	75	3.7
Hilleshög 4094RR	104	326.6	96	11161	97	1.07	57.07	93	1951	94	17.40	34.22	292	1587	303	0	70	4.5
Hilleshög 4302RR	127	349.6	103	11906	103	0.95	64.42	105	2191	105	18.44	33.84	220	1501	262	0	71	4.3
Hilleshög 4448RR	105	349.0	103	12822	111	0.91	64.22	105	2356	113	18.36	36.81	175	1473	248	0	77	3.8
Hilleshög 9517RR	119	348.0	102	10697	93	0.97	63.90	104	1967	94	18.37	30.67	282	1573	235	0	74	5.5
Hilleshög 9528RR	114	346.4	102	12412	108	0.95	63.39	103	2276	109	18.27	35.71	196	1521	259	0	69	5.7
Maribo 102	106	351.1	103	13132	114	0.91	64.88	106	2424	116	18.47	37.54	174	1507	243	0	74	3.5
SX Winchester RR(832)	108	349.5	103	11366	98	0.87	64.39	105	2092	100	18.35	32.62	155	1476	230	0	72	3.9
SX Yukon RR	125	323.9	95	11546	100	0.97	56.21	92	2003	96	17.16	35.61	218	1525	267	0	74	4.7
SV 36272RR	110	339.2	100	11096	96	0.92	61.09	100	1998	96	17.88	32.67	184	1536	239	0	63	6.4
SV 36273RR	113	330.6	97	11694	101	0.91	58.34	95	2066	99	17.43	35.34	196	1436	248	32	71	4.5
SV RR336	112	335.4	99	11704	101	0.96	59.87	98	2084	100	17.74	34.93	226	1489	271	0	71	4.7
BTS 81RR17(Check)	128	337.0	99	11375	99	1.06	60.39	98	2037	98	17.91	33.74	206	1641	309	0	81	5.7
Experimental Trial (Comm status)																		
BTS 8405	250	358.3	105	12390	107	0.88	66.95	109	2320	111	18.83	34.40	139	1435	251	0	75	2.1
BTS 8408	222	334.9	98	11807	102	1.13	59.77	97	2110	101	17.88	35.12	264	1650	342	0	80	2.7
BTS 8500	235	337.8	99	12441	108	0.94	60.69	99	2238	107	17.85	36.70	175	1522	260	0	80	2.0
BTS 8512	233	350.2	103	12157	105	0.95	64.48	105	2237	107	18.45	34.71	170	1533	270	0	81	1.8
BTS 8524	256	332.6	98	12767	111	0.99	59.10	96	2271	109	17.65	38.24	203	1663	250	0	78	1.9
BTS 8536	229	339.2	100	12063	105	1.04	61.12	100	2174	104	18.00	35.53	204	1657	299	0	80	2.0
BTS 8548	216	340.6	100	12811	111	0.97	61.54	100	2315	111	18.00	37.57	233	1601	246	0	73	1.7
BTS 8560	239	352.4	104	12454	108	0.90	65.13	106	2303	111	18.55	35.24	168	1509	238	0	72	2.0
BTS 8572	207	345.7	102	11774	102	0.93	63.12	103	2150	103	18.24	33.99	159	1475	271	0	79	2.0
BTS 8584	254	343.2	101	11323	98	0.97	62.34	102	2057	99	18.14	32.95	169	1537	283	0	81	1.6
Crystal 355RR	255	343.2	101	11157	97	1.03	62.32	102	2029	97	18.20	32.43	226	1620	292	0	86	2.6
Crystal 359RR	215	322.9	95	12443	108	1.08	56.12	91	2165	104	17.23	38.40	285	1665	291	0	73	2.2
Crystal 467RR	251	342.8	101	13502	117	0.92	62.19	101	2453	118	18.09	39.22	230	1563	217	0	72	2.0
Crystal 572RR	211	355.8	105	11964	104	0.87	66.22	108	2227	107	18.70	33.48	134	1422	245	0	81	2.6
Crystal 573RR	205	346.0	102	11993	104	0.94	63.19	103	2193	105	18.26	34.52	179	1510	261	0	81	2.9
Crystal 574RR	230	335.5	99	13149	114	1.03	59.98	98	2354	113	17.80	39.10	209	1627	296	0	75	1.5
Crystal 575RR	248	335.0	99	12226	106	1.06	59.80	97	2184	105	17.81	36.40	224	1600	311	0	75	2.5
Crystal 576RR	206	335.9	99	12069	105	1.06	60.11	98	2163	104	17.84	35.84	215	1617	310	0	79	2.4
Crystal 577RR	236	339.7	100	12750	110	0.97	61.26	100	2301	110	17.95	37.48	230	1592	248	0	67	1.9
Crystal 578RR	252	343.6	101	12689	110	0.90	62.44	102	2308	111	18.08	36.86	190	1536	221	0	83	2.1
Crystal 579RR	225	337.6	99	12634	109	1.01	60.61	99	2271	109	17.91	37.29	214	1606	287	0	81	1.7
Hilleshög HIL9704	213	343.5	101	12411	108	0.91	62.42	102	2256	108	18.11	36.04	202	1532	231	0	62	1.0
Hilleshög HIL9705	201	324.1	95	12196	106	1.10	56.49	92	2126	102	17.31	37.51	263	1662	315	0	65	1.4
Hilleshög HIL9706	253	343.1	101	12894	112	0.92	62.29	102	2345	113	18.12	37.40	191	1460	256	0	81	2.0
Hilleshög HIL9707	228	337.4	99	11122	96	0.96	60.56	99	1998	96	17.85	32.89	206	1528	265	0	71	3.8
Hilleshög HIL9708	223	349.8	103	12308	107	0.93	64.35	105	2264	109	18.44	35.11	193	1510	251	0	77	2.3
Hilleshög HIL9709	203	350.7	103	11695	101	0.95	64.60	105	2159	104	18.50	33.22	202	1528	263	0	78	0.8
Hilleshög HIL9710	247	338.6	100	11594	100	1.03	60.90	99	2089	100	17.97	34.14	329	1659	250	0	72	1.8
Hilleshög HIL9711	241	333.6	98	12577	109	0.91	59.38	97	2242	108	17.61	37.55	216	1497	237	0	76	1.8
Hilleshög HIL9713	224	339.4	100	10257	89	1.01	61.16	100	1851	89	18.03	30.01	284	1544	275	0	67	1.9
Hilleshög HIL9714	208	326.0	96	12227	106	1.10	57.07	93	2142	103	17.38	37.42	256	1636	320	0	82	1.7
Hilleshög HIL9602	214	326.0	96	11599	101	0.96	57.06	93	2031	98	17.27	35.52	231	1532	260	0	76	2.2
Maribo 109	212	357.0	105	10934	95	0.96	66.56	108	2040	98	18.81	30.59	169	1496	282	0	74	2.7
Maribo 301	218	339.9	100	11113	96	1.02	61.32	100	2008	96	18.05	32.53	257	1653	268	0	73	2.1
Maribo MA305	232	322.1	95	12195	106	0.90	55.88	91	2117	102	17.03	37.74	233	1404	240	0	74	1.5
Maribo 402	246	343.5	101	11927	103	0.96	62.41	102	2170	104	18.13	34.64	202	1492	275	0	82	2.2
Maribo MA500	231	320.4	94	12360	107	0.98	55.34	90	2135	102	17.03	38.49	228	1595	261	0	77	1.7
Maribo MA501	238	336.6	99	12016	104	1.07	60.31	98	2153	103	17.89	35.61	249	1672	289	0	70	1.3
Maribo MA502	249	330.2	97	11852	103	1.16	58.33	95	2097	101	17.66	35.82	336	1752	318	0	78	1.8
Maribo MA503	237	329.6	97	12196	106	0.84	58.15	95	2156	103	17.36	36.83	229	1337	215	0	74	1.9
Maribo MA504	245	345.6	102	13588	118	0.92	63.07	103	2483	119	18.23	39.18	193	1521	240	0	79	1.3
Seedex RR0855	234	321.9	95	11961	104	0.96	55.81	91	2076	100	17.08	36.98	167	1614	253	0	66	1.6
Seedex RR0856	227	340.7	100	12949	112	0.93	61.58	100	2340	112	17.97	37.95	180	1555	243	0	71	1.4
Seedex RR0857	257	344.5	101	11516	100	0.94	62.74	102	2101	101	18.19	33.29	195	1638	224	0	64	1.4
Seedex RR0858	243	351.9	103	11678	101	0.87	64.98	106	2159	104	18.47	33.13	182	1448	220	0	75	2.3
SX Savannah RR(842)	226	339.2	100	11907	103	0.95	61.10	100	2148	103	17.93	34.96	198	1595	244	0	67	2.2
SX Canyon RR(844TT)	220	341.4	100	12111	105	0.89	61.77	101	2190	105	18.00	35.40	161	1490	235	0	70	1.5
SX Cruze RR(846)	209	326.5	96	11871	103	0.99	57.20	93	2083	100	17.31	36.26	209	1533	290	95	69	1.6
SX Terrain RR(848)	244	340.7	100	12124	105	0.94	61.58	100	2193	105	17.99	35.49	197	1587	237	0	64	1.7
SV RR241	242	333.8	98	11858	103	0.91	59.45	97	2114	102	17.63	35.38	181	1513	239	0	76	1.8
SV RR243	221	338.8	100	11632	101	0.91	60.99	99	2098	101	17.88	34.20	168	1507	247	0	71	2.4
SV RR244TT	240	341.5	100	12910	112	0.91	61.80	101	2340	112	18.02	37.64	170	1509	242	0	71	1.4
SV RR333	204	334.4	98	12420	108	0.96	59.64	97	2217	106	17.68	37.06	219	1576	247	0	79	1.7
SV RR350	219	326.8	96	11922	103	0.95	57.33	93	2091	100	17.31	36.40	194	1648	232	0	80	1.6
SV RR351	210	341.5	100	11848	103	0.94	61.80	101	2143	103	18.01	34.67	203	1633	219	95	62	1.4
SV RR352	202	345.1	101	11208	97	0.95	62.91	103	2045	98	18.24	32.31	210	1537	254	0	66	1.7
SV RR353	217	336.1	99	12397	107	0.90	60.17	98	2220	107	17.72	36.79	166	1482	241	0	81	1.8
Root Aphid Susc Chk#1	258	344.4	101	11569	100	0.91	62.71	102	2106	101	18.11	33.59	157	1530	240	0	65	1.7
AP CHK MOD RES RR#3	259	343.2	101	12245	106	0.91	62.32	102	2227	107	18.08	35.58	192	1546	232	0	72	1.4
AP CHK SUS HYB#3	260	351.2	103	12075	105	0.95	64.79	106	2227	107	18.53	34.33	243	1522	250	0	74	2.3
BTS 81RR17(Check)	261	343.9	101	11831	103	1.10	62.57	102	2154	103	18.31	34.26	210	1650	337	0	82	2.5
BTS 80RR52(Check)	262	344.4	101	11532	100	1.04	62.70	102	2097	101	18.26	33.48	214	1610	302	0	78	2.6
Crystal 875RR(Check)	263	337.5	99	11403	99	1.09	60.59	99	2047	98	17.96	33.71	244	1665	317	0	76	3.0
Hilleshög 4302RR (Check)	264	334.3	98	11394	99	0.96	59.59	97	2034	98	17.67	34.01	236	1530	252	0	65	1.5
Benchmark Mean		340.1		11540		1.05	61.37		2083		18.05	33.87	226	1614	302		76	5.2
Comm Trial Mean		340.9		11983		0.96	61.65		2166		18.01	35.17	209	1544	257		73	4.9
Coeff. of Var. (%)		3.4		5.1		6.9	6.0		7.1		3.0	3.7	24.9	4.6	11.9		5.6	39
Mean LSD (0.05)		14.4		746		0.08	4.60		188.3		0.67	1.65	64	87	37		5	2.3
Mean LSD (0.01)		19.0		986		0.11	6.08		248.8		0.89	2.18	84	115	49		6	3.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

* 2015 Data from Hillsboro ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158305

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 13. 2015 Performance of All Varieties - ACSC Official Trials

Perley MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	334.8	103	9882	111	1.10	59.67	105	1752	112	17.84	29.76	270	1445	372	0	71	5.2
BTS 80RR52	123	328.4	101	9586	107	1.43	57.65	101	1681	108	17.84	29.31	310	1614	564	0	72	6.3
BTS 82RR28	107	335.2	103	9892	111	1.38	59.82	105	1754	112	18.14	29.83	305	1599	536	0	67	4.1
BTS 82RR33	103	334.6	103	10548	118	1.21	59.64	105	1868	120	17.94	31.79	306	1552	412	0	72	3.9
BTS 8337	102	351.9	108	9723	109	1.23	65.15	115	1806	116	18.84	27.29	232	1546	461	0	79	5.4
BTS 8363	101	330.5	101	10629	119	1.15	58.30	103	1871	120	17.67	32.28	276	1401	416	0	74	4.8
BTS 8390	121	322.0	99	9965	112	1.25	55.59	98	1728	111	17.35	31.04	354	1631	404	0	68	5.6
BTS 83CN	120	338.8	104	9809	110	1.18	60.96	107	1760	113	18.12	29.15	216	1584	414	0	76	5.3
Crystal 093RR	109	335.1	103	9713	109	1.37	59.79	105	1728	111	18.13	29.00	294	1536	542	95	79	4.8
Crystal 101RR	124	332.6	102	9051	101	1.48	58.97	104	1606	103	18.10	27.18	376	1661	566	0	70	4.6
Crystal 246RR	126	335.4	103	10588	119	1.19	59.88	105	1874	120	17.97	31.69	334	1459	411	0	76	5.1
Crystal 247RR	115	338.8	104	10836	121	1.23	60.96	107	1944	125	18.18	31.94	262	1518	458	0	73	5.0
Crystal 875RR	118	316.2	97	8272	93	1.45	53.74	94	1415	91	17.25	25.92	427	1587	550	0	67	6.0
Crystal 981RR	116	323.5	99	8674	97	1.71	56.07	99	1497	96	17.88	26.99	449	1773	688	0	67	5.5
Crystal 986RR	122	350.5	108	9606	108	1.12	64.69	114	1763	113	18.64	27.58	317	1294	404	0	73	4.9
Hilleshög 4022RR	111	325.7	100	8839	99	1.35	56.77	100	1535	98	17.65	27.11	348	1561	504	0	71	5.0
Hilleshög 4094RR	104	337.4	103	9174	103	1.33	60.51	106	1641	105	18.19	27.31	296	1636	491	0	75	5.7
Hilleshög 4302RR	127	332.5	102	8799	99	1.12	58.96	104	1560	100	17.75	26.58	335	1461	355	0	78	5.2
Hilleshög 4448RR	105	351.5	108	10844	121	1.05	65.02	114	2007	129	18.63	30.73	243	1306	377	0	79	5.5
Hilleshög 9517RR	119	344.9	106	8929	100	1.21	62.90	111	1642	105	18.46	25.63	315	1507	425	0	73	6.4
Hilleshög 9528RR	114	330.8	101	9503	106	1.00	58.42	103	1672	107	17.55	28.65	305	1242	330	0	73	7.9
Maribo 102	106	333.1	102	10221	114	1.02	59.13	104	1812	116	17.67	30.96	311	1239	343	0	77	6.1
SX Winchester RR(832)	108	344.3	106	9033	101	1.13	62.71	110	1656	106	18.34	26.12	248	1513	382	0	73	5.7
SX Yukon RR	125	318.3	98	9483	106	1.20	54.41	96	1619	104	17.12	29.83	333	1336	452	0	75	5.7
SV 36272RR	110	339.0	104	8689	97	0.97	61.04	107	1562	100	17.93	25.70	188	1374	318	0	65	6.0
SV 36273RR	113	338.6	104	9118	102	1.12	60.89	107	1632	105	18.05	27.14	287	1415	388	0	73	3.8
SV RR336	112	327.7	101	9086	102	1.17	57.42	101	1588	102	17.55	27.92	299	1360	438	0	71	5.6
BTS 81RR17(Check)	128	326.9	100	9060	101	1.52	57.16	100	1589	102	17.86	27.57	311	1747	606	0	78	6.8
Experimental Trial (Comm status)																		
BTS 8405	250	339.3	104	9400	105	1.17	60.83	107	1690	108	18.15	27.69	246	1373	447	0	75	1.6
BTS 8408	222	322.1	99	9158	103	1.65	55.71	98	1597	102	17.69	28.32	462	1705	665	0	78	2.0
BTS 8500	235	321.6	99	9925	111	1.25	55.54	98	1711	110	17.34	30.92	325	1406	477	0	80	1.9
BTS 8512	233	334.6	103	9623	108	1.09	59.43	104	1716	110	17.86	28.63	254	1374	386	0	82	1.7
BTS 8524	256	323.8	99	9592	107	1.19	56.20	99	1669	107	17.40	29.48	262	1509	412	0	85	2.3
BTS 8536	229	315.7	97	9697	109	1.55	53.78	95	1655	106	17.30	30.59	339	1603	649	0	71	1.8
BTS 8548	216	323.8	99	9732	109	1.20	56.23	99	1688	108	17.41	30.05	380	1567	382	0	81	2.0
BTS 8560	239	336.5	103	10102	113	1.21	60.02	106	1805	116	18.07	29.78	244	1425	459	0	75	1.9
BTS 8572	207	339.2	104	9635	108	1.16	60.81	107	1723	110	18.15	28.47	268	1449	407	0	80	1.9
BTS 8584	254	334.7	103	9180	103	1.20	59.48	105	1632	105	17.97	27.30	223	1507	441	0	73	1.7
Crystal 355RR	255	329.1	101	9235	103	1.43	57.80	102	1624	104	17.88	27.99	339	1648	546	0	77	2.6
Crystal 359RR	215	312.3	96	9486	106	1.50	52.77	93	1604	103	17.09	30.27	447	1690	556	0	70	2.8
Crystal 467RR	251	323.4	99	10043	112	1.17	56.09	99	1730	111	17.38	31.11	370	1532	368	0	74	1.6
Crystal 572RR	211	341.1	105	9697	109	1.21	61.38	108	1748	112	18.29	28.37	260	1416	463	0	80	1.7
Crystal 573RR	205	339.2	104	10172	114	1.19	60.82	107	1826	117	18.17	30.00	274	1365	452	0	77	2.2
Crystal 574RR	230	315.1	97	10015	112	1.25	53.62	94	1709	109	17.01	31.77	350	1483	454	0	77	1.8
Crystal 575RR	248	326.2	100	10055	113	1.36	56.95	100	1753	112	17.66	30.88	303	1654	497	0	73	2.4
Crystal 576RR	206	328.1	101	9194	103	1.32	57.49	101	1621	104	17.73	27.83	376	1480	503	0	74	1.6
Crystal 577RR	236	324.0	99	9209	103	1.21	56.30	99	1590	102	17.45	28.44	364	1518	407	0	65	1.2
Crystal 578RR	252	327.3	100	9763	109	1.22	57.26	101	1701	109	17.61	29.90	335	1376	449	0	80	2.7
Crystal 579RR	225	321.9	99	9419	105	1.51	55.66	98	1619	104	17.59	29.35	365	1581	616	0	75	1.9
Hilleshög HIL9704	213	336.4	103	9084	102	1.13	60.00	105	1621	104	17.99	26.89	350	1432	364	0	69	1.8
Hilleshög HIL9705	201	315.5	97	9414	105	1.40	53.75	94	1603	103	17.16	29.89	420	1537	527	0	77	1.4
Hilleshög HIL9706	253	338.1	104	10456	117	1.01	60.49	106	1853	119	17.99	31.22	280	1233	357	0	82	1.3
Hilleshög HIL9707	228	329.1	101	9100	102	1.19	57.78	102	1597	102	17.65	27.76	311	1321	458	0	74	2.0
Hilleshög HIL9708	223	335.9	103	10034	112	1.22	59.84	105	1789	115	18.05	29.59	355	1330	471	0	79	1.6
Hilleshög HIL9709	203	338.4	104	9974	112	1.06	60.59	107	1799	115	18.02	29.21	277	1330	366	0	83	1.7
Hilleshög HIL9710	247	336.1	103	9520	107	1.27	59.92	105	1685	108	18.11	28.43	417	1459	448	0	83	1.7
Hilleshög HIL9711	241	330.8	101	9799	110	1.10	58.33	103	1736	111	17.68	29.37	325	1325	391	0	78	2.2
Hilleshög HIL9713	224	318.2	98	8007	90	1.45	54.55	96	1366	88	17.36	25.20	517	1404	582	0	76	2.8
Hilleshög HIL9714	208	315.0	97	9713	109	1.41	53.61	94	1654	106	17.14	30.78	377	1553	545	0	85	1.2
Hilleshög HIL9602	214	322.5	99	9135	102	1.06	55.82	98	1585	102	17.22	28.27	349	1380	339	0	77	2.5
Maribo 109	212	352.3	108	8629	97	1.22	64.75	114	1585	102	18.88	24.36	286	1392	470	0	71	2.0
Maribo 301	218	324.9	100	9313	104	1.44	56.54	99	1624	104	17.67	28.58	444	1512	562	0	73	1.9
Maribo MA305	232	325.1	100	10745	120	1.08	56.62	100	1860	119	17.38	33.27	314	1193	410	0	80	1.4
Maribo 402	246	328.2	101	9599	108	1.17	57.54	101	1682	108	17.61	29.25	307	1428	410	0	83	1.4
Maribo MA500	231	318.9	98	10123	113	1.20	54.75	96	1734	111	17.17	31.69	294	1411	449	0	85	1.7
Maribo MA501	238	338.2	104	10161	114	1.24	60.55	106	1825	117	18.16	29.92	361	1485	442	0	72	1.7
Maribo MA502	249	323.6	99	9898	111	1.38	56.14	99	1708	109	17.55	30.80	453	1578	501	0	83	1.6
Maribo MA503	237	324.4	100	10072	113	1.17	56.39	99	1746	112	17.42	30.91	397	1227	447	0	80	1.8
Maribo MA504	245	324.9	100	11060	124	1.19	56.52	99	1916	123	17.46	34.15	377	1341	443	0	81	0.9
Seedex RR0855	234	310.7	95	9595	107	1.18	52.31	92	1612	103	16.74	30.88	263	1514	404	0	76	1.4
Seedex RR0856	227	335.3	103	10352	116	1.16	59.65	105	1845	118	17.94	30.86	261	1400	420	0	76	1.5
Seedex RR0857	257	337.3	103	8659	97	1.05	60.26	106	1548	99	17.96	25.71	257	1405	341	0	75	1.6
Seedex RR0858	243	341.1	105	9553	107	1.06	61.38	108	1716	110	18.15	28.12	309	1430	334	0	83	2.5
SX Savannah RR(842)	226	322.3	99	9026	101	1.15	55.77	98	1550	99	17.31	28.08	353	1442	377	0	67	1.7
SX Canyon RR(844TT)	220	324.2	99	10116	113	1.26	56.34	99	1774	114	17.47	30.99	358	1429	471	0	74	1.9
SX Cruze RR(846)	209	321.9	99	9877	111	1.26	55.65	98	1705	109	17.38	30.55	305	1393	499	0	60	1.1
SX Terrain RR(848)	244	334.9	103	9666	108	1.15	59.52	105	1711	110	17.92	29.02	285	1383	414	0	67	2.4
SV RR241	242	326.5	100	9262	104	1.03	57.02	100	1613	103	17.40	28.36	265	1388	325	0	69	2.4
SV RR243	221	331.1	102	9358	105	1.19	58.41	103	1656	106	17.77	28.25	341	1467	410	0	66	1.8
SV RR244TT	240	321.7	99	9504	106	1.19	55.59	98	1654	106	17.27	29.36	317	1391	432	0	76	1.9
SV RR333	204	332.3	102	9855	110	1.14	58.74	103	1733	111	17.79	29.76	293	1352	414	0	68	2.1
SV RR350	219	323.9	99	8761	98	1.13	56.26	99	1512	97	17.37	27.17	291	1492	370	0	70	2.1
SV RR351	210	329.7	101	9288	104	1.18	57.99	102	1628	104	17.69	28.22	331	1503	393	0	58	1.3
SV RR352	202	342.1	105	8671	97	1.10	61.70	108	1557	100	18.28	25.22	336	1365	376	0	74	2.1
SV RR353	217	321.4	99	9074	102	1.07	55.50	98	1570	101	17.18	28.14	317	1344	366	0	75	3.7
Root Aphid Susc Chk#1	258	329.3	101	9238	103	1.23	57.85	102	1631	104	17.71	27.88	320	1409	460	0	69	2.3
AP CHK MOD RES RR#3	259	326.5	100	9151	102	1.09	57.04	100	1596	102	17.46	28.00	281	1350	383	0	65	2.0
AP CHK SUS HYB#3	260	330.4	101	8575	96	1.24	58.20	102	1503	96	17.78	26.04	448	1380	445	0	68	1.8
BTS 81RR17(Check)	261	322.7	99	8687	97	1.55	55.88	98	1509	97	17.64	26.94	320	1744	613	0	82	2.8
BTS 80RR52(Check)	262	329.6	101	9545	107	1.37	57.97	102	1680	108	17.86	28.83	299	1558	535	0	67	1.8
Crystal 875RR(Check)	263	319.4	98	8919	100	1.43	54.92	97	1533	98	17.39	27.99	421	1573	553	0	75	2.8
Hilleshög 4302RR (Check)	264	332.3	102	8566	96	1.17	58.74	103	1524	98	17.80	25.61	343	1534	375	0	66	2.1
Benchmark Mean		326.0		8929		1.38	56.88		1561		17.68	27.35	346	1602	519		74	6.1
Comm Trial Mean		334.2		9555		1.24	59.51		1699		17.95	28.64	305	1496	450		73	5.4
Coeff. of Var. (%)		3.9		5.8		10.4	7.0		7.9		3.4	4.8	20.6	5.4	17.6		8.7	38
Mean LSD (0.05)		16.4		698		0.16	5.24		167.3		0.76	1.78	79	99	98		8	2.4
Mean LSD (0.01)		21.7		923		0.21	6.93		221.2		1.01	2.36	105	130	130		10	3.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

* 2015 Data from Perley MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158306

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 14. 2015 Performance of All Varieties - ACSC Official Trials

Climax MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	294.4	96	10015	101	1.12	46.78	91	1584	96	15.84	34.06	253	1610	342	0	71	2.3
BTS 80RR52	123	314.1	102	10466	106	1.10	53.06	104	1765	107	16.80	33.30	158	1532	377	0	70	2.6
BTS 82RR28	107	300.8	98	10284	104	1.25	48.83	95	1671	102	16.29	34.03	203	1640	463	0	62	2.5
BTS 82RR33	103	313.9	102	10914	110	1.00	53.00	104	1843	112	16.69	34.91	209	1602	273	0	65	3.6
BTS 8337	102	328.4	107	10399	105	1.08	57.64	113	1823	111	17.50	31.75	164	1537	375	0	66	2.7
BTS 8363	101	301.7	98	10655	108	1.01	49.12	96	1730	105	16.10	35.42	178	1421	338	0	75	2.9
BTS 8390	121	303.3	98	10697	108	1.05	49.61	97	1748	106	16.21	35.29	220	1592	313	0	62	2.4
BTS 83CN	120	303.6	99	10181	103	1.05	49.72	97	1671	102	16.23	33.55	205	1580	313	0	70	2.9
Crystal 093RR	109	321.4	104	10746	109	1.05	55.42	108	1851	113	17.12	33.40	146	1524	352	0	71	2.5
Crystal 101RR	124	301.7	98	9887	100	1.30	49.10	96	1607	98	16.38	32.84	225	1687	471	0	59	2.8
Crystal 246RR	126	301.7	98	10482	106	1.04	49.11	96	1699	103	16.13	34.62	222	1414	333	0	68	3.0
Crystal 247RR	115	309.7	101	10879	110	1.01	51.66	101	1816	110	16.49	35.32	192	1560	309	0	69	1.9
Crystal 875RR	118	300.1	97	9258	94	1.28	48.62	95	1501	91	16.29	30.88	278	1703	440	0	68	2.5
Crystal 981RR	116	300.5	98	9684	98	1.31	48.74	95	1572	96	16.33	32.44	264	1786	449	0	67	2.6
Crystal 986RR	122	315.8	102	9970	101	1.02	53.62	105	1686	103	16.81	31.46	191	1365	353	0	70	2.8
Hilleshög 4022RR	111	301.8	98	9196	93	1.26	49.15	96	1498	91	16.34	30.59	265	1652	447	0	64	2.1
Hilleshög 4094RR	104	305.5	99	9314	94	1.21	50.31	98	1535	93	16.48	30.59	274	1645	409	0	71	2.6
Hilleshög 4302RR	127	315.5	102	9594	97	1.05	53.52	105	1627	99	16.82	30.42	221	1511	323	0	59	2.8
Hilleshög 4448RR	105	313.9	102	11078	112	1.11	53.00	104	1864	113	16.81	35.20	169	1415	420	0	70	1.7
Hilleshög 9517RR	119	321.0	104	8741	88	1.21	55.28	108	1499	91	17.26	27.43	276	1667	405	0	68	3.6
Hilleshög 9528RR	114	320.8	104	10574	107	1.02	55.22	108	1820	111	17.06	32.96	175	1438	356	0	60	2.4
Maribo 102	106	321.7	104	11280	114	1.00	55.49	108	1943	118	17.08	35.03	156	1281	368	0	67	2.0
SX Winchester RR(832)	108	310.9	101	9497	96	1.04	52.04	102	1585	96	16.58	30.66	203	1480	348	0	64	2.9
SX Yukon RR	125	288.4	94	9320	94	1.07	44.87	88	1452	88	15.50	32.25	217	1583	329	0	65	3.6
SV 36272RR	110	310.8	101	8908	90	0.96	52.03	102	1494	91	16.51	28.69	170	1524	282	0	57	3.7
SV 36273RR	113	304.2	99	9651	97	1.05	49.92	98	1579	96	16.26	31.83	213	1464	348	32	62	3.0
SV RR336	112	295.2	96	9313	94	1.12	47.03	92	1487	90	15.88	31.69	222	1584	364	0	66	2.2
BTS 81RR17(Check)	128	302.7	98	10284	104	1.21	49.42	97	1681	102	16.34	33.89	202	1646	426	0	75	3.0
Experimental Trial (Comm status)																		
BTS 8405	250	319.7	104	10103	102	1.04	54.62	107	1726	105	17.05	31.65	150	1449	361	0	68	1.2
BTS 8408	222	321.3	104	10116	102	1.22	55.11	108	1737	106	17.28	31.43	205	1705	406	0	66	2.9
BTS 8500	235	296.6	96	10761	109	1.15	47.72	93	1730	105	15.98	35.98	229	1632	361	0	75	1.8
BTS 8512	233	310.7	101	9920	100	1.06	51.94	102	1656	101	16.60	32.01	200	1536	332	0	71	2.0
BTS 8524	256	294.0	95	10523	106	1.15	46.95	92	1681	102	15.84	35.75	214	1699	354	0	66	2.4
BTS 8536	229	293.7	95	9680	98	1.26	46.85	92	1549	94	15.95	33.05	233	1680	441	0	78	1.8
BTS 8548	216	308.4	100	10368	105	1.05	51.24	100	1729	105	16.50	33.32	202	1605	299	0	62	2.6
BTS 8560	239	313.6	102	10513	106	1.05	52.80	103	1770	108	16.75	33.30	168	1442	356	0	66	1.3
BTS 8572	207	323.1	105	10388	105	1.01	55.64	109	1792	109	17.20	31.92	152	1425	338	0	76	1.8
BTS 8584	254	314.6	102	9445	95	1.11	53.10	104	1596	97	16.85	29.85	160	1591	363	0	74	2.0
Crystal 355RR	255	314.1	102	10316	104	1.12	52.93	103	1737	106	16.81	32.64	195	1581	355	0	68	1.9
Crystal 359RR	215	305.7	99	11380	115	1.20	50.44	99	1874	114	16.46	37.19	197	1630	410	0	67	1.1
Crystal 467RR	251	302.0	98	11266	114	1.14	49.33	96	1832	111	16.22	37.35	238	1639	350	0	70	2.1
Crystal 572RR	211	315.9	103	9921	100	1.14	53.48	105	1674	102	16.92	31.40	171	1597	381	0	75	3.2
Crystal 573RR	205	312.6	101	10523	106	1.10	52.50	103	1766	107	16.73	33.44	179	1528	369	0	72	2.1
Crystal 574RR	230	292.8	95	11629	117	1.06	46.60	91	1846	112	15.70	39.69	204	1527	326	0	75	1.6
Crystal 575RR	248	308.9	100	11196	113	1.09	51.39	100	1861	113	16.54	36.09	177	1507	366	0	71	2.1
Crystal 576RR	206	309.2	100	9706	98	1.16	51.50	101	1608	98	16.60	31.37	212	1581	388	0	77	2.2
Crystal 577RR	236	303.3	98	10659	108	1.10	49.72	97	1751	107	16.28	34.83	218	1671	317	0	65	2.3
Crystal 578RR	252	312.1	101	11421	115	1.04	52.35	102	1909	116	16.64	36.42	173	1583	302	0	69	1.6
Crystal 579RR	225	301.1	98	10847	110	1.18	49.06	96	1767	108	16.22	35.79	201	1522	430	0	71	1.2
Hilleshög HIL9704	213	309.3	100	10016	101	1.12	51.53	101	1674	102	16.59	31.95	210	1631	341	0	62	1.0
Hilleshög HIL9705	201	296.0	96	9683	98	1.23	47.53	93	1559	95	16.01	32.82	229	1600	442	0	65	1.3
Hilleshög HIL9706	253	306.7	100	11057	112	1.07	50.74	99	1828	111	16.42	35.87	185	1412	383	0	72	1.4
Hilleshög HIL9707	228	314.2	102	9304	94	1.10	52.98	104	1562	95	16.79	29.46	168	1558	352	0	65	1.4
Hilleshög HIL9708	223	313.9	102	10147	102	1.07	52.89	103	1710	104	16.79	32.37	190	1508	358	0	76	0.9
Hilleshög HIL9709	203	323.2	105	9805	99	1.02	55.67	109	1688	103	17.20	30.06	156	1418	338	0	69	1.0
Hilleshög HIL9710	247	294.8	96	8862	90	1.20	47.16	92	1415	86	15.92	29.78	306	1616	379	0	66	2.3
Hilleshög HIL9711	241	307.9	100	10166	103	1.09	51.10	100	1690	103	16.49	32.72	182	1483	369	0	70	1.1
Hilleshög HIL9713	224	312.9	102	8946	90	1.20	52.57	103	1499	91	16.82	28.53	271	1609	391	0	64	1.8
Hilleshög HIL9714	208	295.4	96	10418	105	1.17	47.35	93	1674	102	15.94	34.92	265	1531	406	0	68	1.4
Hilleshög HIL9602	214	306.0	99	10497	106	1.05	50.53	99	1741	106	16.38	34.04	201	1509	334	0	68	1.4
Maribo 109	212	331.0	107	9334	94	1.10	58.03	113	1631	99	17.64	27.94	172	1543	362	0	63	1.0
Maribo 301	218	315.3	102	9919	100	1.20	53.30	104	1672	102	16.94	31.61	201	1673	397	0	69	1.5
Maribo MA305	232	310.3	101	9944	100	0.96	51.84	101	1656	101	16.50	32.05	159	1357	316	0	62	0.9
Maribo 402	246	302.0	98	10101	102	1.11	49.32	96	1642	100	16.19	33.66	238	1527	358	0	74	1.4
Maribo MA500	231	289.2	94	10380	105	1.20	45.50	89	1633	99	15.64	35.72	216	1603	414	0	73	1.4
Maribo MA501	238	299.3	97	9396	95	1.21	48.52	95	1524	93	16.15	31.30	239	1619	405	0	61	1.8
Maribo MA502	249	309.8	101	9643	97	1.22	51.66	101	1613	98	16.70	30.72	240	1715	393	0	74	1.2
Maribo MA503	237	291.2	95	10467	106	1.03	46.11	90	1653	101	15.58	35.83	230	1340	350	0	73	1.3
Maribo MA504	245	312.1	101	11571	117	1.03	52.37	102	1940	118	16.65	36.96	179	1473	332	0	69	1.6
Seedex RR0855	234	290.9	94	10368	105	1.15	46.01	90	1638	100	15.69	35.44	198	1590	388	0	68	1.6
Seedex RR0856	227	318.6	103	11101	112	1.04	54.29	106	1893	115	17.00	35.03	150	1541	343	0	67	1.8
Seedex RR0857	257	308.6	100	9552	96	1.04	51.30	100	1587	97	16.48	30.79	229	1563	287	0	59	2.0
Seedex RR0858	243	317.0	103	9942	100	0.97	53.83	105	1685	103	16.85	31.40	193	1453	293	0	67	2.1
SX Savannah RR(842)	226	313.8	102	10131	102	1.01	52.88	103	1705	104	16.71	32.05	176	1439	315	0	58	1.3
SX Canyon RR(844TT)	220	302.8	98	10571	107	1.06	49.58	97	1729	105	16.21	34.92	194	1452	358	0	75	1.5
SX Cruze RR(846)	209	306.2	99	10449	106	1.04	50.58	99	1720	105	16.35	33.88	186	1443	348	0	65	1.2
SX Terrain RR(848)	244	305.1	99	10619	107	1.11	50.24	98	1740	106	16.34	34.74	227	1537	353	0	64	1.6
SV RR241	242	307.3	100	9734	98	1.06	50.92	100	1615	98	16.45	31.51	174	1518	348	0	68	2.1
SV RR243	221	316.2	103	10428	105	0.95	53.58	105	1767	108	16.80	33.06	148	1496	280	0	73	1.9
SV RR244TT	240	312.3	101	10351	105	1.02	52.41	102	1728	105	16.64	33.17	183	1436	333	0	62	2.2
SV RR333	204	310.7	101	11120	112	1.09	51.93	102	1855	113	16.62	35.68	171	1577	351	0	73	1.7
SV RR350	219	297.0	96	9804	99	1.11	47.85	94	1586	96	15.97	33.07	196	1605	356	0	65	1.6
SV RR351	210	321.5	104	9550	96	1.05	55.15	108	1635	100	17.14	29.66	177	1728	279	0	55	0.9
SV RR352	202	320.2	104	9932	100	1.04	54.77	107	1706	104	17.09	30.87	174	1543	337	0	66	1.2
SV RR353	217	310.8	101	10608	107	1.00	51.97	102	1772	108	16.56	34.07	173	1460	307	0	76	2.7
Root Aphid Susc Chk#1	258	318.1	103	9610	97	1.05	54.16	106	1632	99	16.95	30.00	173	1596	312	0	60	2.6
AP CHK MOD RES RR#3	259	301.4	98	9437	95	1.06	49.13	96	1547	94	16.15	31.03	207	1510	328	0	66	1.7
AP CHK SUS HYB#3	260	318.0	103	10688	108	1.06	54.10	106	1818	111	16.97	33.48	217	1466	342	0	74	1.4
BTS 81RR17(Check)	261	301.9	98	9670	98	1.23	49.30	96	1579	96	16.30	32.13	204	1660	434	0	72	2.2
BTS 80RR52(Check)	262	308.0	100	10754	109	1.13	51.14	100	1784	109	16.53	34.80	185	1568	385	0	61	2.4
Crystal 875RR(Check)	263	307.4	100	9770	99	1.23	50.94	100	1620	99	16.59	31.77	242	1692	410	0	62	1.4
Hilleshög 4302RR (Check)	264	315.1	102	9408	95	1.05	53.24	104	1591	97	16.83	29.79	228	1473	336	0	56	1.3
Benchmark Mean		308.1		9901		1.16	51.16		1644		16.56	32.12	215	1598	391		68	2.7
Comm Trial Mean		308.0		10045		1.11	51.12		1665		16.51	32.66	210	1551	369		66	2.7
Coeff. of Var. (%)		4.3		5.1		9.8	8.3		7.8		3.6	4.7	19.9	8.0	18.0		10.4	37
Mean LSD (0.05)		15.7		595		0.13	5.02		151.3		0.70	1.86	48	142	82		8	1.2
Mean LSD (0.01)		20.8		786		0.17	6.63		199.9		0.92	2.46	63	188	108		11	1.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	ns

* 2015 Data from Climax MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158307

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 15. 2015 Performance of All Varieties - ACSC Official Trials

Scandia MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	314.6	101	9863	105	1.23	53.24	102	1668	105	16.93	31.52	320	1544	421	0	73	4.5
BTS 80RR52	123	321.3	103	10004	106	1.30	55.38	106	1722	109	17.34	31.25	235	1638	483	0	77	3.8
BTS 82RR28	107	311.4	100	10128	107	1.37	52.21	100	1702	107	16.94	32.39	286	1672	512	0	73	3.5
BTS 82RR33	103	328.0	105	10860	115	1.06	57.51	110	1901	120	17.47	33.22	277	1519	318	0	77	3.3
BTS 8337	102	342.0	110	10085	107	1.22	61.99	118	1831	116	18.29	29.44	254	1581	433	0	82	4.0
BTS 8363	101	317.9	102	10556	112	1.09	54.27	104	1800	114	16.98	33.22	248	1456	369	0	77	4.4
BTS 8390	121	305.3	98	10572	112	1.24	50.27	96	1742	110	16.49	34.66	323	1693	390	0	78	4.0
BTS 83CN	120	318.4	102	9699	103	1.11	54.44	104	1661	105	17.01	30.40	254	1515	359	0	74	4.4
Crystal 093RR	109	318.3	102	10002	106	1.17	54.42	104	1706	108	17.11	31.40	246	1549	405	63	76	3.4
Crystal 101RR	124	315.3	101	9579	102	1.44	53.47	102	1622	102	17.23	30.27	323	1753	531	0	71	4.4
Crystal 246RR	126	317.6	102	10496	111	1.17	54.20	103	1786	113	17.07	33.05	281	1544	395	0	74	4.1
Crystal 247RR	115	319.9	103	10639	113	1.12	54.94	105	1826	115	17.16	33.20	267	1545	354	0	72	4.9
Crystal 875RR	118	303.0	97	8553	91	1.32	49.55	95	1399	88	16.45	28.22	352	1658	451	0	76	4.5
Crystal 981RR	116	319.1	102	9506	101	1.36	54.66	104	1630	103	17.32	29.77	329	1796	459	0	76	3.9
Crystal 986RR	122	319.6	102	9440	100	1.02	54.84	105	1624	103	17.01	29.40	318	1357	313	0	78	4.0
Hilleshög 4022RR	111	305.3	98	9437	100	1.30	50.26	96	1552	98	16.55	30.99	327	1555	472	0	74	3.1
Hilleshög 4094RR	104	302.1	97	9254	98	1.29	49.24	94	1508	95	16.38	30.70	367	1508	463	0	81	2.9
Hilleshög 4302RR	127	311.5	100	9434	100	1.13	52.25	100	1585	100	16.70	30.28	347	1484	357	0	71	3.9
Hilleshög 4448RR	105	321.3	103	10226	109	1.02	55.37	106	1763	111	17.05	31.87	239	1321	351	0	78	3.7
Hilleshög 9517RR	119	316.7	102	8465	90	1.23	53.92	103	1444	91	17.10	26.56	360	1615	397	0	72	8.0
Hilleshög 9528RR	114	312.3	100	10415	111	1.07	52.52	100	1749	110	16.66	33.55	309	1420	338	0	73	3.6
Maribo 102	106	317.7	102	10793	115	1.02	54.22	103	1842	116	16.88	34.06	278	1339	332	0	78	3.3
SX Winchester RR(832)	108	323.7	104	9066	96	1.04	56.14	107	1572	99	17.20	27.98	245	1455	325	0	78	4.3
SX Yukon RR	125	299.2	96	9214	98	1.16	48.31	92	1491	94	16.12	30.77	336	1493	379	0	77	4.4
SV 36272RR	110	320.3	103	8632	92	1.00	55.06	105	1489	94	17.03	26.86	244	1446	303	0	75	4.6
SV 36273RR	113	302.0	97	8462	90	1.03	49.22	94	1380	87	16.18	27.96	349	1357	314	32	74	5.9
SV RR336	112	301.9	97	8935	95	1.10	49.18	94	1453	92	16.20	29.58	339	1382	364	0	75	5.3
BTS 81RR17(Check)	128	312.1	100	9700	103	1.36	52.45	100	1629	103	16.99	31.01	237	1743	509	0	81	4.7
Experimental Trial (Comm status)																		
BTS 8405	250	323.1	104	10059	107	1.21	55.71	106	1731	109	17.38	30.86	217	1494	465	0	72	2.2
BTS 8408	222	318.5	102	9710	103	1.44	54.34	104	1670	105	17.33	30.14	313	1693	553	0	82	2.3
BTS 8500	235	307.2	98	10530	112	1.29	50.98	97	1743	110	16.63	33.94	256	1602	481	0	83	2.8
BTS 8512	233	311.0	100	10096	107	1.28	52.12	99	1697	107	16.82	32.06	297	1548	475	0	81	1.6
BTS 8524	256	305.5	98	10466	111	1.20	50.46	96	1756	111	16.44	33.87	270	1625	402	0	78	2.1
BTS 8536	229	301.9	97	9303	99	1.47	49.40	94	1534	97	16.51	30.67	303	1706	572	0	79	2.3
BTS 8548	216	314.9	101	10667	113	1.20	53.26	102	1818	115	16.95	33.66	289	1641	395	0	81	1.4
BTS 8560	239	320.2	103	9928	105	1.17	54.84	105	1711	108	17.18	30.93	198	1442	450	0	78	1.9
BTS 8572	207	323.7	104	9540	101	1.26	55.87	107	1646	104	17.44	29.29	218	1458	506	0	87	1.7
BTS 8584	254	320.2	103	9347	99	1.28	54.83	105	1598	101	17.28	29.14	227	1617	477	0	86	1.8
Crystal 355RR	255	320.3	103	9517	101	1.29	54.88	105	1630	103	17.30	29.35	226	1682	471	95	81	3.0
Crystal 359RR	215	294.9	95	10093	107	1.50	47.35	90	1631	103	16.19	33.84	402	1763	553	0	77	1.2
Crystal 467RR	251	308.8	99	10089	107	1.21	51.48	98	1700	107	16.65	32.44	366	1619	385	0	74	2.2
Crystal 572RR	211	322.3	103	9759	104	1.18	55.46	106	1684	106	17.30	30.18	225	1469	443	0	76	2.6
Crystal 573RR	205	324.7	104	10309	109	1.17	56.17	107	1788	113	17.41	31.32	216	1502	427	0	82	2.4
Crystal 574RR	230	313.2	100	10382	110	1.16	52.79	101	1766	111	16.83	33.12	237	1572	400	0	79	1.9
Crystal 575RR	248	314.2	101	10206	108	1.27	53.08	101	1736	110	16.97	32.61	241	1591	469	0	81	2.1
Crystal 576RR	206	309.7	99	9708	103	1.26	51.72	99	1625	103	16.73	31.38	280	1517	467	0	72	1.8
Crystal 577RR	236	308.8	99	10060	107	1.18	51.47	98	1675	106	16.64	32.64	310	1526	405	0	68	1.7
Crystal 578RR	252	313.3	100	10305	109	1.20	52.79	101	1747	110	16.87	32.96	320	1518	412	0	83	1.9
Crystal 579RR	225	308.7	99	9913	105	1.39	51.43	98	1655	105	16.80	31.87	295	1643	538	0	81	1.1
Hilleshög HIL9704	213	305.4	98	9010	96	1.03	50.43	96	1496	94	16.31	29.14	292	1474	307	0	65	1.9
Hilleshög HIL9705	201	301.5	97	9706	103	1.25	49.31	94	1608	102	16.30	32.01	281	1607	433	0	72	1.3
Hilleshög HIL9706	253	313.3	100	11021	117	1.08	52.82	101	1880	119	16.75	34.72	280	1360	370	0	85	1.4
Hilleshög HIL9707	228	303.7	97	8625	92	1.12	49.96	95	1423	90	16.31	28.38	278	1504	369	0	71	1.7
Hilleshög HIL9708	223	318.0	102	9874	105	1.09	54.19	103	1693	107	17.01	30.82	289	1428	363	0	82	1.4
Hilleshög HIL9709	203	313.1	100	8950	95	1.09	52.75	101	1519	96	16.74	28.28	312	1364	367	0	72	1.1
Hilleshög HIL9710	247	295.0	95	8989	95	1.31	47.37	90	1444	91	16.05	30.40	513	1584	420	0	82	2.3
Hilleshög HIL9711	241	303.9	97	9763	104	1.13	50.01	95	1606	101	16.33	31.82	321	1390	395	0	82	2.1
Hilleshög HIL9713	224	308.7	99	8850	94	1.25	51.42	98	1472	93	16.67	28.47	430	1478	421	0	78	2.4
Hilleshög HIL9714	208	288.6	93	9622	102	1.41	45.48	87	1514	96	15.81	33.89	388	1556	543	0	81	1.1
Hilleshög HIL9602	214	296.0	95	9490	101	1.10	47.66	91	1541	97	15.89	31.60	340	1503	333	0	79	1.9
Maribo 109	212	321.1	103	9023	96	1.10	55.12	105	1549	98	17.17	28.02	239	1398	388	0	76	1.2
Maribo 301	218	301.3	97	8747	93	1.30	49.25	94	1434	91	16.35	28.86	420	1614	435	0	79	2.5
Maribo MA305	232	307.2	98	10230	109	1.07	50.99	97	1695	107	16.44	33.14	254	1361	369	0	80	1.5
Maribo 402	246	305.6	98	9227	98	1.05	50.52	96	1527	96	16.34	30.07	271	1471	320	0	86	2.0
Maribo MA500	231	292.9	94	9874	105	1.17	46.76	89	1587	100	15.81	33.84	321	1484	398	0	80	1.2
Maribo MA501	238	305.5	98	9460	100	1.30	50.48	96	1569	99	16.55	30.63	400	1538	462	0	77	2.2
Maribo MA502	249	300.5	96	9840	104	1.19	48.99	93	1623	102	16.20	32.12	362	1618	368	0	84	1.8
Maribo MA503	237	293.1	94	9685	103	0.99	46.81	89	1561	99	15.65	32.33	309	1252	325	0	82	1.4
Maribo MA504	245	310.5	100	10562	112	1.06	51.95	99	1775	112	16.59	33.93	306	1356	347	0	86	1.0
Seedex RR0855	234	301.5	97	9932	105	1.21	49.32	94	1630	103	16.29	33.23	247	1718	392	0	78	1.6
Seedex RR0856	227	328.1	105	10548	112	1.08	57.22	109	1841	116	17.51	31.72	192	1461	379	0	81	1.3
Seedex RR0857	257	314.3	101	9066	96	1.08	53.09	101	1540	97	16.80	28.49	280	1451	348	0	79	2.5
Seedex RR0858	243	319.5	102	9558	101	0.97	54.66	104	1639	104	16.98	29.49	250	1413	284	0	83	1.4
SX Savannah RR(842)	226	319.9	103	9480	101	1.11	54.75	104	1623	102	17.13	29.62	237	1540	367	0	77	2.7
SX Canyon RR(844TT)	220	318.4	102	9780	104	1.12	54.32	104	1667	105	17.06	30.54	238	1497	392	95	75	1.9
SX Cruze RR(846)	209	308.8	99	9708	103	1.13	51.48	98	1626	103	16.57	31.35	265	1454	389	0	75	1.4
SX Terrain RR(848)	244	320.3	103	9879	105	1.15	54.86	105	1709	108	17.17	30.83	262	1553	388	0	71	2.1
SV RR241	242	313.7	101	9426	100	1.12	52.90	101	1593	101	16.81	29.84	241	1515	377	0	82	2.9
SV RR243	221	307.4	99	8982	95	1.16	51.05	97	1500	95	16.54	29.17	272	1484	411	95	82	1.8
SV RR244TT	240	301.5	97	9395	100	1.18	49.31	94	1546	98	16.25	30.52	309	1522	403	0	85	2.2
SV RR333	204	325.2	104	10201	108	1.15	56.33	107	1770	112	17.43	31.25	237	1491	413	0	71	1.9
SV RR350	219	305.7	98	9581	102	1.14	50.56	96	1581	100	16.44	31.29	278	1557	371	0	78	1.8
SV RR351	210	316.2	101	9225	98	1.13	53.65	102	1571	99	16.95	29.15	293	1509	367	0	71	1.6
SV RR352	202	326.8	105	9040	96	1.15	56.80	108	1578	100	17.51	27.73	301	1419	408	0	74	2.1
SV RR353	217	317.7	102	9773	104	1.03	54.10	103	1672	106	16.94	30.62	230	1451	332	0	84	2.1
Root Aphid Susc Chk#1	258	312.2	100	8633	92	1.13	52.48	100	1462	92	16.74	27.35	319	1494	362	0	72	3.8
AP CHK MOD RES RR#3	259	307.7	99	9314	99	1.12	51.14	98	1564	99	16.51	29.95	278	1447	384	0	78	2.5
AP CHK SUS HYB#3	260	310.7	100	8472	90	1.17	52.01	99	1439	91	16.70	26.98	346	1515	387	0	73	1.7
BTS 81RR17(Check)	261	309.7	99	9539	101	1.43	51.71	99	1594	101	16.88	30.96	275	1755	533	0	85	2.2
BTS 80RR52(Check)	262	322.5	103	9803	104	1.32	55.52	106	1691	107	17.44	30.49	243	1670	488	0	77	1.8
Crystal 875RR(Check)	263	309.8	99	9194	98	1.27	51.77	99	1541	97	16.74	29.47	315	1612	439	0	82	2.0
Hilleshög 4302RR (Check)	264	305.9	98	9155	97	1.10	50.62	97	1508	95	16.42	29.83	337	1486	339	0	68	1.7
Benchmark Mean		312.0		9423		1.28	52.41		1584		16.87	30.19	293	1631	450		76	4.2
Comm Trial Mean		314.9		9715		1.18	53.34		1646		16.92	30.84	296	1533	396		76	4.2
Coeff. of Var. (%)		3.9		5.2		7.2	7.3		7.9		3.4	3.9	16.6	4.9	12.1		7.9	45
Mean LSD (0.05)		15.0		632		0.11	4.77		161.9		0.71	1.53	63	90	61		7	2.2
Mean LSD (0.01)		19.8		835		0.14	6.31		214.1		0.94	2.02	83	119	81		9	3.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns	ns

* 2015 Data from Scandia MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158308

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 16. 2015 Performance of All Varieties - ACSC Official Trials

Grand Forks ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	272.3	98	7311	106	1.19	39.72	96	1069	104	14.81	26.89	338	1478	403	0	77	2.6
BTS 80RR52	123	280.6	101	7220	105	1.20	42.38	102	1095	106	15.23	26.00	299	1472	427	0	71	3.7
BTS 82RR28	107	269.1	97	7340	106	1.35	38.72	93	1059	103	14.81	27.54	359	1575	498	0	70	2.5
BTS 82RR33	103	266.8	96	7131	103	1.22	37.96	91	1015	99	14.56	26.73	435	1500	384	0	68	3.9
BTS 8337	102	286.3	103	7034	102	1.14	44.19	106	1081	105	15.45	24.58	302	1489	381	0	75	3.1
BTS 8363	101	268.5	97	7313	106	1.14	38.52	93	1044	102	14.57	27.37	343	1451	374	0	83	4.5
BTS 8390	121	263.7	95	7367	107	1.25	36.99	89	1031	100	14.44	27.83	429	1544	400	0	73	2.8
BTS 83CN	120	272.1	98	7351	106	1.16	39.67	95	1063	103	14.76	27.04	336	1462	386	0	75	2.6
Crystal 093RR	109	287.1	103	7694	111	1.12	44.47	107	1186	115	15.47	27.04	235	1443	402	0	79	3.6
Crystal 101RR	124	278.1	100	7327	106	1.26	41.57	100	1100	107	15.17	26.26	339	1663	414	0	73	3.0
Crystal 246RR	126	256.5	92	6736	98	1.22	34.68	83	909	88	14.05	26.53	424	1424	412	0	69	3.9
Crystal 247RR	115	274.8	99	7413	107	1.15	40.52	98	1086	106	14.89	26.98	339	1497	371	0	75	4.0
Crystal 875RR	118	274.4	99	6529	95	1.33	40.39	97	957	93	15.05	23.73	361	1555	487	0	73	3.8
Crystal 981RR	116	269.5	97	6656	96	1.31	38.82	93	956	93	14.78	24.73	410	1622	430	0	74	3.5
Crystal 986RR	122	274.0	99	7061	102	1.16	40.27	97	1035	101	14.86	25.93	394	1295	407	0	70	3.9
Hilleshög 4022RR	111	258.2	93	5998	87	1.41	35.22	85	814	79	14.32	23.27	451	1509	528	0	79	3.3
Hilleshög 4094RR	104	264.2	95	6346	92	1.40	37.15	89	880	86	14.60	24.26	458	1467	526	0	68	2.9
Hilleshög 4302RR	127	285.9	103	6702	97	1.11	44.08	106	1028	100	15.40	23.30	333	1373	365	0	60	3.3
Hilleshög 4448RR	105	281.8	101	7100	103	1.08	42.75	103	1071	104	15.17	25.29	251	1335	393	0	88	2.6
Hilleshög 9517RR	119	281.8	101	5781	84	1.39	42.75	103	876	85	15.48	20.55	420	1545	514	0	75	4.5
Hilleshög 9528RR	114	285.5	103	7273	105	1.05	43.95	106	1120	109	15.33	25.70	279	1318	364	0	79	2.9
Maribo 102	106	282.7	102	7577	110	1.06	43.04	104	1157	113	15.20	26.58	284	1345	363	0	80	3.4
SX Winchester RR(832)	108	282.9	102	6314	91	1.13	43.11	104	964	94	15.28	22.41	318	1476	368	0	72	4.2
SX Yukon RR	125	275.8	99	6518	94	1.08	40.85	98	961	93	14.87	23.91	297	1369	363	0	75	3.4
SV 36272RR	110	288.4	104	5686	82	1.08	44.87	108	882	86	15.50	19.64	269	1424	364	0	50	3.8
SV 36273RR	113	269.1	97	5982	87	1.22	38.70	93	853	83	14.68	22.16	365	1435	433	0	59	3.4
SV RR336	112	281.0	101	6386	93	1.12	42.52	102	960	93	15.17	22.61	294	1393	389	0	65	3.4
BTS 81RR17(Check)	128	271.1	98	7161	104	1.22	39.33	95	1033	100	14.77	26.52	300	1589	419	0	76	3.7
Experimental Trial (Comm status)																		
BTS 8405	250	287.5	103	7806	113	1.05	44.45	107	1208	117	15.46	27.09	203	1338	382	0	66	1.9
BTS 8408	222	271.0	97	6300	91	1.47	39.43	95	913	89	14.99	23.42	395	1636	566	0	56	3.1
BTS 8500	235	281.0	101	8052	117	1.10	42.45	102	1221	119	15.18	28.45	257	1431	382	0	66	2.5
BTS 8512	233	279.2	100	7550	109	1.18	41.91	101	1134	110	15.15	26.87	263	1481	422	0	66	2.1
BTS 8524	256	269.1	97	7882	114	1.24	38.86	94	1145	111	14.70	28.90	290	1625	416	0	71	2.6
BTS 8536	229	263.9	95	7325	106	1.39	37.26	90	1034	101	14.54	27.67	354	1605	518	0	73	2.9
BTS 8548	216	283.3	102	7998	116	1.15	43.16	104	1221	119	15.33	27.98	304	1547	362	0	59	2.0
BTS 8560	239	281.5	101	7426	108	1.17	42.63	103	1132	110	15.24	26.30	238	1454	432	0	63	2.0
BTS 8572	207	292.8	105	8166	118	1.07	46.03	111	1289	125	15.75	27.61	203	1347	399	0	76	1.6
BTS 8584	254	289.8	104	7707	112	1.14	45.13	109	1208	117	15.64	26.31	207	1459	412	0	75	1.7
Crystal 355RR	255	286.1	103	7248	105	1.19	44.02	106	1116	109	15.51	25.15	286	1478	429	0	72	3.0
Crystal 359RR	215	259.5	93	6306	91	1.30	35.93	86	882	86	14.25	24.04	376	1553	453	0	58	2.2
Crystal 467RR	251	273.7	98	7506	109	1.22	40.23	97	1092	106	14.90	27.61	388	1559	383	0	62	1.7
Crystal 572RR	211	295.7	106	7961	115	1.05	46.93	113	1262	123	15.85	27.23	181	1362	381	0	73	2.9
Crystal 573RR	205	286.9	103	7524	109	1.14	44.24	106	1157	113	15.48	26.45	271	1411	404	0	82	2.4
Crystal 574RR	230	282.4	102	8977	130	1.14	42.89	103	1362	132	15.27	31.81	248	1445	401	0	73	2.3
Crystal 575RR	248	276.2	99	7741	112	1.15	40.99	99	1157	113	14.96	27.81	272	1495	385	0	63	2.4
Crystal 576RR	206	286.2	103	7459	108	1.16	44.02	106	1143	111	15.47	26.28	283	1522	382	0	71	2.4
Crystal 577RR	236	270.5	97	7261	105	1.15	39.26	95	1053	102	14.68	26.64	328	1483	365	0	55	1.9
Crystal 578RR	252	280.0	101	7423	108	1.10	42.17	101	1121	109	15.12	26.39	289	1462	356	0	72	5.8
Crystal 579RR	225	278.7	100	7194	104	1.20	41.77	101	1073	104	15.16	25.75	306	1515	422	0	73	2.2
Hilleshög HIL9704	213	281.6	101	6978	101	1.06	42.65	103	1051	102	15.18	24.80	300	1384	343	0	48	2.0
Hilleshög HIL9705	201	249.7	90	5595	81	1.30	32.96	79	723	70	13.77	22.62	408	1451	478	0	64	1.6
Hilleshög HIL9706	253	283.7	102	7763	112	1.08	43.27	104	1189	116	15.30	27.17	244	1332	396	0	81	1.6
Hilleshög HIL9707	228	277.9	100	6543	95	1.08	41.53	100	976	95	15.00	23.54	257	1366	384	0	62	1.9
Hilleshög HIL9708	223	280.5	101	6711	97	1.14	42.30	102	1017	99	15.16	23.89	284	1395	405	0	66	1.0
Hilleshög HIL9709	203	279.7	101	6307	91	1.13	42.08	101	943	92	15.13	22.49	291	1397	390	0	63	1.4
Hilleshög HIL9710	247	283.7	102	6530	95	1.17	43.28	104	1000	97	15.34	23.22	358	1484	375	0	64	4.0
Hilleshög HIL9711	241	281.1	101	6803	99	1.07	42.51	102	1028	100	15.16	24.32	261	1374	372	0	64	1.5
Hilleshög HIL9713	224	265.2	95	5931	86	1.39	37.67	91	846	82	14.61	22.48	473	1447	523	0	51	2.3
Hilleshög HIL9714	208	265.4	95	7261	105	1.17	37.73	91	1029	100	14.44	27.33	343	1466	386	0	67	1.5
Hilleshög HIL9602	214	273.6	98	7125	103	1.14	40.23	97	1052	102	14.81	26.02	302	1417	393	0	63	2.1
Maribo 109	212	294.9	106	6496	94	1.14	46.68	112	1023	100	15.89	22.09	237	1409	417	0	60	2.3
Maribo 301	218	277.0	100	6682	97	1.35	41.23	99	1001	97	15.18	24.02	357	1501	519	0	68	1.5
Maribo MA305	232	266.6	96	6481	94	0.99	38.08	92	929	90	14.35	24.28	265	1262	341	0	63	1.6
Maribo 402	246	281.4	101	6556	95	1.07	42.58	102	986	96	15.16	23.42	271	1395	355	0	67	2.0
Maribo MA500	231	264.5	95	6797	98	1.08	37.45	90	962	94	14.30	25.81	338	1310	358	0	71	1.5
Maribo MA501	238	277.0	100	6667	97	1.16	41.26	99	995	97	15.01	24.18	325	1418	403	0	62	2.4
Maribo MA502	249	277.0	100	6946	101	1.20	41.21	99	1035	101	15.05	24.93	351	1446	420	0	71	2.6
Maribo MA503	237	267.9	96	7142	103	1.06	38.48	93	1023	100	14.47	26.62	317	1240	373	0	68	2.0
Maribo MA504	245	279.0	100	7881	114	1.08	41.88	101	1180	115	15.04	28.36	282	1340	378	0	72	1.5
Seedex RR0855	234	271.5	98	7311	106	1.16	39.58	95	1060	103	14.73	27.23	255	1546	389	0	55	1.6
Seedex RR0856	227	288.3	104	8574	124	1.04	44.68	108	1337	130	15.48	29.38	230	1440	328	0	73	2.1
Seedex RR0857	257	281.8	101	6686	97	1.14	42.69	103	1013	98	15.23	23.77	297	1505	368	0	59	1.9
Seedex RR0858	243	289.8	104	6918	100	1.03	45.15	109	1078	105	15.57	23.59	254	1383	331	0	69	3.3
SX Savannah RR(842)	226	279.3	100	6927	100	1.14	41.96	101	1041	101	15.13	24.67	298	1502	374	0	56	2.4
SX Canyon RR(844TT)	220	279.9	101	7597	110	1.13	42.11	101	1141	111	15.12	27.29	306	1442	370	0	62	2.2
SX Cruze RR(846)	209	271.4	98	7107	103	1.14	39.55	95	1036	101	14.71	26.06	295	1399	393	0	58	2.2
SX Terrain RR(848)	244	279.1	100	7749	112	1.17	41.89	101	1169	114	15.13	27.54	355	1413	398	0	60	2.2
SV RR241	242	286.9	103	7159	104	1.05	44.23	106	1107	108	15.42	24.82	225	1402	353	0	71	2.5
SV RR243	221	288.5	104	6889	100	1.09	44.73	108	1071	104	15.54	23.81	257	1477	355	0	64	2.7
SV RR244TT	240	285.7	103	7527	109	1.10	43.91	106	1161	113	15.40	26.25	256	1459	364	0	65	2.4
SV RR333	204	295.5	106	8047	117	1.05	46.84	113	1271	124	15.84	27.48	196	1414	358	0	71	2.3
SV RR350	219	285.1	103	7205	104	1.10	43.70	105	1109	108	15.38	25.11	242	1567	348	0	56	4.6
SV RR351	210	291.3	105	7013	102	1.04	45.56	110	1097	107	15.63	23.92	237	1477	321	0	60	1.5
SV RR352	202	291.5	105	5934	86	1.10	45.63	110	938	91	15.67	20.39	304	1354	374	0	64	1.8
SV RR353	217	288.0	104	7627	110	1.07	44.59	107	1174	114	15.49	26.68	246	1450	350	0	70	3.0
Root Aphid Susc Chk#1	258	277.3	100	6566	95	1.16	41.34	100	975	95	15.03	23.70	266	1555	375	0	66	2.4
AP CHK MOD RES RR#3	259	276.7	100	6954	101	1.04	41.14	99	1027	100	14.90	25.18	283	1402	323	0	66	2.6
AP CHK SUS HYB#3	260	281.1	101	7477	108	1.18	42.51	102	1126	110	15.24	26.72	351	1385	419	0	68	2.0
BTS 81RR17(Check)	261	276.6	99	7277	105	1.30	41.11	99	1080	105	15.11	26.44	302	1561	487	0	67	2.8
BTS 80RR52(Check)	262	281.6	101	7387	107	1.18	42.66	103	1117	109	15.27	26.18	289	1582	384	0	63	2.3
Crystal 875RR(Check)	263	274.8	99	6675	97	1.26	40.55	98	983	96	14.99	24.28	348	1482	453	0	73	3.0
Hilleshög 4302RR (Check)	264	279.0	100	6272	91	1.12	41.87	101	934	91	15.08	22.64	354	1364	372	0	48	2.1
Benchmark Mean		278.0		6903		1.22	41.55		1028		15.11	24.89	323	1497	424		70	3.6
Comm Trial Mean		275.1		6868		1.20	40.61		1010		14.95	25.05	345	1466	413		73	3.4
Coeff. of Var. (%)		3.8		6.2		7.0	8.2		9.7		3.2	5.0	19.9	4.6	11.7		11.5	30
Mean LSD (0.05)		13.4		526		0.11	4.28		123.5		0.61	1.60	87	82	62		10	1.2
Mean LSD (0.01)		17.8		695		0.14	5.67		163.3		0.81	2.12	116	109	82		13	1.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	*

* 2015 Data from Grand Forks ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158309

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 17. 2015 Performance of All Varieties - ACSC Official Trials

Alvarado MN

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	282.5	101	9588	106	1.25	42.99	102	1459	107	15.38	33.99	258	1596	453	0	76	7.7
BTS 80RR52	123	287.5	103	9767	108	1.34	44.57	106	1513	111	15.73	34.01	207	1643	523	0	72	7.5
BTS 82RR28	107	282.5	101	9487	105	1.47	42.98	102	1439	106	15.57	33.70	268	1735	577	0	67	4.4
BTS 82RR33	103	279.6	100	9588	106	1.31	42.07	100	1443	106	15.32	34.33	338	1741	431	0	75	7.4
BTS 8337	102	304.2	109	9613	106	1.19	49.91	118	1574	116	16.37	31.68	194	1525	443	0	74	6.1
BTS 8363	101	276.0	99	9668	107	1.35	40.92	97	1436	105	15.16	35.03	320	1624	497	0	79	6.9
BTS 8390	121	266.9	95	9555	106	1.51	38.01	90	1361	100	14.86	35.81	405	1802	543	0	71	6.3
BTS 83CN	120	275.9	99	9437	104	1.26	40.88	97	1399	103	15.05	34.23	283	1580	452	0	72	5.8
Crystal 093RR	109	287.2	103	9445	104	1.27	44.48	106	1464	107	15.67	32.81	223	1571	487	0	72	6.5
Crystal 101RR	124	285.1	102	8901	98	1.51	43.82	104	1367	100	15.76	31.25	303	1837	567	0	64	6.9
Crystal 246RR	126	270.7	97	9629	106	1.31	39.22	93	1391	102	14.83	35.60	304	1625	474	0	78	6.9
Crystal 247RR	115	279.5	100	10135	112	1.31	42.04	100	1527	112	15.30	36.17	334	1688	444	0	74	5.1
Crystal 875RR	118	273.0	98	8578	95	1.54	39.97	95	1255	92	15.20	31.45	375	1617	628	0	75	7.5
Crystal 981RR	116	278.5	99	8925	99	1.50	41.71	99	1336	98	15.43	32.09	316	1792	564	0	77	8.6
Crystal 986RR	122	294.6	105	9007	100	1.23	46.85	111	1430	105	15.97	30.66	274	1406	474	0	66	7.3
Hilleshög 4022RR	111	278.5	99	8480	94	1.47	41.70	99	1269	93	15.39	30.42	343	1702	558	0	71	5.9
Hilleshög 4094RR	104	269.8	96	8480	94	1.47	38.93	92	1224	90	14.95	31.35	371	1669	558	0	76	6.1
Hilleshög 4302RR	127	285.3	102	8774	97	1.36	43.88	104	1349	99	15.62	30.76	362	1673	476	0	64	5.5
Hilleshög 4448RR	105	285.3	102	9877	109	1.16	43.89	104	1516	111	15.42	34.58	234	1393	442	0	75	5.3
Hilleshög 9517RR	119	274.3	98	8030	89	1.52	40.36	96	1182	87	15.24	29.22	408	1792	554	0	70	6.8
Hilleshög 9528RR	114	293.8	105	9971	110	1.19	46.60	111	1583	116	15.88	33.93	249	1562	417	0	71	6.3
Maribo 102	106	299.7	107	10302	114	1.07	48.49	115	1667	122	16.05	34.31	180	1420	382	0	74	5.0
SX Winchester RR(832)	108	290.3	104	8696	96	1.20	45.49	108	1361	100	15.69	29.98	215	1590	426	0	70	6.0
SX Yukon RR	125	255.7	91	8433	93	1.26	34.42	82	1130	83	14.00	33.08	308	1498	460	0	74	7.7
SV 36272RR	110	284.8	102	8579	95	1.17	43.73	104	1318	97	15.46	30.15	244	1580	401	0	70	5.8
SV 36273RR	113	273.0	98	8345	92	1.18	39.96	95	1222	90	14.82	30.53	327	1477	404	0	68	7.7
SV RR336	112	274.3	98	8202	91	1.31	40.37	96	1207	89	15.00	29.89	359	1581	465	0	77	8.7
BTS 81RR17(Check)	128	273.8	98	9088	100	1.51	40.21	95	1332	98	15.18	33.33	277	1736	604	0	83	7.8
Experimental Trial (Comm status)																		
BTS 8405	250	287.9	103	9258	102	1.36	44.48	106	1431	105	15.74	32.22	251	1540	542	0	71	5.2
BTS 8408	222	291.7	104	9246	102	1.65	45.55	108	1441	106	16.20	31.83	346	1765	689	0	74	5.1
BTS 8500	235	280.2	100	10266	113	1.39	42.25	100	1547	114	15.40	36.66	291	1657	523	0	77	4.3
BTS 8512	233	288.2	103	9685	107	1.34	44.57	106	1499	110	15.79	33.61	259	1613	504	0	81	5.2
BTS 8524	256	276.9	99	10525	116	1.42	41.26	98	1569	115	15.25	38.09	280	1729	532	0	77	6.8
BTS 8536	229	267.4	96	8915	98	1.64	38.53	91	1286	94	14.94	33.35	353	1705	692	0	83	6.6
BTS 8548	216	283.8	101	9911	109	1.45	43.27	103	1511	111	15.68	34.92	383	1756	523	0	69	4.2
BTS 8560	239	290.8	104	9453	104	1.32	45.30	107	1476	108	15.86	32.49	254	1531	513	0	72	4.6
BTS 8572	207	294.2	105	9371	104	1.33	46.31	110	1475	108	16.07	31.91	257	1578	505	0	78	4.5
BTS 8584	254	282.1	101	9377	104	1.39	42.81	102	1423	104	15.50	33.27	223	1665	540	0	77	4.8
Crystal 355RR	255	284.4	102	8760	97	1.50	43.46	103	1340	98	15.71	30.77	312	1706	595	0	81	4.8
Crystal 359RR	215	272.9	98	9881	109	1.62	40.13	95	1454	107	15.19	36.23	399	1775	641	0	73	3.4
Crystal 467RR	251	277.7	99	10349	114	1.35	41.50	98	1550	114	15.22	37.25	339	1732	456	0	74	5.8
Crystal 572RR	211	294.7	105	9598	106	1.30	46.42	110	1513	111	16.07	32.58	235	1552	501	0	81	6.0
Crystal 573RR	205	286.5	102	9549	105	1.33	44.07	105	1469	108	15.69	33.34	261	1540	519	0	82	4.3
Crystal 574RR	230	283.2	101	9980	110	1.39	43.11	102	1517	111	15.58	35.29	302	1615	537	0	75	3.5
Crystal 575RR	248	279.6	100	10449	115	1.51	42.05	100	1569	115	15.47	37.49	317	1735	590	0	80	6.0
Crystal 576RR	206	282.5	101	9276	102	1.48	42.91	102	1408	103	15.61	32.88	317	1615	603	0	77	4.0
Crystal 577RR	236	282.2	101	9822	109	1.33	42.81	102	1492	110	15.43	34.81	307	1687	459	0	69	4.9
Crystal 578RR	252	285.5	102	10223	113	1.33	43.79	104	1565	115	15.64	35.87	299	1561	504	0	75	6.0
Crystal 579RR	225	277.0	99	9486	105	1.50	41.34	98	1417	104	15.31	34.24	308	1798	570	0	74	4.7
Hilleshög HIL9704	213	284.9	102	8996	99	1.30	43.60	103	1375	101	15.57	31.66	352	1637	437	0	61	3.7
Hilleshög HIL9705	201	270.0	96	9018	100	1.57	39.29	93	1311	96	15.03	33.44	397	1673	635	0	68	2.7
Hilleshög HIL9706	253	288.5	103	10105	112	1.32	44.65	106	1562	115	15.77	35.11	297	1432	527	0	86	4.3
Hilleshög HIL9707	228	289.2	103	8920	99	1.30	44.85	106	1383	101	15.81	30.87	285	1584	479	0	74	4.6
Hilleshög HIL9708	223	288.0	103	8756	97	1.26	44.52	106	1357	100	15.69	30.34	309	1495	459	0	76	6.4
Hilleshög HIL9709	203	287.9	103	8750	97	1.33	44.47	105	1352	99	15.76	30.43	347	1557	487	0	82	4.1
Hilleshög HIL9710	247	274.7	98	8715	96	1.48	40.63	96	1292	95	15.18	31.71	522	1692	514	0	70	4.9
Hilleshög HIL9711	241	288.0	103	9563	106	1.29	44.51	106	1477	108	15.72	33.28	282	1490	500	0	77	4.7
Hilleshög HIL9713	224	272.2	97	8172	90	1.57	39.93	95	1203	88	15.14	29.97	504	1624	623	0	69	5.5
Hilleshög HIL9714	208	275.4	98	9633	106	1.56	40.86	97	1429	105	15.30	34.99	331	1675	645	0	84	4.6
Hilleshög HIL9602	214	273.1	98	9389	104	1.30	40.18	95	1382	101	14.97	34.44	358	1589	453	0	75	4.8
Maribo 109	212	298.3	107	8324	92	1.25	47.49	113	1328	97	16.20	27.84	269	1467	476	0	67	4.9
Maribo 301	218	285.9	102	8916	99	1.37	43.90	104	1372	101	15.69	31.13	375	1588	508	0	70	6.3
Maribo MA305	232	276.4	99	9646	107	1.26	41.14	98	1434	105	15.10	35.00	300	1455	475	0	72	3.0
Maribo 402	246	277.9	99	9454	104	1.35	41.57	99	1416	104	15.23	34.04	372	1566	491	0	83	5.5
Maribo MA500	231	273.9	98	9477	105	1.41	40.44	96	1401	103	15.11	34.60	303	1641	544	0	75	3.9
Maribo MA501	238	279.5	100	9000	99	1.49	42.04	100	1356	100	15.44	32.21	394	1650	573	0	73	4.6
Maribo MA502	249	279.9	100	9491	105	1.52	42.17	100	1432	105	15.45	33.93	437	1774	555	0	79	3.9
Maribo MA503	237	277.9	99	8780	97	1.23	41.56	99	1315	97	15.17	31.57	353	1389	472	0	77	3.3
Maribo MA504	245	294.0	105	10877	120	1.21	46.25	110	1711	126	15.96	37.04	287	1457	448	0	84	4.2
Seedex RR0855	234	273.0	98	9192	102	1.47	40.16	95	1353	99	15.09	33.73	298	1719	564	0	71	3.7
Seedex RR0856	227	294.9	105	9955	110	1.26	46.52	110	1569	115	16.05	33.83	257	1574	451	0	77	4.4
Seedex RR0857	257	286.5	102	7872	87	1.27	44.05	104	1213	89	15.63	27.45	300	1605	442	0	67	5.5
Seedex RR0858	243	299.4	107	9151	101	1.22	47.81	113	1458	107	16.28	30.67	340	1562	415	0	82	5.7
SX Savannah RR(842)	226	283.9	101	9207	102	1.34	43.33	103	1405	103	15.57	32.41	348	1666	467	0	61	5.1
SX Canyon RR(844TT)	220	277.9	99	9219	102	1.35	41.59	99	1378	101	15.27	33.24	354	1582	493	0	74	4.2
SX Cruze RR(846)	209	279.9	100	9981	110	1.35	42.16	100	1506	111	15.33	35.69	274	1568	524	0	69	4.2
SX Terrain RR(848)	244	283.9	101	9316	103	1.27	43.29	103	1423	104	15.49	32.79	280	1593	455	0	66	5.2
SV RR241	242	291.6	104	8817	97	1.20	45.54	108	1376	101	15.87	30.26	260	1505	434	0	75	5.3
SV RR243	221	288.6	103	8925	99	1.30	44.66	106	1378	101	15.77	31.05	262	1618	479	0	70	5.4
SV RR244TT	240	282.4	101	9271	102	1.39	42.88	102	1405	103	15.50	32.97	287	1621	528	0	72	5.2
SV RR333	204	284.1	102	9434	104	1.33	43.38	103	1438	106	15.55	33.29	273	1591	497	0	73	4.6
SV RR350	219	274.0	98	9230	102	1.41	40.45	96	1363	100	15.07	33.75	276	1736	519	0	75	4.1
SV RR351	210	288.6	103	9383	104	1.27	44.68	106	1453	107	15.72	32.53	311	1563	449	0	66	5.4
SV RR352	202	286.5	102	8816	97	1.36	44.07	105	1359	100	15.66	30.82	360	1617	493	0	72	4.4
SV RR353	217	282.1	101	8896	98	1.28	42.81	102	1350	99	15.42	31.56	240	1585	475	0	72	7.1
Root Aphid Susc Chk#1	258	280.8	100	8465	94	1.28	42.40	101	1282	94	15.36	30.05	322	1538	463	0	64	5.7
AP CHK MOD RES RR#3	259	291.2	104	8491	94	1.20	45.43	108	1324	97	15.81	29.25	219	1496	444	0	75	4.2
AP CHK SUS HYB#3	260	288.6	103	8843	98	1.36	44.66	106	1371	101	15.78	30.66	365	1594	499	0	69	5.8
BTS 81RR17(Check)	261	280.1	100	9135	101	1.50	42.22	100	1375	101	15.50	32.66	252	1795	585	0	79	6.1
BTS 80RR52(Check)	262	282.8	101	9310	103	1.40	43.00	102	1413	104	15.54	33.02	259	1626	550	0	73	7.2
Crystal 875RR(Check)	263	275.9	99	8926	99	1.51	41.00	97	1326	97	15.30	32.37	338	1685	608	0	80	6.8
Hilleshög 4302RR (Check)	264	280.8	100	8836	98	1.34	42.42	101	1335	98	15.40	31.50	371	1562	487	0	72	4.7
Benchmark Mean		279.9		9052		1.44	42.16		1362		15.43	32.39	305	1667	558		73	7.1
Comm Trial Mean		280.8		9164		1.33	42.44		1384		15.37	32.66	296	1623	489		73	6.6
Coeff. of Var. (%)		3.8		4.9		8.0	8.1		8.5		3.5	3.7	18.5	5.5	12.3		8.7	28
Mean LSD (0.05)		14.7		613		0.15	4.68		160.0		0.73	1.65	76	124	84		8	2.4
Mean LSD (0.01)		19.4		812		0.19	6.20		211.9		0.96	2.19	101	164	111		11	3.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	*

* 2015 Data from Alvarado MN Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158310

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 18. 2015 Performance of All Varieties - ACSC Official Trials

St. Thomas ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	298.3	99	8526	109	1.29	48.04	98	1368	107	16.20	28.69	404	1597	426	0	75	2.3
BTS 80RR52	123	299.3	99	8118	103	1.25	48.34	98	1303	102	16.22	26.99	339	1633	404	0	70	3.8
BTS 82RR28	107	295.5	98	8045	102	1.32	47.13	96	1292	101	16.09	26.92	355	1691	445	0	65	2.9
BTS 82RR33	103	306.6	102	8580	109	1.19	50.67	103	1417	111	16.52	28.02	361	1638	356	0	68	2.7
BTS 8337	102	319.3	106	7825	100	1.18	54.72	111	1344	105	17.14	24.41	340	1564	373	32	79	3.5
BTS 8363	101	297.8	99	8728	111	1.16	47.88	97	1400	110	16.05	29.34	348	1538	358	0	77	3.1
BTS 8390	121	292.0	97	8660	110	1.20	46.02	93	1367	107	15.80	29.68	369	1644	363	0	71	2.6
BTS 83CN	120	303.3	100	8066	103	1.15	49.62	101	1316	103	16.31	26.78	355	1586	343	0	73	2.9
Crystal 093RR	109	321.8	107	8092	103	1.13	55.53	113	1407	110	17.22	24.86	273	1533	368	0	76	4.7
Crystal 101RR	124	296.3	98	7744	99	1.30	47.39	96	1239	97	16.12	25.98	382	1766	397	0	64	3.5
Crystal 246RR	126	294.1	97	7902	101	1.27	46.69	95	1260	99	15.97	26.74	409	1565	413	0	71	4.8
Crystal 247RR	115	313.5	104	8895	113	1.14	52.88	107	1500	117	16.82	28.41	303	1606	346	0	72	3.1
Crystal 875RR	118	303.2	100	7715	98	1.36	49.59	101	1261	99	16.51	25.76	385	1648	474	0	78	3.9
Crystal 981RR	116	298.9	99	7878	100	1.33	48.21	98	1266	99	16.28	26.41	413	1773	407	0	72	3.4
Crystal 986RR	122	311.1	103	7604	97	1.17	52.12	106	1272	100	16.72	24.38	382	1517	360	0	74	4.5
Hilleshög 4022RR	111	304.2	101	7052	90	1.32	49.91	101	1157	91	16.52	23.25	396	1768	402	0	71	2.7
Hilleshög 4094RR	104	298.7	99	7156	91	1.28	48.15	98	1158	91	16.21	23.94	381	1670	412	0	73	2.8
Hilleshög 4302RR	127	308.7	102	7884	100	1.16	51.36	104	1317	103	16.60	25.47	369	1534	360	0	66	2.8
Hilleshög 4448RR	105	324.8	108	9028	115	1.11	56.49	115	1561	122	17.35	27.89	287	1487	351	0	79	2.0
Hilleshög 9517RR	119	318.6	105	6978	89	1.26	54.52	111	1196	94	17.19	21.88	387	1679	393	0	69	3.6
Hilleshög 9528RR	114	327.3	108	8810	112	1.12	57.28	116	1536	120	17.49	26.93	302	1553	346	0	74	2.7
Maribo 102	106	323.4	107	8960	114	1.05	56.04	114	1558	122	17.22	27.66	250	1417	345	0	81	3.0
SX Winchester RR(832)	108	307.7	102	7051	90	1.17	51.03	104	1171	92	16.55	23.01	366	1617	339	0	76	3.2
SX Yukon RR	125	295.1	98	7684	98	1.16	47.00	95	1219	95	15.91	26.18	346	1557	359	0	77	3.5
SV 36272RR	110	319.4	106	6802	87	1.08	54.76	111	1167	91	17.04	21.46	279	1562	323	0	60	4.2
SV 36273RR	113	313.9	104	7495	95	1.09	53.01	108	1262	99	16.78	23.96	296	1559	328	0	62	3.1
SV RR336	112	313.9	104	7692	98	1.12	53.00	108	1293	101	16.82	24.48	308	1564	344	0	73	4.2
BTS 81RR17(Check)	128	297.0	98	7688	98	1.27	47.62	97	1230	96	16.12	26.11	332	1663	422	0	83	4.2
Experimental Trial (Comm status)																		
BTS 8405	250	315.6	104	7553	96	1.06	53.65	109	1283	100	16.85	24.03	234	1390	365	0	67	3.7
BTS 8408	222	295.1	98	7285	93	1.45	46.96	95	1162	91	16.20	24.79	412	1703	528	0	68	5.6
BTS 8500	235	312.6	103	8571	109	1.12	52.68	107	1442	113	16.76	27.46	276	1535	357	0	69	2.5
BTS 8512	233	318.5	105	8880	113	1.16	54.58	111	1516	119	17.09	28.11	274	1628	363	0	74	2.8
BTS 8524	256	294.7	98	8472	108	1.33	46.81	95	1347	105	16.05	28.85	417	1722	424	0	75	4.0
BTS 8536	229	282.6	94	7517	96	1.37	42.89	87	1144	90	15.50	26.70	406	1633	482	0	77	3.9
BTS 8548	216	305.2	101	7871	100	1.18	50.25	102	1288	101	16.45	25.98	446	1569	339	0	65	2.4
BTS 8560	239	312.3	103	8131	104	1.20	52.56	107	1372	107	16.82	26.03	290	1556	410	0	69	2.5
BTS 8572	207	317.4	105	8222	105	1.14	54.24	110	1399	110	17.01	26.08	268	1471	385	0	74	3.5
BTS 8584	254	328.9	109	8212	105	1.23	57.96	118	1442	113	17.68	25.22	275	1605	421	0	73	3.7
Crystal 355RR	255	307.1	102	7550	96	1.34	50.87	103	1247	98	16.68	24.87	326	1677	468	0	79	3.9
Crystal 359RR	215	303.7	101	7756	99	1.24	49.78	101	1268	99	16.43	25.67	350	1692	381	0	67	3.6
Crystal 467RR	251	303.1	100	8470	108	1.16	49.59	101	1385	108	16.32	27.98	455	1520	328	0	67	2.7
Crystal 572RR	211	324.1	107	8282	105	1.07	56.43	115	1436	112	17.29	25.71	216	1461	356	0	76	4.1
Crystal 573RR	205	316.8	105	8021	102	1.10	54.03	110	1370	107	16.95	25.32	316	1445	357	0	75	4.5
Crystal 574RR	230	303.9	101	8843	113	1.21	49.85	101	1440	113	16.42	29.28	347	1560	401	0	81	3.8
Crystal 575RR	248	299.7	99	8498	108	1.20	48.46	98	1377	108	16.18	28.49	296	1576	399	0	74	3.2
Crystal 576RR	206	309.5	102	8312	106	1.29	51.68	105	1382	108	16.78	26.97	388	1627	429	0	75	2.9
Crystal 577RR	236	300.0	99	8107	103	1.17	48.55	99	1313	103	16.17	27.07	369	1574	354	0	62	2.2
Crystal 578RR	252	316.4	105	8498	108	1.08	53.90	109	1448	113	16.91	26.95	291	1613	305	0	79	3.2
Crystal 579RR	225	298.3	99	7862	100	1.42	48.02	98	1261	99	16.34	26.48	384	1674	514	0	78	2.2
Hilleshög HIL9704	213	315.4	104	7049	90	1.25	53.56	109	1198	94	17.02	22.32	315	1621	425	0	54	6.0
Hilleshög HIL9705	201	275.4	91	6283	80	1.29	40.55	82	934	73	15.07	22.57	461	1546	432	0	64	3.5
Hilleshög HIL9706	253	326.1	108	9019	115	1.04	57.04	116	1581	124	17.35	27.86	281	1367	342	0	79	1.6
Hilleshög HIL9707	228	307.3	102	7198	92	1.24	50.93	103	1195	94	16.60	23.56	334	1633	401	0	60	2.0
Hilleshög HIL9708	223	313.8	104	7471	95	1.13	53.06	108	1262	99	16.82	23.98	329	1467	360	0	72	2.1
Hilleshög HIL9709	203	314.4	104	7411	94	1.17	53.26	108	1257	98	16.89	23.65	314	1566	370	0	64	2.2
Hilleshög HIL9710	247	285.9	95	6355	81	1.27	43.98	89	980	77	15.56	22.15	516	1470	404	0	65	3.1
Hilleshög HIL9711	241	319.4	106	7774	99	1.10	54.88	111	1336	105	17.08	24.39	329	1511	335	0	68	2.8
Hilleshög HIL9713	224	309.0	102	6351	81	1.32	51.50	105	1064	83	16.77	20.33	509	1549	422	0	60	3.2
Hilleshög HIL9714	208	297.0	98	7683	98	1.43	47.61	97	1233	97	16.28	25.97	446	1740	488	0	81	2.2
Hilleshög HIL9602	214	307.8	102	7808	99	1.13	51.11	104	1291	101	16.52	25.57	372	1458	345	0	71	2.7
Maribo 109	212	334.9	111	6831	87	1.16	59.94	122	1224	96	17.91	20.37	276	1505	391	0	68	2.8
Maribo 301	218	313.8	104	7380	94	1.26	53.08	108	1250	98	16.96	23.60	405	1626	402	95	74	2.9
Maribo MA305	232	297.2	98	6877	88	1.08	47.66	97	1098	86	15.95	23.38	291	1383	364	0	73	2.6
Maribo 402	246	299.3	99	7539	96	1.14	48.36	98	1220	95	16.10	25.20	408	1492	337	0	82	2.8
Maribo MA500	231	307.3	102	8518	108	1.19	50.92	103	1415	111	16.55	27.72	321	1522	399	0	72	2.1
Maribo MA501	238	300.7	100	7594	97	1.30	48.78	99	1232	96	16.34	25.23	389	1598	447	0	68	2.6
Maribo MA502	249	312.7	104	8253	105	1.34	52.69	107	1390	109	16.97	26.53	340	1696	461	0	77	2.9
Maribo MA503	237	308.7	102	7842	100	1.07	51.42	104	1309	102	16.52	25.27	317	1402	342	0	77	2.1
Maribo MA504	245	318.3	105	8851	113	1.20	54.52	111	1517	119	17.11	27.93	394	1498	392	0	72	1.7
Seedex RR0855	234	296.2	98	7334	93	1.15	47.33	96	1176	92	15.96	24.93	274	1674	349	0	61	3.5
Seedex RR0856	227	310.8	103	8517	108	1.16	52.07	106	1419	111	16.70	27.73	314	1487	389	0	71	2.8
Seedex RR0857	257	316.2	105	7137	91	1.15	53.84	109	1215	95	16.97	22.70	282	1662	345	0	59	2.7
Seedex RR0858	243	325.0	108	7422	95	1.12	56.72	115	1290	101	17.37	22.96	328	1518	339	0	74	4.6
SX Savannah RR(842)	226	313.3	104	7942	101	1.17	52.91	107	1341	105	16.84	25.58	328	1628	350	0	67	2.9
SX Canyon RR(844TT)	220	308.4	102	7789	99	1.07	51.32	104	1299	102	16.50	25.29	294	1491	330	0	74	3.5
SX Cruze RR(846)	209	308.2	102	7989	102	1.20	51.22	104	1327	104	16.61	26.01	305	1556	403	0	66	3.1
SX Terrain RR(848)	244	303.5	100	7854	100	1.19	49.71	101	1286	101	16.37	25.98	347	1535	390	0	68	4.2
SV RR241	242	313.0	104	7092	90	1.16	52.79	107	1191	93	16.82	22.83	316	1531	375	0	76	5.5
SV RR243	221	297.9	99	7287	93	1.22	47.88	97	1164	91	16.11	24.66	419	1613	360	0	76	4.8
SV RR244TT	240	310.1	103	7702	98	1.16	51.83	105	1283	100	16.66	25.06	327	1588	354	95	67	2.5
SV RR333	204	314.2	104	8307	106	1.13	53.19	108	1405	110	16.84	26.54	292	1553	350	0	86	2.6
SV RR350	219	301.0	100	7736	99	1.19	48.87	99	1259	99	16.24	25.65	310	1677	363	0	59	2.7
SV RR351	210	316.6	105	7730	98	1.14	53.97	110	1324	104	16.97	24.41	293	1610	346	0	68	2.0
SV RR352	202	325.7	108	7555	96	1.13	56.91	116	1326	104	17.41	23.05	323	1532	346	0	66	3.0
SV RR353	217	323.9	107	8009	102	1.08	56.36	114	1391	109	17.29	24.88	293	1502	325	0	75	3.3
Root Aphid Susc Chk#1	258	319.9	106	7417	94	1.25	55.05	112	1280	100	17.25	23.18	324	1589	427	0	61	4.0
AP CHK MOD RES RR#3	259	307.6	102	7429	95	1.12	51.03	104	1230	96	16.49	24.26	332	1542	328	0	73	3.5
AP CHK SUS HYB#3	260	310.5	103	7539	96	1.23	51.97	106	1264	99	16.76	24.34	439	1500	400	0	72	3.7
BTS 81RR17(Check)	261	290.2	96	7605	97	1.40	45.35	92	1189	93	15.91	26.15	412	1710	482	194	80	2.8
BTS 80RR52(Check)	262	301.9	100	7987	102	1.23	49.19	100	1303	102	16.33	26.42	307	1591	415	0	74	2.9
Crystal 875RR(Check)	263	311.1	103	7864	100	1.29	52.18	106	1316	103	16.85	25.49	350	1619	448	0	80	3.6
Hilleshög 4302RR (Check)	264	305.1	101	7949	101	1.12	50.19	102	1302	102	16.37	26.27	355	1559	315	0	67	3.2
Benchmark Mean		302.1		7851		1.26	49.23		1278		16.36	26.08	356	1620	415		74	3.7
Comm Trial Mean		307.3		7952		1.20	50.89		1316		16.56	25.91	347	1605	377		73	3.3
Coeff. of Var. (%)		4.0		5.2		6.2	7.7		8.5		3.5	3.2	19.6	4.3	9.8		7.9	37
Mean LSD (0.05)		15.1		516		0.09	4.80		137.3		0.70	1.08	85	85	47		7	1.5
Mean LSD (0.01)		19.9		682		0.12	6.35		181.5		0.93	1.43	112	113	62		9	1.9
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

* 2015 Data from St. Thomas ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158311

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 19. 2015 Performance of All Varieties - ACSC Official Trials

Cavalier ND

Description @	Code	Rec/T lbs.	Rec/T %Bnch	Rec/A lbs.	Rec/A %Bnch	Loss Mol %	Rev/T $ ++	Rev/T %Bnch	Rev/A $ ++	Rev/A %Bnch	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter per Ac	Emerg. %	Tare %
Commercial Trial																		
BTS 80RR32	117	272.8	96	7953	97	1.22	39.88	92	1159	93	14.85	29.24	348	1696	367	0	81	2.2
BTS 80RR52	123	281.8	99	8358	102	1.21	42.76	99	1274	102	15.30	29.52	265	1723	387	0	76	3.2
BTS 82RR28	107	275.6	97	8388	103	1.33	40.78	94	1242	99	15.11	30.37	354	1870	404	0	76	3.0
BTS 82RR33	103	281.2	99	6871	84	1.19	42.58	98	1042	83	15.25	24.39	310	1807	331	0	81	4.2
BTS 8337	102	314.3	111	9220	113	1.07	53.15	123	1558	125	16.78	29.30	213	1670	310	0	84	3.6
BTS 8363	101	280.2	99	8366	103	1.14	42.26	98	1259	101	15.16	29.95	301	1679	330	0	79	2.2
BTS 8390	121	265.5	94	8094	99	1.23	37.55	87	1142	91	14.50	30.53	435	1747	328	0	78	3.5
BTS 83CN	120	281.9	99	8859	109	1.12	42.80	99	1347	108	15.22	31.43	280	1714	314	0	80	2.8
Crystal 093RR	109	305.7	108	8949	110	1.23	50.38	116	1473	118	16.51	29.32	226	1792	393	63	84	3.6
Crystal 101RR	124	269.7	95	7898	97	1.33	38.91	90	1139	91	14.82	29.29	427	1843	386	0	72	2.1
Crystal 246RR	126	275.2	97	7415	91	1.15	40.64	94	1093	88	14.91	27.00	336	1662	326	0	81	3.6
Crystal 247RR	115	281.5	99	7909	97	1.18	42.67	98	1195	96	15.26	28.19	290	1801	328	0	80	3.5
Crystal 875RR	118	284.9	100	8141	100	1.38	43.75	101	1248	100	15.62	28.59	353	1847	450	0	80	3.4
Crystal 981RR	116	279.9	99	7955	98	1.28	42.17	97	1196	96	15.28	28.45	409	1830	359	0	83	5.4
Crystal 986RR	122	297.0	105	8685	106	1.12	47.63	110	1394	112	15.96	29.21	289	1545	350	0	84	3.4
Hilleshög 4022RR	111	277.0	98	7865	96	1.37	41.22	95	1167	93	15.21	28.46	370	1844	432	0	80	3.9
Hilleshög 4094RR	104	273.2	96	7844	96	1.34	40.03	92	1154	92	15.00	28.66	381	1814	413	0	77	3.9
Hilleshög 4302RR	127	291.4	103	7994	98	1.11	45.84	106	1264	101	15.67	27.37	311	1646	304	0	76	3.5
Hilleshög 4448RR	105	301.1	106	9040	111	1.13	48.92	113	1470	118	16.18	30.01	247	1601	355	0	84	3.3
Hilleshög 9517RR	119	294.3	104	7621	93	1.31	46.75	108	1211	97	16.02	25.89	367	1769	404	32	79	5.2
Hilleshög 9528RR	114	290.9	103	8182	100	1.11	45.68	105	1285	103	15.66	28.07	285	1595	336	0	78	3.4
Maribo 102	106	301.1	106	8876	109	1.09	48.92	113	1441	115	16.14	29.50	257	1579	330	0	85	4.0
Seedex Winchester RR(832)	108	292.9	103	7814	96	1.10	46.32	107	1234	99	15.75	26.67	281	1663	310	0	77	3.4
Seedex Yukon RR	125	272.6	96	8181	100	1.19	39.82	92	1198	96	14.82	29.91	321	1685	358	0	81	4.4
SV 36272RR	110	286.3	101	7621	93	1.09	44.18	102	1174	94	15.40	26.68	264	1678	301	0	75	3.5
SV 36273RR	113	282.5	100	7501	92	1.14	42.98	99	1143	92	15.26	26.54	338	1622	326	0	77	3.5
SV RR336	112	277.9	98	8353	102	1.19	41.52	96	1250	100	15.08	30.04	328	1694	349	0	80	2.5
BTS 81RR17(Check)	128	276.3	97	8135	100	1.33	41.01	95	1207	97	15.15	29.49	309	1841	430	0	84	3.6
Experimental Trial (Comm status)																		
BTS 8405	250	304.6	107	8553	105	1.02	49.81	115	1399	112	16.26	28.15	175	1574	316	0	80	1.4
BTS 8408	222	280.5	99	7986	98	1.38	42.35	98	1208	97	15.39	28.43	403	1840	429	0	80	3.0
BTS 8500	235	288.6	102	9038	111	1.17	44.85	103	1403	112	15.61	31.35	244	1817	338	0	79	1.6
BTS 8512	233	284.2	100	8851	109	1.19	43.53	100	1358	109	15.41	31.10	321	1676	365	0	77	1.4
BTS 8524	256	280.7	99	9551	117	1.22	42.42	98	1448	116	15.25	34.02	309	1909	328	0	80	2.1
BTS 8536	229	289.7	102	8578	105	1.30	45.23	104	1341	107	15.79	29.59	292	1787	423	0	77	3.5
BTS 8548	216	280.2	99	7237	89	1.17	42.27	98	1093	88	15.18	25.87	373	1776	304	0	74	1.6
BTS 8560	239	298.4	105	9088	111	1.05	47.91	111	1458	117	15.98	30.51	207	1535	331	0	73	1.6
BTS 8572	207	296.3	104	7764	95	1.16	47.26	109	1240	99	15.99	26.16	223	1705	370	0	77	1.7
BTS 8584	254	294.0	104	8795	108	1.17	46.54	107	1398	112	15.88	29.77	245	1762	352	0	80	1.2
Crystal 355RR	255	289.1	102	8176	100	1.31	45.02	104	1275	102	15.76	28.25	280	1824	424	0	81	2.1
Crystal 359RR	215	275.3	97	8396	103	1.33	40.78	94	1250	100	15.09	30.38	396	1849	394	0	72	2.4
Crystal 467RR	251	274.0	97	8032	98	1.19	40.38	93	1181	95	14.89	29.38	422	1784	297	0	71	2.3
Crystal 572RR	211	304.4	107	8359	102	1.05	49.76	115	1367	110	16.28	27.49	193	1615	317	0	77	2.6
Crystal 573RR	205	295.2	104	8615	106	1.12	46.91	108	1374	110	15.89	29.05	256	1638	342	0	83	3.0
Crystal 574RR	230	283.6	100	9059	111	1.14	43.31	100	1391	111	15.32	31.84	306	1732	318	0	76	2.0
Crystal 575RR	248	279.0	98	8822	108	1.24	41.93	97	1336	107	15.20	31.42	318	1791	375	0	71	1.9
Crystal 576RR	206	289.8	102	9043	111	1.24	45.26	104	1412	113	15.74	31.22	295	1790	384	0	74	2.1
Crystal 577RR	236	283.4	100	7030	86	1.15	43.26	100	1072	86	15.34	24.80	295	1793	316	0	69	1.2
Crystal 578RR	252	278.0	98	8314	102	1.11	41.63	96	1250	100	15.02	29.78	348	1645	302	0	79	1.8
Crystal 579RR	225	278.9	98	8070	99	1.31	41.91	97	1215	97	15.24	28.92	342	1793	415	0	76	1.7
Hilleshög HIL9704	213	293.4	103	7764	95	1.18	46.36	107	1231	99	15.85	26.41	324	1778	328	0	67	2.1
Hilleshög HIL9705	201	277.9	98	8237	101	1.25	41.60	96	1231	99	15.17	29.61	313	1772	390	0	72	2.6
Hilleshög HIL9706	253	288.5	102	8763	107	1.10	44.84	103	1366	109	15.53	30.28	273	1563	340	0	79	1.8
Hilleshög HIL9707	228	288.9	102	7740	95	1.17	44.97	104	1204	96	15.62	26.82	287	1678	359	0	71	1.6
Hilleshög HIL9708	223	294.6	104	8177	100	1.04	46.72	108	1296	104	15.78	27.84	288	1550	294	0	79	2.1
Hilleshög HIL9709	203	290.5	102	6656	82	1.11	45.46	105	1042	83	15.64	22.91	286	1619	328	0	74	1.0
Hilleshög HIL9710	247	277.0	98	7836	96	1.31	41.30	95	1171	94	15.16	28.29	438	1805	378	0	75	3.6
Hilleshög HIL9711	241	283.9	100	7889	97	1.16	43.45	100	1208	97	15.37	27.75	321	1635	348	0	78	2.0
Hilleshög HIL9713	224	278.4	98	6625	81	1.41	41.76	96	991	79	15.32	23.88	497	1768	438	0	77	2.0
Hilleshög HIL9714	208	273.5	96	7997	98	1.33	40.23	93	1183	95	15.00	29.08	348	1851	410	0	77	2.1
Hilleshög 9602	214	286.0	101	8321	102	1.07	44.06	102	1285	103	15.38	29.05	296	1654	287	0	79	2.5
Maribo 109	212	299.9	106	7548	93	1.14	48.35	112	1218	98	16.15	25.17	302	1596	358	0	77	2.1
Maribo 301	218	292.3	103	8048	99	1.32	46.03	106	1267	102	15.93	27.54	347	1807	414	0	72	2.3
Maribo 305	232	289.2	102	8464	104	1.07	45.04	104	1312	105	15.53	29.41	251	1606	312	0	81	2.2
Maribo 402	246	290.6	102	8376	103	1.12	45.49	105	1314	105	15.66	28.84	303	1598	339	0	84	2.6
Maribo MA500	231	272.0	96	7442	91	1.25	39.74	92	1089	87	14.85	27.31	365	1726	376	0	78	1.6
Maribo MA501	238	269.1	95	6132	75	1.36	38.87	90	889	71	14.81	22.72	367	1793	439	0	71	2.4
Maribo MA502	249	278.5	98	8698	107	1.39	41.77	96	1299	104	15.30	31.37	421	1816	440	0	81	1.6
Maribo MA503	237	282.4	100	8200	101	1.06	42.96	99	1250	100	15.19	29.03	312	1504	317	0	81	2.5
Maribo MA504	245	295.6	104	8054	99	1.10	47.05	109	1282	103	15.89	27.23	317	1643	301	0	80	1.5
Seedex RR0855	234	268.8	95	6608	81	1.23	38.79	89	955	77	14.67	24.64	294	1870	360	0	68	2.4
Seedex RR0856	227	292.6	103	8777	108	1.04	46.13	106	1387	111	15.69	29.90	224	1696	277	0	78	2.1
Seedex RR0857	257	291.8	103	7690	94	1.12	45.84	106	1203	96	15.71	26.52	282	1759	302	0	71	1.7
Seedex RR0858	243	299.9	106	8440	103	1.03	48.34	112	1365	109	16.04	28.11	310	1602	266	0	76	2.8
Seedex RR842	226	285.8	101	8822	108	1.14	44.00	102	1363	109	15.44	30.80	290	1715	322	0	74	2.8
Seedex RR844TT	220	290.7	103	8529	105	1.07	45.52	105	1339	107	15.63	29.22	252	1741	280	0	74	2.3
Seedex RR846	209	280.6	99	8337	102	1.17	42.41	98	1259	101	15.21	29.73	256	1755	354	0	73	2.1
Seedex RR848	244	290.7	103	8126	100	1.10	45.52	105	1270	102	15.64	27.98	277	1765	284	0	69	1.7
SV RR241	242	292.4	103	8806	108	1.07	46.07	106	1395	112	15.71	29.97	250	1608	311	0	74	3.5
SV RR243	221	288.4	102	8654	106	1.16	44.81	103	1351	108	15.59	29.84	283	1733	337	0	71	1.5
SV RR244TT	240	294.2	104	8864	109	1.06	46.58	107	1404	112	15.78	30.16	236	1680	288	0	78	2.2
SV RR333	204	290.5	102	8907	109	1.09	45.45	105	1396	112	15.63	30.67	291	1650	304	0	76	1.6
SV RR350	219	279.3	98	6809	83	1.21	42.01	97	1025	82	15.18	24.38	293	1863	339	0	68	2.6
SV RR351	210	287.3	101	7222	89	1.17	44.50	103	1119	90	15.54	25.09	313	1820	309	0	69	1.4
SV RR352	202	296.1	104	7069	87	1.21	47.20	109	1128	90	16.03	23.83	315	1768	355	0	77	1.9
SV RR353	217	294.6	104	8778	108	1.08	46.72	108	1396	112	15.83	29.74	238	1581	334	0	83	4.2
Root Aphid Susc Chk#1	258	286.4	101	7857	96	1.19	44.20	102	1214	97	15.52	27.37	264	1794	354	0	66	2.0
AP CHK MOD RES RR#3	259	286.0	101	6353	78	1.09	44.07	102	981	79	15.40	22.20	266	1729	293	0	76	2.0
AP CHK SUS HYB#3	260	296.2	104	5574	68	1.19	47.23	109	890	71	16.01	18.79	312	1759	346	0	72	2.3
BTS 81RR17(Check)	261	280.7	99	8787	108	1.30	42.45	98	1326	106	15.33	31.35	276	1811	426	0	79	2.1
BTS 80RR52(Check)	262	285.6	101	8457	104	1.18	43.95	101	1308	105	15.47	29.50	274	1757	350	0	77	2.3
Crystal 875RR(Check)	263	277.9	98	7880	97	1.40	41.57	96	1183	95	15.27	28.35	384	1813	458	0	76	3.4
Hilleshög 4302RR (Check)	264	290.2	102	7504	92	1.15	45.39	105	1176	94	15.67	25.77	304	1677	336	0	72	1.9
Benchmark Mean		283.6		8157		1.26	43.34		1248		15.44	28.74	310	1764	393		79	3.4
Comm Trial Mean		284.5		8146		1.20	43.61		1249		15.42	28.65	318	1723	357		80	3.5
Coeff. of Var. (%)		3.7		5.8		7.9	7.7		8.3		3.0	5.2	20.4	4.5	14.3		6.3	37
Mean LSD (0.05)		12.7		576		0.12	4.04		128.0		0.56	1.82	78	96	63		6	1.5
Mean LSD (0.01)		16.7		762		0.15	5.34		169.2		0.74	2.41	103	127	84		8	2.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

* 2015 Data from Cavalier ND Bolters per acre are based upon 45,000 plants per acre. Created 10-20-2015.

@ Experimental trial data adjusted to commercial status. Statistics are from commercial trial. Trial # = 158313

++ Revenue estimates are based on a $54.96 beet payment at 17.5% sugar & 1.5% loss to molasses and does not consider hauling costs.

Table 20
Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2016

Description	Approval Status	Rec/Ton 2014	Rec/Ton 2015	Rec/Ton 2 Yr	Rec/Ton % Bench	Rev/Acre 2014	Rev/Acre 2015	Rev/Acre 2 Yr	Rev/Acre % Bench	R/T + $/A Bench	Cercospora Rating + 2013	2014	2015	2 Yr Mean	3 Yr Mean
Previously Approved (3 Yr)															<=5.40
BTS 80RR32	Approved	307.7	313.9	310.8	98.9	1519	1728	1623.5	106.2	205.1	4.81	4.69	4.92		4.81
BTS 80RR52	Approved	318.4	317.7	318.1	101.2	1530	1701	1615.5	105.7	206.9	4.52	4.22	4.11		4.28
BTS 82RR28	Approved	314.6	313.0	313.8	99.9	1548	1699	1623.5	106.2	206.1	4.52	4.62	4.89		4.68
BTS 82RR33	Approved	313.0	317.0	315.0	100.3	1596	1773	1684.5	110.2	210.4	4.68	4.70	4.58		4.65
BTS 8337	Approved	329.6	334.1	331.9	105.6	1468	1756	1612.0	105.4	211.1	4.75	4.52	4.49		4.59
BTS 8363	Approved	311.8	309.7	310.8	98.9	1539	1732	1635.5	107.0	205.9	3.92	3.85	3.83		3.86
BTS 8390	Approved	304.3	305.1	304.7	97.0	1546	1707	1626.5	106.4	203.4	4.43	4.28	4.04		4.25
BTS 83CN	Approved	313.7	315.4	314.6	100.1	1481	1689	1585.0	103.7	203.8	4.36	4.60	4.65		4.54
Crystal 093RR	Approved	326.9	325.5	326.2	103.8	1565	1742	1653.5	108.1	212.0	5.20	4.88	4.76		4.95
Crystal 101RR	Approved	313.7	313.7	313.7	99.9	1566	1618	1592.0	104.1	204.0	4.63	4.26	4.65		4.51
Crystal 246RR	Approved	313.8	311.2	312.5	99.5	1529	1703	1616.0	105.7	205.2	4.48	4.52	4.49		4.50
Crystal 247RR	Approved	314.0	318.5	316.3	100.7	1613	1812	1712.5	112.0	212.7	4.57	4.20	4.19		4.32
Crystal 355RR	Approved	321.1	320.0	320.6	102.0	1447	1624	1535.5	100.4	202.5	4.89	4.58	4.43		4.63
Crystal 875RR	Approved	312.9	308.5	310.7	98.9	1452	1490	1471.0	96.2	195.1	4.77	4.12	4.21		4.37
Crystal 981RR	Approved	314.3	311.6	313.0	99.6	1530	1594	1562.0	102.2	201.8	5.09	4.89	5.05		5.01
Crystal 986RR	Approved	323.2	321.5	322.4	102.6	1561	1646	1603.5	104.9	207.5	4.80	4.61	4.97		4.79
Hilleshög 4022RR	Approved	303.5	308.2	305.9	97.4	1256	1513	1384.5	90.5	187.9	4.33	4.54	4.37		4.41
Hilleshög 4094RR	Approved	309.6	305.1	307.4	97.8	1345	1504	1424.5	93.2	191.0	4.47	4.46	4.30		4.41
Hilleshög 4302RR	Approved	316.2	319.5	317.9	101.2	1435	1624	1529.5	100.0	201.2	4.23	4.52	4.13		4.29
Hilleshög 4448RR	Approved	323.0	324.4	323.7	103.0	1685	1818	1751.5	114.5	217.6	5.21	5.28	5.29		5.26
Hilleshög 9517RR	Approved	323.8	320.8	322.3	102.6	1339	1482	1410.5	92.2	194.8	4.67	4.39	4.03		4.36
Hilleshög 9528RR	Approved	325.6	322.6	324.1	103.2	1577	1762	1669.5	109.2	212.3	4.72	4.97	5.16		4.95
Maribo 102	Not Approved	325.0	325.9	325.5	103.6	1636	1873	1754.5	114.7	218.3	5.03	5.54	5.77		5.45
Maribo 305	Approved	315.3	308.8	312.1	99.3	1541	1634	1587.5	103.8	203.2	4.63	4.83	4.76		4.74
SX Winchester RR(832)	Approved	318.8	323.3	321.1	102.2	1513	1580	1546.5	101.1	203.3	4.78	4.89	3.67		4.44
SX Yukon RR	Approved	308.8	300.5	304.7	97.0	1344	1507	1425.5	93.2	190.2	4.69	4.85	4.75		4.76
SV 36272RR	Approved	320.3	320.5	320.4	102.0	1382	1509	1445.5	94.5	196.5	4.49	4.61	3.88		4.33
SV 36273RR	Approved	309.5	313.1	311.3	99.1	1454	1554	1504.0	98.4	197.5	4.68	5.05	4.03		4.59
SV RR333	Approved	316.9	319.7	318.3	101.3	1485	1775	1630.0	106.6	207.9	4.86	4.81	4.54		4.74
SV RR336	Approved	316.0	309.5	312.8	99.6	1493	1528	1510.5	98.8	198.3	4.75	4.53	3.94		4.41
Candidates for Approval (2 Yr)														<=5.20	
BTS 8405	Approved	332.2	326.2	329.2	104.8	1586	1721	1653.5	108.1	212.9	--	4.14	4.05	4.10	--
BTS 8408	Not Approved	320.1	312.8	316.5	100.7	1506	1612	1559.0	102.0	202.7	--	5.00	5.41	5.21	--
Crystal 359RR	Approved	312.7	304.4	308.6	98.2	1572	1659	1615.5	105.7	203.9	5.32	5.16	5.19	5.18	5.22
Crystal 467RR	Approved	310.7	311.1	310.9	99.0	1564	1765	1664.5	108.9	207.8	--	4.40	4.34	4.37	--
Hilleshög 9602	Not Approved	311.0	305.8	308.4	98.2	1551	1593	1572.0	102.8	201.0	--	4.67	4.66	4.67	--
Maribo 109	Approved	334.2	334.0	334.1	106.3	1390	1568	1479.0	96.7	203.1	--	4.68	4.56	4.62	--
Maribo 301	Approved	324.5	314.3	319.4	101.7	1427	1567	1497.0	97.9	199.6	--	4.92	4.85	4.89	--
Maribo 402	Not Approved	313.9	313.0	313.5	99.8	1468	1635	1551.5	101.5	201.2	--	4.76	4.60	4.68	--
SX Savannah RR(842)	Approved	320.8	316.1	318.5	101.4	1564	1625	1594.5	104.3	205.6	--	4.90	4.36	4.63	--
SX Canyon RR(844TT)	Approved	318.4	314.6	316.5	100.7	1574	1680	1627.0	106.4	207.2	--	5.46	4.02	4.74	--
SX Cruze RR(846)	Approved	310.2	309.1	309.7	98.6	1542	1642	1592.0	104.1	202.7	--	4.83	4.57	4.70	--
SX Terrain RR(848)	Approved	311.8	316.3	314.1	100.0	1522	1685	1603.5	104.9	204.8	--	4.71	4.80	4.76	--
SV RR241	Approved	314.3	317.7	316.0	100.6	1437	1638	1537.5	100.6	201.1	--	4.35	3.83	4.09	--
SV RR243	Approved	317.5	317.3	317.4	101.0	1466	1622	1544.0	101.0	202.0	--	4.79	3.63	4.21	--
SV RR244TT	Approved	302.2	316.3	309.3	98.4	1555	1687	1621.0	106.0	204.5	--	5.51	4.17	4.84	--

Benchmark Varieties		2013	2014	2015		2013	2014	2015	
Crystal 658RR	Benchmark	314.8				1323			
Hilleshög 4012RR	Benchmark	318.0	313.7			1356	1418		
Crystal 875RR	Benchmark	315.1	312.9	308.5		1417	1452	1490	
BTS 80RR52	Benchmark	325.5	318.4	317.7		1527	1530	1701	
BTS 81RR17(Check)	Benchmark		315.0	307.6			1443	1574	
Hilleshög 4302RR	Benchmark			319.5				1624	
Benchmark mean		318.35	315.00	313.33	314.2	1405.8	1460.8	1597.3	1529.04

+ All Cercospora readings 2013-2015 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 11-3-2015.

Bench for 2014 added Hilleshög 4302 and dropped Hilleshög 4012.

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

Table 21
Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

Description	Approval ^ Likely	Rec/Ton 2015	Rec/Ton % Bench	Rev/Acre 2015	Rev/Acre % Bench	R/T + $/A Bench	CR Rating ^^ 2015
Candidates for Retesting (1 Yr)							
BTS 8500	On Track	312.8	99.8	1738	108.8	208.6	4.45
BTS 8512	On Track	318.8	101.8	1713	107.2	209.0	4.12
BTS 8524	On Track	306.9	97.9	1742	109.1	207.0	4.40
BTS 8536	Not On Track	303.8	97.0	1592	99.7	196.6	4.08
BTS 8548	On Track	317.3	101.3	1758	110.0	211.3	4.44
BTS 8560	On Track	320.5	102.3	1706	106.8	209.1	3.61
BTS 8572	On Track	327.4	104.5	1719	107.6	212.1	4.60
BTS 8584	On Track	325.1	103.7	1645	103.0	206.8	4.96
Crystal 572RR	On Track	327.9	104.6	1724	108.0	212.6	4.65
Crystal 573RR	On Track	323.8	103.4	1756	109.9	213.3	4.15
Crystal 574RR	On Track	311.2	99.3	1800	112.7	212.0	4.30
Crystal 575RR	On Track	313.0	99.9	1759	110.1	210.0	4.53
Crystal 576RR	On Track	314.9	100.5	1654	103.6	204.1	4.55
Crystal 577RR	On Track	314.1	100.2	1724	108.0	208.2	4.59
Crystal 578RR	On Track	320.5	102.3	1797	112.5	214.8	4.93
Crystal 579RR	On Track	311.5	99.4	1704	106.7	206.1	4.94
Hilleshög HIL9704	On Track	320.3	102.2	1632	102.2	204.4	5.08
Hilleshög HIL9705	Not On Track	299.7	95.7	1492	93.4	189.0	4.88
Hilleshög HIL9706	Not On Track	320.3	102.2	1812	113.5	215.7	5.72
Hilleshög HIL9707	On Track	316.1	100.9	1552	97.2	198.1	4.60
Hilleshög HIL9708	On Track	323.3	103.2	1694	106.0	209.2	5.04
Hilleshög HIL9709	On Track	323.8	103.4	1630	102.1	205.4	4.63
Hilleshög HIL9710	Not On Track	310.3	99.0	1541	96.5	195.5	4.55
Hilleshög HIL9711	On Track	315.4	100.7	1682	105.3	206.0	5.06
Hilleshög HIL9713	Not On Track	311.0	99.2	1404	87.9	187.1	4.46
Hilleshög HIL9714	Not On Track	300.8	96.0	1627	101.9	197.9	4.53
Maribo MA500	Not On Track	300.6	96.0	1648	103.2	199.1	5.53
Maribo MA501	Not On Track	313.0	99.9	1609	100.8	200.7	3.73
Maribo MA502	On Track	313.2	100.0	1682	105.3	205.3	5.04
Maribo MA503	Not On Track	306.5	97.8	1633	102.2	200.1	3.56
Maribo MA504	Not On Track	318.1	101.5	1865	116.8	218.3	5.25
Seedex RR0855	Not On Track	302.2	96.4	1596	99.9	196.4	5.02
Seedex RR0856	Not On Track	323.9	103.4	1831	114.7	218.0	5.37
Seedex RR0857	On Track	320.3	102.2	1559	97.6	199.9	3.90
Seedex RR0858	On Track	326.8	104.3	1676	104.9	209.2	4.15
SV RR350	Not On Track	308.5	98.5	1602	100.3	198.8	4.91
SV RR351	On Track	320.9	102.4	1621	101.5	203.9	4.62
SV RR352	On Track	324.0	103.4	1576	98.7	202.1	4.48
SV RR353	On Track	317.3	101.3	1669	104.5	205.8	3.72
Benchmarks							
Crystal 875RR		308.5	98.5	1490	93.3		
BTS 80RR52		317.7	101.4	1701	106.5		
BTS 81RR17(Check)		307.6	98.2	1574	98.5		
Hilleshög 4302RR		319.5	102.0	1624	101.7		
Benchmark Mean		313.3		1597			

^ NOT = not on track for approval. On Track = data is tracking for potential approval. Created 10-27-2015.

^^ All Cercospora readings 2015 were adjusted to 1982 basis.

Full market approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating may 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 2015 added Hilleshög 4302 and dropped Hilleshög 4012.

Table 22
Calculation for Approval of Sugarbeet Varieties for ACSC Aphanomyces Specialty Market for 2016

Yrs Aph Yld	Description	Approval Status	Root Aph. Rating 2013	2014	2015	2 Yr Mean	3 Yr Mean	Cercospora Rating + 2013	2014	2015	2 Yr Mean	3 Yr Mean
	Previously Approved (3 Yrs)						<=4.70					<=5.40
6	BTS 80RR52	Approved	4.01	4.01	3.24	3.62	3.75	4.52	4.22	4.11	4.17	4.28
3	BTS 8337	Approved	3.69	3.68	2.55	3.12	3.31	4.75	4.52	4.49	4.51	4.59
3	BTS 83CN	Approved	4.34	4.16	3.79	3.98	4.10	4.36	4.60	4.65	4.63	4.54
4	Crystal 101RR	Approved	3.80	3.45	3.31	3.38	3.52	4.63	4.26	4.65	4.46	4.51
4	Crystal 246RR	NO	4.90	4.51	4.99	4.75	4.80	4.48	4.52	4.49	4.51	4.50
3	Crystal 355RR	Approved	4.51	4.15	3.26	3.71	3.98	4.89	4.58	4.43	4.50	4.63
8	Crystal 875RR	Approved	3.76	3.11	2.49	2.80	3.12	4.77	4.12	4.21	4.16	4.37
7	Crystal 981RR	Approved	3.55	3.79	3.25	3.52	3.53	5.09	4.89	5.05	4.97	5.01
4	Maribo 102	NO	4.30	4.99	2.78	3.88	4.02	5.03	5.54	5.77	5.66	5.45
4	Seedex Yukon RR	Approved	4.35	2.77	3.16	2.97	3.43	4.69	4.85	4.75	4.80	4.76
	Candidates for Approval					<=4.40						<=5.20
6	BTS 80RR32	NO	5.04	5.06	5.14	5.10	5.08	4.81	4.69	4.92	4.81	4.81
4	BTS 82RR28	NO	4.62	4.84	4.15	4.49	4.53	4.52	4.62	4.89	4.76	4.68
4	BTS 82RR33	NO	5.40	5.59	5.63	5.61	5.54	4.68	4.70	4.58	4.64	4.65
3	BTS 8363	NO	4.91	5.03	4.77	4.90	4.90	3.92	3.85	3.83	3.84	3.86
3	BTS 8390	NO	4.75	5.03	4.26	4.65	4.68	4.43	4.28	4.04	4.16	4.25
2	BTS 8405	NO		4.93	4.82	4.87	--		4.14	4.05	4.09	--
2	BTS 8408	NO		4.33	4.52	4.42	--		5.00	5.41	5.20	--
2	Crystal 359RR	NO		4.92	4.49	4.71	--		5.16	5.19	5.17	--
2	Crystal 467RR	Approved		4.33	3.55	3.94	--		4.40	4.34	4.37	--
8	Hilleshög 4022RR	Approved	4.65	4.59	3.75	4.17	4.33	4.33	4.54	4.37	4.45	4.41
7	Hilleshög 4094RR	NO	4.73	4.47	4.60	4.53	4.60	4.47	4.46	4.30	4.38	4.41
2	Hilleshög 9517RR	Approved		3.89	3.09	3.49	--		4.39	4.03	4.21	--
3	Hilleshög 9528RR	Approved	4.51	5.44	2.97	4.20	4.31	4.72	4.97	5.16	5.06	4.95
2	Maribo 109	Approved		5.00	3.54	4.27	--		4.68	4.56	4.62	--
2	Maribo 305	NO		4.99	4.76	4.88	--		4.83	4.76	4.79	--
2	Seedex Savannah RR(842)	NO		5.82	3.57	4.70	--		4.90	4.36	4.63	--
2	Seedex Terrain RR(848)	NO		5.58	3.69	4.63	--		4.71	4.80	4.75	--
3	Seedex Winchester RR(832)	Approved	4.54	5.06	3.07	4.06	4.22	4.78	4.89	3.67	4.28	4.44
4	SV 36272RR	NO	5.01	4.98	3.97	4.47	4.65	4.49	4.61	3.88	4.25	4.33
2	SV RR241	Approved		5.42	2.87	4.15	--		4.35	3.83	4.09	--
3	SV RR336	Approved	4.53	5.50	2.78	4.14	4.27	4.75	4.53	3.94	4.24	4.41
	Approval Criteria new varieties					4.40					5.20	
	Criteria to Maintain Approval						4.70					5.40

+ All Cercospora readings 2013-2015 were adjusted to 1982 basis.

Aphanomyces approval criteria include: 1) 2 years of Aph official trial data, 2) Cercospora rating must not exceed 5.20 (1982 adjusted data), 3) Aph root rating <= 4.40 after 2 years. 3 yrs of data may be considered for initial approval.

To maintain Aphanomyces approval criteria include: 1) Cercospora 3 year mean must not exceed 5.40, 2) Aph root rating <= 4.70 after 3 years.

Previously approved varieties not meeting current approval standards may be sold in 2016. Continued testing in 2016 will allow sales in 201

Table 23

Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2016

Description	Approval Status	Disease Index + 2013	2014	2015	2 Yr Mean	3 Yr Mean	Cercospora Rating 2013	2014	2015	2 Yr Mean	3 Yr Mean
Previously Approved (3 Yr)											
BTS 80RR52	Approved	3.77	4.36	3.95	4.15	4.03	4.52	4.22	4.11	4.17	4.28
BTS 83CN	Approved	3.29	4.01	3.86	3.94	3.72	4.36	4.60	4.65	4.63	4.54
Crystal 355RR	Approved +	3.55	4.07	NE	NE	NE	4.89	4.58	4.43	4.50	4.63
Crystal 875RR	Not Approved	4.53	4.04	4.11	4.08	4.23	4.77	4.12	4.21	4.16	4.37
Hilleshög 4022RR	Approved	3.39	3.82	3.47	3.64	3.56	4.33	4.54	4.37	4.45	4.41
Hilleshög 4094RR	Approved	3.42	3.52	3.44	3.48	3.46	4.47	4.46	4.30	4.38	4.41
Hilleshög 4302RR	Approved	3.32	3.58	3.70	3.64	3.53	4.23	4.52	4.13	4.33	4.29
Candidates for Approval (2 Yr)											
BTS 80RR32	Approved	4.28	3.56	4.02	3.79	3.95	4.81	4.69	4.92	4.81	4.81
BTS 82RR28	Not Approved	4.17	4.11	4.01	4.06	4.10	4.52	4.62	4.89	4.76	4.68
BTS 82RR33	Not Approved	4.36	4.20	4.18	4.19	4.25	4.68	4.70	4.58	4.64	4.65
BTS 8337	Not Approved	4.55	4.06	3.87	3.96	4.16	4.75	4.52	4.49	4.51	4.59
BTS 8363	Not Approved	3.88	4.24	4.12	4.18	4.08	3.92	3.85	3.83	3.84	3.86
BTS 8390	Not Approved	4.38	4.30	NE	NE	NE	4.43	4.28	4.04	4.16	4.25
BTS 8405	Not Approved	--	4.75	4.40	4.58	--	--	4.14	4.05	4.09	--
BTS 8408	Not Approved	--	4.25	4.19	4.22	--	--	5.00	5.41	5.20	--
BTS 8500	<2 Yrs	--	--	4.19	--	--	--	--	4.45	--	--
BTS 8512	<2 Yrs	--	--	4.28	--	--	--	--	4.12	--	--
BTS 8524	<2 Yrs	--	--	4.14	--	--	--	--	4.40	--	--
BTS 8536	<2 Yrs	--	--	4.41	--	--	--	--	4.08	--	--
BTS 8548	<2 Yrs	--	--	3.98	--	--	--	--	4.44	--	--
BTS 8560	<2 Yrs	--	--	4.42	--	--	--	--	3.61	--	--
BTS 8572	<2 Yrs	--	--	3.85	--	--	--	--	4.60	--	--
BTS 8584	<2 Yrs	--	--	4.04	--	--	--	--	4.96	--	--
Crystal 093RR	Not Approved	4.39	4.46	3.96	4.21	4.27	5.20	4.88	4.76	4.82	4.95
Crystal 101RR	Not Approved	4.74	4.84	4.64	4.74	4.74	4.63	4.26	4.65	4.46	4.51
Crystal 246RR	Not Approved	4.62	4.01	4.19	4.10	4.27	4.48	4.52	4.49	4.51	4.50
Crystal 247RR	Not Approved	4.58	4.41	4.33	4.37	4.44	4.57	4.20	4.19	4.19	4.32
Crystal 359RR	Not Approved	4.04	4.18	3.90	4.04	4.04	5.32	5.16	5.19	5.17	5.22
Crystal 467RR	Not Approved	--	4.03	3.97	4.00	--	--	4.40	4.34	4.37	--
Crystal 572RR	<2 Yrs	--	--	3.89	--	--	--	--	4.65	--	--
Crystal 573RR	<2 Yrs	--	--	4.25	--	--	--	--	4.15	--	--
Crystal 574RR	<2 Yrs	--	--	4.16	--	--	--	--	4.30	--	--
Crystal 575RR	<2 Yrs	--	--	4.18	--	--	--	--	4.53	--	--
Crystal 576RR	<2 Yrs	--	--	3.68	--	--	--	--	4.55	--	--
Crystal 577RR	<2 Yrs	--	--	4.29	--	--	--	--	4.59	--	--
Crystal 578RR	<2 Yrs	--	--	4.03	--	--	--	--	4.93	--	--
Crystal 579RR	<2 Yrs	--	--	4.25	--	--	--	--	4.94	--	--
Crystal 981RR	Not Approved	3.75	4.85	4.40	4.63	4.33	5.09	4.89	5.05	4.97	5.01
Crystal 986RR	Not Approved	4.54	4.12	4.06	4.09	4.24	4.80	4.61	4.97	4.79	4.79
Hilleshög 4448RR	Not Approved	5.42	4.73	3.92	4.32	4.69	5.21	5.28	5.29	5.29	5.26
Hilleshög 9517RR	Not Approved	3.62	4.04	3.66	3.85	3.77	4.67	4.39	4.03	4.21	4.36
Hilleshög 9528RR	Not Approved	4.17	3.83	4.10	3.96	4.03	4.72	4.97	5.16	5.06	4.95
Hilleshög 9602RR	Not Approved	--	4.12	3.91	4.02	--	--	4.67	4.66	4.67	--
Hilleshög HIL9704	<2 Yrs	--	--	4.36	--	--	--	--	5.08	--	--
Hilleshög HIL9705	<2 Yrs	--	--	4.25	--	--	--	--	4.88	--	--
Hilleshög HIL9706	<2 Yrs	--	--	4.09	--	--	--	--	5.72	--	--
Hilleshög HIL9707	<2 Yrs	--	--	4.21	--	--	--	--	4.60	--	--
Hilleshög HIL9708	<2 Yrs	--	--	4.04	--	--	--	--	5.04	--	--
Hilleshög HIL9709	<2 Yrs	--	--	3.90	--	--	--	--	4.63	--	--
Hilleshög HIL9710	<2 Yrs	--	--	3.89	--	--	--	--	4.55	--	--
Hilleshög HIL9711	<2 Yrs	--	--	4.11	--	--	--	--	5.06	--	--
Hilleshög HIL9713	<2 Yrs	--	--	4.24	--	--	--	--	4.46	--	--
Hilleshög HIL9714	<2 Yrs	--	--	3.59	--	--	--	--	4.53	--	--
Maribo 102	Not Approved	5.53	4.30	4.07	4.19	4.63	5.03	5.54	5.77	5.66	5.45
Maribo 109	Approved	--	3.33	3.67	3.50	--	--	4.68	4.56	4.62	--
Maribo 301	Not Approved	--	4.66	4.10	4.38	--	--	4.92	4.85	4.89	--
Maribo 305	Not Approved	--	4.62	3.83	4.22	--	4.63	4.83	4.76	4.79	4.74
Maribo 402	Not Approved	--	3.86	3.87	3.86	--	--	4.76	4.60	4.68	--
Maribo MA500	<2 Yrs	--	--	4.15	--	--	--	--	5.53	--	--
Maribo MA501	<2 Yrs	--	--	4.33	--	--	--	--	3.73	--	--
Maribo MA502	<2 Yrs	--	--	4.14	--	--	--	--	5.04	--	--
Maribo MA503	<2 Yrs	--	--	3.70	--	--	--	--	3.56	--	--

Table 23

Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2016

	Approval	Disease Index +					Cercospora Rating				
					2 Yr	3 Yr				2 Yr	3 Yr
Description	Status	2013	2014	2015	Mean	Mean	2013	2014	2015	Mean	Mean
Maribo MA504	<2 Yrs	--	--	3.98	--	--	--	--	5.25	--	--
Seedex Savannah RR(842)	Not Approved	--	4.23	4.20	4.21	--	--	4.90	4.36	4.63	--
Seedex Canyon RR(844TT)	Not Approved	--	4.15	4.22	4.19	--	--	5.46	4.02	4.74	--
Seedex Cruze RR(846)	Not Approved	--	4.67	4.18	4.43	--	--	4.83	4.57	4.70	--
Seedex Terrain RR(848)	Not Approved	--	4.43	4.24	4.34	--	--	4.71	4.80	4.75	--
Seedex RR0855	<2 Yrs	--	--	4.25	--	--	--	--	5.02	--	--
Seedex RR0856	<2 Yrs	--	--	4.16	--	--	--	--	5.37	--	--
Seedex RR0857	<2 Yrs	--	--	4.02	--	--	--	--	3.90	--	--
Seedex RR0858	<2 Yrs	--	--	4.21	--	--	--	--	4.15	--	--
Seedex Winchester RR(832)	Not Approved	4.43	4.35	4.28	4.32	4.35	4.78	4.89	3.67	4.28	4.44
Seedex Yukon RR	Not Approved	4.84	4.33	NE	NE	NE	4.69	4.85	4.75	4.80	4.76
SV 36272RR	Not Approved	4.61	4.31	4.39	4.35	4.44	4.49	4.61	3.88	4.25	4.33
SV 36273RR	Not Approved	4.70	3.94	4.25	4.10	4.30	4.68	5.05	4.03	4.54	4.59
SV RR241	Not Approved	--	4.43	3.97	4.20	--	--	4.35	3.83	4.09	--
SV RR243	Not Approved	--	4.79	4.09	4.44	--	--	4.79	3.63	4.21	--
SV RR244TT	Not Approved	--	3.84	4.18	4.01	--	--	5.51	4.17	4.84	--
SV RR333	Not Approved	4.32	4.39	4.11	4.25	4.28	4.86	4.81	4.54	4.67	4.74
SV RR336	Not Approved	3.93	4.29	4.38	4.34	4.20	4.75	4.53	3.94	4.24	4.41
SV RR350	<2 Yrs	--	--	4.35	--	--	--	--	4.91	--	--
SV RR351	<2 Yrs	--	--	NE	--	--	--	--	4.62	--	--
SV RR352	<2 Yrs	--	--	4.44	--	--	--	--	4.48	--	--
SV RR353	<2 Yrs	--	--	3.96	--	--	--	--	3.72	--	--
Susceptible Checks											
Rhiz Chk#08 CRYS539RR	Susc Chk	5.09	4.73	4.65							
Rhiz Chk#24 BETA86RR88	Susc Chk	4.82	4.91	4.82							
Rhiz Chk#25 HILL4043RR	Susc Chk	4.77	4.66	4.35							
Rhiz Chk#27 HILL4012RR	Susc Chk	5.12	4.52	4.41							
Rhiz Chk#29 BETA87RR58	Susc Chk	4.81	4.53	4.77							
Rhiz Chk#30 SES36711RR	Susc Chk	4.75	4.21	4.91							
Rhiz Chk#31 HILL4000RR	Susc Chk	5.22	4.76	5.03							
Rhiz Chk#32 HILL4010RR	Susc Chk	4.44	4.99								
Rhiz Chk#34 BETA86RR66	Susc Chk	4.31	4.48	4.57							
Rhiz Chk#35 SES36812RR	Susc Chk	4.13	4.63	4.37							
Rhiz Chk#36 BETA85RR02	Susc Chk	4.27	4.50	4.71							
Rhiz Chk#37 SES36918RR	Susc Chk	4.75	4.61	4.34							
Rhiz Chk#40 CRYS101RR	Susc Chk			4.55							
Susceptible Hybrid Mean		4.71	4.63	4.62	4.63	4.65				**5.20**	**5.40**
Approval Criteria ++		3.82	3.82	3.82	**3.82**	**4.19**					

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

+ 2015 data from 4 sites, 2014 data fromd 2 sites and 2013 data from 2 sites.

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

Previously approved varieties not meeting current approval standards may be sold in 2016. Continued testing in 2016 will allow sales in 2017.

NE not entered into disease nursery. Variety approval will not be impacted by this miscommunication.

Excluded from Susc Mean

Table 24

Varieties Meeting MDFC Approval Criteria for the 2016 Sugarbeet Crop ++

Roundup Ready ®	Approval Status	Aph Spec	Rhc Spec
ACH RR012	Established	Aph	
ACH RR830	Established	Aph	Rhc
ACH RR228	Established	Aph	
ACH RR260	Specialty	Aph	
ACH RRD352	Specialty	Aph	Rhc
BTS 70RR99	Established	Aph	
BTS 7373	Established	Aph	
BTS 73MN	Established	Aph	Rhc
HM 4022RR	Specialty	Aph	Rhc
HM 4302RR	Test Market	Aph	Rhc
HM 4062RR	Specialty	Aph	Rhc
HM 9517RR	Specialty	Aph	Rhc
HM 9528RR	Test Market	Aph	
SV RR631	Established	Aph	
SV RR633	Specialty	Aph	
SV RR746	Test Market	Aph	
SV RR747	Specialty	Aph	

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.

Table 25.

Two Year Performance Summary of Minn-Dak Entries in 2015 (All Locations). *

	Years	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	
	Comm		2 Yr	2 Yr %		2 Yr	2 Yr %		2 Yr		2 Yr		2 Yr		2 Yr		2 Yr						
Description @	Seed +	2015	Mean	App.	2015	Mean	App.	2015	Mean	2015	Mean	2015	Mean	2015	Mean	2015	Mean	2014	2015	2014	2015	2014	2015
Commercial Trial																							
BTS 70RR99	4	354.6	333.9	102	10955	10003	107	19.0	17.9	30.8	29.8	79	68	4.34	4.27	3.25	3.41	3.9	3.9	3.5	2.8	0	0
BTS 7373	1	353.1	339.9	104	9722	9436	101	18.9	18.2	27.4	27.7	83	77	4.66	4.62	2.72	2.72	4.5	3.8	3.9	3.4	0	0
BTS 73MN	1	336.4	322.7	99	9799	9405	100	18.0	17.3	29.1	29.1	79	75	4.61	4.49	3.99	3.96	4.1	3.8	3.2	2.8	0	0
Crystal D352	1	337.1	317.6	97	9794	9379	100	18.1	17.1	29.0	29.4	79	80	4.81	4.74	3.38	3.59	3.9	3.5	2.5	2.4	0	0
Crystal RR012	4	350.7	336.1	103	9597	9134	97	18.8	18.1	27.4	27.2	83	69	4.61	4.60	3.87	3.85	4.1	4.0	3.4	3.0	50	0
Crystal RR228	2	356.8	346.7	106	9488	9490	101	19.0	18.5	26.4	27.3	80	69	4.24	4.22	2.84	2.59	4.5	4.0	4.4	3.4	32	0
Crystal RR260	2	324.7	310.2	95	9515	9636	103	17.5	16.8	29.1	31.0	83	69	3.98	4.16	4.07	4.37	4.5	4.0	2.7	2.7	0	0
Crystal RR830	6	333.9	315.0	96	10689	9981	107	17.9	16.9	32.1	31.6	78	69	5.06	4.88	3.82	3.87	3.7	3.7	4.1	3.0	81	0
Hilleshög 4022RR	7	330.5	309.8	95	9791	8929	95	17.9	16.9	29.8	28.9	77	67	4.37	4.45	3.75	4.17	3.8	3.5	4.8	4.0	0	0
Hilleshög 4062RR	6	333.7	317.7	97	9925	9161	98	18.0	17.2	29.9	28.9	82	69	4.39	4.48	4.49	4.16	3.4	3.4	5.0	4.0	0	0
Hilleshög 9517RR	1	347.8	330.6	101	9304	8579	92	18.6	17.8	26.7	25.8	81	71	4.03	4.21	3.09	3.49	4.0	3.7	3.4	2.8	0	0
SV RR633	1	314.6	310.5	95	8584	9090	97	17.0	16.7	27.1	29.1	79	76	5.43	5.41	3.36	3.54	4.2	4.0	3.2	NE	0	0
Experimental Trial																							
BTS 7438	NC	318.8	309.3	95	10207	9558	102	17.1	16.6	32.0	30.9	77	77	4.79	4.62	3.59	3.72	4.1	NE	--	NE	0	0
BTS 7510	NC	337.9	--	--	8583	--	--	18.1	--	25.3	--	71	--	4.63	--	3.70	--	--	4.3	--	3.1	--	0
BTS 7520	NC	334.1	--	--	9776	--	--	17.9	--	29.3	--	74	--	4.95	--	3.11	--	--	4.1	--	3.0	--	0
BTS 7540	NC	338.4	--	--	10749	--	--	18.1	--	31.7	--	75	--	3.85	--	3.10	--	--	4.0	--	2.6	--	0
BTS 7550	NC	345.2	--	--	10270	--	--	18.4	--	29.8	--	76	--	4.57	--	3.64	--	--	4.0	--	2.6	--	0
BTS 7570	NC	327.3	--	--	9998	--	--	17.8	--	30.4	--	64	--	4.71	--	4.45	--	--	3.8	--	2.9	--	0
Crystal D508	NC	343.7	--	--	10684	--	--	18.4	--	31.1	--	71	--	4.63	--	4.00	--	--	4.1	--	2.7	--	0
Crystal D518	NC	330.4	--	--	10562	--	--	17.7	--	31.9	--	75	--	3.98	--	2.94	--	--	4.3	--	2.1	--	0
Crystal D558	NC	327.6	--	--	9841	--	--	17.6	--	29.9	--	66	--	4.22	--	5.07	--	--	3.9	--	3.3	--	671
Hilleshög 4302RR	NC	336.2	325.2	100	10336	9519	102	18.0	17.4	30.6	29.1	73	73	4.13	4.33	4.02	4.11	3.6	3.7	5.0	4.0	0	0
Hilleshög 9528RR	NC	330.2	323.3	99	9892	9622	103	17.7	17.3	29.9	29.8	71	72	5.16	5.06	2.97	4.20	3.8	4.1	4.8	4.0	0	0
Hilleshög 9602RR	NC	311.4	308.9	95	8998	9123	97	16.8	16.6	28.9	29.5	75	75	4.66	4.67	4.67	4.61	4.1	3.9	--	4.3	0	0
Hilleshög HIL9712	NC	316.4	--	--	9582	--	--	17.0	--	30.1	--	72	--	5.07	--	3.48	--	--	4.0	--	4.0	--	0
Hilleshög HIL9726	NC	331.0	--	--	8201	--	--	17.7	--	24.6	--	64	--	4.97	--	3.42	--	--	4.6	--	5.1	--	0
Hilleshög HIL9727	NC	323.1	--	--	9259	--	--	17.3	--	28.5	--	70	--	4.72	--	3.34	--	--	4.0	--	3.8	--	0
Hilleshög HIL9728	NC	327.7	--	--	9760	--	--	17.6	--	29.8	--	76	--	4.96	--	3.92	--	--	3.9	--	3.7	--	0
Hilleshög HIL9729	NC	331.7	--	--	9546	--	--	17.7	--	28.7	--	69	--	4.77	--	5.00	--	--	3.7	--	--	--	0
Hilleshög HIL9730	NC	325.0	--	--	8906	--	--	17.5	--	27.4	--	72	--	4.74	--	3.29	--	--	3.9	--	2.8	--	0
Hilleshög HIL9731	NC	308.7	--	--	9984	--	--	16.7	--	32.2	--	73	--	4.94	--	2.53	--	--	3.8	--	--	--	0
Hilleshög HIL9755	NC	323.2	--	--	9414	--	--	17.3	--	29.0	--	73	--	5.24	--	3.03	--	--	3.8	--	4.2	--	0
Maribo 301	NC	318.9	308.3	94	8402	8345	89	17.2	16.7	26.0	26.9	67	73	4.85	4.89	3.28	3.22	4.7	4.1	2.7	2.6	0	0
Maribo 408	NC	310.6	306.2	94	8843	8909	95	17.0	16.6	28.5	29.1	74	72	5.13	5.21	4.19	4.45	--	4.0	--	4.2	0	0
Maribo 409	NC	307.0	303.4	93	8111	8834	94	16.6	16.4	26.4	29.1	77	75	5.36	5.32	3.98	4.52	--	4.6	--	6.6	0	95
Maribo MA510	NC	323.7	--	--	9055	--	--	17.5	--	27.9	--	75	--	5.03	--	2.47	--	--	4.1	--	2.5	--	0
Maribo MA511	NC	322.4	--	--	8875	--	--	17.4	--	27.6	--	70	--	4.94	--	2.84	--	--	4.1	--	2.8	--	0
Maribo MA512	NC	322.6	--	--	9094	--	--	17.2	--	28.2	--	71	--	4.00	--	3.29	--	--	3.7	--	--	--	0
Maribo MA528	NC	319.1	--	--	9670	--	--	17.2	--	30.2	--	74	--	5.88	--	2.53	--	--	--	--	--	--	0
Seedex RR0941	NC	317.6	309.5	95	8960	8807	94	17.1	16.6	28.1	28.5	71	67	4.80	4.73	3.15	3.54	4.2	3.9	4.9	3.2	0	0
Seedex RR0951	NC	333.3	--	--	10121	--	--	17.9	--	30.4	--	73	--	5.13	--	4.34	--	--	4.0	--	NE	--	0
Seedex RR0952	NC	329.6	--	--	9352	--	--	17.7	--	28.2	--	72	--	4.63	--	3.76	--	--	4.4	--	4.7	--	0
Seedex RR0953	NC	332.7	--	--	9404	--	--	17.8	--	28.3	--	69	--	4.43	--	3.86	--	--	4.3	--	4.6	--	0
SV RR631	NC	331.9	319.4	98	9299	9356	100	17.8	17.2	27.9	29.1	65	67	4.29	4.58	3.52	4.25	4.4	4.1	4.0	5.2	0	0
SV RR654	NC	327.9	--	--	9506	--	--	17.5	--	29.0	--	70	--	4.31	--	4.87	--	--	3.9	--	4.7	--	0
SV RR655	NC	342.3	--	--	10068	--	--	18.2	--	29.4	--	76	--	3.83	--	3.41	--	--	3.9	--	5.3	--	0
SV RR656	NC	334.7	--	--	10046	--	--	17.9	--	29.9	--	74	--	4.32	--	4.65	--	--	4.0	--	3.5	--	0
SV RR746	NC	340.6	333.6	102	9743	9654	103	18.2	17.8	28.6	28.9	65	69	4.84	4.86	3.90	4.26	4.2	4.1	--	NE	0	0
SV RR747	NC	328.8	316.6	97	10170	9687	103	17.6	16.9	30.7	30.4	71	69	4.07	4.40	4.08	4.38	4.1	4.2	--	4.8	0	0
Approved Variety Mean		349.0	326.6		10182	9371.7																	

* 2015 Foxhome & Fairmount. 2014 Barnesville & Fairmount.

Lower numbers indicate better Cercospora, Aphanomyces & Fusarium tolerance (1=Healthy, 9=Poor).

\+ Years Comm Seed indicates how long commercial seed has been planted in the official trials.

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

Created 12-11-2015.

Bolters /Ac are based upon a plant stand of 45,000.

Table 26. 2015 Performance of Varieties - MDFC Official Trials

2 sites

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 %
Commercial Trial														
BTS 70RR99	160	354.6	104	10955	112	1.26	18.98	30.77	170	1986	384	0	79	5.1
BTS 7373	162	353.1	104	9722	100	1.22	18.88	27.41	203	1949	355	0	83	4.4
BTS 73MN	159	336.4	99	9799	100	1.19	18.01	29.05	216	1924	328	0	79	3.5
Crystal D352	155	337.1	99	9794	100	1.25	18.10	29.00	201	1938	379	0	79	3.9
Crystal RR012	151	350.7	103	9597	98	1.30	18.83	27.36	192	2003	404	0	83	5.8
Crystal RR228	158	356.8	105	9488	97	1.20	19.04	26.42	191	1953	345	0	80	4.3
Crystal RR260	161	324.7	96	9515	97	1.27	17.50	29.08	282	2104	319	0	83	3.9
Crystal RR830	153	333.9	98	10689	109	1.16	17.86	32.10	221	1874	319	0	78	3.1
Hilleshög 4022RR	152	330.5	97	9791	100	1.36	17.89	29.76	270	2049	411	0	77	3.8
Hilleshög 4062RR	154	333.7	98	9925	102	1.28	17.96	29.89	247	2043	357	0	82	2.9
Hilleshög 9517RR	156	347.8	102	9304	95	1.24	18.62	26.65	288	1992	326	0	81	4.4
SV RR633	157	314.6	93	8584	88	1.27	16.99	27.07	275	1914	374	0	79	3.0
Experimental Trial (Comm status)														
BTS 7438	303	318.8	94	10207	105	1.13	17.07	32.04	295	1837	285	0	77	2.1
BTS 7510	331	337.9	100	8583	88	1.22	18.11	25.33	211	1883	369	0	71	2.3
BTS 7520	329	334.1	98	9776	100	1.21	17.93	29.30	254	1897	345	0	74	2.0
BTS 7540	337	338.4	100	10749	110	1.23	18.13	31.69	222	1940	352	0	75	1.8
BTS 7550	318	345.2	102	10270	105	1.17	18.43	29.79	185	1861	344	0	76	2.7
BTS 7570	322	327.3	96	9998	102	1.41	17.76	30.40	234	2054	452	0	64	2.6
Crystal D508	311	343.7	101	10684	109	1.27	18.44	31.06	196	1820	419	0	71	2.3
Crystal D518	309	330.4	97	10562	108	1.23	17.74	31.90	231	1942	348	0	75	1.8
Crystal D558	328	327.6	97	9841	101	1.26	17.63	29.94	252	1940	366	671	66	2.3
Hilleshög 4302RR	334	336.2	99	10336	106	1.16	17.97	30.63	230	1914	311	0	73	1.4
Hilleshög 9528RR	315	330.2	97	9892	101	1.21	17.72	29.89	229	1811	372	0	71	1.6
Hilleshög HIL9602	335	311.4	92	8998	92	1.24	16.81	28.91	293	1912	348	0	75	2.4
Hilleshög HIL9712	310	316.4	93	9582	98	1.21	17.02	30.06	286	1793	358	0	72	1.9
Hilleshög HIL9726	316	331.0	98	8201	84	1.14	17.69	24.56	241	1897	294	0	64	1.8
Hilleshög HIL9727	325	323.1	95	9259	95	1.18	17.32	28.54	249	1830	338	0	70	2.4
Hilleshög HIL9728	313	327.7	97	9760	100	1.18	17.56	29.75	269	1789	342	0	76	1.4
Hilleshög HIL9729	336	331.7	98	9546	98	1.16	17.74	28.75	260	1816	323	0	69	1.4
Hilleshög HIL9730	306	325.0	96	8906	91	1.29	17.53	27.35	396	1918	350	0	72	2.9
Hilleshög HIL9731	319	308.7	91	9984	102	1.29	16.71	32.19	293	1906	386	0	73	1.7
Hilleshög HIL9755	323	323.2	95	9414	96	1.17	17.33	29.05	229	1769	354	0	73	1.3
Maribo 301	302	318.9	94	8402	86	1.29	17.23	26.04	305	2031	353	0	67	3.3
Maribo 408	326	310.6	91	8843	91	1.45	16.97	28.46	399	2033	438	0	74	2.7
Maribo 409	333	307.0	90	8111	83	1.28	16.62	26.41	222	1926	397	95	77	2.2
Maribo MA510	307	323.7	95	9055	93	1.30	17.48	27.90	323	1985	367	0	75	2.5
Maribo MA511	324	322.4	95	8875	91	1.26	17.37	27.55	295	1991	339	0	70	2.8
Maribo MA512	312	322.6	95	9094	93	1.07	17.20	28.19	252	1660	301	0	71	1.9
Maribo MA528	320	319.1	94	9670	99	1.25	17.20	30.23	251	1713	413	0	74	1.4
Seedex RR0941	330	317.6	94	8960	92	1.27	17.14	28.13	282	1896	375	0	71	1.9
Seedex RR0951	301	333.3	98	10121	104	1.20	17.86	30.38	203	1846	361	0	73	1.6
Seedex RR0952	308	329.6	97	9352	96	1.19	17.68	28.18	294	1831	334	0	72	2.4
Seedex RR0953	304	332.7	98	9404	96	1.16	17.80	28.34	213	1882	324	0	69	1.6
SV RR631	317	331.9	98	9299	95	1.21	17.80	27.86	225	1998	325	0	65	1.8
SV RR654	321	327.9	97	9506	97	1.13	17.52	28.98	228	1807	310	0	70	1.8
SV RR655	332	342.3	101	10068	103	1.05	18.17	29.39	180	1786	276	0	76	2.6
SV RR656	305	334.7	99	10046	103	1.13	17.87	29.89	209	1862	309	0	74	2.1
SV RR746	327	340.6	100	9743	100	1.22	18.25	28.62	255	1950	332	0	65	1.3
SV RR747	314	328.8	97	10170	104	1.14	17.58	30.73	238	1894	294	0	71	1.8
Hilleshög 4062RR(Check)	338	321.5	95	9397	96	1.38	17.43	29.08	269	2022	426	0	72	1.7
BTS 70RR99(Check)	339	339.9	100	10831	111	1.23	18.22	31.85	211	1942	359	0	74	2.7
SV RR633 (Check)	340	341.4	101	9235	95	1.20	18.28	26.80	212	1979	330	0	77	2.3
Trial Mean		339.5		9764		1.25	18.22	28.71	230	1978	358		80	4.0
Coeff. of Var. (%)		3.8		7.4		7.7	3.3	6.1	21.2	3.6	15.1		5.9	46.1
Mean LSD (0.05)		13.4		1001		0.11	0.65	2.81	58	100	67		7	1.5
Mean LSD (0.01)		19.0		1415		0.16	0.92	3.98	82	141	95		10	2.0
Sig Lvl		**		*		ns	**	*	**	*	ns		ns	**

* 2015 Data from 2 sites

Created 10-20-2015.

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

Trial # = 15MDExp

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

Table 27. 2015 Performance of Varieties - MDFC Official Trials

Foxhome MN

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 %
Commercial Trial														
BTS 70RR99	160	362.0	103	11504	110	1.19	19.29	31.73	152	1961	346	0	74	5.5
BTS 7373	162	365.0	104	10518	101	1.10	19.35	28.78	156	1904	292	0	75	4.9
BTS 73MN	159	347.5	99	10726	103	1.12	18.49	30.78	185	1902	289	0	76	4.0
Crystal D352	155	346.2	98	10488	100	1.20	18.50	30.36	176	1924	355	0	74	4.1
Crystal RR012	151	356.3	101	10167	97	1.23	19.05	28.46	174	1976	366	0	76	5.6
Crystal RR228	158	371.7	106	10258	98	1.08	19.67	27.48	154	1887	276	0	74	4.8
Crystal RR260	161	340.9	97	10401	100	1.16	18.20	30.40	215	2075	266	0	73	3.8
Crystal RR830	153	345.8	98	11345	109	1.07	18.36	32.97	173	1847	279	0	73	2.8
Hilleshög 4022RR	152	343.3	98	9928	95	1.37	18.53	29.07	212	2121	421	0	76	4.7
Hilleshög 4062RR	154	346.1	98	10140	97	1.23	18.54	29.41	198	2015	344	0	75	3.2
Hilleshög 9517RR	156	365.7	104	10011	96	1.17	19.46	27.31	216	1989	297	0	77	4.9
SV RR633	157	334.8	95	9880	95	1.18	17.92	29.55	217	1891	336	0	75	2.9
Experimental Trial (Comm status)														
BTS 7438	303	334.7	95	11300	108	1.02	17.75	33.94	239	1760	253	0	70	2.3
BTS 7510	331	355.4	101	9786	94	1.09	18.85	27.57	173	1792	311	0	63	2.1
BTS 7520	329	345.8	98	11233	108	1.12	18.43	32.39	211	1868	306	0	70	2.1
BTS 7540	337	349.2	99	11731	112	1.19	18.65	33.46	182	1900	348	0	71	1.8
BTS 7550	318	354.4	101	11134	107	1.12	18.83	31.48	167	1840	320	0	70	2.7
BTS 7570	322	335.9	95	10492	100	1.35	18.17	31.26	174	2054	425	0	64	2.5
Crystal D508	311	354.2	101	10849	104	1.23	18.93	30.74	169	1848	393	0	64	2.4
Crystal D518	309	341.6	97	11754	113	1.12	18.19	34.46	173	1881	306	0	70	2.0
Crystal D558	328	339.3	96	10801	103	1.17	18.13	31.90	201	1887	338	765	66	2.5
Hilleshög 4302RR	334	350.9	100	10566	101	1.08	18.61	30.21	181	1924	274	0	67	1.4
Hilleshög 9528RR	315	339.2	96	10659	102	1.19	18.16	31.47	196	1825	364	0	66	1.8
Hilleshög HIL9602	335	318.0	90	10330	99	1.21	17.14	32.51	253	1937	339	0	67	2.8
Hilleshög HIL9712	310	324.6	92	9784	94	1.17	17.40	30.19	227	1790	347	0	70	1.7
Hilleshög HIL9726	316	355.3	101	9912	95	1.02	18.77	27.91	191	1840	247	0	59	2.0
Hilleshög HIL9727	325	341.8	97	10649	102	1.09	18.16	31.25	167	1849	299	0	67	3.1
Hilleshög HIL9728	313	338.0	96	10230	98	1.13	18.02	30.33	225	1752	329	0	70	1.3
Hilleshög HIL9729	336	344.7	98	10771	103	1.06	18.29	31.37	208	1800	277	0	63	1.6
Hilleshög HIL9730	306	337.7	96	9605	92	1.21	18.11	28.49	333	1932	313	0	65	2.3
Hilleshög HIL9731	319	325.1	92	10931	105	1.26	17.53	33.64	212	1878	390	0	68	1.6
Hilleshög HIL9755	323	328.4	93	10099	97	1.14	17.57	30.78	191	1747	348	0	63	1.3
Maribo 301	302	340.0	97	9767	93	1.23	18.25	28.71	239	2029	337	0	64	3.6
Maribo 408	326	316.2	90	9752	93	1.44	17.30	30.69	317	2029	451	0	66	2.4
Maribo 409	333	314.6	89	9033	86	1.29	17.06	28.84	201	1970	402	0	70	1.7
Maribo MA510	307	339.0	96	10357	99	1.27	18.22	30.68	274	1959	367	0	65	2.4
Maribo MA511	324	332.8	95	10631	102	1.25	17.90	32.10	251	2000	352	0	65	2.5
Maribo MA512	312	334.0	95	10265	98	1.04	17.72	30.83	224	1674	281	0	67	2.1
Maribo MA528	320	327.4	93	10393	99	1.29	17.69	31.65	203	1748	441	0	68	1.4
Seedex RR0941	330	320.9	91	10011	96	1.21	17.28	30.93	264	1838	354	0	69	1.8
Seedex RR0951	301	344.3	98	10307	99	1.16	18.37	30.08	162	1874	340	0	69	1.2
Seedex RR0952	308	352.1	100	10169	97	1.06	18.66	28.91	222	1814	277	0	67	2.9
Seedex RR0953	304	343.5	98	10510	101	1.12	18.29	30.73	182	1912	298	0	65	1.4
SV RR631	317	351.0	100	10915	104	1.12	18.67	31.14	176	1937	300	0	62	1.7
SV RR654	321	341.0	97	10628	102	1.07	18.11	31.36	192	1780	296	0	61	1.8
SV RR655	332	353.8	100	11058	106	0.97	18.63	31.35	155	1782	234	0	69	1.9
SV RR656	305	344.8	98	10913	104	1.08	18.31	31.60	188	1872	280	0	69	2.3
SV RR746	327	359.0	102	11024	106	1.09	19.02	30.84	193	1868	287	0	61	1.3
SV RR747	314	339.3	96	11021	105	1.04	18.00	32.35	201	1907	241	0	64	1.8
Hilleshög 4062RR(Check)	338	331.3	94	9705	93	1.37	17.94	29.41	219	2038	428	0	69	1.9
BTS 70RR99(Check)	339	357.0	101	11756	113	1.15	19.00	33.06	177	1907	324	0	69	3.1
SV RR633 (Check)	340	354.7	101	10063	96	1.08	18.81	28.23	172	1922	273	0	70	2.2
Comm.Trial Mean		352.1		10447		1.17	18.78	29.69	186	1958	322		75	4.3
Coeff. of Var. (%)		3.8		7.0		8.1	3.3	5.8	19.6	3.4	16.3		4.5	52
Mean LSD (0.05)		16.3		967		0.11	0.75	2.30	48	76	63		4	2.6
Mean LSD (0.01)		21.7		1292		0.15	1.00	3.07	63	102	84		6	3.4
Sig Mrk		**		**		**	**	**	*	**	**		ns	ns

* 2015 Data from Foxhome MN

Created 10-15-2015.

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

Trial # = 156302

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

Table 28. 2015 Performance of Varieties - MDFC Official Trials

Fairmount ND

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 %
Commercial Trial														
BTS 70RR99	160	346.8	106	10425	115	1.33	18.66	30.00	193	2017	425	0	84	4.8
BTS 7373	162	341.5	104	8928	98	1.34	18.42	26.05	246	1993	417	0	91	3.9
BTS 73MN	159	325.9	100	8848	97	1.26	17.55	27.08	240	1949	368	0	82	3.0
Crystal D352	155	327.9	100	9130	101	1.30	17.69	27.83	233	1955	404	0	83	3.7
Crystal RR012	151	345.1	106	9022	99	1.36	18.62	26.17	212	2030	442	0	89	6.0
Crystal RR228	158	341.7	105	8690	96	1.33	18.41	25.27	217	2022	415	0	87	3.7
Crystal RR260	161	308.5	94	8642	95	1.37	16.79	27.83	350	2132	372	0	93	3.9
Crystal RR830	153	322.4	99	10017	110	1.25	17.37	31.12	270	1899	359	0	82	3.4
Hilleshög 4022RR	152	318.2	97	9751	107	1.35	17.26	30.73	332	1982	398	0	79	2.9
Hilleshög 4062RR	154	321.5	98	9757	107	1.33	17.41	30.43	290	2066	369	0	88	2.7
Hilleshög 9517RR	156	329.0	101	8559	94	1.31	17.76	25.96	364	1996	357	0	85	4.0
SV RR633	157	293.7	90	7188	79	1.35	16.03	24.34	341	1929	413	0	83	3.0
xperimental Trial (Comm status)														
BTS 7438	303	303.6	93	9077	100	1.23	16.42	30.03	359	1916	318	0	84	1.8
BTS 7510	331	322.0	99	7468	82	1.35	17.44	23.33	254	1968	426	0	78	2.5
BTS 7520	329	321.6	98	8240	91	1.28	17.37	25.91	307	1924	375	0	77	1.8
BTS 7540	337	325.4	100	9711	107	1.25	17.53	29.95	269	1986	340	0	80	1.8
BTS 7550	318	335.7	103	9352	103	1.19	18.00	28.22	207	1883	347	0	82	2.6
BTS 7570	322	317.1	97	9611	106	1.46	17.29	29.93	307	2059	468	0	65	2.8
Crystal D508	311	333.7	102	10427	115	1.28	17.97	31.37	223	1801	433	0	78	2.3
Crystal D518	309	317.9	97	9402	104	1.34	17.23	29.52	303	2006	388	0	80	1.6
Crystal D558	328	315.0	96	8867	98	1.31	17.07	27.96	311	2001	379	581	66	2.1
Hilleshög 4302RR	334	321.2	98	10123	111	1.23	17.31	31.38	291	1904	340	0	78	1.5
Hilleshög 9528RR	315	320.1	98	9122	100	1.21	17.23	28.31	265	1786	355	0	75	1.4
Hilleshög HIL9602	335	303.6	93	7698	85	1.25	16.43	25.23	338	1869	351	0	83	2.2
Hilleshög HIL9712	310	306.1	94	9315	103	1.26	16.56	30.15	361	1794	368	0	73	1.8
Hilleshög HIL9726	316	309.0	95	6507	72	1.22	16.68	21.14	295	1952	320	0	69	1.6
Hilleshög HIL9727	325	305.9	94	7872	87	1.27	16.57	25.62	344	1798	390	0	73	1.6
Hilleshög HIL9728	313	317.6	97	9289	102	1.21	17.11	29.41	316	1831	335	0	83	1.5
Hilleshög HIL9729	336	319.4	98	8321	92	1.23	17.22	26.14	321	1830	355	0	75	1.2
Hilleshög HIL9730	306	310.5	95	8214	90	1.34	16.86	26.37	467	1901	369	0	79	3.5
Hilleshög HIL9731	319	290.6	89	9082	100	1.33	15.85	31.05	390	1938	373	0	78	1.6
Hilleshög HIL9755	323	315.8	97	8683	96	1.18	16.99	27.26	273	1791	340	0	83	1.3
Maribo 301	302	298.1	91	7041	78	1.30	16.21	23.23	386	2024	342	0	71	3.1
Maribo 408	326	304.0	93	7927	87	1.46	16.61	26.12	494	2034	418	0	81	3.0
Maribo 409	333	300.2	92	7181	79	1.22	16.22	23.98	236	1875	358	194	83	2.5
Maribo MA510	307	310.8	95	7831	86	1.30	16.84	25.34	377	2008	347	0	86	2.7
Maribo MA511	324	312.5	96	7150	79	1.23	16.85	22.81	344	1979	301	0	75	3.0
Maribo MA512	312	311.1	95	8008	88	1.12	16.69	25.56	281	1633	332	0	75	1.7
Maribo MA528	320	307.8	94	8908	98	1.18	16.58	28.90	306	1675	366	0	80	1.3
Seedex RR0941	330	312.6	96	7906	87	1.31	16.94	25.38	294	1966	389	0	73	2.2
Seedex RR0951	301	322.5	99	9821	108	1.22	17.36	30.47	251	1810	371	0	78	1.8
Seedex RR0952	308	307.9	94	8518	94	1.33	16.71	27.35	377	1843	399	0	77	1.9
Seedex RR0953	304	322.2	99	8209	90	1.18	17.31	25.70	244	1850	333	0	74	1.8
SV RR631	317	312.8	96	7677	85	1.27	16.92	24.62	281	2057	337	0	67	1.9
SV RR654	321	314.0	96	8403	93	1.16	16.88	26.81	268	1828	317	0	78	1.9
SV RR655	332	330.4	101	9085	100	1.15	17.69	27.47	205	1790	336	0	83	3.3
SV RR656	305	324.1	99	9130	101	1.19	17.41	27.99	228	1861	340	0	80	2.0
SV RR746	327	323.7	99	8415	93	1.35	17.52	26.18	325	2031	387	0	71	1.4
SV RR747	314	316.7	97	9305	102	1.23	17.08	29.23	280	1874	352	0	77	1.8
Hilleshög 4062RR(Check)	338	311.1	95	9083	100	1.38	16.92	28.86	326	2005	421	0	75	1.6
BTS 70RR99(Check)	339	323.2	99	9876	109	1.29	17.46	30.54	246	1974	388	0	79	2.5
SV RR633 (Check)	340	327.7	100	8411	93	1.34	17.72	25.37	251	2033	398	0	83	2.3
Comm.Trial Mean		326.8		9080		1.32	17.67	27.73	274	1997	395		86	3.8
Coeff. of Var. (%)		3.9		8.3		7.5	3.3	6.6	21.6	3.9	14.4		6.5	40.0
Mean LSD (0.05)		15.7		957		0.12	0.71	2.31	69	95	67		6	1.7
Mean LSD (0.01)		21.0		1276		0.16	0.95	3.09	92	127	90		9	2.3
Sig Mrk		**		**		ns	**	**	**	**	ns		**	*

* 2015 Data from Fairmount ND

Created 10-16-2015.

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

Trial # = 156303

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

Table 29.

2015 Aphanomyces Ratings for Official Trial Entries

Betaseed Nursery - Shakopee, MN & ACSC - Kindred, ND

		Root Unadj. ^^		Root Adj ^^							
		Kind	Shak	Kind	Shak	2015	Root Rating		2014	2013	Trial
Chk++ Code	Description	9/1	8/27	9/1	8/27	Root	2 Yr	3 Yr	Root ^^	Root ^^	Yrs $$
601	BTS 70RR99	5.26	2.83	4.37	3.25	3.25	3.41	3.78	3.57	4.52	6
506	BTS 7373	4.42	2.37	4.59	2.72	2.72	2.72	2.99	2.72	3.53	3
597	BTS 73MN	4.55	3.47	4.73	3.99	3.99	3.96	3.96	3.93	3.96	3
627	BTS 7438	3.84	3.12	3.99	3.59	3.59	3.72	--	3.85	--	2
521	BTS 7510	4.96	3.22	5.15	3.70	3.70	--	--	--	--	1
575	BTS 7520	5.32	2.71	5.53	3.11	3.11	--	--	--	--	1
595	BTS 7540	4.26	2.70	4.43	3.10	3.10	--	--	--	--	1
531	BTS 7550	4.53	3.17	4.71	3.64	3.64	--	--	--	--	1
548	BTS 7570	4.59	3.87	4.77	4.45	4.45	--	--	--	--	1
519	BTS 80RR32	4.55	4.47	4.73	5.14	5.14	5.10	5.08	5.06	5.04	6
572	BTS 80RR52	4.20	2.82	4.36	3.24	3.24	3.62	3.75	4.01	4.01	6
602	BTS 82RR28	4.09	3.61	4.25	4.15	4.15	4.49	4.53	4.84	4.62	4
502	BTS 82RR33	5.79	4.90	6.02	5.63	5.63	5.61	5.54	5.59	5.40	4
596	BTS 8337	4.99	2.22	5.18	2.55	2.55	3.12	3.31	3.68	3.69	3
527	BTS 8363	5.23	4.15	5.43	4.77	4.77	4.90	4.90	5.03	4.91	3
626	BTS 8390	5.25	3.71	5.45	4.26	4.26	4.65	4.68	5.03	4.75	3
576	BTS 83CN	4.38	3.30	4.55	3.79	3.79	3.98	4.10	4.16	4.34	3
569	BTS 8405	5.04	4.19	5.24	4.82	4.82	4.87	--	4.93	--	2
585	BTS 8408	4.30	3.93	4.47	4.52	4.52	4.42	--	4.33	--	2
570	BTS 8500	4.70	3.08	4.88	3.54	3.54	--	--	--	--	1
512	BTS 8512	4.45	3.40	4.62	3.91	3.91	--	--	--	--	1
553	BTS 8524	3.87	2.90	4.02	3.33	3.33	--	--	--	--	1
567	BTS 8536	4.36	3.36	4.53	3.86	3.86	--	--	--	--	1
606	BTS 8548	5.40	4.18	5.61	4.80	4.80	--	--	--	--	1
610	BTS 8560	5.11	2.62	5.31	3.01	3.01	--	--	--	--	1
509	BTS 8572	4.36	3.52	4.53	4.05	4.05	--	--	--	--	1
517	BTS 8584	5.17	3.84	5.37	4.41	4.41	--	--	--	--	1
549	Crystal 093RR	4.96	3.36	5.15	3.86	3.86	4.28	4.36	4.69	4.54	6
515	Crystal 101RR	5.21	2.88	5.41	3.31	3.31	3.38	3.52	3.45	3.80	5
539	Crystal 246RR	5.11	4.34	5.31	4.99	4.99	4.75	4.80	4.51	4.90	4
587	Crystal 247RR	5.56	4.30	5.78	4.94	4.94	5.00	5.07	5.05	5.21	4
622	Crystal 355RR	3.77	2.84	3.92	3.26	3.26	3.71	3.98	4.15	4.51	3
566	Crystal 359RR	4.04	3.91	4.20	4.49	4.49	4.71	4.62	4.92	4.44	3
580	Crystal 467RR	5.39	3.09	5.60	3.55	3.55	3.94	--	4.33	--	2
578	Crystal 572RR	4.41	3.77	4.58	4.33	4.33	--	--	--	--	1
573	Crystal 573RR	5.28	3.21	5.49	3.69	3.69	--	--	--	--	1
558	Crystal 574RR	5.26	2.55	5.46	2.93	2.93	--	--	--	--	1
557	Crystal 575RR	4.73	3.38	4.91	3.88	3.88	--	--	--	--	1
555	Crystal 576RR	3.60	2.82	3.74	3.24	3.24	--	--	--	--	1
603	Crystal 577RR	5.31	4.85	5.52	5.57	5.57	--	--	--	--	1
503	Crystal 578RR	5.52	3.93	5.73	4.52	4.52	--	--	--	--	1
621	Crystal 579RR	4.55	3.95	4.73	4.54	4.54	--	--	--	--	1
591	Crystal 875RR	4.32	2.17	4.49	2.49	2.49	2.80	3.12	3.11	3.76	8
534	Crystal 981RR	4.45	2.83	4.62	3.25	3.25	3.52	3.53	3.79	3.55	7
523	Crystal 986RR	4.82	3.37	5.01	3.87	3.87	4.25	4.39	4.63	4.67	7
582	Crystal D352	3.71	2.94	3.85	3.38	3.38	3.59	3.77	3.80	4.12	3
547	Crystal D508	5.26	3.48	5.46	4.00	4.00	--	--	--	--	1
559	Crystal D518	4.75	2.56	4.93	2.94	2.94	--	--	--	--	1
532	Crystal D558	5.15	4.41	5.35	5.07	5.07	--	--	--	--	1
538	Crystal RR012	3.73	3.37	3.88	3.87	3.87	3.85	4.16	3.83	4.78	6
564	Crystal RR228	4.88	2.47	5.07	2.84	2.84	2.59	2.85	2.35	3.36	4
542	Crystal RR260	5.98	3.54	6.21	4.07	4.07	4.37	4.34	4.67	4.28	4
536	Crystal RR830	3.96	3.32	4.11	3.82	3.82	3.87	4.12	3.92	4.62	8
565	Hilleshög HIL9704	4.96	3.27	5.15	3.76	3.76	--	--	--	--	1
540	Hilleshög HIL9705	5.94	3.68	6.17	4.23	4.23	--	--	--	--	1
618	Hilleshög HIL9706	4.15	2.32	4.31	2.67	2.67	--	--	--	--	1
522	Hilleshög HIL9707	4.38	3.06	4.55	3.52	3.52	--	--	--	--	1

Table 29.

2015 Aphanomyces Ratings for Official Trial Entries

Betaseed Nursery - Shakopee, MN & ACSC - Kindred, ND

Chk++	Code	Description	Root Unadj. ^^ Kind 9/1	Root Unadj. ^^ Shak 8/27	Root Adj ^^ Kind 9/1	Root Adj ^^ Shak 8/27	2015 Root	Root Rating 2 Yr	Root Rating 3 Yr	2014 Root ^^	2013 Root ^^	Trial Yrs $$
	529	Hilleshög HIL9708	3.93	4.08	4.08	4.69	4.69	--	--	--	--	1
	584	Hilleshög HIL9709	4.18	5.06	4.34	5.82	5.82	--	--	--	--	1
	607	Hilleshög HIL9710	4.39	3.03	4.56	3.48	3.48	--	--	--	--	1
	543	Hilleshög HIL9711	4.64	2.62	4.82	3.01	3.01	--	--	--	--	1
	544	Hilleshög HIL9712	4.00	3.03	4.16	3.48	3.48	--	--	--	--	1
	514	Hilleshög HIL9713	4.27	5.00	4.44	5.75	5.75	--	--	--	--	1
	599	Hilleshög HIL9714	3.92	5.61	4.07	6.45	6.45	--	--	--	--	1
	593	Hilleshög HIL9726	4.14	2.98	4.30	3.42	3.42	--	--	--	--	1
	583	Hilleshög HIL9727	4.61	2.91	4.79	3.34	3.34	--	--	--	--	1
	511	Hilleshög HIL9728	4.15	3.41	4.31	3.92	3.92	--	--	--	--	1
	620	Hilleshög HIL9729	3.47	4.35	3.61	5.00	5.00	--	--	--	--	1
	546	Hilleshög HIL9730	4.77	2.86	4.96	3.29	3.29	--	--	--	--	1
	619	Hilleshög HIL9731	4.50	2.20	4.68	2.53	2.53	--	--	--	--	1
	510	Hilleshög HIL9755	4.70	2.64	4.88	3.03	3.03	--	--	--	--	1
	537	Hilleshög 4022RR	3.10	3.26	3.22	3.75	3.75	4.17	4.33	4.59	4.65	10
	501	Hilleshög 4062RR	3.03	3.91	3.15	4.49	4.49	4.16	4.26	3.83	4.46	8
	513	Hilleshög 4094RR	3.48	4.00	3.62	4.60	4.60	4.53	4.60	4.47	4.73	8
	561	Hilleshög 4302RR	3.91	3.50	4.06	4.02	4.02	4.11	4.35	4.20	4.82	5
	615	Hilleshög 4448RR	4.21	2.44	4.37	2.80	2.80	3.79	4.11	4.78	4.73	4
	590	Hilleshög 9517RR	3.30	2.69	3.43	3.09	3.09	3.49	3.55	3.89	3.66	3
	562	Hilleshög 9528RR	3.97	2.58	4.12	2.97	2.97	4.20	4.31	5.44	4.51	3
	518	Hilleshög HIL9602	4.65	4.06	4.83	4.67	4.67	4.61	--	4.55	--	2
	545	Maribo 102	4.83	2.42	5.02	2.78	2.78	3.88	4.02	4.99	4.30	5
	554	Maribo 109	3.11	3.08	3.23	3.54	3.54	4.27	--	5.00	--	2
	507	Maribo 301	4.89	2.85	5.08	3.28	3.28	3.22	--	3.16	--	2
	524	Maribo MA305	4.23	4.14	4.39	4.76	4.76	4.88	4.89	4.99	4.93	3
	504	Maribo 402	4.87	3.69	5.06	4.24	4.24	4.27	--	4.31	--	2
	551	Maribo 408	5.36	3.65	5.57	4.19	4.19	4.45	--	4.70	--	2
	568	Maribo 409	6.44	3.46	6.69	3.98	3.98	4.52	--	5.06	--	2
	520	Maribo MA500	5.63	3.31	5.85	3.80	3.80	--	--	--	--	1
	535	Maribo MA501	5.46	5.11	5.67	5.87	5.87	--	--	--	--	1
	600	Maribo MA502	4.87	2.55	5.06	2.93	2.93	--	--	--	--	1
	586	Maribo MA503	3.50	3.13	3.64	3.60	3.60	--	--	--	--	1
	577	Maribo MA504	4.56	4.00	4.74	4.60	4.60	--	--	--	--	1
	533	Maribo MA510	4.66	2.15	4.84	2.47	2.47	--	--	--	--	1
	592	Maribo MA511	5.34	2.47	5.55	2.84	2.84	--	--	--	--	1
	609	Maribo MA512	3.44	2.86	3.57	3.29	3.29	--	--	--	--	1
	624	Maribo MA528	5.23	2.20	5.43	2.53	2.53	--	--	--	--	1
	550	Seedex RR0855	5.54	5.81	5.76	6.68	6.68	--	--	--	--	1
	594	Seedex RR0856	3.94	3.94	4.09	4.53	4.53	--	--	--	--	1
	525	Seedex RR0857	4.08	3.13	4.24	3.60	3.60	--	--	--	--	1
	552	Seedex RR0858	4.57	2.96	4.75	3.40	3.40	--	--	--	--	1
	541	Seedex RR0941	5.16	2.74	5.36	3.15	3.15	3.54	--	3.93	--	2
	613	Seedex RR0951	4.66	3.78	4.84	4.34	4.34	--	--	--	--	1
	560	Seedex RR0952	5.23	3.27	5.43	3.76	3.76	--	--	--	--	1
	505	Seedex RR0953	4.24	3.36	4.40	3.86	3.86	--	--	--	--	1
	556	SX Savannah RR(842)	4.50	3.11	4.68	3.57	3.57	4.70	--	5.82	--	2
	571	SX Canyon RR(844TT)	4.11	3.12	4.27	3.59	3.59	4.71	--	5.84	--	2
	617	SX Cruze RR(846)	4.35	3.60	4.52	4.14	4.14	4.95	--	5.77	--	2
	604	SX Terrain RR(848)	5.18	3.21	5.38	3.69	3.69	4.63	--	5.58	--	2
	508	SX Winchester RR(832)	5.43	2.67	5.64	3.07	3.07	4.06	4.22	5.06	4.54	3
	625	SX Yukon RR	5.39	2.75	5.60	3.16	3.16	2.97	3.43	2.77	4.35	4
	574	SV 36272RR	4.76	3.45	4.95	3.97	3.97	4.47	4.65	4.98	5.01	4
	605	SV 36273RR	5.10	3.81	5.30	4.38	4.38	4.99	5.09	5.59	5.31	4
	598	SV RR241	4.49	2.50	4.66	2.87	2.87	4.15	--	5.42	--	2
	588	SV RR243	4.82	2.17	5.01	2.49	2.49	4.10	--	5.71	--	2
	608	SV RR244TT	4.69	3.68	4.87	4.23	4.23	4.95	--	5.67	--	2

Table 29.

2015 Aphanomyces Ratings for Official Trial Entries
Betaseed Nursery - Shakopee, MN & ACSC - Kindred, ND

			Root Unadj. ^^		Root Adj ^^							
			Kind	Shak	Kind	Shak	2015	Root Rating		2014	2013	Trial
Chk++	Code	Description	9/1	8/27	9/1	8/27	Root	2 Yr	3 Yr	Root ^^	Root ^^	Yrs $$
	616	SV RR333	5.02	3.01	5.22	3.46	3.46	4.40	4.76	5.33	5.48	3
	530	SV RR336	4.77	2.42	4.96	2.78	2.78	4.14	4.27	5.50	4.53	3
	563	SV RR350	5.46	4.40	5.67	5.06	5.06	--	--	--	--	1
	623	SV RR351	5.15	3.07	5.35	3.53	3.53	--	--	--	--	1
	612	SV RR352	4.81	4.99	5.00	5.73	5.73	--	--	--	--	1
	579	SV RR353	4.67	2.39	4.85	2.75	2.75	--	--	--	--	1
	528	SV RR631	4.73	3.06	4.91	3.52	3.52	4.25	4.51	4.98	5.04	3
	614	SV RR633	4.26	2.92	4.43	3.36	3.36	3.54	3.92	3.72	4.69	3
	526	SV RR654	4.10	4.24	4.26	4.87	4.87	--	--	--	--	1
	516	SV RR655	4.28	2.97	4.45	3.41	3.41	--	--	--	--	1
	589	SV RR656	4.18	4.05	4.34	4.65	4.65	--	--	--	--	1
	611	SV RR746	4.88	3.39	5.07	3.90	3.90	4.26	--	4.62	--	2
	581	SV RR747	4.30	3.55	4.47	4.08	4.08	4.38	--	4.67	--	2
	1001	Aph Chk-48 CRYS875RR	4.48	2.08	4.65	2.39	2.39	2.75	3.08	3.11	3.76	8
1	1002	Aph Chk-29 BETA86RR44	5.72	4.19	5.94	4.82	4.82	5.31	5.33	5.81	5.36	10
1	1003	Aph Chk-30 BETA86RR66	4.82	3.75	5.01	4.31	4.31	4.68	4.62	5.05	4.51	10
1	1004	Aph Chk-26 HILL4022RR	3.53	3.47	3.67	3.99	3.99	4.71	4.72	5.43	4.73	10
1	1005	Aph Chk-35 BETA87RR58	5.95	5.04	6.18	5.79	5.79	5.45	5.35	5.10	5.17	9
1	1006	Aph Chk-39 CRYS879RR	5.47	6.38	5.68	7.33	7.33	6.50	6.41	5.66	6.24	5
1	1007	Aph Chk-45 CRYS986RR	4.71	3.60	4.89	4.14	4.14	4.32	4.52	4.51	4.90	7
1	1008	Aph Chk-33 CRYS768RR	5.53	4.23	5.75	4.86	4.86	4.74	4.92	4.62	5.29	9
1	1009	Aph Chk-31 BETA86RR88	5.65	4.06	5.87	4.67	4.67	4.71	4.80	4.75	4.99	10
1	1010	Aph Chk-47 CRYS101RR	4.45	2.73	4.62	3.14	3.14	3.29	3.46	3.45	3.80	5
1	1011	Aph Chk-34 HILL4000RR	4.93	4.99	5.12	5.73	5.73	5.58	5.45	5.42	5.18	9
1	1012	Aph Chk-41 CRYS765RR	5.40	5.86	5.61	6.73	6.73	6.35	6.23	5.96	6.01	5
1	1013	Aph Chk-36 BETA87RR68	5.47	6.83	5.68	7.85	7.85	6.71	6.45	5.58	5.92	9
1	1014	Aph Chk-49 BTS82RR33	5.57	5.30	5.79	6.09	6.09	5.84	5.69	5.59	5.40	4
1	1015	Aph Chk-44 SX VISION RR	5.60	4.64	5.82	5.33	5.33	5.44	5.43	5.54	5.41	7
1	1016	Aph Chk-43 BTS80RR32	4.25	4.58	4.42	5.26	5.26	5.21	5.16	5.16	5.04	6
	1017	AP CHK MOD RES RR	5.58	3.67	5.80	4.22	4.22	4.64	4.73	5.05	4.91	9
	1018	AP CHK RES RR	4.62	3.12	4.80	3.59	3.59	3.78	3.96	3.97	4.33	10
	1019	AP CHK SUS HYB#3	5.75	6.26	5.97	7.19	7.19	6.65	6.41	6.10	5.93	9
	1020	AP CHK SUS HYB#4	5.40	6.35	5.61	7.30	7.30	6.38	6.09	5.46	5.52	9
	1021	AP CHK MOD RES RR#2	5.29	3.92	5.50	4.51	4.51	4.95	4.94	5.39	4.94	9
	1022	AP CHK MOD RES RR#3	5.17	4.72	5.37	5.42	5.42	5.48	--	5.54	--	1
	1023	AC CHK RES RR#3	3.99	2.07	4.15	2.38	2.38	2.74	--	3.11	--	1
	1024	AP CHK SUS HYB#3	5.09	5.97	5.29	6.86	6.86	6.48	6.30	6.10	5.93	9
	1025	AP CHK SUS HYB#4	5.70	6.80	5.92	7.82	7.82	6.64	6.27	5.46	5.52	9
		Check Mean	5.14	4.64	5.34	5.34	5.34					
15		Trial Mean	4.70	3.56	4.88	4.09						
		Coeff. of Var. (%)	15.3	14.3	15.3	14.3						
		F Value	4.1	19.9	4.1	19.9						
		Mean LSD (0.05)	0.92	0.63	0.96	0.72						
		Mean LSD (0.01)	1.22	0.82	1.27	0.94						
		Sig Lvl	**	**	**	**						
		Adjustment Factor	1.0389	1.1493								

^^ 2015 Root Rating was taken in early fall (1=healthy, 9+=severe damage).

+ Adjustment made to minimize fluctuation for disease levels in nursery based upon check varieties. Data adjusted to 2000-2002 nursery levels.

2015 Aph ratings from Kindred were impacted by Rhizoctonia and will not be used for variety approval.

Table 30.

2015 Cercospora Ratings for Official Trial Entries

Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

			Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					
Chk	Code	Description	Randolph Avg	BSDF Avg	Foxhome Avg	2015*** Mean	2 Yr Mean	3 Yr Mean	2014 Mean	2013 Mean	Trial Yrs $$
			5 Dates+	5 Dates+	7 Dates+	3 loc					
	601	BTS 70RR99	3.98	4.78	4.27	4.34	4.27	4.42	4.20	4.72	6
	506	BTS 7373	4.40	4.96	4.63	4.66	4.62	4.66	4.58	4.75	3
	597	BTS 73MN	4.29	4.89	4.66	4.61	4.49	4.54	4.37	4.63	3
	627	BTS 7438	4.29	5.18	4.91	4.79	4.62		4.45		2
	521	BTS 7510	4.73	4.50	4.66	4.63					1
	575	BTS 7520	5.06	4.95	4.85	4.95					1
	595	BTS 7540	3.15	4.05	4.36	3.85					1
	531	BTS 7550	4.75	4.52	4.43	4.57					1
	548	BTS 7570	4.59	4.85	4.68	4.71					1
	519	BTS 80RR32	4.94	5.21	4.62	4.92	4.81	4.81	4.69	4.81	6
	572	BTS 80RR52	3.82	4.20	4.32	4.11	4.17	4.28	4.22	4.52	6
	602	BTS 82RR28	5.33	4.67	4.69	4.89	4.76	4.68	4.62	4.52	4
	502	BTS 82RR33	4.12	4.79	4.84	4.58	4.64	4.65	4.70	4.68	4
	596	BTS 8337	4.28	4.78	4.42	4.49	4.51	4.59	4.52	4.75	3
	527	BTS 8363	3.13	4.12	4.24	3.83	3.84	3.86	3.85	3.92	3
	626	BTS 8390	3.35	4.36	4.40	4.04	4.16	4.25	4.28	4.43	3
	576	BTS 83CN	4.23	5.01	4.71	4.65	4.63	4.54	4.60	4.36	3
	569	BTS 8405	3.54	4.43	4.19	4.05	4.09		4.14		2
	585	BTS 8408	5.86	5.27	5.08	5.41	5.20		5.00		2
	570	BTS 8500	4.32	4.53	4.51	4.45					1
	512	BTS 8512	3.68	4.09	4.60	4.12					1
	553	BTS 8524	3.95	4.56	4.71	4.40					1
	567	BTS 8536	3.45	4.35	4.44	4.08					1
	606	BTS 8548	3.75	4.86	4.71	4.44					1
	610	BTS 8560	3.44	3.50	3.88	3.61					1
	509	BTS 8572	4.30	4.94	4.55	4.60					1
	517	BTS 8584	4.96	5.28	4.63	4.96					1
	549	Crystal 093RR	4.92	4.67	4.69	4.76	4.82	4.95	4.88	5.20	6
	515	Crystal 101RR	4.43	5.13	4.39	4.65	4.46	4.51	4.26	4.63	5
	539	Crystal 246RR	4.16	4.81	4.50	4.49	4.51	4.50	4.52	4.48	4
	587	Crystal 247RR	3.70	4.52	4.35	4.19	4.19	4.32	4.20	4.57	4
	622	Crystal 355RR	4.18	4.69	4.41	4.43	4.50	4.63	4.58	4.89	3
	566	Crystal 359RR	5.65	5.22	4.69	5.19	5.17	5.22	5.16	5.32	3
	580	Crystal 467RR	3.84	4.29	4.88	4.34	4.37		4.40		2
	578	Crystal 572RR	4.44	4.92	4.57	4.65					1
	573	Crystal 573RR	4.15	3.91	4.40	4.15					1
	558	Crystal 574RR	4.36	4.23	4.32	4.30					1
	557	Crystal 575RR	4.32	4.69	4.57	4.53					1
	555	Crystal 576RR	4.27	4.64	4.75	4.55					1
	603	Crystal 577RR	4.10	4.96	4.71	4.59					1
	503	Crystal 578RR	4.78	5.01	5.02	4.93					1
	621	Crystal 579RR	5.34	5.08	4.41	4.94					1
	591	Crystal 875RR	3.73	4.35	4.54	4.21	4.16	4.37	4.12	4.77	8
	534	Crystal 981RR	4.92	5.48	4.76	5.05	4.97	5.01	4.89	5.09	7
	523	Crystal 986RR	5.31	4.81	4.78	4.97	4.79	4.79	4.61	4.80	7
	582	Crystal D352	5.10	4.89	4.44	4.81	4.74	4.67	4.67	4.53	3
	547	Crystal D508	4.60	4.52	4.75	4.63					1
	559	Crystal D518	3.76	3.93	4.25	3.98					1
	532	Crystal D558	3.81	4.34	4.53	4.22					1
	538	Crystal RR012	4.64	4.63	4.56	4.61	4.60	4.65	4.59	4.76	6
	564	Crystal RR228	4.01	4.48	4.22	4.24	4.22	4.27	4.19	4.39	4
	542	Crystal RR260	3.10	4.35	4.47	3.98	4.16	4.22	4.34	4.34	4
	536	Crystal RR830	4.82	5.39	4.98	5.06	4.88	4.77	4.69	4.57	8
	565	Hilleshög HIL9704	5.19	4.95	5.10	5.08					1
	540	Hilleshög HIL9705	4.16	5.00	5.47	4.88					1
	618	Hilleshög HIL9706	6.24	5.66	5.26	5.72					1
	522	Hilleshög HIL9707	4.45	4.79	4.55	4.60					1

Table 30.

2015 Cercospora Ratings for Official Trial Entries

Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

Chk	Code	Description	Adjusted to 1982 Basis ++ Randolph Avg 5 Dates+	BSDF Avg 5 Dates+	Foxhome Avg 7 Dates+	2015*** Mean 3 loc	All Data Adjusted to '1982 Basis' 2 Yr Mean	3 Yr Mean	2014 Mean	2013 Mean	Trial Yrs $$
	529	Hilleshög HIL9708	5.40	4.86	4.87	5.04					1
	584	Hilleshög HIL9709	5.07	4.48	4.32	4.63					1
	607	Hilleshög HIL9710	4.39	4.77	4.51	4.55					1
	543	Hilleshög HIL9711	5.75	4.83	4.61	5.06					1
	544	Hilleshög HIL9712	5.70	4.74	4.77	5.07					1
	514	Hilleshög HIL9713	4.50	4.69	4.21	4.46					1
	599	Hilleshög HIL9714	3.95	5.12	4.53	4.53					1
	593	Hilleshög HIL9726	4.99	4.96	4.96	4.97					1
	583	Hilleshög HIL9727	4.94	4.75	4.46	4.72					1
	511	Hilleshög HIL9728	5.41	4.88	4.59	4.96					1
	620	Hilleshög HIL9729	5.12	4.68	4.52	4.77					1
	546	Hilleshög HIL9730	4.85	4.79	4.58	4.74					1
	619	Hilleshög HIL9731	5.20	4.81	4.79	4.94					1
	510	Hilleshög HIL9755	6.05	4.84	4.83	5.24					1
	537	Hilleshög 4022RR	4.00	4.86	4.26	4.37	4.45	4.41	4.54	4.33	10
	501	Hilleshög 4062RR	4.14	4.81	4.21	4.39	4.48	4.50	4.58	4.54	8
	513	Hilleshög 4094RR	3.76	4.72	4.42	4.30	4.38	4.41	4.46	4.47	8
	561	Hilleshög 4302RR	3.97	4.24	4.19	4.13	4.33	4.29	4.52	4.23	5
	615	Hilleshög 4448RR	5.86	4.97	5.04	5.29	5.29	5.26	5.28	5.21	4
	590	Hilleshög 9517RR	3.82	4.24	4.03	4.03	4.21	4.36	4.39	4.67	3
	562	Hilleshög 9528RR	5.84	4.67	4.97	5.16	5.06	4.95	4.97	4.72	3
	518	Hilleshög HIL9602	4.74	4.58	4.67	4.66	4.67		4.67		2
	545	Maribo 102	6.25	5.64	5.41	5.77	5.66	5.45	5.54	5.03	5
	554	Maribo 109	5.03	4.36	4.27	4.56	4.62		4.68		2
	507	Maribo 301	5.13	4.77	4.65	4.85	4.89		4.92		2
	524	Maribo MA305	4.86	4.74	4.67	4.76	4.79	4.74	4.83	4.63	3
	504	Maribo 402	4.65	4.62	4.53	4.60	4.68		4.76		2
	551	Maribo 408	5.00	5.26	5.15	5.13	5.21		5.29		2
	568	Maribo 409	5.63	5.28	5.17	5.36	5.32		5.28		2
	520	Maribo MA500	5.68	5.56	5.36	5.53					1
	535	Maribo MA501	2.74	4.09	4.37	3.73					1
	600	Maribo MA502	5.11	4.88	5.13	5.04					1
	586	Maribo MA503	2.98	3.79	3.91	3.56					1
	577	Maribo MA504	5.59	4.97	5.17	5.25					1
	533	Maribo MA510	5.19	4.96	4.94	5.03					1
	592	Maribo MA511	4.81	4.88	5.14	4.94					1
	609	Maribo MA512	4.38	3.88	3.75	4.00					1
	624	Maribo MA528	6.58	5.65	5.41	5.88					1
	550	Seedex RR0855	5.23	5.22	4.61	5.02					1
	594	Seedex RR0856	5.47	5.50	5.15	5.37					1
	525	Seedex RR0857	3.35	4.15	4.20	3.90					1
	552	Seedex RR0858	3.75	4.39	4.32	4.15					1
	541	Seedex RR0941	4.99	4.66	4.74	4.80	4.73		4.67		2
	613	Seedex RR0951	5.21	5.71	4.46	5.13					1
	560	Seedex RR0952	4.37	4.78	4.74	4.63					1
	505	Seedex RR0953	4.36	4.42	4.51	4.43					1
	556	SX Savannah RR(842)	4.20	4.53	4.36	4.36	4.63		4.90		2
	571	SX Canyon RR(844TT)	3.70	3.98	4.37	4.02	4.74		5.46		2
	617	SX Cruze RR(846)	4.69	4.12	4.91	4.57	4.70		4.83		2
	604	SX Terrain RR(848)	4.89	4.81	4.68	4.80	4.75		4.71		2
	508	SX Winchester RR(832)	3.14	3.63	4.25	3.67	4.28	4.44	4.89	4.78	3
	625	SX Yukon RR	4.78	4.68	4.79	4.75	4.80	4.76	4.85	4.69	4
	574	SV 36272RR	3.18	3.96	4.51	3.88	4.25	4.33	4.61	4.49	4
	605	SV 36273RR	3.50	4.08	4.51	4.03	4.54	4.59	5.05	4.68	4
	598	SV RR241	3.07	3.90	4.52	3.83	4.09		4.35		2
	588	SV RR243	2.99	3.81	4.08	3.63	4.21		4.79		2
	608	SV RR244TT	3.81	4.41	4.28	4.17	4.84		5.51		2

Table 30.

2015 Cercospora Ratings for Official Trial Entries

Betaseed (Randolph MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)

			Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					
Chk	Code	Description	Randolph Avg	BSDF Avg	Foxhome Avg	2015*** Mean	2 Yr Mean	3 Yr Mean	2014 Mean	2013 Mean	Trial Yrs $$
			5 Dates+	5 Dates+	7 Dates+	3 loc					
	616	SV RR333	4.23	4.81	4.58	4.54	4.67	4.74	4.81	4.86	3
	530	SV RR336	3.58	3.77	4.46	3.94	4.24	4.41	4.53	4.75	3
	563	SV RR350	5.48	4.46	4.79	4.91					1
	623	SV RR351	4.84	4.52	4.49	4.62					1
	612	SV RR352	4.29	4.63	4.51	4.48					1
	579	SV RR353	3.23	3.83	4.08	3.72					1
	528	SV RR631	3.93	4.25	4.68	4.29	4.58	4.65	4.88	4.78	3
	614	SV RR633	5.98	5.10	5.20	5.43	5.41	5.22	5.39	4.83	3
	526	SV RR654	4.11	4.43	4.40	4.31					1
	516	SV RR655	3.44	4.05	3.99	3.83					1
	589	SV RR656	4.13	4.31	4.53	4.32					1
	611	SV RR746	4.59	5.01	4.91	4.84	4.86		4.87		2
	581	SV RR747	3.44	4.45	4.32	4.07	4.40		4.73		2
1	1101	CR Chk-19 CRYS539RR	5.88	5.15	4.92	5.31	5.24	5.17	5.17	5.03	11
1	1102	CR Chk-31 BETA86RR88	4.30	4.56	4.77	4.54	4.57	4.56	4.60	4.55	10
1	1103	CR CHK-37 SES36711RR	5.38	5.02	5.05	5.15	5.24	5.18	5.33	5.06	9
1	1104	CR Chk-30 BETA86RR66	5.47	5.00	5.21	5.22	5.21	5.17	5.20	5.10	10
1	1105	CR Chk-34 HILL4000RR	4.36	4.68	4.88	4.64	4.74	4.77	4.84	4.82	9
1	1106	CR CHK-42 CRYS985RR	3.89	4.80	4.66	4.45	4.33	4.39	4.22	4.49	7
1	1107	CR Chk-24 HILL4012RR	4.88	5.22	5.63	5.24	5.25	5.31	5.27	5.42	10
1	1108	CR Chk-35 BETA87RR58	5.56	5.40	5.42	5.46	5.20	5.23	4.94	5.28	9
1	1109	CR Chk-33 HILL4043RR	5.61	4.92	4.74	5.09	4.96	4.87	4.82	4.70	9
1	1110	CR CHK-41 CRYS981RR	5.29	5.29	4.78	5.12	5.01	5.04	4.89	5.09	7
1	1111	CR Chk-28 HILL4010RR	5.13	5.13	5.34	5.20	5.19	5.27	5.19	5.43	10
1	1112	CR Chk-29 BETA86RR44	4.62	5.19	4.96	4.92	5.03	5.03	5.13	5.03	10
	1113	CR CHK MOD SUS HYB#3	5.48	5.38	5.16	5.34	5.28	5.18	5.23	4.96	11
	1114	CR CHK MOD RES HYB#4	3.68	4.61	4.73	4.34	4.31	4.40	4.27	4.59	8
	1115	CR CHK MOD SUS HYB#5	5.33	5.06	5.24	5.21	5.02	5.03	4.84	5.05	9
	1116	CR CHK MOD RES HYB#4	3.60	4.78	4.34	4.24	4.26	4.37	4.27	4.59	8
	1117	CR CHK MOD SUS HYB#3	3.56	5.39	5.34	4.76	5.00	4.99	5.23	4.96	11
	1118	CR CHK MOD RES HYB#4	5.79	4.67	4.53	4.99	4.63	4.62	4.27	4.59	8
		Check Mean	5.03	5.03	5.03	5.03	4.98	4.97	4.93	4.95	
12		Trial Mean	4.53	4.70	4.65	4.67					
		Coeff. of Var. (%)	9.37	7.21	6.41						
		F Value	19.07	6.34	7.62						
		Mean LSD (0.05)	0.52	0.50	0.35						
		Mean LSD (0.01)	0.69	0.66	0.47						
		Sig Lvl	**	**	**						
		Adj Factor	1.07800	1.22500	1.06790						

* 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 * (Adj. factor) = Adj Rating.

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

\+ Average rating based upon multiple rating dates.

Created 10-22-2015.

Table 31.
2015 Rhizoctonia Ratings for OVT Entries
Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

Sus Chk	Chk @	Code	Description	Unadjusted BSDF 8/18	Unadjusted TSC-E 7/23	Unadjusted TSC-W 8/4	Unadjusted NWROC 7/28	Adjusted @ BSDF 8/18	Adjusted @ TSC-E 7/23	Adjusted @ TSC-W 8/4	Adjusted @ NWROC 7/28	Adj 2015 Mean	2 Yr Mean	3 Yr Mean	Adj 2014 Mean	Adj 2013 Mean	Years
		601	BTS 70RR99	4.47	4.34	4.64	3.82	3.88	4.04	4.09	3.42	3.86	3.88	4.05	3.90	4.38	6
		506	BTS 7373	4.63	4.04	4.52	3.87	4.02	3.76	3.99	3.47	3.81	4.16	4.07	4.50	3.88	3
		597	BTS 73MN	4.56	4.30	4.52	3.68	3.96	4.00	3.99	3.30	3.81	3.93	3.80	4.06	3.53	3
		627	BTS 7438	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	--	4.06	--	2
		521	BTS 7510	4.86	4.62	5.09	4.79	4.22	4.30	4.49	4.29	4.33	--	--	--	--	1
		575	BTS 7520	5.69	3.92	4.99	3.63	4.94	3.65	4.40	3.25	4.06	--	--	--	--	1
		595	BTS 7540	4.63	4.16	4.38	4.54	4.02	3.87	3.86	4.07	3.96	--	--	--	--	1
		531	BTS 7550	4.85	4.45	4.50	4.12	4.21	4.14	3.97	3.69	4.00	--	--	--	--	1
		548	BTS 7570	4.37	4.08	4.44	4.20	3.80	3.80	3.92	3.76	3.82	--	--	--	--	1
		519	BTS 80RR32	5.06	4.75	4.48	3.70	4.40	4.42	3.95	3.32	4.02	3.79	3.95	3.56	4.28	6
		572	BTS 80RR52	4.63	4.64	4.65	3.73	4.02	4.32	4.10	3.34	3.95	4.15	4.03	4.36	3.77	6
		602	BTS 82RR28	5.12	4.26	4.37	4.22	4.45	3.96	3.85	3.78	4.01	4.06	4.10	4.11	4.17	4
		502	BTS 82RR33	5.70	4.44	4.71	3.89	4.95	4.13	4.15	3.49	4.18	4.19	4.25	4.20	4.36	4
		596	BTS 8337	4.86	3.96	4.20	4.32	4.22	3.68	3.70	3.87	3.87	3.96	4.16	4.06	4.55	3
		527	BTS 8363	5.57	4.32	4.54	4.02	4.84	4.02	4.00	3.60	4.12	4.18	4.08	4.24	3.88	3
		626	BTS 8390	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.30	4.38	3
		576	BTS 83CN	4.34	4.21	4.82	3.91	3.77	3.92	4.25	3.50	3.86	3.93	3.72	4.01	3.29	3
		569	BTS 8405	5.30	4.88	4.84	4.65	4.60	4.54	4.27	4.17	4.39	4.57	--	4.75	--	2
		585	BTS 8408	5.24	4.59	4.61	4.32	4.55	4.27	4.07	3.87	4.19	4.22	--	4.25	--	2
		570	BTS 8500	4.84	4.74	4.36	4.78	4.20	4.41	3.84	4.28	4.19	--	--	--	--	1
		512	BTS 8512	5.64	4.59	4.58	4.35	4.90	4.27	4.04	3.90	4.28	--	--	--	--	1
		553	BTS 8524	5.20	4.45	4.51	4.36	4.52	4.14	3.98	3.91	4.14	--	--	--	--	1
		567	BTS 8536	5.88	4.67	4.58	4.62	5.11	4.34	4.04	4.14	4.41	--	--	--	--	1
		606	BTS 8548	5.11	4.52	4.52	3.68	4.44	4.20	3.99	3.30	3.98	--	--	--	--	1
		610	BTS 8560	5.30	4.49	5.01	4.99	4.60	4.18	4.42	4.47	4.42	--	--	--	--	1
		509	BTS 8572	4.48	4.22	4.44	4.10	3.89	3.93	3.92	3.67	3.85	--	--	--	--	1
		517	BTS 8584	5.08	4.10	4.33	4.58	4.41	3.81	3.82	4.11	4.04	--	--	--	--	1
		549	Crystal 093RR	5.15	4.34	4.56	3.67	4.47	4.04	4.02	3.29	3.96	4.21	4.27	4.46	4.39	6
		515	Crystal 101RR	5.82	4.71	5.12	5.15	5.06	4.38	4.51	4.62	4.64	4.74	4.74	4.84	4.74	5
		539	Crystal 246RR	5.33	4.46	4.75	4.21	4.63	4.15	4.19	3.77	4.19	4.10	4.27	4.01	4.62	4
		587	Crystal 247RR	5.36	4.62	4.88	4.52	4.66	4.30	4.30	4.05	4.33	4.37	4.44	4.41	4.58	4
		622	Crystal 355RR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.07	3.55	3
		566	Crystal 359RR	5.00	4.11	4.38	3.98	4.34	3.82	3.86	3.57	3.90	4.04	4.04	4.18	4.04	3
		580	Crystal 467RR	4.89	4.31	4.67	3.90	4.25	4.01	4.12	3.50	3.97	4.00	--	4.03	--	2
		578	Crystal 572RR	4.61	4.51	4.25	4.02	4.00	4.20	3.75	3.60	3.89	--	--	--	--	1
		573	Crystal 573RR	4.97	4.27	4.95	4.83	4.32	3.97	4.36	4.33	4.25	--	--	--	--	1
		558	Crystal 574RR	4.47	4.68	4.82	4.64	3.88	4.35	4.25	4.16	4.16	--	--	--	--	1
		557	Crystal 575RR	5.52	4.53	4.74	3.93	4.80	4.21	4.18	3.52	4.18	--	--	--	--	1
		555	Crystal 576RR	4.72	4.07	4.19	3.49	4.10	3.79	3.69	3.13	3.68	--	--	--	--	1
		603	Crystal 577RR	5.46	4.55	5.07	4.12	4.74	4.23	4.47	3.69	4.28	--	--	--	--	1
		503	Crystal 578RR	5.06	4.09	4.54	4.36	4.40	3.80	4.00	3.91	4.03	--	--	--	--	1
		621	Crystal 579RR	5.82	4.42	4.38	4.42	5.06	4.11	3.86	3.96	4.25	--	--	--	--	1
		591	Crystal 875RR	5.00	4.31	4.44	4.65	4.34	4.01	3.92	4.17	4.11	4.08	4.23	4.04	4.53	8
		534	Crystal 981RR	5.55	4.45	4.83	4.89	4.82	4.14	4.26	4.38	4.40	4.63	4.33	4.85	3.75	7
		523	Crystal 986RR	4.46	4.64	4.59	4.45	3.87	4.32	4.05	3.99	4.06	4.09	4.24	4.12	4.54	7
		582	Crystal D352	4.20	3.82	4.03	3.81	3.65	3.55	3.55	3.41	3.54	3.72	3.54	3.91	3.17	3
		547	Crystal D508	4.76	4.56	4.82	4.23	4.14	4.24	4.25	3.79	4.10	--	--	--	--	1
		559	Crystal D518	5.18	4.66	4.69	4.75	4.50	4.33	4.14	4.26	4.31	--	--	--	--	1
		532	Crystal D558	5.63	4.31	4.42	3.19	4.89	4.01	3.90	2.86	3.91	--	--	--	--	1
		538	Crystal RR012	4.90	4.43	4.64	3.88	4.26	4.12	4.09	3.48	3.99	4.04	3.92	4.09	3.69	6
		564	Crystal RR228	4.57	4.11	4.61	4.53	3.97	3.82	4.07	4.06	3.98	4.23	4.29	4.48	4.40	4
		542	Crystal RR260	5.11	4.18	4.67	4.15	4.44	3.89	4.12	3.72	4.04	4.28	4.09	4.51	3.71	4
		536	Crystal RR830	4.80	3.96	4.42	3.42	4.17	3.68	3.90	3.07	3.70	3.71	3.69	3.72	3.66	8
		565	Hilleshög HIL9704	5.02	4.67	4.76	5.07	4.36	4.34	4.20	4.54	4.36	--	--	--	--	1
		540	Hilleshög HIL9705	5.38	4.46	4.63	4.58	4.67	4.15	4.08	4.11	4.25	--	--	--	--	1
		618	Hilleshög HIL9706	5.13	4.31	4.68	4.21	4.46	4.01	4.13	3.77	4.09	--	--	--	--	1
		522	Hilleshög HIL9707	4.92	4.85	4.60	4.46	4.27	4.51	4.06	4.00	4.21	--	--	--	--	1
		529	Hilleshög HIL9708	5.36	4.46	4.46	3.79	4.66	4.15	3.93	3.40	4.03	--	--	--	--	1
		584	Hilleshög HIL9709	4.54	4.56	4.38	3.97	3.94	4.24	3.86	3.56	3.90	--	--	--	--	1
		607	Hilleshög HIL9710	4.85	4.16	4.13	4.28	4.21	3.87	3.64	3.84	3.89	--	--	--	--	1
		543	Hilleshög HIL9711	5.27	4.34	4.37	4.42	4.58	4.04	3.85	3.96	4.11	--	--	--	--	1
		544	Hilleshög HIL9712	4.88	4.15	4.55	4.15	4.24	3.86	4.01	3.72	3.96	--	--	--	--	1
		514	Hilleshög HIL9713	5.21	4.25	4.75	4.79	4.53	3.95	4.19	4.29	4.24	--	--	--	--	1
		599	Hilleshög HIL9714	4.54	4.15	4.16	3.22	3.94	3.86	3.67	2.89	3.59	--	--	--	--	1
		593	Hilleshög HIL9726	5.40	4.65	5.32	5.04	4.69	4.33	4.69	4.52	4.56	--	--	--	--	1

Table 31.

2015 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

Sus Chk	Chk @	Code	Description	Unadjusted BSDF 8/18	Unadjusted TSC-E 7/23	Unadjusted TSC-W 8/4	Unadjusted NWROC 7/28	Adjusted @ BSDF 8/18	Adjusted @ TSC-E 7/23	Adjusted @ TSC-W 8/4	Adjusted @ NWROC 7/28	Adj 2015 Mean	2 Yr Mean	3 Yr Mean	Adj 2014 Mean	Adj 2013 Mean	Years
		583	Hilleshög HIL9727	4.77	4.00	4.44	4.51	4.14	3.72	3.92	4.04	3.96	--	--	--	--	1
		511	Hilleshög HIL9728	4.91	4.15	4.58	4.00	4.27	3.86	4.04	3.59	3.94	--	--	--	--	1
		620	Hilleshög HIL9729	4.11	4.34	4.22	3.93	3.57	4.04	3.72	3.52	3.71	--	--	--	--	1
		546	Hilleshög HIL9730	4.79	4.23	4.00	4.51	4.16	3.93	3.53	4.04	3.92	--	--	--	--	1
		619	Hilleshög HIL9731	4.57	4.07	4.28	4.04	3.97	3.79	3.77	3.62	3.79	--	--	--	--	1
		510	Hilleshög HIL9755	4.03	4.57	4.36	4.11	3.50	4.25	3.84	3.68	3.82	--	--	--	--	1
		537	Hilleshög 4022RR	3.99	4.36	3.55	3.60	3.47	4.06	3.13	3.23	3.47	3.64	3.56	3.82	3.39	10
		501	Hilleshög 4062RR	4.20	4.19	3.76	3.21	3.65	3.90	3.32	2.88	3.43	3.42	3.49	3.40	3.63	8
		513	Hilleshög 4094RR	3.90	3.87	3.79	3.83	3.39	3.60	3.34	3.43	3.44	3.48	3.46	3.52	3.42	8
		561	Hilleshög 4302RR	4.32	4.27	4.56	3.40	3.75	3.97	4.02	3.05	3.70	3.64	3.53	3.58	3.32	5
		615	Hilleshög 4448RR	4.54	4.26	4.52	4.20	3.94	3.96	3.99	3.76	3.91	4.32	4.68	4.73	5.42	4
		590	Hilleshög 9517RR	4.74	3.75	4.04	3.85	4.12	3.49	3.56	3.45	3.65	3.85	3.77	4.04	3.62	3
		562	Hilleshög 9528RR	4.75	4.27	4.95	4.40	4.13	3.97	4.36	3.94	4.10	3.96	4.03	3.83	4.17	3
		518	Hilleshög HIL9602	4.67	4.34	4.33	4.14	4.06	4.04	3.82	3.71	3.91	4.01	--	4.12	--	2
		545	Maribo 102	4.93	4.34	4.68	4.28	4.28	4.04	4.13	3.84	4.07	4.19	4.63	4.30	5.53	5
		554	Maribo 109	4.35	4.31	4.45	3.32	3.78	4.01	3.92	2.98	3.67	3.50	--	3.33	--	2
		507	Maribo 301	5.01	4.44	4.33	4.55	4.35	4.13	3.82	4.08	4.09	4.38	--	4.66	--	2
		524	Maribo MA305	5.43	3.57	4.35	3.82	4.72	3.32	3.84	3.42	3.82	4.22	--	4.62	--	3
		504	Maribo 402	4.67	4.06	4.10	4.47	4.06	3.78	3.62	4.01	3.86	3.86	--	3.86	--	2
		551	Maribo 408	5.28	3.97	4.22	4.56	4.59	3.69	3.72	4.09	4.02	--	--	--	--	2
		568	Maribo 409	5.55	4.35	5.26	5.36	4.82	4.05	4.64	4.80	4.58	--	--	--	--	2
		520	Maribo MA500	5.04	4.22	4.69	4.63	4.38	3.93	4.14	4.15	4.15	--	--	--	--	1
		535	Maribo MA501	5.06	5.01	4.54	4.75	4.40	4.66	4.00	4.26	4.33	--	--	--	--	1
		600	Maribo MA502	5.36	4.02	4.25	4.90	4.66	3.74	3.75	4.39	4.13	--	--	--	--	1
		586	Maribo MA503	5.32	3.88	4.17	3.23	4.62	3.61	3.68	2.90	3.70	--	--	--	--	1
		577	Maribo MA504	4.80	4.16	4.46	4.40	4.17	3.87	3.93	3.94	3.98	--	--	--	--	1
		533	Maribo MA510	5.12	3.90	4.41	4.81	4.45	3.63	3.89	4.31	4.07	--	--	--	--	1
		592	Maribo MA511	4.99	4.23	4.55	4.72	4.33	3.93	4.01	4.23	4.13	--	--	--	--	1
		609	Maribo MA512	4.96	3.63	3.96	3.90	4.31	3.38	3.49	3.50	3.67	--	--	--	--	1
		550	Seedex RR0855	5.87	4.48	4.33	4.36	5.10	4.17	3.82	3.91	4.25	--	--	--	--	1
		594	Seedex RR0856	5.26	4.48	4.29	4.60	4.57	4.17	3.78	4.12	4.16	--	--	--	--	1
		525	Seedex RR0857	4.66	4.86	4.21	4.23	4.05	4.52	3.71	3.79	4.02	--	--	--	--	1
		552	Seedex RR0858	4.86	4.72	4.55	4.71	4.22	4.39	4.01	4.22	4.21	--	--	--	--	1
		541	Seedex RR0941	4.83	4.01	4.39	4.28	4.20	3.73	3.87	3.84	3.91	4.05	--	4.19	--	2
		613	Seedex RR0951	4.86	4.29	4.59	4.35	4.22	3.99	4.05	3.90	4.04	--	--	--	--	1
		560	Seedex RR0952	5.56	4.72	4.77	4.84	4.83	4.39	4.21	4.34	4.44	--	--	--	--	1
		505	Seedex RR0953	4.91	4.64	4.87	4.92	4.27	4.32	4.29	4.41	4.32	--	--	--	--	1
		556	SX Savannah RR(842)	5.23	4.21	4.61	4.75	4.54	3.92	4.07	4.26	4.20	4.21	--	4.23	--	2
		571	SX Canyon RR(844TT)	5.37	4.58	4.56	4.40	4.66	4.26	4.02	3.94	4.22	4.19	--	4.15	--	2
		617	SX Cruze RR(846)	4.70	4.60	4.87	4.51	4.08	4.28	4.29	4.04	4.17	4.42	--	4.67	--	2
		604	SX Terrain RR(848)	5.63	4.16	4.68	4.54	4.89	3.87	4.13	4.07	4.24	4.34	--	4.43	--	2
		508	SX Winchester RR(832)	5.45	4.60	4.89	4.24	4.73	4.28	4.31	3.80	4.28	4.32	4.35	4.35	4.43	3
		625	SX Yukon RR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	4.33	4.84	4
		574	SV 36272RR	5.78	4.20	5.04	4.68	5.02	3.91	4.44	4.19	4.39	4.35	4.44	4.31	4.61	4
		605	SV 36273RR	5.28	4.47	4.82	4.47	4.59	4.16	4.25	4.01	4.25	4.09	4.30	3.94	4.70	4
		598	SV RR241	5.56	3.84	4.28	4.11	4.83	3.57	3.77	3.68	3.96	4.20	--	4.43	--	2
		588	SV RR243	4.28	4.62	4.87	4.49	3.72	4.30	4.29	4.02	4.08	4.44	--	4.79	--	2
		608	SV RR244TT	5.02	4.50	4.39	4.77	4.36	4.19	3.87	4.28	4.17	4.01	--	3.84	--	2
		616	SV RR333	5.33	4.68	4.29	4.10	4.63	4.35	3.78	3.67	4.11	4.25	4.27	4.39	4.32	3
		530	SV RR336	5.46	4.35	4.95	4.86	4.74	4.05	4.36	4.36	4.38	4.34	4.20	4.29	3.93	3
		563	SV RR350	5.57	4.63	4.52	4.75	4.84	4.31	3.99	4.26	4.35	--	--	--	--	1
		623	SV RR351	NE	NE	NE	NE	NE	NE	NE	NE	NE	--	--	--	--	1
		612	SV RR352	5.03	4.50	5.18	5.17	4.37	4.19	4.57	4.63	4.44	--	--	--	--	1
		579	SV RR353	5.34	4.34	4.19	3.85	4.64	4.04	3.69	3.45	3.96	--	--	--	--	1
		528	SV RR631	4.73	4.55	4.49	4.54	4.11	4.23	3.96	4.07	4.09	4.23	4.28	4.36	4.37	3
		614	SV RR633	4.86	4.59	4.62	3.91	4.22	4.27	4.07	3.50	4.02	4.09	3.87	4.15	3.44	3
		526	SV RR654	4.48	4.40	4.44	4.07	3.89	4.09	3.92	3.65	3.89	--	--	--	--	1
		516	SV RR655	5.39	3.95	4.09	3.87	4.68	3.67	3.61	3.47	3.86	--	--	--	--	1
		589	SV RR656	4.56	4.10	4.84	4.48	3.96	3.81	4.27	4.02	4.01	--	--	--	--	1
		611	SV RR746	4.55	4.36	4.81	4.69	3.95	4.06	4.24	4.20	4.11	4.16	--	4.20	--	2
		581	SV RR747	5.72	4.03	4.48	4.50	4.97	3.75	3.95	4.03	4.18	4.14	--	4.10	--	2
1	1	1301	Rhiz Chk#08 CRYS539RR	5.38	4.80	5.15	5.47	4.67	4.46	4.54	4.90	4.65	4.69	4.82	4.73	5.09	7
	1	1302	Rhiz Chk#17 HILL4022RR	3.80	4.47	4.11	3.55	3.30	4.16	3.62	3.18	3.57	3.58	3.34	3.59	2.85	7
		1303	Rhiz Chk#20 CRYS765RR	5.57	4.37	4.74	4.21	4.84	4.06	4.18	3.77	4.21	4.35	4.35	4.48	4.35	7
	1	1304	Rhiz Chk#21 CRYS768RR	4.56	4.91	5.23	4.30	3.96	4.57	4.61	3.85	4.25	4.44	4.46	4.63	4.50	7

Table 31.

2015 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - BSDF, NWROC & Two ACSC Sites

				Unadjusted				Adjusted @				Adj			Adj	Adj	
Sus				BSDF	TSC-E	TSC-W	NWROC	BSDF	TSC-E	TSC-W	NWROC	2015	2 Yr	3 Yr	2014	2013	
Chk	Chk @	Code	Description	8/18	7/23	8/4	7/28	8/18	7/23	8/4	7/28	Mean	Mean	Mean	Mean	Mean	Years
1	1	1305	Rhiz Chk#24 BETA86RR88	5.60	4.89	5.40	5.70	4.86	4.55	4.76	5.11	4.82	4.87	4.85	4.91	4.82	7
1	1	1306	Rhiz Chk#25 HILL4043RR	5.42	4.43	4.93	4.68	4.71	4.12	4.35	4.19	4.34	4.50	4.59	4.66	4.77	7
1	1	1307	Rhiz Chk#26 BETA86RR44	4.90	5.64	5.48	5.33	4.26	5.25	4.83	4.78	4.78	4.63	4.51	4.48	4.29	7
1	1	1308	Rhiz Chk#27 HILL4012RR	5.51	4.29	4.97	5.01	4.79	3.99	4.38	4.49	4.41	4.47	4.68	4.52	5.12	7
	1	1309	Rhiz Chk#28 CRYS658RR	4.93	4.20	4.88	4.32	4.28	3.91	4.30	3.87	4.09	4.07	4.12	4.06	4.21	10
1	1	1310	Rhiz Chk#29 BETA87RR58	5.30	5.34	5.38	5.32	4.60	4.97	4.74	4.77	4.77	4.65	4.70	4.53	4.81	9
1	1	1311	Rhiz Chk#30 SES36711RR	5.58	5.43	5.21	5.71	4.85	5.05	4.59	5.12	4.90	4.56	4.62	4.21	4.75	9
1	1	1312	Rhiz Chk#31 HILL4000RR	5.78	5.49	5.48	5.76	5.02	5.11	4.83	5.16	5.03	4.89	5.00	4.76	5.22	9
1	1	1313	Rhiz Chk#40 CRYS101RR	5.40	4.54	5.18	5.25	4.69	4.22	4.57	4.71	4.55	4.69	4.71	4.84	4.74	5
	1	1314	Rhiz Chk#33 BETA77RR74	4.58	3.91	4.15	4.35	3.98	3.64	3.66	3.90	3.79	3.74	3.71	3.69	3.66	9
1	1	1315	Rhiz Chk#34 BETA86RR66	4.78	5.14	5.33	5.19	4.15	4.78	4.70	4.65	4.57	4.53	4.45	4.48	4.31	10
1	1	1316	Rhiz Chk#35 SES36812RR	5.40	4.64	4.87	4.63	4.69	4.32	4.29	4.15	4.36	4.50	4.38	4.63	4.13	8
1	1	1317	Rhiz Chk#36 BETA85RR02	5.50	4.96	5.31	5.31	4.78	4.61	4.68	4.76	4.71	4.60	4.49	4.50	4.27	11
	1	1318	Rhiz Chk#37 SES36918RR	4.99	4.55	5.05	4.84	4.33	4.23	4.45	4.34	4.34	4.47	4.57	4.61	4.75	7
		1319	Rhiz Chk#39 HILL4300RR	4.67	4.40	4.88	5.57	4.06	4.09	4.30	4.99	4.36	4.20	4.17	4.04	4.12	6
		1320	RES RHC #1	4.08	4.44	4.39	3.37	3.54	4.13	3.87	3.02	3.64	3.53	3.33	3.43	2.91	10
		1321	MOD RHC #6	5.17	3.91	4.48	4.27	4.49	3.64	3.95	3.83	3.98	4.12	4.14	4.27	4.17	10
		1322	SUS RHC #3	5.36	4.91	5.14	5.28	4.66	4.57	4.53	4.73	4.62	4.69	5.06	4.75	5.80	11
		1323	SUS RHC #9	5.71	4.53	4.65	5.11	4.96	4.21	4.10	4.58	4.46	4.66	4.81	4.85	5.11	7
		1324	MOD RHC #5	5.06	4.32	4.47	5.28	4.40	4.02	3.94	4.73	4.27	4.33	4.40	4.39	4.55	10
		1325	RES RHC #2	4.44	4.05	4.02	3.97	3.86	3.77	3.54	3.56	3.68	3.66	3.49	3.64	3.15	8
		1326	SUS RHC #3	5.79	4.39	5.06	6.02	5.03	4.08	4.46	5.40	4.74	4.75	5.10	4.75	5.80	11
		1327	SUS RHC #9	5.03	4.41	5.32	4.87	4.37	4.10	4.69	4.36	4.38	4.61	4.78	4.85	5.11	7
		1328	MOD RHC #6	5.35	4.41	4.65	3.91	4.65	4.10	4.10	3.50	4.09	4.18	4.18	4.27	4.17	10
		1329	SUS RHC #10	5.91	5.01	4.99	5.42	5.13	4.66	4.40	4.86	4.76	5.04	5.13	5.31	5.31	7
	17		Mean of Check Varieties	5.142	4.802	5.065	4.984	4.467	4.467	4.467	4.467	4.467	4.463	4.471	4.460	4.487	
12			Mean of Susc Checks	5.379	4.966	5.224	5.280	4.673	4.619	4.607	4.732	4.658	4.631	4.651	4.604	4.693	
			Trial Mean	5.03	4.40	4.61	4.40	4.37	4.09	4.07	3.94						
			Coeff. of Var. (%)	13.1	9.6	9.0	10.4	13.1	9.6	9.0	10.4						
			F Value	1.9	3.2	3.3	6.3	1.9	3.2	3.3	6.3						
			Mean LSD (0.05)	0.93	0.54	0.58	0.65	0.81	0.50	0.51	0.58						
			Mean LSD (0.01)	1.23	0.71	0.76	0.85	1.07	0.66	0.67	0.76						
			Sig Lvl	**	**	**	**	**	**	**	**						
			Adjustment Factor	0.8687	0.9302	0.8818	0.8963										
			Approval Limit (80% of susc ch	4.3033	4.1793	4.1793	4.1793	3.738	3.695	3.685	3.786	3.82	3.79	3.72	3.81	3.52	

++ Adjustment is based upon check varieties.

NE indicates variety was not entered into nursery.

Table 32.
2015 Fusarium Ratings for Official Trial Entries
ACSC Nurseries - (Two Moorhead, MN Sites)

Chk @	Code	Description	Unadjusted N Mhd 4 Dates+	Unadjusted S Mhd 4 Dates+	Adjusted N Mhd 4 Dates+	Adjusted S Mhd 4 Dates+	Adj 2015 Mean	2 Yr Mean	3 Yr Mean	Adj 2014 Mean	Adj 2013 Mean	Years
	601	BTS 70RR99	2.22	3.41	2.48	3.10	2.79	3.12	3.27	3.46	3.58	6
	506	BTS 7373	2.87	4.03	3.20	3.67	3.43	3.65	--	3.87	--	3
	597	BTS 73MN	2.38	3.32	2.66	3.02	2.84	3.00	--	3.16	--	3
	627	BTS 7438	NE	NE	NE	NE	NE	--	--	--	--	2
	521	BTS 7510	2.37	3.95	2.64	3.59	3.12	--	--	--	--	1
	575	BTS 7520	2.36	3.75	2.63	3.41	3.02	--	--	--	--	1
	595	BTS 7540	2.07	3.27	2.31	2.97	2.64	--	--	--	--	1
	531	BTS 7550	2.04	3.25	2.28	2.96	2.62	--	--	--	--	1
	548	BTS 7570	2.10	3.78	2.34	3.44	2.89	--	--	--	--	1
	519	BTS 80RR32	2.02	3.45	2.25	3.14	2.70	2.70	3.09	2.71	3.87	6
	572	BTS 80RR52	2.15	3.58	2.40	3.26	2.83	2.83	3.10	2.84	3.64	6
	602	BTS 82RR28	1.86	3.32	2.08	3.02	2.55	2.49	2.61	2.44	2.85	4
	502	BTS 82RR33	2.17	3.28	2.42	2.98	2.70	2.78	2.87	2.86	3.05	4
	596	BTS 8337	2.89	4.63	3.22	4.21	3.72	3.75	3.96	3.78	4.38	3
	527	BTS 8363	2.14	3.64	2.39	3.31	2.85	3.12	3.53	3.39	4.34	3
	626	BTS 8390	NE	NE	NE	NE	NE	NE	NE	3.03	3.14	3
	576	BTS 83CN	2.09	3.34	2.33	3.04	2.68	2.91	3.01	3.13	3.21	3
	569	BTS 8405	2.07	3.64	2.31	3.31	2.81	2.84	--	2.87	--	2
	585	BTS 8408	2.48	4.21	2.77	3.83	3.30	3.26	--	3.22	--	2
	570	BTS 8500	1.89	2.99	2.11	2.72	2.41	--	--	--	--	1
	512	BTS 8512	2.06	3.41	2.30	3.10	2.70	--	--	--	--	1
	553	BTS 8524	2.07	3.80	2.31	3.46	2.88	--	--	--	--	1
	567	BTS 8536	1.82	2.98	2.03	2.71	2.37	--	--	--	--	1
	606	BTS 8548	2.13	3.55	2.38	3.23	2.80	--	--	--	--	1
	610	BTS 8560	NE	NE	NE	NE	NE	--	--	--	--	1
	509	BTS 8572	1.94	3.21	2.16	2.92	2.54	--	--	--	--	1
	517	BTS 8584	2.62	4.04	2.92	3.67	3.30	--	--	--	--	1
	549	Crystal 093RR	2.57	3.93	2.87	3.57	3.22	3.41	3.61	3.59	4.01	6
	515	Crystal 101RR	2.02	3.33	2.25	3.03	2.64	2.69	2.88	2.73	3.27	5
	539	Crystal 246RR	2.35	3.72	2.62	3.38	3.00	3.00	3.39	2.99	4.17	4
	587	Crystal 247RR	1.85	3.25	2.06	2.96	2.51	2.67	3.05	2.84	3.79	4
	622	Crystal 355RR	NE	NE	NE	NE	NE	NE	NE	3.14	3.43	3
	566	Crystal 359RR	1.92	3.05	2.14	2.77	2.46	2.33	2.42	2.21	2.60	3
	580	Crystal 467RR	1.81	3.18	2.02	2.89	2.46	2.53	--	2.61	--	2
	578	Crystal 572RR	1.54	3.31	1.72	3.01	2.36	--	--	--	--	1
	573	Crystal 573RR	2.11	4.06	2.35	3.69	3.02	--	--	--	--	1
	558	Crystal 574RR	1.34	2.75	1.50	2.50	2.00	--	--	--	--	1
	557	Crystal 575RR	2.19	3.70	2.44	3.37	2.90	--	--	--	--	1
	555	Crystal 576RR	1.95	3.02	2.18	2.75	2.46	--	--	--	--	1
	603	Crystal 577RR	2.44	3.91	2.72	3.56	3.14	--	--	--	--	1
	503	Crystal 578RR	1.69	3.25	1.89	2.96	2.42	--	--	--	--	1
	621	Crystal 579RR	NE	NE	NE	NE	NE	--	--	--	--	1
	591	Crystal 875RR	3.88	4.81	4.33	4.37	4.35	4.43	4.55	4.51	4.79	8
	534	Crystal 981RR	1.89	3.02	2.11	2.75	2.43	2.56	2.97	2.70	3.80	7
	523	Crystal 986RR	3.22	4.60	3.59	4.18	3.89	4.02	4.41	4.16	5.20	7
	582	Crystal D352	2.05	2.81	2.29	2.56	2.42	2.46	--	2.49	--	3
	547	Crystal D508	1.96	3.53	2.19	3.21	2.70	--	--	--	--	1
	559	Crystal D518	1.60	2.73	1.79	2.48	2.13	--	--	--	--	1
	532	Crystal D558	2.57	4.18	2.87	3.80	3.33	--	--	--	--	1
	538	Crystal RR012	2.30	3.69	2.57	3.36	2.96	3.17	3.32	3.38	3.63	6
	564	Crystal RR228	2.73	4.21	3.05	3.83	3.44	3.92	4.18	4.40	4.69	4
	542	Crystal RR260	1.95	3.62	2.18	3.29	2.73	2.74	2.92	2.75	3.27	4
	536	Crystal RR830	2.26	3.77	2.52	3.43	2.98	3.54	3.77	4.10	4.23	8
	565	Hilleshög HIL9704	4.99	6.21	5.57	5.65	5.61	--	--	--	--	1
	540	Hilleshög HIL9705	4.23	5.92	4.72	5.38	5.05	--	--	--	--	1
	522	Hilleshög HIL9707	2.84	4.60	3.17	4.18	3.68	--	--	--	--	1
	529	Hilleshög HIL9708	3.08	4.34	3.44	3.95	3.69	--	--	--	--	1
	584	Hilleshög HIL9709	2.92	4.40	3.26	4.00	3.63	--	--	--	--	1
	607	Hilleshög HIL9710	2.31	3.47	2.58	3.16	2.87	--	--	--	--	1
	543	Hilleshög HIL9711	3.33	4.38	3.72	3.98	3.85	--	--	--	--	1
	544	Hilleshög HIL9712	3.43	4.62	3.83	4.20	4.01	--	--	--	--	1
	514	Hilleshög HIL9713	4.58	5.03	5.11	4.57	4.84	--	--	--	--	1
	599	Hilleshög HIL9714	4.26	5.58	4.75	5.08	4.91	--	--	--	--	1
	593	Hilleshög HIL9726	4.61	5.62	5.14	5.11	5.13	--	--	--	--	1
	583	Hilleshög HIL9727	3.18	4.37	3.55	3.97	3.76	--	--	--	--	1
	511	Hilleshög HIL9728	2.90	4.64	3.24	4.22	3.73	--	--	--	--	1
	546	Hilleshög HIL9730	2.14	3.46	2.39	3.15	2.77	--	--	--	--	1
	510	Hilleshög HIL9755	3.79	4.61	4.23	4.19	4.21	--	--	--	--	1
	537	Hilleshög 4022RR	3.30	4.71	3.68	4.28	3.98	4.39	4.48	4.79	4.67	10
	501	Hilleshög 4062RR	3.37	4.74	3.76	4.31	4.04	4.51	4.55	4.97	4.64	8
	513	Hilleshög 4094RR	3.22	4.44	3.59	4.04	3.82	4.32	4.40	4.83	4.57	8
	561	Hilleshög 4302RR	3.22	4.95	3.59	4.50	4.05	4.55	4.74	5.05	5.11	5
	615	Hilleshög 4448RR	NE	NE	NE	NE	NE	NE	NE	4.71	5.22	4
	590	Hilleshög 9517RR	2.27	3.36	2.53	3.06	2.79	3.10	3.32	3.40	3.77	3
	562	Hilleshög 9528RR	3.16	4.92	3.53	4.47	4.00	4.40	--	4.80	--	3
	518	Hilleshög HIL9602	3.57	5.05	3.98	4.59	4.29	--	--	--	--	2
	545	Maribo 102	4.20	4.85	4.69	4.41	4.55	4.96	5.04	5.37	5.21	5
	554	Maribo 109	2.80	4.44	3.12	4.04	3.58	--	--	--	--	2
	507	Maribo 301	1.99	3.18	2.22	2.89	2.56	2.60	--	2.65	--	2
	524	Maribo MA305	4.47	5.55	4.99	5.05	5.02	5.07	--	5.12	--	3
	504	Maribo 402	3.20	4.84	3.57	4.40	3.99	--	--	--	--	2
	551	Maribo 408	3.54	4.85	3.95	4.41	4.18	--	--	--	--	2
	568	Maribo 409	6.47	6.53	7.22	5.94	6.58	--	--	--	--	2

Table 32.
2015 Fusarium Ratings for Official Trial Entries
ACSC Nurseries - (Two Moorhead, MN Sites)

Chk @	Code	Description	Unadjusted N Mhd 4 Dates+	Unadjusted S Mhd 4 Dates+	Adjusted N Mhd 4 Dates+	Adjusted S Mhd 4 Dates+	Adj 2015 Mean	2 Yr Mean	3 Yr Mean	Adj 2014 Mean	Adj 2013 Mean	Years
	520	Maribo MA500	4.03	5.00	4.50	4.55	4.52	--	--	--	--	1
	535	Maribo MA501	3.61	4.65	4.03	4.23	4.13	--	--	--	--	1
	600	Maribo MA502	1.86	2.84	2.08	2.58	2.33	--	--	--	--	1
	586	Maribo MA503	3.57	4.76	3.98	4.33	4.16	--	--	--	--	1
	577	Maribo MA504	3.65	4.55	4.07	4.14	4.11	--	--	--	--	1
	533	Maribo MA510	1.93	3.19	2.15	2.90	2.53	--	--	--	--	1
	592	Maribo MA511	2.48	3.04	2.77	2.76	2.77	--	--	--	--	1
	550	Seedex RR0855	3.91	5.41	4.36	4.92	4.64	--	--	--	--	1
	594	Seedex RR0856	4.26	5.48	4.75	4.98	4.87	--	--	--	--	1
	525	Seedex RR0857	3.10	4.35	3.46	3.96	3.71	--	--	--	--	1
	552	Seedex RR0858	4.41	5.85	4.92	5.32	5.12	--	--	--	--	1
	541	Seedex RR0941	2.88	3.61	3.21	3.28	3.25	4.05	--	4.86	--	2
	613	Seedex RR0951	NE	NE	NE	NE	NE	--	--	--	--	1
	560	Seedex RR0952	4.30	5.03	4.80	4.57	4.69	--	--	--	--	1
	505	Seedex RR0953	4.24	4.92	4.73	4.47	4.60	--	--	--	--	1
	556	SX Savannah RR(842)	4.78	6.17	5.33	5.61	5.47	4.85	--	4.24	--	2
	571	SX Canyon RR(844TT)	3.08	4.69	3.44	4.27	3.85	--	--	--	--	2
	617	SX Cruze RR(846)	NE	NE	NE	NE	NE	--	--	--	--	2
	604	SX Terrain RR(848)	3.65	5.09	4.07	4.63	4.35	4.15	--	3.95	--	2
	508	SX Winchester RR(832)	3.29	4.65	3.67	4.23	3.95	4.46	--	4.97	--	3
	625	SX Yukon RR	NE	NE	NE	NE	NE	NE	NE	2.88	3.54	4
	574	SV 36272RR	3.52	4.67	3.93	4.25	4.09	4.09	NE	4.10	NE	4
	605	SV 36273RR	3.95	5.23	4.41	4.76	4.58	4.59	NE	4.60	NE	4
	598	SV RR241	4.38	5.88	4.89	5.35	5.12	4.69	--	4.26	--	2
	588	SV RR243	3.52	4.62	3.93	4.20	4.06	4.56	--	5.05	--	2
	608	SV RR244TT	3.46	4.25	3.86	3.87	3.86	4.21	--	4.56	--	2
	616	SV RR333	NE	NE	NE	NE	NE	NE	--	4.10	--	3
	530	SV RR336	2.64	4.07	2.95	3.70	3.32	3.81	--	4.29	--	3
	563	SV RR350	3.85	5.39	4.30	4.90	4.60	--	--	--	--	1
	623	SV RR351	NE	NE	NE	NE	NE	--	--	--	--	1
	612	SV RR352	NE	NE	NE	NE	NE	--	--	--	--	1
	579	SV RR353	4.04	5.68	4.51	5.17	4.84	--	--	--	--	1
	528	SV RR631	4.66	5.73	5.20	5.21	5.21	4.62	--	4.04	--	3
	614	SV RR633	NE	NE	NE	NE	NE	NE	--	3.22	--	3
	526	SV RR654	3.87	5.65	4.32	5.14	4.73	--	--	--	--	1
	516	SV RR655	4.51	6.14	5.03	5.58	5.31	--	--	--	--	1
	589	SV RR656	2.86	4.26	3.19	3.87	3.53	--	--	--	--	1
	611	SV RR746	NE	NE	NE	NE	NE	--	--	--	--	2
	581	SV RR747	4.05	5.63	4.52	5.12	4.82	--	--	--	--	2
1	1201	Fus Chk #07 CRYS658RR	1.98	3.45	2.21	3.14	2.67	2.80	2.91	2.92	3.13	10
1	1202	Fus Chk #08 HILL4000RR	5.88	6.34	6.56	5.77	6.16	6.22	6.13	6.28	5.95	9
1	1203	Fus Chk #09 HILL4010RR	6.05	6.55	6.75	5.96	6.35	6.11	5.97	5.86	5.70	10
1	1204	Fus Chk #12 HILL4012RR	5.30	6.60	5.91	6.00	5.96	5.97	5.88	5.98	5.69	10
1	1205	Fus Chk #13 HILL4043RR	5.55	6.40	6.19	5.82	6.01	6.00	5.83	6.00	5.48	9
1	1206	Fus Chk #14 BETA86RR44	5.01	6.15	5.59	5.59	5.59	5.58	5.61	5.57	5.68	10
1	1207	Fus Chk #28 SES36918RR	4.56	5.94	5.09	5.40	5.25	5.38	5.44	5.52	5.56	7
1	1208	Fus Chk #17 CRYS765RR	3.74	4.78	4.17	4.35	4.26	4.12	4.24	3.98	4.49	7
1	1209	Fus Chk #18 CRYS768RR	3.18	5.10	3.55	4.64	4.09	4.50	4.65	4.91	4.94	7
1	1210	Fus Chk #26 BETA87RR68	4.35	4.63	4.85	4.21	4.53	4.49	4.63	4.44	4.92	6
	1211	FS CHK RES RR #1	2.18	3.41	2.43	3.10	2.77	2.87	2.90	2.98	2.95	5
	1212	FS CHK SUS RR #2	6.29	6.64	7.02	6.04	6.53	6.18	5.99	5.83	5.63	5
	1213	FS CHK MOD RR RES #2	3.60	4.69	4.02	4.27	4.14	4.15	4.28	4.15	4.54	9
	1214	FS CHK MOD RR SUS #1	4.02	5.64	4.49	5.13	4.81	5.02	5.05	5.23	5.11	9
	1215	FS CHK RES RR #2	1.55	2.83	1.73	2.57	2.15	2.30	2.48	2.44	2.85	4
	1216	FS CHK SUS RR#10	4.15	6.14	4.63	5.58	5.11	5.31	5.40	5.52	5.56	2
10		Mean of 10 Check Varieties	4.56	5.59	5.09	5.09	5.09	5.12	5.13	5.15	5.15	
		Trial Mean	3.11	4.39	3.47	3.99	3.50					
		Coeff. of Var. (%)	13.90	9.32	13.90	9.32						
		F Value	33.26	31.71	33.26	31.71						
		Mean LSD (0.05)	0.54	0.51	0.60	0.46						
		Mean LSD (0.01)	0.72	0.68	0.80	0.62						
		Sig Lvl	**	**								
		Adjustment Factor	1.1158	0.9095								

@ 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 in disease nursery.

Table 33. Pesticides Applied to ACSC & MDFC Official Trials

		Herbicide/Insecticide				Fungicide		
Area	Location	Herbicide & Rate	Spray Dates	Method	Location	Fungicide Used	Spray Dates	Method
ASCS	Kindred	RU1	5/22	Ground	Kindred	Quadris	6/11 (6 Leaf)	Ground
		RU2	6/23	Ground		CR.1/CR.2/CR.3	7/15,8/5,8/25	Ground
ACSC	Casselton	RU1	6/11	Ground	Casselton	Quadris	6/15 (6 Leaf)	Ground
		RU2	7/9	Ground		CR.1/CR.2/CR.3	7/15,8/5,8/27	Ground
ACSC	Averill	RU1	6/11	Ground	Averill	Quadris	6/9 (6 Leaf)	Ground
		RU2 *	6/23	Ground		CR.1/CR.2/CR.3	7/20,8/5,8/27	Ground
ACSC	Halstad	RU1	5/23	Ground	Halstad	Quadris	6/11 (6 Leaf)	Ground
		RU2	6/18	Ground		CR.1/CR.2/CR.3	7/20,8/5,8/26	Ground
ACSC	Hillsboro	RU1	6/11	Ground	Hillsboro	Quadris	6/10 (6 Leaf)	Ground
		RU2	6/30	Ground		CR.1/CR.2/CR.3 **	7/21,8/14,9/1	By Air
ACSC	Perley	RU1	6/12	Ground	Perley	Quadris	6/10 (6 Leaf)	Ground
		RU2	6/30	Ground		CR.1/CR.2/CR.3	7/21,8/5,8/26	Ground
ACSC	Climax	RU1	6/12	Ground	Climax	Quadris	7/1 (8 Leaf)	Ground
		RU2	6/30	Ground		CR.1/CR.2/CR.3	7/22,8/6,8/26	Ground
ACSC	Scandia	RU1	5/28	Ground	Scandia	Quadris	7/1 (8-10 Leaf)	Ground
		RU2	6/17	Ground		CR.1/CR.2/CR.3	7/31,8/10,8/26	Ground
ACSC	Grand Forks + ^	RU1	6/12	Ground	Grand Forks	Quadris	6/17 (6 Leaf)	Ground
		RU2	6/30	Ground		CR.1/CR.2/CR.3	7/20,8/6,8/27	Ground
ACSC	Alvarado +	RU1	6/18	Ground	Alvarado	Quadris	6/17 (6 Leaf)	Ground
		RU2	7/9	Ground		CR.1/CR.2/CR.3	7/22,8/7,8/28	Ground
ACSC	St. Thomas + ^	RU1	6/12	Ground	St. Thomas	Quadris	6/16 (6 Leaf)	Ground
		RU2	6/30	Ground		CR.1/CR.2/CR.3	7/20,8/7,8/27	Ground
ACSC	Cavalier + ^	RU1	5/27	Ground	Cavalier	Quadris	6/16 (6 Leaf)	Ground
		RU2	6/18	Ground		CR.1/CR.2/CR.3	7/22,8/8,8/28	Ground
MNDAK	Foxhome	RU1	6/11	Ground	Foxhome	Quadris	6/15 (6-8 Leaf)	Ground
		RU2	7/1	Ground		CR.1/CR.2/CR.3	7/20,8/5,8/25	Ground
MNDAK	Fairmount	RU1	6/10	Ground	Fairmount	Quadris	6/15 (8 Leaf)	Ground
		RU2	7/9	Ground		CR.1/CR.2/CR.3	7/20,8/5,8/25	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).

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

* RU2=Stinger and Select Max added

+ Counter 20G applied at 9.0 lbs./A at Grand Forks, Alvarado, St Thomas & Cavalier.

+ Thimet applied at St Thomas near peak root maggot fly in early June.

^ Lorsban 4E applied near peak root maggot fly in early June.

CR.1 = Agritin (8oz./A), Topsin (7.5oz./A)

CR. 2 = Proline (5oz./A)

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

** CR. 1= Minerva Duo(16oz./A); CR. 2=Super Tin(8oz./A); CR. 3= Headline(9oz./A)
Quadris applied at 14oz./A