

# RESULTS OF AMERICAN CRYSTAL'S 2011 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 2011 American Crystal and Minn-Dak official trials and describes the procedures and cultural practices involved in the trials.

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## Procedures and Cultural Practices

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

All Crystal and Minn-Dak entries were coded at the NWROC under the direction of Dr. Larry Smith and Mr. Todd Cymbaluk. The seed then was sent to the American Crystal Technical Services Center at Moorhead for official testing.

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

Eleven official yield trial sites were planted in the Crystal area with nine harvested. 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 RR, experimental RR varieties, and conventional varieties. Aphanomyces yield trials were planted at two locations with potential disease present. 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 vacuum planters, which included a 12-row Hege plot planter and a modified 12-row

Heath planter. These planters gave excellent single seed spacing which contributed to easier 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.

In 2010, official trial seed size requirements were revised to allow planting of pellets in all yield trials. Some varieties that were supplied by seed companies were smaller than specified. This resulted in “plant to thin” plots instead of “plant to stand” plots. Agronomic data (yield, sugar, loss to molasses and emergence) was not reported for these varieties in 2010. The seed size issue primarily affected SES/Seedex varieties in the ACSC area yield trials.

Conventional entries (voluntarily entered by seed companies) were placed in two-row plots and replicated four times. Micro rate herbicides and full rates of fungicides were applied using a pickup sprayer driven down the alleys. Quadris was applied to all of the yield trials during the 4 to 12 leaf stage (15oz/A broadcast). Ground spraying was conducted by American Crystal Sugar technical staff.

Commercial RR entries were placed in four-row plots and replicated six times. Experimental RR entries were placed in two-row plots and replicated four times. Roundup Powermax with Weather Gard was applied two to three times as needed. Quadris was applied to all RR yield trials.

All plot rows were measured for total length after approximately 2.5 feet at each end were rototilled off (about August 20-28) while skips greater than 60 inches were measured for adjustment purposes. Harvest was performed with two modified four-row harvesters (4310 and 4310A John Deere). Typically, all plot rows were harvested. All harvested beets of each plot were used for yield determination while one sample (22-25 lbs) for sugar and impurity analysis was obtained from each plot. Quality analysis was performed at the American Crystal Technical Services quality lab in Moorhead.

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

Trials at Casselton, Stephen, Charlesville & Foxhome were not harvested.

#### *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 Rhizoctonia inoculum production and CR nursery infection, Randy Nelson, Jason Brantner and Aaron Carlson for RRV disease ratings, USDA staff in Michigan for CR nursery ratings and the Betaseed staff for Aphanomyces and Cercospora ratings in the Shakopee area. A special thanks also to Dr. Larry Smith and Mr. Todd Cymbaluk (NWROC, U of M – Crookston) for sampling and coding all variety entries.

**Table 1. Varieties Meeting Approval Criteria for the 2012 Sugarbeet Crop ++**

Full Market Approved Varieties		
Roundup Ready ®		Conventional
A BTS 80RR12		Beta 1100R Holly 317
A hR BTS 80RR32	hR* Hilleshög 4012RR (+Aph)	Beta 1115R (+Aph) Holly 701
A hR BTS 80RR52 (+Aph)	hR* Hilleshög 4022RR (+Aph +Rhc)	Beta 1125R (+Aph)
BTS 87RR38	* Hilleshög 4043RR (+Aph)	Beta 1135R (+Rhc) Seedex Sonic
BTS 87RR58	hR* Hilleshög 4094RR (+Aph +Rhc)	Beta 1140R hR Seedex SX0873TT (Deuce)
BTS 87RR68	Hilleshög 4195RR (9195)	Beta 1301R (+Aph +Rhc) Seedex Triton
BTS 88RR31 (+Aph +Rhc)	Hilleshög 4199RR (9199)	Beta 1305R (+Aph) Seedex Vault (SX0842)
hR BTS 88RR41	A Hilleshög 9236RR	
BTS 88RR61 (+Aph)	A Hilleshög 9237RR	Crystal R308 SESVanderhave H46519
BTS 89RR10 (+Rhc)	A Hilleshög 9238RR	Crystal R431 SESVanderhave H46531
BTS 89RR30 (+Aph)		Crystal R434 SESVanderhave H46711
BTS 89RR40 (+Aph)	hR Seedex UplanderRR	Crystal R760 hR SESVanderhave H48607TT
hR BTS 89RR50 (+Aph)	hR Seedex UsherRR (+Aph)	hR Crystal R761 (+Aph) hR SESVanderhave H48716TT
hR BTS 89RR83	Seedex VisionRR (0891)	hR SESVanderhave H48717TT
	hR Seedex VictorRR (0894 +Aph)	SESVanderhave H46801
	A Seedex SX0808RR (+Aph)	hR SESVanderhave H48810TT
Crystal 539RR		
Crystal 658RR (+Aph +Rhc)		
Crystal 765RR		
Crystal 768RR	A SESVanderhave H36072RR	Hilleshög 3035Rz (+Aph +Rhc)
Crystal 875RR (+Aph +Rhc)	hR SESVanderhave H36711RR	Hilleshög 3052Rz (+Aph +Rhc)
Crystal 878RR	hR** SESVanderhave H36811RR (+Aph +Rhc)	
hR Crystal 879RR	hR SESVanderhave H36812RR	
Crystal 985RR (+Aph)	SESVanderhave H36813RR (+Aph)	
Crystal 986RR (+Aph)	hR SESVanderhave H36916RR	
A hR Crystal 091RR	SESVanderhave H36917RR	
A hR Crystal 093RR	SESVanderhave H36918RR (+Aph)	
A hR Crystal 095RR (+Aph)		

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

Aphanomyces Specialty Approved Varieties (Aph)		
Roundup Ready ®		Conventional
A hR BTS 80RR52	hR* Hilleshög 4012RR	Beta 1115R Hilleshög 3035Rz (+Rhc)
BTS 88RR31 (+Rhc)	hR* Hilleshög 4022RR (+Rhc)	Beta 1125R Hilleshög 3052Rz (+Rhc)
BTS 88RR61	* Hilleshög 4043RR	Beta 1301R (+Rhc)
BTS 89RR30	hR* Hilleshög 4094RR (+Rhc)	Beta 1305R
BTS 89RR40		
hR BTS 89RR50	A hR Seedex VictorRR	
	A hR Seedex UsherRR	hR Crystal R761
	A Seedex SX0808RR	
Crystal 658RR (+Rhc)		
Crystal 875RR (+Rhc)		
Crystal 985RR	hR** SES Vanderhave H36811RR (+Rhc)	
A Crystal 986RR	A SES Vanderhave H36813RR	
A hR Crystal 095RR	A SES Vanderhave H36918RR	

Conventional variety testing was voluntary since 2009.  
Data for SOME conventional varieties are from 2008 only.  
No conventional Aph yield trials were conducted since 2009.

Rhizoctonia Specialty Approved Varieties (Rhc)		
Roundup Ready ®		Conventional
A BTS 88RR31 (+Aph)	hR* Hilleshög 4022RR (+Aph)	Beta 1301R (+Aph) Hilleshög 3035Rz (+Aph)
A BTS 89RR10	hR* Hilleshög 4094RR (+Aph)	Beta 1135R Hilleshög 3052Rz (+Aph)
		Beta 1833R
Crystal 658RR (+Aph)	hR** SESVanderhave H36811RR (+Aph)	SESVanderhave H46714
A Crystal 875RR (+Aph)		

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

A Newly Approved (+Aph) additional Aph spec approval (+Rhc) additional Rhizoctonia spec approval

hR High Rhizomania Tolerant (Dual Rzm resistance) as submitted by the seed company.

**++Roundup Ready sugarbeets were approved to be planted by the ACSC BOD on Nov. 2, 2011, subject to applicable regulatory requirements.**

Roundup Ready ® is a registered trademark of Monsanto Company.

Created 11-4-2011.

\* Varieties previously approved as Aph specialty and allowed continued specialty approval for 2012.

\*\* Variety previously approved as Rhizoc. specialty and allowed continued specialty approval for 2012.

Table 2. Performance Data of RR Varieties  
2009, 2010, 2011 Growing Seasons (All Locations Combined) +++

Description @	Yrs Com	Rev/Ton					Rev/Acre					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emergence		CR +		Aph Root+		Fusarium+		Rhizoc.++		
		11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	
<b>Roundup Ready</b>	# of locations	8	15		21		8	15		21		8	15	8	15	8	15	8	15	8	15	8	15	3	6	2	4	1	2	3	5	
<b>Previously Approved</b>																																
BTS 87RR38	3	42.94	44.70	102	41.91	103	966	1150	103	1077	104	302	316	6800	8140	16.32	16.92	22.5	25.6	1.22	1.12	70	73	4.89	4.85	5.0	4.6	4.3	4.0	4.6	4.5	
BTS 87RR58	3	42.62	44.78	102	41.91	103	991	1168	104	1088	105	301	316	6982	8250	16.32	16.99	23.1	25.9	1.28	1.17	67	70	5.06	5.24	5.1	5.1	5.0	5.1	4.2	4.4	
BTS 87RR68	3	46.46	47.15	108	43.98	108	1072	1143	102	1094	106	316	326	7263	7883	16.95	17.38	23.0	24.1	1.18	1.11	69	63	4.99	4.73	6.0	6.4	4.3	4.6	4.4	4.6	
BTS 88RR31	2	41.31	43.55	99	40.99	100	974	1142	102	1060	103	296	312	6987	8184	16.18	16.81	23.6	26.2	1.39	1.24	65	66	5.07	4.86	3.9	3.9	3.6	3.3	3.8	3.7	
BTS 88RR41	2	41.62	43.52	99	40.75	100	972	1118	100	1045	101	297	311	6927	8000	16.10	16.70	23.4	25.6	1.26	1.14	61	67	5.06	5.10	5.6	5.4	4.3	3.9	4.3	4.2	
BTS 88RR61	2	42.85	45.53	104	42.81	105	1016	1185	106	1107	107	302	319	7178	8324	16.33	17.09	23.9	26.0	1.25	1.12	66	66	4.96	4.73	4.6	4.4	4.3	4.1	4.7	4.2	
BTS 89RR10	NC	46.78	48.60	111	45.59	112	912	1141	102	1064	103	317	332	6189	7800	17.12	17.72	19.5	23.4	1.27	1.13	63	71	5.08	5.00	4.1	3.9	4.7	5.1	3.6	3.8	
BTS 89RR30	1	38.26	41.48	95	38.95	95	981	1182	106	1096	106	284	304	7307	8642	15.46	16.25	25.8	28.4	1.25	1.08	62	71	5.17	5.13	5.1	4.7	3.5	2.6	4.5	4.1	
BTS 89RR40	1	43.67	44.70	102	42.28	104	1047	1208	108	1124	109	305	316	7318	8553	16.53	16.96	24.0	27.0	1.29	1.17	62	66	5.33	5.20	4.8	4.4	4.8	4.2	5.0	4.6	
BTS 89RR50	1	40.20	43.07	98	40.44	99	1029	1252	112	1149	111	292	310	7493	9010	15.97	16.73	25.8	29.0	1.40	1.25	65	71	5.01	5.09	4.1	4.0	3.8	3.0	5.3	4.7	
BTS 89RR83	1	36.95	40.51	92	38.32	94	967	1225	110	1112	108	279	300	7346	9059	15.16	16.05	26.4	30.1	1.19	1.06	62	70	4.81	4.82	5.1	5.4	4.4	3.8	4.5	4.1	
Crystal 539RR	4	41.89	44.40	101	41.35	101	897	1077	96	1003	97	298	315	6413	7651	16.21	16.92	21.7	24.2	1.31	1.18	66	71	5.37	5.38	4.1	4.0	3.1	2.5	4.5	4.4	
Crystal 658RR	4	38.61	40.93	93	38.28	94	930	1095	98	1007	98	286	301	6883	8060	15.39	16.07	24.1	26.6	1.11	1.01	64	74	4.47	4.47	4.5	4.2	3.2	2.5	3.8	4.0	
Crystal 765RR	3	45.64	47.26	108	44.52	109	1076	1196	107	1138	110	312	326	7341	8240	16.82	17.39	23.4	25.2	1.21	1.09	56	66	4.70	4.61	6.1	5.9	4.5	4.2	4.6	4.5	
Crystal 768RR	3	41.43	43.97	100	41.92	103	982	1167	104	1105	107	296	313	7018	8306	16.10	16.83	23.6	26.3	1.29	1.17	67	72	5.09	5.15	4.8	4.8	4.5	4.3	4.4	4.4	
Crystal 875RR	2	41.57	44.11	101	41.34	101	994	1195	107	1101	107	297	314	7120	8506	16.18	16.88	24.1	27.0	1.34	1.20	64	72	4.24	4.28	3.1	3.2	4.1	4.6	4.1	3.8	
Crystal 878RR	2	43.04	45.23	103	42.14	103	998	1177	105	1101	107	303	318	6995	8271	16.39	17.06	23.1	25.8	1.27	1.16	67	72	5.31	5.24	5.4	5.6	4.6	4.5	4.5	4.5	
Crystal 879RR	2	41.39	42.70	97	39.93	98	978	1140	102	1061	103	296	308	6977	8278	16.12	16.59	23.5	26.5	1.31	1.18	64	71	5.19	5.27	6.0	6.0	4.1	3.7	4.3	4.3	
Crystal 985RR	1	42.94	45.35	103	42.53	104	1035	1180	106	1100	107	302	319	7313	8312	16.31	17.02	24.3	26.1	1.24	1.10	65	68	4.37	4.33	3.7	4.0	4.2	4.2	4.6	4.3	
Crystal 986RR	NC	46.42	47.20	108	44.04	108	1028	1244	111	1131	110	316	326	6982	8613	16.90	17.36	22.1	26.3	1.13	1.07	49	58	5.14	5.30	5.2	4.7	5.5	5.3	4.0	4.3	
Hilleshög 4012RR	4	43.12	44.96	103	41.75	102	998	1172	105	1079	105	303	317	7028	8289	16.39	16.98	23.3	26.1	1.25	1.13	64	71	5.24	5.12	4.6	4.5	5.2	5.7	5.0	4.8	
Hilleshög 4022RR	3	42.05	44.00	100	40.75	100	975	1147	103	1044	101	299	313	6930	8179	16.22	16.82	23.2	26.0	1.29	1.16	69	77	4.26	4.26	4.8	4.9	4.1	4.4	3.5	3.5	
Hilleshög 4043RR	1	44.20	44.99	103	42.04	103	1023	1170	105	1078	104	307	317	7095	8262	16.48	16.89	23.1	26.0	1.14	1.03	71	72	4.84	4.93	4.7	4.8	5.5	6.5	5.3	4.8	
Hilleshög 4094RR	2	43.03	44.41	101	41.56	102	985	1137	102	1048	102	303	315	6932	8086	16.37	16.88	22.9	25.6	1.25	1.14	69	76	4.00	4.14	5.2	5.0	4.4	4.8	3.3	3.6	
Hilleshög 4195RR	1	39.42	42.08	96	39.60	97	957	1125	101	1058	103	289	306	7022	8173	15.73	16.47	24.5	26.7	1.33	1.20	63	66	4.60	4.50	5.2	5.2	5.0	5.5	3.8	3.9	
Hilleshög 4199RR(9199)	1	44.08	45.55	104	42.56	104	1028	1155	103	1064	103	306	319	7157	8119	16.49	17.03	23.4	25.4	1.17	1.06	55	58	4.42	4.54	5.5	5.8	6.6	7.3	5.3	5.1	
Seedex Vision RR(SX0891)	NC	46.06	46.12	105	43.63	107	1047	1140	102	1064	103	314	322	7144	7970	16.81	17.09	22.8	24.8	1.11	1.01	60	na	4.41	4.58	4.7	4.7	4.6	5.1	4.5	4.4	
Seedex Victor RR(SX0894)	1	42.53	43.92	100	41.66	102	983	1096	98	1029	100	301	313	6956	7815	16.16	16.68	23.2	24.9	1.14	1.04	59	na	4.33	4.42	4.7	4.7	4.2	4.6	4.6	4.4	
Seedex Uplander RR	2	44.50	na	na	na	na	1037	na	na	na	na	308	na	7172	na	16.52	na	23.3	na	1.12	na	61	na	4.62	4.79	4.7	4.9	4.7	4.8	4.6	4.4	
Seedex Usher RR	2	42.22	na	na	na	na	1046	na	na	na	na	299	na	7423	na	16.13	na	24.8	na	1.16	na	63	na	4.70	4.87	4.7	4.8	4.3	4.8	4.6	4.5	
SESVanderhave H36711RR	3	41.72	na	na	na	na	1045	na	na	na	na	298	na	7457	na	16.08	na	25.1	na	1.21	na	56	na	4.58	4.79	4.6	4.6	4.8	4.8	4.7	4.3	
SESVanderhave H36811RR	2	41.29	na	na	na	na	973	na	na	na	na	296	na	6975	na	15.94	na	23.6	na	1.16	na	59	na	4.08	4.35	4.7	4.7	4.4	4.3	4.6	4.3	
SESVanderhave H36812RR	2	42.15	43.52	99	41.00	100	1086	1203	108	1110	108	299	311	7715	8616	16.14	16.64	25.8	27.6	1.19	1.08	61	69	4.78	4.97	5.2	4.9	4.2	4.6	4.7	4.6	
SESVanderhave H36813RR	2	42.71	na	na	na	na	1022	na	na	na	na	301	na	7214	na	16.26	na	24.0	na	1.20	na	55	na	4.46	4.52	4.6	4.5	4.4	4.7	4.8	4.4	
SESVanderhave H36916RR	1	42.77	43.80	100	41.49	102	1045	1153	103	1076	104	301	312	7364	8227	16.20	16.67	24.4	26.3	1.13	1.05	62	na	4.70	4.83	5.0	4.9	4.5	4.6	4.5	4.4	
SESVanderhave H36917RR	NC	44.88	45.59	104	43.29	106	1031	1164	104	1086	105	310	319	7129	8186	16.61	17.02	23.1	25.6	1.14	1.04	59	na	4.51	4.73	4.7	4.7	4.8	4.9	4.8	4.5	
SESVanderhave H36918RR	NC	45.54	46.10	105	43.64	107	994	1118	100	1058	103	312	322	6826	7813	16.72	17.09	21.9	24.2	1.12	1.02	62	na	4.41	4.44	4.5	4.4	5.1	5.0	5.1	4.8	
<b>Newly Approved</b>																																
BTS 80RR12	NC	46.25	46.89	107	--	--	1044	1239	111	--	--	315	325	7098	8594	16.83	17.24	22.5	26.3	1.09	1.01	63	65	4.86	5.07	4.9	5.1	3.6	3.3	4.8	4.5	
BTS 80RR32	NC	41.86	44.06	101	--	--	1061	1252	112	--	--	298	314	7578	8922	16.08	16.75	25.5	28.3	1.19	1.07	59	6									

Table 3. Performance Data of RR Varieties - Light Rhizomania Conditions  
2009, 2010 & 2011 Growing Seasons +++

Description @	Yrs Com	Rev/Ton					Rev/Acre					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emergence		CR +		Aph Root+		Fusarium+		Rhizoc.++		
		11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	
<b>Roundup Ready</b>	# of locations	4	6	9							4	6	4	6	4	6	4	6	4	6	4	6	4	6	3	6	2	4	1	2	3	5
<b>Previously Approved</b>																																
BTS 87RR38	3	38.00	43.21	100	40.49	101	869	1101	102	1004	104	283	311	6514	7913	15.46	16.67	23.1	25.4	1.30	1.14	71	74	4.89	4.85	5.0	4.6	4.3	4.0	4.6	4.5	
BTS 87RR58	3	37.20	42.90	99	40.13	100	865	1063	99	970	100	280	309	6546	7673	15.38	16.67	23.4	24.7	1.38	1.20	66	72	5.06	5.24	5.1	5.1	5.0	5.1	4.2	4.4	
BTS 87RR68	3	41.39	45.24	105	42.25	105	946	981	91	950	98	296	318	6757	6906	16.06	17.08	22.8	21.8	1.27	1.17	69	63	4.99	4.73	6.0	6.4	4.3	4.6	4.4	4.6	
BTS 88RR31	2	36.08	42.58	98	40.14	100	870	1096	102	998	103	276	308	6670	7933	15.27	16.65	24.2	25.6	1.47	1.24	65	67	5.07	4.86	3.9	3.9	3.6	3.3	3.8	3.7	
BTS 88RR41	2	37.06	42.34	98	39.60	99	864	1018	94	936	97	280	307	6533	7383	15.31	16.52	23.5	24.1	1.33	1.16	61	68	5.06	5.10	5.6	5.4	4.3	3.9	4.3	4.2	
BTS 88RR61	2	37.67	44.22	102	41.82	104	910	1117	104	1028	106	282	315	6848	7961	15.38	16.85	24.5	25.4	1.30	1.13	64	65	4.96	4.73	4.6	4.4	4.3	4.1	4.7	4.2	
BTS 89RR10	NC	40.66	47.15	109	44.46	111	809	1119	104	1017	105	293	326	5866	7699	16.01	17.46	20.0	23.2	1.36	1.17	66	75	5.08	5.00	4.1	3.9	4.7	5.1	3.6	3.8	
BTS 89RR30	1	32.50	40.63	94	38.20	95	855	1122	104	1016	105	262	301	6951	8305	14.46	16.15	20.6	27.5	1.35	1.12	64	73	5.17	5.13	5.1	4.7	3.5	2.6	4.5	4.1	
BTS 89RR40	1	38.71	43.83	101	41.49	103	945	1166	108	1067	110	286	313	7025	8333	15.66	16.82	24.7	26.5	1.36	1.18	60	68	5.33	5.20	4.8	4.4	4.8	4.2	5.0	4.6	
BTS 89RR50	1	34.03	41.36	96	39.08	97	898	1219	113	1092	113	268	304	7146	8924	14.87	16.43	26.9	29.2	1.46	1.25	67	73	5.01	5.09	4.1	4.0	3.8	3.0	5.3	4.7	
BTS 89RR83	1	31.05	39.23	91	37.43	93	832	1167	108	1048	108	257	295	6959	8768	14.15	15.87	27.3	29.5	1.31	1.11	61	70	4.81	4.82	5.1	5.4	4.4	3.8	4.5	4.1	
Crystal 539RR	4	36.35	43.42	100	40.24	100	810	1040	96	935	97	277	312	6206	7457	15.21	16.75	22.5	23.8	1.37	1.17	64	70	5.37	5.38	4.1	4.0	3.1	2.5	4.5	4.4	
Crystal 658RR	4	34.31	40.84	94	38.15	95	830	1061	98	949	98	269	301	6537	7827	14.66	16.09	24.4	25.9	1.20	1.02	66	76	4.47	4.47	4.5	4.2	3.2	2.5	3.8	4.0	
Crystal 765RR	3	40.46	45.67	106	43.35	108	940	1050	97	1008	104	293	320	6782	7359	15.92	17.13	23.2	23.0	1.29	1.12	55	67	4.70	4.61	6.1	5.9	4.5	4.2	4.6	4.5	
Crystal 768RR	3	37.02	42.80	99	40.74	101	875	1104	102	1025	106	280	309	6626	7960	15.35	16.64	23.7	25.6	1.37	1.19	68	74	5.09	5.15	4.8	4.8	4.5	4.3	4.4	4.4	
Crystal 875RR	2	37.01	43.03	99	40.33	100	910	1162	108	1040	107	280	310	6922	8362	15.36	16.69	25.0	26.9	1.39	1.20	61	70	4.24	4.28	3.1	3.2	4.1	4.6	4.1	3.8	
Crystal 878RR	2	37.41	43.00	99	39.91	99	876	1056	98	964	99	281	310	6588	7601	15.40	16.67	23.5	24.5	1.35	1.18	67	75	5.31	5.24	5.4	5.6	4.6	4.5	4.5	4.5	
Crystal 879RR	2	36.55	41.62	96	39.06	97	848	1048	97	951	98	278	304	6427	7637	15.31	16.45	23.2	25.0	1.44	1.24	64	72	5.19	5.27	6.0	6.0	4.1	3.7	4.3	4.3	
Crystal 985RR	1	37.10	43.27	100	40.63	101	938	1139	106	1027	106	280	311	7128	8190	15.25	16.65	25.6	26.3	1.32	1.14	64	69	4.37	4.33	3.7	4.0	4.2	4.2	4.6	4.3	
Crystal 986RR	NC	42.50	47.31	109	43.69	109	962	1214	113	1066	110	300	327	6805	8353	16.18	17.38	22.8	25.4	1.18	1.06	49	60	5.14	5.30	5.2	4.7	5.5	5.3	4.0	4.3	
Hilleshög 4012RR	4	38.40	44.54	103	41.25	103	916	1121	104	1017	105	285	316	6825	7958	15.54	16.93	24.1	25.2	1.30	1.14	63	72	5.24	5.12	4.6	4.5	5.2	5.7	5.0	4.8	
Hilleshög 4022RR	3	36.56	42.96	99	39.96	100	862	1084	100	975	101	278	310	6569	7808	15.24	16.64	23.7	25.1	1.35	1.16	67	76	4.26	4.26	4.8	4.9	4.1	4.4	3.5	3.5	
Hilleshög 4043RR	1	40.28	45.00	104	41.95	105	926	1084	100	991	102	292	318	6722	7644	15.77	16.92	23.1	24.0	1.18	1.04	69	73	4.84	4.93	4.7	4.8	5.5	6.5	5.3	4.8	
Hilleshög 4094RR	2	38.14	43.47	100	40.35	101	896	1039	96	941	97	284	312	6659	7455	15.47	16.71	23.5	23.9	1.29	1.14	68	75	4.00	4.14	5.2	5.0	4.4	4.8	3.3	3.6	
Hilleshög 4195RR	1	34.23	41.18	95	38.44	96	857	1062	99	975	101	269	303	6748	7798	14.76	16.32	25.4	25.8	1.39	1.22	64	68	4.60	4.50	5.2	5.2	5.0	5.5	3.8	3.9	
Hilleshög 4199RR(9199)	1	39.66	44.96	104	41.64	104	924	1076	100	978	101	290	317	6781	7617	15.71	16.95	23.6	24.1	1.23	1.08	55	60	4.42	4.54	5.5	5.8	6.6	7.3	5.3	5.1	
Seedex Vision RR(SX0891)	NC	41.86	45.34	105	42.70	106	1001	1101	102	996	103	298	319	7115	7740	16.03	16.96	23.8	24.2	1.15	1.03	62	na	4.41	4.58	4.7	4.7	4.6	5.1	4.5	4.4	
Seedex Victor RR(SX0894)	1	37.41	43.20	100	40.94	102	888	1043	97	958	99	281	311	6700	7517	15.25	16.61	24.0	24.3	1.21	1.09	60	na	4.33	4.42	4.7	4.7	4.2	4.6	4.6	4.4	
Seedex Uplander RR	2	39.85	na	na	na	na	940	na	na	na	na	290	na	6846	na	15.67	na	23.6	na	1.16	na	63	na	4.62	4.79	4.7	4.9	4.7	4.8	4.6	4.4	
Seedex Usher RR	2	37.73	na	na	na	na	946	na	na	na	na	282	na	7118	na	15.33	na	25.3	na	1.22	na	62	na	4.70	4.87	4.7	4.8	4.3	4.8	4.6	4.5	
SESVanderhave H36711RR	3	36.47	na	na	na	na	927	na	na	na	na	278	na	7084	na	15.12	na	25.7	na	1.25	na	56	na	4.58	4.79	4.6	4.6	4.8	4.8	4.7	4.3	
SESVanderhave H36811RR	2	35.97	na	na	na	na	857	na	na	na	na	276	na	6585	na	14.98	na	23.9	na	1.22	na	60	na	4.08	4.35	4.7	4.7	4.4	4.3	4.6	4.3	
SESVanderhave H36812RR	2	37.98	42.99	99	40.36	101	991	1138	106	1028	106	283	310	7409	8214	15.40	16.58	26.2	26.5	1.25	1.10	62	70	4.78	4.97	5.2	4.9	4.2	4.6	4.7	4.6	
SESVanderhave H36813RR	2	37.38	na	na	na	na	914	na	na	na	na	281	na	6894	na	15.30	na	24.7	na	1.26	na	55	na	4.46	4.52	4.6	4.5	4.4	4.7	4.8	4.4	
SESVanderhave H36916RR	1	37.88	43.16	100	40.67	101	936	1111	103	1013	105	283	310	6986	7986	15.34	16.58	24.7	25.7	1.21	1.07	62	na	4.70	4.83	5.0	4.9	4.5	4.6	4.5	4.4	
SESVanderhave H36917RR	NC	41.09	45.50	105	42.82	107	976	1101	102	1002	103	295	319	7015	7740	15.90	17.02	23.8	24.2	1.16	1.06	63	na	4.51	4.73	4.7	4.7	4.8	4.9	4.8	4.5	
SESVanderhave H36918RR	NC	41.41	46.23	107	43.45	108	937	1090	101	996	103	296	322	6707	7598	15.95	17.13	22.7	23.5	1.15	1.02	64	na	4.41	4.44	4.5	4.4	5.1	5.0	5.1	4.8	
<b>Newly Approved</b>																																
BTS 80RR12	NC	41.72	46.60	108	--	--	956	1224	114	--	--	297	324	6807	8491	16.00	17.20	22.8	26.0	1.15	1.02	65	68	4.86	5.07	4.9	5.1	3.6	3.3	4.8	4.5	
BTS 80RR32	NC	36.18	42.41	98	--	--	921	1127	105	--	--	276	308	7107	8192	15.10	16.50	25.8	26.6	1.28	1.12	60	64	5.18	5.05	5.3	5.5	4.2	3.2			

Table 4. Performance Data of RR Varieties - Under Moderate to Severe Rhizomania Conditions  
2009, 2010, 2011 Growing Seasons +++

Description @	Yrs Com	Rev/Ton					Rev/Acre					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emergence		CR +		Aph Root+		Fusarium+		Rhizoc.++	
		11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	2Yr%	3Yr#	3Yr%	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr
<b>Roundup Ready</b>	# of locations	4	9	12			4	9	12		4	9	4	9	4	9	4	9	4	9	4	9	3	6	2	4	1	2	3	5	
<b>Previously Approved</b>																															
BTS 87RR38	3	47.84	46.77	103	43.73	100	1065	1200	103	1149	105	321	324	7102	8322	17.17	17.28	22.0	25.6	1.14	1.09	70	73	4.89	4.85	5.0	4.6	4.3	4.0	4.6	4.5
BTS 87RR58	3	48.00	47.14	104	44.03	101	1117	1249	108	1189	109	321	325	7416	8609	17.25	17.40	22.9	26.3	1.19	1.14	67	69	5.06	5.24	5.1	5.1	5.0	5.1	4.2	4.4
BTS 87RR68	3	51.49	49.40	109	45.93	105	1189	1241	107	1196	109	335	334	7708	8393	17.82	17.76	23.0	25.1	1.09	1.06	70	63	4.99	4.73	6.0	6.4	4.3	4.6	4.4	4.6
BTS 88RR31	2	46.54	45.50	100	42.51	98	1080	1192	103	1123	103	316	319	7302	8371	17.11	17.16	23.0	26.2	1.31	1.21	66	65	5.07	4.86	3.9	3.9	3.6	3.3	3.8	3.7
BTS 88RR41	2	46.17	45.37	100	42.31	97	1074	1191	103	1136	104	314	318	7281	8360	16.90	17.02	23.1	26.2	1.18	1.10	60	66	5.06	5.10	5.6	5.4	4.3	3.9	4.3	4.2
BTS 88RR61	2	47.99	47.57	105	44.29	102	1121	1243	107	1178	108	321	327	7498	8560	17.27	17.46	23.3	26.1	1.20	1.11	67	66	4.96	4.73	4.6	4.4	4.3	4.1	4.7	4.2
BTS 89RR10	NC	52.95	50.96	112	47.31	109	1015	1181	102	1124	103	341	341	6517	7950	18.24	18.14	19.0	23.3	1.20	1.11	60	69	5.08	5.00	4.1	3.9	4.7	5.1	3.6	3.8
BTS 89RR30	1	43.93	43.50	96	40.46	93	1109	1244	107	1178	108	306	311	7688	8899	16.44	16.58	25.0	28.5	1.15	1.03	60	70	5.17	5.13	5.1	4.7	3.5	2.6	4.5	4.1
BTS 89RR40	1	48.61	46.49	102	43.71	100	1152	1256	108	1185	108	324	323	7628	8736	17.40	17.27	23.4	27.0	1.22	1.14	63	65	5.33	5.20	4.8	4.4	4.8	4.2	5.0	4.6
BTS 89RR50	1	46.17	45.48	100	42.24	97	1156	1302	112	1218	111	314	319	7832	9149	17.05	17.16	24.8	28.6	1.33	1.23	64	70	5.01	5.09	4.1	4.0	3.8	3.0	5.3	4.7
BTS 89RR83	1	42.75	42.73	94	39.81	91	1099	1285	111	1177	108	301	308	7722	9279	16.16	16.42	25.6	30.0	1.09	1.02	63	70	4.81	4.82	5.1	5.4	4.4	3.8	4.5	4.1
Crystal 539RR	4	47.30	46.40	102	43.15	99	983	1118	96	1073	98	319	322	6640	7804	17.18	17.28	20.9	24.2	1.25	1.16	67	72	5.37	5.38	4.1	4.0	3.1	2.5	4.5	4.4
Crystal 658RR	4	42.93	42.27	93	39.25	90	1030	1138	98	1070	98	302	306	7230	8257	16.13	16.29	23.8	26.9	1.03	0.98	63	72	4.47	4.47	4.5	4.2	3.2	2.5	3.8	4.0
Crystal 765RR	3	50.73	49.39	109	46.06	106	1203	1291	111	1235	113	332	334	7831	8732	17.72	17.76	23.5	26.0	1.12	1.06	56	66	4.70	4.61	6.1	5.9	4.5	4.2	4.6	4.5
Crystal 768RR	3	45.96	45.85	101	43.56	100	1090	1228	106	1185	108	314	320	7402	8579	16.89	17.15	23.5	26.6	1.21	1.14	66	71	5.09	5.15	4.8	4.8	4.5	4.3	4.4	4.4
Crystal 875RR	2	46.20	45.97	101	42.89	98	1081	1235	106	1165	107	315	321	7339	8628	17.02	17.22	23.3	26.8	1.29	1.18	67	73	4.24	4.28	3.1	3.2	4.1	4.6	4.1	3.8
Crystal 878RR	2	48.59	47.78	105	44.55	102	1118	1262	109	1215	111	324	328	7395	8666	17.37	17.51	22.7	26.3	1.19	1.12	67	71	5.31	5.24	5.4	5.6	4.6	4.5	4.5	4.5
Crystal 879RR	2	46.28	44.61	98	41.36	95	1101	1210	104	1157	106	315	315	7467	8575	16.93	16.89	23.6	27.1	1.19	1.13	64	71	5.19	5.27	6.0	6.0	4.1	3.7	4.3	4.3
Crystal 985RR	1	48.51	47.75	105	44.63	102	1131	1227	106	1176	108	323	328	7524	8443	17.33	17.47	23.2	25.7	1.17	1.07	66	69	4.37	4.33	3.7	4.0	4.2	4.2	4.6	4.3
Crystal 986RR	NC	50.70	48.52	107	45.37	104	1105	1283	111	1202	110	332	331	7192	8798	17.67	17.60	21.5	26.5	1.06	1.05	49	57	5.14	5.30	5.2	4.7	5.5	5.3	4.0	4.3
Hilleshög 4012RR	4	47.94	46.59	102	43.05	99	1083	1220	105	1139	104	321	323	7239	8494	17.25	17.26	22.5	26.3	1.20	1.11	64	70	5.24	5.12	4.6	4.5	5.2	5.7	5.0	4.8
Hilleshög 4022RR	3	47.50	46.02	101	42.18	97	1087	1205	104	1110	102	319	321	7292	8428	17.20	17.19	22.7	26.2	1.23	1.15	71	78	4.26	4.26	4.8	4.9	4.1	4.4	3.5	3.5
Hilleshög 4043RR	1	48.27	46.22	102	42.99	99	1117	1232	106	1150	105	322	321	7435	8606	17.22	17.09	23.0	26.7	1.10	1.02	72	72	4.84	4.93	4.7	4.8	5.5	6.5	5.3	4.8
Hilleshög 4094RR	2	47.94	46.27	102	43.38	100	1073	1203	104	1134	104	321	322	7185	8412	17.26	17.21	22.3	26.1	1.21	1.13	69	76	4.00	4.14	5.2	5.0	4.4	4.8	3.3	3.6
Hilleshög 4195RR	1	44.61	43.97	97	41.46	95	1056	1181	102	1137	104	309	313	7278	8405	16.70	16.81	23.5	26.8	1.28	1.18	62	66	4.60	4.50	5.2	5.2	5.0	5.5	3.8	3.9
Hilleshög 4199RR(9199)	1	48.59	47.13	104	44.16	101	1133	1219	105	1139	104	324	325	7522	8438	17.28	17.29	23.2	25.9	1.11	1.03	54	57	4.42	4.54	5.5	5.8	6.6	7.3	5.3	5.1
Seedex Vision RR(SX0891)	NC	50.14	47.59	105	45.00	103	1097	1171	101	1126	103	330	327	7197	8079	17.57	17.35	21.7	24.7	1.06	0.98	58	na	4.41	4.58	4.7	4.7	4.6	5.1	4.5	4.4
Seedex Victor RR(SX0894)	1	47.63	45.76	101	43.12	99	1078	1144	99	1097	100	320	320	7214	8004	17.07	16.99	22.5	25.0	1.07	1.00	59	na	4.33	4.42	4.7	4.7	4.2	4.6	4.6	4.4
Seedex Uplander RR	2	49.25	na	na	na	na	1136	na	na	na	na	326	na	7496	na	17.38	na	22.9	na	1.08	na	60	na	4.62	4.79	4.7	4.9	4.7	4.8	4.6	4.4
Seedex Usher RR	2	46.82	na	na	na	na	1149	na	na	na	na	317	na	7742	na	16.94	na	24.3	na	1.10	na	63	na	4.70	4.87	4.7	4.8	4.3	4.8	4.6	4.5
SESVanderhave H36711RR	3	46.86	na	na	na	na	1162	na	na	na	na	317	na	7840	na	17.01	na	24.6	na	1.16	na	55	na	4.58	4.79	4.6	4.6	4.8	4.8	4.7	4.3
SESVanderhave H36811RR	2	46.58	na	na	na	na	1088	na	na	na	na	316	na	7355	na	16.90	na	23.2	na	1.10	na	59	na	4.08	4.35	4.7	4.7	4.4	4.3	4.6	4.3
SESVanderhave H36812RR	2	46.43	45.04	99	42.30	97	1178	1256	108	1183	108	315	317	7997	8857	16.90	16.90	25.3	27.9	1.13	1.05	61	69	4.78	4.97	5.2	4.9	4.2	4.6	4.7	4.6
SESVanderhave H36813RR	2	48.03	na	na	na	na	1131	na	na	na	na	322	na	7541	na	17.21	na	23.3	na	1.14	na	54	na	4.46	4.52	4.6	4.5	4.4	4.7	4.8	4.4
SESVanderhave H36916RR	1	47.65	45.49	100	43.02	99	1153	1200	103	1141	104	320	319	7727	8417	17.06	16.96	24.0	26.3	1.06	1.03	63	na	4.70	4.83	5.0	4.9	4.5	4.6	4.5	4.4
SESVanderhave H36917RR	NC	48.61	46.71	103	44.45	102	1091	1208	104	1157	106	324	324	7248	8401	17.31	17.21	22.3	25.9	1.12	1.03	55	na	4.51	4.73	4.7	4.7	4.8	4.9	4.8	4.5
SESVanderhave H36918RR	NC	49.42	47.15	104	44.59	102	1056	1150	99	1121	103	327	325	6948	7941	17.45	17.28	21.1	24.3	1.08	1.01	60	na</								

Table 5. Performance Data of RR Aphanomyces Specialty Varieties - Under Aphanomyces Conditions (Relative to Susceptible Checks)  
2009, 2010, 2011 Growing Seasons + + +

Description **	Years Comm	Rev/Ton				Rev/Acre				Rec/Ton		Rec/Acre		Sugar		Yield		CR Rating +		Aph Root +			Fusarium +		Rhizoctonia +		
		11	2 Yr	2 Yr%	3 Yr%	11	2 Yr	2 Yr%	3 Yr%	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	11	2 Yr	3	6	11	10	11	10	11	10
<b>Roundup Ready</b>																											
BTS 80RR52	NC	48.82	47.42	101	--	1169	1091	161	--	324.5	326.3	7813	7492	17.65	17.50	24.3	23.0	4.61	4.47	4.9	4.8	--	3.9	2.3	4.1	4.2	
BTS 88RR31	2	47.92	45.24	96	95	1153	1081	160	136	321.1	317.6	7774	7606	17.53	17.13	24.4	24.0	5.07	4.86	3.9	3.9	3.9	3.6	3.0	3.8	3.6	
BTS 88RR61	2	48.99	46.01	98	98	1186	1108	164	143	325.1	320.6	7928	7749	17.65	17.22	24.6	24.3	4.96	4.73	4.6	4.4	4.5	4.3	3.8	4.7	3.6	
BTS 89RR30	1	44.44	44.72	95	93	1097	1154	171	142	307.8	315.9	7862	8190	16.83	16.91	25.1	26.0	5.17	5.13	5.1	4.7	4.5	3.5	1.6	4.5	3.7	
BTS 89RR40	1	49.23	46.74	100	98	1189	1096	162	136	326.0	323.5	7886	7547	17.73	17.37	24.3	23.2	5.33	5.20	4.8	4.4	4.5	4.8	3.6	5.0	4.2	
BTS 89RR50	1	44.26	44.82	96	95	1106	1177	174	149	307.1	316.3	7826	8375	16.96	17.11	26.1	26.7	5.01	5.09	4.1	4.0	3.8	3.8	2.1	5.3	4.0	
Crystal 658RR	4	44.90	41.97	89	88	1109	1000	148	128	309.5	304.7	7687	7216	16.77	16.35	25.0	23.5	4.47	4.47	4.5	4.2	4.1	3.2	1.9	3.8	4.2	
Crystal 875RR	2	49.11	47.15	100	99	1230	1247	184	153	325.6	325.2	8169	8617	17.76	17.51	25.1	26.5	4.24	4.28	3.1	3.2	3.2	4.1	5.1	4.1	3.5	
Crystal 985RR	1	48.24	45.15	96	95	1140	1017	150	131	322.2	317.2	7607	7081	17.50	17.07	23.6	22.1	4.37	4.33	3.7	4.0	4.0	4.2	4.2	4.6	4.0	
Crystal 986RR	NC	52.60	47.79	102	--	1085	1002	148	--	338.8	327.3	7027	6862	18.21	17.52	20.9	20.9	5.14	5.30	5.2	4.7	4.8	5.5	5.0	4.0	4.7	
Crystal 095RR	NC	49.18	45.38	97	--	1192	1102	163	--	325.8	318.0	7942	7742	17.73	17.17	24.6	24.4	4.88	4.84	4.6	4.8	--	4.4	4.1	4.9	4.1	
Seedex SX0808RR	NC	47.38	46.12	98	--	1066	956	141	--	319.0	321.2	7186	6621	17.32	17.24	22.6	20.6	4.16	4.71	4.8	4.5	--	4.5	5.3	4.5	4.4	
Seedex Victor RR(SX0894)	1	47.22	44.41	95	--	982	900	133	--	318.4	314.4	6645	6352	17.29	16.91	21.0	20.1	4.33	4.42	4.7	4.7	4.5	4.2	4.9	4.6	4.3	
Seedex Usher RR	2	46.48	43.11	92	--	1019	901	133	--	315.6	309.2	7011	6477	17.15	16.68	22.6	21.1	4.70	4.87	4.7	4.8	4.7	4.3	5.4	4.6	4.5	
SESVanderhave H36811RR	2	47.95	44.25	94	96	1018	885	131	118	321.2	313.6	6850	6201	17.38	16.85	21.5	19.6	4.08	4.35	4.7	4.7	4.6	4.4	4.2	4.6	4.1	
SESVanderhave H36813RR	2	46.46	45.18	96	--	807	881	130	--	315.5	317.5	5500	6164	17.24	17.12	17.5	19.2	4.46	4.52	4.6	4.5	4.5	4.4	4.9	4.8	4.1	
SESVanderhave H36918RR	NC	51.46	47.68	102	--	1040	953	141	--	334.5	327.1	6775	6512	18.04	17.49	20.3	19.8	4.41	4.44	4.5	4.4	4.5	5.1	4.8	5.1	4.4	
Aph Susc Checks		49.27	46.92			788	677			326.2	324.2	5112	4648	17.77	17.44	15.8	14.3										
Mean of Aph Specialty Varieties		47.92	45.48			1093	1032			321.0	318.6	7370	7224	17.46	17.12	23.14	22.65										

2011 Data from Kindred and Hillsboro. 2010 data from Kindred. 2009 sites included Kindred & Hillsboro. 2Yr% & 3Yr% is % of mean of a susceptible check.

+ Aph ratings are from Shakopee & Kindred. CR ratings are from Rosemount, Michigan & Foxhome (1=healthy, 9=dead). Fusarium ratings from Mhd (mod res=4.5, mod susc=5.7). Rhizoctonia ratings from Ft Collins and Mhd (res=3, susc=5+).

+ + 2011 Revenue estimates based on a \$47.65 beet payment at 17.5% sugar and 1.5% loss to molasses. 2010 Revenue estimates based on a \$44.01, 2009 based on \$42.40. Revenue does not consider hauling or production costs.

Some Aph specialty varieties were not in the Aph yield trial in 2011 and no agronomic performance is reported for them.

Created 10-31-2011.

Table 6. Performance Data of Conventional Varieties Approved for Sale to ACSC Growers in 2012  
2009, 2010 & 2011 Growing Seasons (All Locations Combined) + + +  
(Data expressed as % of benchmark for all agronomic characters. Disease ratings are not % of benchmark)

Description @	Years Comm	Rev/Ton			Rev/Acre			Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +			Aph Root+			Fusarium +			Rhizoctonia ++			
		11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09				
<b>Conventional</b>	# of locations	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	3	3	4	2	2	1	1	1	2	2	2	1	
Crystal R434	8	100	--	--	101	--	--	100	--	--	101	--	--	101	--	--	102	--	--	116	--	--	96	--	--	4.96	--	--	4.6	--	--	4.8	--	--	4.4	--	--	
Crystal R760	5	--	103	--	--	107	--	--	102	--	--	106	--	--	102	--	--	104	--	--	101	--	--	--	102	--	--	5.66	--	--	3.8	--	--	5.0	--	--	4.5	--
Crystal R761	5	97	101	--	109	110	--	99	101	--	113	110	--	100	102	--	117	109	--	113	114	--	94	104	--	4.92	4.86	--	4.8	3.9	--	4.8	2.3	--	4.5	4.1	--	
Crystal R869	4	117	110	--	109	108	--	109	106	--	102	104	--	108	105	--	95	98	--	92	95	--	97	110	--	5.24	4.90	--	6.1	5.7	--	5.7	6.2	--	4.0	4.3	--	
Seedex Deuce (SX0873TT)	4	--	--	107	--	--	118	--	--	104	--	--	114	--	--	103	--	--	110	--	--	92	--	--	127	--	--	5.58	--	--	5.9	--	--	5.2	--	--	4.6	
Seedex Sonic	7	--	--	111	--	--	117	--	--	106	--	--	111	--	--	105	--	--	106	--	--	95	--	--	119	--	--	5.07	--	--	5.9	--	--	4.8	--	--	4.8	
SESVanderhave H46519	9	--	--	108	--	--	111	--	--	104	--	--	107	--	--	103	--	--	103	--	--	95	--	NA	115	--	4.47	4.76	--	5.1	5.7	--	--	4.7	--	--	4.3	
SESVanderhave H46531	8	--	--	109	--	--	107	--	--	105	--	--	103	--	--	104	--	--	98	--	--	94	--	--	101	--	4.58	4.68	--	5.4	5.4	--	--	4.6	--	--	4.4	
SESVanderhave H48607TT	6	--	--	105	--	--	121	--	--	102	--	--	119	--	--	102	--	--	117	--	--	95	--	--	122	--	--	5.52	--	--	5.5	--	--	5.4	--	--	4.1	
SESVanderhave H48716TT	5	--	--	107	--	--	114	--	--	104	--	--	111	--	--	103	--	--	107	--	--	95	--	--	129	--	--	5.25	--	--	5.7	--	--	5.5	--	--	4.6	
SESVanderhave H48717TT	5	--	99	103	--	86	115	--	99	102	--	86	113	--	99	101	--	87	112	--	99	97	--	NA	123	--	5.36	5.39	--	6.0	4.9	--	--	5.1	--	--	4.2	4.3
Mean of benchmark varieties		41.65	46.00	34.89	942	1294	859	297	328	289	6748	9236	7111	16.10	17.40	15.55	22.8	28.2	24.6	1.25	1.00	1.11	65	77	71													

# 3 Yr is mean of 3 years data, 3 Yr% is 3-Yr mean as % of several benchmark varieties. 2 Yr is mean of 2 years data, 2 Yr% is 2-Yr mean as % of several benchmark varieties.

+ + 2011 Revenue estimates based on a \$47.65 beet payment at 17.5% sugar and 1.5% loss to molasses. 2010 Revenue estimates based on a \$44.01 and 2009 based on \$42.40. Revenue does not consider hauling or production costs.

Created 10-27-2011.

+ Aph Ratings from Shakopee & RRV (1=healthy, 9=dead). CR ratings from Rosemount, Michigan & Foxhome (1=healthy, 9=dead). Fusarium ratings from 2 RRV sites (mod resist = 4.5, mod susc = 5.7).

+ + Rhizoctonia ratings from Ft Collins and Moorhead (res=3, susc=5+).

+ + + Sites include Argyle, Averill, Casselton, Grand Forks, Humboldt & St Thomas in 2009.

@ All varieties are diploid unless noted.

+ + + Sites include Averill, Reynolds, Climax, Crookston, Grand Forks, Alvarado, St Thomas in 2010.

NA indicates data not collected due to seed spacing problems from smaller seed.

+ + + Sites include Halstad, Buxton, Crookston East, Crookston, Grand Forks, Angus, Grafton, St Thomas in 2011.

Fusarium and Rhizoctonia evaluation was voluntary for most of the conventional varieties in 2009 and 2010.

Table 7. Performance Data of Conventional and RR Varieties from 2008 Yield Trials - All Locations Combined

[Allows comparison between RR & Conventional varieties] #

Description @	Rev/Ton		Rev/Acre		Rec/T	Rec/Ac	Sugar	Yield	LTM	Emerg %	CR +	Aph Rt+	Fus +	Rhc++
	08	08%	08	08%	08	08	08	08	08	08	08	08	08	08
<b>Roundup Ready</b> # of Locations →	6		6		6	6	6	6	6	6	3	1	2	1
BTS 87RR38	39.69	102	1151	113	308.8	8973	16.61	29.1	1.17	70	4.33	5.1	4.8	4.5
BTS 87RR58	40.13	103	1167	115	310.6	9034	16.70	29.1	1.18	68	4.60	5.2	5.3	5.4
BTS 87RR68	44.90	115	1294	127	330.5	9522	17.58	28.8	1.06	69	4.32	7.5	4.0	7.0
BTS 88RR31	40.66	104	1156	114	312.8	8909	16.86	28.5	1.22	64	4.70	4.3	3.9	--
BTS 88RR41	39.87	102	1189	117	309.5	9220	16.57	29.7	1.09	69	4.56	5.6	3.3	--
BTS 88RR61	41.31	106	1155	114	315.5	8823	16.90	28.0	1.12	66	4.18	4.6	3.8	--
Crystal 539RR	41.69	107	1073	106	317.1	8157	16.99	25.7	1.13	69	4.90	4.6	2.3	7.0
Crystal 658RR	38.81	99	1073	106	305.1	8445	16.24	27.7	0.98	63	4.24	4.8	2.4	2.9
Crystal 765RR	44.19	113	1247	123	327.6	9240	17.42	28.2	1.05	74	3.97	7.3	4.1	7.0
Crystal 768RR	39.73	102	1168	115	309.0	9084	16.63	29.4	1.18	75	4.45	5.4	5.2	5.7
Crystal 875RR	41.25	106	1162	114	315.3	8885	16.89	28.2	1.13	68	4.27	3.8	--	--
Crystal 878RR	41.89	107	1201	118	318.0	9116	17.03	28.7	1.14	63	4.44	5.1	--	--
Crystal 879RR	39.41	101	1189	117	307.6	9280	16.47	30.2	1.09	67	4.52	5.6	--	--
Hilleshög 4012RR	40.52	104	1148	113	312.2	8848	16.69	28.4	1.08	69	4.98	4.3	6.4	5.3
Hilleshög 4022RR	39.67	102	1036	102	308.7	8083	16.60	26.3	1.16	70	3.80	4.8	5.3	1.6
Hilleshög 4043RR	42.03	108	1174	116	318.6	8893	16.91	27.9	0.98	66	4.49	4.6	7.3	5.3
Hilleshög 4094RR	39.11	100	1051	104	306.4	8251	16.46	27.0	1.14	69	3.78	4.8	--	2.0
Seedex SX0883RR (Usher)	38.16	98	1119	110	302.4	8878	16.19	29.4	1.07	71	5.83	5.2	--	--
Seedex SX0884RR (Uplander)	41.50	106	1072	106	316.3	8170	16.77	25.8	0.96	72	4.80	4.5	--	--
SESVanderhave H36711RR	39.72	102	1051	103	308.9	8190	16.55	26.6	1.10	66	4.36	5.0	7.5	4.0
SESVanderhave H36811RR	41.11	105	1049	103	314.7	8031	16.67	25.5	0.94	78	4.32	5.1	--	3.2
SESVanderhave H36812RR	39.41	101	1090	107	307.6	8506	16.38	27.6	1.00	69	4.82	4.9	--	4.4
SESVanderhave H36813RR	37.82	97	1120	110	301.0	8922	16.10	29.7	1.05	69	5.75	5.5	--	3.5
<b>Conventional</b>														
Beta 1100R	39.28	101	1153	114	307.1	9012	16.35	29.4	0.99	72	4.25	5.9	4.9	3.3
Beta 1115R	43.10	110	1171	115	323.0	8759	17.10	27.1	0.96	74	4.48	4.3	5.7	4.4
Beta 1125R	38.15	98	1184	117	302.4	9386	16.33	31.1	1.21	78	4.22	4.3	2.7	4.8
Beta 1135R	39.21	101	1046	103	306.8	8186	16.48	26.7	1.14	70	4.03	4.9	3.5	2.4
Beta 1140R	42.63	109	1136	112	321.1	8546	17.06	26.6	1.00	75	4.06	4.8	5.9	5.4
Beta 1301R	35.53	91	1013	100	291.4	8304	15.83	28.5	1.26	72	3.95	3.8	6.0	2.1
Beta 1305R	38.02	97	1005	99	301.8	7969	16.30	26.4	1.21	55	5.23	4.7	5.8	3.8
Beta 1833R	39.41	101	977	96	307.6	7617	16.55	24.7	1.17	64	3.53	4.7	--	1.3
Crystal R308 (3N)	41.68	107	1043	103	317.1	7940	16.97	25.1	1.11	65	3.98	4.2	2.9	--
Crystal R431	39.71	102	1044	103	308.9	8112	16.63	26.3	1.18	72	4.31	4.2	3.3	--
Crystal R434	38.41	98	1050	103	303.4	8305	16.41	27.4	1.24	73	4.74	4.3	2.8	4.6
Crystal R760	39.57	101	1170	115	308.3	9102	16.49	29.5	1.08	74	5.07	4.5	--	6.0
Crystal R761	38.22	98	1119	110	302.6	8856	16.39	29.3	1.25	72	4.03	4.0	2.3	4.7
Crystal R869	42.58	109	1144	113	320.8	8612	16.99	26.8	0.95	78	4.44	4.7	--	--
Hilleshög 3035Rz	40.85	105	1083	107	313.6	8309	16.75	26.5	1.07	67	3.56	4.5	4.6	1.6
Hilleshög 3052Rz	39.49	101	1104	109	307.9	8615	16.46	28.0	1.07	71	4.18	4.9	5.0	4.2
Holly 317	38.39	98	935	92	303.4	7386	16.21	24.4	1.04	73	4.14	5.3	4.2	4.0
Holly 701	38.86	100	1037	102	305.3	8162	16.28	26.8	1.02	74	4.32	4.9	4.4	5.2
Seedex SX0873TT (Deuce)	38.79	99	1125	111	305.0	8842	16.24	29.0	0.99	73	5.16	5.4	--	--
Seedex Sonic	39.74	102	1087	107	309.0	8473	16.48	27.5	1.03	72	4.95	6.1	5.0	4.8
Seedex Triton	39.18	100	988	97	306.7	7725	16.31	25.2	0.98	70	3.51	5.0	5.3	3.0
Seedex Vault	38.72	99	1028	101	304.7	8107	16.23	26.7	0.99	79	4.65	4.8	4.5	4.2
SESVanderhave H46519	38.81	99	1076	106	305.1	8464	16.27	27.8	1.01	70	4.21	4.7	4.7	3.7
SESVanderhave H46531	38.97	100	1061	104	305.8	8333	16.34	27.3	1.05	70	4.59	5.0	4.5	3.3
SESVanderhave H46711	41.10	105	1099	108	314.7	8426	16.70	26.8	0.97	77	3.82	4.4	4.2	5.3
SESVanderhave H46714	37.47	96	1022	101	299.5	8188	15.97	27.4	0.99	77	4.48	4.3	4.8	2.8
SESVanderhave H46801	41.27	106	1031	102	315.4	7871	16.73	24.9	0.96	77	3.44	4.4	--	--
SESVanderhave H48607TT	36.81	94	1131	111	296.8	9120	15.89	30.8	1.05	76	5.42	5.4	6.0	3.8
SESVanderhave H48716TT	39.48	101	1048	103	307.9	8168	16.40	26.5	1.01	78	4.97	4.9	5.4	3.4
SESVanderhave H48717TT	39.62	102	1071	105	308.5	8336	16.46	27.0	1.03	78	4.58	4.8	4.6	4.4
SESVanderhave H48810TT	39.38	101	1110	109	307.5	8662	16.40	28.2	1.02	78	4.91	5.2	--	--
<b>Mean of benchmark varieties</b>	<b>39.01</b>		<b>1016</b>		<b>306.0</b>	<b>7973</b>	<b>16.40</b>	<b>26.1</b>	<b>1.10</b>	<b>64</b>				

08% is 2008-year mean as a % of several benchmark varieties.

Emergence is % of planted seeds producing a 4 leaf beet.

++ 2008 Revenue estimates based on a \$42.38 beet payment at 17.5% sugar and 1.5% loss to molasses. Revenue does not consider hauling or production costs.

+ Aph Ratings from Shakopee & RRV (1=healthy, 9=dead). CR ratings from Rosemount & Michigan (1=healthy, 9=dead). Fusarium ratings from 2 RRV sites (mod resist = 4, mod susc = 5).

++ Rhizoctonia ratings from Ft Collins and Moorhead (res=3, susc=5+).

# Conventional varieties were granted a special exemption from variety testing for 2009.

@ All varieties are diploid unless noted.



Table 8. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
8 Locations - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	302.1	101	6800	96	1.22	42.94	102	966	96	16.32	22.54	279	1969	322	0.00	70.2
BTS 87RR58	121	300.9	101	6982	98	1.28	42.62	101	991	99	16.32	23.14	300	1985	355	0.00	66.7
BTS 87RR68	113	315.5	105	7263	102	1.18	46.46	110	1072	107	16.95	22.97	334	1883	292	0.00	69.4
BTS 88RR31	132	295.9	99	6987	98	1.39	41.31	98	974	97	16.18	23.63	372	2078	388	0.00	65.4
BTS 88RR41	102	297.1	99	6927	97	1.26	41.62	99	972	97	16.10	23.35	263	2072	329	0.00	61.1
BTS 88RR61	109	301.8	101	7178	101	1.25	42.85	102	1016	101	16.33	23.90	308	1973	334	0.00	65.7
BTS 89RR30	125	284.3	95	7307	103	1.25	38.26	91	981	98	15.46	25.77	341	2053	297	0.00	62.1
BTS 89RR40	120	304.9	102	7318	103	1.29	43.67	104	1047	104	16.53	24.01	282	1971	371	0.01	61.8
BTS 89RR50	127	291.7	97	7493	105	1.40	40.20	95	1029	103	15.97	25.82	388	2132	374	0.00	65.3
BTS 89RR83	112	279.3	93	7346	103	1.19	36.95	88	967	96	15.16	26.44	356	1897	292	0.00	62.1
Crystal 539RR	103	298.1	100	6413	90	1.31	41.89	99	897	89	16.21	21.66	395	2034	330	0.00	65.6
Crystal 658RR	122	285.6	95	6883	97	1.11	38.61	92	930	93	15.39	24.08	284	1832	273	0.00	64.4
Crystal 765RR	117	312.4	104	7341	103	1.21	45.64	108	1076	107	16.82	23.42	355	1909	299	0.00	55.6
Crystal 768RR	131	296.3	99	7018	99	1.29	41.43	98	982	98	16.10	23.64	324	1991	350	0.00	67.2
Crystal 875RR	106	296.9	99	7120	100	1.34	41.57	99	994	99	16.18	24.10	349	2068	360	0.00	64.2
Crystal 878RR	123	302.5	101	6995	98	1.27	43.04	102	998	100	16.39	23.07	266	1993	360	0.00	67.0
Crystal 879RR	111	296.2	99	6977	98	1.31	41.39	98	978	98	16.12	23.48	234	2127	368	0.00	64.1
Crystal 985RR	118	302.1	101	7313	103	1.24	42.94	102	1035	103	16.31	24.34	296	1963	338	0.00	65.3
Hilleshög 4012RR	126	302.8	101	7028	99	1.25	43.12	102	998	100	16.39	23.29	381	1925	318	0.00	63.7
Hilleshög 4022RR	101	298.7	100	6930	97	1.29	42.05	100	975	97	16.22	23.21	337	2011	342	0.00	69.4
Hilleshög 4043RR	115	306.9	103	7095	100	1.14	44.20	105	1023	102	16.48	23.10	237	1841	309	0.00	70.8
Hilleshög 4094RR	119	302.5	101	6932	97	1.25	43.03	102	985	98	16.37	22.93	308	2006	324	0.00	68.7
Hilleshög 4195RR	130	288.7	96	7022	99	1.33	39.42	93	957	95	15.73	24.49	413	2028	347	0.00	62.8
Hilleshög 4199RR(9199)	107	306.4	102	7157	101	1.17	44.08	104	1028	103	16.49	23.40	317	1847	299	0.00	54.7
Seedex Victor RR(SX0894)	114	300.5	100	6956	98	1.14	42.53	101	983	98	16.16	23.20	277	1861	290	0.00	59.0
Seedex Uplander RR	129	308.0	103	7172	101	1.12	44.50	105	1037	103	16.52	23.28	249	1876	281	0.02	61.2
Seedex Usher RR	124	299.4	100	7423	104	1.16	42.22	100	1046	104	16.13	24.82	285	1870	300	0.00	63.0
SESVanderhave H36711RR	108	297.5	99	7457	105	1.21	41.72	99	1045	104	16.08	25.09	303	1926	315	0.00	55.6
SESVanderhave H36811RR	116	295.8	99	6975	98	1.16	41.29	98	973	97	15.94	23.57	304	1860	298	0.02	58.9
SESVanderhave H36812RR	105	299.1	100	7715	108	1.19	42.15	100	1086	108	16.14	25.79	298	1911	303	0.00	61.1
SESVanderhave H36813RR	128	301.2	101	7214	101	1.20	42.71	101	1022	102	16.26	23.98	277	1969	307	0.00	54.6
SESVanderhave H36916RR	110	301.4	101	7364	104	1.13	42.77	101	1045	104	16.20	24.39	278	1842	288	0.00	62.4
Beta 85RR02(Check)	133	302.2	101	6666	94	1.32	42.96	102	945	94	16.42	22.10	350	2076	341	0.00	66.6
Trial Mean		299.2		7114		1.24	42.19		1002		16.19	23.82	313	1963	324	0.0	63.5
Coeff. of Var. (%)		3.6		6.3		6.9	6.8		8.7		3.1	5.0	20.8	5.3	11.8		10.1
Mean LSD (0.05)		5.8		294		0.05	1.54		53		0.27	0.89	37	66	21		3.5
Mean LSD (0.01)		7.7		388		0.06	2.02		70		0.36	1.17	48	87	28		4.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 8 Locations

Analyzed 10/17/2011 10:19

Created 10-17-2011.

^ Vigor not collected.

Trial # = 11cmAC

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 9. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
4 Locations - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	283.3	101	6514	96	1.30	38.00	102	869	97	15.46	23.14	354	2032	342	0.00	70.5
BTS 87RR58	121	280.3	100	6546	97	1.38	37.20	100	865	97	15.38	23.42	375	2074	380	0.00	65.9
BTS 87RR68	113	296.2	106	6757	100	1.27	41.39	111	946	106	16.06	22.82	433	1955	310	0.00	69.2
BTS 88RR31	132	276.0	99	6670	98	1.47	36.08	97	870	97	15.27	24.22	451	2107	413	0.00	65.0
BTS 88RR41	102	279.7	100	6533	96	1.33	37.06	100	864	97	15.31	23.54	340	2134	350	0.00	61.4
BTS 88RR61	109	282.1	101	6848	101	1.30	37.67	101	910	102	15.38	24.50	381	1981	343	0.00	63.9
BTS 89RR30	125	262.4	94	6951	103	1.35	32.50	87	855	95	14.46	26.62	443	2143	317	0.00	64.2
BTS 89RR40	120	286.0	102	7025	104	1.36	38.71	104	945	106	15.66	24.70	349	2021	394	0.02	60.3
BTS 89RR50	127	268.2	96	7146	105	1.46	34.03	92	898	100	14.87	26.87	501	2128	388	0.00	66.7
BTS 89RR83	112	256.9	92	6959	103	1.31	31.05	84	832	93	14.15	27.29	476	1969	319	0.00	60.7
Crystal 539RR	103	277.0	99	6206	92	1.37	36.35	98	810	91	15.21	22.52	478	2091	331	0.00	64.2
Crystal 658RR	122	269.3	96	6537	96	1.20	34.31	92	830	93	14.66	24.36	365	1889	301	0.00	65.8
Crystal 765RR	117	292.7	104	6782	100	1.29	40.46	109	940	105	15.92	23.20	453	1970	316	0.00	54.9
Crystal 768RR	131	279.6	100	6626	98	1.37	37.02	100	875	98	15.35	23.71	413	2028	371	0.00	68.4
Crystal 875RR	106	279.5	100	6922	102	1.39	37.01	100	910	102	15.36	24.97	442	2082	363	0.00	61.5
Crystal 878RR	123	281.1	100	6588	97	1.35	37.41	101	876	98	15.40	23.49	337	2083	376	0.00	67.2
Crystal 879RR	111	277.8	99	6427	95	1.44	36.55	98	848	95	15.31	23.19	309	2229	413	0.00	64.1
Crystal 985RR	118	279.9	100	7128	105	1.32	37.10	100	938	105	15.25	25.62	390	2012	361	0.00	63.6
Hilleshög 4012RR	126	284.8	102	6825	101	1.30	38.40	103	916	102	15.54	24.08	472	1952	318	0.00	63.2
Hilleshög 4022RR	101	277.8	99	6569	97	1.35	36.56	98	862	96	15.24	23.73	437	2017	354	0.00	67.3
Hilleshög 4043RR	115	292.0	104	6722	99	1.18	40.28	108	926	103	15.77	23.12	285	1879	315	0.00	69.0
Hilleshög 4094RR	119	283.8	101	6659	98	1.29	38.14	103	896	100	15.47	23.48	371	2049	320	0.00	68.2
Hilleshög 4195RR	130	269.0	96	6748	100	1.39	34.23	92	857	96	14.76	25.37	513	2045	357	0.00	63.7
Hilleshög 4199RR(9199)	107	289.6	103	6781	100	1.23	39.66	107	924	103	15.71	23.60	389	1890	309	0.00	54.8
Seedex Victor RR(SX0894)	114	281.1	100	6700	99	1.21	37.41	101	888	99	15.25	23.95	362	1920	301	0.00	60.0
Seedex Uplander RR	129	290.3	104	6846	101	1.16	39.85	107	940	105	15.67	23.57	308	1900	287	0.02	62.6
Seedex Usher RR	124	282.3	101	7118	105	1.22	37.73	102	946	106	15.33	25.34	372	1880	316	0.00	62.4
SESVanderhave H36711RR	108	277.5	99	7084	105	1.25	36.47	98	927	104	15.12	25.69	395	1906	323	0.00	56.4
SESVanderhave H36811RR	116	275.6	98	6585	97	1.22	35.97	97	857	96	14.98	23.93	399	1839	321	0.02	59.8
SESVanderhave H36812RR	105	283.2	101	7409	109	1.25	37.98	102	991	111	15.40	26.17	365	1935	317	0.00	62.4
SESVanderhave H36813RR	128	280.9	100	6894	102	1.26	37.38	101	914	102	15.30	24.67	337	2009	321	0.00	54.7
SESVanderhave H36916RR	110	282.9	101	6986	103	1.21	37.88	102	936	105	15.34	24.70	362	1894	303	0.00	61.5
Beta 85RR02(Check)	133	285.7	102	6512	96	1.38	38.62	104	876	98	15.65	22.89	435	2096	354	0.00	68.1
Trial Mean		280.1		6776		1.31	37.17		895		15.30	24.32	397	2004	340	0.0	63.4
Coeff. of Var. (%)		3.8		5.2		7.0	7.5		8.5		3.1	3.9	20.0	5.1	11.6		10.3
Mean LSD (0.05)		8.6		514		0.07	2.26		88		0.40	1.53	65	96	30		5.2
Mean LSD (0.01)		11.4		681		0.09	2.99		117		0.53	2.03	86	128	40		6.9
Sig Lvl		**		*		**	**		*		**	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 10/31/2011 08:59

Created 10-31-2011.

^ Vigor not collected.

Trial # = 11cmLi

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 10. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
4 Locations - All Characters - Moderate to Severe Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	320.7	101	7102	95	1.14	47.84	101	1065	96	17.17	22.00	206	1902	306	0.00	70.1
BTS 87RR58	121	321.3	101	7416	100	1.19	48.00	102	1117	101	17.25	22.85	225	1898	334	0.00	67.2
BTS 87RR68	113	334.6	105	7708	104	1.09	51.49	109	1189	107	17.82	22.99	240	1818	277	0.00	69.8
BTS 88RR31	132	315.8	99	7302	98	1.31	46.54	99	1080	98	17.11	23.01	294	2051	368	0.00	65.5
BTS 88RR41	102	314.4	99	7281	98	1.18	46.17	98	1074	97	16.90	23.10	192	2009	311	0.00	60.1
BTS 88RR61	109	321.3	101	7498	101	1.20	47.99	102	1121	101	17.27	23.33	233	1962	325	0.00	66.8
BTS 89RR30	125	305.9	96	7688	103	1.15	43.93	93	1109	100	16.44	25.00	245	1971	281	0.00	60.1
BTS 89RR40	120	323.6	102	7628	102	1.22	48.61	103	1152	104	17.40	23.38	213	1928	354	0.00	62.9
BTS 89RR50	127	314.4	99	7832	105	1.33	46.17	98	1156	104	17.05	24.75	284	2132	362	0.00	64.3
BTS 89RR83	112	301.4	95	7722	104	1.09	42.75	91	1099	99	16.16	25.57	245	1826	271	0.00	63.3
Crystal 539RR	103	318.7	100	6640	89	1.25	47.30	100	983	89	17.18	20.89	314	1980	328	0.00	66.6
Crystal 658RR	122	302.1	95	7230	97	1.03	42.93	91	1030	93	16.13	23.81	209	1780	250	0.00	63.0
Crystal 765RR	117	331.7	104	7831	105	1.12	50.73	107	1203	109	17.72	23.48	262	1856	284	0.00	56.4
Crystal 768RR	131	313.6	99	7402	99	1.21	45.96	97	1090	98	16.89	23.48	237	1954	332	0.00	66.4
Crystal 875RR	106	314.5	99	7339	99	1.29	46.20	98	1081	98	17.02	23.30	260	2057	358	0.00	66.7
Crystal 878RR	123	323.6	102	7395	99	1.19	48.59	103	1118	101	17.37	22.67	194	1911	347	0.00	66.7
Crystal 879RR	111	314.8	99	7467	100	1.19	46.28	98	1101	99	16.93	23.60	158	2036	329	0.00	63.8
Crystal 985RR	118	323.3	102	7524	101	1.17	48.51	103	1131	102	17.33	23.21	208	1919	318	0.00	66.4
Hilleshög 4012RR	126	321.1	101	7239	97	1.20	47.94	102	1083	98	17.25	22.49	293	1898	316	0.00	64.2
Hilleshög 4022RR	101	319.4	100	7292	98	1.23	47.50	101	1087	98	17.20	22.72	245	1999	329	0.00	70.8
Hilleshög 4043RR	115	322.4	101	7435	100	1.10	48.27	102	1117	101	17.22	22.96	185	1805	307	0.00	72.4
Hilleshög 4094RR	119	321.1	101	7185	97	1.21	47.94	102	1073	97	17.26	22.33	243	1961	326	0.00	69.0
Hilleshög 4195RR	130	308.5	97	7278	98	1.28	44.61	95	1056	95	16.70	23.51	318	2008	341	0.00	62.1
Hilleshög 4199RR(9199)	107	323.6	102	7522	101	1.11	48.59	103	1133	102	17.28	23.16	247	1803	289	0.00	54.3
Seedex Victor RR(SX0894)	114	319.9	101	7214	97	1.07	47.63	101	1078	97	17.07	22.45	195	1802	279	0.00	58.6
Seedex Uplander RR	129	326.1	102	7496	101	1.08	49.25	104	1136	103	17.38	22.94	187	1845	277	0.02	59.8
Seedex Usher RR	124	316.8	100	7742	104	1.10	46.82	99	1149	104	16.94	24.32	202	1858	288	0.00	63.2
SESVanderhave H36711RR	108	317.0	100	7840	105	1.16	46.86	99	1162	105	17.01	24.59	217	1944	306	0.00	54.8
SESVanderhave H36811RR	116	316.0	99	7355	99	1.10	46.58	99	1088	98	16.90	23.17	211	1865	281	0.02	58.7
SESVanderhave H36812RR	105	315.4	99	7997	107	1.13	46.43	98	1178	106	16.90	25.32	231	1876	291	0.00	60.6
SESVanderhave H36813RR	128	321.5	101	7541	101	1.14	48.03	102	1131	102	17.21	23.34	211	1927	294	0.00	54.3
SESVanderhave H36916RR	110	320.0	101	7727	104	1.06	47.65	101	1153	104	17.06	24.03	198	1793	272	0.00	63.4
Beta 85RR02(Check)	133	319.0	100	6829	92	1.26	47.39	100	1018	92	17.21	21.29	267	2052	330	0.00	65.4
Trial Mean		318.3		7445		1.17	47.20		1107		17.08	23.30	232	1922	311	0.0	63.6
Coeff. of Var. (%)		3.5		6.8		6.9	6.2		8.6		3.0	5.8	22.2	5.5	11.9		9.8
Mean LSD (0.05)		8.3		386		0.06	2.17		71		0.39	1.07	39	84	28		5.0
Mean LSD (0.01)		11.0		511		0.08	2.88		94		0.51	1.42	51	111	37		6.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 11/01/2011 12:10

Created 10-31-2011.

^ Vigor not collected.

Trial # = 11cmMo

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 11. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Glyndon MN - All Characters - Severe Fusarium, Moderate Aph, Mod-Severe Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	279.7	103	2993	98	1.67	37.04	106	399	99	15.66	10.64	587	2404	440	0.00	56.0
BTS 87RR58	121	274.6	101	3046	100	1.77	35.71	102	402	100	15.49	10.96	557	2540	495	0.00	54.7
BTS 87RR68	113	277.9	102	2678	88	1.60	36.58	105	359	89	15.51	9.44	658	2179	417	0.00	55.7
BTS 88RR31	132	293.2	108	4309	141	1.57	40.60	116	599	149	16.24	14.62	608	2194	413	0.00	58.4
BTS 88RR41	102	285.7	105	3602	118	1.72	38.63	110	483	120	15.98	12.82	472	2456	512	0.00	49.6
BTS 88RR61	109	293.4	108	3700	121	1.59	40.65	116	510	127	16.26	12.69	549	2282	428	0.00	56.6
BTS 89RR30	125	280.2	103	3806	125	1.47	37.19	106	508	126	15.47	13.51	539	2207	355	0.00	53.5
BTS 89RR40	120	275.5	101	3265	107	1.68	35.96	103	427	106	15.47	11.78	619	2238	483	0.00	52.7
BTS 89RR50	127	304.5	112	4895	160	1.63	43.56	125	701	174	16.86	16.06	567	2437	406	0.00	54.7
BTS 89RR83	112	291.2	107	4106	134	1.49	40.08	115	558	139	16.04	14.36	549	2199	372	0.00	47.3
Crystal 539RR	103	291.8	107	3688	121	1.57	40.23	115	507	126	16.16	12.71	729	2136	385	0.00	66.0
Crystal 658RR	122	291.5	107	4447	145	1.31	40.15	115	613	152	15.88	15.18	437	2014	318	0.00	54.0
Crystal 765RR	117	262.3	97	2510	82	1.76	32.48	93	310	77	14.88	9.54	735	2321	478	0.00	48.0
Crystal 768RR	131	238.4	88	2689	88	1.91	26.21	75	308	77	13.84	10.92	821	2434	533	0.00	55.6
Crystal 875RR	106	260.8	96	2596	85	1.70	32.08	92	324	80	14.74	9.87	730	2339	431	0.00	50.5
Crystal 878RR	123	275.7	101	2953	97	1.69	36.00	103	385	96	15.45	10.82	559	2445	455	0.00	50.9
Crystal 879RR	111	283.3	104	3382	111	1.79	38.00	109	450	112	15.95	12.03	461	2556	539	0.00	49.0
Crystal 985RR	118	267.7	98	3171	104	1.66	33.89	97	403	100	15.06	11.77	560	2350	458	0.00	54.4
Hilleshög 4012RR	126	219.6	81	1220	40	2.03	21.25	61	123	31	13.01	5.45	985	2353	583	0.00	46.7
Hilleshög 4022RR	101	277.1	102	3576	117	1.72	36.38	104	471	117	15.58	12.85	654	2290	487	0.00	55.7
Hilleshög 4043RR	115	263.4	97	1398	46	1.73	32.76	94	192	48	14.92	4.76	457	2399	536	0.00	55.3
Hilleshög 4094RR	119	300.8	111	3693	121	1.56	42.61	122	528	131	16.60	12.17	500	2169	452	0.00	57.5
Hilleshög 4195RR	130	260.3	96	2659	87	1.99	31.96	91	330	82	14.99	10.18	879	2429	573	0.00	48.0
Hilleshög 4199RR(9199)	107	212.0	78	636	21	2.16	19.25	55	77	19	12.79	2.38	888	2569	657	0.00	41.2
Seedex Victor RR(SX0894)	114	273.0	100	3161	103	1.51	35.29	101	410	102	15.16	11.51	575	2128	389	0.00	48.4
Seedex Uplander RR	129	260.7	96	2617	86	1.67	32.07	92	323	80	14.71	9.98	640	2248	468	0.00	54.0
Seedex Usher RR	124	288.1	106	3198	105	1.46	39.26	112	438	109	15.86	11.01	486	2153	382	0.00	53.1
SESVanderhave H36711RR	108	265.4	98	3306	108	1.62	33.30	95	422	105	14.90	12.22	600	2213	448	0.00	48.4
SESVanderhave H36811RR	116	279.2	103	3090	101	1.45	36.92	106	407	101	15.41	11.12	522	2128	368	0.00	49.4
SESVanderhave H36812RR	105	267.6	98	3028	99	1.62	33.86	97	385	96	14.99	11.35	601	2153	467	0.00	46.7
SESVanderhave H36813RR	128	257.4	95	2689	88	1.81	31.20	89	326	81	14.68	10.51	685	2419	506	0.00	50.9
SESVanderhave H36916RR	110	265.0	97	2643	86	1.59	33.20	95	337	84	14.84	9.83	616	2192	427	0.00	49.8
Beta 85RR02(Check)	133	252.3	93	2116	69	1.80	29.85	85	261	65	14.43	8.05	776	2482	447	0.00	56.4
Trial Mean		271.8		3057		1.68	34.97		402		15.27	11.00	624	2305	458	0.0	52.4
Coeff. of Var. (%)		6.9		13.0		7.7	14.0		17.1		5.4	11.2	18.5	5.4	11.5		13.9
Mean LSD (0.05)		22.3		528		0.16	5.87		90		1.00	1.65	144	150	65		8.6
Mean LSD (0.01)		29.5		697		0.21	7.75		119		1.32	2.18	190	199	86		11.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Glyndon MN

Analyzed 10/17/2011 14:27

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118602

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 12. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Halstad MN - All Characters - Severe Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	331.7	100	7167	97	1.21	50.72	101	1090	97	17.78	21.67	219	2006	318	0.00	66.3
BTS 87RR58	121	327.7	99	7428	100	1.25	49.68	99	1126	100	17.64	22.72	243	1994	345	0.00	66.2
BTS 87RR68	113	342.1	104	7769	105	1.13	53.45	106	1210	107	18.22	22.83	247	1877	294	0.00	68.7
BTS 88RR31	132	337.9	102	7527	102	1.31	52.36	104	1165	103	18.21	22.36	252	2125	361	0.00	61.7
BTS 88RR41	102	318.9	97	7114	96	1.33	47.37	94	1055	93	17.28	22.44	211	2226	355	0.00	53.0
BTS 88RR61	109	324.2	98	7164	97	1.29	48.75	97	1078	95	17.50	22.10	246	2099	349	0.00	55.7
BTS 89RR30	125	320.4	97	8071	109	1.19	47.74	95	1202	106	17.21	25.25	223	2068	291	0.00	59.1
BTS 89RR40	120	327.4	99	7277	98	1.31	49.60	98	1103	98	17.68	22.28	256	2022	389	0.00	57.5
BTS 89RR50	127	327.5	99	7739	104	1.43	49.61	99	1173	104	17.80	23.63	279	2331	385	0.00	60.9
BTS 89RR83	112	316.9	96	7199	97	1.21	46.82	93	1055	93	17.04	23.04	251	1990	323	0.00	60.0
Crystal 539RR	103	333.6	101	6300	85	1.31	51.22	102	963	85	18.00	18.83	280	2171	337	0.00	59.9
Crystal 658RR	122	312.1	94	7572	102	1.07	45.57	90	1105	98	16.68	24.23	210	1829	267	0.00	52.7
Crystal 765RR	117	344.3	104	8085	109	1.15	54.03	107	1268	112	18.37	23.61	252	1885	299	0.00	53.0
Crystal 768RR	131	331.0	100	7674	104	1.23	50.55	100	1173	104	17.78	23.19	209	2105	318	0.00	64.1
Crystal 875RR	106	331.2	100	7117	96	1.33	50.58	100	1087	96	17.88	21.61	233	2186	363	0.00	68.2
Crystal 878RR	123	320.8	97	7040	95	1.35	47.86	95	1049	93	17.39	22.04	241	2166	381	0.00	66.8
Crystal 879RR	111	320.9	97	7271	98	1.32	47.89	95	1083	96	17.36	22.60	184	2235	363	0.00	62.1
Crystal 985RR	118	324.1	98	7250	98	1.30	48.74	97	1087	96	17.51	22.29	216	2105	362	0.00	61.1
Hilleshög 4012RR	126	336.4	102	7307	99	1.21	51.96	103	1124	100	18.04	21.92	264	2014	314	0.00	64.3
Hilleshög 4022RR	101	332.8	101	7372	99	1.33	51.02	101	1133	100	17.98	22.16	251	2140	371	0.00	64.1
Hilleshög 4043RR	115	331.6	100	7543	102	1.13	50.69	101	1154	102	17.70	22.70	188	1893	309	0.00	64.0
Hilleshög 4094RR	119	344.3	104	7109	96	1.24	54.03	107	1119	99	18.45	20.58	222	2094	326	0.00	60.6
Hilleshög 4195RR	130	325.7	99	7143	96	1.35	49.14	98	1079	96	17.64	21.96	290	2179	364	0.00	58.5
Hilleshög 4199RR(9199)	107	336.1	102	7306	99	1.17	51.89	103	1129	100	17.96	21.66	243	1919	309	0.00	46.1
Seedex Victor RR(SX0894)	114	339.0	103	7396	100	1.12	52.64	105	1150	102	18.08	21.74	189	1885	300	0.00	50.4
Seedex Uplander RR	129	341.8	103	7873	106	1.11	53.38	106	1230	109	18.19	23.04	189	1884	290	0.00	54.5
Seedex Usher RR	124	326.8	99	7762	105	1.17	49.43	98	1180	105	17.52	23.42	195	1988	296	0.00	53.1
SESVanderhave H36711RR	108	330.2	100	7780	105	1.27	50.33	100	1189	105	17.79	23.46	235	2171	328	0.00	46.2
SESVanderhave H36811RR	116	329.8	100	7419	100	1.18	50.23	100	1130	100	17.67	22.54	202	2047	300	0.00	48.2
SESVanderhave H36812RR	105	334.7	101	8120	110	1.18	51.51	102	1244	110	17.90	24.29	201	2017	307	0.00	54.4
SESVanderhave H36813RR	128	330.8	100	7240	98	1.27	50.49	100	1108	98	17.81	21.81	215	2134	334	0.00	46.1
SESVanderhave H36916RR	110	332.1	101	7837	106	1.13	50.82	101	1199	106	17.74	23.55	202	1910	294	0.00	54.9
Beta 85RR02(Check)	133	335.2	101	6594	89	1.28	51.65	103	1022	91	18.04	19.59	224	2208	324	0.00	61.9
Trial Mean		330.3		7411		1.24	50.36		1129		17.75	22.46	229	2058	329	0.0	58.3
Coeff. of Var. (%)		3.9		7.9		7.1	6.7		9.5		3.3	7.1	23.3	5.4	11.4		10.9
Mean LSD (0.05)		15.5		761		0.11	4.06		137		0.71	2.11	68	132	50		8.4
Mean LSD (0.01)		20.4		1006		0.15	5.36		181		0.94	2.79	90	175	66		11.1
Sig Lvl		**		**		**	**		**		**	**	ns	**	**		**

\* 2011 Data from Halstad MN

Analyzed 10/14/2011 09:11

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118603

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 13. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Buxton ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	321.4	103	8037	98	1.42	48.01	105	1194	99	17.44	25.19	200	2543	343	0.00	72.3
BTS 87RR58	121	309.7	99	7972	97	1.49	44.94	98	1158	96	16.95	25.70	292	2513	381	0.00	64.4
BTS 87RR68	113	337.0	108	8343	101	1.34	52.12	114	1293	108	18.17	24.70	272	2403	298	0.00	69.2
BTS 88RR31	132	311.3	100	8038	98	1.57	45.36	99	1165	97	17.16	25.71	347	2592	396	0.00	69.6
BTS 88RR41	102	310.8	99	8077	98	1.45	45.23	99	1157	96	17.00	26.31	250	2692	331	0.00	59.5
BTS 88RR61	109	319.2	102	8180	99	1.43	47.43	104	1212	101	17.31	25.95	278	2543	345	0.00	63.4
BTS 89RR30	125	296.9	95	8495	103	1.48	41.58	91	1189	99	16.30	28.75	275	2765	318	0.00	59.8
BTS 89RR40	120	324.8	104	8534	104	1.49	48.92	107	1290	107	17.68	26.36	256	2519	400	0.00	57.4
BTS 89RR50	127	303.3	97	8672	105	1.50	43.26	95	1221	102	16.67	28.75	317	2671	346	0.00	69.6
BTS 89RR83	112	287.3	92	8595	104	1.39	39.06	85	1164	97	15.75	29.89	292	2484	304	0.00	65.6
Crystal 539RR	103	314.1	100	7627	93	1.49	46.08	101	1120	93	17.16	24.36	302	2727	329	0.00	66.7
Crystal 658RR	122	301.4	96	8158	99	1.30	42.75	93	1155	96	16.36	27.17	240	2352	302	0.00	63.6
Crystal 765RR	117	332.8	106	8570	104	1.39	51.01	111	1316	109	18.03	25.62	274	2403	335	0.00	51.6
Crystal 768RR	131	315.7	101	8446	103	1.43	46.52	102	1244	103	17.21	26.78	241	2576	344	0.00	66.3
Crystal 875RR	106	306.7	98	7855	95	1.64	44.14	96	1133	94	16.88	26.00	387	2754	410	0.00	61.5
Crystal 878RR	123	317.6	102	8068	98	1.42	47.01	103	1193	99	17.30	25.32	194	2541	355	0.00	60.5
Crystal 879RR	111	314.0	100	8225	100	1.50	46.06	101	1214	101	17.11	26.41	222	2650	391	0.00	62.7
Crystal 985RR	118	310.3	99	8064	98	1.51	45.10	99	1171	97	16.75	26.24	306	2664	397	0.00	60.7
Hilleshög 4012RR	126	311.4	100	8101	98	1.51	45.40	99	1179	98	17.04	26.26	379	2541	362	0.00	59.0
Hilleshög 4022RR	101	305.7	98	8164	99	1.54	43.90	96	1175	98	16.80	26.84	375	2601	375	0.00	72.5
Hilleshög 4043RR	115	324.5	104	8180	99	1.31	48.83	107	1234	103	17.49	25.29	196	2328	324	0.00	66.0
Hilleshög 4094RR(9094)	119	314.8	101	8363	102	1.43	46.29	101	1236	103	17.13	26.57	246	2601	325	0.00	69.7
Hilleshög 4195RR(9195)	130	292.6	94	8428	102	1.54	40.45	88	1174	98	15.93	29.45	376	2658	387	0.00	64.5
Hilleshög 4199RR(9199)	107	316.1	101	8239	100	1.33	46.63	102	1196	100	17.20	26.13	291	2267	327	0.00	51.3
Seedex SX0894RR	114	314.3	100	8102	98	1.37	46.15	101	1195	99	17.10	25.53	239	2401	333	0.00	60.5
Seedex Uplander RR(SX0884)	129	320.9	103	8206	100	1.26	47.88	105	1228	102	17.30	25.59	225	2366	281	0.00	62.1
Seedex Usher RR(SX0883)	124	316.1	101	8376	102	1.35	46.62	102	1225	102	17.13	26.64	248	2350	332	0.00	59.2
SESVanderhave H36711RR	108	318.5	102	8747	106	1.34	47.25	103	1293	108	17.23	27.74	235	2474	310	0.00	56.1
SESVanderhave H36811RR	116	302.5	97	7851	95	1.41	43.05	94	1114	93	16.52	25.82	311	2388	367	0.00	61.4
SESVanderhave H36812RR	105	320.2	102	8996	109	1.40	47.69	104	1339	111	17.41	27.96	237	2537	316	0.00	62.9
SESVanderhave H36813RR	128	305.2	98	7995	97	1.46	43.75	96	1144	95	16.70	26.19	232	2603	351	0.00	52.8
SESVanderhave H36916RR	110	314.9	101	8397	102	1.31	46.30	101	1237	103	17.04	26.69	252	2393	297	0.00	62.2
Beta 85RR02(Check)	133	311.7	100	7607	92	1.56	45.46	99	1121	93	17.11	24.33	336	2702	374	0.00	67.9
Trial Mean		312.8		8234		1.44	45.76		1202		17.04	26.43	276	2533	345	0.0	62.8
Coeff. of Var. (%)		3.6		4.5		7.8	6.4		6.9		2.8	3.5	23.6	4.4	14.7		8.5
Mean LSD (0.05)		16.1		552		0.16	4.24		120		0.69	1.40	94	168	71		6.7
Mean LSD (0.01)		21.3		731		0.21	5.61		159		0.92	1.86	124	222	94		8.8
Sig Lvl		**		**		**	**		*		**	**	**	**	*		**

\* 2011 Data from Buxton ND

Analyzed 10/14/2011 10:00

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118604

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 14. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Crockston E MN - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	336.2	102	8255	97	1.21	51.91	104	1275	99	18.02	24.50	197	1857	375	0.00	74.2
BTS 87RR58	121	340.3	103	8795	103	1.19	52.97	106	1369	106	18.19	25.83	231	1785	366	0.00	69.7
BTS 87RR68	113	350.7	107	8905	105	1.13	55.72	111	1417	110	18.67	25.36	257	1708	329	0.00	76.8
BTS 88RR31	132	322.1	98	8184	96	1.43	48.21	96	1223	95	17.54	25.44	322	1968	464	0.00	69.7
BTS 88RR41	102	330.0	100	8316	98	1.20	50.27	100	1259	97	17.70	25.58	201	1838	366	0.00	63.7
BTS 88RR61	109	340.3	103	8723	102	1.17	52.98	106	1362	105	18.19	25.56	216	1748	367	0.00	73.7
BTS 89RR30	125	316.8	96	8579	101	1.22	46.81	94	1274	99	17.06	27.01	280	1846	355	0.00	64.7
BTS 89RR40	120	335.7	102	8705	102	1.32	51.79	104	1342	104	18.11	25.85	207	1929	435	0.00	65.0
BTS 89RR50	127	332.5	101	9131	107	1.40	50.93	102	1399	108	18.02	27.50	308	2011	441	0.00	70.1
BTS 89RR83	112	309.1	94	9212	108	1.11	44.79	90	1332	103	16.57	29.69	293	1670	306	0.00	64.4
Crystal 539RR	103	327.6	100	7671	90	1.26	49.64	99	1161	90	17.64	23.43	320	1813	376	0.00	67.0
Crystal 658RR	122	313.9	95	8244	97	1.06	46.05	92	1209	94	16.76	26.35	233	1678	295	0.00	66.7
Crystal 765RR	117	342.7	104	8840	104	1.17	53.61	107	1386	107	18.31	25.79	296	1759	331	0.00	61.3
Crystal 768RR	131	329.1	100	8639	101	1.25	50.05	100	1311	101	17.70	26.45	237	1853	393	0.00	71.8
Crystal 875RR	106	327.2	99	8367	98	1.34	49.53	99	1259	97	17.70	25.85	264	1886	444	0.00	70.7
Crystal 878RR	123	340.9	104	8719	102	1.19	53.13	106	1358	105	18.23	25.54	179	1718	398	0.00	70.0
Crystal 879RR	111	330.3	100	8901	105	1.22	50.35	101	1354	105	17.74	27.02	171	1874	387	0.00	65.1
Crystal 985RR	118	335.0	102	8626	101	1.20	51.58	103	1325	102	17.95	25.80	227	1729	387	0.00	68.2
Hilleshög 4012RR	126	328.7	100	8134	96	1.24	49.93	100	1235	96	17.67	24.74	342	1764	364	0.00	60.3
Hilleshög 4022RR	101	326.2	99	8720	102	1.26	49.28	99	1313	102	17.57	26.74	271	1844	391	0.00	75.9
Hilleshög 4043RR	115	329.7	100	8268	97	1.17	50.20	100	1253	97	17.65	25.04	219	1700	370	0.00	76.5
Hilleshög 4094RR	119	327.6	100	8391	99	1.23	49.65	99	1276	99	17.61	25.42	254	1821	375	0.00	74.4
Hilleshög 4195RR	130	316.8	96	8694	102	1.34	46.80	94	1287	100	17.18	27.35	333	1891	410	0.00	59.3
Hilleshög 4199RR(9199)	107	335.5	102	8890	104	1.15	51.73	103	1368	106	17.93	26.65	251	1720	346	0.00	61.3
Seedex Victor RR(SX0894)	114	324.5	99	7854	92	1.05	48.84	98	1183	91	17.27	24.22	210	1572	319	0.00	61.0
Seedex Uplander RR	129	338.9	103	8166	96	1.12	52.61	105	1264	98	18.06	24.34	195	1793	329	0.00	66.4
Seedex Usher RR	124	329.6	100	8739	103	1.15	50.18	100	1333	103	17.63	26.58	221	1739	349	0.00	67.1
SESVanderhave H36711RR	108	317.8	97	8504	100	1.27	47.07	94	1261	98	17.16	26.65	268	1851	391	0.00	61.0
SESVanderhave H36811RR	116	323.3	98	8096	95	1.12	48.52	97	1212	94	17.29	25.04	230	1686	338	0.00	63.1
SESVanderhave H36812RR	105	318.6	97	9069	107	1.19	47.28	95	1343	104	17.12	28.57	281	1746	358	0.00	64.4
SESVanderhave H36813RR	128	326.6	99	8227	97	1.19	49.38	99	1245	96	17.52	25.07	232	1817	352	0.00	55.7
SESVanderhave H36916RR	110	323.6	98	8621	101	1.12	48.59	97	1297	100	17.30	26.45	250	1648	337	0.00	66.5
Beta 85RR02(Check)	133	330.9	101	7799	92	1.35	50.52	101	1195	92	17.90	23.63	294	1949	426	0.00	71.2
Trial Mean		329.1		8515		1.21	50.03		1293		17.67	25.91	251	1794	372	0.0	67.2
Coeff. of Var. (%)		3.7		5.5		6.7	6.4		7.4		3.2	4.5	19.9	6.1	10.3		7.1
Mean LSD (0.05)		14.5		573		0.10	3.81		113		0.68	1.51	64	140	48		5.4
Mean LSD (0.01)		19.1		757		0.13	5.03		150		0.90	1.99	85	185	64		7.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Crockston E MN

Analyzed 10/13/2011 22:29

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118605

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 15. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Crookston MN - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	323.6	102	8233	97	1.02	48.60	104	1235	99	17.20	25.25	232	1526	304	0.00	71.1
BTS 87RR58	121	328.1	103	8427	99	1.10	49.78	106	1282	102	17.51	25.61	215	1583	354	0.00	66.4
BTS 87RR68	113	334.4	105	8430	100	1.01	51.43	110	1299	104	17.74	25.28	288	1506	278	0.00	67.0
BTS 88RR31	132	316.6	100	8255	97	1.22	46.74	100	1213	97	17.04	26.22	338	1719	369	0.00	68.1
BTS 88RR41	102	313.7	99	8496	100	1.08	45.98	98	1250	100	16.76	26.96	216	1660	311	0.00	67.2
BTS 88RR61	109	320.3	101	8326	98	1.16	47.72	102	1237	99	17.17	26.56	296	1625	360	0.00	71.5
BTS 89RR30	125	303.9	96	8381	99	1.04	43.42	93	1203	96	16.24	27.59	303	1552	286	0.00	59.0
BTS 89RR40	120	329.1	104	8970	106	1.08	50.03	107	1365	109	17.54	27.11	246	1522	345	0.00	67.5
BTS 89RR50	127	316.5	100	9137	108	1.18	46.73	100	1346	108	17.00	29.08	325	1644	351	0.00	70.5
BTS 89RR83	112	298.3	94	8909	105	0.97	41.95	89	1260	101	15.89	29.79	254	1497	263	0.00	71.7
Crystal 539RR	103	311.9	98	7590	90	1.24	45.53	97	1104	88	16.83	24.50	414	1664	365	0.00	74.5
Crystal 658RR	122	300.5	95	7905	93	0.91	42.53	91	1103	88	15.93	26.11	235	1463	236	0.00	68.0
Crystal 765RR	117	327.9	103	8636	102	1.08	49.72	106	1307	104	17.47	25.99	320	1558	301	0.00	59.7
Crystal 768RR	131	310.4	98	7986	94	1.18	45.12	96	1161	93	16.70	25.93	322	1559	382	0.00	64.3
Crystal 875RR	106	310.3	98	8237	97	1.21	45.10	96	1203	96	16.74	26.60	334	1694	374	0.00	63.5
Crystal 878RR	123	330.4	104	8663	102	1.07	50.37	107	1326	106	17.60	26.08	203	1479	368	0.00	67.0
Crystal 879RR	111	314.7	99	8438	100	1.09	46.26	99	1236	99	16.82	26.94	163	1695	339	0.00	67.8
Crystal 985RR	118	328.9	104	8637	102	1.03	49.98	106	1310	105	17.47	26.29	237	1534	304	0.00	70.1
Hilleshög 4012RR	126	325.3	103	8219	97	1.10	49.04	104	1235	99	17.35	25.73	319	1577	320	0.00	65.0
Hilleshög 4022RR	101	316.1	100	8188	97	1.12	46.61	99	1203	96	16.92	25.94	296	1592	334	0.00	76.4
Hilleshög 4043RR	115	322.0	101	8591	101	1.03	48.18	103	1287	103	17.13	26.51	200	1499	328	0.00	76.2
Hilleshög 4094RR	119	312.8	99	8078	95	1.16	45.74	97	1174	94	16.79	26.40	312	1607	359	0.00	74.9
Hilleshög 4195RR	130	299.7	94	8350	99	1.26	42.31	90	1178	94	16.25	27.59	434	1662	373	0.00	69.0
Hilleshög 4199RR(9199)	107	324.8	102	8770	104	1.01	48.91	104	1312	105	17.25	27.05	298	1475	286	0.00	60.0
Seedex Victor RR(SX0894)	114	315.8	100	8342	98	1.04	46.55	99	1235	99	16.83	26.30	230	1553	302	0.00	66.2
Seedex Uplander RR	129	324.7	102	8450	100	1.00	48.89	104	1275	102	17.23	26.12	213	1488	290	0.07	62.0
Seedex Usher RR	124	315.4	99	9111	108	1.01	46.44	99	1346	108	16.78	28.99	239	1516	290	0.00	71.8
SESVanderhave H36711RR	108	320.7	101	9024	107	0.97	47.82	102	1341	107	17.00	28.37	200	1505	285	0.00	56.8
SESVanderhave H36811RR	116	308.3	97	8359	99	1.03	44.57	95	1213	97	16.45	26.98	257	1512	304	0.07	65.5
SESVanderhave H36812RR	105	306.2	97	8747	103	1.07	44.03	94	1257	100	16.38	28.43	287	1536	311	0.00	65.4
SESVanderhave H36813RR	128	322.4	102	9020	106	1.00	48.27	103	1352	108	17.12	27.89	239	1551	275	0.00	60.3
SESVanderhave H36916RR	110	321.4	101	8732	103	0.94	48.02	102	1303	104	17.01	27.28	204	1459	265	0.00	67.7
Beta 85RR02(Check)	133	316.8	100	7909	93	1.15	46.81	100	1161	93	16.99	24.62	339	1624	330	0.00	67.5
Trial Mean		317.3		8471		1.08	46.94		1252		16.94	26.73	273	1565	319	0.0	67.3
Coeff. of Var. (%)		3.7		6.6		8.7	6.6		8.7		3.1	5.2	23.5	6.9	13.6		10.6
Mean LSD (0.05)		15.7		686		0.12	4.12		135		0.70	1.81	84	138	59		8.1
Mean LSD (0.01)		20.7		906		0.17	5.44		178		0.92	2.39	112	182	78		10.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Crookston MN

Analyzed 10/14/2011 09:23

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118606

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.



Table 16. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Grand Forks ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	289.3	99	6052	92	1.32	39.58	99	827	92	15.78	20.96	437	1938	348	0.00	65.3
BTS 87RR58	121	297.7	102	6464	98	1.36	41.79	105	908	100	16.24	21.80	404	1977	370	0.00	57.3
BTS 87RR68	113	303.8	104	6225	95	1.29	43.39	109	891	99	16.48	20.66	576	1792	318	0.00	68.2
BTS 88RR31	132	284.5	98	6683	102	1.50	38.32	96	899	99	15.72	23.58	525	1962	449	0.00	65.8
BTS 88RR41	102	287.3	99	6639	101	1.38	39.05	98	901	100	15.74	23.26	430	2039	365	0.00	61.9
BTS 88RR61	109	290.1	100	6291	96	1.28	39.79	100	862	95	15.78	21.84	464	1821	338	0.00	59.1
BTS 89RR30	125	268.3	92	6368	97	1.45	34.04	85	809	89	14.86	23.82	578	2057	367	0.00	63.1
BTS 89RR40	120	293.1	101	6590	100	1.40	40.59	102	914	101	16.06	22.39	468	1894	414	0.09	59.5
BTS 89RR50	127	273.1	94	6657	101	1.52	35.31	88	863	96	15.18	24.16	624	2015	420	0.00	71.5
BTS 89RR83	112	263.2	91	6526	99	1.38	32.71	82	814	90	14.54	24.71	598	1930	327	0.00	60.2
Crystal 539RR	103	279.4	96	5762	88	1.43	36.96	92	761	84	15.40	20.56	680	1940	349	0.00	60.2
Crystal 658RR	122	287.9	99	6474	98	1.13	39.20	98	879	97	15.52	22.58	368	1758	275	0.00	67.9
Crystal 765RR	117	300.4	103	6311	96	1.30	42.48	106	891	99	16.32	20.74	609	1811	306	0.00	57.3
Crystal 768RR	131	290.9	100	6599	100	1.39	40.01	100	907	100	15.94	22.42	496	1873	382	0.00	66.2
Crystal 875RR	106	285.2	98	6500	99	1.40	38.49	96	879	97	15.66	22.64	576	1892	369	0.00	57.1
Crystal 878RR	123	296.9	102	6592	100	1.32	41.58	104	921	102	16.16	22.35	386	1925	372	0.00	69.7
Crystal 879RR	111	292.2	100	6593	100	1.41	40.35	101	909	101	16.02	22.59	363	2095	404	0.00	64.4
Crystal 985RR	118	278.5	96	6191	94	1.34	36.73	92	819	91	15.26	22.18	497	1867	364	0.00	60.2
Hilleshög 4012RR	126	294.6	101	6807	103	1.29	40.98	103	950	105	16.02	22.97	579	1836	296	0.00	63.4
Hilleshög 4022RR	101	291.6	100	6424	98	1.34	40.18	101	882	98	15.92	21.88	465	1895	353	0.00	68.0
Hilleshög 4043RR	115	304.0	105	6609	100	1.18	43.44	109	947	105	16.38	21.81	331	1806	317	0.00	69.2
Hilleshög 4094RR	119	300.3	103	6661	101	1.31	42.47	106	941	104	16.32	22.29	478	1870	343	0.00	67.5
Hilleshög 4195RR	130	291.8	100	6780	103	1.35	40.22	101	934	103	15.94	23.26	539	1847	358	0.00	63.3
Hilleshög 4199RR(9199)	107	303.7	104	7078	108	1.23	43.36	109	1009	112	16.42	23.23	454	1816	302	0.00	60.5
Seedex Victor RR(SX0894)	114	291.9	100	6243	95	1.19	40.26	101	863	95	15.78	21.46	400	1794	297	0.00	62.6
Seedex Uplander RR	129	302.2	104	6853	104	1.17	42.97	108	973	108	16.28	22.69	362	1795	288	0.09	62.6
Seedex Usher RR	124	294.4	101	7061	107	1.26	40.91	102	982	109	15.98	23.99	410	1861	326	0.00	67.4
SESVanderhave H36711RR	108	277.7	95	6564	100	1.31	36.52	91	864	96	15.20	23.57	495	1829	348	0.00	58.6
SESVanderhave H36811RR	116	286.2	98	6502	99	1.22	38.75	97	878	97	15.52	22.73	494	1746	309	0.09	64.6
SESVanderhave H36812RR	105	297.3	102	7511	114	1.22	41.67	104	1055	117	16.08	25.33	401	1832	313	0.00	63.6
SESVanderhave H36813RR	128	293.3	101	6755	103	1.30	40.62	102	936	104	15.96	23.10	423	1925	335	0.00	53.7
SESVanderhave H36916RR	110	300.8	103	7375	112	1.20	42.61	107	1046	116	16.24	24.57	380	1819	308	0.00	62.4
Beta 85RR02(Check)	133	304.2	105	6374	97	1.39	43.50	109	910	101	16.60	21.01	475	1990	371	0.00	67.2
Trial Mean		290.8		6579		1.32	39.96		904		15.86	22.64	478	1886	345	0.0	63.3
Coeff. of Var. (%)		4.3		5.0		7.3	8.3		8.5		3.5	3.3	21.0	4.6	10.6		10.1
Mean LSD (0.05)		15.8		449		0.12	4.14		101		0.69	1.03	131	124	49		8.0
Mean LSD (0.01)		20.8		593		0.16	5.47		133		0.91	1.36	173	164	65		10.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Grand Forks ND

Analyzed 10/14/2011 11:18

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118607

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 17. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
 Angus MN - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	272.4	100	5075	99	1.15	35.14	101	653	99	14.77	18.68	244	1828	312	0.00	72.4
BTS 87RR58	121	263.0	97	4745	93	1.36	32.67	94	590	90	14.51	18.00	299	2121	390	0.00	71.2
BTS 87RR68	113	277.7	102	4702	92	1.19	36.52	105	622	95	15.08	16.83	316	1914	286	0.00	65.5
BTS 88RR31	132	264.1	97	5043	99	1.37	32.96	94	629	96	14.58	19.09	313	2101	387	0.00	66.7
BTS 88RR41	102	262.4	97	4054	79	1.26	32.49	93	503	77	14.37	15.36	245	1955	367	0.00	60.7
BTS 88RR61	109	268.5	99	5201	102	1.17	34.10	98	658	100	14.60	19.48	262	1906	291	0.00	66.1
BTS 89RR30	125	266.5	98	5982	117	1.09	33.58	96	751	114	14.42	22.54	260	1885	282	0.00	68.4
BTS 89RR40	120	285.1	105	5670	111	1.15	38.48	110	764	116	15.41	19.92	186	1822	333	0.00	63.8
BTS 89RR50	127	260.2	96	5635	110	1.37	31.93	91	686	104	14.38	21.83	335	2015	404	0.00	72.4
BTS 89RR83	112	255.8	94	5362	105	1.14	30.78	88	640	98	13.93	21.10	322	1697	315	0.00	61.0
Crystal 539RR	103	272.0	100	5206	102	1.18	35.03	100	671	102	14.78	19.10	323	1820	303	0.00	64.7
Crystal 658RR	122	261.7	96	4916	96	1.02	32.31	93	609	93	14.11	18.75	216	1703	270	0.00	64.7
Crystal 765RR	117	262.3	97	4235	83	1.30	32.47	93	526	80	14.41	16.09	390	2113	316	0.00	55.8
Crystal 768RR	131	277.7	102	4761	93	1.23	36.52	105	630	96	15.11	17.04	231	1974	357	0.00	69.0
Crystal 875RR	106	280.0	103	5997	117	1.18	37.14	106	792	121	15.18	21.51	267	1807	321	0.00	63.3
Crystal 878RR	123	264.8	97	4683	92	1.26	33.12	95	587	89	14.50	17.71	263	1953	391	0.00	69.5
Crystal 879RR	111	261.4	96	3745	73	1.39	32.23	92	460	70	14.46	14.40	225	2176	394	0.00	62.4
Crystal 985RR	118	281.3	104	6520	128	1.10	37.48	107	869	132	15.16	23.17	204	1777	297	0.00	66.1
Hilleshög 4012RR	126	284.6	105	5269	103	1.18	38.35	110	709	108	15.40	18.52	322	1825	313	0.00	62.7
Hilleshög 4022RR	101	264.3	97	4826	95	1.21	33.00	95	606	92	14.42	18.12	289	1874	303	0.00	61.8
Hilleshög 4043RR	115	283.6	104	4941	97	1.05	38.09	109	665	101	15.23	17.37	177	1796	277	0.00	71.5
Hilleshög 4094RR	119	269.6	99	4385	86	1.13	34.40	99	561	85	14.61	16.24	241	1944	264	0.00	62.1
Hilleshög 4195RR	130	255.4	94	4346	85	1.28	30.67	88	525	80	14.05	16.89	405	1982	304	0.00	62.4
Hilleshög 4199RR(9199)	107	288.2	106	4526	89	1.17	39.28	112	614	94	15.58	15.78	289	1905	292	0.00	50.7
Seedex Victor RR(SX0894)	114	278.7	103	5684	111	1.10	36.78	105	750	114	15.03	20.41	248	1928	261	0.00	60.4
Seedex Uplander RR	129	279.9	103	5131	101	1.05	37.11	106	680	104	15.04	18.36	221	1802	255	0.00	66.4
Seedex Usher RR	124	278.1	102	5790	113	1.06	36.62	105	766	117	14.97	20.71	230	1753	290	0.00	64.7
SESVanderhave H36711RR	108	273.4	101	5689	111	1.10	35.41	101	729	111	14.77	21.03	261	1709	296	0.00	55.8
SESVanderhave H36811RR	116	268.0	99	5069	99	1.04	33.97	97	643	98	14.45	18.94	234	1660	287	0.00	59.8
SESVanderhave H36812RR	105	271.1	100	5444	107	1.09	34.79	100	702	107	14.65	19.99	251	1754	300	0.00	67.0
SESVanderhave H36813RR	128	273.3	101	5538	109	1.09	35.36	101	713	109	14.75	20.40	226	1807	270	0.00	57.6
SESVanderhave H36916RR	110	273.3	101	5075	99	1.14	35.36	101	659	100	14.80	18.49	258	1833	299	0.00	63.0
Beta 85RR02(Check)	133	284.0	105	5172	101	1.19	38.18	109	698	106	15.39	18.17	269	1945	324	0.00	74.9
Trial Mean		271.6		5104		1.18	34.92		656		14.75	18.79	267	1881	314	0.0	64.4
Coeff. of Var. (%)		3.2		7.7		5.7	6.6		10.0		2.8	6.2	13.0	5.0	12.6		10.3
Mean LSD (0.05)		16.4		771		0.13	4.30		127		0.78	2.30	65	192	64		10.8
Mean LSD (0.01)		21.8		1029		0.17	5.72		170		1.04	3.07	86	256	86		14.3
Sig Lvl		**		**		**	**		**		**	**	**	**	**		*

\* 2011 Data from Angus MN

Analyzed 10/14/2011 11:33

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118608

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 18. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
Grafton ND - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	291.0	98	4914	91	1.12	40.02	97	676	90	15.67	16.85	184	2193	222	0.00	70.3
BTS 87RR58	121	286.7	97	4854	90	1.21	38.89	94	659	88	15.55	16.98	211	2220	273	0.00	65.5
BTS 87RR68	113	312.5	105	5874	109	1.09	45.68	110	858	114	16.71	18.76	164	2179	211	0.00	67.4
BTS 88RR31	132	288.1	97	5218	97	1.29	39.27	95	713	95	15.70	18.08	272	2395	271	0.00	65.1
BTS 88RR41	102	296.8	100	5120	95	1.14	41.55	100	721	96	15.98	17.15	138	2296	223	0.00	56.1
BTS 88RR61	109	300.8	102	5767	107	1.17	42.59	103	816	108	16.22	19.19	181	2376	218	0.00	63.7
BTS 89RR30	125	283.1	96	5619	105	1.17	37.93	92	752	100	15.33	19.89	172	2416	201	0.00	57.4
BTS 89RR40	120	302.0	102	5498	102	1.15	42.93	104	786	104	16.25	18.08	132	2237	250	0.00	60.4
BTS 89RR50	127	279.9	94	5380	100	1.31	37.10	90	714	95	15.30	19.19	221	2549	258	0.00	54.2
BTS 89RR83	112	280.1	95	5567	104	1.08	37.17	90	739	98	15.09	19.90	175	2138	203	0.00	56.8
Crystal 539RR	103	300.4	101	5090	95	1.18	42.49	103	718	95	16.21	16.97	248	2283	225	0.00	64.2
Crystal 658RR	122	286.5	97	5329	99	1.07	38.85	94	724	96	15.39	18.53	146	2155	197	0.00	66.1
Crystal 765RR	117	318.3	107	5979	111	1.10	47.21	114	888	118	17.01	18.69	162	2223	208	0.00	54.3
Crystal 768RR	131	284.9	96	5179	96	1.18	38.41	93	700	93	15.41	18.12	180	2300	236	0.00	67.0
Crystal 875RR	106	289.7	98	5578	104	1.26	39.69	96	768	102	15.75	19.17	209	2459	249	0.00	63.1
Crystal 878RR	123	300.2	101	4998	93	1.18	42.44	102	711	94	16.19	16.56	163	2280	248	0.00	63.4
Crystal 879RR	111	292.6	99	5205	97	1.15	40.44	98	722	96	15.78	17.70	115	2358	229	0.00	61.5
Crystal 985RR	118	301.3	102	5615	105	1.15	42.73	103	800	106	16.22	18.51	162	2328	215	0.00	64.1
Hilleshög 4012RR	126	294.9	100	5200	97	1.24	41.05	99	724	96	15.99	17.65	253	2238	275	0.00	67.5
Hilleshög 4022RR	101	303.8	103	4758	89	1.17	43.38	105	681	90	16.35	15.64	151	2428	210	0.00	67.2
Hilleshög 4043RR	115	302.4	102	5342	99	1.07	43.02	104	761	101	16.20	17.64	139	2112	219	0.00	71.2
Hilleshög 4094RR(9094)	119	298.5	101	5069	94	1.20	41.99	101	716	95	16.13	16.93	186	2337	244	0.00	67.6
Hilleshög 4195RR(9195)	130	290.0	98	5057	94	1.16	39.75	96	695	92	15.66	17.40	211	2292	215	0.00	61.1
Hilleshög 4199RR(9199)	107	297.8	101	5141	96	1.08	41.81	101	721	96	15.97	17.28	195	2076	219	0.00	49.1
Seedex SX0894RR	114	299.8	101	5282	98	1.10	42.35	102	752	100	16.08	17.41	154	2218	203	0.00	54.7
Seedex Uplander RR(SX0884)	129	297.3	100	5505	102	1.08	41.69	101	774	103	15.96	18.43	159	2227	197	0.00	54.6
Seedex Usher RR(SX0883)	124	292.4	99	5376	100	1.10	40.39	98	747	99	15.72	18.23	164	2196	214	0.00	60.6
SESVanderhave H36711RR	108	300.0	101	5894	110	1.12	42.38	102	840	112	16.11	19.49	158	2234	212	0.00	56.7
SESVanderhave H36811RR	116	302.1	102	5442	101	1.08	42.93	104	781	104	16.18	17.81	150	2232	188	0.00	58.6
SESVanderhave H36812RR	105	302.4	102	5922	110	1.07	43.02	104	847	112	16.18	19.51	139	2199	189	0.00	60.8
SESVanderhave H36813RR	128	304.5	103	5658	105	1.10	43.57	105	816	108	16.33	18.43	158	2192	211	0.00	54.1
SESVanderhave H36916RR	110	301.7	102	5668	106	1.06	42.83	103	808	107	16.13	18.69	134	2172	195	0.00	64.3
Beta 85RR02(Check)	133	296.2	100	5175	96	1.24	41.40	100	723	96	16.05	17.47	203	2442	234	0.00	61.1
Trial Mean		296.3		5372		1.15	41.42		753		15.96	18.07	175	2272	223	0.0	61.5
Coeff. of Var. (%)		2.1		6.2		4.2	4.0		7.3		1.9	5.7	16.3	4.1	8.5		9.2
Mean LSD (0.05)		9.3		496		0.07	2.44		82		0.44	1.55	42	128	28		7.6
Mean LSD (0.01)		12.3		657		0.09	3.23		108		0.59	2.06	56	169	37		10.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Grafton ND

Analyzed 10/14/2011 11:46

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118610

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table19. 2011 Performance of Varieties - ACSC RR Commercial Yield Trial  
St Thomas ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 87RR38	104	250.6	102	7017	98	1.30	29.39	105	819	100	13.82	28.16	512	1760	350	0.00	72.1
BTS 87RR58	121	251.3	102	7027	98	1.32	29.59	106	823	101	13.87	28.27	480	1755	379	0.00	71.7
BTS 87RR68	113	265.6	108	7702	107	1.25	33.34	119	965	118	14.54	28.96	536	1734	314	0.00	72.2
BTS 88RR31	132	245.2	100	6932	97	1.42	27.99	100	787	96	13.67	28.47	587	1815	408	0.00	59.2
BTS 88RR41	102	251.0	102	7299	102	1.30	29.51	105	858	105	13.87	28.91	444	1858	350	0.00	63.4
BTS 88RR61	109	251.3	102	7718	108	1.28	29.58	106	911	112	13.84	30.75	495	1664	369	0.00	67.5
BTS 89RR30	125	225.7	92	7110	99	1.29	22.85	82	718	88	12.57	31.63	600	1796	302	0.00	66.5
BTS 89RR40	120	244.3	100	7334	102	1.36	27.74	99	831	102	13.57	30.19	484	1805	401	0.00	61.9
BTS 89RR50	127	232.9	95	7618	106	1.47	24.76	88	809	99	13.12	32.80	729	1811	391	0.00	56.2
BTS 89RR83	112	222.9	91	7398	103	1.32	22.13	79	734	90	12.47	33.32	658	1697	329	0.00	56.7
Crystal 539RR	103	240.4	98	6367	89	1.35	26.72	95	702	86	13.39	26.48	638	1839	336	0.00	65.3
Crystal 658RR	122	230.9	94	6617	92	1.29	24.23	87	699	86	12.83	28.74	578	1681	338	0.00	66.3
Crystal 765RR	117	259.8	106	7721	108	1.27	31.82	114	944	116	14.27	29.75	632	1654	317	0.00	54.9
Crystal 768RR	131	233.0	95	6565	91	1.41	24.77	88	696	85	13.06	28.29	643	1745	392	0.00	71.9
Crystal 875RR	106	245.7	100	7391	103	1.31	28.10	100	848	104	13.60	30.00	539	1802	334	0.00	64.2
Crystal 878RR	123	246.5	101	6997	98	1.39	28.33	101	802	98	13.72	28.42	489	1888	393	0.00	69.8
Crystal 879RR	111	242.4	99	6945	97	1.44	27.24	97	779	95	13.55	28.80	413	1981	436	0.00	66.4
Crystal 985RR	118	251.3	102	7880	110	1.30	29.59	106	930	114	13.87	31.29	531	1711	358	0.00	68.1
Hilleshög 4012RR	126	250.3	102	7123	99	1.24	29.34	105	833	102	13.75	28.63	606	1646	303	0.00	67.2
Hilleshög 4022RR	101	243.3	99	6751	94	1.35	27.47	98	759	93	13.51	27.75	635	1677	360	0.00	65.7
Hilleshög 4043RR	115	257.7	105	7090	99	1.18	31.27	112	857	105	14.06	27.67	442	1600	326	0.00	70.4
Hilleshög 4094RR(9094)	119	250.2	102	7132	99	1.28	29.31	105	830	102	13.80	28.53	529	1761	328	0.00	71.4
Hilleshög 4195RR(9195)	130	234.6	96	7250	101	1.38	25.18	90	771	95	13.10	31.13	721	1695	353	0.00	64.0
Hilleshög 4199RR(9199)	107	250.6	102	7260	101	1.21	29.39	105	848	104	13.75	29.03	542	1614	313	0.00	55.5
Seedex SX0894RR	114	240.6	98	6837	95	1.21	26.76	96	756	93	13.26	28.29	563	1615	301	0.00	56.5
Seedex Uplander RR(SX0884)	129	259.0	106	7177	100	1.16	31.60	113	876	107	14.11	27.74	412	1666	306	0.00	60.8
Seedex Usher RR(SX0883)	124	241.9	99	7327	102	1.21	27.12	97	819	100	13.31	30.26	576	1575	308	0.00	59.5
SESVanderhave H36711RR	108	241.2	98	7437	104	1.26	26.92	96	828	101	13.32	30.72	590	1594	331	0.00	55.0
SESVanderhave H36811RR	116	245.9	100	6870	96	1.18	28.15	101	784	96	13.46	28.05	529	1520	317	0.00	54.0
SESVanderhave H36812RR	105	245.5	100	7619	106	1.23	28.07	100	864	106	13.50	31.34	543	1630	330	0.00	57.9
SESVanderhave H36813RR	128	252.4	103	7372	103	1.18	29.89	107	872	107	13.81	29.14	456	1673	300	0.00	55.6
SESVanderhave H36916RR	110	244.2	100	7097	99	1.16	27.71	99	804	99	13.38	29.04	512	1574	294	0.00	58.6
Beta 85RR02(Check)	133	245.0	100	6832	95	1.37	27.92	100	775	95	13.62	27.90	652	1776	350	0.00	65.1
Trial Mean		245.2		7176		1.29	27.99		816		13.56	29.35	554	1715	343	0.0	63.4
Coeff. of Var. (%)		3.6		4.7		5.5	8.3		8.8		3.0	3.4	15.3	5.7	9.6		11.5
Mean LSD (0.05)		11.9		437		0.10	3.14		96		0.55	1.30	116	124	43		8.5
Mean LSD (0.01)		15.8		577		0.13	4.15		127		0.73	1.72	153	163	57		11.3
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from St Thomas ND

Analyzed 10/14/2011 11:39

Created 10-17-2011.

^ Vigor not collected.

Trial # = 118609

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 20. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
8 Locations - All Characters

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	315.0	103	7098	102	1.09	46.25	106	1044	105	16.83	22.45	208	1793	286	0.00	62.6
BTS 80RR32	217	298.0	98	7578	109	1.19	41.86	96	1061	107	16.08	25.46	353	1909	284	0.00	59.3
BTS 80RR52	203	306.3	100	6992	101	1.27	44.03	101	1004	101	16.59	22.83	261	1942	369	0.03	61.3
BTS 81RR11	241	305.0	100	7317	106	1.11	43.66	100	1047	106	16.35	24.01	286	1821	267	0.00	64.9
BTS 81RR17	212	297.5	97	6804	98	1.38	41.72	95	951	96	16.24	22.97	275	2100	411	0.00	59.1
BTS 81RR23	233	317.1	104	6885	99	1.08	46.80	107	1017	103	16.93	21.64	204	1801	280	0.00	63.7
BTS 81RR41	222	322.4	106	7025	101	1.18	48.18	110	1047	106	17.29	21.85	254	1814	335	0.00	57.9
BTS 81RR63	201	316.8	104	6708	97	1.22	46.71	107	987	100	17.06	21.25	255	1954	332	0.00	52.7
BTS 81RR78	251	315.6	103	7270	105	1.17	46.42	106	1068	108	16.95	23.04	210	1860	330	0.00	66.0
BTS 81RR81	227	300.1	98	6824	99	1.36	42.41	97	957	97	16.36	22.91	313	2036	395	0.00	55.0
BTS 89RR10	243	317.0	104	6189	89	1.27	46.78	107	912	92	17.12	19.52	313	2080	318	0.00	62.7
Crystal 091RR	210	306.2	100	7238	105	1.33	44.01	101	1036	105	16.63	23.73	247	2054	393	0.00	48.8
Crystal 093RR	216	316.4	104	7220	104	1.21	46.62	107	1061	107	17.03	22.87	207	1942	347	0.00	51.6
Crystal 095RR	248	298.7	98	7198	104	1.28	42.02	96	1010	102	16.20	24.19	290	1991	353	0.00	64.4
Crystal 101RR	206	297.1	97	7463	108	1.40	41.62	95	1040	105	16.24	25.26	339	2243	361	0.00	63.3
Crystal 102RR	250	309.6	101	6219	90	1.20	44.86	103	900	91	16.67	20.05	240	1930	326	0.00	34.2
Crystal 103RR	231	275.9	90	6744	97	1.29	36.11	83	875	88	15.07	24.64	392	2063	304	0.00	40.9
Crystal 104RR	245	293.3	96	7047	102	1.18	40.63	93	969	98	15.84	24.21	302	1917	291	0.00	61.6
Crystal 105RR	204	292.8	96	5732	83	1.40	40.49	93	787	79	16.03	19.69	356	2096	400	0.00	30.2
Crystal 106RR	211	326.4	107	6881	99	1.12	49.21	112	1036	105	17.44	21.14	246	1739	317	0.00	66.0
Crystal 981RR	235	300.4	98	7853	113	1.36	42.49	97	1109	112	16.38	26.19	380	2115	353	0.00	68.2
Crystal 986RR	252	315.6	103	6982	101	1.13	46.42	106	1028	104	16.90	22.09	279	1777	296	0.00	48.7
Hilleshög 9236RR	219	314.4	103	6953	100	1.19	46.11	105	1020	103	16.90	22.08	259	1875	323	0.00	61.1
Hilleshög 9237RR	226	305.1	100	6018	87	1.14	43.68	100	860	87	16.39	19.76	317	1719	308	0.00	60.6
Hilleshög 9238RR	249	305.8	100	6683	96	1.31	43.86	100	957	97	16.59	21.92	296	2011	374	0.00	61.4
Hilleshög 9300RR	205	296.4	97	6942	100	1.19	41.45	95	970	98	16.00	23.43	351	1947	275	0.00	68.3
Hilleshög 9301RR	237	300.7	98	6976	101	1.24	42.57	97	984	99	16.27	23.26	343	1984	304	0.00	63.5
Hilleshög 9302RR	228	317.3	104	7034	102	1.12	46.86	107	1040	105	16.98	22.12	250	1846	281	0.00	66.0
Hilleshög 9303RR	240	316.3	104	7353	106	1.14	46.61	107	1082	109	16.95	23.28	253	1826	303	0.00	62.9
Hilleshög 9304RR	247	289.1	95	5948	86	1.43	39.56	90	807	82	15.87	20.74	282	2267	396	0.00	69.2
Hilleshög 9305RR	220	301.1	99	6883	99	1.27	42.68	98	973	98	16.33	22.88	390	1969	318	0.00	63.7
Hilleshög 9306RR	230	290.1	95	6616	96	1.22	39.81	91	905	91	15.72	22.86	305	1950	312	0.00	65.5
Maribo 100RR	214	299.6	98	6920	100	1.30	42.25	97	971	98	16.27	23.25	412	2002	324	0.00	65.1
Maribo 101RR	225	302.9	99	6786	98	1.37	43.14	99	964	97	16.51	22.42	400	2080	357	0.00	58.1
Maribo 102RR	242	320.1	105	8127	117	1.04	47.59	109	1208	122	17.04	25.35	218	1716	266	0.00	69.5
Maribo 103RR	236	295.7	97	6965	101	1.23	41.27	94	969	98	16.01	23.61	379	1993	285	0.00	67.4
Maribo 104RR	229	318.6	104	6095	88	1.16	47.22	108	902	91	17.09	19.14	280	1818	308	0.00	63.2
Maribo 105RR	234	294.4	96	6991	101	1.23	40.93	94	969	98	15.94	23.79	331	1950	310	0.00	65.1
Seedex SX0806RR	202	294.0	96	7070	102	1.17	40.80	93	981	99	15.86	24.07	283	1910	288	0.00	64.0
Seedex SX0808RR	224	303.5	99	6987	101	1.12	43.28	99	994	100	16.29	23.09	270	1856	271	0.00	64.6
Seedex SX0814RR	246	303.8	99	7200	104	1.17	43.35	99	1027	104	16.35	23.71	289	1893	294	0.03	63.1
Seedex SX0815RR	208	310.6	102	6969	101	1.11	45.12	103	1011	102	16.63	22.45	235	1846	278	0.00	60.5
Seedex SX0816RR	232	313.3	103	7013	101	1.14	45.84	105	1026	104	16.80	22.39	241	1936	278	0.00	59.2
Seedex Vision RR(SX0891)	238	314.2	103	7144	103	1.11	46.06	105	1047	106	16.81	22.75	233	1902	263	0.00	60.1
SESVanderhave H36072RR	215	312.8	102	6935	100	1.13	45.71	104	1012	102	16.77	22.20	229	1927	277	0.00	57.5
SESVanderhave H36175RR	221	308.1	101	7110	103	1.12	44.48	102	1026	104	16.52	23.10	251	1887	267	0.00	63.5
SESVanderhave H36176RR	209	302.9	99	7028	101	1.16	43.12	99	995	101	16.30	23.35	273	1900	291	0.00	62.0
SESVanderhave H36177RR	213	308.5	101	7114	103	1.16	44.57	102	1028	104	16.59	23.03	254	1918	294	0.00	62.5
SESVanderhave H36178RR	239	296.5	97	6835	99	1.18	41.48	95	954	96	16.00	23.09	306	1937	288	0.00	64.1
SESVanderhave H36179RR	218	308.0	101	6899	100	1.12	44.45	102	994	100	16.52	22.45	255	1865	276	0.00	64.3
SESVanderhave H36917RR	244	309.7	101	7129	103	1.14	44.88	103	1031	104	16.61	23.05	234	1942	276	0.00	59.3
SESVanderhave H36918RR	207	312.2	102	6826	99	1.12	45.54	104	994	100	16.72	21.87	228	1917	270	0.00	62.0
Beta 85RR02(Check)	253	306.4	100	6752	97	1.29	44.06	101	966	98	16.60	22.18	318	2043	340	0.00	66.1
Crystal 539RR(Check)	254	294.7	97	6453	93	1.34	41.00	94	893	90	16.06	22.01	428	2035	337	0.00	63.9
Crystal 658RR(Check)	255	287.5	94	6785	98	1.13	39.13	89	923	93	15.50	23.59	276	1867	277	0.00	65.0
Hilleshög 4012RR(Check)	256	300.1	98	7000	101	1.24	42.39	97	987	100	16.24	23.35	388	1922	307	0.00	62.9
Trial Mean		305.4		6926		1.21	43.76		990		16.47	22.74	290	1937	314	0.0	60.7
Coeff. of Var. (%)		3.1		5.9		6.5	5.6		7.6		2.6	5.2	20.7	5.0	11.4		11.6
Mean LSD (0.05)		6.4		323		0.05	1.66		58		0.29	0.99	44	70	23		4.2
Mean LSD (0.01)		8.4		425		0.07	2.18		76		0.38	1.31	58	92	31		5.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 8 Locations

Analyzed 10/17/2011 14:21

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11exAC

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 21. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
4 Locations - All Characters - Light RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	297.3	104	6807	101	1.15	41.72	107	956	106	16.00	22.83	263	1876	300	0.00	65.3
BTS 80RR32	217	276.5	96	7107	106	1.28	36.18	93	921	102	15.10	25.80	465	1959	301	0.00	60.1
BTS 80RR52	203	285.1	99	6644	99	1.33	38.48	99	891	98	15.58	23.36	340	1995	371	0.00	59.8
BTS 81RR11	241	289.5	101	7125	106	1.13	39.64	102	970	107	15.59	24.65	356	1816	265	0.00	67.0
BTS 81RR17	212	273.2	95	6461	96	1.46	35.33	91	828	91	15.11	23.89	360	2163	424	0.00	62.1
BTS 81RR23	233	304.1	106	6824	102	1.10	43.52	112	977	108	16.28	22.33	243	1841	279	0.00	65.0
BTS 81RR41	222	303.0	106	6851	102	1.23	43.23	111	976	108	16.37	22.72	326	1877	340	0.00	60.1
BTS 81RR63	201	298.4	104	6597	98	1.25	42.01	108	929	103	16.16	22.18	318	1954	339	0.00	53.2
BTS 81RR78	251	298.7	104	7058	105	1.21	42.10	108	991	109	16.14	23.65	259	1905	338	0.00	69.0
BTS 81RR81	227	276.0	96	6859	102	1.47	36.07	93	890	98	15.27	24.95	421	2116	420	0.00	56.9
BTS 89RR10	243	293.3	102	5866	87	1.36	40.66	105	809	89	16.01	19.99	407	2137	332	0.00	65.5
Crystal 091RR	210	288.8	101	6968	104	1.38	39.46	101	943	104	15.82	24.43	313	2112	400	0.00	51.4
Crystal 093RR	216	295.7	103	7122	106	1.27	41.30	106	993	110	16.05	24.16	271	1995	360	0.00	51.9
Crystal 095RR	248	277.6	97	6947	103	1.34	36.49	94	907	100	15.21	25.15	377	2010	366	0.00	64.9
Crystal 101RR	206	276.8	97	7338	109	1.47	36.26	93	956	106	15.31	26.58	410	2319	376	0.00	63.9
Crystal 102RR	250	289.8	101	6093	91	1.28	39.73	102	834	92	15.75	20.96	311	2008	343	0.00	36.5
Crystal 103RR	231	251.2	88	6356	95	1.38	29.49	76	733	81	13.93	25.66	515	2140	311	0.00	42.0
Crystal 104RR	245	272.9	95	6935	103	1.27	35.26	91	885	98	14.90	25.71	393	2016	306	0.00	59.8
Crystal 105RR	204	273.9	96	5721	85	1.44	35.52	91	738	81	15.14	20.94	432	2111	398	0.00	32.7
Crystal 106RR	211	307.8	107	6758	101	1.19	44.52	114	975	108	16.56	22.06	321	1784	333	0.00	66.0
Crystal 981RR	235	274.9	96	7406	110	1.46	35.80	92	962	106	15.21	26.98	483	2192	370	0.00	66.9
Crystal 986RR	252	300.3	105	6805	101	1.18	42.50	109	962	106	16.18	22.76	348	1822	308	0.00	48.7
Hilleshög 9236RR	219	295.7	103	6555	98	1.26	41.28	106	912	101	16.03	22.16	313	1956	340	0.00	63.0
Hilleshög 9237RR	226	288.7	101	5932	88	1.19	39.43	101	811	89	15.62	20.58	368	1765	318	0.00	62.3
Hilleshög 9238RR	249	289.6	101	6506	97	1.37	39.67	102	887	98	15.84	22.60	357	2084	378	0.00	64.4
Hilleshög 9300RR	205	282.6	99	6688	100	1.23	37.82	97	893	99	15.36	23.75	417	2006	273	0.00	72.3
Hilleshög 9301RR	237	283.0	99	6867	102	1.29	37.93	98	920	101	15.44	24.24	423	2028	305	0.00	65.3
Hilleshög 9302RR	228	299.5	104	6548	98	1.15	42.29	109	924	102	16.10	21.88	304	1887	284	0.00	67.4
Hilleshög 9303RR	240	295.0	103	6930	103	1.21	41.10	106	963	106	15.95	23.56	322	1901	319	0.00	67.2
Hilleshög 9304RR	247	267.1	93	5926	88	1.49	33.70	87	741	82	14.84	22.28	367	2330	402	0.00	70.3
Hilleshög 9305RR	220	279.7	98	6613	99	1.33	37.05	95	875	97	15.32	23.67	507	1980	320	0.00	63.7
Hilleshög 9306RR	230	274.5	96	6311	94	1.26	35.68	92	813	90	14.97	23.16	382	1960	317	0.00	65.2
Maribo 100RR	214	274.3	96	6547	98	1.38	35.62	92	845	93	15.07	24.12	539	2056	322	0.00	67.2
Maribo 101RR	225	285.3	100	6702	100	1.38	38.56	99	904	100	15.66	23.45	494	2050	350	0.00	63.6
Maribo 102RR	242	302.3	105	7883	117	1.08	43.04	111	1126	124	16.17	25.97	272	1760	270	0.00	68.8
Maribo 103RR	236	278.4	97	6695	100	1.29	36.70	94	876	97	15.20	24.20	475	2042	287	0.00	67.6
Maribo 104RR	229	301.9	105	5863	87	1.19	42.92	110	829	91	16.27	19.51	338	1846	311	0.00	64.3
Maribo 105RR	234	272.0	95	6627	99	1.29	35.02	90	849	94	14.88	24.39	415	1999	318	0.00	67.7
Seedex SX0806RR	202	277.6	97	6919	103	1.20	36.49	94	909	100	15.07	24.88	351	1928	291	0.00	66.6
Seedex SX0808RR	224	289.0	101	6908	103	1.13	39.51	102	944	104	15.58	23.97	330	1871	268	0.00	69.4
Seedex SX0814RR	246	288.0	100	6920	103	1.20	39.25	101	939	104	15.59	24.17	342	1911	303	0.00	64.2
Seedex SX0815RR	208	296.0	103	6865	102	1.15	41.37	106	957	106	15.94	23.22	282	1907	287	0.00	64.8
Seedex SX0816RR	232	294.5	103	6698	100	1.24	40.97	105	933	103	15.95	22.74	309	2036	306	0.00	58.2
Seedex Vision RR(SX0891)	238	297.8	104	7115	106	1.15	41.86	108	1001	110	16.03	23.83	300	1935	270	0.00	62.3
SESVanderhave H36072RR	215	294.3	103	6865	102	1.17	40.92	105	955	105	15.87	23.39	281	1991	283	0.00	60.2
SESVanderhave H36175RR	221	289.5	101	6821	102	1.19	39.65	102	934	103	15.66	23.64	311	1983	287	0.00	64.0
SESVanderhave H36176RR	209	283.7	99	6928	103	1.21	38.12	98	923	102	15.39	24.60	349	1937	298	0.00	62.9
SESVanderhave H36177RR	213	289.5	101	6830	102	1.23	39.65	102	937	103	15.69	23.57	323	1954	316	0.00	65.0
SESVanderhave H36178RR	239	279.2	97	6623	99	1.21	36.90	95	873	96	15.15	23.77	379	1965	283	0.00	67.1
SESVanderhave H36179RR	218	291.5	102	6715	100	1.15	40.17	103	925	102	15.72	23.05	311	1874	285	0.00	66.0
SESVanderhave H36917RR	244	294.9	103	7015	105	1.16	41.09	106	976	108	15.90	23.84	289	1955	283	0.00	63.3
SESVanderhave H36918RR	207	296.1	103	6707	100	1.15	41.41	106	937	103	15.95	22.68	290	1956	273	0.00	64.5
Beta 85RR02(Check)	253	290.1	101	6774	101	1.36	39.81	102	925	102	15.86	23.45	405	2062	357	0.00	65.4
Crystal 539RR(Check)	254	276.6	96	6169	92	1.39	36.23	93	801	88	15.21	22.50	498	2101	339	0.00	65.5
Crystal 658RR(Check)	255	271.2	95	6472	96	1.20	34.80	89	827	91	14.75	23.93	346	1930	299	0.00	64.1
Hilleshög 4012RR(Check)	256	279.0	97	6665	99	1.30	36.85	95	878	97	15.23	23.97	501	1936	308	0.00	63.7
Trial Mean		286.6		6712		1.27	38.89		906		15.59	23.51	365	1983	322	0.0	62.3
Coeff. of Var. (%)		3.4		5.4		6.7	6.7		7.9		2.8	4.7	19.3	5.2	11.3		12.5
Mean LSD (0.05)		8.4		440		0.07	2.24		77		0.37	1.46	60	106	31		5.8
Mean LSD (0.01)		11.1		581		0.10	2.95		101		0.49	1.93	80	140	42		7.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 10/31/2011 09:12

Created 10-31-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11expLi

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 22. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
4 Locations - All Characters - Moderate RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	332.7	103	7401	103	1.02	50.83	105	1136	106	17.67	22.09	154	1715	272	0.00	59.7
BTS 80RR32	217	318.5	98	8061	113	1.11	47.21	97	1200	112	17.03	25.15	244	1858	269	0.00	58.6
BTS 80RR52	203	326.7	101	7358	103	1.21	49.34	102	1117	104	17.54	22.33	174	1883	372	0.06	63.0
BTS 81RR11	241	320.5	99	7527	105	1.08	47.74	98	1125	105	17.12	23.37	214	1830	273	0.00	62.8
BTS 81RR17	212	320.8	99	7158	100	1.30	47.81	98	1073	100	17.33	22.08	189	2038	398	0.00	55.7
BTS 81RR23	233	330.9	102	6947	97	1.05	50.38	104	1061	99	17.60	20.89	162	1759	284	0.00	62.3
BTS 81RR41	222	342.7	106	7202	101	1.11	53.40	110	1126	105	18.25	20.93	175	1742	334	0.00	55.5
BTS 81RR63	201	334.9	103	6856	96	1.19	51.40	106	1055	98	17.93	20.38	193	1950	329	0.00	52.4
BTS 81RR78	251	331.6	102	7511	105	1.14	50.59	104	1149	107	17.72	22.53	165	1825	330	0.00	62.9
BTS 81RR81	227	323.5	100	6839	96	1.25	48.48	100	1032	96	17.42	20.92	204	1947	373	0.00	53.0
BTS 89RR10	243	341.0	105	6517	91	1.20	52.95	109	1015	94	18.24	19.05	212	2019	308	0.00	59.9
Crystal 091RR	210	323.9	100	7527	105	1.28	48.60	100	1134	105	17.46	23.07	183	1994	387	0.00	46.2
Crystal 093RR	216	336.6	104	7325	102	1.15	51.86	107	1136	106	17.99	21.53	140	1890	333	0.00	51.5
Crystal 095RR	248	319.5	99	7458	104	1.21	47.48	98	1111	103	17.18	23.24	202	1968	342	0.00	63.8
Crystal 101RR	206	315.5	97	7589	106	1.33	46.45	96	1120	104	17.09	23.91	275	2165	350	0.00	62.8
Crystal 102RR	250	328.7	101	6359	89	1.13	49.81	103	972	90	17.56	19.12	172	1844	314	0.00	31.8
Crystal 103RR	231	301.3	93	7158	100	1.18	42.83	88	1021	95	16.24	23.66	265	1964	298	0.00	40.0
Crystal 104RR	245	313.5	97	7167	100	1.08	45.94	95	1056	98	16.76	22.69	210	1822	275	0.00	63.4
Crystal 105RR	204	311.4	96	5754	80	1.38	45.38	93	843	78	16.93	18.41	292	2077	412	0.00	27.7
Crystal 106RR	211	345.3	107	7014	98	1.05	54.05	111	1101	102	18.33	20.21	167	1692	302	0.00	65.6
Crystal 981RR	235	325.6	101	8342	117	1.25	49.02	101	1260	117	17.53	25.49	277	2031	335	0.00	69.7
Crystal 986RR	252	332.1	103	7192	101	1.06	50.70	104	1105	103	17.67	21.47	205	1730	284	0.00	48.8
Hilleshög 9236RR	219	333.2	103	7385	103	1.12	50.98	105	1132	105	17.78	22.06	203	1796	308	0.00	59.4
Hilleshög 9237RR	226	321.5	99	6108	85	1.08	47.98	99	914	85	17.17	18.94	272	1674	301	0.00	58.7
Hilleshög 9238RR	249	322.0	99	6876	96	1.26	48.11	99	1029	96	17.35	21.26	242	1934	375	0.00	58.5
Hilleshög 9300RR	205	310.1	96	7207	101	1.16	45.09	93	1050	98	16.65	23.13	290	1893	285	0.00	64.3
Hilleshög 9301RR	237	317.9	98	7096	99	1.19	47.06	97	1053	98	17.09	22.26	262	1941	310	0.00	61.6
Hilleshög 9302RR	228	335.5	104	7527	105	1.08	51.55	106	1158	108	17.86	22.36	198	1802	281	0.00	64.7
Hilleshög 9303RR	240	336.6	104	7782	109	1.07	51.84	107	1200	112	17.92	23.01	189	1758	290	0.00	58.8
Hilleshög 9304RR	247	309.3	96	5985	84	1.37	44.88	92	872	81	16.83	19.18	208	2198	399	0.00	67.9
Hilleshög 9305RR	220	322.6	100	7161	100	1.22	48.27	99	1075	100	17.34	22.13	273	1956	323	0.00	63.5
Hilleshög 9306RR	230	307.0	95	6946	97	1.17	44.28	91	1003	93	16.51	22.58	217	1938	307	0.00	65.7
Maribo 100RR	214	324.6	100	7308	102	1.22	48.79	100	1099	102	17.46	22.44	287	1945	327	0.00	63.1
Maribo 101RR	225	321.3	99	6882	96	1.35	47.92	99	1029	96	17.39	21.36	305	2114	370	0.00	52.7
Maribo 102RR	242	337.2	104	8387	117	1.00	52.00	107	1297	121	17.88	24.75	174	1666	267	0.00	70.4
Maribo 103RR	236	313.2	97	7228	101	1.17	45.85	94	1060	99	16.82	23.01	282	1946	287	0.00	67.4
Maribo 104RR	229	336.0	104	6360	89	1.12	51.67	106	981	91	17.92	18.82	227	1784	306	0.00	62.1
Maribo 105RR	234	316.3	98	7369	103	1.17	46.65	96	1090	101	16.97	23.24	249	1909	307	0.00	62.7
Seedex SX0806RR	202	309.0	95	7236	101	1.13	44.80	92	1053	98	16.58	23.29	223	1887	290	0.00	61.4
Seedex SX0808RR	224	317.7	98	7069	99	1.09	47.02	97	1048	97	16.98	22.20	216	1823	283	0.00	59.8
Seedex SX0814RR	246	321.6	99	7503	105	1.12	48.01	99	1122	104	17.20	23.29	230	1875	282	0.06	61.9
Seedex SX0815RR	208	326.0	101	7086	99	1.06	49.13	101	1071	100	17.36	21.68	191	1780	274	0.00	56.4
Seedex SX0816RR	232	331.2	102	7352	103	1.05	50.45	104	1123	104	17.63	22.07	175	1842	255	0.00	60.1
Seedex Vision RR(SX0891)	238	329.9	102	7197	101	1.06	50.14	103	1097	102	17.57	21.68	164	1874	259	0.00	57.9
SESVanderhave H36072RR	215	332.8	103	7019	98	1.07	50.86	105	1077	100	17.72	21.00	177	1853	270	0.00	54.7
SESVanderhave H36175RR	221	325.8	101	7417	104	1.04	49.09	101	1122	104	17.34	22.61	198	1796	250	0.00	62.9
SESVanderhave H36176RR	209	322.4	100	7147	100	1.11	48.22	99	1072	100	17.23	22.07	197	1853	289	0.00	61.1
SESVanderhave H36177RR	213	327.4	101	7413	104	1.09	49.49	102	1124	104	17.47	22.56	188	1878	274	0.00	59.7
SESVanderhave H36178RR	239	313.9	97	7068	99	1.15	46.04	95	1039	96	16.84	22.45	231	1906	297	0.00	61.1
SESVanderhave H36179RR	218	324.4	100	7097	99	1.07	48.74	100	1065	99	17.31	21.86	199	1847	269	0.00	62.4
SESVanderhave H36917RR	244	324.0	100	7248	101	1.12	48.61	100	1091	101	17.31	22.26	188	1928	276	0.00	55.2
SESVanderhave H36918RR	207	327.1	101	6948	97	1.08	49.42	102	1056	98	17.45	21.07	177	1865	273	0.00	59.5
Beta 85RR02(Check)	253	321.9	99	6744	94	1.22	48.11	99	1008	94	17.32	20.89	230	2031	321	0.00	66.6
Crystal 539RR(Check)	254	313.6	97	6746	94	1.28	45.97	95	988	92	16.94	21.53	367	1968	337	0.00	62.4
Crystal 658RR(Check)	255	304.2	94	7111	99	1.05	43.59	90	1021	95	16.27	23.28	207	1800	256	0.00	65.8
Hilleshög 4012RR(Check)	256	321.2	99	7337	103	1.19	47.89	99	1097	102	17.24	22.79	278	1911	309	0.00	62.2
Trial Mean		323.9		7153		1.15	48.58		1076		17.34	21.99	218	1888	309	0.0	59.1
Coeff. of Var. (%)		2.9		6.2		6.3	4.9		7.3		2.5	5.7	20.5	4.8	11.4		10.3
Mean LSD (0.05)		8.4		453		0.06	2.13		78		0.40	1.31	43	85	34		5.9
Mean LSD (0.01)		11.0		598		0.09	2.82		103		0.52	1.73	56	113	45		7.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 11/01/2011 12:43

Created 11-1-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11expMo

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

**Table 23. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Glyndon MN - All Characters - Severe Fusarium, Moderate Aph, Mod-Severe Rzm**

<b>Adjusted to Comm. Trial Status</b>	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	309.4	109	4369	127	1.36	45.61	119	625	135	16.78	14.37	402	1999	384	0.00	52.0
BTS 80RR32	217	304.9	108	5135	149	1.49	44.35	115	716	155	16.70	17.38	559	2183	365	0.00	57.1
BTS 80RR52	203	348.7	123	5972	174	1.45	56.58	147	920	199	18.84	17.91	250	2285	429	0.00	54.8
BTS 81RR11	241	320.6	113	5774	168	1.37	48.73	127	854	184	17.35	18.31	480	2064	337	0.00	56.3
BTS 81RR17	212	320.2	113	7173	208	1.67	48.61	127	1051	227	17.66	22.92	387	2422	519	0.00	58.2
BTS 81RR23	233	313.0	110	4113	120	1.31	46.59	121	590	127	16.93	13.41	352	1950	372	0.00	54.9
BTS 81RR41	222	318.8	112	4031	117	1.40	48.22	126	597	129	17.30	12.77	432	2033	385	0.00	51.6
BTS 81RR63	201	330.0	116	5637	164	1.42	51.34	134	854	184	17.87	17.30	378	2174	388	0.00	48.5
BTS 81RR78	251	310.1	109	4823	140	1.38	45.79	119	683	148	16.84	16.07	335	2128	384	0.00	63.1
BTS 81RR81	227	276.3	97	3513	102	1.72	36.33	95	448	97	15.52	13.02	750	2123	495	0.00	59.1
BTS 89RR10	243	248.3	88	2414	70	1.99	28.55	74	284	61	14.44	9.52	784	2676	545	0.00	55.3
Crystal 091RR	210	301.5	106	5360	156	1.70	43.39	113	741	160	16.78	18.22	439	2458	514	0.00	46.5
Crystal 093RR	216	308.7	109	4256	124	1.56	45.42	118	608	131	16.97	14.07	383	2359	446	0.00	52.3
Crystal 095RR	248	291.1	103	4066	118	1.68	40.50	105	546	118	16.22	14.31	509	2267	515	0.00	52.2
Crystal 101RR	206	303.7	107	5604	163	1.66	44.01	115	774	167	16.84	19.06	565	2511	410	0.00	57.9
Crystal 102RR	250	303.5	107	3610	105	1.35	43.96	114	503	109	16.50	12.20	466	1839	394	0.00	39.5
Crystal 103RR	231	282.7	100	5322	155	1.55	38.15	99	693	150	15.68	19.27	582	2231	393	0.00	43.2
Crystal 104RR	245	308.0	109	4855	141	1.29	45.21	118	692	150	16.65	16.07	413	2116	292	0.00	52.7
Crystal 105RR	204	300.2	106	3639	106	1.73	43.02	112	504	109	16.73	12.47	519	2421	514	0.00	35.9
Crystal 106RR	211	315.1	111	5215	152	1.38	47.19	123	762	164	17.09	16.79	492	1908	391	0.00	65.0
Crystal 981RR	235	314.0	111	6667	194	1.68	46.87	122	963	208	17.36	21.64	557	2407	457	0.00	60.8
Crystal 986RR	252	269.2	95	1854	54	1.66	34.36	89	227	49	15.10	7.15	652	2219	449	0.00	43.8
Hilleshög 9236RR	219	264.5	93	1930	56	1.80	33.03	86	255	55	15.03	6.92	692	2197	556	0.00	50.9
Hilleshög 9237RR	226	268.2	95	1733	50	1.69	34.10	89	220	47	15.10	6.47	730	2045	501	0.00	51.2
Hilleshög 9238RR	249	289.2	102	3003	87	1.80	39.96	104	387	84	16.25	11.01	612	2411	533	0.00	51.9
Hilleshög 9300RR	205	223.1	79	3134	91	1.73	21.47	56	369	80	12.93	12.29	958	2090	436	0.00	61.3
Hilleshög 9301RR	237	246.1	87	2530	74	1.78	27.92	73	277	60	14.11	10.56	902	2226	453	0.00	50.8
Hilleshög 9302RR	228	290.9	103	3862	112	1.55	40.42	105	525	113	16.07	13.41	487	2201	439	0.00	63.7
Hilleshög 9303RR	240	286.0	101	1622	47	1.63	39.06	102	198	43	15.91	6.29	584	2142	484	0.00	61.2
Hilleshög 9304RR	247	299.4	106	3687	107	1.68	42.82	111	501	108	16.64	12.82	384	2548	492	0.00	58.5
Hilleshög 9305RR	220	253.4	89	2652	77	1.93	29.96	78	301	65	14.61	10.80	1028	2088	556	0.00	46.9
Hilleshög 9306RR	230	245.7	87	580	17	1.87	27.80	72	37	8	14.16	3.21	609	2347	610	0.00	54.4
Maribo 100RR	214	260.8	92	2972	86	1.84	32.04	83	351	76	14.90	11.74	916	2237	496	0.00	60.0
Maribo 101RR	225	266.9	94	2220	64	1.95	33.71	88	272	59	15.33	8.46	782	2469	573	0.00	44.9
Maribo 102RR	242	282.0	99	2411	70	1.58	37.94	99	320	69	15.66	8.63	593	1993	474	0.00	60.6
Maribo 103RR	236	249.2	88	3379	98	1.63	28.77	75	396	86	14.07	13.39	777	2048	433	0.00	66.0
Maribo 104RR	229	319.5	113	3327	97	1.53	48.43	126	506	109	17.46	10.26	519	2057	445	0.00	53.5
Maribo 105RR	234	269.5	95	2845	83	1.74	34.45	90	350	76	15.24	10.85	640	2368	486	0.00	57.0
Seedex SX0806RR	202	284.7	100	2696	78	1.49	38.69	101	362	78	15.70	9.59	475	2188	398	0.00	55.9
Seedex SX0808RR	224	260.7	92	2775	81	1.68	31.98	83	338	73	14.72	10.65	687	2179	471	0.00	59.5
Seedex SX0814RR	246	266.7	94	2797	81	1.59	33.65	88	347	75	14.94	10.60	633	2029	459	0.00	54.8
Seedex SX0815RR	208	280.4	99	2876	84	1.62	37.51	98	375	81	15.61	10.43	533	2211	470	0.00	53.2
Seedex SX0816RR	232	283.2	100	2129	62	1.67	38.29	100	289	62	15.82	7.47	539	2414	453	0.00	47.9
Seedex Vision RR(SX0891)	238	269.0	95	2198	64	1.62	34.32	89	275	59	15.07	8.23	530	2279	455	0.00	53.5
SESVanderhave H36072RR	215	256.8	91	1840	53	1.84	30.90	80	210	45	14.70	7.54	662	2390	547	0.00	56.8
SESVanderhave H36175RR	221	255.6	90	2525	73	1.69	30.56	80	300	65	14.48	9.93	734	2226	449	0.00	56.1
SESVanderhave H36176RR	209	284.6	100	2687	78	1.45	38.67	101	347	75	15.67	9.81	403	2112	421	0.00	60.5
SESVanderhave H36177RR	213	247.1	87	2534	74	1.76	28.20	73	276	60	14.12	10.64	694	2153	545	0.00	55.5
SESVanderhave H36178RR	239	294.1	104	2873	83	1.52	41.31	108	375	81	16.20	10.40	475	2297	397	0.00	50.5
SESVanderhave H36179RR	218	282.9	100	2827	82	1.52	38.20	99	365	79	15.65	10.34	489	2129	435	0.00	60.0
SESVanderhave H36917RR	244	276.0	97	2657	77	1.58	36.28	94	339	73	15.37	9.76	591	2142	439	0.00	49.3
SESVanderhave H36918RR	207	275.8	97	2558	74	1.69	36.22	94	337	73	15.49	9.15	664	2257	472	0.00	52.7
Beta 85RR02(Check)	253	244.9	86	2398	70	1.85	27.58	72	291	63	14.12	9.24	829	2449	473	0.00	61.5
Crystal 539RR(Check)	254	301.2	106	3552	103	1.56	43.32	113	499	108	16.59	11.96	688	2208	364	0.00	54.3
Crystal 658RR(Check)	255	290.6	102	4529	132	1.31	40.35	105	607	131	15.81	15.98	478	1934	335	0.00	53.5
Hilleshög 4012RR(Check)	256	218.5	77	992	29	1.99	20.23	53	107	23	12.96	4.20	932	2394	562	0.00	46.3
Trial Mean		283.6		3442		1.63	38.41		463		15.80	12.09	588	2219	455	0.0	54.2
Coeff. of Var. (%)		6.5		16.5		8.2	13.4		19.1		5.1	16.0	19.7	5.1	12.3		12.6
Mean LSD (0.05)		29.4		920		0.21	8.20		143		1.28	3.10	183	176	87		10.4
Mean LSD (0.01)		38.8		1216		0.27	10.84		190		1.69	4.10	241	233	115		13.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Glyndon MN

Analyzed 10/15/2011 14:44

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118302

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.



**Table 24. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Halstad MN - All Characters - Severe RZM**

<b>Adjusted to Comm. Trial Status</b>	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	343.1	102	7356	105	1.06	53.66	103	1150	107	18.24	21.47	157	1844	283	0.00	48.4
BTS 80RR32	217	327.8	97	7818	112	1.14	49.71	95	1187	110	17.55	23.79	253	1992	266	0.00	55.4
BTS 80RR52	203	341.5	101	7249	104	1.26	53.24	102	1126	104	18.34	21.32	157	2047	373	0.00	53.0
BTS 81RR11	241	332.0	99	7272	104	1.13	50.80	98	1109	103	17.74	22.06	195	1970	284	0.00	52.8
BTS 81RR17	212	336.5	100	7386	106	1.37	51.96	100	1138	105	18.19	22.00	193	2191	412	0.00	51.4
BTS 81RR23	233	348.9	104	6837	98	1.04	55.16	106	1078	100	18.50	19.65	131	1817	284	0.00	54.5
BTS 81RR41	222	357.3	106	7039	101	1.15	57.31	110	1124	104	19.01	19.86	148	1846	354	0.00	49.5
BTS 81RR63	201	344.6	102	7095	101	1.26	54.05	104	1113	103	18.49	20.63	188	2103	343	0.00	46.6
BTS 81RR78	251	343.7	102	7241	103	1.16	53.82	103	1131	105	18.36	21.16	138	1958	338	0.00	54.4
BTS 81RR81	227	334.6	99	6998	100	1.33	51.48	99	1081	100	18.07	20.76	218	2034	411	0.00	42.2
BTS 89RR10	243	358.8	106	6513	93	1.20	57.73	111	1049	97	19.17	18.13	180	2149	305	0.00	50.2
Crystal 091RR	210	337.4	100	7380	105	1.33	52.18	100	1140	106	18.20	21.87	162	2114	410	0.00	37.9
Crystal 093RR	216	344.2	102	7181	103	1.20	53.96	104	1122	104	18.42	20.87	146	2052	346	0.00	44.3
Crystal 095RR	248	321.8	95	7193	103	1.32	48.16	92	1073	99	17.40	22.51	201	2161	381	0.00	57.9
Crystal 101RR	206	334.5	99	7353	105	1.37	51.45	99	1129	105	18.10	21.93	253	2322	361	0.00	55.4
Crystal 102RR	250	345.7	103	5998	86	1.08	54.33	104	951	88	18.39	17.15	159	1854	292	0.00	28.5
Crystal 103RR	231	316.5	94	6519	93	1.19	46.80	90	962	89	17.02	20.67	237	2068	292	0.00	32.1
Crystal 104RR	245	323.6	96	6874	98	1.10	48.63	93	1030	95	17.28	21.41	217	1916	274	0.00	57.4
Crystal 105RR	204	305.6	91	4943	71	1.60	43.97	84	708	66	16.87	16.37	367	2262	508	0.00	24.0
Crystal 106RR	211	361.0	107	6730	96	1.09	58.27	112	1088	101	19.15	18.62	166	1765	322	0.00	66.2
Crystal 981RR	235	336.6	100	7777	111	1.33	51.99	100	1198	111	18.15	23.25	277	2219	346	0.00	67.2
Crystal 986RR	252	337.9	100	6669	95	1.10	52.32	100	1029	95	18.01	19.82	216	1773	310	0.00	40.2
Hilleshög 9236RR	219	347.7	103	7566	108	1.20	54.85	105	1190	110	18.60	21.83	217	1957	341	0.00	52.4
Hilleshög 9237RR	226	337.8	100	6177	88	1.11	52.28	100	950	88	18.00	18.49	230	1797	306	0.00	47.4
Hilleshög 9238RR	249	332.9	99	7010	100	1.27	51.02	98	1072	99	17.92	20.95	249	2054	346	0.00	52.3
Hilleshög 9300RR	205	312.4	93	6468	92	1.27	45.72	88	943	87	16.88	20.87	332	2050	316	0.00	57.8
Hilleshög 9301RR	237	337.1	100	7068	101	1.23	52.12	100	1093	101	18.10	20.97	252	2035	320	0.00	47.6
Hilleshög 9302RR	228	353.5	105	7270	104	1.09	56.34	108	1158	107	18.79	20.54	175	1975	267	0.00	50.7
Hilleshög 9303RR	240	354.5	105	7727	110	1.10	56.61	109	1236	115	18.87	21.66	168	1878	290	0.00	47.3
Hilleshög 9304RR	247	328.5	97	6102	87	1.42	49.89	96	929	86	17.86	18.47	179	2378	403	0.00	60.3
Hilleshög 9305RR	220	333.8	99	6990	100	1.31	51.26	98	1071	99	17.98	21.11	279	2105	351	0.00	55.6
Hilleshög 9306RR	230	323.6	96	7114	102	1.23	48.63	93	1067	99	17.42	22.02	208	2062	331	0.00	60.1
Maribo 100RR	214	338.2	100	6933	99	1.28	52.39	101	1071	99	18.20	20.49	271	2105	342	0.00	61.4
Maribo 101RR	225	334.3	99	6881	98	1.43	51.39	99	1053	98	18.14	20.73	320	2280	387	0.00	45.6
Maribo 102RR	242	350.5	104	8877	127	1.04	55.58	107	1414	131	18.59	25.16	170	1767	279	0.00	66.2
Maribo 103RR	236	324.1	96	7247	104	1.28	48.75	94	1088	101	17.47	22.48	324	2080	321	0.00	61.2
Maribo 104RR	229	357.4	106	6143	88	1.12	57.36	110	978	91	18.99	17.48	200	1850	319	0.00	51.7
Maribo 105RR	234	334.4	99	7246	104	1.18	51.42	99	1114	103	17.92	21.65	219	2059	296	0.00	51.8
Seedex SX0806RR	202	313.3	93	6686	96	1.16	45.97	88	981	91	16.82	21.32	228	1989	294	0.00	52.5
Seedex SX0808RR	224	336.1	100	7224	103	1.11	51.86	100	1111	103	17.93	21.53	200	1921	284	0.00	50.2
Seedex SX0814RR	246	336.7	100	7380	105	1.14	52.01	100	1134	105	17.97	22.12	191	1975	296	0.00	60.8
Seedex SX0815RR	208	341.3	101	6489	93	1.10	53.20	102	1010	94	18.18	19.09	177	1955	273	0.00	32.8
Seedex SX0816RR	232	339.0	101	7241	104	1.11	52.60	101	1127	104	18.10	21.29	209	1965	258	0.00	59.5
Seedex Vision RR(SX0891)	238	340.6	101	6505	93	1.15	53.00	102	1008	93	18.19	19.24	180	2077	287	0.00	43.6
SESVanderhave H36072RR	215	346.6	103	6638	95	1.16	54.58	105	1044	97	18.50	19.25	169	2056	300	0.00	39.4
SESVanderhave H36175RR	221	334.1	99	7343	105	1.07	51.33	99	1129	105	17.78	21.96	231	1864	256	0.00	59.8
SESVanderhave H36176RR	209	333.5	99	7224	103	1.16	51.17	98	1109	103	17.85	21.67	223	1971	300	0.00	52.1
SESVanderhave H36177RR	213	346.4	103	7439	106	1.17	54.54	105	1168	108	18.50	21.58	191	2019	307	0.00	47.8
SESVanderhave H36178RR	239	335.1	99	7231	103	1.21	51.61	99	1107	103	17.97	21.78	235	2021	320	0.00	47.4
SESVanderhave H36179RR	218	330.9	98	6728	96	1.17	50.53	97	1022	95	17.73	20.35	207	2073	291	0.00	55.8
SESVanderhave H36917RR	244	342.0	101	6952	99	1.18	53.36	102	1086	101	18.31	20.26	182	2088	297	0.00	45.5
SESVanderhave H36918RR	207	344.3	102	6699	96	1.13	53.98	104	1053	98	18.37	19.40	131	2052	289	0.00	45.8
Beta 85RR02(Check)	253	332.8	99	6424	92	1.21	51.00	98	982	91	17.86	19.33	189	2204	297	0.00	58.1
Crystal 539RR(Check)	254	329.1	98	6475	93	1.36	50.04	96	984	91	17.81	19.69	337	2135	364	0.00	52.2
Crystal 658RR(Check)	255	318.9	95	7441	106	1.08	47.42	91	1103	102	17.04	23.42	203	1879	265	0.00	65.7
Hilleshög 4012RR(Check)	256	336.5	100	7433	106	1.21	51.95	100	1145	106	18.05	22.14	248	2005	316	0.00	65.4
Trial Mean		337.0		6996		1.20	52.09		1079		18.06	20.81	212	2020	321	0.0	51.3
Coeff. of Var. (%)		3.2		6.0		6.5	5.3		7.3		2.8	5.2	22.7	4.9	10.6		13.8
Mean LSD (0.05)		16.1		658		0.12	4.17		123		0.75	1.71	72	153	54		10.8
Mean LSD (0.01)		21.3		869		0.16	5.50		162		1.00	2.26	95	203	72		14.3
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Halstad MN

Analyzed 10/15/2011 16:25

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118303

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 25. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
 Buxton ND - All Characters - Light RZM

Adjusted to Comm. Trial Status Description @	Rec/T Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %^	Emerg. %^
BTS 80RR12	223	330.9	105	8698	108	1.31	50.76	108	1341	112	17.79	26.33	216	2362	318	0.00	63.0
BTS 80RR32	217	308.2	97	8839	109	1.45	44.50	95	1283	107	16.83	28.39	360	2599	300	0.00	57.3
BTS 80RR52	203	330.0	104	8274	102	1.38	50.50	108	1278	106	17.83	24.90	202	2481	345	0.00	62.6
BTS 81RR11	241	330.4	104	8476	105	1.24	50.62	108	1307	109	17.68	25.48	211	2278	287	0.00	65.6
BTS 81RR17	212	302.5	96	7913	98	1.57	42.96	92	1121	93	16.70	26.69	243	2716	425	0.00	61.3
BTS 81RR23	233	347.3	110	8766	108	1.12	55.24	118	1410	117	18.38	25.13	128	2274	241	0.00	63.0
BTS 81RR41	222	332.4	105	7968	99	1.32	51.17	109	1235	103	17.88	24.05	245	2290	346	0.00	54.7
BTS 81RR63	201	322.4	102	7572	94	1.43	48.43	104	1145	95	17.52	23.46	249	2537	352	0.00	50.9
BTS 81RR78	251	331.7	105	8521	105	1.28	50.97	109	1319	110	17.80	25.65	189	2296	319	0.00	67.3
BTS 81RR81	227	301.5	95	8307	103	1.70	42.69	91	1173	98	16.80	27.68	338	2732	471	0.00	53.6
BTS 89RR10	243	323.2	102	7050	87	1.57	48.64	104	1064	89	17.71	21.75	267	2843	384	0.00	57.3
Crystal 091RR	210	317.9	100	8372	104	1.57	47.18	101	1242	103	17.45	26.51	181	2739	438	0.00	48.1
Crystal 093RR	216	329.0	104	8547	106	1.35	50.24	107	1310	109	17.74	26.20	183	2443	350	0.00	50.6
Crystal 095RR	248	301.2	95	8394	104	1.58	42.61	91	1203	100	16.65	27.63	299	2696	406	0.00	65.4
Crystal 101RR	206	300.2	95	8790	109	1.69	42.31	90	1247	104	16.71	29.23	317	3047	391	0.00	57.9
Crystal 102RR	250	316.1	100	7285	90	1.47	46.69	100	1077	90	17.25	22.96	298	2512	369	0.00	35.7
Crystal 103RR	231	276.2	87	7248	90	1.56	35.73	76	924	77	15.36	26.90	408	2819	311	0.00	37.2
Crystal 104RR	245	301.5	95	8341	103	1.49	42.70	91	1193	99	16.54	27.79	275	2685	351	0.00	60.3
Crystal 105RR	204	297.1	94	6535	81	1.68	41.50	89	912	76	16.56	22.14	359	2754	444	0.00	37.2
Crystal 106RR	211	335.5	106	7927	98	1.33	52.00	111	1244	104	18.04	23.57	246	2210	369	0.00	59.2
Crystal 981RR	235	308.2	97	9095	113	1.58	44.50	95	1326	110	16.99	29.40	313	2878	356	0.00	63.0
Crystal 986RR	252	322.7	102	8108	100	1.33	48.52	104	1226	102	17.41	25.26	260	2353	324	0.00	44.5
Hilleshög 9236RR	219	328.7	104	8297	103	1.37	50.16	107	1271	106	17.76	25.28	220	2499	331	0.00	66.2
Hilleshög 9237RR	226	316.0	100	7070	87	1.37	46.66	100	1051	88	17.12	22.36	277	2378	327	0.00	65.8
Hilleshög 9238RR	249	320.1	101	8115	100	1.50	47.78	102	1217	101	17.48	25.60	274	2627	382	0.00	68.4
Hilleshög 9300RR	205	306.1	97	7811	97	1.43	43.93	94	1130	94	16.70	25.63	288	2589	322	0.00	72.2
Hilleshög 9301RR	237	313.3	99	8551	106	1.38	45.92	98	1254	104	17.00	27.35	277	2573	289	0.00	61.8
Hilleshög 9302RR	228	327.3	103	8042	99	1.31	49.80	106	1229	102	17.62	24.55	192	2539	287	0.00	65.6
Hilleshög 9303RR	240	326.5	103	8666	107	1.31	49.56	106	1323	110	17.57	26.61	228	2384	302	0.00	73.9
Hilleshög 9304RR	247	304.9	96	6938	86	1.58	43.62	93	997	83	16.83	22.74	239	2898	382	0.00	70.3
Hilleshög 9305RR	220	325.1	103	8418	104	1.37	49.17	105	1279	107	17.58	25.89	287	2536	295	0.00	65.6
Hilleshög 9306RR	230	302.0	95	7639	94	1.47	42.80	91	1082	90	16.53	25.67	280	2583	358	0.00	66.0
Maribo 100RR	214	301.1	95	8068	100	1.49	42.57	91	1135	95	16.52	27.25	412	2665	301	0.00	69.0
Maribo 101RR	225	328.5	104	8278	102	1.50	50.11	107	1267	106	17.90	25.02	289	2649	360	0.00	63.3
Maribo 102RR	242	338.9	107	9540	118	1.17	52.96	113	1507	126	18.03	28.11	166	2261	264	0.00	77.6
Maribo 103RR	236	301.2	95	7771	96	1.46	42.61	91	1100	92	16.51	25.84	330	2701	302	0.00	74.6
Maribo 104RR	229	330.7	104	7126	88	1.39	50.71	108	1093	91	17.87	21.52	289	2418	333	0.00	63.0
Maribo 105RR	234	290.6	92	7732	96	1.51	39.68	85	1067	89	16.03	26.53	321	2652	352	0.00	65.6
Seedex SX0806RR	202	303.5	96	8106	100	1.40	43.24	92	1166	97	16.54	26.39	265	2560	307	0.00	66.0
Seedex SX0808RR	224	323.9	102	8485	105	1.24	48.82	104	1288	107	17.35	26.26	227	2394	251	0.00	74.4
Seedex SX0814RR	246	320.4	101	8187	101	1.32	47.88	102	1230	102	17.29	25.57	246	2508	283	0.00	63.3
Seedex SX0815RR	208	319.2	101	7862	97	1.40	47.56	102	1174	98	17.32	24.65	210	2589	328	0.00	67.7
Seedex SX0816RR	232	311.9	99	7669	95	1.49	45.54	97	1123	94	17.06	24.61	278	2653	349	0.00	59.0
Seedex Vision RR(SX0891)	238	324.7	103	8297	103	1.32	49.07	105	1263	105	17.52	25.39	219	2562	277	0.00	66.5
SESVanderhave H36072RR	215	320.4	101	8347	103	1.33	47.87	102	1251	104	17.30	26.13	196	2565	299	0.00	52.1
SESVanderhave H36175RR	221	313.1	99	8082	100	1.38	45.88	98	1199	100	17.00	25.71	229	2576	307	0.00	67.3
SESVanderhave H36176RR	209	309.5	98	8036	99	1.33	44.88	96	1163	97	16.77	25.88	223	2525	292	0.00	64.8
SESVanderhave H36177RR	213	319.1	101	8266	102	1.45	47.52	102	1240	103	17.37	25.71	209	2624	363	0.00	57.1
SESVanderhave H36178RR	239	314.0	99	8046	100	1.31	46.11	99	1187	99	16.95	25.57	256	2504	263	0.00	56.0
SESVanderhave H36179RR	218	316.2	100	8055	100	1.36	46.72	100	1200	100	17.13	25.35	236	2585	295	0.00	65.0
SESVanderhave H36917RR	244	320.3	101	8263	102	1.30	47.84	102	1237	103	17.25	25.92	223	2479	278	0.00	63.0
SESVanderhave H36918RR	207	340.1	107	8406	104	1.20	53.29	114	1323	110	18.12	24.75	195	2374	241	0.00	67.1
Beta 85RR02(Check)	253	320.6	101	8043	99	1.57	47.94	102	1207	101	17.57	25.13	299	2624	416	0.00	59.8
Crystal 539RR(Check)	254	310.5	98	7253	90	1.50	45.14	96	1055	88	17.01	23.35	331	2701	334	0.00	73.1
Crystal 658RR(Check)	255	304.0	96	8191	101	1.33	43.36	93	1166	97	16.48	27.21	261	2450	296	0.00	60.5
Hilleshög 4012RR(Check)	256	303.5	96	8006	99	1.46	43.25	92	1146	96	16.61	26.43	366	2548	319	0.00	61.8
Trial Mean		316.5		8084		1.41	46.79		1200		17.21	25.59	261	2559	332	0.0	61.6
Coeff. of Var. (%)		4.2		5.6		7.6	7.7		8.4		3.2	4.9	27.9	5.3	13.0		13.4
Mean LSD (0.05)		21.4		727		0.18	5.88		163		0.90	2.02	119	221	70		11.5
Mean LSD (0.01)		28.3		960		0.23	7.77		216		1.20	2.67	157	293	93		15.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Buxton ND

Analyzed 10/18/2011 22:38

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118304

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 26. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Crookston E MN - All Characters - Moderate RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	342.3	102	8658	106	1.04	53.40	104	1352	108	18.21	25.21	159	1620	323	0.00	64.4
BTS 80RR32	217	328.3	98	9061	111	1.11	49.80	97	1374	110	17.55	27.62	230	1766	304	0.00	59.6
BTS 80RR52	203	341.3	102	8478	104	1.22	53.12	104	1317	105	18.31	24.95	176	1782	427	0.00	68.2
BTS 81RR11	241	332.6	100	8877	109	1.12	50.91	99	1361	109	17.76	26.77	244	1748	319	0.00	68.4
BTS 81RR17	212	329.1	98	8318	102	1.37	50.00	97	1264	101	17.85	25.18	205	1968	479	0.00	55.7
BTS 81RR23	233	342.3	102	8207	100	1.08	53.39	104	1281	102	18.23	23.90	186	1692	327	0.00	66.9
BTS 81RR41	222	355.5	106	8298	102	1.09	56.79	111	1324	106	18.91	23.41	190	1562	370	0.00	60.2
BTS 81RR63	201	344.8	103	7555	92	1.22	54.02	105	1181	94	18.49	22.02	206	1899	377	0.00	54.4
BTS 81RR78	251	355.7	106	8571	105	1.12	56.82	111	1365	109	18.94	24.18	148	1632	382	0.00	63.8
BTS 81RR81	227	335.9	101	7616	93	1.26	51.74	101	1170	93	18.07	22.84	206	1805	441	0.00	61.7
BTS 89RR10	243	345.1	103	7458	91	1.26	54.12	105	1170	93	18.53	21.72	242	1931	388	0.00	62.7
Crystal 091RR	210	339.8	102	8578	105	1.28	52.76	103	1332	106	18.27	25.29	188	1874	427	0.00	51.5
Crystal 093RR	216	357.6	107	8948	110	1.15	57.29	112	1430	114	19.08	25.03	124	1754	386	0.00	58.3
Crystal 095RR	248	337.2	101	8577	105	1.23	52.09	102	1323	105	18.12	25.50	204	1803	415	0.00	64.8
Crystal 101RR	206	318.7	95	8948	110	1.41	47.33	92	1328	106	17.33	28.15	312	2072	437	0.00	64.9
Crystal 102RR	250	327.8	98	7059	86	1.17	49.68	97	1075	86	17.58	21.35	179	1754	386	0.00	31.7
Crystal 103RR	231	304.1	91	8243	101	1.30	43.62	85	1187	95	16.49	27.08	303	1926	391	0.00	41.2
Crystal 104RR	245	329.7	99	8806	108	1.06	50.18	98	1340	107	17.58	26.66	202	1602	329	0.00	67.1
Crystal 105RR	204	327.2	98	6329	77	1.42	49.54	97	962	77	17.76	19.33	261	1986	488	0.00	26.8
Crystal 106RR	211	352.0	105	7849	96	1.07	55.87	109	1248	100	18.69	22.28	163	1563	355	0.00	67.5
Crystal 981RR	235	341.0	102	9604	118	1.31	53.06	103	1494	119	18.36	28.24	286	1938	402	0.00	70.8
Crystal 986RR	252	352.2	105	8492	104	1.06	55.92	109	1359	108	18.70	23.90	197	1641	323	0.00	48.8
Hilleshög 9236RR	219	352.7	106	8481	104	1.11	56.07	109	1348	107	18.76	24.11	206	1639	340	0.00	62.9
Hilleshög 9237RR	226	330.5	99	6960	85	1.09	50.37	98	1063	85	17.64	21.02	287	1615	318	0.00	63.4
Hilleshög 9238RR	249	334.1	100	7786	95	1.32	51.27	100	1197	95	18.02	23.35	246	1821	457	0.00	62.0
Hilleshög 9300RR	205	318.1	95	8228	101	1.16	47.18	92	1225	98	17.06	25.80	283	1814	310	0.00	71.7
Hilleshög 9301RR	237	318.9	95	8184	100	1.29	47.42	92	1214	97	17.25	25.72	302	1905	386	0.00	68.8
Hilleshög 9302RR	228	348.7	104	8812	108	1.11	55.03	107	1390	111	18.56	25.27	188	1681	343	0.00	69.4
Hilleshög 9303RR	240	355.4	106	8477	104	1.07	56.74	111	1354	108	18.86	23.92	183	1647	329	0.00	60.9
Hilleshög 9304RR	247	311.1	93	7033	86	1.47	45.41	89	1023	82	17.00	22.73	228	2105	507	0.00	73.7
Hilleshög 9305RR	220	331.1	99	8122	99	1.22	50.52	98	1238	99	17.79	24.57	271	1827	365	0.00	68.3
Hilleshög 9306RR	230	313.7	94	7888	97	1.20	46.08	90	1159	92	16.89	25.21	237	1819	363	0.00	69.2
Maribo 100RR	214	334.4	100	8499	104	1.24	51.36	100	1302	104	17.96	25.62	307	1803	376	0.00	63.4
Maribo 101RR	225	325.3	97	7843	96	1.45	49.04	96	1179	94	17.70	24.29	361	2034	461	0.00	56.9
Maribo 102RR	242	347.0	104	9079	111	0.99	54.58	106	1430	114	18.36	26.28	181	1535	303	0.00	71.4
Maribo 103RR	236	317.8	95	8025	98	1.18	47.13	92	1192	95	17.08	25.20	293	1853	318	0.00	72.1
Maribo 104RR	229	349.8	105	7395	91	1.14	55.29	108	1164	93	18.67	21.20	241	1657	364	0.00	67.5
Maribo 105RR	234	321.0	96	8643	106	1.23	47.94	93	1293	103	17.27	26.96	299	1706	395	0.00	63.2
Seedex SX0806RR	202	318.5	95	8233	101	1.14	47.29	92	1220	97	17.08	25.94	216	1782	333	0.00	68.0
Seedex SX0808RR	224	317.2	95	7301	89	1.19	46.96	92	1085	86	17.06	22.96	258	1821	355	0.00	62.8
Seedex SX0814RR	246	330.1	99	8305	102	1.16	50.28	98	1268	101	17.69	25.11	291	1782	332	0.00	65.4
Seedex SX0815RR	208	332.9	100	8014	98	1.06	50.99	99	1231	98	17.74	24.05	202	1640	327	0.00	66.4
Seedex SX0816RR	232	342.0	102	8388	103	1.03	53.29	104	1304	104	18.17	24.63	154	1709	292	0.00	63.1
Seedex Vision RR(SX0891)	238	339.0	101	8600	105	1.08	52.55	102	1335	106	18.06	25.34	167	1759	313	0.00	67.9
SESVanderhave H36072RR	215	342.0	102	7989	98	1.05	53.31	104	1246	99	18.19	23.40	195	1689	301	0.00	64.9
SESVanderhave H36175RR	221	339.2	101	8396	103	1.04	52.61	103	1305	104	18.02	24.72	182	1707	285	0.00	63.4
SESVanderhave H36176RR	209	328.2	98	8223	101	1.17	49.78	97	1250	100	17.57	25.14	210	1821	345	0.00	62.8
SESVanderhave H36177RR	213	335.5	100	7910	97	1.11	51.67	101	1222	97	17.90	23.54	204	1805	303	0.00	63.2
SESVanderhave H36178RR	239	320.2	96	8007	98	1.16	47.72	93	1197	95	17.19	24.92	253	1738	347	0.00	63.3
SESVanderhave H36179RR	218	345.3	103	7937	97	1.03	54.17	106	1247	99	18.33	22.98	185	1663	290	0.00	62.0
SESVanderhave H36917RR	244	331.2	99	8213	101	1.11	50.53	99	1255	100	17.68	24.77	184	1831	303	0.00	62.1
SESVanderhave H36918RR	207	340.8	102	8066	99	1.06	53.00	103	1261	101	18.14	23.44	181	1757	294	0.00	64.0
Beta 85RR02(Check)	253	336.5	101	7917	97	1.29	51.90	101	1219	97	18.11	23.65	238	1898	404	0.00	70.8
Crystal 539RR(Check)	254	314.2	94	7549	92	1.35	46.20	90	1106	88	17.04	24.18	475	1771	402	0.00	66.5
Crystal 658RR(Check)	255	311.2	93	8092	99	1.08	45.44	89	1183	94	16.66	25.97	223	1705	305	0.00	68.6
Hilleshög 4012RR(Check)	256	339.2	101	8290	101	1.19	52.60	103	1292	103	18.16	24.35	252	1829	351	0.00	60.7
Trial Mean		334.2		8168		1.18	51.30		1254		17.90	24.48	228	1777	362	0.0	62.7
Coeff. of Var. (%)		2.8		5.7		6.3	4.6		6.5		2.4	5.5	18.9	4.8	10.4		6.8
Mean LSD (0.05)		14.1		698		0.11	3.62		121		0.67	2.09	65	131	57		6.4
Mean LSD (0.01)		18.7		921		0.15	4.78		159		0.88	2.76	86	173	75		8.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Crookston E MN

Analyzed 10/17/2011 12:03

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118305

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

**Table 27. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Crookston MN - All Characters - Moderate RZM**

<b>Adjusted to Comm. Trial Status</b>	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	334.3	104	8340	100	0.90	51.13	106	1266	102	17.65	24.99	148	1398	252	0.00	62.0
BTS 80RR32	217	322.1	100	9502	114	1.04	48.09	100	1409	114	17.15	29.53	296	1493	295	0.00	64.6
BTS 80RR52	203	324.7	101	8845	106	1.13	48.73	101	1319	106	17.37	27.25	225	1501	397	0.21	65.3
BTS 81RR11	241	320.6	99	8672	104	0.98	47.71	99	1281	103	17.03	27.09	250	1477	273	0.00	68.2
BTS 81RR17	212	320.9	100	8559	102	1.17	47.79	99	1266	102	17.21	26.68	203	1633	395	0.00	54.6
BTS 81RR23	233	321.8	100	8067	97	1.00	47.99	100	1197	97	17.10	25.04	199	1503	300	0.00	67.4
BTS 81RR41	222	336.2	104	8352	100	1.05	51.60	107	1274	103	17.87	24.84	223	1474	335	0.00	59.4
BTS 81RR63	201	333.4	103	7967	95	1.08	50.89	106	1207	97	17.76	23.96	216	1544	335	0.00	52.9
BTS 81RR78	251	321.5	100	8551	102	1.07	47.92	100	1268	102	17.14	26.59	230	1498	341	0.00	65.7
BTS 81RR81	227	324.2	101	8333	100	1.17	48.59	101	1242	100	17.36	25.70	248	1631	376	0.00	59.5
BTS 89RR10	243	343.0	106	7392	88	1.05	53.27	111	1141	92	18.21	21.56	238	1526	309	0.00	66.9
Crystal 091RR	210	322.2	100	8895	106	1.17	48.12	100	1319	107	17.27	27.63	238	1569	399	0.00	51.0
Crystal 093RR	216	336.7	104	8551	102	1.07	51.72	107	1304	105	17.92	25.43	174	1551	345	0.00	51.4
Crystal 095RR	248	323.8	100	8613	103	1.10	48.49	101	1281	103	17.28	26.62	245	1581	336	0.00	66.7
Crystal 101RR	206	316.8	98	8742	105	1.25	46.76	97	1282	104	17.06	27.59	343	1768	370	0.00	65.0
Crystal 102RR	250	333.6	103	8140	97	1.05	50.93	106	1235	100	17.74	24.39	203	1577	307	0.00	38.5
Crystal 103RR	231	300.2	93	8897	107	1.00	42.64	89	1253	101	16.03	29.68	316	1495	262	0.00	48.4
Crystal 104RR	245	311.9	97	8273	99	1.04	45.55	95	1200	97	16.63	26.54	284	1489	305	0.00	60.4
Crystal 105RR	204	316.9	98	7595	91	1.17	46.79	97	1113	90	17.01	23.99	328	1670	350	0.00	31.3
Crystal 106RR	211	343.4	107	8588	103	0.98	53.39	111	1328	107	18.17	24.99	207	1436	289	0.00	66.1
Crystal 981RR	235	328.9	102	9760	117	1.08	49.77	103	1466	118	17.54	29.74	293	1539	322	0.00	68.5
Crystal 986RR	252	335.0	104	8827	106	0.93	51.29	107	1344	109	17.71	26.33	236	1385	265	0.00	52.3
Hilleshög 9236RR	219	325.6	101	8081	97	1.02	48.95	102	1207	97	17.32	24.85	223	1507	311	0.00	57.3
Hilleshög 9237RR	226	319.3	99	7071	85	1.02	47.39	98	1043	84	17.01	22.10	335	1364	322	0.00	62.7
Hilleshög 9238RR	249	318.2	99	7751	93	1.25	47.12	98	1140	92	17.14	24.38	287	1660	420	0.00	55.9
Hilleshög 9300RR	205	316.6	98	8685	104	1.07	46.73	97	1273	103	16.91	27.43	310	1592	288	0.00	62.3
Hilleshög 9301RR	237	316.3	98	8165	98	1.09	46.64	97	1196	97	16.90	25.84	276	1678	291	0.00	61.9
Hilleshög 9302RR	228	323.2	100	8344	100	1.02	48.38	100	1239	100	17.19	25.85	291	1440	303	0.00	67.8
Hilleshög 9303RR	240	328.7	102	9293	111	1.02	49.74	103	1397	113	17.48	28.27	256	1473	303	0.00	63.8
Hilleshög 9304RR	247	305.8	95	6803	81	1.27	44.01	91	973	79	16.53	22.22	254	1761	419	0.00	68.3
Hilleshög 9305RR	220	321.8	100	8415	101	1.13	48.00	100	1247	101	17.20	26.18	313	1638	318	0.00	69.4
Hilleshög 9306RR	230	300.5	93	8116	97	1.07	42.69	89	1146	93	16.08	27.01	249	1633	300	0.00	68.6
Maribo 100RR	214	317.7	99	8272	99	1.18	46.99	98	1214	98	17.04	26.09	346	1654	341	0.00	63.7
Maribo 101RR	225	323.7	100	7951	95	1.20	48.48	101	1184	96	17.37	24.52	304	1767	352	0.00	53.3
Maribo 102RR	242	331.7	103	9014	108	0.93	50.48	105	1361	110	17.55	27.21	202	1402	272	0.00	66.7
Maribo 103RR	236	321.5	100	8408	101	1.02	47.93	100	1245	101	17.10	26.18	243	1590	269	0.00	67.7
Maribo 104RR	229	329.1	102	7492	90	1.04	49.81	103	1127	91	17.50	22.79	297	1470	306	0.00	64.3
Maribo 105RR	234	313.3	97	8333	100	1.06	45.90	95	1212	98	16.72	26.62	275	1609	289	0.00	67.1
Seedex SX0806RR	202	307.0	95	9005	108	1.10	44.32	92	1291	104	16.44	29.37	293	1615	316	0.00	64.7
Seedex SX0808RR	224	318.0	99	8274	99	0.95	47.08	98	1216	98	16.87	26.04	219	1392	278	0.00	65.0
Seedex SX0814RR	246	316.6	98	9001	108	1.04	46.70	97	1321	107	16.86	28.42	260	1567	288	0.21	63.3
Seedex SX0815RR	208	324.5	101	8282	99	0.93	48.70	101	1235	100	17.18	25.50	218	1402	265	0.00	66.4
Seedex SX0816RR	232	333.9	104	8382	100	0.92	51.02	106	1271	103	17.65	25.18	204	1460	247	0.00	58.2
Seedex Vision RR(SX0891)	238	332.8	103	8670	104	0.95	50.77	105	1314	106	17.61	26.05	177	1499	253	0.00	59.9
SESVanderhave H36072RR	215	328.4	102	8367	100	0.97	49.66	103	1258	102	17.41	25.46	210	1438	284	0.00	59.8
SESVanderhave H36175RR	221	325.4	101	8440	101	0.96	48.91	102	1259	102	17.24	25.97	218	1414	270	0.00	68.7
SESVanderhave H36176RR	209	321.3	100	8188	98	1.00	47.89	99	1212	98	17.07	25.49	195	1475	298	0.00	64.1
SESVanderhave H36177RR	213	321.6	100	8770	105	0.96	47.97	100	1299	105	17.07	27.29	200	1483	266	0.00	66.7
SESVanderhave H36178RR	239	310.8	96	8238	99	1.02	45.26	94	1193	96	16.57	26.52	239	1575	282	0.00	63.8
SESVanderhave H36179RR	218	321.1	100	8254	99	0.96	47.83	99	1221	99	17.03	25.76	220	1468	271	0.00	65.6
SESVanderhave H36917RR	244	322.9	100	8467	101	1.01	48.26	100	1256	101	17.17	26.29	225	1534	278	0.00	54.3
SESVanderhave H36918RR	207	326.4	101	8141	97	0.98	49.16	102	1220	98	17.32	24.89	200	1455	285	0.00	69.2
Beta 85RR02(Check)	253	316.7	98	7515	90	1.15	46.76	97	1102	89	16.98	23.74	296	1640	343	0.00	70.7
Crystal 539RR(Check)	254	318.2	99	7766	93	1.17	47.12	98	1141	92	17.07	24.45	396	1590	350	0.00	61.9
Crystal 658RR(Check)	255	303.6	94	7983	96	0.95	43.49	90	1137	92	16.14	26.29	232	1499	238	0.00	66.1
Hilleshög 4012RR(Check)	256	315.9	98	8359	100	1.14	46.54	97	1223	99	16.91	26.48	383	1598	320	0.00	60.4
<b>Trial Mean</b>		<b>322.3</b>		<b>8353</b>		<b>1.06</b>	<b>48.14</b>		<b>1239</b>		<b>17.17</b>	<b>25.95</b>	<b>253</b>	<b>1537</b>	<b>311</b>	<b>0.0</b>	<b>61.7</b>
<b>Coeff. of Var. (%)</b>		<b>2.6</b>		<b>6.0</b>		<b>7.3</b>	<b>4.4</b>		<b>7.0</b>		<b>2.3</b>	<b>5.5</b>	<b>17.8</b>	<b>5.9</b>	<b>13.1</b>		<b>9.5</b>
<b>Mean LSD (0.05)</b>		<b>12.7</b>		<b>752</b>		<b>0.11</b>	<b>3.15</b>		<b>129</b>		<b>0.58</b>	<b>2.12</b>	<b>69</b>	<b>135</b>	<b>59</b>		<b>8.2</b>
<b>Mean LSD (0.01)</b>		<b>16.7</b>		<b>992</b>		<b>0.15</b>	<b>4.17</b>		<b>170</b>		<b>0.77</b>	<b>2.80</b>	<b>91</b>	<b>178</b>	<b>78</b>		<b>10.8</b>
<b>Sig Lvl</b>		<b>**</b>		<b>**</b>		<b>**</b>	<b>**</b>		<b>**</b>		<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>	<b>**</b>		<b>**</b>

\* 2011 Data from Crookston MN

Analyzed 10/17/2011 12:05

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118306

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 28. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Grand Forks ND - All Characters - Light RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	304.0	102	6455	100	1.19	43.33	104	920	102	16.39	21.23	369	1751	322	0.00	65.1
BTS 80RR32	217	295.4	99	6335	98	1.22	41.16	99	880	97	16.01	21.50	510	1770	291	0.00	58.4
BTS 80RR52	203	294.9	99	5920	92	1.28	41.01	99	821	91	16.04	20.13	411	1848	353	0.00	64.5
BTS 81RR11	241	295.5	99	6805	105	1.16	41.20	99	948	105	15.96	22.97	447	1789	265	0.00	70.7
BTS 81RR17	212	283.4	95	6119	95	1.50	38.09	92	825	91	15.66	21.51	495	2076	424	0.00	66.5
BTS 81RR23	233	308.1	104	6280	97	1.12	44.41	107	906	100	16.55	20.35	323	1772	282	0.00	60.3
BTS 81RR41	222	311.5	105	6592	102	1.25	45.26	109	958	106	16.83	21.14	422	1785	338	0.00	65.8
BTS 81RR63	201	307.9	104	6348	98	1.23	44.36	107	915	101	16.64	20.56	420	1730	340	0.00	59.8
BTS 81RR78	251	311.4	105	6680	103	1.20	45.22	109	971	108	16.78	21.41	333	1820	328	0.00	67.5
BTS 81RR81	227	288.1	97	6798	105	1.45	39.29	94	926	103	15.84	23.61	529	1966	400	0.00	63.7
BTS 89RR10	243	292.3	98	5036	78	1.38	40.34	97	695	77	16.00	17.22	600	2005	322	0.00	72.6
Crystal 091RR	210	301.5	101	6307	98	1.35	42.72	103	894	99	16.42	20.88	386	1993	375	0.00	55.5
Crystal 093RR	216	305.7	103	6700	104	1.27	43.79	105	961	106	16.57	21.82	337	1836	369	0.00	54.7
Crystal 095RR	248	286.7	96	5909	92	1.27	38.94	94	803	89	15.61	20.57	452	1816	337	0.00	65.6
Crystal 101RR	206	288.5	97	6798	105	1.45	39.38	95	929	103	15.86	23.54	501	2146	371	0.00	68.3
Crystal 102RR	250	297.9	100	5898	91	1.25	41.79	100	829	92	16.15	19.75	373	1887	330	0.00	38.9
Crystal 103RR	231	264.2	89	6457	100	1.37	33.18	80	811	90	14.56	24.43	625	2025	301	0.00	48.8
Crystal 104RR	245	286.8	97	6329	98	1.21	38.96	94	863	95	15.55	21.98	482	1844	275	0.00	59.8
Crystal 105RR	204	280.2	94	5578	86	1.39	37.26	90	739	82	15.40	19.99	566	1947	353	0.00	35.8
Crystal 106RR	211	326.7	110	6480	100	1.11	49.13	118	978	108	17.45	19.75	330	1674	296	0.00	67.7
Crystal 981RR	235	284.7	96	6768	105	1.46	38.43	92	915	101	15.69	23.66	592	1974	381	0.00	71.5
Crystal 986RR	252	323.2	109	6842	106	1.10	48.24	116	1023	113	17.27	21.12	384	1665	273	0.00	57.8
Hilleshög 9236RR	219	305.9	103	5833	90	1.27	43.83	105	837	93	16.58	19.04	415	1862	340	0.00	66.0
Hilleshög 9237RR	226	305.1	103	6300	98	1.12	43.63	105	903	100	16.38	20.59	430	1617	290	0.00	68.1
Hilleshög 9238RR	249	298.8	101	5778	89	1.40	42.02	101	814	90	16.34	19.28	468	1970	385	0.00	67.2
Hilleshög 9300RR	205	297.9	100	6857	106	1.22	41.79	100	962	106	16.12	23.00	481	1921	262	0.00	72.7
Hilleshög 9301RR	237	294.8	99	6994	108	1.32	41.00	99	973	108	16.05	23.67	496	1966	312	0.00	70.7
Hilleshög 9302RR	228	313.0	105	6573	102	1.13	45.67	110	963	107	16.78	20.89	354	1750	284	0.00	72.2
Hilleshög 9303RR	240	306.1	103	6321	98	1.22	43.86	105	907	100	16.53	20.62	399	1829	313	0.00	65.4
Hilleshög 9304RR	247	273.8	92	5864	91	1.60	35.63	86	765	85	15.26	21.37	470	2226	469	0.00	73.8
Hilleshög 9305RR	220	273.4	92	6084	94	1.41	35.54	85	787	87	15.08	22.33	762	1874	319	0.00	63.2
Hilleshög 9306RR	230	287.1	97	5958	92	1.23	39.04	94	810	90	15.59	20.73	420	1845	308	0.00	61.9
Maribo 100RR	214	282.9	95	6019	93	1.42	37.97	91	808	89	15.56	21.26	744	1937	320	0.00	66.3
Maribo 101RR	225	286.4	96	6848	106	1.42	38.86	93	929	103	15.73	23.89	686	1924	337	0.00	64.8
Maribo 102RR	242	310.1	104	7936	123	1.08	44.90	108	1150	127	16.60	25.56	328	1625	286	0.00	68.6
Maribo 103RR	236	289.6	97	6798	105	1.28	39.67	95	933	103	15.77	23.38	531	1939	290	0.00	65.4
Maribo 104RR	229	314.8	106	5228	81	1.17	46.09	111	767	85	16.93	16.59	396	1696	317	0.00	62.1
Maribo 105RR	234	280.5	94	6317	98	1.32	37.37	90	842	93	15.35	22.49	523	1916	321	0.00	72.6
Seedex SX0806RR	202	293.1	99	6983	108	1.18	40.58	98	969	107	15.85	23.71	406	1789	291	0.00	68.8
Seedex SX0808RR	224	303.6	102	6816	106	1.14	43.24	104	971	108	16.34	22.39	403	1773	264	0.00	71.5
Seedex SX0814RR	246	296.8	100	6896	107	1.19	41.52	100	964	107	16.05	23.23	385	1840	290	0.00	69.5
Seedex SX0815RR	208	306.0	103	6876	106	1.11	43.85	105	985	109	16.42	22.47	334	1802	261	0.00	68.8
Seedex SX0816RR	232	307.3	103	6953	108	1.20	44.21	106	1001	111	16.58	22.57	374	1897	292	0.00	60.4
Seedex Vision RR(SX0891)	238	310.4	104	7226	112	1.10	44.98	108	1049	116	16.63	23.24	328	1825	251	0.00	60.5
SESVanderhave H36072RR	215	306.4	103	6919	107	1.15	43.97	106	992	110	16.48	22.60	349	1842	278	0.00	72.4
SESVanderhave H36175RR	221	299.2	101	6668	103	1.16	42.12	101	938	104	16.14	22.25	398	1842	265	0.00	61.1
SESVanderhave H36176RR	209	292.3	98	6481	100	1.26	40.37	97	893	99	15.88	22.21	439	1900	313	0.00	59.0
SESVanderhave H36177RR	213	300.9	101	6695	104	1.20	42.55	102	948	105	16.25	22.18	392	1791	317	0.00	68.6
SESVanderhave H36178RR	239	283.9	96	6723	104	1.23	38.22	92	906	100	15.44	23.62	516	1817	289	0.00	75.5
SESVanderhave H36179RR	218	300.3	101	6232	97	1.10	42.41	102	881	98	16.14	20.69	378	1706	267	0.00	74.7
SESVanderhave H36917RR	244	304.5	102	6843	106	1.13	43.48	105	979	108	16.38	22.40	343	1818	267	0.00	66.6
SESVanderhave H36918RR	207	310.9	105	6708	104	1.08	45.11	108	975	108	16.64	21.51	297	1819	242	0.00	67.5
Beta 85RR02(Check)	253	305.7	103	6378	99	1.33	43.78	105	914	101	16.61	20.84	454	1906	351	0.00	70.6
Crystal 539RR(Check)	254	287.2	97	5815	90	1.41	39.05	94	793	88	15.76	20.16	656	1891	354	0.00	62.5
Crystal 658RR(Check)	255	280.6	94	6307	98	1.16	37.39	90	840	93	15.20	22.44	393	1810	274	0.00	63.8
Hilleshög 4012RR(Check)	256	292.5	98	6917	107	1.35	40.42	97	954	106	15.97	23.68	599	1918	312	0.00	67.0
Trial Mean		297.2		6457		1.25	41.60		903		16.12	21.71	451	1857	315	0.0	64.8
Coeff. of Var. (%)		3.3		4.4		5.6	6.0		6.2		2.7	4.1	15.8	3.8	10.0		13.1
Mean LSD (0.05)		15.2		451		0.11	3.89		89		0.69	1.40	111	112	50		12.6
Mean LSD (0.01)		20.1		596		0.15	5.14		117		0.91	1.85	147	148	66		16.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Grand Forks ND

Analyzed 10/17/2011 12:48

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118307

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 29. 2011 Performance of Varieties - ACSC Experimental RR Official Trial

## Angus MN - All Characters - Light RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	291.1	103	5328	101	0.99	40.11	106	729	104	15.52	17.96	143	1738	267	0.00	67.5
BTS 80RR32	217	271.5	96	5683	108	1.10	34.88	92	733	104	14.67	20.98	288	1746	284	0.00	57.8
BTS 80RR52	203	276.8	98	5496	105	1.28	36.30	96	723	103	15.14	19.80	214	1961	390	0.00	54.4
BTS 81RR11	241	279.6	99	5437	104	0.99	37.05	98	717	102	14.97	19.31	226	1711	238	0.00	68.7
BTS 81RR17	212	266.5	94	5358	102	1.34	33.54	88	669	95	14.67	19.97	215	1996	426	0.00	62.4
BTS 81RR23	233	289.8	102	5262	100	1.02	39.75	105	722	103	15.49	17.85	170	1652	290	0.00	71.5
BTS 81RR41	222	298.9	106	5253	100	1.09	42.20	111	742	105	16.03	17.56	189	1718	320	0.00	61.0
BTS 81RR63	201	294.2	104	5113	97	1.11	40.97	108	711	101	15.82	17.56	192	1813	308	0.00	47.0
BTS 81RR78	251	291.6	103	5685	108	1.10	40.25	106	787	112	15.67	19.48	166	1781	321	0.00	72.4
BTS 81RR81	227	275.2	97	5229	100	1.33	35.90	95	683	97	15.11	18.97	263	2014	400	0.00	53.0
BTS 89RR10	243	297.2	105	4782	91	1.14	41.75	110	673	96	16.00	16.08	232	1925	287	0.00	68.4
Crystal 091RR	210	291.0	103	5769	110	1.19	40.08	106	793	113	15.73	19.91	203	1875	359	0.00	56.4
Crystal 093RR	216	287.2	102	5606	107	1.14	39.09	103	766	109	15.51	19.19	168	1927	324	0.00	51.0
Crystal 095RR	248	279.7	99	5739	109	1.15	37.08	98	763	108	15.15	20.52	195	1803	347	0.00	65.2
Crystal 101RR	206	280.7	99	6103	116	1.31	37.35	98	808	115	15.34	21.66	250	2159	360	0.00	64.7
Crystal 102RR	250	279.2	99	5034	96	1.12	36.94	97	668	95	15.09	17.95	195	1830	317	0.00	41.3
Crystal 103RR	231	248.9	88	5045	96	1.23	28.86	76	586	83	13.69	20.15	345	1927	322	0.00	44.2
Crystal 104RR	245	272.6	96	5691	108	1.08	35.17	93	722	103	14.68	20.90	211	1847	278	0.00	55.0
Crystal 105RR	204	270.9	96	4144	79	1.28	34.73	92	533	76	14.84	15.23	240	2036	364	0.00	26.5
Crystal 106RR	211	301.5	107	5400	103	1.10	42.92	113	769	109	16.18	17.90	234	1650	328	0.00	64.7
Crystal 981RR	235	280.7	99	6345	121	1.31	37.36	98	834	118	15.34	22.90	302	2141	347	0.00	69.8
Crystal 986RR	252	291.4	103	5417	103	1.10	40.20	106	754	107	15.68	18.37	218	1753	302	0.00	48.7
Hilleshög 9236RR	219	289.0	102	5201	99	1.11	39.56	104	716	102	15.57	17.78	194	1773	321	0.00	64.4
Hilleshög 9237RR	226	275.0	97	4175	79	1.11	35.83	94	547	78	14.87	15.01	255	1638	326	0.00	54.4
Hilleshög 9238RR	249	283.0	100	5125	98	1.20	37.95	100	691	98	15.37	17.90	205	1905	355	0.00	64.7
Hilleshög 9300RR	205	284.4	101	4999	95	1.07	38.33	101	674	96	15.29	17.58	278	1855	241	0.00	71.5
Hilleshög 9301RR	237	284.2	100	4890	93	1.11	38.26	101	658	93	15.31	17.35	289	1820	278	0.00	67.0
Hilleshög 9302RR	228	289.5	102	4763	91	1.02	39.68	105	651	92	15.48	16.18	216	1713	266	0.00	66.4
Hilleshög 9303RR	240	288.4	102	5399	103	1.09	39.41	104	744	106	15.51	18.76	198	1735	309	0.00	65.8
Hilleshög 9304RR	247	261.5	92	4583	87	1.31	32.23	85	559	79	14.39	17.60	225	2146	377	0.00	73.2
Hilleshög 9305RR	220	278.7	98	5094	97	1.20	36.81	97	675	96	15.14	18.39	350	1813	326	0.00	63.8
Hilleshög 9306RR	230	269.4	95	5074	97	1.10	34.31	90	647	92	14.57	18.68	254	1773	288	0.00	69.2
Maribo 100RR	214	275.4	97	5350	102	1.17	35.94	95	696	99	14.95	19.58	297	1848	309	0.00	65.5
Maribo 101RR	225	275.5	97	4730	90	1.27	35.96	95	620	88	15.07	17.04	335	1897	350	0.00	67.0
Maribo 102RR	242	299.2	106	6259	119	0.92	42.29	111	888	126	15.88	20.76	174	1613	236	0.00	64.1
Maribo 103RR	236	280.9	99	4971	95	1.09	37.40	99	660	94	15.13	17.81	281	1836	265	0.00	62.4
Maribo 104RR	229	303.2	107	4872	93	1.05	43.34	114	693	98	16.17	16.06	181	1714	297	0.00	67.8
Maribo 105RR	234	277.3	98	5068	96	1.10	36.42	96	666	95	14.96	18.21	250	1787	284	0.00	67.5
Seedex SX0806RR	202	285.4	101	5769	110	1.00	38.60	102	777	110	15.26	20.33	183	1668	269	0.00	67.2
Seedex SX0808RR	224	280.3	99	5272	100	0.99	37.25	98	702	100	15.01	18.84	191	1762	240	0.00	69.0
Seedex SX0814RR	246	269.0	95	5078	97	1.15	34.21	90	638	91	14.60	19.00	272	1833	313	0.00	62.4
Seedex SX0815RR	208	297.4	105	5471	104	0.95	41.80	110	765	109	15.80	18.31	172	1582	260	0.00	60.4
Seedex SX0816RR	232	296.4	105	5131	98	1.04	41.53	109	721	102	15.86	17.40	167	1835	264	0.00	55.8
Seedex Vision RR(SX0891)	238	288.1	102	5376	102	1.02	39.33	104	737	105	15.43	18.66	186	1754	263	0.00	64.1
SESVanderhave H36072RR	215	283.5	100	5368	102	1.07	38.09	100	727	103	15.26	18.98	195	1873	269	0.00	65.2
SESVanderhave H36175RR	221	291.2	103	5101	97	1.01	40.13	106	706	100	15.56	17.32	171	1763	259	0.00	66.4
SESVanderhave H36176RR	209	286.1	101	5616	107	1.01	38.79	102	758	108	15.31	19.92	192	1682	273	0.00	71.5
SESVanderhave H36177RR	213	287.5	102	5434	103	1.06	39.17	103	738	105	15.43	19.01	204	1773	285	0.00	68.1
SESVanderhave H36178RR	239	277.9	98	4883	93	1.11	36.59	96	646	92	15.01	17.57	234	1875	282	0.00	70.9
SESVanderhave H36179RR	218	289.0	102	5171	98	1.00	39.54	104	711	101	15.45	17.87	191	1665	273	0.00	62.7
SESVanderhave H36917RR	244	292.5	103	5295	101	1.06	40.50	107	735	104	15.67	18.15	181	1821	276	0.00	63.0
SESVanderhave H36918RR	207	288.6	102	5152	98	1.07	39.47	104	704	100	15.49	17.84	183	1879	272	0.00	56.7
Beta 85RR02(Check)	253	291.9	103	5615	107	1.18	40.34	106	779	111	15.79	19.16	236	1893	333	0.00	62.1
Crystal 539RR(Check)	254	272.2	96	4973	95	1.25	35.06	92	637	91	14.85	18.31	334	1932	333	0.00	61.0
Crystal 658RR(Check)	255	263.7	93	4760	91	1.03	32.78	86	590	84	14.21	17.98	217	1782	255	0.00	67.2
Hilleshög 4012RR(Check)	256	274.5	97	5215	99	1.11	35.69	94	680	97	14.83	19.09	341	1686	288	0.00	65.2
Trial Mean		283.0		5252		1.12	37.95		704		15.27	18.54	227	1820	304	0.0	62.2
Coeff. of Var. (%)		2.5		5.5		5.8	5.0		6.9		2.1	4.9	13.0	5.3	10.6		13.5
Mean LSD (0.05)		13.4		517		0.12	3.58		88		0.61	1.69	54	170	58		13.6
Mean LSD (0.01)		17.7		685		0.16	4.74		117		0.80	2.24	72	226	77		18.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Angus MN

Analyzed 10/17/2011 12:54

Created 10-18-2011.

^ Vigor not collected. Bolter &amp; emergence not adjusted to commercial status.

Trial # = 118308

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 30. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Grafton ND - All Characters - Moderate RZM

Adjusted to Comm. Trial Status	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	310.4	103	5127	102	1.05	45.06	105	741	104	16.58	16.62	147	1998	231	0.00	65.4
BTS 80RR32	217	294.8	97	5567	111	1.12	41.01	95	770	108	15.87	19.05	191	2187	219	0.00	53.5
BTS 80RR52	203	297.6	98	4435	89	1.18	41.74	97	624	88	16.06	14.88	142	2201	279	0.00	65.8
BTS 81RR11	241	299.4	99	5316	106	1.09	42.21	98	757	106	16.07	17.52	174	2143	213	0.00	61.7
BTS 81RR17	212	300.0	99	4366	87	1.25	42.38	99	622	87	16.26	14.36	141	2352	296	0.00	61.0
BTS 81RR23	233	313.2	104	4844	97	1.05	45.76	106	705	99	16.73	15.53	139	2015	231	0.00	59.1
BTS 81RR41	222	321.9	106	4999	100	1.15	48.03	112	745	105	17.25	15.62	150	2085	281	0.00	51.4
BTS 81RR63	201	317.2	105	4413	88	1.19	46.81	109	651	91	17.06	13.94	156	2284	258	0.00	54.6
BTS 81RR78	251	306.9	101	5539	111	1.19	44.13	103	798	112	16.54	18.05	171	2242	267	0.00	66.7
BTS 81RR81	227	296.3	98	4007	80	1.20	41.39	96	556	78	16.01	13.63	145	2328	255	0.00	47.9
BTS 89RR10	243	313.9	104	4539	91	1.26	45.98	107	657	92	16.97	14.71	190	2506	243	0.00	58.7
Crystal 091RR	210	296.2	98	5112	102	1.30	41.38	96	715	101	16.12	17.20	151	2434	313	0.00	42.2
Crystal 093RR	216	305.1	101	4467	89	1.17	43.68	102	635	89	16.43	14.80	120	2237	262	0.00	52.5
Crystal 095RR	248	294.1	97	5481	109	1.19	40.83	95	761	107	15.90	18.64	167	2362	232	0.00	67.2
Crystal 101RR	206	293.7	97	5364	107	1.25	40.74	95	747	105	15.94	18.17	185	2508	235	0.00	66.1
Crystal 102RR	250	309.7	102	4357	87	1.20	44.89	104	635	89	16.69	13.95	161	2212	283	0.00	29.0
Crystal 103RR	231	286.7	95	4731	94	1.22	38.94	91	643	90	15.55	16.52	194	2368	245	0.00	36.7
Crystal 104RR	245	291.5	96	4818	96	1.15	40.16	93	673	95	15.72	16.23	147	2328	210	0.00	69.7
Crystal 105RR	204	298.1	99	4187	84	1.26	41.88	97	596	84	16.16	13.86	184	2399	272	0.00	28.5
Crystal 106RR	211	324.4	107	4751	95	1.08	48.66	113	710	100	17.31	14.72	137	2031	249	0.00	62.3
Crystal 981RR	235	294.5	97	5900	118	1.30	40.94	95	820	115	16.02	20.03	242	2443	276	0.00	72.3
Crystal 986RR	252	298.7	99	4605	92	1.12	42.04	98	645	91	16.07	15.53	178	2164	230	0.00	53.9
Hilleshög 9236RR	219	306.8	101	5224	104	1.09	44.13	103	753	106	16.43	17.00	162	2054	240	0.00	63.9
Hilleshög 9237RR	226	298.2	99	4355	87	1.10	41.89	97	612	86	16.03	14.58	244	1913	272	0.00	60.5
Hilleshög 9238RR	249	301.0	100	4854	97	1.20	42.61	99	683	96	16.25	16.27	186	2209	280	0.00	65.4
Hilleshög 9300RR	205	293.9	97	5484	109	1.12	40.80	95	760	107	15.83	18.66	215	2112	237	0.00	65.0
Hilleshög 9301RR	237	301.6	100	5005	100	1.14	42.77	99	708	100	16.23	16.64	209	2139	241	0.00	69.5
Hilleshög 9302RR	228	318.1	105	5628	112	1.10	47.04	109	831	117	17.02	17.73	151	2148	225	0.00	70.0
Hilleshög 9303RR	240	310.4	103	5765	115	1.06	45.06	105	840	118	16.59	18.44	168	2019	225	0.00	64.7
Hilleshög 9304RR	247	298.9	99	3907	78	1.27	42.09	98	561	79	16.22	12.79	160	2542	251	0.00	68.9
Hilleshög 9305RR	220	303.2	100	4932	98	1.23	43.20	100	699	98	16.39	16.41	232	2287	265	0.00	61.4
Hilleshög 9306RR	230	293.7	97	4646	93	1.15	40.73	95	648	91	15.83	15.72	174	2262	218	0.00	65.7
Maribo 100RR	214	309.0	102	5113	102	1.19	44.71	104	737	104	16.65	16.69	220	2213	260	0.00	64.5
Maribo 101RR	225	302.7	100	4790	96	1.25	43.06	100	683	96	16.39	15.79	211	2363	269	0.00	55.5
Maribo 102RR	242	324.3	107	6483	129	1.02	48.64	113	975	137	17.24	19.96	147	1978	209	0.00	77.6
Maribo 103RR	236	289.4	96	5272	105	1.20	39.61	92	723	102	15.67	18.15	241	2279	239	0.00	70.4
Maribo 104RR	229	306.2	101	4046	81	1.16	43.96	102	581	82	16.46	13.25	175	2190	248	0.00	64.5
Maribo 105RR	234	294.3	97	5079	101	1.18	40.90	95	704	99	15.90	17.34	199	2278	236	0.00	68.7
Seedex SX0806RR	202	301.4	100	4902	98	1.09	42.71	99	699	98	16.17	16.14	146	2167	219	0.00	61.2
Seedex SX0808RR	224	296.9	98	5530	110	1.12	41.56	97	769	108	15.98	18.77	179	2177	225	0.00	63.1
Seedex SX0814RR	246	301.2	100	5026	100	1.11	42.66	99	707	99	16.19	16.85	174	2206	211	0.00	57.9
Seedex SX0815RR	208	305.6	101	5550	111	1.14	43.82	102	794	112	16.41	18.25	180	2173	235	0.00	59.7
Seedex SX0816RR	232	309.5	102	5190	104	1.12	44.81	104	753	106	16.61	16.74	135	2253	220	0.00	58.0
Seedex Vision RR(SX0891)	238	308.1	102	4995	100	1.07	44.48	103	722	102	16.49	16.15	139	2178	198	0.00	60.9
SESVanderhave H36072RR	215	314.7	104	4957	99	1.09	46.17	107	726	102	16.85	15.82	131	2236	201	0.00	54.4
SESVanderhave H36175RR	221	303.4	100	5329	106	1.11	43.25	101	758	107	16.29	17.62	167	2236	205	0.00	60.5
SESVanderhave H36176RR	209	307.8	102	4683	93	1.09	44.37	103	677	95	16.49	15.20	150	2146	220	0.00	64.7
SESVanderhave H36177RR	213	307.3	102	5285	106	1.11	44.24	103	761	107	16.48	17.24	147	2194	222	0.00	62.7
SESVanderhave H36178RR	239	290.7	96	4749	95	1.18	39.95	93	654	92	15.71	16.29	191	2320	227	0.00	69.7
SESVanderhave H36179RR	218	300.5	99	5628	112	1.14	42.49	99	795	112	16.17	18.73	181	2213	222	0.00	66.3
SESVanderhave H36917RR	244	298.7	99	5328	106	1.17	42.04	98	746	105	16.12	17.96	174	2286	235	0.00	59.0
SESVanderhave H36918RR	207	297.1	98	5042	101	1.15	41.60	97	701	99	16.00	17.12	212	2186	229	0.00	58.3
Beta 85RR02(Check)	253	305.5	101	5292	106	1.24	43.79	102	759	107	16.51	17.28	209	2388	247	0.00	65.8
Crystal 539RR(Check)	254	294.7	97	5279	105	1.21	41.00	95	734	103	15.94	17.95	223	2393	216	0.00	71.1
Crystal 658RR(Check)	255	284.6	94	4976	99	1.09	38.39	89	672	94	15.34	17.45	172	2124	219	0.00	62.7
Hilleshög 4012RR(Check)	256	293.2	97	5246	105	1.19	40.62	94	725	102	15.85	17.95	245	2212	248	0.00	63.2
Trial Mean		302.5		5009		1.16	43.00		712		16.29	16.58	176	2230	241	0.0	60.7
Coeff. of Var. (%)		2.3		6.4		3.5	4.2		7.0		2.1	6.5	14.9	3.5	7.7		11.3
Mean LSD (0.05)		12.9		626		0.07	3.34		97		0.62	2.08	47	140	34		11.4
Mean LSD (0.01)		17.1		830		0.09	4.44		129		0.83	2.75	63	185	44		15.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from Grafton ND

Analyzed 10/17/2011 13:16

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118310

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 31. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
St Thomas ND - All Characters - Light RZM

Adjusted to Comm. Trial Status Description @	Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%^	%^
BTS 80RR12	223	261.8	104	6824	96	1.12	32.39	110	843	101	14.21	26.05	345	1695	289	0.00	65.2
BTS 80RR32	217	234.1	93	7502	106	1.28	25.07	85	798	96	12.98	32.18	636	1702	305	0.00	66.8
BTS 80RR52	203	241.8	96	6952	98	1.34	27.08	92	776	93	13.45	28.81	547	1716	386	0.00	56.7
BTS 81RR11	241	251.1	100	7927	112	1.10	29.55	100	939	113	13.67	31.29	559	1510	251	0.00	65.1
BTS 81RR17	212	239.7	96	6627	93	1.40	26.54	90	733	88	13.42	27.58	485	1870	415	0.00	56.5
BTS 81RR23	233	269.0	107	7156	101	1.14	34.29	116	914	110	14.60	26.41	391	1660	301	0.00	66.9
BTS 81RR41	222	271.3	108	7608	107	1.21	34.87	118	977	117	14.77	28.12	425	1714	321	0.00	59.4
BTS 81RR63	201	268.7	107	7286	103	1.24	34.21	116	928	111	14.68	27.20	423	1745	341	0.00	53.0
BTS 81RR78	251	259.3	103	7532	106	1.27	31.71	108	920	111	14.24	28.93	363	1774	373	0.00	69.4
BTS 81RR81	227	239.4	95	7156	101	1.38	26.48	90	788	95	13.36	29.98	558	1782	394	0.00	56.4
BTS 89RR10	243	263.6	105	6712	95	1.28	32.87	111	835	100	14.47	25.34	569	1719	325	0.00	65.6
Crystal 091RR	210	244.4	97	7376	104	1.39	27.77	94	838	101	13.62	30.32	502	1836	412	0.00	47.2
Crystal 093RR	216	262.8	105	7744	109	1.29	32.65	111	957	115	14.43	29.56	414	1790	368	0.00	50.9
Crystal 095RR	248	243.2	97	7845	111	1.31	27.44	93	883	106	13.47	32.34	544	1716	355	0.00	63.9
Crystal 101RR	206	239.9	96	7749	109	1.42	26.59	90	864	104	13.45	32.04	569	1987	370	0.00	65.8
Crystal 102RR	250	263.6	105	6125	86	1.24	32.87	111	763	92	14.42	23.19	367	1809	343	0.00	30.8
Crystal 103RR	231	218.8	87	6823	96	1.31	21.01	71	643	77	12.25	31.46	664	1762	305	0.00	37.4
Crystal 104RR	245	233.8	93	7597	107	1.27	25.00	85	809	97	12.97	32.51	595	1713	311	0.00	61.0
Crystal 105RR	204	249.2	99	6666	94	1.36	29.05	99	776	93	13.83	26.72	536	1707	404	0.00	28.0
Crystal 106RR	211	268.6	107	7327	103	1.18	34.18	116	935	112	14.62	27.17	491	1575	317	0.00	70.3
Crystal 981RR	235	233.8	93	7482	105	1.43	24.98	85	801	96	13.14	31.96	708	1804	377	0.00	64.8
Crystal 986RR	252	261.8	104	6846	96	1.16	32.37	110	844	101	14.26	26.17	517	1493	316	0.00	43.2
Hilleshög 9236RR	219	259.8	104	7027	99	1.23	31.87	108	863	104	14.23	26.92	431	1680	344	0.00	57.3
Hilleshög 9237RR	226	254.5	101	6218	88	1.15	30.45	103	746	90	13.89	24.51	519	1444	322	0.00	58.9
Hilleshög 9238RR	249	258.4	103	7236	102	1.31	31.48	107	882	106	14.24	27.96	478	1797	361	0.00	57.0
Hilleshög 9300RR	205	244.5	97	7137	101	1.20	27.79	94	816	98	13.44	29.16	651	1658	256	0.00	73.1
Hilleshög 9301RR	237	244.7	98	7068	100	1.31	27.85	94	808	97	13.57	28.76	645	1735	327	0.00	61.6
Hilleshög 9302RR	228	263.8	105	6866	97	1.12	32.92	112	857	103	14.32	25.96	469	1543	290	0.00	64.7
Hilleshög 9303RR	240	259.0	103	7422	105	1.22	31.65	107	908	109	14.17	28.59	467	1686	326	0.00	62.9
Hilleshög 9304RR	247	230.9	92	6448	91	1.42	24.21	82	673	81	12.97	27.94	528	2082	352	0.00	65.0
Hilleshög 9305RR	220	245.2	98	6888	97	1.30	27.99	95	783	94	13.56	28.20	665	1659	323	0.00	62.5
Hilleshög 9306RR	230	241.0	96	6718	95	1.20	26.91	91	749	90	13.26	27.76	575	1606	295	0.00	64.2
Maribo 100RR	214	240.1	96	6736	95	1.35	26.64	90	746	90	13.36	28.19	655	1772	338	0.00	66.7
Maribo 101RR	225	248.2	99	7021	99	1.38	28.77	98	814	98	13.81	28.29	687	1758	355	0.00	59.6
Maribo 102RR	242	265.8	106	7908	111	1.09	33.44	113	996	120	14.38	29.67	412	1555	280	0.00	64.5
Maribo 103RR	236	241.7	96	7264	102	1.28	27.05	92	812	98	13.35	30.13	759	1691	268	0.00	66.5
Maribo 104RR	229	262.4	105	6205	87	1.15	32.52	110	769	92	14.27	23.81	455	1603	295	0.00	65.4
Maribo 105RR	234	242.9	97	7538	106	1.19	27.38	93	853	102	13.34	30.86	555	1620	293	0.00	64.6
Seedex SX0806RR	202	233.5	93	6704	94	1.18	24.90	84	715	86	12.85	28.87	532	1669	275	0.00	66.1
Seedex SX0808RR	224	249.8	100	7130	100	1.14	29.21	99	834	100	13.65	28.46	488	1580	287	0.00	62.2
Seedex SX0814RR	246	260.3	104	7491	106	1.15	31.98	108	919	110	14.16	29.00	468	1513	315	0.00	62.6
Seedex SX0815RR	208	260.6	104	7205	101	1.12	32.07	109	886	106	14.16	27.67	427	1625	282	0.00	61.8
Seedex SX0816RR	232	259.9	104	6950	98	1.19	31.87	108	851	102	14.19	26.67	423	1765	297	0.00	56.8
Seedex Vision RR(SX0891)	238	268.2	107	7614	107	1.11	34.08	116	969	116	14.53	28.29	455	1576	278	0.00	58.7
SESVanderhave H36072RR	215	259.7	104	6794	96	1.15	31.84	108	836	100	14.14	26.14	432	1694	280	0.00	53.4
SESVanderhave H36175RR	221	253.6	101	7347	103	1.20	30.20	102	871	105	13.87	29.27	450	1746	296	0.00	62.0
SESVanderhave H36176RR	209	246.2	98	7463	105	1.23	28.25	96	857	103	13.54	30.47	579	1629	305	0.00	58.4
SESVanderhave H36177RR	213	254.3	101	6904	97	1.15	30.40	103	827	99	13.88	27.17	490	1618	289	0.00	68.1
SESVanderhave H36178RR	239	241.4	96	6844	96	1.19	27.02	92	761	91	13.26	28.47	526	1684	283	0.00	66.6
SESVanderhave H36179RR	218	260.0	104	7382	104	1.10	31.91	108	905	109	14.10	28.42	450	1537	279	0.00	62.2
SESVanderhave H36917RR	244	264.3	105	7660	108	1.14	33.06	112	961	115	14.37	28.91	420	1678	289	0.00	60.9
SESVanderhave H36918RR	207	247.4	99	6612	93	1.26	28.55	97	761	92	13.63	26.78	493	1778	325	0.00	65.0
Beta 85RR02(Check)	253	248.0	99	7094	100	1.31	28.73	97	825	99	13.74	28.49	611	1827	315	0.00	67.5
Crystal 539RR(Check)	254	235.5	94	6589	93	1.41	25.44	86	710	85	13.19	28.08	692	1865	349	0.00	64.5
Crystal 658RR(Check)	255	237.3	95	6694	94	1.27	25.90	88	728	87	13.12	28.29	496	1681	349	0.00	63.5
Hilleshög 4012RR(Check)	256	245.8	98	6562	92	1.26	28.14	95	746	90	13.54	26.89	675	1568	313	0.00	62.1
Trial Mean		250.9		7100		1.25	29.49		832		13.79	28.37	523	1696	322	0.0	60.4
Coeff. of Var. (%)		3.0		5.5		5.4	6.7		8.4		2.5	4.6	14.9	5.0	10.2		9.2
Mean LSD (0.05)		11.6		593		0.11	3.08		107		0.52	2.02	124	135	51		7.8
Mean LSD (0.01)		15.4		783		0.14	4.05		141		0.69	2.67	164	178	68		10.3
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from St Thomas ND

Analyzed 10/17/2011 13:04

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118309

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.



Table 32. 2011 Performance of Varieties - ACSC RR Aph Spec Yield Trial  
2 Locations - All Characters

Description @	Unadjusted		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Foliar
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%	%	Aph‡	
BTS 80RR12	410	337.0	104	7346	103	1.22	52.10	108	1129	106	18.07	22.02	206	2102	317	0.00	43.1	2.6	
BTS 80RR32	403	311.9	97	6746	95	1.51	45.51	94	975	92	17.10	21.88	381	2466	375	0.00	40.2	3.3	
BTS 80RR52	432	324.5	101	7813	110	1.42	48.82	101	1169	110	17.65	24.29	272	2331	385	0.00	43.5	2.1	
BTS 81RR11	415	320.3	99	6946	98	1.34	47.72	99	1031	97	17.35	21.81	365	2291	294	0.00	47.0	2.5	
BTS 81RR17	420	325.7	101	8193	115	1.50	49.15	102	1233	116	17.79	25.25	260	2446	420	0.00	41.7	2.1	
BTS 81RR23	421	339.4	105	7756	109	1.17	52.74	109	1205	114	18.14	22.85	215	2028	285	0.00	45.6	2.4	
BTS 81RR41	424	341.6	106	7478	105	1.35	53.33	110	1165	110	18.44	21.95	253	2209	369	0.00	41.2	3.0	
BTS 81RR63	437	329.5	102	6470	91	1.47	50.14	104	980	92	17.94	19.76	279	2402	396	0.00	35.7	3.6	
BTS 81RR78	418	336.7	104	7918	111	1.32	52.05	108	1222	115	18.15	23.56	190	2259	353	0.00	48.0	2.7	
BTS 81RR81	407	322.1	100	7221	102	1.53	48.21	100	1083	102	17.64	22.34	324	2436	424	0.00	38.6	2.7	
BTS 87RR58	428	322.3	100	7605	107	1.41	48.26	100	1141	108	17.53	23.56	270	2413	348	0.00	50.0	2.4	
BTS 88RR31	411	321.1	99	7774	109	1.48	47.92	99	1153	109	17.53	24.39	342	2436	373	0.00	56.9	1.5	
BTS 88RR61	433	325.1	101	7928	111	1.39	48.99	101	1186	112	17.65	24.62	286	2350	355	0.00	54.1	1.9	
BTS 89RR30	422	307.8	95	7662	108	1.44	44.44	92	1097	103	16.83	25.14	342	2496	329	0.00	52.3	2.0	
BTS 89RR40	430	326.0	101	7886	111	1.42	49.23	102	1189	112	17.73	24.25	267	2349	380	0.00	48.5	2.2	
BTS 89RR50	412	307.1	95	7826	110	1.61	44.26	91	1106	104	16.96	26.09	433	2628	387	0.00	47.7	2.3	
Crystal 095RR	401	325.8	101	7942	112	1.44	49.18	102	1192	112	17.73	24.55	308	2325	386	0.00	49.2	2.5	
Crystal 658RR	409	309.5	96	7687	108	1.29	44.90	93	1109	105	16.77	25.01	298	2160	321	0.00	49.1	2.0	
Crystal 875RR	431	325.6	101	8169	115	1.48	49.11	101	1230	116	17.76	25.14	325	2460	371	0.00	44.0	2.4	
Crystal 985RR	414	322.2	100	7607	107	1.38	48.24	100	1140	107	17.50	23.57	265	2337	354	0.00	45.7	2.2	
Crystal 986RR	402	338.8	105	7027	99	1.27	52.60	109	1085	102	18.21	20.90	267	2173	314	0.00	32.6	3.2	
Seedex SX0808RR	425	319.0	99	7186	101	1.36	47.38	98	1066	100	17.32	22.57	280	2438	309	0.00	42.7	2.6	
Seedex SX0816RR	408	332.1	103	7186	101	1.29	50.84	105	1099	104	17.91	21.65	214	2402	285	0.00	38.9	3.2	
Seedex SX0894RR	417	318.4	99	6645	93	1.38	47.22	98	982	93	17.29	20.97	310	2400	320	0.00	33.7	3.3	
Seedex SX0904RR	423	297.6	92	6985	98	1.57	41.75	86	981	92	16.45	23.47	446	2494	390	0.00	45.5	2.6	
Seedex SX0918RR	436	326.5	101	7733	109	1.34	49.34	102	1153	109	17.65	24.11	274	2412	307	0.00	44.1	2.6	
Seedex Ultra RR(SX0983RR)	429	324.3	100	6358	89	1.37	48.77	101	951	90	17.58	19.77	314	2240	355	0.00	31.6	3.7	
Seedex Usher RR(SX0883)	416	315.6	98	7011	99	1.38	46.48	96	1019	96	17.15	22.57	334	2290	336	0.00	39.7	3.1	
SESVanderhave H36083RR	405	326.9	101	7119	100	1.33	49.47	102	1072	101	17.68	21.92	246	2325	325	0.00	41.3	3.5	
SESVanderhave H36178RR	426	318.8	99	7202	101	1.37	47.33	98	1066	100	17.30	22.68	311	2385	314	0.00	44.2	2.6	
SESVanderhave H36179RR	419	329.4	102	6396	90	1.33	50.13	104	966	91	17.80	19.61	255	2340	313	0.00	36.8	3.2	
SESVanderhave H36188RR	413	304.4	94	7200	101	1.45	43.55	90	1022	96	16.68	23.91	371	2471	332	0.00	40.4	2.4	
SESVanderhave H36811RR	434	321.2	100	6850	96	1.33	47.95	99	1018	96	17.38	21.46	273	2319	317	0.00	38.4	3.2	
SESVanderhave H36813RR	406	315.5	98	5500	77	1.47	46.46	96	807	76	17.24	17.51	320	2498	359	0.00	27.1	4.5	
SESVanderhave H36918RR	435	334.5	104	6775	95	1.31	51.46	106	1040	98	18.04	20.30	229	2389	299	0.00	33.7	3.5	
SESVanderhave H36923RR	404	317.4	98	5940	83	1.39	46.97	97	875	82	17.25	18.79	306	2345	342	0.00	30.0	3.7	
SESVanderhave H36927RR	427	316.0	98	6128	86	1.41	46.60	96	896	84	17.21	19.58	328	2352	351	0.00	31.2	3.9	
AP CHK SUS HYB#3	438	326.5	101	5103	72	1.47	49.35	102	766	72	17.79	15.78	371	2420	360	0.00	35.9	4.4	
AP CHK SUS HYB#4	439	325.8	101	5121	72	1.45	49.18	102	769	72	17.75	15.82	313	2467	356	0.00	39.4	4.1	
Trial Mean		322.8		7114		1.40	48.39		1061		17.54	22.19	299	2361	346	0.0	41.8	2.9	
Coeff. of Var. (%)		3.2		12.2		7.1	5.7		13.2		2.6	11.9	22.3	5.2	13.1		19.5	25.3	
Mean LSD (0.05)		15.1		1076		0.12	3.96		178		0.68	3.31	89	131	46		7.2	0.7	
Mean LSD (0.01)		20.2		1442		0.16	5.30		239		0.91	4.44	119	176	62		9.5	0.9	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**	**

\* 2011 Data from 2 Locations

Analyzed 10/13/2011 09:24

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11apYld

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

‡ Foliar Aphanomyces symptoms in yield trial (1=good stand & foliage, 9=poor stand & foliage). Official Aph ratings come from separate disease nurseries.

Table 33. 2011 Performance of Varieties - ACSC RR Aph Spec Yield Trial  
Kindred ND - All Characters

Description @	Unadjusted		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Rev/T	Rev/T	Rev/A	Rev/A	Sugar	Yield	Na	K	AmN	Bolter	Emerg.	Foliar
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	\$ ++	%Mean	\$ ++	%Mean	%	T/A	ppm	ppm	ppm	%	%	Aph‡	
BTS 80RR12	410	346.2	105	5942	105	1.18	54.52	108	934	108	18.48	17.21	164	2096	298	0.00	37.5	2.9	
BTS 80RR32	403	322.0	97	4942	87	1.37	48.18	95	736	85	17.48	15.45	249	2450	323	0.00	33.8	3.9	
BTS 80RR52	432	333.8	101	5449	96	1.36	51.28	101	839	97	18.04	16.26	187	2358	357	0.00	33.1	2.7	
BTS 81RR11	415	330.8	100	5463	97	1.27	50.49	100	834	97	17.82	16.51	271	2277	277	0.00	39.3	2.6	
BTS 81RR17	420	331.9	100	6446	114	1.48	50.77	100	988	114	18.08	19.37	208	2433	430	0.00	35.6	2.7	
BTS 81RR23	421	339.4	103	6241	110	1.15	52.75	104	968	112	18.14	18.45	191	2024	284	0.00	37.4	2.9	
BTS 81RR41	424	347.7	105	6471	114	1.25	54.92	109	1023	118	18.62	18.58	186	2128	340	0.00	34.4	3.3	
BTS 81RR63	437	335.6	101	4792	85	1.43	51.75	102	738	85	18.20	14.29	199	2402	397	0.00	27.1	4.4	
BTS 81RR78	418	338.5	102	6318	112	1.30	52.50	104	981	114	18.23	18.66	165	2223	358	0.00	43.7	3.1	
BTS 81RR81	407	320.0	97	4998	88	1.54	47.64	94	742	86	17.54	15.69	282	2472	435	0.00	31.5	3.6	
BTS 87RR58	428	322.4	97	5849	103	1.34	48.29	96	877	102	17.47	18.08	212	2355	332	0.00	45.3	2.9	
BTS 88RR31	411	332.2	100	6445	114	1.41	50.86	101	986	114	18.02	19.42	260	2398	360	0.00	51.1	1.9	
BTS 88RR61	433	339.3	102	6547	116	1.26	52.72	104	1021	118	18.22	19.21	160	2308	315	0.00	46.4	2.3	
BTS 89RR30	422	318.6	96	6318	112	1.29	47.28	94	936	108	17.23	19.88	224	2365	288	0.00	44.4	2.3	
BTS 89RR40	430	331.0	100	5813	103	1.31	50.53	100	888	103	17.87	17.56	183	2310	334	0.00	44.7	2.7	
BTS 89RR50	412	326.0	98	6092	108	1.52	49.24	97	916	106	17.82	18.78	289	2629	371	0.00	39.2	3.0	
Crystal 095RR	401	336.8	102	6642	117	1.34	52.07	103	1029	119	18.18	19.66	212	2297	350	0.00	40.0	2.9	
Crystal 658RR	409	314.4	95	6058	107	1.22	46.16	91	884	102	16.94	19.43	238	2136	298	0.00	38.1	2.1	
Crystal 875RR	431	332.6	100	6517	115	1.43	50.97	101	997	115	18.07	19.65	235	2468	366	0.00	40.0	2.9	
Crystal 985RR	414	320.5	97	6100	108	1.36	47.77	94	908	105	17.40	19.09	220	2354	348	0.00	38.2	2.5	
Crystal 986RR	402	343.5	104	5243	93	1.20	53.83	106	824	95	18.38	15.19	208	2133	290	0.00	25.4	3.9	
Seedex SX0808RR	425	323.5	98	5823	103	1.32	48.58	96	875	101	17.50	17.97	210	2399	312	0.00	35.8	3.2	
Seedex SX0816RR	408	336.7	102	5793	102	1.26	52.05	103	897	104	18.09	17.14	170	2413	271	0.00	32.6	3.8	
Seedex SX0894RR	417	328.1	99	6332	112	1.29	49.77	98	958	111	17.70	19.36	227	2355	295	0.00	30.6	3.2	
Seedex SX0904RR	423	306.4	93	5701	101	1.52	44.08	87	817	95	16.85	18.70	336	2572	370	0.00	37.5	3.1	
Seedex SX0918RR	436	348.2	105	6212	110	1.21	55.06	109	989	114	18.60	17.67	162	2278	278	0.00	38.3	3.0	
Seedex Ultra RR(SX0983RR)	429	334.2	101	4728	84	1.32	51.37	102	729	84	18.02	14.08	224	2302	331	0.00	20.5	4.7	
Seedex Usher RR(SX0883)	416	334.1	101	5806	103	1.27	51.36	102	887	103	17.98	17.54	213	2261	309	0.00	33.2	3.7	
SESVanderhave H36083RR	405	335.8	101	5671	100	1.26	51.79	102	881	102	18.04	16.71	169	2280	313	0.00	33.2	4.2	
SESVanderhave H36178RR	426	330.0	100	6356	112	1.28	50.28	99	970	112	17.79	19.23	203	2364	293	0.00	39.1	2.8	
SESVanderhave H36179RR	419	337.2	102	4753	84	1.28	52.17	103	734	85	18.15	14.14	199	2306	307	0.00	26.4	3.9	
SESVanderhave H36188RR	413	316.3	96	5864	104	1.33	46.68	92	860	100	17.14	18.67	288	2353	305	0.00	39.1	2.7	
SESVanderhave H36811RR	434	329.1	99	5522	98	1.29	50.05	99	839	97	17.74	16.78	200	2338	310	0.00	28.1	3.8	
SESVanderhave H36813RR	406	330.2	100	4730	84	1.33	50.34	100	720	83	17.84	14.35	178	2446	314	0.00	21.9	4.7	
SESVanderhave H36918RR	435	338.8	102	5433	96	1.29	52.59	104	843	98	18.22	16.04	178	2405	295	0.00	25.0	4.3	
SESVanderhave H36923RR	404	322.9	98	4568	81	1.36	48.41	96	688	80	17.49	14.07	250	2352	337	0.00	27.4	4.4	
SESVanderhave H36927RR	427	326.1	98	4670	83	1.37	49.24	97	706	82	17.67	14.33	251	2339	351	0.00	23.2	4.8	
AP CHK SUS HYB#3	438	334.8	101	3979	70	1.43	51.55	102	615	71	18.17	11.82	280	2496	348	0.00	27.1	4.9	
AP CHK SUS HYB#4	439	336.3	102	4032	71	1.40	51.94	103	624	72	18.22	11.96	234	2445	353	0.00	34.4	4.6	
Trial Mean		331.1		5658		1.33	50.56		864		17.88	17.10	218	2342	329	0.0	34.9	3.4	
Coeff. of Var. (%)		3.0		13.1		7.0	5.1		13.4		2.5	13.3	23.8	5.3	13.7		21.7	20.5	
Mean LSD (0.05)		12.8		988		0.12	3.36		154		0.57	3.05	67	159	58		9.5	0.9	
Mean LSD (0.01)		16.9		1305		0.16	4.44		203		0.75	4.03	89	210	77		12.5	1.1	
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**	

\* 2011 Data from Kindred ND

Analyzed 10/07/2011 11:22

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118381

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

‡ Foliar Aphanomyces symptoms in yield trial (1=good stand & foliage, 9=poor stand & foliage). Official Aph ratings come from separate disease nurseries.

Table 34. 2011 Performance of Varieties - ACSC RR Aph Spec Yield Trial  
Hillsboro ND - All Characters

Unadjusted Description @	Rec/T		Rec/A		Loss Mol %	Rev/T		Rev/A		Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %	Foliar Aph‡	
	Code	lbs.	%Mean	lbs.		%Mean	\$ ++	%Mean	\$ ++									%Mean
BTS 80RR12	410	328.5	104	8713	102	1.27	49.88	108	1320	105	17.69	26.69	247	2102	335	0.00	48.7	2.2
BTS 80RR32	403	301.1	96	8595	100	1.65	42.68	92	1217	97	16.70	28.47	514	2483	427	0.00	45.9	2.7
BTS 80RR52	432	315.8	100	10140	118	1.48	46.55	101	1499	119	17.28	32.11	349	2302	412	0.00	54.0	1.5
BTS 81RR11	415	310.1	99	8398	98	1.41	45.03	97	1222	97	16.91	27.12	456	2303	312	0.00	54.1	2.4
BTS 81RR17	420	318.3	101	9965	116	1.53	47.20	102	1480	118	17.45	31.30	321	2455	414	0.00	47.2	1.5
BTS 81RR23	421	339.7	108	9241	108	1.19	52.81	114	1434	114	18.17	27.27	239	2046	290	0.00	53.6	1.9
BTS 81RR41	424	335.5	107	8608	100	1.46	51.71	112	1331	106	18.25	25.42	318	2290	401	0.00	47.4	2.6
BTS 81RR63	437	322.9	103	8227	96	1.51	48.42	105	1235	98	17.67	25.43	360	2412	396	0.00	43.8	2.8
BTS 81RR78	418	334.8	106	9415	110	1.35	51.53	111	1443	115	18.07	28.32	218	2303	352	0.00	52.1	2.4
BTS 81RR81	407	324.5	103	9474	111	1.52	48.82	106	1430	114	17.75	29.03	364	2399	409	0.00	46.3	1.9
BTS 87RR58	428	322.5	103	9450	110	1.46	48.30	105	1415	112	17.59	29.35	325	2476	360	0.00	55.3	1.8
BTS 88RR31	411	309.5	98	9117	106	1.54	44.89	97	1325	105	17.02	29.29	424	2468	383	0.00	62.6	1.1
BTS 88RR61	433	310.5	99	9239	108	1.53	45.16	98	1346	107	17.06	29.72	416	2370	397	0.00	62.2	1.5
BTS 89RR30	422	297.5	95	8992	105	1.59	41.73	90	1254	100	16.46	30.34	458	2635	367	0.00	60.2	1.9
BTS 89RR40	430	321.8	102	9919	116	1.53	48.12	104	1485	118	17.62	30.83	349	2377	422	0.00	52.3	1.7
BTS 89RR50	412	289.2	92	9555	111	1.69	39.55	86	1292	103	16.14	33.44	574	2621	398	0.00	56.1	1.6
Crystal 095RR	401	314.6	100	9255	108	1.54	46.22	100	1355	108	17.26	29.49	405	2361	423	0.00	58.0	2.1
Crystal 658RR	409	304.6	97	9265	108	1.35	43.59	94	1328	106	16.58	30.45	356	2169	341	0.00	60.5	1.7
Crystal 875RR	431	318.8	101	9917	116	1.52	47.32	102	1477	117	17.46	30.91	410	2458	371	0.00	48.4	1.8
Crystal 985RR	414	324.7	103	9159	107	1.40	48.88	106	1373	109	17.62	28.30	310	2335	356	0.00	53.1	1.9
Crystal 986RR	402	333.6	106	8641	101	1.36	51.22	111	1319	105	18.02	26.27	332	2219	347	0.00	39.6	2.6
Seedex SX0808RR	425	314.4	100	8548	100	1.40	46.18	100	1260	100	17.13	27.08	348	2471	301	0.00	49.9	2.0
Seedex SX0816RR	408	327.6	104	8683	101	1.33	49.66	107	1320	105	17.73	26.31	256	2407	300	0.00	44.8	2.6
Seedex SX0894RR	417	308.7	98	7065	82	1.46	44.68	97	1013	81	16.88	22.98	396	2446	341	0.00	36.7	3.3
Seedex SX0904RR	423	288.9	92	8108	95	1.61	39.47	85	1117	89	16.05	27.96	555	2423	406	0.00	53.3	2.1
Seedex SX0918RR	436	305.2	97	9019	105	1.48	43.77	95	1286	102	16.72	29.87	387	2535	334	0.00	49.6	2.3
Seedex Ultra RR(SX0983RR)	429	313.7	100	8029	94	1.43	46.00	100	1175	93	17.11	25.69	406	2172	382	0.00	43.3	2.6
Seedex Usher RR(SX0883)	416	297.4	95	8134	95	1.48	41.69	90	1141	91	16.34	27.37	460	2316	366	0.00	46.4	2.4
SESVanderhave H36083RR	405	317.9	101	8713	102	1.40	47.10	102	1290	103	17.31	27.39	322	2365	341	0.00	49.7	2.8
SESVanderhave H36178RR	426	307.2	98	7929	93	1.45	44.28	96	1138	90	16.80	26.03	420	2408	338	0.00	50.0	2.5
SESVanderhave H36179RR	419	322.2	102	7979	93	1.36	48.23	104	1193	95	17.48	24.86	306	2372	315	0.00	47.6	2.5
SESVanderhave H36188RR	413	292.2	93	8762	102	1.56	40.33	87	1223	97	16.20	29.57	453	2572	358	0.00	42.2	2.1
SESVanderhave H36811RR	434	312.8	99	8199	96	1.37	45.76	99	1199	95	17.01	26.20	349	2301	326	0.00	48.3	2.7
SESVanderhave H36813RR	406	301.6	96	6315	74	1.60	42.81	93	893	71	16.67	20.87	460	2559	399	0.00	32.5	4.3
SESVanderhave H36918RR	435	329.0	105	8197	96	1.35	50.00	108	1253	100	17.82	24.67	282	2373	306	0.00	43.0	2.7
SESVanderhave H36923RR	404	311.5	99	7258	85	1.41	45.41	98	1054	84	16.98	23.36	364	2332	348	0.00	33.2	3.1
SESVanderhave H36927RR	427	306.5	97	7477	87	1.45	44.10	95	1075	85	16.78	24.42	403	2364	350	0.00	38.8	3.1
AP CHK SUS HYB#3	438	317.1	101	6234	73	1.52	46.88	101	918	73	17.38	19.84	469	2348	381	0.00	44.2	4.0
AP CHK SUS HYB#4	439	315.6	100	6282	73	1.51	46.48	101	925	73	17.29	19.82	391	2491	362	0.00	44.8	3.5
Trial Mean		314.6		8570		1.46	46.22		1258		17.19	27.28	379	2380	363	0.0	48.7	2.4
Coeff. of Var. (%)		3.5		11.5		7.3	6.2		12.9		2.8	10.6	20.9	5.0	12.9		18.4	32.0
Mean LSD (0.05)		14.6		1249		0.14	3.83		206		0.64	3.73	104	150	62		11.3	0.9
Mean LSD (0.01)		19.2		1648		0.19	5.06		272		0.84	4.92	137	198	82		14.9	1.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**	**

\* 2011 Data from Hillsboro ND

Analyzed 10/07/2011 08:23

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118382

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

‡ Foliar Aphanomyces symptoms in yield trial (1=good stand & foliage, 9=poor stand & foliage). Official Aph ratings come from separate disease nurseries.

Table 35. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
8 Locations - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	297.2	98	6840	96	1.45	41.66	97	950	95	16.31	23.17	395	2111	421	0.00	62.5
Crystal R761	2	292.8	97	7606	107	1.41	40.50	94	1030	103	16.05	26.57	376	2249	356	0.00	61.4
Crystal R869	6	324.0	107	6909	97	1.15	48.69	113	1026	102	17.34	21.66	257	1849	307	0.00	63.3
Seedex SX8818TT	1	301.5	100	7718	109	1.20	42.78	99	1086	108	16.27	25.76	269	1959	311	0.00	62.8
Seedex SX8819TT	4	296.1	98	7667	108	1.27	41.36	96	1062	106	16.07	26.17	284	1964	357	0.09	60.0
SESVanderhave H46119	7	305.8	101	7843	110	1.22	43.92	102	1119	112	16.51	25.82	307	1938	321	0.00	63.4
SESVanderhave H48173TT	3	297.5	98	7735	109	1.25	41.72	97	1078	108	16.12	26.15	295	2015	326	0.06	59.9
Hilleshög 2417Rz(Check)	8	309.1	102	6365	90	1.18	44.79	104	915	91	16.63	20.87	295	1947	287	0.00	51.2
Seedex Rezult(Check)	9	306.1	101	6256	88	1.22	44.00	102	891	89	16.53	20.65	312	2031	294	0.03	54.3
Beta 1305R(Check)	10	298.9	99	6655	94	1.35	42.11	98	926	92	16.30	22.58	302	2099	381	0.00	57.9
SESVDH 46519(Check)	11	303.6	100	7518	106	1.24	43.34	100	1060	106	16.42	25.12	324	1959	320	0.03	59.3
Rzm Susc 3N - Aph Tol	12	303.1	100	6166	87	1.28	43.20	100	876	87	16.43	20.49	360	2013	325	0.00	60.8
Trial Mean		303.0		7107		1.27	43.17		1002		16.41	23.75	315	2011	334	0.0	59.7
Coeff. of Var. (%)		3.5		8.4		6.8	6.5		10.1		2.9	7.7	20.5	5.4	11.5		12.4
Mean LSD (0.05)				392		0.06	2.00		73		0.36	1.20	42	74	29		4.2
Mean LSD (0.01)		10.1		519		0.08	2.66		97		0.47	1.59	55	98	39		5.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 8 Locations

Analyzed 10/14/2011 16:54

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11cnvAC

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 36. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
4 Locations - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	267.8	97	6827	95	1.62	33.93	93	850	91	15.01	25.81	555	2105	494	0.00	61.6
Crystal R761	2	260.2	94	7818	108	1.56	31.92	88	942	101	14.57	30.46	538	2275	410	0.00	62.1
Crystal R869	6	298.4	108	7474	104	1.27	41.97	116	1042	112	16.19	25.30	372	1860	356	0.00	61.0
Seedex SX8818TT	1	276.5	100	7758	108	1.30	36.21	100	1006	108	15.13	28.30	378	1983	346	0.00	63.5
Seedex SX8819TT	4	272.6	98	7629	106	1.38	35.18	97	977	105	15.01	28.25	393	1980	403	0.05	61.5
SESVanderhave H46119	7	278.5	101	7600	105	1.36	36.73	101	992	106	15.29	27.57	446	1987	365	0.00	63.4
SESVanderhave H48173TT	3	270.6	98	7662	106	1.39	34.67	96	972	104	14.92	28.52	425	2044	376	0.05	58.4
Hilleshög 2417Rz(Check)	8	284.0	103	6506	90	1.28	38.18	105	870	93	15.48	23.16	422	1973	313	0.00	51.6
Seedex Rezult(Check)	9	281.7	102	6545	91	1.33	37.57	104	862	92	15.41	23.53	441	2044	327	0.05	53.4
Beta 1305R(Check)	10	273.8	99	6716	93	1.51	35.50	98	858	92	15.20	24.92	420	2163	444	0.00	54.8
SESVDH 46519(Check)	11	274.5	99	7596	105	1.39	35.67	98	977	105	15.11	27.93	459	2002	373	0.05	60.1
Rzm Susc 3N - Aph Tol	12	283.1	102	6431	89	1.47	37.94	105	853	91	15.62	23.03	494	2060	411	0.00	59.6
Trial Mean		276.8		7214		1.41	36.29		933		15.25	26.40	445	2040	385	0.0	59.2
Coeff. of Var. (%)		3.5		6.3		7.0	7.1		9.2		2.7	5.2	18.0	5.7	11.4		12.7
F Value		12.48	**	19.21		13.43	12.48		8.32		12.38	28.9	5.89	7.3	13.54		3.92
Mean LSD (0.05)		7.8		352		0.09	2.05		68		0.33	1.31	70	115	40		5.7
Mean LSD (0.01)		10.3		465		0.12	2.71		90		0.44	1.76	94	154	54		7.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 10/31/2011 08:54

Created 10-31-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11cnvLi

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 37. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
4 Locations - All Characters - Moderate to Severe Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	327.3	99	6830	98	1.27	49.58	99	1044	98	17.63	20.60	232	2115	344	0.00	63.5
Crystal R761	2	324.0	98	7349	105	1.27	48.70	97	1112	104	17.47	22.47	217	2227	307	0.00	60.7
Crystal R869	6	347.4	105	6334	91	1.03	54.85	110	1008	94	18.40	18.02	146	1841	256	0.00	65.8
Seedex SX8818TT	1	327.5	99	7765	111	1.08	49.62	99	1181	110	17.45	23.58	158	1935	270	0.00	62.1
Seedex SX8819TT	4	319.9	97	7686	110	1.15	47.63	95	1148	107	17.14	23.94	176	1950	310	0.12	58.1
SESVanderhave H46119	7	334.4	102	8127	116	1.08	51.44	103	1255	117	17.80	24.16	165	1892	274	0.00	63.5
SESVanderhave H48173TT	3	324.2	98	7770	111	1.11	48.75	97	1174	110	17.31	23.81	164	1992	271	0.06	61.4
Hilleshög 2417Rz(Check)	8	334.9	102	6216	89	1.07	51.56	103	962	90	17.81	18.45	169	1921	259	0.00	50.6
Seedex Rezult(Check)	9	330.3	100	5924	85	1.11	50.37	101	910	85	17.62	17.76	181	2021	259	0.00	55.2
Beta 1305R(Check)	10	326.3	99	6577	94	1.18	49.30	98	998	93	17.49	20.06	179	2026	313	0.00	61.4
SESVDH 46519(Check)	11	332.7	101	7417	106	1.08	50.97	102	1141	107	17.72	22.18	183	1923	264	0.00	58.5
Rzm Susc 3N - Aph Tol	12	322.1	98	5923	85	1.08	48.21	96	899	84	17.18	18.03	223	1966	232	0.00	62.1
Trial Mean		329.3		6993		1.13	50.08		1069		17.59	21.09	183	1984	280	0.0	60.2
Coeff. of Var. (%)		3.5		10.1		6.1	6.1		10.7		3.1	10.4	21.6	4.9	10.6		12.0
Mean LSD (0.05)		12.6		627		0.07	3.30		110		0.60	1.78	35	101	27		6.5
Mean LSD (0.01)		16.9		845		0.09	4.43		148		0.81	2.41	47	136	37		8.7
Sig Lvl		**		**		**	**		**		*	**	**	**	**		**

\* 2011 Data from 4 Locations

Analyzed 11/01/2011 12:15

Created 11-1-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11cnvMo

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 38. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
Halstad MN - All Characters - Severe Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	322.1	98	6241	101	1.40	48.19	97	933	100	17.50	19.42	246	2212	408	0.00	55.1
Crystal R761	2	322.3	98	6472	105	1.35	48.26	97	972	104	17.48	20.06	223	2296	341	0.00	49.1
Crystal R869	6	347.2	106	4726	77	1.10	54.79	110	748	80	18.45	13.57	163	1882	298	0.00	44.4
Seedex SX8818TT	1	334.6	102	7133	116	1.16	51.49	103	1096	117	17.90	21.39	167	2045	301	0.00	57.9
Seedex SX8819TT	4	330.5	101	7045	114	1.23	50.42	101	1071	114	17.75	21.39	167	2055	344	0.00	38.1
SESVanderhave H46119	7	330.4	101	7606	123	1.20	50.37	101	1159	124	17.73	23.03	188	2033	323	0.00	54.1
SESVanderhave H48173TT	3	324.6	99	6613	107	1.20	48.85	98	991	106	17.43	20.42	178	2167	300	0.00	52.5
Hilleshög 2417Rz(Check)	8	338.7	103	5223	85	1.13	52.56	106	809	87	18.05	15.50	172	2012	282	0.00	37.2
Seedex Rezult(Check)	9	330.8	101	5341	87	1.17	50.48	101	815	87	17.70	16.16	181	2091	285	0.00	47.7
Beta 1305R(Check)	10	330.1	101	6083	99	1.27	50.30	101	926	99	17.75	18.37	208	2096	351	0.00	53.6
SESVDH 46519(Check)	11	327.4	100	7024	114	1.15	49.60	100	1066	114	17.55	21.45	207	1973	287	0.00	47.1
Rzm Susc 3N - Aph Tol	12	298.9	91	4525	73	1.14	42.11	85	642	69	16.10	15.01	296	2044	233	0.00	54.6
Trial Mean		328.1		6169		1.21	49.79		936		17.61	18.81	200	2075	313	0.0	49.3
Coeff. of Var. (%)		3.6		11.9		6.0	6.3		12.1		3.1	12.8	17.8	5.2	8.8		16.4
F Value		3.76	**	6.85		5.27	3.76		6.74		4.13	6.19	3.97	4.21	7.6		2.16
Mean LSD (0.05)		17.1		1094		0.12	4.50		171		0.78	3.51	56	154	46		13.2
Mean LSD (0.01)		23.0		1470		0.16	6.03		229		1.05	4.72	76	207	63		17.8
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns

\* 2011 Data from Halstad MN

Analyzed 10/13/2011 13:54

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118203

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 39. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
Buxton ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	296.4	100	7155	95	1.85	41.44	100	1005	95	16.67	23.70	376	2939	508	0.00	58.1
Crystal R761	2	283.0	95	8669	115	1.76	37.91	91	1164	111	15.92	30.14	346	3173	397	0.00	59.4
Crystal R869	6	326.5	110	7819	103	1.38	49.35	119	1179	112	17.71	23.98	222	2443	344	0.00	53.4
Seedex SX8818TT	1	300.0	101	7983	106	1.51	42.38	102	1132	108	16.50	26.73	259	2693	363	0.00	58.3
Seedex SX8819TT	4	290.9	98	8014	106	1.71	40.00	96	1091	104	16.27	27.84	341	2762	468	0.00	57.5
SESVanderhave H46119	7	297.5	100	7926	105	1.70	41.73	100	1108	105	16.55	26.95	329	2904	423	0.00	59.2
SESVanderhave H48173TT	3	281.0	95	7996	106	1.72	37.40	90	1055	100	15.77	28.45	361	2862	439	0.00	58.6
Hilleshög 2417Rz(Check)	8	307.9	104	6704	89	1.53	44.45	107	968	92	16.92	21.95	266	2747	361	0.00	39.1
Seedex Rezult(Check)	9	301.0	101	6925	92	1.67	42.66	102	986	94	16.73	22.95	410	2797	404	0.00	49.8
Beta 1305R(Check)	10	287.6	97	6849	91	1.82	39.14	94	912	87	16.20	24.66	377	2978	488	0.00	49.8
SESVDH 46519(Check)	11	294.0	99	8103	107	1.64	40.80	98	1124	107	16.35	27.55	298	2892	395	0.00	59.4
Rzm Susc 3N - Aph Tol	12	299.5	101	6551	87	1.83	42.25	101	916	87	16.81	22.20	389	2938	494	0.00	55.8
Trial Mean		297.1		7558		1.68	41.63		1053		16.53	25.59	331	2844	424	0.0	54.9
Coeff. of Var. (%)		4.7		8.7		8.5	8.8		12.1		3.5	6.5	24.1	5.5	14.6		11.0
Mean LSD (0.05)		23.3		1020		0.25	6.12		202		0.97	2.58	136	265	106		8.7
Mean LSD (0.01)		31.5		1373		0.33	8.29		272		1.31	3.47	184	359	143		11.7
Sig Lvl		*		**		*	*		ns		*	**	ns	**	*		**

\* 2011 Data from Buxton ND

Analyzed 10/13/2011 13:59

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118204

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 40. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
Crookston E MN - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	345.3	100	8045	95	1.38	54.29	100	1265	95	18.65	23.28	249	2206	402	0.00	67.5
Crystal R761	2	333.1	96	8526	100	1.40	51.08	94	1315	99	18.04	25.59	234	2343	368	0.00	65.4
Crystal R869	6	362.3	105	7646	90	1.07	58.75	108	1232	92	19.18	21.12	154	1869	274	0.00	74.6
Seedex SX8818TT	1	344.1	100	9631	114	1.13	53.98	99	1511	113	18.34	27.99	152	1916	319	0.00	62.6
Seedex SX8819TT	4	335.8	97	9413	111	1.23	51.81	95	1453	109	18.03	28.04	168	2012	361	0.00	64.7
SESVanderhave H46119	7	354.2	102	9717	115	1.16	56.64	104	1546	116	18.88	27.44	160	1908	329	0.00	65.2
SESVanderhave H48173TT	3	341.9	99	9740	115	1.17	53.41	98	1526	114	18.26	28.59	151	1979	327	0.21	63.7
Hilleshög 2417Rz(Check)	8	345.1	100	7367	87	1.21	54.24	100	1157	87	18.47	21.32	189	2095	326	0.00	55.6
Seedex Rezult(Check)	9	353.1	102	7415	87	1.18	56.36	104	1189	89	18.84	21.01	175	2122	294	0.00	58.1
Beta 1305R(Check)	10	333.2	96	7815	92	1.24	51.12	94	1192	89	17.90	23.50	159	1994	374	0.00	69.2
SESVDH 46519(Check)	11	349.8	101	8821	104	1.20	55.47	102	1398	105	18.69	25.21	195	1986	323	0.00	62.4
Rzm Susc 3N - Aph Tol	12	351.4	102	7673	90	1.21	55.91	103	1217	91	18.78	21.99	224	2046	308	0.00	67.5
Trial Mean		345.8		8484		1.22	54.42		1333		18.50	24.59	184	2040	334	0.0	64.7
Coeff. of Var. (%)		3.4		8.4		5.5	5.6		8.8		3.0	8.6	21.7	4.5	8.8		9.5
F Value		2.3	**	7.01		7.78	2.3		5.86		1.97	7.72	2.49	6.82	6.1		2.63
Mean LSD (0.05)		17.0		1025		0.10	4.48		173		0.81	3.03	65	153	42		8.8
Mean LSD (0.01)		22.9		1377		0.13	6.02		233		1.10	4.07	87	207	57		11.8
Sig Lvl		*		**		**	*		**		ns	**	*	**	**		*

\* 2011 Data from Crookston E MN

Analyzed 10/13/2011 14:04

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118205

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 41. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
Crookston MN - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	343.7	102	8664	99	1.07	53.88	103	1359	100	18.25	25.19	253	1592	312	0.00	65.2
Crystal R761	2	343.1	102	9191	105	1.02	53.73	103	1439	106	18.17	26.78	226	1627	271	0.00	69.2
Crystal R869	6	357.4	106	8915	102	0.88	57.49	110	1434	106	18.75	24.95	136	1415	254	0.00	75.9
Seedex SX8818TT	1	326.8	97	9354	107	0.96	49.45	95	1415	104	17.30	28.61	184	1557	267	0.00	67.3
Seedex SX8819TT	4	316.5	94	9287	106	1.05	46.73	89	1371	101	16.88	29.35	230	1568	313	0.43	66.0
SESVanderhave H46119	7	339.2	100	10012	114	0.89	52.68	101	1555	115	17.85	29.52	181	1424	250	0.00	69.0
SESVanderhave H48173TT	3	326.9	97	9595	109	0.98	49.46	95	1452	107	17.33	29.35	213	1597	257	0.00	67.1
Hilleshög 2417Rz(Check)	8	342.4	101	8454	96	0.93	53.54	102	1321	97	18.05	24.71	206	1454	254	0.00	57.3
Seedex Rezult(Check)	9	333.1	99	7431	85	0.99	51.09	98	1138	84	17.65	22.35	248	1560	262	0.00	57.1
Beta 1305R(Check)	10	337.2	100	7893	90	1.04	52.18	100	1222	90	17.90	23.40	215	1610	303	0.00	63.0
SESVDH 46519(Check)	11	338.0	100	8742	100	0.92	52.39	100	1354	100	17.83	25.89	180	1511	248	0.00	57.3
Rzm Susc 3N - Aph Tol	12	346.6	103	7709	88	0.87	54.64	105	1216	90	18.20	22.21	193	1513	205	0.00	63.9
Trial Mean		337.6		8771		0.97	52.27		1356		17.85	26.03	205	1536	266	0.0	64.9
Coeff. of Var. (%)		2.8		8.2		6.8	4.7		8.7		2.4	8.1	22.4	5.1	11.8		11.0
Mean LSD (0.05)		13.6		1029		0.09	3.57		170		0.63	3.04	66	121	47		10.3
Mean LSD (0.01)		18.2		1382		0.13	4.79		228		0.84	4.09	89	163	63		13.8
Sig Lvl		**		**		**	**		**		**	**	ns	*	**		*

\* 2011 Data from Crookston MN

Analyzed 10/13/2011 14:09

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118206

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 42. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
Grand Forks ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	295.6	97	6878	95	1.49	41.23	95	960	93	16.26	23.13	574	1783	467	0.00	62.4
Crystal R761	2	293.6	96	7746	107	1.38	40.70	93	1074	104	16.05	26.35	522	1866	378	0.00	64.3
Crystal R869	6	323.2	106	7427	102	1.17	48.48	111	1114	107	17.33	23.02	405	1652	315	0.00	63.4
Seedex SX8818TT	1	301.9	99	7586	105	1.16	42.90	99	1080	104	16.24	24.99	356	1716	306	0.00	62.8
Seedex SX8819TT	4	300.2	99	7936	109	1.21	42.43	97	1124	108	16.22	26.32	361	1727	348	0.21	62.8
SESVanderhave H46119	7	310.7	102	7868	108	1.12	45.20	104	1145	110	16.65	25.22	385	1648	291	0.00	66.5
SESVanderhave H48173TT	3	296.5	97	7367	102	1.24	41.48	95	1032	100	16.07	24.90	407	1699	357	0.21	59.9
Hilleshög 2417Rz(Check)	8	310.9	102	6826	94	1.12	45.27	104	993	96	16.65	22.01	398	1638	279	0.00	57.0
Seedex Rezult(Check)	9	306.9	101	6500	90	1.19	44.19	101	932	90	16.54	21.36	376	1845	301	0.21	54.6
Beta 1305R(Check)	10	304.2	100	6818	94	1.30	43.50	100	975	94	16.51	22.41	372	1860	378	0.00	58.8
SESVDH 46519(Check)	11	300.3	99	7807	108	1.19	42.47	98	1103	106	16.22	26.07	443	1638	332	0.00	58.9
Rzm Susc 3N - Aph Tol	12	309.2	102	6287	87	1.26	44.80	103	913	88	16.73	20.40	504	1730	331	0.00	58.1
Trial Mean		304.4		7254		1.23	43.55		1037		16.46	23.85	425	1734	340	0.0	60.8
Coeff. of Var. (%)		2.5		3.9		6.5	4.6		5.4		2.0	3.1	14.6	4.9	10.8		8.5
F Value		3.9	**	13.79		7.29	3.9		6.92		3.73	27.52	4.27	3.59	6.71		1.52
Mean LSD (0.05)		12.3		447		0.12	3.24		91		0.54	1.12	99	134	58		7.9
Mean LSD (0.01)		16.7		603		0.16	4.38		122		0.73	1.51	134	181	78		10.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns

\* 2011 Data from Grand Forks ND

Analyzed 10/13/2011 14:13

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118207

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 43. 2011 Performance of Varieties - ACSC Conventional Yield Trial

Angus MN - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	261.1	97	6390	97	1.40	32.16	94	788	94	14.47	24.50	309	1918	463	0.00	68.8
Crystal R761	2	249.3	93	6964	105	1.46	29.05	85	814	97	13.93	27.83	377	2108	430	0.00	62.2
Crystal R869	6	281.9	105	6823	103	1.19	37.64	110	906	108	15.28	24.23	255	1652	392	0.00	60.9
Seedex SX8818TT	1	270.2	100	7076	107	1.17	34.55	101	898	107	14.67	26.34	211	1801	353	0.00	70.9
Seedex SX8819TT	4	259.9	97	6901	104	1.24	31.83	93	848	101	14.23	26.52	251	1781	393	0.00	69.7
SESVanderhave H46119	7	268.2	100	7138	108	1.21	34.04	99	910	108	14.62	26.54	285	1715	372	0.00	72.0
SESVanderhave H48173TT	3	261.6	97	6908	104	1.23	32.30	94	851	101	14.30	26.38	264	1911	351	0.00	58.1
Hilleshög 2417Rz(Check)	8	279.6	104	6006	91	1.09	37.04	108	801	95	15.07	21.40	240	1740	295	0.00	53.9
Seedex Rezult(Check)	9	281.8	105	6067	92	1.10	37.62	110	813	97	15.20	21.46	237	1793	287	0.00	53.9
Beta 1305R(Check)	10	264.7	98	6298	95	1.33	33.10	97	788	94	14.55	23.83	258	1905	432	0.00	54.3
SESVDH 46519(Check)	11	271.7	101	6894	104	1.23	34.95	102	892	106	14.82	25.38	266	1817	375	0.21	59.6
Rzm Susc 3N - Aph Tol	12	280.3	104	5899	89	1.27	37.21	109	774	92	15.28	21.17	291	1852	382	0.00	56.2
Trial Mean		269.2		6614		1.24	34.29		840		14.70	24.63	270	1833	377	0.0	61.7
Coeff. of Var. (%)		2.3		6.8		5.3	4.8		8.1		1.9	6.5	13.9	5.4	7.5		14.9
Mean LSD (0.05)		9.2		702		0.10	2.42		101		0.40	2.53	60	159	45		13.2
Mean LSD (0.01)		12.4		945		0.14	3.25		136		0.54	3.41	81	214	60		17.7
Sig Lvl		**		**		**	**		ns		**	**	**	**	**		*

\* 2011 Data from Angus MN

Analyzed 10/13/2011 14:19

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118208

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 44. 2011 Performance of Varieties - ACSC Conventional Yield Trial

Grafton ND - All Characters - Moderate Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	287.3	94	4365	97	1.18	39.04	89	603	93	15.61	14.80	156	2476	213	0.00	60.7
Crystal R761	2	296.3	97	4794	106	1.39	41.43	95	650	101	16.14	16.86	229	2688	277	0.00	61.1
Crystal R869	6	341.6	112	4370	97	1.12	53.32	122	688	107	18.10	12.87	138	2197	220	0.00	68.0
Seedex SX8818TT	1	289.1	95	4300	95	1.05	39.52	90	586	91	15.56	14.77	109	2255	182	0.00	59.4
Seedex SX8819TT	4	314.5	103	4640	103	1.07	46.19	106	679	105	16.76	15.06	140	2093	214	0.00	64.5
SESVanderhave H46119	7	318.3	104	5162	115	1.02	47.19	108	770	119	16.99	16.10	114	2178	180	0.00	68.0
SESVanderhave H48173TT	3	300.6	99	5037	112	1.07	42.55	97	721	112	16.14	16.38	108	2252	199	0.00	57.7
Hilleshög 2417Rz(Check)	8	319.8	105	4312	96	1.01	47.59	109	649	100	16.98	13.30	111	2090	183	0.00	55.1
Seedex Rezult(Check)	9	310.2	102	3798	84	1.08	45.08	103	560	87	16.62	12.01	115	2310	186	0.00	61.1
Beta 1305R(Check)	10	287.6	94	4247	94	1.18	39.13	89	565	87	15.57	15.02	127	2435	231	0.00	59.4
SESVDH 46519(Check)	11	310.4	102	5135	114	1.05	45.11	103	743	115	16.56	16.54	132	2216	178	0.00	68.0
Rzm Susc 3N - Aph Tol	12	286.0	94	3934	87	1.10	38.70	88	535	83	15.38	13.68	166	2251	195	0.00	63.3
Trial Mean		305.1		4508		1.11	43.74		646		16.37	14.78	137	2287	205	0.0	62.2
Coeff. of Var. (%)		1.6		7.4		7.3	2.9		6.4		1.5	9.0	34.0	4.2	14.4		5.6
F Value		15.28	**	2.95		3.07	15.28		5.31		12.78	2.1	0.88	5.58	1.91		2.92
Mean LSD (0.05)		15.5		1037		0.19	4.09		133		0.78	3.94	125	246	65		7.6
Mean LSD (0.01)		24.3		1592		0.27	6.38		206		1.22	5.96	184	361	92		10.7
Sig Lvl		**		ns		ns	**		*		**	ns	ns	*	ns		*

\* 2011 Data from Grafton ND

Analyzed 10/14/2011 10:15

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118210

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.



Table 45. 2011 Performance of Varieties - ACSC Conventional Yield Trial  
St Thomas ND - All Characters - Light Rzm

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T \$ ++	Rev/T %Mean	Rev/A \$ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R434	5	219.2	93	7001	94	1.77	21.14	82	674	84	12.73	31.94	942	1845	533	0.00	56.9
Crystal R761	2	215.5	91	7996	108	1.66	20.18	79	738	92	12.43	37.41	895	1963	433	0.00	61.4
Crystal R869	6	259.8	110	7782	105	1.36	31.81	124	944	118	14.35	30.16	596	1690	382	0.00	63.0
Seedex SX8818TT	1	235.8	100	8293	112	1.39	25.52	99	902	112	13.18	34.99	695	1691	373	0.00	62.3
Seedex SX8819TT	4	239.7	101	7682	103	1.38	26.54	103	852	106	13.36	32.08	618	1672	394	0.00	56.8
SESVanderhave H46119	7	237.8	101	7400	100	1.45	26.04	101	800	100	13.34	31.39	793	1680	383	0.00	57.7
SESVanderhave H48173TT	3	241.9	102	8419	113	1.36	27.11	106	941	117	13.45	34.74	694	1670	352	0.00	57.5
Hilleshög 2417Rz(Check)	8	236.0	100	6377	86	1.42	25.56	100	699	87	13.21	26.90	786	1773	337	0.00	55.0
Seedex Rezult(Check)	9	235.3	99	6769	91	1.38	25.39	99	730	91	13.14	28.78	747	1771	322	0.00	55.7
Beta 1305R(Check)	10	237.2	100	6898	93	1.57	25.88	101	753	94	13.44	29.00	678	1890	468	0.00	56.4
SESVDH 46519(Check)	11	237.5	100	7674	103	1.43	25.96	101	833	104	13.30	32.58	802	1636	376	0.00	65.3
Rzm Susc 3N - Aph Tol	12	241.8	102	6851	92	1.52	27.10	106	772	96	13.61	28.27	807	1699	431	0.00	67.5
Trial Mean		236.5		7429		1.47	25.68		803		13.30	31.52	754	1749	399	0.0	59.6
Coeff. of Var. (%)		4.6		5.7		6.3	11.1		11.8		3.5	3.9	15.7	5.9	11.4		13.5
Mean LSD (0.05)		18.5		710		0.16	4.86		160		0.80	2.06	203	175	76		12.9
Mean LSD (0.01)		25.0		961		0.21	6.58		217		1.08	2.79	275	237	103		17.5
Sig Lvl		**		**		**	**		*		**	**	*	**	**		ns

\* 2011 Data from St Thomas ND

Analyzed 10/06/2011 13:49

Created 10-17-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 118209

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

++ Revenue estimates are based on a \$47.65 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling or production costs.

Table 46  
Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2012

Description	Approval Status	Rec/Ton				Rev/Acre				R/T + \$/A	Cercospora Rating +						
		2009	2010	2011	2 Yr % Bench	2009	2010	2011	2 Yr % Bench		2009	2010	2011	2 Yr Mean	3 Yr Mean		
<b>Previously Approved (3 Yr)</b>																	
<b>Roundup Ready</b>																	
BTS 87RR38	Approved		329.9	302.1	316.0	101.1	1334	966	1150.2	102.9	203.9	4.73	4.82	4.89	4.81		
BTS 87RR58	Approved		331.8	300.9	316.4	101.2	1346	991	1168.4	104.5	205.7	5.06	5.43	5.06	5.18		
BTS 87RR68	Approved		335.5	315.5	325.5	104.1	1213	1072	1142.5	102.2	206.3	4.66	4.47	4.99	4.71		
BTS 88RR31	Approved		327.2	295.9	311.6	99.7	1310	974	1142.2	102.2	201.8	4.97	4.66	5.07	4.90		
BTS 88RR41	Approved		325.7	297.1	311.4	99.6	1265	972	1118.3	100.0	199.6	4.87	5.14	5.06	5.02		
BTS 88RR61	Approved		337.0	301.8	319.4	102.2	1353	1016	1184.5	105.9	208.1	5.06	4.50	4.96	4.84		
BTS 89RR10	Approved		346.5	317.0	331.7	106.1	1369	912	1140.5	102.0	208.1	4.48	4.92	5.08	4.83		
BTS 89RR30	Approved		322.7	284.3	303.5	97.1	1382	981	1181.6	105.7	202.8	5.08	5.09	5.17	5.11		
BTS 89RR40	Approved		327.0	304.9	315.9	101.1	1368	1047	1207.6	108.0	209.1	4.83	5.07	5.33	5.08		
BTS 89RR50	Approved		327.8	291.7	309.8	99.1	1474	1029	1251.6	111.9	211.0	4.84	5.16	5.01	5.01		
BTS 89RR83	Approved		320.1	279.3	299.7	95.9	1483	967	1224.7	109.5	205.4	4.53	4.83	4.81	4.72		
Crystal 539RR	Approved		331.7	298.1	314.9	100.7	1257	897	1076.8	96.3	197.0	5.25	5.39	5.37	5.33		
Crystal 658RR	Approved		317.0	285.6	301.3	96.4	1259	930	1094.7	97.9	194.3	4.63	4.46	4.47	4.52		
Crystal 765RR	Approved		339.7	312.4	326.1	104.3	1315	1076	1195.5	106.9	211.2	4.89	4.52	4.70	4.70		
Crystal 768RR	Approved		330.1	296.3	313.2	100.2	1352	982	1166.9	104.4	204.6	4.94	5.21	5.09	5.08		
Crystal 875RR	Approved		330.7	296.9	313.8	100.4	1396	994	1195.1	106.9	207.3	4.56	4.33	4.24	4.37		
Crystal 878RR	Approved		333.8	302.5	318.2	101.8	1356	998	1176.8	105.2	207.0	4.91	5.17	5.31	5.13		
Crystal 879RR	Approved		320.0	296.2	308.1	98.6	1301	978	1139.7	101.9	200.5	5.13	5.36	5.19	5.23		
Crystal 985RR	Approved		335.4	302.1	318.7	102.0	1326	1035	1180.3	105.6	207.5	4.18	4.30	4.37	4.28		
Crystal 986RR	Approved		336.3	315.6	326.0	104.3	1461	1028	1244.4	111.3	215.6	4.53	5.45	5.14	5.04		
Hilleshög 4012RR	Approved		331.3	302.8	317.1	101.4	1346	998	1172.0	104.8	206.2	5.29	5.00	5.24	5.18		
Hilleshög 4043RR	Approved		327.3	306.9	317.1	101.4	1317	1023	1170.1	104.7	206.1	4.69	5.01	4.84	4.85		
Hilleshög 4094RR	Approved		327.2	302.5	314.9	100.7	1289	985	1137.2	101.7	202.4	4.42	4.28	4.00	4.23		
Hilleshög 4195RR	Approved		322.8	288.7	305.8	97.8	1294	957	1125.0	100.6	198.4	4.56	4.39	4.60	4.52		
Hilleshög 4199RR(9199)	Approved		332.3	306.4	319.3	102.1	1282	1028	1155.1	103.3	205.5	4.64	4.67	4.42	4.58		
Seedex Vision RR(SX0891)	Approved		328.8	314.2	321.5	102.8	1234	1047	1140.4	102.0	204.8	5.17	4.76	4.41	4.78		
Seedex Victor RR(SX0894)	Approved		325.2	300.5	312.9	100.1	1208	983	1095.6	98.0	198.1	4.38	4.51	4.33	4.41		
Seedex Uplander RR	Approved	na	308.0	na	na	na	na	1037	na	na	na	4.94	4.97	4.62	4.84		
Seedex Usher RR	Approved	na	299.4	na	na	na	na	1046	na	na	na	4.35	5.05	4.70	4.70		
SESVanderhave H36711RR	Approved	na	297.5	na	na	na	na	1045	na	na	na	5.22	4.99	4.58	4.93		
SESVanderhave H36811RR	Approved	na	295.8	na	na	na	na	973	na	na	na	5.10	4.62	4.08	4.60		
SESVanderhave H36812RR	Approved	323.5	299.1	311.3	99.6	1319	1086	1202.5	107.6	207.1	4.74	5.16	4.78	4.89			
SESVanderhave H36813RR	Approved	na	301.2	na	na	na	na	1022	na	na	na	4.55	4.59	4.46	4.53		
SESVanderhave H36916RR	Approved	323.2	301.4	312.3	99.9	1261	1045	1153.2	103.1	203.0	4.91	4.97	4.70	4.86			
SESVanderhave H36917RR	Approved	329.3	309.7	319.5	102.2	1297	1031	1164.3	104.1	206.3	5.01	4.95	4.51	4.82			
SESVanderhave H36918RR	Approved	330.8	312.2	321.5	102.9	1242	994	1118.4	100.0	202.9	4.36	4.47	4.41	4.41			
<b>Conventional</b>																	
Crystal R434	Approved	--	297.2	--	--	--	--	950	--	--	--	--	4.96	--	--		
Crystal R761	Approved	330.6	292.8	311.7	99.7	1425	1030	1227.5	109.8	209.5	--	4.86	4.92	4.89	--		
Crystal R869	Approved	347.3	324.0	335.7	107.4	1398	1026	1212.0	108.4	215.8	--	4.90	5.24	5.07	--		
<b>Candidates for Approval (2 Yr)</b>																	
<b>Roundup Ready</b>																	
BTS 80RR12	Approved	--	334.5	315.0	324.7	103.9	--	1434	1044	1239.3	110.8	214.7	--	5.27	4.86	5.07	--
BTS 80RR32	Approved	--	329.2	298.0	313.6	100.3	--	1442	1061	1251.7	112.0	212.3	--	4.93	5.18	5.05	--
BTS 80RR52	Approved	--	335.2	306.3	320.8	102.6	--	1363	1004	1183.7	105.9	208.5	--	4.32	4.61	4.47	--
Crystal 091RR	Approved	--	330.1	306.2	318.2	101.8	--	1339	1036	1187.7	106.2	208.0	--	4.58	4.64	4.61	--
Crystal 093RR	Approved	--	343.0	316.4	329.7	105.5	--	1357	1061	1209.1	108.1	213.6	--	5.12	5.16	5.14	--
Crystal 095RR	Approved	--	333.8	298.7	316.2	101.2	--	1405	1010	1207.5	108.0	209.2	--	4.80	4.88	4.84	--
Crystal 981RR	Not Approved	286.6	326.5	300.4	313.5	100.3	979.2	1434	1109	1271.5	113.7	214.0	5.19	5.29	5.21	5.25	5.229
Hilleshög 4022RR	Approved	286.1	327.8	298.7	313.3	100.2	839.1	1319	975	1146.8	102.6	202.8	4.53	4.26	4.26	4.26	4.35
Hilleshög 9236RR	Approved	--	343.7	314.4	329.0	105.2	--	1363	1020	1191.8	106.6	211.8	--	4.45	4.75	4.60	--
Hilleshög 9237RR	Approved	--	336.9	305.1	321.0	102.7	--	1306	860	1083.1	96.9	199.5	--	4.58	4.31	4.44	--
Hilleshög 9238RR	Approved	--	338.9	305.8	322.3	103.1	--	1269	957	1112.7	99.5	202.6	--	4.16	4.88	4.52	--
Seedex SX0806RR	Not Approved	--	327.3	294.0	310.6	99.4	--	1298	981	1139.4	101.9	201.3	--	5.13	4.64	4.88	--
Seedex SX0808RR	Approved	--	331.3	303.5	317.4	101.5	--	1307	994	1150.6	102.9	204.4	--	5.27	4.16	4.71	--
SESVanderhave 36072RR	Approved	--	325.5	312.8	319.2	102.1	--	1272	1012	1141.7	102.1	204.2	--	4.61	4.64	4.63	--
<b>Candidates for Approval (2 Yr)</b>																	
<b>Conventional</b>																	
No Conventional varieties are candidates for approval.																	
<b>Benchmark Varieties</b>																	
Beta 85RR02(Check)	Benchmark	293.2	332.3	302.2			858.1	1313.0	944.7								
Crystal 539RR	Benchmark	290.3	331.7	298.1			854.9	1257.0	896.5								
Crystal 658RR	Benchmark	280.9	317.0	285.6			830.7	1259.0	930.3								
Hilleshög 4012RR	Benchmark	290.6	331.3	302.8			892.4	1346.0	998.0								
<b>Benchmark mean</b>		<b>288.75</b>	<b>328.08</b>	<b>297.18</b>	<b>312.6</b>		<b>859.0</b>	<b>1293.8</b>	<b>942.4</b>	<b>1118.1</b>							

+ All Cercospora readings 2009-2011 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

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3b) R/T >= 97% and R/T + \$/A >= 202% of Bench. 3 yrs of data may be considered for initial approval. To maintain approval, the 3-year Cercospora rating must not exceed 5.40 (1982 adjusted data).

Bench for 2009 - 2011 is mean of 4 varieties (Beta 85RR02, Crystal 539RR, Crystal 658RR, Hilleshög 4012RR).

Table 47  
Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

Description	Approval ^ Likely	Rec/Ton		Rev/Acre		R/T +	CR Rating ^^
		%		%		\$/A	
		2011	Bench	2011	Bench	Bench	2011
<b>Candidates for Retesting (1 Yr)</b>							
BTS 81RR11	On Track	305.0	102.6	1047	111.1	213.7	4.37
BTS 81RR17	On Track	297.5	100.1	951	100.9	201.0	4.68
BTS 81RR23	On Track	317.1	106.7	1017	107.9	214.6	4.79
BTS 81RR41	On Track	322.4	108.5	1047	111.1	219.6	4.14
BTS 81RR63	On Track	316.8	106.6	987	104.8	211.4	4.54
BTS 81RR78	On Track	315.6	106.2	1068	113.4	219.6	4.88
BTS 81RR81	On Track	300.1	101.0	957	101.6	202.6	4.92
Crystal 101RR	On Track	297.1	100.0	1040	110.4	210.3	4.72
Crystal 102RR	On Track	309.6	104.2	900	95.5	199.7	4.92
Crystal 103RR	NOT	275.9	92.8	875	92.8	185.7	4.73
Crystal 104RR	NOT	293.3	98.7	969	102.9	201.6	4.69
Crystal 105RR	NOT	292.8	98.5	787	83.5	182.0	4.71
Crystal 106RR	On Track	326.4	109.8	1036	109.9	219.7	4.15
Hilleshög 9300RR	On Track	296.4	99.7	970	103.0	202.7	4.71
Hilleshög 9301RR	On Track	300.7	101.2	984	104.4	205.6	4.44
Hilleshög 9302RR	On Track	317.3	106.8	1040	110.4	217.1	4.00
Hilleshög 9303RR	On Track	316.3	106.4	1082	114.8	221.2	4.22
Hilleshög 9304RR	NOT	289.1	97.3	807	85.6	182.9	3.98
Hilleshög 9305RR	On Track	301.1	101.3	973	103.2	204.6	4.95
Hilleshög 9306RR	NOT	290.1	97.6	905	96.0	193.7	4.28
Maribo 100RR	On Track	299.6	100.8	971	103.1	203.9	4.74
Maribo 101RR	On Track	302.9	101.9	964	102.3	204.3	5.12
Maribo 102RR	On Track	320.1	107.7	1208	128.2	235.9	5.19
Maribo 103RR	On Track	295.7	99.5	969	102.9	202.4	4.63
Maribo 104RR	On Track	318.6	107.2	902	95.8	203.0	3.45
Maribo 105RR	NOT	294.4	99.1	969	102.8	201.9	4.37
Seedex SX0814RR	On Track	303.8	102.2	1027	109.0	211.2	4.78
Seedex SX0815RR	On Track	310.6	104.5	1011	107.3	211.8	4.57
Seedex SX0816RR	On Track	313.3	105.4	1026	108.9	214.3	4.54
SESVanderhave H36175RR	On Track	308.1	103.7	1026	108.9	212.6	4.61
SESVanderhave H36176RR	On Track	302.9	101.9	995	105.6	207.5	4.30
SESVanderhave H36177RR	On Track	308.5	103.8	1028	109.1	212.9	4.61
SESVanderhave H36178RR	NOT	296.5	99.8	954	101.2	201.0	4.15
SESVanderhave H36179RR	On Track	308.0	103.6	994	105.5	209.2	4.77
<b>Cnv. Candidates for Retesting (1 Yr)</b>							
Seedex SX8818TT	On Track	301.5	101.5	1086	115.2	216.7	4.94
Seedex SX8819TT	On Track	296.1	99.6	1062	112.7	212.3	4.80
SESVanderhave H46119	On Track	305.8	102.9	1119	118.7	221.6	4.31
SESVanderhave H48173TT	On Track	297.5	100.1	1078	114.4	214.5	4.91
Benchmark Mean		297.2		942			

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

Created 10-25-2011.

^^ All Cercospora readings 2011 were adjusted to 1982 basis.

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

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

Table 48  
Calculation for Approval of Sugarbeet Varieties for ACSC Aphanomyces Specialty Market for 2012

Yrs	Aph	Yld	Chk	Description	Approval Status	Root Aph. Rating			Cercospora Rating +								
						2009	2010	2011	2 Yr Mean	3 Yr Mean	2009	2010	2011	2 Yr Mean	3 Yr Mean		
<b>Previously Approved (3 Yrs)</b>									<b>&lt;=5.20</b>					<b>&lt;=5.40</b>			
<b>Roundup Ready</b>																	
4				BTS 88RR31	Approved	4.10	3.80	3.91	3.85	3.94	4.97	4.66	5.07	4.86	4.90		
4				BTS 88RR61	Approved	4.57	4.31	4.56	4.43	4.48	5.06	4.50	4.96	4.73	4.84		
3				BTS 89RR30	Approved	4.10	4.25	5.14	4.70	4.50	5.08	5.09	5.17	5.13	5.11		
3				BTS 89RR40	Approved	4.49	4.14	4.76	4.45	4.46	4.83	5.07	5.33	5.20	5.08		
3				BTS 89RR50	Approved	3.60	3.86	4.07	3.96	3.84	4.84	5.16	5.01	5.09	5.01		
4				Crystal 658RR	Approved	3.95	3.91	4.52	4.22	4.13	4.63	4.46	4.47	4.47	4.52		
4				Crystal 875RR	Approved	3.00	3.34	3.14	3.24	3.16	4.56	4.33	4.24	4.28	4.37		
3				Crystal 985RR	Approved	4.15	4.20	3.75	3.97	4.03	4.18	4.30	4.37	4.33	4.28		
4	*			Hilleshög 4012RR	Approved	4.47	4.26	4.64	4.45	4.46	5.29	5.00	5.24	5.12	5.18		
4	*			Hilleshög 4022RR	Approved	4.80	4.96	4.80	4.88	4.85	4.53	4.26	4.26	4.26	4.35		
4	*			Hilleshög 4043RR	Approved	4.91	4.90	4.69	4.79	4.83	4.69	5.01	4.84	4.93	4.85		
3	*			Hilleshög 4094RR	Approved	3.95	4.87	5.16	5.02	4.66	4.42	4.28	4.00	4.14	4.23		
3				SESVanderhave H36811RR	Approved	4.42	4.66	4.69	4.68	4.59	5.10	4.62	4.08	4.35	4.60		
<b>Candidates for Approval</b>									<b>&lt;=4.90</b>					<b>&lt;=5.20</b>			
<b>Roundup Ready</b>																	
2				BTS 80RR12	NO		5.30	4.87	5.09			5.27	4.86	5.07			
2				BTS 80RR32	NO		5.60	5.33	5.47			4.93	5.18	5.05			
2				BTS 80RR52	Approved		4.67	4.93	4.80			4.32	4.61	4.47			
2				Crystal 095RR	Approved		4.99	4.62	4.80			4.80	4.88	4.84			
2				Crystal 986RR	Approved	5.08	4.20	5.21	4.70	4.83	4.53	5.45	5.14	5.30	5.04		
2				Seedex SX0808RR	Approved		4.14	4.79	4.47			5.27	4.16	4.71			
2				Seedex Victor RR(SX0894)	Approved	4.16	4.62	4.71	4.66	4.50	4.38	4.51	4.33	4.42	4.41		
2				Seedex Usher RR	Approved	4.44	4.79	4.73	4.76	4.65	4.35	5.05	4.70	4.87	4.70		
2				SESVanderhave H36813RR	Approved	4.38	4.43	4.57	4.50	4.46	4.55	4.59	4.46	4.52	4.53		
2				SESVanderhave H36918RR	Approved	4.51	4.39	4.50	4.44	4.46	4.36	4.47	4.41	4.44	4.41		
Approval Criteria new varieties									4.90							5.20	
Criteria to Maintain Approval									5.20							5.40	

+ All Cercospora readings 2009-2011 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 <= 4.90 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 <= 5.20 after 3 years.

\* Previously approved varieties maintaining specialty approval status for 2012 include Hilleshög 4012RR, Hilleshög 4022RR, Hilleshög 4043RR, Hilleshög 4094RR.

**Table 49**  
**Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2012**

Description	Approval Status	Disease Index +					Cercospora Rating **				
		2009	2010	2011	2 Yr Mean	3 Yr Mean	2009	2010	2011	2 Yr Mean	3 Yr Mean
<b>Previously Approved (3 Yr)</b>											
Crystal 658RR	Approved	3.74	4.17	3.78	3.98	3.90	4.63	4.46	4.47	4.47	4.52
Hilleshög 4022RR	Approved	3.10	3.56	3.48	3.52	3.38	4.53	4.26	4.26	4.26	4.35
Hilleshög 4094RR	Approved	3.22	3.85	3.29	3.57	3.45	4.42	4.28	4.00	4.14	4.23
SESVanderhave H36811RR	Not Approved	4.28	4.14	4.56	4.35	4.33	5.10	4.62	4.08	4.35	4.60
<b>RR Candidates for Approval (2 Yr)</b>											
BTS 80RR12	Not Approved	--	4.21	4.80	4.51	--	--	5.27	4.86	5.07	--
BTS 80RR32	Not Approved	--	3.94	4.23	4.08	--	--	4.93	5.18	5.05	--
BTS 80RR52	Not Approved	--	4.17	4.14	4.16	--	--	4.32	4.61	4.47	--
BTS 87RR38	Not Approved	3.79	4.36	4.61	4.49	4.25	4.73	4.82	4.89	4.85	4.81
BTS 87RR58	Not Approved	4.46	4.48	4.25	4.37	4.40	5.06	5.43	5.06	5.24	5.18
BTS 87RR68	Not Approved	4.64	4.83	4.45	4.64	4.64	4.66	4.47	4.99	4.73	4.71
BTS 88RR31	Approved	4.07	3.59	3.81	3.70	3.82	4.97	4.66	5.07	4.86	4.90
BTS 88RR41	Not Approved	4.26	4.19	4.25	4.22	4.23	4.87	5.14	5.06	5.10	5.02
BTS 88RR61	Not Approved	4.50	3.63	4.69	4.16	4.27	5.06	4.50	4.96	4.73	4.84
BTS 89RR10	Approved	4.54	3.94	3.63	3.78	4.03	4.48	4.92	5.08	5.00	4.83
BTS 89RR30	Not Approved	3.91	3.66	4.54	4.10	4.04	5.08	5.09	5.17	5.13	5.11
BTS 89RR40	Not Approved	4.50	4.20	5.02	4.61	4.57	4.83	5.07	5.33	5.20	5.08
BTS 89RR50	Not Approved	4.75	4.01	5.30	4.66	4.69	4.84	5.16	5.01	5.09	5.01
BTS 89RR83	Not Approved	3.59	3.63	4.53	4.08	3.92	4.53	4.83	4.81	4.82	4.72
Crystal 091RR	Not Approved	--	4.02	4.63	4.32	--	--	4.58	4.64	4.61	--
Crystal 093RR	Not Approved	--	4.11	4.43	4.27	--	--	5.12	5.16	5.14	--
Crystal 095RR	Not Approved	--	4.11	4.87	4.49	--	--	4.80	4.88	4.84	--
Crystal 539RR	Not Approved	4.38	4.37	4.49	4.43	4.41	5.25	5.39	5.37	5.38	5.33
Crystal 765RR	Not Approved	4.68	4.37	4.58	4.47	4.54	4.89	4.52	4.70	4.61	4.70
Crystal 768RR	Not Approved	4.06	4.31	4.42	4.37	4.26	4.94	5.21	5.09	5.15	5.08
Crystal 875RR	Approved	4.16	3.49	4.06	3.77	3.90	4.56	4.33	4.24	4.28	4.37
Crystal 878RR	Not Approved	4.39	4.44	4.50	4.47	4.44	4.91	5.17	5.31	5.24	5.13
Crystal 879RR	Not Approved	4.13	4.19	4.33	4.26	4.22	5.13	5.36	5.19	5.27	5.23
Crystal 981RR	Not Approved	--	4.12	4.93	4.52	--	5.19	5.29	5.21	5.25	5.23
Crystal 985RR	Not Approved	--	3.98	4.56	4.27	--	4.18	4.30	4.37	4.33	4.28
Crystal 986RR	Not Approved	4.59	4.65	4.00	4.33	4.41	4.53	5.45	5.14	5.30	5.04
Hilleshög 4012RR	Not Approved	4.84	4.53	5.02	4.77	4.80	5.29	5.00	5.24	5.12	5.18
Hilleshög 4043RR	Not Approved	4.54	4.40	5.29	4.84	4.74	4.69	5.01	4.84	4.93	4.85
Hilleshög 4195RR	Not Approved	3.67	4.08	3.78	3.93	3.84	4.56	4.39	4.60	4.50	4.52
Hilleshög 4199RR(9199)	Not Approved	--	4.95	5.32	5.13	--	4.64	4.67	4.42	4.54	4.58
Hilleshög 9236RR	<2 Yrs	--	--	5.86	--	--	--	4.45	4.75	4.60	--
Hilleshög 9237RR	<2 Yrs	--	--	4.98	--	--	--	4.58	4.31	4.44	--
Hilleshög 9238RR	<2 Yrs	--	--	5.98	--	--	--	4.16	4.88	4.52	--
Seedex SX0806RR	<2 Yrs	--	--	4.75	--	--	--	5.13	4.64	4.88	--
Seedex SX0808RR	Not Approved	--	4.42	4.51	4.47	--	--	5.27	4.16	4.71	--
Seedex Vision RR(SX0891)	Not Approved	--	4.31	4.46	4.38	--	5.17	4.76	4.41	4.58	4.78
Seedex Victor RR(SX0894)	Not Approved	--	4.32	4.57	4.45	--	4.38	4.51	4.33	4.42	4.41
Seedex Uplander RR	Not Approved	4.73	4.20	4.61	4.41	4.52	4.94	4.97	4.62	4.79	4.84
Seedex Usher RR	Not Approved	4.13	4.47	4.63	4.55	4.41	4.35	5.05	4.70	4.87	4.70
SESVanderhave H36072RR	<2 Yrs	--	--	5.13	--	--	--	4.61	4.64	4.63	--
SESVanderhave H36711RR	Not Approved	4.50	3.83	4.69	4.26	4.34	5.22	4.99	4.58	4.79	4.93
SESVanderhave H36812RR	Not Approved	4.57	4.45	4.73	4.59	4.59	4.74	5.16	4.78	4.97	4.89
SESVanderhave H36813RR	Not Approved	4.63	4.10	4.77	4.44	4.50	4.55	4.59	4.46	4.52	4.53
SESVanderhave H36916RR	Not Approved	--	4.30	4.52	4.41	--	4.91	4.97	4.70	4.83	4.86
SESVanderhave H36917RR	Not Approved	--	4.27	4.80	4.54	--	5.01	4.95	4.51	4.73	4.82
SESVanderhave H36918RR	Not Approved	--	4.37	5.14	4.76	--	4.36	4.47	4.41	4.44	4.41
<b>Conventional Candidates for Approval (2 Yr)</b>											
Crystal R761	Not Approved	--	4.15	4.53	4.34	--	--	4.86	4.92	4.89	--
Crystal R869	Not Approved	--	4.27	3.98	4.12	--	--	4.90	5.24	5.07	--
<b>Susceptible Checks</b>											
Rhiz Chk#01 SEEDMONOHKARI	Susc Chk	4.72	4.61	--	--	--	--	--	--	--	--
Rhiz Chk#02 HILLE17	Susc Chk	4.49	4.21	--	--	--	--	--	--	--	--
Filler25 CRYSR434	Susc Chk	4.22	3.99	3.37	3.68	3.86	--	--	--	--	--
Rhiz Chk#09 CRYSR431	Susc Chk	4.55	4.64	4.55	4.59	4.58	--	--	--	--	--
Rhiz Chk#08 CRYSS539RR	Susc Chk	4.53	4.22	5.03	4.63	4.59	--	--	--	--	--
Rhiz Chk#11 BETA87RR68	Susc Chk	4.88	4.60	4.95	4.78	4.81	--	--	--	--	--
Rhiz Chk#15 CRYSR760	Susc Chk	4.51	4.44	--	--	--	--	--	--	--	--
Rhiz Chk#21 CRYST68RR	Susc Chk	4.05	4.59	4.39	4.49	4.34	--	--	--	--	--
Rhiz Chk#27 HILL4012RR	Susc Chk	4.69	4.75	4.76	4.76	4.73	--	--	--	--	--
Rhiz Chk#20 CRYST65RR	Susc Chk	4.25	4.49	4.50	4.50	4.42	--	--	--	--	--
Rhiz Chk#30 SES36711RR	Susc Chk	4.50	4.24	4.48	4.36	4.41	--	--	--	--	--
Rhiz Chk#26 BETA86RR44	Susc Chk	4.37	4.10	4.35	4.23	4.27	--	--	--	--	--
Rhiz Chk#29 BETA87RR58	Susc Chk	4.46	4.77	4.77	4.77	4.66	--	--	--	--	--
Rhiz Chk#24 BETA86RR88	Susc Chk	4.67	4.22	4.83	4.53	4.57	--	--	--	--	--
Rhiz Chk#25 HILL4043RR	Susc Chk	4.66	4.19	4.59	4.39	4.48	--	--	--	--	--
Rhiz Chk#31 HILL4000RR	Susc Chk	4.86	4.58	5.19	4.88	4.88	--	--	--	--	--
Rhiz Chk#32 HILL4010RR	Susc Chk	4.96	4.61	4.46	4.54	4.68	--	--	--	--	--
Rhiz Chk#34 BETA86RR66	Susc Chk	4.11	4.23	4.72	4.47	4.35	--	--	--	--	--
Rhiz Chk#35 SES36812RR	Susc Chk	4.57	4.32	4.63	4.48	4.51	--	--	--	--	--
Susceptible Hybrid Mean		4.48	4.47	4.72	4.59	4.56				5.20	5.40
Approval Criteria ++		5.03	3.58	3.77	3.82	4.10					

+ Disease Index is based on a scale of 0 (healthy) to 7 (plant dead). All readings were adjusted based on check performance in 2007-2009.  
+ 2011 data from Ft Collins and 2 Mhd sites. 2010 data from Ft Collins and NDSU. 2009 data from Ft Collins.  
++ Candidates must have better tolerance than susc. check mean \* 80%. To maintain approval, tolerance must be better than susc. check mean \* 90%.  
\*\* All readings 2009-2011 were adjusted based on check performance. Excluded from Susc Mean  
Previously approved variety maintaining specialty approval status for 2012 is SESVanderhave H36811RR.

Table 50.

**Varieties Meeting Approval Criteria for the 2012 Minn-Dak Sugarbeet Crop**

<b>Established Varieties</b>		
ACH RR643 (Aph)	HM 4012RR	VDH H36822RR
ACH RR830 (Rhc)	HM 4022RR (Rhc)	VDH H36926RR
ACH RR794 (Aph)	HM 4062RR (Rhc)	SDX Ultra RR

<b>Conditionally Approved Varieties</b>
VDH H36923RR
VDH H36927RR
SDX 0995RR(Vapor)

<b>Specialty Approved Varieties</b>	
ACH RR798 (Rhc)	HM 4204RR(Rhc)
	HM 4251RR(Rhc)

\*\* An Aphanomyces root rating of 4.45 or less must be obtained to be considered "Aphanomyces Specialty".

\*\* A Rhizoctonia root rating of 3.82 or less must be obtained to be considered "Rhizoctonia Specialty".

<b>Test Market Varieties Approved for Limited Sales</b>		
ACH RR012	Beta 70RR64 (Aph)	SDX 0901RR (Wildcat)
	Beta 70RR70	
	Beta 70RR78	
	Beta 70RR99	

ACH varieties are labeled as Crystal in the data tables.

Aph indicates variety has Aphanomyces tolerance

HM varieties are labeled as Hillesehög in the data tables.

Rhc indicates variety has Rhizoctonia tolerance

SDX varieties are labeled as Seedex in the data tables.

VDH varieties are labeled as SESVanderhave in the data tables.

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Created 12-19-2011.

Table 51. 2011 Performance of Varieties - MDFC RR Commercial Yield Trial  
2 Locations - All Characters

Description @	Unadjusted		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%	%	
BTS 77RR54	154	331.7	102	5204	90	1.35	17.93	15.31	407	2378	265	0.00	51.9	
BTS 78RR10	157	325.9	100	5105	88	1.36	17.65	15.36	342	2340	305	0.00	49.6	
BTS 85RR02	162	321.0	98	4882	85	1.47	17.52	14.65	494	2488	300	0.00	46.4	
Crystal RR632	166	316.1	97	5257	91	1.32	17.13	16.29	459	2203	270	0.00	50.9	
Crystal RR643	152	332.0	102	6227	108	1.40	18.01	18.55	392	2419	306	0.00	58.8	
Crystal RR794	161	327.1	100	5666	98	1.44	17.80	16.85	421	2444	314	0.00	55.4	
Crystal RR798	165	308.5	95	5111	89	1.39	16.81	16.24	435	2445	270	0.00	46.6	
Crystal RR806	158	320.3	98	5455	94	1.55	17.57	16.77	498	2707	303	0.00	48.9	
Crystal RR830	155	324.2	99	6428	111	1.23	17.44	19.55	354	2240	228	0.00	55.9	
Hilleshög 4012RR	163	333.8	102	5980	104	1.32	18.01	17.47	493	2217	249	0.00	55.8	
Hilleshög 4022RR	156	337.8	104	6384	111	1.31	18.20	18.85	324	2373	268	0.00	70.0	
Hilleshög 4062RR(9062)	167	329.3	101	6297	109	1.33	17.80	18.82	372	2364	268	0.00	65.9	
Hilleshög 4204RR(9204)	151	327.7	101	5964	103	1.33	17.71	17.99	415	2357	252	0.00	56.1	
Seedex Ultra RR	159	320.5	98	6038	105	1.31	17.33	18.24	406	2219	274	0.00	57.2	
SESVanderhave H36822RR	164	322.6	99	5830	101	1.35	17.48	17.44	423	2299	280	0.00	54.4	
SESVanderhave H36923RR	153	331.0	102	5996	104	1.25	17.79	17.74	368	2179	255	0.00	58.2	
SESVanderhave H36927RR	160	321.7	99	5871	102	1.29	17.38	17.72	406	2238	259	0.00	63.9	
MD RR Filler#1	168	334.8	103	6246	108	1.32	18.06	18.33	290	2383	285	0.00	64.3	
Trial Mean		325.9		5774		1.35	17.64	17.34	406	2350	275	0.0	56.1	
Coeff. of Var. (%)		3.7		9.1		8.4	3.0	8.8	23.4	5.0	16.5		15.4	
Mean LSD (0.05)		15.3		1132		0.10	0.73	3.38	124	157	42		12.2	
Mean LSD (0.01)		21.0		1555		0.14	1.00	4.65	171	216	55		16.7	
Sig Lvl		ns		ns		**	ns	ns	ns	**	**		*	

\* 2011 Data from 2 Locations

10/13/2011 12:30

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11mdCom

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

Table 52. 2011 Performance of Varieties - MDFC RR Commercial Yield Trial  
Barnesville MN - All Characters

Description @	Unadjusted		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%	%	
BTS 77RR54	154	365.4	102	6577	91	1.13	19.37	18.03	221	2202	205	0.00	50.3	
BTS 78RR10	157	352.3	99	6686	93	1.15	18.76	18.91	207	2152	241	0.00	51.5	
BTS 85RR02	162	355.9	100	6662	92	1.25	19.05	18.74	263	2358	246	0.00	50.9	
Crystal RR632	166	351.0	98	6515	90	1.11	18.65	18.55	253	2076	216	0.00	54.3	
Crystal RR643	152	357.4	100	7093	98	1.18	19.04	19.84	242	2201	241	0.00	60.4	
Crystal RR794	161	362.5	102	7327	101	1.21	19.32	20.18	223	2285	253	0.00	53.8	
Crystal RR798	165	342.7	96	6584	91	1.22	18.34	19.11	239	2352	227	0.00	44.8	
Crystal RR806	158	355.3	100	6631	92	1.35	19.10	18.71	316	2546	258	0.00	51.5	
Crystal RR830	155	350.2	98	7664	106	1.00	18.52	21.82	205	1985	177	0.00	56.4	
Hilleshög 4012RR	163	363.5	102	7767	107	1.14	19.33	21.36	245	2152	224	0.00	55.8	
Hilleshög 4022RR	156	364.6	102	7158	99	1.17	19.38	19.65	194	2307	226	0.00	73.9	
Hilleshög 4062RR	167	363.7	102	7355	102	1.15	19.37	20.11	187	2255	224	0.00	73.5	
Hilleshög 4204RR	151	353.3	99	7015	97	1.23	18.87	19.82	290	2259	246	0.00	54.3	
Seedex Ultra RR	159	354.6	99	8170	113	1.13	18.87	23.06	244	2101	234	0.00	65.5	
SESVanderhave H36822RR	164	357.8	100	7713	107	1.08	19.00	21.47	198	2127	206	0.00	64.1	
SESVanderhave H36923RR	153	360.7	101	7771	108	1.07	19.12	21.54	190	2074	209	0.00	68.0	
SESVanderhave H36927RR	160	358.2	100	7732	107	1.08	19.00	21.59	195	2094	210	0.00	71.4	
MD RR Filler#1	168	354.0	99	7646	106	1.15	18.85	21.52	213	2186	237	0.00	71.3	
Trial Mean		356.8		7226		1.16	19.00	20.22	229	2206	227	0.0	59.5	
Coeff. of Var. (%)		2.9		6.8		6.6	2.6	5.9	18.2	4.8	13.2		14.5	
Mean LSD (0.05)		13.6		659		0.09	0.64	1.60	48	128	35		10.5	
Mean LSD (0.01)		18.0		876		0.12	0.85	2.13	63	169	46		13.9	
Sig Lvl		ns		**		**	ns	**	**	**	**		**	

\* 2011 Data from Barnesville MN

10/13/2011 13:15

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 116601

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

Light to moderate Aphanomyces.



Table 53. 2011 Performance of Varieties - MDFC RR Commercial Yield Trial  
Fairmount ND - All Characters

Description @	Unadjusted		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%	%	
BTS 77RR54	154	298.9	101	3828	89	1.59	16.54	12.54	598	2564	331	0.00	53.8	
BTS 78RR10	157	298.6	101	3545	82	1.58	16.51	11.91	486	2540	371	0.00	47.6	
BTS 85RR02	162	286.7	97	3100	72	1.68	16.02	10.53	719	2614	350	0.00	41.5	
Crystal RR632	166	281.0	95	4002	93	1.54	15.59	14.06	669	2325	322	0.00	47.6	
Crystal RR643	152	306.5	104	5344	124	1.64	16.97	17.20	548	2639	372	0.00	57.2	
Crystal RR794	161	292.1	99	4005	93	1.67	16.28	13.58	633	2602	376	0.00	57.2	
Crystal RR798	165	272.4	92	3659	85	1.60	15.22	13.46	651	2550	323	0.00	48.7	
Crystal RR806	158	285.9	97	4276	99	1.76	16.06	14.81	674	2875	355	0.00	45.5	
Crystal RR830	155	298.2	101	5212	121	1.46	16.37	17.33	515	2489	284	0.00	56.2	
Hilleshög 4012RR	163	305.3	104	4176	97	1.47	16.73	13.51	724	2279	269	0.00	55.6	
Hilleshög 4022RR	156	312.1	106	5598	129	1.44	17.05	17.98	445	2435	312	0.00	65.8	
Hilleshög 4062RR	167	293.6	100	5228	121	1.49	16.17	17.54	544	2475	301	0.00	58.1	
Hilleshög 4204RR	151	301.9	102	4904	113	1.45	16.54	16.16	544	2455	267	0.00	57.6	
Seedex Ultra RR	159	285.5	97	3915	91	1.47	15.75	13.47	566	2333	309	0.00	48.5	
SESVanderhave H36822RR	164	287.6	98	3951	91	1.59	15.97	13.43	640	2459	344	0.00	44.8	
SESVanderhave H36923RR	153	300.6	102	4221	98	1.41	16.44	13.91	542	2277	293	0.00	48.7	
SESVanderhave H36927RR	160	284.7	97	4009	93	1.51	15.75	13.81	613	2390	312	0.00	56.3	
MD RR Filler#1	168	317.0	107	4842	112	1.46	17.31	15.12	361	2571	328	0.00	57.8	
Trial Mean		294.9		4323		1.55	16.29	14.46	582	2493	323	0.0	52.7	
Coeff. of Var. (%)		4.4		12.9		8.9	3.4	12.4	21.7	5.1	17.5		16.7	
Mean LSD (0.05)		17.6		744		0.18	0.75	2.37	167	162	76		10.2	
Mean LSD (0.01)		23.4		989		0.24	1.00	3.14	221	215	100		13.5	
Sig Lvl		**		**		*	**	**	**	**	ns		**	

\* 2011 Data from Fairmount ND

10/13/2011 12:17

Created 10-13-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 116603

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

Moderate Rhizomania and Rhizoctonia.

Table 54. 2011 Performance of Varieties - MDFC Experimental RR Official Trial  
2 Locations - All Characters

Adjusted to Comm. Trial Status 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 %^	Emerg. %^
BTS 70RR64	331	338.6	102	6383	108	1.31	18.24	18.58	388	2171	300	0.00	58.8
BTS 70RR70	314	329.7	100	6225	105	1.33	17.81	18.49	395	2415	245	0.00	63.1
BTS 70RR78	305	331.4	100	6058	102	1.40	17.96	17.98	327	2523	289	0.00	54.0
BTS 70RR99	308	337.1	102	6076	103	1.47	18.32	17.74	323	2541	344	0.00	63.5
BTS 71RR22	319	342.2	103	5409	91	1.36	18.47	15.56	362	2400	289	0.00	54.5
BTS 71RR31	301	341.2	103	5583	94	1.17	18.25	15.93	288	2096	238	0.00	61.0
BTS 71RR62	318	333.0	101	5390	91	1.27	17.92	15.60	457	2185	239	0.00	49.0
Crystal RR012	313	338.6	102	6152	104	1.46	18.38	18.02	272	2549	350	0.00	54.8
Crystal RR176	330	317.4	96	5744	97	1.35	17.20	17.77	501	2216	277	0.00	63.5
Crystal RR654	324	323.8	98	5675	96	1.42	17.60	17.08	476	2333	311	0.00	59.5
Hilleshög 4251RR(9251)	303	326.1	98	6467	109	1.41	17.69	19.55	407	2465	282	0.00	62.3
Hilleshog 9307RR	329	319.6	96	5845	99	1.36	17.33	17.70	555	2317	246	0.00	63.1
Hilleshog 9308RR	311	316.1	95	5598	95	1.40	17.18	17.54	547	2377	259	0.00	61.4
Hilleshog 9309RR	326	340.0	103	5958	101	1.28	18.28	17.24	364	2157	288	0.00	61.6
Hilleshog 9310RR	304	338.6	102	5941	100	1.33	18.26	16.89	457	2173	288	0.00	63.5
Hilleshog 9311RR	327	333.8	101	4951	84	1.49	18.16	14.59	334	2619	323	0.00	70.8
Hilleshog 9312RR	320	333.5	101	5584	94	1.44	18.10	16.21	521	2395	293	0.00	56.8
Maribo 106RR	312	330.7	100	5755	97	1.43	17.96	16.98	577	2294	295	0.00	61.3
Maribo 107RR	325	327.7	99	5541	94	1.53	17.89	16.74	560	2505	322	0.00	53.6
Maribo 108RR	302	340.5	103	6837	115	1.20	18.24	19.51	354	2124	236	0.00	59.6
Seedex SX0901RR	321	333.7	101	6005	101	1.25	17.94	17.67	334	2272	238	0.00	59.5
Seedex SX0903RR	317	320.3	97	6337	107	1.27	17.28	19.17	334	2278	250	0.00	58.0
Seedex SX0904RR	315	314.4	95	5697	96	1.43	17.12	17.72	499	2428	283	0.00	58.4
Seedex SX0917RR	333	337.2	102	6196	105	1.23	18.10	17.78	305	2257	234	0.00	57.1
Seedex SX0918RR	307	330.2	100	5489	93	1.25	17.77	16.02	351	2313	229	0.00	66.2
Seedex SX0995RR	322	333.0	101	6355	107	1.34	17.98	18.54	337	2391	280	0.00	55.2
SESVanderhave H36083RR	316	324.3	98	5525	93	1.28	17.48	16.74	380	2251	249	0.00	50.8
SESVanderhave H36084RR	332	340.6	103	5589	94	1.22	18.26	16.12	287	2276	233	0.00	55.2
SESVanderhave H36185RR	323	334.5	101	5821	98	1.30	18.03	16.94	357	2388	241	0.00	56.5
SESVanderhave H36186RR	306	334.9	101	6011	102	1.21	17.96	17.62	307	2199	238	0.00	62.5
SESVanderhave H36187RR	328	339.1	102	6066	102	1.22	18.18	17.47	284	2270	234	0.00	59.1
SESVanderhave H36188RR	309	327.4	99	6043	102	1.33	17.70	18.05	448	2378	242	0.00	64.2
SESVanderhave H36926RR	310	342.9	103	6205	105	1.20	18.35	17.77	302	2259	217	0.00	60.2
Crystal RR830(Check)	334	316.7	96	6183	104	1.24	17.08	19.18	397	2202	237	0.00	56.8
SESVanderhave H36927RR(Check)	335	328.9	99	6571	111	1.27	17.72	19.50	357	2242	256	0.00	60.6
Hilleshög 4062RR(Check)	336	329.5	99	5841	99	1.34	17.81	17.41	377	2397	262	0.00	70.2
Trial Mean		331.3		5920		1.33	17.89	17.49	392	2323	268	0.0	59.6
Coeff. of Var. (%)		2.9		8.1		5.6	2.5	8.0	19.2	3.2	12.8		11.8
Mean LSD (0.05)		10.9		1016		0.10	0.56	2.84	139	173	37		13.3
Mean LSD (0.01)		14.7		1362		0.14	0.75	3.80	187	232	48		17.8
Sig Lvl		**		ns		**	**	ns	**	**	**		ns

\* 2011 Data from 2 Locations

10/13/2011 15:11

Created 10-24-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 11expMD

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

Table 55. 2011 Performance of Varieties - ACSC Experimental RR Official Trial  
Barnesville MN - All Characters

Adjusted to Comm. Trial Status 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 %^	Emerg. %^
BTS 70RR70	314	365.9	100	7587	103	1.05	19.37	20.68	200	2109	182	0.00	62.1
BTS 70RR78	305	358.1	98	7091	97	1.18	19.11	19.74	179	2291	246	0.00	48.2
BTS 70RR99	308	370.6	101	6950	95	1.22	19.80	18.64	188	2206	306	0.00	61.9
BTS 71RR22	319	377.9	103	6413	87	1.14	20.05	17.04	200	2161	245	0.00	48.4
BTS 71RR31	301	378.9	103	7222	98	0.96	19.94	19.00	139	1903	192	0.00	64.7
BTS 71RR62	318	378.7	103	6766	92	1.08	20.05	17.80	222	2012	228	0.00	44.4
Crystal RR012	313	366.4	100	7056	96	1.22	19.57	19.18	158	2271	291	0.00	50.0
Crystal RR176	330	352.0	96	7040	96	1.09	18.70	19.98	221	2048	221	0.00	63.0
Crystal RR654	324	360.2	98	7324	100	1.17	19.22	20.20	192	2196	262	0.00	55.2
Hilleshög 4251RR(9251)	303	363.2	99	7610	104	1.19	19.37	20.95	214	2265	246	0.00	66.0
Hilleshog 9307RR	329	351.5	96	7471	102	1.18	18.78	21.14	323	2151	232	0.00	64.4
Hilleshog 9308RR	311	359.0	98	6728	92	1.15	19.10	18.85	258	2148	230	0.00	60.8
Hilleshog 9309RR	326	376.6	103	7175	98	1.10	19.95	19.06	227	1956	256	0.00	60.4
Hilleshog 9310RR	304	376.9	103	8141	111	1.07	19.94	21.52	232	1930	235	0.00	60.3
Hilleshog 9311RR	327	365.5	100	5713	78	1.24	19.55	15.52	181	2373	280	0.00	78.5
Hilleshog 9312RR	320	365.3	100	7107	97	1.18	19.48	19.34	245	2179	249	0.00	61.4
Maribo 106RR	312	367.5	100	7171	98	1.20	19.61	19.51	297	2147	257	0.00	62.0
Maribo 107RR	325	360.0	98	6576	90	1.29	19.29	18.44	317	2265	285	0.00	53.6
Maribo 108RR	302	378.4	103	8544	116	1.01	19.96	22.57	170	1958	206	0.00	59.9
Seedex SX0901RR	321	365.1	100	7554	103	1.11	19.39	20.63	172	2188	214	0.00	60.3
Seedex SX0903RR	317	361.5	99	8428	115	1.11	19.22	23.22	204	2141	218	0.00	66.4
Seedex SX0904RR	315	350.3	96	6840	93	1.16	18.68	19.52	226	2238	226	0.00	69.0
Seedex SX0917RR	333	375.2	102	8050	110	1.03	19.83	21.45	164	2094	191	0.00	60.5
Seedex SX0918RR	307	370.6	101	7094	97	1.03	19.59	19.08	140	2149	182	0.00	73.1
Seedex SX0995RR	322	370.1	101	8124	111	1.13	19.64	21.92	193	2169	236	0.00	64.5
SESVanderhave H36083RR	316	355.8	97	6954	95	1.13	18.93	19.62	224	2161	228	0.00	53.6
SESVanderhave H36084RR	332	375.0	102	6926	94	1.07	19.83	18.54	167	2134	199	0.00	58.9
SESVanderhave H36185RR	323	369.0	101	7540	103	1.08	19.55	20.32	173	2166	198	0.00	64.6
SESVanderhave H36186RR	306	365.1	100	7594	104	1.05	19.32	20.76	156	2121	192	0.00	64.6
SESVanderhave H36187RR	328	373.2	102	7589	103	1.06	19.75	20.22	158	2120	198	0.00	58.1
SESVanderhave H36188RR	309	364.4	99	7461	102	1.10	19.34	20.44	185	2200	199	0.00	64.9
SESVanderhave H36926RR	310	377.0	103	7848	107	1.01	19.88	20.87	166	2034	188	0.00	67.5
Crystal RR830(Check)	334	347.7	95	7624	104	1.01	18.41	21.96	219	1962	187	0.00	55.5
SESVanderhave H36927RR(Check)	335	364.1	99	8144	111	1.08	19.30	22.31	187	2123	204	0.00	70.0
Hilleshög 4062RR(Check)	336	360.3	98	6983	95	1.14	19.18	19.25	180	2249	220	0.00	70.2
Trial Mean		366.5		7335		1.12	19.46	19.99	202	2135	227	0.0	61.2
Coeff. of Var. (%)		2.3		6.3		5.8	2.0	6.5	23.1	3.4	13.7		8.5
Mean LSD (0.05)		13.2		748		0.10	0.63	2.09	71	110	48		7.4
Mean LSD (0.01)		17.5		993		0.14	0.83	2.76	94	145	64		9.7
Sig Lvl		**		**		**	**	**	**	**	**		**

\* 2011 Data from Barnesville MN

10/13/2011 11:41

Created 10-18-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 116301

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

Light to moderate Aphanomyces.

Table 56. 2011 Performance of Varieties - MDFC Experimental RR Official Trial  
Fairmount ND - All Characters

Adjusted to Comm. Trial Status 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 %^	Emerg. %^
BTS 70RR64	331	299.6	101	5187	115	1.50	16.50	17.12	602	2311	346	0.00	60.9
BTS 70RR70	314	292.3	99	4845	107	1.60	16.20	16.35	598	2727	302	0.00	64.1
BTS 70RR78	305	305.8	103	5143	114	1.60	16.89	16.49	464	2767	336	0.00	59.8
BTS 70RR99	308	304.0	103	5331	118	1.70	16.88	17.31	462	2891	380	0.00	65.4
BTS 71RR22	319	306.4	103	4469	99	1.57	16.89	14.30	520	2636	336	0.00	60.7
BTS 71RR31	301	304.9	103	3872	86	1.37	16.64	12.56	440	2295	282	0.00	57.1
BTS 71RR62	318	287.8	97	4079	90	1.45	15.83	13.65	695	2357	251	0.00	53.6
Crystal RR012	313	310.1	105	5293	117	1.68	17.17	17.00	389	2816	403	0.00	59.6
Crystal RR176	330	281.2	95	4400	97	1.59	15.64	15.42	787	2376	334	0.00	64.1
Crystal RR654	324	287.5	97	4039	89	1.65	16.01	13.93	773	2461	362	0.00	63.9
Hilleshög 4251RR(9251)	303	288.5	97	5413	120	1.59	16.01	18.56	600	2663	312	0.00	58.6
Hilleshog 9307RR	329	288.2	97	4218	93	1.52	15.93	14.13	771	2491	265	0.00	61.8
Hilleshog 9308RR	311	273.3	92	4483	99	1.63	15.27	16.41	841	2599	281	0.00	62.0
Hilleshog 9309RR	326	303.0	102	4784	106	1.46	16.60	15.57	499	2358	319	0.00	62.8
Hilleshog 9310RR	304	300.7	102	3615	80	1.58	16.61	11.73	691	2435	340	0.00	66.9
Hilleshog 9311RR	327	302.7	102	4327	96	1.68	16.80	14.07	486	2876	361	0.00	63.0
Hilleshog 9312RR	320	300.8	102	4049	90	1.68	16.70	12.97	798	2612	337	0.00	52.1
Maribo 106RR	312	294.9	100	4341	96	1.64	16.37	14.45	839	2438	335	0.00	60.7
Maribo 107RR	325	295.2	100	4544	101	1.75	16.48	15.17	791	2747	347	0.00	53.6
Maribo 108RR	302	301.5	102	5097	113	1.39	16.48	16.38	547	2291	268	0.00	59.2
Seedex SX0901RR	321	301.6	102	4462	99	1.38	16.48	14.67	485	2348	263	0.00	58.6
Seedex SX0903RR	317	278.5	94	4178	93	1.41	15.34	14.90	458	2425	280	0.00	49.6
Seedex SX0904RR	315	278.4	94	4546	101	1.67	15.56	15.94	782	2622	338	0.00	47.9
Seedex SX0917RR	333	300.4	101	4264	94	1.39	16.43	13.78	438	2415	277	0.00	53.4
Seedex SX0918RR	307	289.8	98	3871	86	1.46	15.95	12.90	583	2462	274	0.00	59.2
Seedex SX0995RR	322	295.8	100	4541	101	1.54	16.32	14.98	484	2618	320	0.00	45.7
SESVanderhave H36083RR	316	293.7	99	4145	92	1.39	16.09	13.94	534	2337	268	0.00	47.9
SESVanderhave H36084RR	332	305.1	103	4237	94	1.35	16.64	13.63	408	2408	258	0.00	51.5
SESVanderhave H36185RR	323	300.5	101	4059	90	1.51	16.55	13.31	539	2632	282	0.00	48.5
SESVanderhave H36186RR	306	304.2	103	4445	98	1.35	16.60	14.48	460	2280	275	0.00	60.5
SESVanderhave H36187RR	328	304.2	103	4580	101	1.38	16.61	14.83	405	2420	275	0.00	60.3
SESVanderhave H36188RR	309	292.0	99	4689	104	1.56	16.16	15.84	717	2563	292	0.00	63.5
SESVanderhave H36926RR	310	308.4	104	4546	101	1.37	16.83	14.57	437	2500	239	0.00	53.0
Crystal RR830(Check)	334	285.6	96	4758	105	1.48	15.75	16.42	573	2460	285	0.00	58.1
SESVanderhave H36927RR(Check)	335	293.5	99	4971	110	1.45	16.13	16.64	522	2348	307	0.00	51.3
Hilleshög 4062RR(Check)	336	297.5	100	4719	105	1.54	16.41	15.62	576	2547	305	0.00	70.5
Trial Mean		296.1		4515		1.52	16.32	15.00	583	2514	307	0.0	58.0
Coeff. of Var. (%)		3.5		11.3		5.5	3.0	10.4	17.0	3.0	12.4		14.6
Mean LSD (0.05)		16.3		828		0.12	0.77	2.52	155	121	57		11.9
Mean LSD (0.01)		21.6		1098		0.17	1.02	3.33	205	160	75		15.7
Sig Lvl		**		**		**	**	**	**	**	**		**

\* 2011 Data from Fairmount ND

10/13/2011 13:28

Created 10-24-2011.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status.

Trial # = 116303

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

Moderate Rhizomania and Rhizoctonia.

**Table 57.**  
**Three Year Performance Summary of Minn-Dak Entries in 2011**  
**Minn-Dak Farmers Cooperative (All Location)\***

Description @	Years Comm Seed +	Rec. Sugar / Ton (pounds)			Rec. Sugar / Acre (pounds)			Sugar Content (%)			Root Yield (Tons / Acre)			Field Emergence (%)		Cercospora Rating** (1-9)		Aphanomyces Root Rating		Rhizoctonia (1=Ex,7=Poor)		Fusarium (1=Ex,9=Poor)		
		2011	3 Yr Mean	3 Yr % App.	2011	3 Yr Mean	3 Yr % App.	2011	3 Yr Mean	3 Yr % App.	2011	3 Yr Mean	3 Yr % App.	2011	3 Yr Mean	2011	3 Yr Mean	2011	3 Yr Mean	2010	2011	2010	2011	
<b>Previously Approved</b>																								
BTS 85RR02	4	321.0	321.1	101.3	4882	8290	96.3	17.5	17.3	102	14.7	25.7	90	46	60	4.47	4.53	4.09	3.89	4.1	4.0	4.6	4.7	
BTS 77RR54	2	331.7	325.5	102.7	5204	8609	100.0	17.9	17.5	103	15.3	26.5	93	52	60	4.82	4.68	4.59	4.45	4.6	4.5	4.2	4.4	
BTS 78RR10	2	325.9	317.2	100.1	5105	9088	105.6	17.7	17.1	101	15.4	28.8	101	50	57	5.26	5.15	5.25	5.30	4.8	4.5	4.8	4.9	
Crystal RR632	2	316.1	309.7	97.7	5257	8452	98.2	17.1	16.7	98	16.3	27.3	96	51	57	4.47	4.43	5.37	4.87	4.2	3.9	2.0	3.8	
Crystal RR643	1	332.0	319.9	100.9	6227	9066	105.4	18.0	17.3	102	18.6	28.4	100	59	58	5.16	5.11	3.99	3.96	3.8	3.7	3.4	3.3	
Crystal RR806	2	320.3	310.7	98.1	5455	9055	105.2	17.6	16.9	99	16.8	29.2	102	49	60	4.97	4.90	3.99	3.83	4.1	4.6	2.4	3.9	
Crystal RR830	2	324.2	312.6	98.6	6428	9834	114.3	17.4	16.7	98	19.6	31.4	110	56	67	4.92	4.79	4.81	4.66	3.8	3.4	2.8	3.6	
Hilleshög 4012RR	4	333.8	314.7	99.3	5980	8766	101.9	18.0	17.0	100	17.5	28.2	98	56	66	5.24	5.18	4.64	4.46	4.5	5.0	6.1	5.2	
Hilleshög 4022RR	3	337.8	319.6	100.8	6384	9312	108.2	18.2	17.2	101	18.9	29.5	103	70	72	4.26	4.35	4.80	4.85	3.6	3.5	4.8	4.1	
Hilleshög 4062RR	2	329.3	314.4	99.2	6297	9359	108.8	17.8	17.0	100	18.8	29.9	105	66	75	3.91	4.22	4.98	4.64	3.6	2.9	4.5	4.7	
Seedex Ultra RR	2	320.5	307.9	97.1	6038	9121	106.0	17.3	16.6	97	18.2	29.7	104	57	71	4.49	4.94	5.05	4.87	4.1	4.6	4.6	3.7	
SESVanderhave H36822RR	2	322.6	314.9	99.4	5830	8927	103.7	17.5	16.9	99	17.4	28.3	99	54	65	4.84	4.90	5.06	4.73	4.3	4.8	4.5	4.8	
<b>Candidates for Full Approval</b>																								
Crystal RR794	1	327.1	323.8	102.2	5666	9356	108.7	17.8	17.4	102	16.9	28.8	101	55	62	5.20	5.05	4.62	4.37	4.2	4.2	5.3	5.1	
Crystal RR798	1	308.5	307.6	97.1	5111	8795	102.2	16.8	16.6	98	16.2	28.4	100	47	61	4.62	4.83	5.23	4.76	3.9	3.4	5.1	3.6	
Hilleshög 4204RR	1	327.7	311.9	98.4	5964	9154	106.4	17.7	16.9	99	18.0	29.5	103	56	56	4.50	4.58	5.15	4.99	4.0	3.3	7.1	5.1	
Seedex SX0995RR	NC	333.0	313.5	98.9	6355	9689	112.6	18.0	16.9	99	18.5	31.1	109	55	73	4.68	4.66	4.86	4.83	3.7	4.5	4.6	5.3	
SESVanderhave H36923RR	1	331.0	313.9	99.0	5996	9162	106.5	17.8	16.8	99	17.7	29.5	103	58	70	4.39	4.50	4.81	4.57	4.3	4.7	3.9	4.5	
SESVanderhave H36926RR	NC	342.9	321.8	101.5	6205	9739	113.2	18.4	17.2	101	17.8	30.6	107	60	76	4.45	4.40	5.09	4.75	4.4	4.4	4.2	5.0	
SESVanderhave H36927RR	2	321.7	311.5	98.3	5871	9533	110.8	17.4	16.7	98	17.7	30.9	108	64	70	4.44	4.46	4.86	4.61	4.0	4.5	4.5	4.4	
<b>Test Market Candidates</b>																								
BTS 70RR64	NC	338.6	330.2	101.6	6383	8633	108.9	18.2	17.7	102	18.6	26.1	104	59	61	5.41	5.13	4.67	4.40	4.2	4.7	--	4.9	
BTS 70RR70	NC	329.7	331.3	101.9	6225	9242	116.6	17.8	17.7	102	18.5	27.6	109	63	64	5.11	5.16	5.41	5.44	3.9	3.8	--	3.9	
BTS 70RR78	NC	331.4	335.3	103.2	6058	8771	110.6	18.0	18.0	103	18.0	25.9	103	54	63	4.83	5.02	5.63	5.41	4.0	4.9	--	5.1	
BTS 70RR99	NC	337.1	338.4	104.1	6076	8972	113.1	18.3	18.2	104	17.7	26.3	104	64	66	4.59	4.51	4.85	4.74	3.9	3.9	--	4.0	
Crystal RR012	NC	338.6	336.9	103.7	6152	8969	113.1	18.4	18.1	104	18.0	26.6	105	55	57	4.79	4.69	5.04	5.09	3.9	4.1	--	4.6	
Seedex SX0901RR	NC	333.7	328.6	101.1	6005	8560	107.9	17.9	17.6	101	17.7	25.9	103	60	68	4.28	4.61	4.76	4.69	--	4.8	--	4.6	
Seedex SX0901RR	NC	333.7	328.6	101.1	6005	8560	107.9	17.9	17.6	101	17.7	25.9	103	60	68	4.28	4.61	4.76	4.69	--	4.8	--	4.6	
Seedex SX0903RR	NC	320.3	318.9	98.1	6337	8949	112.9	17.3	17.1	98	19.2	27.7	110	58	67	4.27	4.51	4.44	4.66	--	4.4	--	4.6	
SESVanderhave H36083RR	NC	324.3	325.3	100.1	5525	8403	106.0	17.5	17.4	100	16.7	25.6	102	51	61	4.62	4.69	4.72	4.80	--	4.4	4.8	4.3	
SESVanderhave H36083RR	NC	324.3	325.3	100.1	5525	8403	106.0	17.5	17.4	100	16.7	25.6	102	51	61	4.62	4.69	4.72	4.80	--	4.4	4.8	4.3	
SESVanderhave H36084RR	NC	340.6	329.3	101.3	5589	8472	106.8	18.3	17.6	101	16.1	25.8	102	55	62	4.69	4.81	4.76	4.66	4.2	4.4	4.6	5.0	
<b>One Year Status</b>																								
BTS 71RR22	NC	342.2		104.9	5409		94.0	18.5		105	15.6		90	55		4.54		5.41		4.3		--	--	
BTS 71RR31	NC	341.2		104.6	5583		97.0	18.3		103	15.9		92	61		4.78		4.77		4.9		--	--	
BTS 71RR62	NC	333.0		102.1	5390		93.6	17.9		101	15.6		90	49		4.82		4.02		3.9		--	--	
Crystal RR176	NC	317.4		97.3	5744		99.8	17.2		97	17.8		103	64		5.00		5.29		4.0		--	--	
Crystal RR654	NC	323.8		99.2	5675		98.6	17.6		100	17.1		99	60		4.99		4.23		5.0		--	--	
Hilleshög 9307RR	NC	319.6		98.0	5845		101.5	17.3		98	17.7		102	63		4.51		4.39		3.9		--	3.4	
Hilleshög 9308RR	NC	316.1		96.9	5598		97.2	17.2		97	17.5		102	61		4.53		5.02		4.8		--	4.0	
Hilleshög 9309RR	NC	340.0		104.2	5958		103.5	18.3		103	17.2		100	62		4.17		5.22		3.1		--	--	
Hilleshög 9310RR	NC	338.6		103.8	5941		103.2	18.3		103	16.9		98	63		4.43		4.84		--		--	--	
Hilleshög 9311RR	NC	333.8		102.3	4951		86.0	18.2		103	14.6		84	71		3.46		4.59		4.0		--	4.1	
Hilleshög 9312RR	NC	333.5		102.2	5584		97.0	18.1		102	16.2		94	57		4.95		5.08		--		--	--	
Maribo 106RR	NC	330.7		101.4	5755		100.0	18.0		102	17.0		98	61		4.94		5.16		--		--	--	
Maribo 107RR	NC	327.7		100.5	5541		96.2	17.9		101	16.7		97	54		5.01		4.89		--		--	--	
Maribo 108RR	NC	340.5		104.4	6837		118.7	18.2		103	19.5		113	60		5.13		4.06		--		--	--	
Seedex SX0917RR	NC	337.2		103.4	6196		107.6	18.1		102	17.8		103	57		4.29		5.10		4.8		--	--	
Seedex SX0918RR	NC	330.2		101.2	5489		95.3	17.8		101	16.0		93	66		4.24		4.95		4.1		--	4.9	
SESVanderhave H36185RR	NC	334.5		102.5	5821		101.1	18.0		102	16.9		98	57		4.49		4.81		4.5		--	--	
SESVanderhave H36186RR	NC	334.9		102.6	6011		104.4	18.0		102	17.6		102	63		4.65		5.09		4.6		--	--	
SESVanderhave H36187RR	NC	339.1		103.9	6066		105.4	18.2		103	17.5		101	59		4.52		4.88		4.9		--	5.2	
SESVanderhave H36188RR	NC	327.4		100.4	6043		105.0	17.7		100	18.1		105	64		4.23		4.53		3.9		--	4.0	
Prev. Approved Mean**		326.3	315.7		5757	8989.9		17.7			17.3													
Prev Approved Mean - 2 Yr only			324.3			8226.0																		

\* 2011 Barnesville & Foxhome. 2010 Barnesville, Foxhome & Charlesville. 2009 Norcross.

**Table 58. Official Trial Disease Nurseries 2009 - 2011 (ACSC Approved Varieties tested in 2011)  
Cercospora, Aphanomyces, Rhizoctonia & Fusarium**

Code	Description +	CR			Aph			Rhizoctonia			Fusarium		
		11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean
624	BTS 87RR38	4.89	4.82	4.73	5.0	4.3	4.8	4.6	4.4	3.8	4.3	3.6	3.8
590	BTS 87RR58	5.06	5.43	5.06	5.1	5.1	4.8	4.2	4.5	4.5	5.0	5.2	4.5
512	BTS 87RR68	4.99	4.47	4.66	6.0	6.7	6.2	4.4	4.8	4.6	4.3	4.9	4.0
558	BTS 88RR31	5.07	4.66	4.97	3.9	3.8	4.1	3.8	3.6	4.1	3.6	3.0	2.9
551	BTS 88RR41	5.06	5.14	4.87	5.6	5.2	4.7	4.3	4.2	4.3	4.3	3.6	3.1
508	BTS 88RR61	4.96	4.50	5.06	4.6	4.3	4.6	4.7	3.6	4.5	4.3	3.8	3.7
602	BTS 89RR10	5.08	4.92	4.48	4.1	3.7	3.9	3.6	3.9	4.5	4.7	5.5	4.3
542	BTS 89RR30	5.17	5.09	5.08	5.1	4.3	4.1	4.5	3.7	3.9	3.5	1.6	1.9
581	BTS 89RR40	5.33	5.07	4.83	4.8	4.1	4.5	5.0	4.2	4.5	4.8	3.6	3.9
527	BTS 89RR50	5.01	5.16	4.84	4.1	3.9	3.6	5.3	4.0	4.7	3.8	2.1	2.2
626	BTS 89RR83	4.81	4.83	4.53	5.1	5.7	4.2	4.5	3.6	3.6	4.4	3.2	2.8
514	Crystal 539RR	5.37	5.39	5.25	4.1	4.0	4.2	4.5	4.4	4.4	3.1	1.9	1.8
592	Crystal 658RR	4.47	4.46	4.63	4.5	3.9	3.9	3.8	4.2	3.7	3.2	1.9	2.4
625	Crystal 765RR	4.70	4.52	4.89	6.1	5.7	5.6	4.6	4.4	4.7	4.5	4.0	3.9
599	Crystal 768RR	5.09	5.21	4.94	4.8	4.8	5.0	4.4	4.3	4.1	4.5	4.2	4.4
606	Crystal 875RR	4.24	4.33	4.56	3.1	3.3	3.0	4.1	3.5	4.2	4.1	5.1	4.1
559	Crystal 878RR	5.31	5.17	4.91	5.4	5.7	5.1	4.5	4.4	4.4	4.6	4.4	4.2
516	Crystal 879RR	5.19	5.36	5.13	6.0	6.0	5.0	4.3	4.2	4.1	4.1	3.3	3.3
548	Crystal 985RR	4.37	4.30	4.18	3.7	4.2	4.2	4.6	4.0	--	4.2	4.2	--
611	Crystal 986RR	5.14	5.45	4.53	5.2	4.2	5.1	4.0	4.7	4.6	5.5	5.0	--
529	Hilleshög 4012RR	5.24	5.00	5.29	4.6	4.3	4.5	5.0	4.5	4.8	5.2	6.1	5.3
613	Hilleshög 4043RR	4.84	5.01	4.69	4.7	4.9	4.9	5.3	4.4	4.5	5.5	7.5	6.0
620	Hilleshög 4094RR	4.00	4.28	4.42	5.2	4.9	4.0	3.3	3.8	3.2	4.4	5.3	4.3
518	Hilleshog 4195RR	4.60	4.39	4.56	5.2	5.2	4.8	3.8	4.1	3.7	5.0	6.0	--
604	Hilleshög 4199RR(9199)	4.42	4.67	4.64	5.5	6.0	5.4	5.3	4.9	--	6.6	8.0	--
628	Seedex Vision RR(SX0891)	4.41	4.76	5.17	4.7	4.7	5.0	4.5	4.3	--	4.6	5.5	--
538	Seedex Victor RR(SX0894)	4.33	4.51	4.38	4.7	4.6	4.2	4.6	4.3	--	4.2	4.9	--
575	Seedex Uplander RR	4.62	4.97	4.94	4.7	5.1	4.3	4.6	4.2	4.7	4.7	4.9	4.9
610	Seedex Usher RR	4.70	5.05	4.35	4.7	4.8	4.4	4.6	4.5	4.1	4.3	5.4	4.1
503	SESVanderhave H36711RR	4.58	4.99	5.22	4.6	4.5	4.5	4.7	3.8	4.5	4.8	4.9	4.4
564	SESVanderhave H36811RR	4.08	4.62	5.10	4.7	4.7	4.4	4.6	4.1	4.3	4.4	4.2	3.3
530	SESVanderhave H36812RR	4.78	5.16	4.74	5.2	4.6	4.5	4.7	4.5	4.6	4.2	4.9	4.1
539	SESVanderhave H36813RR	4.46	4.59	4.55	4.6	4.4	4.4	4.8	4.1	4.6	4.4	4.9	4.4
546	SESVanderhave H36916RR	4.70	4.97	4.91	5.0	4.7	4.4	4.5	4.3	--	4.5	4.7	--
617	SESVanderhave H36917RR	4.51	4.95	5.01	4.7	4.7	4.3	4.8	4.3	--	4.8	5.0	--
576	SESVanderhave H36918RR	4.41	4.47	4.36	4.5	4.4	4.5	5.1	4.4	--	5.1	4.8	--
<b>Conventional</b>													
702	Crystal R434	4.96	--	--	4.6	--	--	4.4	--	--	4.8	--	--
707	Crystal R761	4.92	4.86	--	4.8	3.9	--	4.5	4.1	--	4.8	2.3	--
705	Crystal R869	5.24	4.90	--	6.1	5.7	--	4.0	4.3	--	5.7	6.2	--
<b>Newly Approved</b>													
605	BTS 80RR12	4.86	5.27	--	4.9	5.3	--	4.8	4.2	--	3.6	3.0	--
561	BTS 80RR32	5.18	4.93	--	5.3	5.6	--	4.2	3.9	--	4.2	2.2	--
615	BTS 80RR52	4.61	4.32	--	4.9	4.7	--	4.1	4.2	--	3.9	2.3	--
510	Crystal 091RR	4.64	4.58	--	5.2	4.7	--	4.6	4.0	--	4.7	3.6	--
600	Crystal 093RR	5.16	5.12	--	5.1	4.9	--	4.4	4.1	--	4.3	3.6	--
534	Crystal 095RR	4.88	4.80	--	4.6	5.0	--	4.9	4.1	--	4.4	4.1	--
533	Hilleshög 4022RR	4.26	4.26	4.53	4.8	5.0	4.8	3.5	3.6	3.1	4.1	4.8	4.4
540	Hilleshög 9236RR	4.75	4.45	--	4.9	5.0	--	5.9	--	--	4.8	6.6	--
595	Hilleshög 9237RR	4.31	4.58	--	5.4	5.1	--	5.0	--	--	5.9	--	--
554	Hilleshög 9238RR	4.88	4.16	--	5.7	5.7	--	6.0	--	--	4.7	5.0	--
531	Seedex SX0808RR	4.16	5.27	--	4.8	4.1	--	4.5	4.4	--	4.5	5.3	--
532	SESVanderhave H36072RR	4.64	4.61	--	4.6	5.2	--	5.1	--	--	4.9	--	--

CR ratings on a scale of 1-9.

Aph root ratings on a scale of 1-9.

Rhizoctonia ratings on a scale of 1-7.

Fusarium ratings on a scale of 1-9.

Green highlighted ratings indicate specialty or good resistance.

Red highlighted ratings indicate level of concern for some fields.

+ Some varieties are not approved for sale in 2012. Please check variety approval list.

Created 10-31-2011.

Table 59. Official Trial Disease Nurseries 2009 - 2011 (All varieties tested in 2011).

**Cercospora, Aphanomyces, Rhizoctonia & Fusarium**

All Ratings Adjusted		CR			Aph			Rhizoctonia			Fusarium		
Code	Description +	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean
624	BTS 87RR38	4.89	4.82	4.73	5.0	4.3	4.8	4.6	4.4	3.8	4.3	3.6	3.8
513	BTS 70RR70	5.11	5.21	--	5.4	5.5	--	3.8	3.9	--	3.9	--	--
608	BTS 70RR78	4.83	5.21	--	5.6	5.2	--	4.9	4.0	--	5.1	--	--
549	BTS 70RR99	4.59	4.43	--	4.8	4.6	--	3.9	3.9	--	4.0	--	--
526	BTS 71RR22	4.54	--	--	5.4	--	--	4.3	--	--	--	--	--
565	BTS 71RR31	4.78	--	--	4.8	--	--	4.9	--	--	--	--	--
535	BTS 71RR62	4.82	--	--	4.0	--	--	3.9	--	--	--	--	--
583	BTS 77RR54	4.82	4.72	4.50	4.6	4.2	4.5	4.5	4.6	4.9	4.4	4.2	3.3
502	BTS 78RR10	5.26	5.37	4.81	5.3	5.5	5.2	4.5	4.8	4.4	4.9	4.8	4.5
605	BTS 80RR12	4.86	5.27	--	4.9	5.3	--	4.8	4.2	--	3.6	3.0	--
561	BTS 80RR32	5.18	4.93	--	5.3	5.6	--	4.2	3.9	--	4.2	2.2	--
615	BTS 80RR52	4.61	4.32	--	4.9	4.7	--	4.1	4.2	--	3.9	2.3	--
598	BTS 81RR11	4.37	--	--	5.5	--	--	4.9	--	--	3.5	--	--
507	BTS 81RR17	4.68	--	--	4.1	--	--	4.1	--	--	3.5	--	--
572	BTS 81RR23	4.79	--	--	5.1	--	--	4.4	--	--	4.2	--	--
521	BTS 81RR41	4.14	--	--	5.3	--	--	4.8	--	--	4.0	--	--
593	BTS 81RR63	4.54	--	--	6.0	--	--	4.6	--	--	3.7	--	--
567	BTS 81RR78	4.88	--	--	4.8	--	--	4.6	--	--	3.9	--	--
568	BTS 81RR81	4.92	--	--	4.1	--	--	5.4	--	--	4.0	--	--
525	BTS 85RR02	4.47	4.47	4.66	4.1	3.5	4.0	4.0	4.1	4.5	4.7	4.6	2.7
624	BTS 87RR38	4.89	4.82	4.73	5.0	4.3	4.8	4.6	4.4	3.8	4.3	3.6	3.8
590	BTS 87RR58	5.06	5.43	5.06	5.1	5.1	4.8	4.2	4.5	4.5	5.0	5.2	4.5
512	BTS 87RR68	4.99	4.47	4.66	6.0	6.7	6.2	4.4	4.8	4.6	4.3	4.9	4.0
558	BTS 88RR31	5.07	4.66	4.97	3.9	3.8	4.1	3.8	3.6	4.1	3.6	3.0	2.9
551	BTS 88RR41	5.06	5.14	4.87	5.6	5.2	4.7	4.3	4.2	4.3	4.3	3.6	3.1
508	BTS 88RR61	4.96	4.50	5.06	4.6	4.3	4.6	4.7	3.6	4.5	4.3	3.8	3.7
602	BTS 89RR10	5.08	4.92	4.48	4.1	3.7	3.9	3.6	3.9	4.5	4.7	5.5	4.3
542	BTS 89RR30	5.17	5.09	5.08	5.1	4.3	4.1	4.5	3.7	3.9	3.5	1.6	1.9
581	BTS 89RR40	5.33	5.07	4.83	4.8	4.1	4.5	5.0	4.2	4.5	4.8	3.6	3.9
527	BTS 89RR50	5.01	5.16	4.84	4.1	3.9	3.6	5.3	4.0	4.7	3.8	2.1	2.2
626	BTS 89RR83	4.81	4.83	4.53	5.1	5.7	4.2	4.5	3.6	3.6	4.4	3.2	2.8
510	Crystal 091RR	4.64	4.58	--	5.2	4.7	--	4.6	4.0	--	4.7	3.6	--
600	Crystal 093RR	5.16	5.12	--	5.1	4.9	--	4.4	4.1	--	4.3	3.6	--
534	Crystal 095RR	4.88	4.80	--	4.6	5.0	--	4.9	4.1	--	4.4	4.1	--
585	Crystal 101RR	4.72	--	--	4.1	--	--	4.7	--	--	3.0	--	--
607	Crystal 102RR	4.92	--	--	4.7	--	--	4.6	--	--	4.3	--	--
560	Crystal 103RR	4.73	--	--	4.4	--	--	3.5	--	--	4.1	--	--
574	Crystal 104RR	4.69	--	--	5.2	--	--	4.0	--	--	4.0	--	--
556	Crystal 105RR	4.71	--	--	5.1	--	--	4.8	--	--	4.7	--	--
621	Crystal 106RR	4.15	--	--	4.7	--	--	4.5	--	--	4.3	--	--
514	Crystal 539RR	5.37	5.39	5.25	4.1	4.0	4.2	4.5	4.4	4.4	3.1	1.9	1.8
592	Crystal 658RR	4.47	4.46	4.63	4.5	3.9	3.9	3.8	4.2	3.7	3.2	1.9	2.4
625	Crystal 765RR	4.70	4.52	4.89	6.1	5.7	5.6	4.6	4.4	4.7	4.5	4.0	3.9
599	Crystal 768RR	5.09	5.21	4.94	4.8	4.8	5.0	4.4	4.3	4.1	4.5	4.2	4.4
606	Crystal 875RR	4.24	4.33	4.56	3.1	3.3	3.0	4.1	3.5	4.2	4.1	5.1	4.1
559	Crystal 878RR	5.31	5.17	4.91	5.4	5.7	5.1	4.5	4.4	4.4	4.6	4.4	4.2
516	Crystal 879RR	5.19	5.36	5.13	6.0	6.0	5.0	4.3	4.2	4.1	4.1	3.3	3.3
573	Crystal 981RR	5.21	5.29	5.19	4.0	3.4	4.1	4.9	4.1	--	3.5	2.6	--
548	Crystal 985RR	4.37	4.30	4.18	3.7	4.2	4.2	4.6	4.0	--	4.2	4.2	--
611	Crystal 986RR	5.14	5.45	4.53	5.2	4.2	5.1	4.0	4.7	4.6	5.5	5.0	--
523	Crystal RR012	4.79	4.60	--	5.0	5.1	--	4.1	3.9	--	4.6	--	--
584	Crystal RR176	5.00	--	--	5.3	--	--	4.0	--	--	--	--	--
589	Crystal RR632	4.47	4.34	4.50	5.4	4.7	4.6	3.9	4.2	4.1	3.8	2.0	2.2
544	Crystal RR643	5.16	5.19	4.98	4.0	4.1	3.8	3.7	3.8	4.4	3.3	3.4	2.7
557	Crystal RR654	4.99	--	--	4.2	--	--	5.0	--	--	--	--	--
509	Crystal RR794	5.20	5.26	4.69	4.6	4.5	3.9	4.2	4.2	--	5.1	5.3	--
630	Crystal RR798	4.62	5.22	4.65	5.2	5.2	3.8	3.4	3.9	3.2	3.6	5.1	--
550	Crystal RR806	4.97	4.99	4.75	4.0	3.6	3.9	4.6	4.1	4.7	3.9	2.4	2.3
566	Crystal RR830	4.92	4.86	4.57	4.8	4.9	4.2	3.4	3.8	3.4	3.6	2.8	3.1
529	Hilleshög 4012RR	5.24	5.00	5.29	4.6	4.3	4.5	5.0	4.5	4.8	5.2	6.1	5.3
533	Hilleshög 4022RR	4.26	4.26	4.53	4.8	5.0	4.8	3.5	3.6	3.1	4.1	4.8	4.4
613	Hilleshög 4043RR	4.84	5.01	4.69	4.7	4.9	4.9	5.3	4.4	4.5	5.5	7.5	6.0
577	Hilleshög 4062RR	3.91	4.41	4.35	5.0	4.8	4.1	2.9	3.6	3.4	4.7	4.5	4.3
620	Hilleshög 4094RR	4.00	4.28	4.42	5.2	4.9	4.0	3.3	3.8	3.2	4.4	5.3	4.3
518	Hilleshog 4195RR	4.60	4.39	4.56	5.2	5.2	4.8	3.8	4.1	3.7	5.0	6.0	--

Table 59. Official Trial Disease Nurseries 2009 - 2011 (All varieties tested in 2011).

**Cercospora, Aphanomyces, Rhizoctonia & Fusarium**

All Ratings Adjusted		CR			Aph			Rhizoctonia			Fusarium		
Code	Description +	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean
604	Hilleshög 4199RR(9199)	4.42	4.67	4.64	5.5	6.0	5.4	5.3	4.9	--	6.6	8.0	--
520	Hilleshög 4204RR	4.50	4.47	4.76	5.2	5.0	4.8	3.3	4.0	3.7	5.1	7.1	--
587	Hilleshög 4251RR(9251)	4.36	4.21	--	4.8	4.7	--	3.7	3.8	--	4.5	--	--
540	Hilleshög 9236RR	4.75	4.45	--	4.9	5.0	--	5.9	--	--	4.8	6.6	--
595	Hilleshög 9237RR	4.31	4.58	--	5.4	5.1	--	5.0	--	--	5.9	--	--
554	Hilleshög 9238RR	4.88	4.16	--	5.7	5.7	--	6.0	--	--	4.7	5.0	--
515	Hilleshög 9300RR	4.71	--	--	4.7	--	--	4.3	--	--	4.0	--	--
517	Hilleshög 9301RR	4.44	--	--	5.2	--	--	4.8	--	--	3.7	--	--
505	Hilleshög 9302RR	4.00	--	--	4.9	--	--	3.5	--	--	--	--	--
601	Hilleshög 9303RR	4.22	--	--	4.9	--	--	--	--	--	--	--	--
536	Hilleshög 9304RR	3.98	--	--	5.6	--	--	4.4	--	--	3.9	--	--
623	Hilleshög 9305RR	4.95	--	--	5.0	--	--	--	--	--	--	--	--
614	Hilleshög 9306RR	4.28	--	--	4.5	--	--	--	--	--	--	--	--
511	Hilleshog 9307RR	4.51	--	--	4.4	--	--	3.9	--	--	3.4	--	--
570	Hilleshog 9308RR	4.53	--	--	5.0	--	--	4.8	--	--	4.0	--	--
578	Hilleshog 9309RR	4.17	--	--	5.2	--	--	3.1	--	--	--	--	--
591	Hilleshog 9310RR	4.43	--	--	4.8	--	--	--	--	--	--	--	--
547	Hilleshog 9311RR	3.46	--	--	4.6	--	--	4.0	--	--	4.1	--	--
582	Hilleshog 9312RR	4.95	--	--	5.1	--	--	--	--	--	--	--	--
632	Maribo 100RR	4.74	--	--	5.2	--	--	--	--	--	--	--	--
543	Maribo 101RR	5.12	--	--	4.7	--	--	--	--	--	5.1	--	--
619	Maribo 102RR	5.19	--	--	4.0	--	--	--	--	--	--	--	--
622	Maribo 103RR	4.63	--	--	4.4	--	--	4.4	--	--	3.6	--	--
501	Maribo 104RR	3.45	--	--	4.7	--	--	3.4	--	--	5.0	--	--
594	Maribo 105RR	4.37	--	--	5.4	--	--	4.1	--	--	--	--	--
553	Maribo 106RR	4.94	--	--	5.2	--	--	--	--	--	--	--	--
586	Maribo 107RR	5.01	--	--	4.9	--	--	--	--	--	--	--	--
528	Maribo 108RR	5.13	--	--	4.1	--	--	--	--	--	--	--	--
506	Seedex SX0806RR	4.64	5.13	--	4.6	4.9	--	4.7	--	--	5.4	--	--
531	Seedex SX0808RR	4.16	5.27	--	4.8	4.1	--	4.5	4.4	--	4.5	5.3	--
562	Seedex SX0814RR	4.78	--	--	4.6	--	--	4.7	--	--	4.4	--	--
580	Seedex SX0815RR	4.57	--	--	4.7	--	--	4.8	--	--	--	--	--
609	Seedex SX0816RR	4.54	--	--	4.5	--	--	4.5	--	--	--	--	--
596	Seedex SX0901RR	4.28	4.95	--	4.8	4.6	--	4.8	--	--	4.6	--	--
571	Seedex SX0903RR	4.27	4.74	--	4.4	4.8	--	4.4	--	--	4.6	--	--
579	Seedex SX0904RR	4.06	3.81	--	4.4	5.0	--	3.8	3.7	--	4.0	3.9	--
524	Seedex SX0917RR	4.29	--	--	5.1	--	--	4.8	--	--	--	--	--
612	Seedex SX0918RR	4.24	--	--	5.0	--	--	4.1	--	--	4.9	--	--
563	Seedex SX0995RR	4.68	4.56	4.74	4.9	4.8	4.7	4.5	3.7	--	5.3	4.6	--
519	Seedex Ultra RR	4.49	5.02	5.30	5.0	4.9	5.0	4.6	4.1	--	3.7	4.6	3.9
575	Seedex Uplander RR	4.62	4.97	4.94	4.7	5.1	4.3	4.6	4.2	4.7	4.7	4.9	4.9
610	Seedex Usher RR	4.70	5.05	4.35	4.7	4.8	4.4	4.6	4.5	4.1	4.3	5.4	4.1
538	Seedex Victor RR(SX0894)	4.33	4.51	4.38	4.7	4.6	4.2	4.6	4.3	--	4.2	4.9	--
628	Seedex Vision RR(SX0891)	4.41	4.76	5.17	4.7	4.7	5.0	4.5	4.3	--	4.6	5.5	--
532	SESVanderhave H36072RR	4.64	4.61	--	4.6	5.2	--	5.1	--	--	4.9	--	--
504	SESVanderhave H36083RR	4.62	4.75	--	4.7	4.6	--	4.4	--	--	4.3	4.8	--
537	SESVanderhave H36084RR	4.69	4.92	--	4.8	4.8	--	4.4	4.2	--	5.0	4.6	--
618	SESVanderhave H36175RR	4.61	--	--	4.6	--	--	4.5	--	--	--	--	--
552	SESVanderhave H36176RR	4.30	--	--	4.8	--	--	4.2	--	--	--	--	--
555	SESVanderhave H36177RR	4.61	--	--	4.5	--	--	4.7	--	--	--	--	--
603	SESVanderhave H36178RR	4.15	--	--	4.8	--	--	4.5	--	--	4.8	--	--
545	SESVanderhave H36179RR	4.77	--	--	4.9	--	--	4.8	--	--	3.7	--	--
597	SESVanderhave H36185RR	4.49	--	--	4.8	--	--	4.5	--	--	--	--	--
588	SESVanderhave H36186RR	4.65	--	--	5.1	--	--	4.6	--	--	--	--	--
629	SESVanderhave H36187RR	4.52	--	--	4.9	--	--	4.9	--	--	5.2	--	--
627	SESVanderhave H36188RR	4.23	--	--	4.5	--	--	3.9	--	--	4.0	--	--
503	SESVanderhave H36711RR	4.58	4.99	5.22	4.6	4.5	4.5	4.7	3.8	4.5	4.8	4.9	4.4
564	SESVanderhave H36811RR	4.08	4.62	5.10	4.7	4.7	4.4	4.6	4.1	4.3	4.4	4.2	3.3
530	SESVanderhave H36812RR	4.78	5.16	4.74	5.2	4.6	4.5	4.7	4.5	4.6	4.2	4.9	4.1
539	SESVanderhave H36813RR	4.46	4.59	4.55	4.6	4.4	4.4	4.8	4.1	4.6	4.4	4.9	4.4
631	SESVanderhave H36822RR	4.84	5.00	4.85	5.1	4.7	4.2	4.8	4.3	4.2	4.8	4.5	3.9
546	SESVanderhave H36916RR	4.70	4.97	4.91	5.0	4.7	4.4	4.5	4.3	--	4.5	4.7	--
617	SESVanderhave H36917RR	4.51	4.95	5.01	4.7	4.7	4.3	4.8	4.3	--	4.8	5.0	--
576	SESVanderhave H36918RR	4.41	4.47	4.36	4.5	4.4	4.5	5.1	4.4	--	5.1	4.8	--
522	SESVanderhave H36923RR	4.39	4.69	4.42	4.8	4.7	4.4	4.7	4.3	4.5	4.5	3.9	3.3





**Table 59. Official Trial Disease Nurseries 2009 - 2011 (All varieties tested in 2011).**

**Cercospora, Aphanomyces, Rhizoctonia & Fusarium**

All Ratings Adjusted		CR			Aph			Rhizoctonia			Fusarium		
Code	Description +	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean	11 Mean	10 Mean	09 Mean
1201	Fus Chk #07 CRY5658RR	--	--	--	--	--	--	--	--	--	3.5	2.2	2.3
1202	Fus Chk #08 HILL4000RR	--	--	--	--	--	--	--	--	--	5.8	7.3	6.4
1203	Fus Chk #09 HILL4010RR	--	--	--	--	--	--	--	--	--	5.6	6.3	5.8
1204	Fus Chk #12 HILL4012RR	--	--	--	--	--	--	--	--	--	5.7	6.0	5.4
1205	Fus Chk #13 HILL4043RR	--	--	--	--	--	--	--	--	--	5.2	6.9	6.5
1206	Fus Chk #14 BETA86RR44	--	--	--	--	--	--	--	--	--	5.6	5.1	4.9
1207	Fus Chk #16 BETA87RR58	--	--	--	--	--	--	--	--	--	4.9	4.5	4.4
1208	Fus Chk #17 CRY5765RR	--	--	--	--	--	--	--	--	--	3.9	4.1	4.2
1209	Fus Chk #18 CRY5768RR	--	--	--	--	--	--	--	--	--	4.9	4.2	4.4
1210	Fus Chk #26 BETA87RR68	--	--	--	--	--	--	--	--	--	5.0	4.6	4.0
1211	Fus Chk #27 CRY5539RR	--	--	--	--	--	--	--	--	--	3.2	2.1	1.8
1212	FS CHECK RES RR #1	--	--	--	--	--	--	--	--	--	3.1	2.1	1.8
1213	FS CHECK SUS RR #2	--	--	--	--	--	--	--	--	--	5.3	6.3	5.8
1214	FS CHK MOD RR RES #2	--	--	--	--	--	--	--	--	--	4.7	4.2	4.2
1215	FS CHK MOD RR SUS #1	--	--	--	--	--	--	--	--	--	5.3	4.2	4.4
1216	FS CHECK SUS RR #2	--	--	--	--	--	--	--	--	--	5.3	6.3	5.8
1217	FS CHK MOD RR SUS #1	--	--	--	--	--	--	--	--	--	5.3	4.2	4.4
1301	Rhiz Chk#08 CRY5539RR	--	--	--	--	--	--	5.0	4.2	4.5	--	--	--
1302	Rhiz Chk#11 BETA87RR68	--	--	--	--	--	--	5.0	4.6	4.9	--	--	--
1303	Rhiz Chk#17 HILL4022RR	--	--	--	--	--	--	3.1	3.9	3.2	--	--	--
1304	Rhiz Chk#20 CRY5765RR	--	--	--	--	--	--	4.5	4.5	4.3	--	--	--
1305	Rhiz Chk#21 CRY5768RR	--	--	--	--	--	--	4.4	4.6	4.1	--	--	--
1306	Rhiz Chk#24 BETA86RR88	--	--	--	--	--	--	4.8	4.2	4.7	--	--	--
1307	Rhiz Chk#25 HILL4043RR	--	--	--	--	--	--	4.6	4.2	4.7	--	--	--
1308	Rhiz Chk#26 BETA86RR44	--	--	--	--	--	--	4.4	4.1	4.4	--	--	--
1309	Rhiz Chk#27 HILL4012RR	--	--	--	--	--	--	4.8	4.7	4.7	--	--	--
1310	Rhiz Chk#28 CRY5658RR	--	--	--	--	--	--	4.0	4.1	3.7	--	--	--
1311	Rhiz Chk#29 BETA87RR58	--	--	--	--	--	--	4.8	4.8	4.5	--	--	--
1312	Rhiz Chk#30 SES36711RR	--	--	--	--	--	--	4.5	4.2	4.5	--	--	--
1313	Rhiz Chk#31 HILL4000RR	--	--	--	--	--	--	5.2	4.6	4.9	--	--	--
1314	Rhiz Chk#32 HILL4010RR	--	--	--	--	--	--	4.5	4.6	5.0	--	--	--
1315	Rhiz Chk#33 BETA77RR74	--	--	--	--	--	--	3.3	3.6	3.5	--	--	--
1316	Rhiz Chk#34 BETA86RR66	--	--	--	--	--	--	4.7	4.2	4.1	--	--	--
1317	Rhiz Chk#35 SES36812RR	--	--	--	--	--	--	4.6	4.3	4.6	--	--	--
1318	Rhiz Chk#36 BETA85RR02	--	--	--	--	--	--	4.8	--	--	--	--	--
1319	RES RHC #1	--	--	--	--	--	--	2.8	--	--	--	--	--
1320	MOD RHC #2	--	--	--	--	--	--	3.5	--	--	--	--	--
1321	SUS RHC #3	--	--	--	--	--	--	4.7	--	--	--	--	--
1322	SUS RHC #4	--	--	--	--	--	--	4.5	--	--	--	--	--
1323	MOD RHC #5	--	--	--	--	--	--	4.4	--	--	--	--	--
1351	Filler25 CRY5R434	--	--	--	--	--	--	3.4	4.0	4.2	--	--	--
1352	Rhiz Chk#09 CRY5R431	--	--	--	--	--	--	4.5	4.6	4.6	--	--	--
1353	Rhiz Chk#16 HILL3035	--	--	--	--	--	--	3.4	3.6	3.3	--	--	--

CR ratings on a scale of 1-9.

Aph root ratings on a scale of 1-9.

Rhizoctonia ratings on a scale of 1-7.

Fusarium ratings on a scale of 1-9.

Green highlighted ratings indicate specialty or good resistance.

Red highlighted ratings indicate level of concern for some fields.

+ Some varieties are not approved for sale in 2012. Please check variety approval list.

Created 10-31-2011.

Table 60. 2011 Aphanomyces Ratings for Coded Test Entries  
ACSC Nursery - Kindred, ND & Betaseed Nursery - Shakopee, MN

All Ratings Adjusted ++			Kindred +		Shakopee +		All Location Mean			Multi-Year Average				2010		2009		Trial	
2011	Chk	Code	Description	Foliar	Root	Foliar	Root	Foliar	Root ^^	% Spec	Foliar	3 Yr	2 Yr	3 Yr	Foliar^A	Rt.Indx^A	Foliar^A	Rt.Indx^A	Yrs \$\$
				8/12	9/2	7/22	8/26	Mean	Mean		2 Yr								
			541 BTS 70RR64	2.89	4.90	2.26	4.44	2.58	4.67	95	2.63	--	4.40	--	2.69	4.13	--	--	2
			513 BTS 70RR70	4.27	5.32	3.80	5.51	4.04	5.41	110	3.94	--	5.44	--	3.84	5.47	--	--	2
			608 BTS 70RR78	3.14	5.58	3.72	5.69	3.43	5.63	115	3.42	--	5.41	--	3.42	5.18	--	--	2
			549 BTS 70RR99	2.47	4.91	2.46	4.78	2.46	4.85	99	2.64	--	4.74	--	2.81	4.63	--	--	2
			526 BTS 71RR22	3.39	5.15	3.62	5.66	3.51	5.41	110	--	--	--	--	--	--	--	--	1
			565 BTS 71RR31	3.21	4.77	2.61	4.77	2.91	4.77	97	--	--	--	--	--	--	--	--	1
			535 BTS 71RR62	2.75	4.34	1.78	3.69	2.26	4.02	82	--	--	--	--	--	--	--	--	1
			583 BTS 77RR54	2.55	4.52	2.89	4.66	2.72	4.59	94	2.53	2.62	4.42	4.45	2.33	4.25	2.81	4.50	5
			502 BTS 78RR10	3.07	5.03	3.64	5.48	3.36	5.25	107	3.62	3.46	5.35	5.30	3.87	5.45	3.14	5.20	4
			605 BTS 80RR12	3.21	4.72	2.95	5.03	3.08	4.87	99	3.31	--	5.09	--	3.54	5.30	--	--	2
			561 BTS 80RR32	3.39	5.08	3.94	5.59	3.66	5.33	109	3.65	--	5.47	--	3.64	5.60	--	--	2
			615 BTS 80RR52	2.72	4.83	2.87	5.03	2.80	4.93	101	3.16	--	4.80	--	3.53	4.67	--	--	2
			598 BTS 81RR11	3.25	5.23	4.03	5.86	3.64	5.55	113	--	--	--	--	--	--	--	--	1
			507 BTS 81RR17	2.87	4.07	2.17	4.04	2.52	4.06	83	--	--	--	--	--	--	--	--	1
			572 BTS 81RR23	3.43	4.89	3.16	5.29	3.30	5.09	104	--	--	--	--	--	--	--	--	1
			521 BTS 81RR41	3.48	5.52	3.24	5.13	3.36	5.33	109	--	--	--	--	--	--	--	--	1
			593 BTS 81RR63	3.86	5.99	4.15	5.94	4.01	5.97	122	--	--	--	--	--	--	--	--	1
			567 BTS 81RR78	3.34	4.59	2.90	5.07	3.12	4.83	99	--	--	--	--	--	--	--	--	1
			568 BTS 81RR81	3.32	4.53	1.98	3.64	2.65	4.08	83	--	--	--	--	--	--	--	--	1
			525 BTS 85RR02	3.04	4.61	1.99	3.57	2.52	4.09	83	2.51	2.51	3.82	3.89	2.50	3.54	2.50	4.02	7
			624 BTS 87RR38	3.44	5.11	2.74	4.82	3.09	4.96	101	2.76	2.92	4.63	4.69	2.44	4.30	3.23	4.80	5
			590 BTS 87RR58	2.97	5.13	2.68	5.11	2.82	5.12	105	2.99	2.78	5.09	4.99	3.15	5.05	2.36	4.79	5
			512 BTS 87RR68	4.41	6.46	4.14	5.61	4.27	6.03	123	4.65	4.37	6.38	6.31	5.03	6.72	3.82	6.17	5
			558 BTS 88RR31	2.21	4.39	1.48	3.42	1.85	3.91	80	2.16	2.20	3.85	3.94	2.47	3.80	2.27	4.10	4
			551 BTS 88RR41	3.33	5.51	3.78	5.77	3.56	5.64	115	3.32	3.14	5.39	5.15	3.08	5.15	2.77	4.67	4
			508 BTS 88RR61	3.05	4.68	2.28	4.44	2.67	4.56	93	2.70	2.61	4.43	4.48	2.74	4.31	2.43	4.57	4
			602 BTS 89RR10	2.24	4.01	2.00	4.25	2.12	4.13	84	2.03	2.06	3.90	3.88	1.94	3.67	2.11	3.86	3
			542 BTS 89RR30	3.07	4.58	4.02	5.70	3.54	5.14	105	3.46	3.16	4.70	4.50	3.37	4.25	2.58	4.10	3
			581 BTS 89RR40	2.86	4.94	2.46	4.57	2.66	4.76	97	2.62	2.65	4.45	4.46	2.57	4.14	2.71	4.49	3
			527 BTS 89RR50	2.76	4.43	1.99	3.70	2.38	4.07	83	2.71	2.51	3.96	3.84	3.05	3.86	2.10	3.60	3
			626 BTS 89RR83	3.26	4.75	3.24	5.35	3.25	5.05	103	3.88	3.46	5.36	4.96	4.50	5.66	2.63	4.18	3
			510 Crystal 091RR	2.95	5.27	2.93	5.18	2.94	5.22	107	3.10	--	4.96	--	3.26	4.69	--	--	2
			600 Crystal 093RR	3.17	4.71	3.47	5.45	3.32	5.08	104	3.27	--	5.00	--	3.21	4.91	--	--	2
			534 Crystal 095RR	3.02	4.29	2.95	4.95	2.99	4.62	94	3.13	--	4.80	--	3.26	4.99	--	--	2
			585 Crystal 101RR	2.83	4.92	1.28	3.36	2.06	4.14	84	--	--	--	--	--	--	--	--	1
			607 Crystal 102RR	2.91	4.92	2.76	4.54	2.83	4.73	97	--	--	--	--	--	--	--	--	1
			560 Crystal 103RR	2.82	4.60	2.37	4.12	2.60	4.36	89	--	--	--	--	--	--	--	--	1
			574 Crystal 104RR	3.11	5.25	3.61	5.08	3.36	5.17	105	--	--	--	--	--	--	--	--	1
			556 Crystal 105RR	2.98	5.14	3.40	5.14	3.19	5.14	105	--	--	--	--	--	--	--	--	1
			621 Crystal 106RR	3.13	5.00	2.27	4.48	2.70	4.74	97	--	--	--	--	--	--	--	--	1
			514 Crystal 539RR	2.06	4.17	2.06	4.00	2.06	4.09	83	2.21	2.37	4.03	4.08	2.35	3.97	2.69	4.19	7
			592 Crystal 658RR	2.37	4.54	2.08	4.51	2.22	4.52	92	2.01	2.17	4.22	4.13	1.79	3.91	2.50	3.95	6
			625 Crystal 765RR	4.25	6.39	4.48	5.86	4.37	6.12	125	4.29	4.09	5.91	5.80	4.21	5.70	3.68	5.58	5
			599 Crystal 768RR	3.44	5.12	2.43	4.54	2.94	4.83	99	2.93	3.04	4.83	4.87	2.92	4.82	3.25	4.97	5
			606 Crystal 875RR	2.46	3.62	1.10	2.65	1.78	3.14	64	1.85	1.88	3.24	3.16	1.92	3.34	1.95	3.00	4
			559 Crystal 878RR	3.23	5.47	3.27	5.41	3.25	5.44	111	3.65	3.53	5.60	5.42	4.05	5.75	3.28	5.06	4
			516 Crystal 879RR	3.78	6.28	3.94	5.65	3.86	5.97	122	3.75	3.46	5.99	5.66	3.65	6.02	2.87	4.99	4
			573 Crystal 981RR	2.89	4.71	1.29	3.34	2.09	4.03	82	2.04	2.31	3.70	3.82	2.00	3.37	2.84	4.07	3
			548 Crystal 985RR	2.21	4.00	1.33	3.50	1.77	3.75	77	2.20	2.37	3.97	4.03	2.64	4.20	2.72	4.15	3
			611 Crystal 986RR	2.68	5.14	3.38	5.28	3.03	5.21	106	2.84	3.05	4.70	4.83	2.65	4.20	3.48	5.08	3
			523 Crystal RR012	3.06	4.82	3.26	5.27	3.16	5.04	103	3.26	--	5.09	--	3.35	5.14	--	--	2
			584 Crystal RR176	2.90	5.01	3.75	5.58	3.33	5.29	108	--	--	--	--	--	--	--	--	1
			589 Crystal RR632	2.89	5.24	3.44	5.50	3.17	5.37	110	3.06	2.82	5.01	4.87	2.94	4.65	2.34	4.57	5
			544 Crystal RR643	3.22	4.32	2.17	3.66	2.70	3.99	81	2.70	2.46	4.06	3.96	2.71	4.13	1.97	3.76	5
			557 Crystal RR654	2.40	4.45	1.90	4.00	2.15	4.23	86	--	--	--	--	--	--	--	--	1
			509 Crystal RR794	3.28	4.71	2.46	4.52	2.87	4.62	94	3.05	2.99	4.58	4.37	3.24	4.54	2.85	3.94	3
			630 Crystal RR798	3.49	4.45	4.57	6.00	4.03	5.23	107	3.75	3.23	5.23	4.76	3.46	5.22	2.20	3.83	3
			550 Crystal RR806	2.76	4.42	1.87	3.57	2.31	3.99	82	2.36	2.30	3.81	3.83	2.41	3.63	2.17	3.86	4
			566 Crystal RR830	3.01	4.18	4.03	5.44	3.52	4.81	98	3.32	2.95	4.87	4.66	3.12	4.93	2.21	4.23	4
			529 Hilleshög 4012RR	3.24	4.09	3.45	5.19	3.35	4.64	95	2.97	2.90	4.45	4.46	2.59	4.26	2.75	4.47	6
			533 Hilleshög 4022RR	2.84	4.42	3.57	5.18	3.20	4.80	98	3.22	3.28	4.88	4.85	3.23	4.96	3.40	4.80	6
			613 Hilleshög 4043RR	3.19	4.33	2.92	5.04	3.06	4.69	96	3.04	3.18	4.79	4.83	3.01	4.90	3.46	4.91	5
			577 Hilleshög 4062RR	2.73	4.58	3.54	5.38	3.13	4.98	102	3.15	2.94	4.91	4.64	3.17	4.84	2.52	4.09	4
			620 Hilleshög 4094RR	2.88	4.99	3.38	5.33	3.13	5.16	105	2.97	2.68	5.02	4.66	2.80	4.87	2.10	3.95	4
			518 Hilleshög 4195RR	2.86	5.07	3.55	5.36	3.21	5.21	106	3.30	3.25	5.19	5.07	3.40	5.17	3.13	4.84	3
			604 Hilleshög 4199RR(9199)	3.22	5.08	4.38	5.93	3.80	5.50	112	4.20	3.99	5.76	5.63	4.60	6.03	3.55	5.37	3
			520 Hilleshög 4204RR	3.32	4.78	3.77	5.52	3.54	5.15	105	3.45	3.42	5.10	4.99	3.36	5.04	3.35	4.79	3
			540 Hilleshög 9236RR	3.17	4.84	2.95	4.93	3.06	4.88	100	3.31	--	4.92	--	3.56	4.96	--	--	2
			595 Hilleshög 9237RR	3.43	5.13	3.96	5.69	3.69	5.41	110	3.63	--	5.28	--	3.57	5.15	--	--	2
			554 Hilleshög 9238RR	3.19	5.67	4.05	5.76	3.62	5.72	117	3.69	--	5.72	--	3.75	5.73	--	--	2
			587 Hilleshög 4251RR(9251)	2.72	4.35	3.04	5.22	2.88	4.79	98	2.93	--	4.75	--	2.98	4.71	--	--	2
			515 Hilleshög 9300RR	2.81	4.50	3.38	4.95	3.09	4.72	96	--	--	--	--	--	--	--	--	1
			517 Hilleshög 9301RR	2.55	4.78	4.08	5.70	3.31	5.24	107	--	--	--	--	--	--	--	--	1
			505 Hilleshög 9302RR	2.81	4.54	3.09	5.21	2.95	4.88	99	--	--	--	--	--	--	--	--	1
			601 Hilleshög 9303RR	3.22	4.48	3.21	5.												

Table 60. 2011 Aphanomyces Ratings for Coded Test Entries  
ACSC Nursery - Kindred, ND & Betaseed Nursery - Shakopee, MN

All Ratings Adjusted ++			Kindred +		Shakopee +		All Location Mean			Multi-Year Average				2010		2009		Trial Yrs \$\$
			Foliar 8/12	Root 9/2	Foliar 7/22	Root 8/26	Foliar Mean	Root Mean ^^	% Spec	Foliar 2 Yr	3 Yr	Root 2 Yr	3 Yr	Foliar^A	Rt.Indx^A	Foliar^A	Rt.Indx^A	
2011 Chk	Code	Description																
	614	Hilleshog 9306RR	2.82	4.09	3.03	4.90	2.92	4.50	92	--	--	--	--	--	--	--	--	1
	511	Hilleshog 9307RR	2.14	3.69	3.33	5.10	2.74	4.39	90	--	--	--	--	--	--	--	--	1
	570	Hilleshog 9308RR	2.50	4.57	3.95	5.47	3.22	5.02	103	--	--	--	--	--	--	--	--	1
	578	Hilleshog 9309RR	3.16	5.22	3.10	5.21	3.13	5.22	106	--	--	--	--	--	--	--	--	1
	591	Hilleshog 9310RR	2.91	4.43	3.08	5.24	3.00	4.84	99	--	--	--	--	--	--	--	--	1
	547	Hilleshog 9311RR	2.55	4.30	2.70	4.87	2.62	4.59	94	--	--	--	--	--	--	--	--	1
	582	Hilleshog 9312RR	3.14	4.86	3.23	5.30	3.18	5.08	104	--	--	--	--	--	--	--	--	1
	632	Maribo 100RR	3.30	5.26	3.18	5.23	3.24	5.24	107	--	--	--	--	--	--	--	--	1
	543	Maribo 101RR	2.82	4.65	2.76	4.68	2.79	4.67	95	--	--	--	--	--	--	--	--	1
	619	Maribo 102RR	2.96	3.59	2.72	4.31	2.84	3.95	81	--	--	--	--	--	--	--	--	1
	622	Maribo 103RR	2.32	4.05	3.26	4.77	2.79	4.41	90	--	--	--	--	--	--	--	--	1
	501	Maribo 104RR	2.58	4.61	2.75	4.84	2.67	4.73	96	--	--	--	--	--	--	--	--	1
	594	Maribo 105RR	3.29	4.86	4.19	5.91	3.74	5.39	110	--	--	--	--	--	--	--	--	1
	553	Maribo 106RR	3.49	5.19	3.21	5.13	3.35	5.16	105	--	--	--	--	--	--	--	--	1
	586	Maribo 107RR	2.81	4.62	3.27	5.15	3.04	4.89	100	--	--	--	--	--	--	--	--	1
	528	Maribo 108RR	2.38	3.38	2.90	4.73	2.64	4.06	83	--	--	--	--	--	--	--	--	1
	506	Seedex SX0806RR	3.27	4.74	2.66	4.56	2.96	4.65	95	3.02	--	4.61	--	3.07	4.57	--	--	2
	531	Seedex SX0808RR	2.71	4.57	2.73	5.02	2.72	4.79	98	3.00	--	4.89	--	3.27	4.98	--	--	2
	562	Seedex SX0814RR	2.90	4.36	2.83	4.82	2.87	4.59	94	--	--	--	--	--	--	--	--	1
	580	Seedex SX0815RR	3.08	4.38	2.94	4.98	3.01	4.68	96	--	--	--	--	--	--	--	--	1
	609	Seedex SX0816RR	2.95	4.57	2.30	4.47	2.62	4.52	92	--	--	--	--	--	--	--	--	1
	628	Seedex Vision RR(SX0891)	3.01	4.47	3.16	4.99	3.08	4.73	97	2.77	2.74	4.44	4.64	2.46	4.14	2.67	5.03	3
	538	Seedex Victor RR(SX0894)	2.90	4.55	3.01	4.87	2.96	4.71	96	3.01	2.83	4.78	4.57	3.07	4.84	2.47	4.16	3
	596	Seedex SX0901RR	2.97	4.36	3.13	5.15	3.05	4.76	97	2.96	--	4.69	--	2.87	4.62	--	--	2
	571	Seedex SX0903RR	3.13	4.20	2.82	4.68	2.97	4.44	91	3.16	--	4.66	--	3.36	4.88	--	--	2
	579	Seedex SX0904RR	2.66	3.95	3.10	4.87	2.88	4.41	90	2.97	--	4.62	--	3.05	4.84	--	--	2
	524	Seedex SX0917RR	3.60	4.97	3.57	5.23	3.58	5.10	104	--	--	--	--	--	--	--	--	1
	612	Seedex SX0918RR	3.11	4.84	2.69	5.07	2.90	4.95	101	--	--	--	--	--	--	--	--	1
	563	Seedex SX0995RR	3.42	5.14	2.79	4.58	3.10	4.86	99	3.27	3.21	4.91	4.83	3.43	4.97	3.11	4.67	3
	519	Seedex Ultra RR	3.08	4.54	3.57	5.56	3.33	5.05	103	3.18	3.05	4.82	4.87	3.03	4.59	2.78	4.98	4
	575	Seedex Uplander RR	3.08	4.26	3.24	5.15	3.16	4.70	96	3.19	3.04	4.78	4.61	3.22	4.86	2.75	4.28	4
	610	Seedex Usher RR	3.44	4.28	3.19	5.19	3.31	4.73	97	3.50	3.40	4.89	4.74	3.69	5.05	3.21	4.44	4
	532	SESVanderhave H36072RR	2.74	4.62	2.81	4.68	2.77	4.65	95	2.98	--	4.87	--	3.19	5.08	--	--	2
	504	SESVanderhave H36083RR	3.08	4.29	3.23	5.15	3.16	4.72	96	3.21	--	4.80	--	3.27	4.89	--	--	2
	537	SESVanderhave H36084RR	2.79	4.74	2.72	4.78	2.75	4.76	97	2.74	--	4.66	--	2.72	4.57	--	--	2
	618	SESVanderhave H36175RR	2.86	4.33	2.63	4.77	2.74	4.55	93	--	--	--	--	--	--	--	--	1
	552	SESVanderhave H36176RR	2.86	4.61	2.99	5.01	2.92	4.81	98	--	--	--	--	--	--	--	--	1
	555	SESVanderhave H36177RR	3.01	4.28	2.93	4.75	2.97	4.51	92	--	--	--	--	--	--	--	--	1
	603	SESVanderhave H36178RR	3.07	4.67	2.85	4.99	2.96	4.83	99	--	--	--	--	--	--	--	--	1
	545	SESVanderhave H36179RR	3.23	4.59	3.06	5.28	3.15	4.94	101	--	--	--	--	--	--	--	--	1
	597	SESVanderhave H36185RR	3.28	5.07	2.30	4.56	2.79	4.81	98	--	--	--	--	--	--	--	--	1
	588	SESVanderhave H36186RR	2.96	5.09	3.27	5.10	3.12	5.09	104	--	--	--	--	--	--	--	--	1
	629	SESVanderhave H36187RR	2.73	5.00	2.86	4.76	2.80	4.88	100	--	--	--	--	--	--	--	--	1
	627	SESVanderhave H36188RR	2.49	4.15	3.07	4.92	2.78	4.53	93	--	--	--	--	--	--	--	--	1
	503	SESVanderhave H36711RR	3.19	4.35	2.63	4.88	2.91	4.62	94	2.96	2.96	4.69	4.63	3.00	4.77	2.97	4.49	5
	564	SESVanderhave H36811RR	3.24	4.49	2.75	4.90	3.00	4.69	96	2.83	2.82	4.59	4.53	2.66	4.49	2.81	4.42	4
	530	SESVanderhave H36812RR	3.76	5.11	3.32	5.27	3.54	5.19	106	3.23	3.12	4.93	4.79	2.93	4.66	2.89	4.52	4
	539	SESVanderhave H36813RR	3.52	4.47	2.91	4.68	3.22	4.57	93	3.06	2.96	4.60	4.53	2.90	4.63	2.75	4.38	4
	631	SESVanderhave H36822RR	2.63	4.70	3.24	5.41	2.93	5.06	103	3.12	3.11	4.97	4.73	3.31	4.88	3.08	4.24	4
	546	SESVanderhave H36916RR	2.87	4.81	3.38	5.27	3.13	5.04	103	2.99	2.90	4.91	4.74	2.86	4.79	2.72	4.39	3
	617	SESVanderhave H36917RR	2.78	4.54	2.89	4.82	2.84	4.68	95	2.74	2.71	4.69	4.55	2.64	4.70	2.67	4.28	3
	576	SESVanderhave H36918RR	3.32	4.57	2.42	4.42	2.87	4.50	92	2.89	2.75	4.59	4.56	2.92	4.68	2.45	4.51	3
	522	SESVanderhave H36923RR	3.15	4.49	3.29	5.14	3.22	4.81	98	3.12	3.00	4.67	4.57	3.02	4.53	2.75	4.36	3
	569	SESVanderhave H36926RR	2.83	5.32	2.91	4.85	2.87	5.09	104	2.93	2.82	4.90	4.75	3.00	4.72	2.60	4.44	3
	616	SESVanderhave H36927RR	3.14	4.32	3.54	5.40	3.34	4.86	99	3.18	2.91	4.75	4.61	3.02	4.63	2.36	4.34	3
	702	Crystal R434	5.31	5.79	1.45	3.34	3.38	4.56	93	--	--	--	--	--	--	--	--	8
	707	Crystal R761	5.29	6.04	1.52	3.53	3.40	4.78	98	2.97	--	4.32	--	2.54	3.87	--	--	5
	705	Crystal R869	5.65	6.42	3.90	5.75	4.77	6.09	124	4.17	--	5.89	--	3.57	5.70	--	--	4
	701	Seedex SX8818TT	6.01	6.33	4.07	5.94	5.04	6.13	125	--	--	--	--	--	--	--	--	1
	704	Seedex SX8819TT	5.50	6.25	3.93	5.69	4.72	5.97	122	--	--	--	--	--	--	--	--	1
	706	SESVanderhave H46119	4.56	6.03	2.99	5.16	3.78	5.60	114	--	--	--	--	--	--	--	--	1
	703	SESVanderhave H48173TT	5.94	6.55	4.28	5.96	5.11	6.25	128	--	--	--	--	--	--	--	--	1
1	1001	Aph Chk-22 CRY5399R	2.55	4.06	2.33	4.06	2.44	4.06	83	3.49	3.08	4.98	4.63	4.55	5.90	2.24	3.94	7
1	1002	Aph Chk-29 BETA86RR44	2.93	5.14	2.76	4.79	2.85	4.97	101	2.51	2.65	4.39	4.46	2.18	3.82	2.92	4.60	6
1	1003	Aph Chk-30 BETA86RR66	2.86	4.54	2.17	4.36	2.51	4.45	91	2.69	2.62	4.59	4.40	2.87	4.72	2.48	4.04	6
1	1004	Aph Chk-26 HILL4022RR	3.20	4.71	3.31	5.21	3.26	4.96	101	3.07	2.97	4.77	4.64	2.87	4.59	2.76	4.37	6
1	1005	Aph Chk-35 BETA87RR58	3.79	5.49	3.32	5.50	3.55	5.50	112	3.45	3.20	5.39	5.25	3.34	5.28	2.72	4.95	5
1	1006	Aph Chk-39 CRY58799R	4.20	6.32	4.20	5.97	4.20	6.14	125	--	--	--	--	--	--	--	--	1
1	1007	Aph Chk-42 BETA78RR10	3.07	4.91	3.15	5.26	3.11	5.09	104	--	--	--	--	--	--	--	--	1
1	1008	Aph Chk-33 CRY5768RR	2.66	5.00	2.90	4.99	2.78	5.00	102	2.98	2.91	5.18	5.03	3.18	5.37	2.78	4.73	5
1	1009	Aph Chk-31 BETA86RR88	2.86	4.07	2.62	4.71	2.74	4.39	90	2.57	2.49	4.55	4.48	2.40	4.72	2.34	4.32	6
1	1010	Aph Chk-18 BETA85RR02	2.56	4.34	2.12	3.83	2.34	4.09	83	2.49	2.56	4.09	4.19	2.64	4.10	2.69	4.37	7
1	1011	Aph Chk-34 HILL4000RR	3.11	5.01	3.33	5.46	3.22	5.24	107	3.17	3.40	4.96	5.07	3.12	4.68	3.86	5.29	5
1	1012	Aph Chk-41 CRY5765RR	4.14	6.61	4.08	5.61	4.11	6.11	125	--	--	--	--	--	--	--	--	1
1	1013	Aph Chk-36 BETA87RR68	4.06	6.59	4.61	6.03	4.33	6.31	129	3.88	4.32	5.82	6.47	3.43	5.33	5.19	7.78	5
1	1014	Aph Chk-28 HILL4010RR	2.89	4.44	4.53	5.82	3.71	5.13	105	3.26	3.10	4.69	4.60	2.80	4.25	2.78	4.41	6
	1015	Aph Chk-37 BETA77RR74	3.77	5.53	3.78	5.83	3.77	5.68	116	4.02	3.50	5.97	5.31	4.26	6.27	2.46	3.97	5

Table 60. 2011 Aphanomyces Ratings for Coded Test Entries  
ACSC Nursery - Kindred, ND & Betaseed Nursery - Shakopee, MN

2011		All Ratings Adjusted ++															
		Kindred +		Shakopee +		All Location Mean			Multi-Year Average				2010		2009		Trial
Chk	Code	Foliar	Root	Foliar	Root	Foliar	Root ^^	% Spec	Foliar	3 Yr	2 Yr	3 Yr	Foliar^	Rt.Indx^A	Foliar^	Rt.Indx^A	Yrs \$\$
	Description	8/12	9/2	7/22	8/26	Mean	Mean		2 Yr	3 Yr	2 Yr	3 Yr					
1	1016 Aph Chk-40 CRY5878RR	3.85	5.65	3.30	5.30	3.57	5.47	112	--	--	--	--	--	--	--	--	1
	1017 ACAPMODRR	2.79	4.83	2.91	5.12	2.85	4.97	101	3.02	3.10	4.97	4.97	3.20	4.98	3.25	4.97	5
	1018 ACAPRESRR	2.94	4.47	2.09	4.76	2.52	4.61	94	2.89	2.76	4.76	4.49	3.26	4.90	2.50	3.95	6
	1019 AP CHK SUS HYB#3	3.57	6.53	4.42	5.77	4.00	6.15	126	3.32	3.44	5.12	5.27	2.65	4.09	3.68	5.58	5
	1020 AP CHK SUS HYB#4	4.10	7.25	4.47	5.77	4.28	6.51	133	4.65	4.37	6.60	6.46	5.01	6.68	3.82	6.17	5
	1021 AP CHK MOD RES RR#2	2.70	3.87	3.10	5.32	2.90	4.60	94	4.20	3.96	5.67	5.42	5.50	6.75	3.46	4.91	5
	1022 AP CHK SUS HYB#3	4.07	6.34	4.01	5.66	4.04	6.00	122	3.34	3.46	5.05	5.22	2.65	4.09	3.68	5.58	5
	1023 AP CHK SUS HYB#4	4.25	7.21	4.73	6.00	4.49	6.61	135	4.75	4.44	6.64	6.49	5.01	6.68	3.82	6.17	5
	1024 ACAPMODRR	3.12	5.17	2.71	5.06	2.91	5.12	104	3.06	3.12	5.05	5.02	3.20	4.98	3.25	4.97	5
	1025 ACAPRESRR	NA	NA	2.15	4.65	2.15	4.65	95	2.71	2.64	4.78	4.50	3.26	4.90	2.50	3.95	6
	1051 AP CHK MOD HYBRID#2	NA	NA	3.32	5.57	3.32	5.57	114	3.06	3.81	5.04	5.91	2.80	4.51	5.32	7.64	8
	1052 AP CHK RES HYBRID-1	NA	NA	2.07	4.31	2.07	4.31	88	3.91	3.50	5.75	5.28	5.75	7.18	2.69	4.33	10
	1053 AP CHK SUS HYBRID (AD)	NA	NA	5.53	6.59	5.53	6.59	135	4.23	5.00	5.42	6.34	2.94	4.24	6.53	8.19	7
	1054 AP CHK RES HYBRID-2	NA	NA	2.32	4.39	2.32	4.39	90	4.82	4.13	6.21	5.75	7.31	8.04	2.76	4.82	7
	1055 AP CHK MOD HYBRID#2	NA	NA	3.73	5.29	3.73	5.29	108	3.27	3.95	4.90	5.81	2.80	4.51	5.32	7.64	8
	1056 AP CHK RES HYBRID-1	NA	NA	2.11	4.07	2.11	4.07	83	3.93	3.52	5.63	5.20	5.75	7.18	2.69	4.33	10
	1057 AP CHK SUS HYBRID (AD)	NA	NA	5.23	6.46	5.23	6.46	132	4.09	4.90	5.35	6.29	2.94	4.24	6.53	8.19	7
	1058 AP CHK RES HYBRID-2	NA	NA	2.21	4.54	2.21	4.54	93	4.76	4.10	6.29	5.80	7.31	8.04	2.76	4.82	7
15	Chk Mean	2.00	3.23	3.11	4.80												
	Trial Mean	3.07	4.82	3.09	5.00	3.13	4.94						3.21	4.86	2.96	4.71	
	Coeff. of Var. (%)	20.27	11.23	12.32	6.89												
	F Value	2.61	6.60	21.39	18.96												
	Mean LSD (0.05)	0.76	0.69	0.47	0.43												
	Mean LSD (0.01)	1.00	0.92	0.62	0.56												
	Sig Lvl	**	**	**	**												
	Adjustment Factor	0.9392	0.9651	0.6085	0.7375												
	<b>Approval</b> Criteria	NA	4.90	#	NA	4.90	NA	4.90	4.90	NA	NA	4.90	NA	4.90	NA	4.90	
	<b>Disapproval</b> Criteria	NA			NA		NA		NA	NA		5.20	NA	5.20	NA	5.20	

+ Approval is based upon the two year root rating 4.90 or less and entry into the Aph specialty yield trials and commercial or experimental yield trials.

++ Disapproval (continued approval) is based upon the three year root rating 5.20 or less (approval policy change 1-14-02).

2011 data adjustment based upon 15 check varieties, 2009 & 2010 adjusted based upon 19 checks. Check varieties have a 1 in the Chk column.

++ Adjustment made to minimize yearly fluctuation for disease levels in disease nursery. Data adjusted to 2000-2002 nursery levels.

^ Foliar Aph Rating was taken during summer to fall (1=healthy, 9+=severe damage). ^^ Root Rating was taken in early fall (1=healthy, 9+=severe damage).

Lower numbers indicate greater Aphanomyces tolerance. 2009, 2010 and 2011 data from Shakopee & Kindred.

Created 10-20-2011

**Table 61. 2011 Cercospora Ratings for Official Trial Entries  
Betaseed (Rosemount MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)**

Chk	Code	Description	Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					Trial Yrs \$\$
			Rosemt. Avg	BSDF Avg	Foxhome Avg	2011+++ Mean	2 Yr Mean	3 Yr Mean	2010 Mean	2009 Mean	
	541	BTS 70RR64	5.53	5.17	5.40	5.41	5.13	--	4.86	--	2
	513	BTS 70RR70	5.19	5.18	4.87	5.11	5.16	--	5.21	--	2
	608	BTS 70RR78	4.83	4.82	4.84	4.83	5.02	--	5.21	--	2
	549	BTS 70RR99	4.64	4.46	4.60	4.59	4.51	--	4.43	--	2
	526	BTS 71RR22	4.76	3.87	4.77	4.54	--	--	--	--	1
	565	BTS 71RR31	4.95	4.60	4.63	4.78	--	--	--	--	1
	535	BTS 71RR62	4.82	4.78	4.86	4.82	--	--	--	--	1
	583	BTS 77RR54	4.87	4.46	5.10	4.82	4.77	4.68	4.72	4.50	5
	502	BTS 78RR10	5.32	5.14	5.27	5.26	5.32	5.15	5.37	4.81	4
	605	BTS 80RR12	4.87	4.69	5.02	4.86	5.07	--	5.27	--	2
	561	BTS 80RR32	5.22	5.16	5.11	5.18	5.05	--	4.93	--	2
	615	BTS 80RR52	4.62	4.68	4.52	4.61	4.47	--	4.32	--	2
	598	BTS 81RR11	4.50	3.98	4.49	4.37	--	--	--	--	1
	507	BTS 81RR17	4.81	4.13	4.96	4.68	--	--	--	--	1
	572	BTS 81RR23	4.76	4.68	4.97	4.79	--	--	--	--	1
	521	BTS 81RR41	4.01	4.07	4.49	4.14	--	--	--	--	1
	593	BTS 81RR63	4.80	4.14	4.40	4.54	--	--	--	--	1
	567	BTS 81RR78	4.84	4.73	5.11	4.88	--	--	--	--	1
	568	BTS 81RR81	5.12	4.37	5.09	4.92	--	--	--	--	1
	525	BTS 85RR02	4.12	4.72	4.94	4.47	4.47	4.53	4.47	4.66	7
	624	BTS 87RR38	5.03	4.57	4.92	4.89	4.85	4.81	4.82	4.73	5
	590	BTS 87RR58	5.29	4.69	4.96	5.06	5.24	5.18	5.43	5.06	5
	512	BTS 87RR68	5.31	4.67	4.69	4.99	4.73	4.71	4.47	4.66	5
	558	BTS 88RR31	5.15	4.91	5.06	5.07	4.86	4.90	4.66	4.97	4
	551	BTS 88RR41	5.08	5.02	5.07	5.06	5.10	5.02	5.14	4.87	4
	508	BTS 88RR61	4.89	4.85	5.20	4.96	4.73	4.84	4.50	5.06	4
	602	BTS 89RR10	5.08	5.12	5.05	5.08	5.00	4.83	4.92	4.48	3
	542	BTS 89RR30	5.23	5.13	5.09	5.17	5.13	5.11	5.09	5.08	3
	581	BTS 89RR40	5.54	5.00	5.25	5.33	5.20	5.08	5.07	4.83	3
	527	BTS 89RR50	5.09	5.05	4.80	5.01	5.09	5.01	5.16	4.84	3
	626	BTS 89RR83	4.96	4.61	4.70	4.81	4.82	4.72	4.83	4.53	3
	510	Crystal 091RR	4.41	4.93	4.81	4.64	4.61	--	4.58	--	2
	600	Crystal 093RR	5.43	5.10	4.67	5.16	5.14	--	5.12	--	2
	534	Crystal 095RR	4.85	4.98	4.84	4.88	4.84	--	4.80	--	2
	585	Crystal 101RR	4.79	4.48	4.81	4.72	--	--	--	--	1
	607	Crystal 102RR	5.01	4.88	4.80	4.92	--	--	--	--	1
	560	Crystal 103RR	5.01	4.30	4.62	4.73	--	--	--	--	1
	574	Crystal 104RR	4.96	4.25	4.61	4.69	--	--	--	--	1
	556	Crystal 105RR	4.75	4.59	4.75	4.71	--	--	--	--	1
	621	Crystal 106RR	4.36	3.51	4.36	4.15	--	--	--	--	1
	514	Crystal 539RR	5.54	5.20	5.17	5.37	5.38	5.33	5.39	5.25	7
	592	Crystal 658RR	4.46	4.13	4.84	4.47	4.47	4.52	4.46	4.63	6
	625	Crystal 765RR	4.54	4.76	4.96	4.70	4.61	4.70	4.52	4.89	5
	599	Crystal 768RR	5.19	4.89	5.11	5.09	5.15	5.08	5.21	4.94	5
	606	Crystal 875RR	3.83	4.52	4.76	4.24	4.28	4.37	4.33	4.56	4
	559	Crystal 878RR	5.46	5.06	5.23	5.31	5.24	5.13	5.17	4.91	4
	516	Crystal 879RR	5.26	5.18	5.07	5.19	5.27	5.23	5.36	5.13	4
	573	Crystal 981RR	5.26	5.23	5.10	5.21	5.25	5.23	5.29	5.19	3
	548	Crystal 985RR	4.10	4.41	4.85	4.37	4.33	4.28	4.30	4.18	3
	611	Crystal 986RR	5.51	4.56	4.99	5.14	5.30	5.04	5.45	4.53	3
	523	Crystal RR012	4.78	4.83	4.74	4.79	4.69	--	4.60	--	2
	584	Crystal RR176	4.94	4.95	5.18	5.00	--	--	--	--	1
	589	Crystal RR632	4.30	4.46	4.81	4.47	4.40	4.43	4.34	4.50	5
	544	Crystal RR643	5.32	5.01	4.98	5.16	5.17	5.11	5.19	4.98	5
	557	Crystal RR654	5.31	4.49	4.87	4.99	--	--	--	--	1
	509	Crystal RR794	5.32	4.96	5.20	5.20	5.23	5.05	5.26	4.69	3
	630	Crystal RR798	4.34	4.85	4.95	4.62	4.92	4.83	5.22	4.65	3
	550	Crystal RR806	5.00	4.96	4.92	4.97	4.98	4.90	4.99	4.75	4
	566	Crystal RR830	5.08	4.76	4.77	4.92	4.89	4.79	4.86	4.57	4
	529	Hilleshög 4012RR	5.18	5.58	5.03	5.24	5.12	5.18	5.00	5.29	6
	533	Hilleshög 4022RR	4.20	4.61	4.02	4.26	4.26	4.35	4.26	4.53	6
	613	Hilleshög 4043RR	5.04	4.61	4.68	4.84	4.93	4.85	5.01	4.69	5
	577	Hilleshög 4062RR	3.51	4.38	4.26	3.91	4.16	4.22	4.41	4.35	4
	620	Hilleshög 4094RR	3.71	4.29	4.31	4.00	4.14	4.23	4.28	4.42	4
	518	Hilleshog 4195RR	4.54	4.95	4.38	4.60	4.50	4.52	4.39	4.56	3

**Table 61. 2011 Cercospora Ratings for Official Trial Entries  
Betaseed (Rosemount MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)**

Chk	Code	Description	Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					Trial Yrs \$\$
			Rosemt. Avg	BSDF Avg	Foxhome Avg	2011+++ Mean	2 Yr Mean	3 Yr Mean	2010 Mean	2009 Mean	
	604	Hilleshög 4199RR(9199)	4.25	4.36	4.83	4.42	4.54	4.58	4.67	4.64	3
	520	Hilleshög 4204RR	4.18	5.06	4.59	4.50	4.49	4.58	4.47	4.76	3
	540	Hilleshög 9236RR	4.67	5.14	4.53	4.75	4.60	--	4.45	--	2
	595	Hilleshög 9237RR	4.21	4.16	4.65	4.31	4.44	--	4.58	--	2
	554	Hilleshög 9238RR	5.32	4.46	4.44	4.88	4.52	--	4.16	--	2
	587	Hilleshög 4251RR(9251)	4.17	4.45	4.64	4.36	4.28	--	4.21	--	2
	515	Hilleshög 9300RR	4.67	4.74	4.74	4.71	--	--	--	--	1
	517	Hilleshög 9301RR	4.26	4.45	4.79	4.44	--	--	--	--	1
	505	Hilleshög 9302RR	3.79	4.07	4.36	4.00	--	--	--	--	1
	601	Hilleshög 9303RR	4.21	3.95	4.52	4.22	--	--	--	--	1
	536	Hilleshög 9304RR	3.96	3.69	4.29	3.98	--	--	--	--	1
	623	Hilleshög 9305RR	5.03	4.75	4.98	4.95	--	--	--	--	1
	614	Hilleshög 9306RR	4.11	4.56	4.34	4.28	--	--	--	--	1
	511	Hilleshög 9307RR	4.39	4.61	4.67	4.51	--	--	--	--	1
	570	Hilleshög 9308RR	4.44	4.35	4.91	4.53	--	--	--	--	1
	578	Hilleshög 9309RR	3.90	4.40	4.45	4.17	--	--	--	--	1
	591	Hilleshög 9310RR	4.54	4.12	4.53	4.43	--	--	--	--	1
	547	Hilleshög 9311RR	3.02	3.64	4.15	3.46	--	--	--	--	1
	582	Hilleshög 9312RR	4.92	4.79	5.16	4.95	--	--	--	--	1
	632	Maribo 100RR	4.50	4.91	5.05	4.74	--	--	--	--	1
	543	Maribo 101RR	5.09	5.07	5.21	5.12	--	--	--	--	1
	619	Maribo 102RR	5.36	4.94	5.13	5.19	--	--	--	--	1
	622	Maribo 103RR	4.61	4.50	4.81	4.63	--	--	--	--	1
	501	Maribo 104RR	3.25	3.44	3.86	3.45	--	--	--	--	1
	594	Maribo 105RR	4.10	4.92	4.38	4.37	--	--	--	--	1
	553	Maribo 106RR	5.11	4.56	5.00	4.94	--	--	--	--	1
	586	Maribo 107RR	5.04	5.13	4.84	5.01	--	--	--	--	1
	528	Maribo 108RR	5.15	4.89	5.32	5.13	--	--	--	--	1
	506	Seedex SX0806RR	4.48	4.77	4.84	4.64	4.88	--	5.13	--	2
	531	Seedex SX0808RR	3.81	4.40	4.60	4.16	4.71	--	5.27	--	2
	562	Seedex SX0814RR	4.79	4.74	4.80	4.78	--	--	--	--	1
	580	Seedex SX0815RR	4.19	4.94	4.96	4.57	--	--	--	--	1
	609	Seedex SX0816RR	4.40	4.58	4.77	4.54	--	--	--	--	1
	628	Seedex Vision RR(SX0891)	3.98	4.88	4.81	4.41	4.58	4.78	4.76	5.17	3
	538	Seedex Victor RR(SX0894)	4.14	4.28	4.75	4.33	4.42	4.41	4.51	4.38	3
	596	Seedex SX0901RR	3.98	4.45	4.70	4.28	4.61	--	4.95	--	2
	571	Seedex SX0903RR	4.12	4.15	4.70	4.27	4.51	--	4.74	--	2
	579	Seedex SX0904RR	3.82	4.05	4.55	4.06	3.93	--	3.81	--	2
	524	Seedex SX0917RR	3.97	4.30	4.90	4.29	--	--	--	--	1
	612	Seedex SX0918RR	3.85	4.57	4.69	4.24	--	--	--	--	1
	563	Seedex SX0995RR	4.62	4.76	4.71	4.68	4.62	4.66	4.56	4.74	3
	519	Seedex Ultra RR	4.20	4.88	4.67	4.49	4.75	4.94	5.02	5.30	4
	575	Seedex Uplander RR	4.52	4.55	4.89	4.62	4.79	4.84	4.97	4.94	4
	610	Seedex Usher RR	4.55	4.84	4.83	4.70	4.87	4.70	5.05	4.35	4
	532	SESVanderhave H36072RR	4.34	4.78	5.10	4.64	4.63	--	4.61	--	2
	504	SESVanderhave H36083RR	4.34	4.98	4.83	4.62	4.69	--	4.75	--	2
	537	SESVanderhave H36084RR	4.50	5.07	4.71	4.69	4.81	--	4.92	--	2
	618	SESVanderhave H36175RR	4.51	4.66	4.79	4.61	--	--	--	--	1
	552	SESVanderhave H36176RR	4.00	4.56	4.64	4.30	--	--	--	--	1
	555	SESVanderhave H36177RR	4.40	4.82	4.81	4.61	--	--	--	--	1
	603	SESVanderhave H36178RR	3.85	4.30	4.61	4.15	--	--	--	--	1
	545	SESVanderhave H36179RR	4.64	4.76	5.04	4.77	--	--	--	--	1
	597	SESVanderhave H36185RR	4.39	4.68	4.50	4.49	--	--	--	--	1
	588	SESVanderhave H36186RR	4.23	5.15	4.99	4.65	--	--	--	--	1
	629	SESVanderhave H36187RR	4.29	4.65	4.86	4.52	--	--	--	--	1
	627	SESVanderhave H36188RR	4.10	4.19	4.51	4.23	--	--	--	--	1
	503	SESVanderhave H36711RR	4.35	4.94	4.70	4.58	4.79	4.93	4.99	5.22	5
	564	SESVanderhave H36811RR	3.64	4.35	4.69	4.08	4.35	4.60	4.62	5.10	4
	530	SESVanderhave H36812RR	4.75	4.72	4.89	4.78	4.97	4.89	5.16	4.74	4
	539	SESVanderhave H36813RR	4.19	4.68	4.77	4.46	4.52	4.53	4.59	4.55	4
	631	SESVanderhave H36822RR	5.04	4.67	4.63	4.84	4.92	4.90	5.00	4.85	4
	546	SESVanderhave H36916RR	4.65	4.79	4.72	4.70	4.83	4.86	4.97	4.91	3
	617	SESVanderhave H36917RR	4.33	4.68	4.73	4.51	4.73	4.82	4.95	5.01	3
	576	SESVanderhave H36918RR	4.39	4.20	4.67	4.41	4.44	4.41	4.47	4.36	3
	522	SESVanderhave H36923RR	4.27	4.50	4.52	4.39	4.54	4.50	4.69	4.42	3

**Table 61. 2011 Cercospora Ratings for Official Trial Entries  
Betaseed (Rosemount MN), BSDF (Frankenmuth MI) & NDSU (Foxhome MN)**

Chk	Code	Description	Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					Trial Yrs \$\$
			Rosemt. Avg	BSDF Avg	Foxhome Avg	2011+++ Mean	2 Yr Mean	3 Yr Mean	2010 Mean	2009 Mean	
	569	SESVanderhave H36926RR	4.08	4.55	5.09	4.45	4.39	4.40	4.33	4.41	3
	616	SESVanderhave H36927RR	4.09	4.71	4.89	4.44	4.37	4.46	4.30	4.64	3
	702	Crystal R434	5.03	4.79	5.00	4.96	--	--	--	--	8
	707	Crystal R761	5.04	4.56	5.06	4.92	4.89	--	4.86	--	5
	705	Crystal R869	5.41	5.00	5.13	5.24	5.07	--	4.90	--	4
	701	Seedex SX8818TT	5.03	4.78	4.92	4.94	--	--	--	--	1
	704	Seedex SX8819TT	4.93	4.48	4.86	4.80	--	--	--	--	1
	706	SESVanderhave H46119	3.94	4.61	4.75	4.31	--	--	--	--	1
	703	SESVanderhave H48173TT	5.13	4.66	4.75	4.91	--	--	--	--	1
Chk	1101	CR Chk-19 CRY539RR	5.41	5.14	5.22	5.30	5.41	5.30	5.52	5.09	7
Chk	1102	CR Chk-31 BETA86RR88	4.83	4.59	4.94	4.80	4.71	4.58	4.63	4.33	6
Chk	1103	CR CHK-37 SES36711RR	4.81	4.75	4.84	4.80	4.87	4.94	4.94	5.08	5
Chk	1104	CR Chk-30 BETA86RR66	5.21	5.02	5.06	5.13	5.20	5.16	5.27	5.09	6
Chk	1105	CR Chk-34 HILL4000RR	4.33	4.77	4.66	4.52	4.61	4.64	4.69	4.71	5
Chk	1106	CR CHK-36 BETA87RR68	4.92	4.65	4.75	4.81	4.73	4.71	4.66	4.67	5
	1107	CR CHK-40 SES36812RR	4.58	4.96	4.69	4.70	4.93	4.87	5.16	4.74	4
	1108	CR CHK-38 BETA77RR54	5.07	4.82	4.83	4.95	4.86	4.91	4.77	5.01	5
Chk	1109	CR Chk-24 HILL4012RR	5.17	5.56	5.18	5.27	5.22	5.25	5.17	5.31	6
	1110	CR CHK-39 CRY5875RR	4.32	4.42	4.66	4.43	4.38	4.44	4.33	4.56	4
Chk	1111	CR Chk-35 BETA87RR58	5.45	5.02	5.08	5.25	5.32	5.17	5.39	4.88	5
Chk	1112	CR Chk-33 HILL4043RR	4.89	4.66	4.63	4.77	4.81	4.73	4.85	4.58	5
Chk	1113	CR Chk-17 BETA85RR02	5.12	5.14	5.30	5.17	5.15	5.12	5.13	5.07	7
Chk	1114	CR Chk-28 HILL4010RR	4.87	5.40	5.01	5.04	5.10	5.20	5.16	5.41	6
Chk	1115	CR Chk-29 BETA86RR44	4.73	5.05	5.07	4.90	4.96	5.01	5.03	5.12	6
Std	1116	CR CHK MOD SUS HYB#3	5.14	5.13	5.26	5.16	5.27	5.26	5.37	5.25	7
Std	1117	CR CHK MOD RES HYB#4	4.16	4.51	4.67	4.37	4.30	4.38	4.22	4.56	4
Std	1118	CR CHK MOD SUS HYB#3	5.45	5.16	5.31	5.34	5.36	5.32	5.37	5.25	7
Std	1151	CR CHK MOD SUSC HYBRID-1	5.03	5.25	5.11	5.10	5.10	5.08	5.10	5.03	12
Std	1152	CR CHK MOD SUSC HYBRID-2	5.01	4.96	4.69	4.92	4.88	4.75	4.85	4.47	8
Std	1153	CR CHK RES HYBRID	2.62	3.07	3.83	3.03	3.16	3.17	3.29	3.20	12
Std	1154	CR CHK RES SOURCE	1.66	2.18	3.34	2.21	2.36	2.34	2.50	2.30	12
Std	1155	CR CHK SUSC HYBRID	5.02	5.85	5.08	5.24	5.52	5.56	5.80	5.63	8
Std	1156	CR CHK MOD SUSC HYBRID-1	4.95	5.19	NA	4.95	5.03	5.03	5.10	5.03	12
Std	1157	CR CHK MOD SUSC HYBRID-2	5.09	4.89	NA	5.09	4.97	4.80	4.85	4.47	8
Std	1158	CR CHK RES HYBRID	2.69	3.25	NA	2.69	2.99	3.06	3.29	3.20	12
Std	1159	CR CHK RES SOURCE	1.63	2.20	NA	1.63	2.07	2.14	2.50	2.30	12
Std	1160	CR CHK SUSC HYBRID	5.22	5.75	NA	5.22	5.51	5.55	5.80	5.63	8
Std	1161	Crystal 30 Std	3.41	4.71	4.45	3.99	4.12	4.15	4.24	4.20	36
Std	1162	Maribo Monova Std	5.29	5.35	5.06	5.24	5.22	5.19	5.20	5.12	32
Std	1163	Maribo Unica Std	5.23	5.50	4.62	5.15	4.98	4.94	4.81	4.86	32
Std	1164	Bush Johnson 19 Std	4.88	5.26	4.87	4.97	4.98	4.79	4.98	4.41	32
Std	1165	Crystal Mustang Std	5.69	5.32	5.18	5.47	5.71	5.59	5.94	5.37	4
12		Trial Mean	4.61	4.67	4.82	4.68					
		Coeff. of Var. (%)	8.31	5.74	6.54						
		F Value	13.62	11.99	4.13						
		Mean LSD (0.05)	0.49	0.41	0.37						
		Mean LSD (0.01)	0.65	0.55	0.48						
		Sig Lvl	**	**	**						
		Adj Factor	0.98802	1.04854	0.91410						

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

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

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

Std = varieties entered for comparison purposes. StdB = Standards from Betaseed.

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

+++ Weighted average with Rosemount comprising 50% of the mean.

Created 10-21-2011.



Table 62. 2011 Rhizoctonia Ratings for OVT Entries

## Rhizoctonia Nursery - USDA Ft Collins

Sus Chk	Chk @	Code	Description	Unadj	Unadj	Unadj	Adj	Adj	Adj	Adj	2 Yr	3 Yr	Adj	Adj	Years
				Ft Collins	MhdN	MhdS	Ft Collins	MhdN	MhdS	2011			2010	2009	
				8/19	9/9	9/16	2011	2011	2011	Mean	Mean	Mean	Mean	Mean	
		541	BTS 70RR64	3.61	4.28	3.91	4.99	4.54	4.53	4.69	4.42	--	4.15	--	2
		513	BTS 70RR70	2.48	3.53	3.72	3.43	3.75	4.31	3.83	3.85	--	3.87	--	2
		608	BTS 70RR78	2.94	5.02	4.46	4.06	5.33	5.16	4.85	4.43	--	4.02	--	2
		549	BTS 70RR99	3.00	3.35	3.56	4.14	3.56	4.12	3.94	3.90	--	3.85	--	2
		526	BTS 71RR22	3.04	4.03	3.73	4.20	4.28	4.32	4.27	--	--	--	--	1
		565	BTS 71RR31	3.68	4.40	4.25	5.08	4.67	4.92	4.89	--	--	--	--	1
		535	BTS 71RR62	3.48	3.46	2.76	4.81	3.67	3.20	3.89	--	--	--	--	1
		583	BTS 77RR54	3.32	4.09	4.02	4.59	4.34	4.65	4.53	4.54	4.65	4.56	4.87	5
		502	BTS 78RR10	2.80	4.23	4.56	3.87	4.49	5.28	4.55	4.69	4.60	4.83	4.44	4
		605	BTS 80RR12	3.24	4.65	4.30	4.48	4.94	4.98	4.80	4.51	--	4.21	--	2
		561	BTS 80RR32	3.33	3.90	3.40	4.60	4.14	3.94	4.23	4.08	--	3.94	--	2
		615	BTS 80RR52	3.24	3.56	3.61	4.48	3.78	4.18	4.14	4.16	--	4.17	--	2
		598	BTS 81RR11	3.43	4.48	4.59	4.74	4.76	5.31	4.94	--	--	--	--	1
		507	BTS 81RR17	2.75	3.67	3.96	3.80	3.90	4.58	4.09	--	--	--	--	1
		572	BTS 81RR23	2.80	4.44	4.09	3.87	4.71	4.74	4.44	--	--	--	--	1
		521	BTS 81RR41	3.72	4.60	3.87	5.14	4.88	4.48	4.83	--	--	--	--	1
		593	BTS 81RR63	3.18	4.40	4.12	4.39	4.67	4.77	4.61	--	--	--	--	1
		567	BTS 81RR78	3.08	4.38	4.16	4.25	4.65	4.82	4.57	--	--	--	--	1
		568	BTS 81RR81	4.11	5.10	4.47	5.68	5.41	5.18	5.42	--	--	--	--	1
		525	BTS 85RR02	2.47	3.29	4.32	3.41	3.49	5.00	3.97	4.01	4.17	4.05	4.48	7
		624	BTS 87RR38	3.65	3.96	3.97	5.04	4.20	4.60	4.61	4.49	4.25	4.36	3.79	5
		590	BTS 87RR58	3.01	4.03	3.72	4.16	4.28	4.31	4.25	4.37	4.40	4.48	4.46	5
		512	BTS 87RR68	3.56	3.61	3.97	4.92	3.83	4.60	4.45	4.64	4.64	4.83	4.64	5
		558	BTS 88RR31	2.78	3.80	3.06	3.84	4.03	3.54	3.81	3.70	3.82	3.59	4.07	4
		551	BTS 88RR41	3.24	3.71	3.75	4.48	3.94	4.34	4.25	4.22	4.23	4.19	4.26	4
		508	BTS 88RR61	3.45	4.46	3.95	4.77	4.74	4.57	4.69	4.16	4.27	3.63	4.50	4
		602	BTS 89RR10	2.57	3.74	2.90	3.55	3.97	3.36	3.63	3.78	4.03	3.94	4.54	3
		542	BTS 89RR30	3.00	4.59	3.98	4.14	4.87	4.61	4.54	4.10	4.04	3.66	3.91	3
		581	BTS 89RR40	3.59	4.88	4.24	4.96	5.18	4.91	5.02	4.61	4.57	4.20	4.50	3
		527	BTS 89RR50	3.58	5.10	4.79	4.95	5.41	5.55	5.30	4.66	4.69	4.01	4.75	3
		626	BTS 89RR83	3.58	4.29	3.53	4.95	4.55	4.09	4.53	4.08	3.92	3.63	3.59	3
		510	Crystal 091RR	3.62	3.71	4.27	5.00	3.94	4.94	4.63	4.32	--	4.02	--	2
		600	Crystal 093RR	3.02	3.94	4.25	4.17	4.18	4.92	4.43	4.27	--	4.11	--	2
		534	Crystal 095RR	3.53	4.37	4.39	4.88	4.64	5.08	4.87	4.49	--	4.11	--	2
		585	Crystal 101RR	3.41	4.49	3.92	4.71	4.77	4.54	4.67	--	--	--	--	1
		607	Crystal 102RR	2.73	4.69	4.26	3.77	4.98	4.93	4.56	--	--	--	--	1
		560	Crystal 103RR	3.37	2.79	2.57	4.66	2.96	2.98	3.53	--	--	--	--	1
		574	Crystal 104RR	3.53	3.52	3.02	4.88	3.74	3.50	4.04	--	--	--	--	1
		556	Crystal 105RR	3.64	4.82	3.69	5.03	5.12	4.27	4.81	--	--	--	--	1
		621	Crystal 106RR	3.60	3.91	3.84	4.97	4.15	4.45	4.52	--	--	--	--	1
		514	Crystal 539RR	2.95	4.01	4.43	4.07	4.26	5.13	4.49	4.43	4.41	4.37	4.38	7
		592	Crystal 658RR	2.68	3.40	3.47	3.70	3.61	4.02	3.78	3.98	3.90	4.17	3.74	6
		625	Crystal 765RR	3.55	4.21	3.76	4.90	4.47	4.35	4.58	4.47	4.54	4.37	4.68	5
		599	Crystal 768RR	3.33	4.07	3.76	4.60	4.32	4.35	4.42	4.37	4.26	4.31	4.06	5
		606	Crystal 875RR	2.71	4.04	3.58	3.74	4.29	4.14	4.06	3.77	3.90	3.49	4.16	4
		559	Crystal 878RR	2.86	4.45	4.17	3.95	4.72	4.83	4.50	4.47	4.44	4.44	4.39	4
		516	Crystal 879RR	2.81	4.03	4.18	3.88	4.28	4.84	4.33	4.26	4.22	4.19	4.13	4
		573	Crystal 981RR	3.94	4.28	4.15	5.44	4.54	4.80	4.93	4.52	--	4.12	--	3
		548	Crystal 985RR	3.82	3.74	3.83	5.28	3.97	4.43	4.56	4.27	--	3.98	--	3
		611	Crystal 986RR	3.10	3.90	3.10	4.28	4.14	3.59	4.00	4.33	4.41	4.65	4.59	3
		523	Crystal RR012	2.72	3.91	3.84	3.76	4.15	4.45	4.12	3.99	--	3.86	--	2
		584	Crystal RR176	2.24	4.06	3.86	3.09	4.31	4.47	3.96	--	--	--	--	1
		589	Crystal RR632	2.65	3.97	3.25	3.66	4.22	3.76	3.88	4.02	4.06	4.17	4.13	5
		544	Crystal RR643	2.83	3.37	3.02	3.91	3.58	3.50	3.66	3.72	3.95	3.77	4.41	5
		557	Crystal RR654	3.28	4.68	4.70	4.53	4.97	5.44	4.98	--	--	--	--	1
		509	Crystal RR794	2.54	4.15	3.99	3.51	4.41	4.62	4.18	4.21	--	4.23	--	3
		630	Crystal RR798	2.38	3.41	2.87	3.29	3.62	3.32	3.41	3.65	3.50	3.88	3.20	3
		550	Crystal RR806	3.47	4.23	3.80	4.79	4.49	4.40	4.56	4.31	4.45	4.06	4.75	4
		566	Crystal RR830	2.17	3.22	3.17	3.00	3.42	3.67	3.36	3.59	3.53	3.82	3.42	4
		529	Hilleshög 4012RR	3.26	4.58	4.91	4.50	4.86	5.68	5.02	4.77	4.80	4.53	4.84	6
		533	Hilleshög 4022RR	2.36	2.90	3.53	3.26	3.08	4.09	3.48	3.52	3.38	3.56	3.10	6
		613	Hilleshög 4043RR	3.45	4.99	5.02	4.77	5.30	5.81	5.29	4.84	4.74	4.40	4.54	5
		577	Hilleshög 4062RR	2.40	2.40	2.36	3.32	2.55	2.73	2.87	3.24	3.30	3.62	3.42	4
		620	Hilleshög 4094RR	2.41	3.00	2.91	3.33	3.19	3.37	3.29	3.57	3.45	3.85	3.22	4
		518	Hilleshög 4195RR	2.72	3.73	3.12	3.76	3.96	3.61	3.78	3.93	3.84	4.08	3.67	3
		604	Hilleshög 4199RR(9199)	3.02	5.37	5.26	4.17	5.70	6.09	5.32	5.13	--	4.95	--	3
		520	Hilleshög 4204RR	2.17	3.44	2.88	3.00	3.65	3.33	3.33	3.68	3.69	4.02	3.73	3
		540	Hilleshög 9236RR	4.09	5.40	5.36	5.65	5.73	6.21	5.86	--	--	--	--	2
		595	Hilleshög 9237RR	3.18	5.06	4.47	4.39	5.37	5.18	4.98	--	--	--	--	2

Table 62. 2011 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - USDA Ft Collins

Sus Chk	Chk @	Code	Description	Unadj	Unadj	Unadj	Adj	Adj	Adj	Adj	2 Yr	3 Yr	Adj	Adj	Years
				Ft Collins 8/19	MhdN 9/9	MhdS 9/16	Ft Collins 2011	MhdN 2011	MhdS 2011	2011			Mean	Mean	
		554	Hilleshög 9238RR	3.55	5.84	5.91	4.90	6.20	6.84	5.98	--	--	--	--	2
		587	Hilleshög 4251RR(9251)	2.81	3.09	3.33	3.88	3.28	3.86	3.67	3.75	--	3.82	--	2
		515	Hilleshög 9300RR	2.73	4.45	3.86	3.77	4.72	4.47	4.32	--	--	--	--	1
		517	Hilleshög 9301RR	3.02	5.22	4.11	4.17	5.54	4.76	4.82	--	--	--	--	1
		505	Hilleshög 9302RR	2.47	3.07	3.23	3.41	3.26	3.74	3.47	--	--	--	--	1
		536	Hilleshög 9304RR	2.48	4.33	4.44	3.43	4.60	5.14	4.39	--	--	--	--	1
		511	Hilleshög 9307RR	2.40	4.30	3.40	3.32	4.57	3.94	3.94	--	--	--	--	1
		570	Hilleshög 9308RR	2.73	5.06	4.60	3.77	5.37	5.33	4.82	--	--	--	--	1
		578	Hilleshög 9309RR	2.62	2.73	2.37	3.62	2.90	2.74	3.09	--	--	--	--	1
		547	Hilleshög 9311RR	2.48	4.05	3.60	3.43	4.30	4.17	3.96	--	--	--	--	1
		622	Maribo 103RR	2.79	4.00	4.29	3.85	4.25	4.97	4.36	--	--	--	--	1
		501	Maribo 104RR	2.71	4.07	1.73	3.74	4.32	2.00	3.36	--	--	--	--	1
		594	Maribo 105RR	2.59	3.90	3.96	3.58	4.14	4.58	4.10	--	--	--	--	1
		506	Seedex SX0806RR	3.62	4.01	4.31	5.00	4.26	4.99	4.75	--	--	--	--	2
		531	Seedex SX0808RR	3.33	3.96	4.09	4.60	4.20	4.74	4.51	4.47	--	4.42	--	2
		562	Seedex SX0814RR	3.57	4.45	3.78	4.93	4.72	4.38	4.68	--	--	--	--	1
		580	Seedex SX0815RR	3.50	4.31	4.29	4.83	4.58	4.97	4.79	--	--	--	--	1
		609	Seedex SX0816RR	3.19	3.96	4.35	4.41	4.20	5.04	4.55	--	--	--	--	1
		628	Seedex Vision RR(SX0891)	3.36	3.91	3.96	4.64	4.15	4.58	4.46	4.38	--	4.31	--	3
		538	Seedex Victor RR(SX0894)	2.96	4.34	4.34	4.09	4.61	5.02	4.57	4.45	--	4.32	--	3
		596	Seedex SX0901RR	3.40	4.26	4.53	4.70	4.52	5.24	4.82	--	--	--	--	2
		571	Seedex SX0903RR	2.74	4.52	3.94	3.78	4.80	4.56	4.38	--	--	--	--	2
		579	Seedex SX0904RR	3.27	3.55	2.60	4.52	3.77	3.01	3.77	3.75	--	3.74	--	2
		524	Seedex SX0917RR	3.83	4.16	4.16	5.29	4.42	4.82	4.84	--	--	--	--	1
		612	Seedex SX0918RR	3.16	3.72	3.34	4.37	3.95	3.87	4.06	--	--	--	--	1
		563	Seedex SX0995RR	3.54	3.95	3.92	4.89	4.19	4.54	4.54	4.13	--	3.72	--	3
		519	Seedex Ultra RR	3.16	4.02	4.37	4.37	4.27	5.06	4.56	4.35	--	4.14	--	4
		575	Seedex Uplander RR	3.31	4.42	3.95	4.57	4.69	4.57	4.61	4.41	4.52	4.20	4.73	4
		610	Seedex Usher RR	3.10	4.15	4.48	4.28	4.41	5.19	4.63	4.55	4.41	4.47	4.13	4
		532	SESVanderhave H36072RR	3.79	4.79	4.39	5.24	5.09	5.08	5.13	--	--	--	--	2
		504	SESVanderhave H36083RR	2.97	3.75	4.29	4.10	3.98	4.97	4.35	--	--	--	--	2
		537	SESVanderhave H36084RR	3.27	4.20	3.73	4.52	4.46	4.32	4.43	4.29	--	4.15	--	2
		618	SESVanderhave H36175RR	3.69	4.29	3.45	5.10	4.55	3.99	4.55	--	--	--	--	1
		552	SESVanderhave H36176RR	3.08	3.87	3.60	4.25	4.11	4.17	4.18	--	--	--	--	1
		555	SESVanderhave H36177RR	3.38	4.29	4.26	4.67	4.55	4.93	4.72	--	--	--	--	1
		603	SESVanderhave H36178RR	3.36	3.87	4.01	4.64	4.11	4.64	4.46	--	--	--	--	1
		545	SESVanderhave H36179RR	3.55	4.34	4.21	4.90	4.61	4.87	4.80	--	--	--	--	1
		597	SESVanderhave H36185RR	3.33	4.14	3.86	4.60	4.40	4.47	4.49	--	--	--	--	1
		588	SESVanderhave H36186RR	3.25	4.13	4.37	4.49	4.39	5.06	4.64	--	--	--	--	1
		629	SESVanderhave H36187RR	3.67	4.64	4.07	5.07	4.93	4.71	4.90	--	--	--	--	1
		627	SESVanderhave H36188RR	2.73	3.41	3.66	3.77	3.62	4.24	3.88	--	--	--	--	1
		503	SESVanderhave H36711RR	3.63	3.94	4.21	5.01	4.18	4.87	4.69	4.26	4.34	3.83	4.50	5
		564	SESVanderhave H36811RR	3.35	4.06	4.10	4.63	4.31	4.75	4.56	4.35	4.33	4.14	4.28	4
		530	SESVanderhave H36812RR	3.39	4.33	4.25	4.68	4.60	4.92	4.73	4.59	4.59	4.45	4.57	4
		539	SESVanderhave H36813RR	3.26	4.57	4.28	4.50	4.85	4.96	4.77	4.44	4.50	4.10	4.63	4
		631	SESVanderhave H36822RR	3.94	4.21	3.91	5.44	4.47	4.53	4.81	4.57	4.45	4.32	4.21	4
		546	SESVanderhave H36916RR	3.29	4.64	3.54	4.54	4.93	4.10	4.52	4.41	--	4.30	--	3
		617	SESVanderhave H36917RR	3.45	4.41	4.29	4.77	4.68	4.97	4.80	4.54	--	4.27	--	3
		576	SESVanderhave H36918RR	3.98	4.40	4.54	5.50	4.67	5.26	5.14	4.76	--	4.37	--	3
		522	SESVanderhave H36923RR	3.26	4.45	4.15	4.50	4.72	4.80	4.68	4.49	4.50	4.31	4.51	3
		569	SESVanderhave H36926RR	3.24	3.81	4.08	4.48	4.05	4.72	4.41	4.39	--	4.37	--	3
		616	SESVanderhave H36927RR	3.15	3.94	4.26	4.35	4.18	4.93	4.49	4.27	--	4.05	--	3
1	1	1301	Rhiz Chk#08 CRY5539RR	3.44	4.75	4.94	4.75	5.04	5.72	5.17	4.69	4.64	4.22	4.53	3
1	1	1302	Rhiz Chk#11 BETA87RR68	3.46	4.49	4.63	4.78	4.77	5.36	4.97	4.78	4.82	4.60	4.88	3
	1	1303	Rhiz Chk#17 HILL4022RR	2.59	2.74	3.39	3.58	2.91	3.92	3.47	3.71	3.55	3.95	3.23	3
1		1304	Rhiz Chk#20 CRY5765RR	3.38	3.96	3.94	4.67	4.20	4.56	4.48	4.48	4.41	4.49	4.25	3
1	1	1305	Rhiz Chk#21 CRY5768RR	3.73	3.80	3.96	5.15	4.03	4.58	4.59	4.59	4.41	4.59	4.05	3
1	1	1306	Rhiz Chk#24 BETA86RR88	3.21	4.59	4.36	4.43	4.87	5.05	4.79	4.50	4.56	4.22	4.67	3
1	1	1307	Rhiz Chk#25 HILL4043RR	3.10	4.89	4.18	4.28	5.19	4.84	4.77	4.48	4.54	4.19	4.66	3
	1	1308	Rhiz Chk#26 BETA86RR44	2.70	4.69	3.43	3.73	4.98	3.97	4.23	4.16	4.23	4.10	4.37	3
1	1	1309	Rhiz Chk#27 HILL4012RR	3.32	4.42	4.60	4.59	4.69	5.33	4.87	4.81	4.77	4.75	4.69	3
	1	1310	Rhiz Chk#28 CRY5658RR	3.20	3.80	3.29	4.42	4.03	3.81	4.09	4.07	3.96	4.05	3.74	6
1	1	1311	Rhiz Chk#29 BETA87RR58	3.28	4.80	4.69	4.53	5.10	5.43	5.02	4.89	4.75	4.77	4.46	5
1	1	1312	Rhiz Chk#30 SES36711RR	3.49	4.43	3.97	4.82	4.70	4.60	4.71	4.48	4.48	4.24	4.50	5
1	1	1313	Rhiz Chk#31 HILL4000RR	3.94	4.49	4.62	5.44	4.77	5.35	5.19	4.88	4.87	4.58	4.86	5
1	1	1314	Rhiz Chk#32 HILL4010RR	3.29	4.74	3.75	4.54	5.03	4.34	4.64	4.62	4.74	4.61	4.96	6
	1	1315	Rhiz Chk#33 BETA77RR74	2.86	2.97	2.69	3.95	3.15	3.11	3.41	3.50	3.51	3.60	3.54	5
1	1	1316	Rhiz Chk#34 BETA86RR66	3.64	4.50	4.08	5.03	4.78	4.72	4.84	4.54	4.39	4.23	4.11	6
1	1	1317	Rhiz Chk#35 SES36812RR	3.22	4.73	4.22	4.45	5.02	4.89	4.79	4.55	4.56	4.32	4.57	4

**Table 62. 2011 Rhizoctonia Ratings for OVT Entries**  
**Rhizoctonia Nursery - USDA Ft Collins**

Sus Chk	Chk @	Code	Description	Unadj	Unadj	Unadj	Adj	Adj	Adj	Adj	2 Yr Mean	3 Yr Mean	Adj	Adj	Years
				Ft Collins 8/19	MhdN 9/9	MhdS 9/16	Ft Collins 2011	MhdN 2011	MhdS 2011	2011 Mean			2010 Mean	2009 Mean	
1		1318	Rhiz Chk#36 BETA85RR02	3.17	4.24	4.08	4.38	4.50	4.72	4.53	--	--	--	--	7
		1319	RES RHC #1	2.03	2.75	2.26	2.80	2.92	2.62	2.78	--	--	--	--	6
		1320	MOD RHC #2	3.11	3.38	3.04	4.30	3.59	3.52	3.80	--	--	--	--	1
		1321	SUS RHC #3	3.45	4.55	4.51	4.77	4.83	5.22	4.94	--	--	--	--	7
		1322	SUS RHC #4	3.71	3.82	3.95	5.12	4.06	4.57	4.58	--	--	--	--	1
		1323	MOD RHC #5	2.40	4.36	4.63	3.32	4.63	5.36	4.43	--	--	--	--	6
		702	Crystal R434	3.86	3.58	3.41	5.33	3.80	3.95	4.36	--	--	--	--	8
		707	Crystal R761	3.73	4.34	3.31	5.15	4.61	3.83	4.53	4.34	--	4.15	--	5
		705	Crystal R869	3.51	3.14	3.25	4.85	3.33	3.76	3.98	4.12	--	4.27	--	4
		701	Seedex SX8818TT	2.72	3.51	3.24	3.76	3.73	3.75	3.75	--	--	--	--	1
		704	Seedex SX8819TT	3.66	4.02	3.75	5.06	4.27	4.34	4.56	--	--	--	--	1
		706	SESVanderhave H46119	2.35	3.86	3.47	3.25	4.10	4.02	3.79	--	--	--	--	1
		703	SESVanderhave H48173TT	3.20	3.64	4.58	4.42	3.86	5.30	4.53	--	--	--	--	1
1	1	1301	Rhiz Chk#08 CRY5539RR	3.43	4.51	4.46	4.74	4.79	5.16	4.90	4.56	4.55	4.22	4.53	3
1	1	1302	Rhiz Chk#11 BETA87RR68	3.65	4.51	4.31	5.04	4.79	4.99	4.94	4.77	4.81	4.60	4.88	3
	1	1303	Rhiz Chk#17 HILL4022RR	1.74	2.94	2.24	2.40	3.12	2.59	2.71	3.33	3.29	3.95	3.23	3
1		1304	Rhiz Chk#20 CRY5765RR	3.90	4.11	3.30	5.39	4.36	3.82	4.52	4.51	4.42	4.49	4.25	3
1	1	1305	Rhiz Chk#21 CRY5768RR	2.90	4.20	3.55	4.01	4.46	4.11	4.19	4.39	4.28	4.59	4.05	3
1	1	1306	Rhiz Chk#24 BETA86RR88	4.16	4.20	3.80	5.75	4.46	4.40	4.87	4.55	4.59	4.22	4.67	3
1	1	1307	Rhiz Chk#25 HILL4043RR	2.85	4.21	4.15	3.94	4.47	4.80	4.40	4.30	4.42	4.19	4.66	3
1	1	1308	Rhiz Chk#26 BETA86RR44	2.89	4.63	3.92	3.99	4.92	4.54	4.48	4.29	4.32	4.10	4.37	3
1	1	1309	Rhiz Chk#27 HILL4012RR	3.64	3.77	4.27	5.03	4.00	4.94	4.66	4.70	4.70	4.75	4.69	3
1	1	1310	Rhiz Chk#28 CRY5658RR	2.98	3.37	3.25	4.12	3.58	3.76	3.82	3.94	3.87	4.05	3.74	6
1	1	1311	Rhiz Chk#29 BETA87RR58	3.43	4.55	3.46	4.74	4.83	4.01	4.52	4.65	4.58	4.77	4.46	5
1	1	1312	Rhiz Chk#30 SES36711RR	3.13	3.97	3.66	4.32	4.22	4.24	4.26	4.25	4.33	4.24	4.50	5
1	1	1313	Rhiz Chk#31 HILL4000RR	4.07	4.92	4.09	5.62	5.22	4.74	5.19	4.88	4.88	4.58	4.86	5
1	1	1314	Rhiz Chk#32 HILL4010RR	2.52	4.49	3.98	3.48	4.77	4.61	4.29	4.45	4.62	4.61	4.96	6
1	1	1315	Rhiz Chk#33 BETA77RR74	2.41	2.90	2.54	3.33	3.08	2.94	3.12	3.36	3.42	3.60	3.54	5
1	1	1316	Rhiz Chk#34 BETA86RR66	3.34	4.38	3.89	4.61	4.65	4.50	4.59	4.41	4.31	4.23	4.11	6
1	1	1317	Rhiz Chk#35 SES36812RR	3.59	4.17	3.50	4.96	4.43	4.05	4.48	4.40	4.46	4.32	4.57	4
	1	1318	Rhiz Chk#36 BETA85RR02	4.03	4.84	3.77	5.57	5.14	4.36	5.02	--	--	--	--	7
		1319	RES RHC #1	2.29	2.29	2.40	3.16	2.43	2.78	2.79	--	--	--	--	6
		1320	MOD RHC #2	2.80	2.86	2.44	3.87	3.04	2.82	3.24	--	--	--	--	1
		1321	SUS RHC #3	3.36	3.86	3.99	4.64	4.10	4.62	4.45	--	--	--	--	7
		1322	SUS RHC #4	3.53	3.87	3.50	4.88	4.11	4.05	4.35	--	--	--	--	1
		1351	Filler25 CRY5R434	2.02	3.31	3.28	2.79	3.51	3.80	3.37	3.68	3.86	3.99	4.22	6
		1352	Rhiz Chk#09 CRY5R431	2.89	4.59	4.12	3.99	4.87	4.77	4.55	4.59	4.58	4.64	4.55	4
		1353	Rhiz Chk#16 HILL3035	2.71	3.42	2.38	3.74	3.63	2.76	3.38	3.47	3.42	3.57	3.33	3
		1354	Susceptible Check - (FC901/C817)/413	3.47	NA	NA	4.79	NA	NA	NA	--	--	--	--	NA
		1355	Highly Resistant Check FC705/1	1.91	NA	NA	2.64	NA	NA	NA	--	--	--	--	NA
		1356	Resistant Check FC703	1.42	NA	NA	1.96	NA	NA	NA	--	--	--	--	NA
		1357	Highly Resistant Check FC709-2	2.25	NA	NA	3.11	NA	NA	NA	--	--	--	--	NA
26	34		Mean of Check Varieties	3.247	4.224	3.874	4.485	4.485	4.485	4.485	4.132	4.123	4.059	4.107	
			Mean of Susc Checks	3.427	4.407	4.091	4.734	4.679	4.736	4.716	4.581	4.578	4.446	4.553	
			Trial Mean	3.14	4.12	3.92	4.34	4.37	4.538						
			Coeff. of Var. (%)	23.35	15.26	14.30	23.35	15.26	14.30						
			F Value	2.36	4.17	3.17	2.36	4.17	3.17						
			Mean LSD (0.05)	0.91	0.80	1.01	1.26	0.85	1.17						
			Mean LSD (0.01)	1.20	1.05	1.33	1.66	1.11	1.54						
			Sig Lvl	**	**	**	**	**	**						
			Adjustment Factor	1.3813	1.0618	1.1578						0.7777	0.8059		
			Approval Limit (80% of susc checks)	2.74	3.53	3.27	3.787	3.743	3.789	3.773					
			++ Adjustment is based upon check varieties.												

Ratings adjusted for disease severity on basis of 17 RR varieties. Approval criterial will be based upon mean of 13 susc. Varieties.  
 Lower numbers indicate better Rhizoctonia tolerance (0=Ex, 7=Poor).  
 The second set of checks was from the conventional part of the nursery at the RRV sites.

Table 63. 2011 Fusarium Readings for Official Trial Entries  
ACSC Nurseries - Moorhead, MN

Chk	Code	Description	Moorhead Site				Raw	Adj	2 Yr	3 Yr	Adj	Adj	Years
			7/7	7/25	8/9	9/8	2011	2011			2010	2009	
	541	BTS 70RR64	4.01	6.69	6.72	5.74	5.60	4.94	--	--	--	--	2
	513	BTS 70RR70	3.88	5.72	4.88	4.30	4.46	3.93	--	--	--	--	2
	608	BTS 70RR78	3.96	6.93	6.73	6.30	5.76	5.08	--	--	--	--	2
	549	BTS 70RR99	3.30	5.38	5.59	4.34	4.52	3.99	--	--	--	--	2
	583	BTS 77RR54	3.84	6.02	5.38	5.10	4.95	4.37	4.28	3.94	4.19	3.25	5
	502	BTS 78RR10	4.04	6.46	6.41	5.49	5.58	4.92	4.88	4.77	4.84	4.55	4
	605	BTS 80RR12	3.72	4.49	4.27	4.49	4.03	3.55	3.30	--	3.04	--	2
	561	BTS 80RR32	4.10	5.86	5.07	5.10	4.78	4.22	3.22	--	2.22	--	2
	615	BTS 80RR52	4.13	4.78	5.02	4.58	4.46	3.93	3.12	--	2.30	--	2
	598	BTS 81RR11	3.73	4.40	4.77	4.59	4.01	3.54	--	--	--	--	1
	507	BTS 81RR17	3.22	4.47	4.95	3.80	3.93	3.47	--	--	--	--	1
	572	BTS 81RR23	3.87	5.20	5.81	3.98	4.74	4.18	--	--	--	--	1
	521	BTS 81RR41	3.83	4.99	4.91	4.69	4.50	3.97	--	--	--	--	1
	593	BTS 81RR63	4.11	3.82	4.64	4.79	4.16	3.67	--	--	--	--	1
	567	BTS 81RR78	3.57	5.23	5.09	4.58	4.46	3.93	--	--	--	--	1
	568	BTS 81RR81	3.69	5.34	5.03	4.72	4.57	4.03	--	--	--	--	1
	525	BTS 85RR02	4.11	6.35	5.53	5.46	5.28	4.66	4.63	3.98	4.61	2.66	7
	624	BTS 87RR38	3.66	5.80	5.54	4.72	4.90	4.32	3.96	3.90	3.60	3.79	5
	590	BTS 87RR58	4.54	6.39	6.43	6.01	5.70	5.03	5.11	4.90	5.20	4.48	5
	512	BTS 87RR68	3.60	5.64	6.06	5.23	4.92	4.34	4.63	4.42	4.91	4.00	5
	558	BTS 88RR31	3.57	4.62	4.92	4.48	4.09	3.61	3.31	3.17	3.01	2.91	4
	551	BTS 88RR41	3.79	5.67	5.45	5.00	4.86	4.29	3.93	3.65	3.56	3.10	4
	508	BTS 88RR61	3.83	6.10	5.42	4.93	4.91	4.33	4.06	3.95	3.78	3.72	4
	602	BTS 89RR10	3.93	6.14	6.06	5.90	5.38	4.74	5.11	4.85	5.47	4.32	3
	542	BTS 89RR30	4.19	4.51	4.39	4.42	4.01	3.54	2.59	2.36	1.65	1.91	3
	581	BTS 89RR40	3.96	6.56	6.33	5.44	5.43	4.79	4.19	4.09	3.60	3.89	3
	527	BTS 89RR50	3.80	4.97	4.73	4.20	4.28	3.77	2.96	2.69	2.14	2.16	3
	626	BTS 89RR83	4.26	5.89	5.48	4.92	5.01	4.42	3.83	3.50	3.24	2.84	3
	510	Crystal 091RR	4.90	5.97	5.49	5.55	5.29	4.67	4.14	--	3.62	--	2
	600	Crystal 093RR	4.37	5.53	5.13	5.18	4.83	4.26	3.94	--	3.61	--	2
	534	Crystal 095RR	3.90	6.09	5.70	5.67	5.03	4.44	4.27	--	4.11	--	2
	585	Crystal 101RR	3.20	3.39	3.65	3.93	3.40	3.00	--	--	--	--	1
	607	Crystal 102RR	5.55	5.08	4.59	5.48	4.89	4.31	--	--	--	--	1
	560	Crystal 103RR	4.81	5.30	4.62	5.05	4.62	4.07	--	--	--	--	1
	574	Crystal 104RR	3.93	5.31	4.38	4.17	4.52	3.99	--	--	--	--	1
	556	Crystal 105RR	4.89	6.23	5.53	5.90	5.34	4.71	--	--	--	--	1
	621	Crystal 106RR	4.60	5.19	5.39	4.98	4.85	4.28	--	--	--	--	1
	514	Crystal 539RR	3.23	3.87	4.10	3.48	3.46	3.05	2.46	2.22	1.87	1.75	7
	592	Crystal 658RR	2.70	4.16	4.50	3.47	3.58	3.16	2.51	2.47	1.87	2.39	6
	625	Crystal 765RR	3.69	6.28	5.75	5.86	5.09	4.49	4.22	4.12	3.96	3.91	5
	599	Crystal 768RR	3.62	6.30	6.31	5.64	5.10	4.50	4.34	4.36	4.19	4.40	5
	606	Crystal 875RR	3.93	5.92	5.13	5.18	4.67	4.12	4.63	4.45	5.14	4.09	4
	559	Crystal 878RR	4.27	6.20	5.57	5.63	5.21	4.59	4.47	4.37	4.35	4.17	4
	516	Crystal 879RR	4.05	5.67	5.49	4.97	4.69	4.14	3.73	3.59	3.32	3.30	4
	573	Crystal 981RR	3.61	4.73	4.27	4.02	4.01	3.54	3.07	--	2.61	--	3
	548	Crystal 985RR	3.25	6.13	5.53	4.79	4.81	4.24	4.21	--	4.17	--	3
	611	Crystal 986RR	5.47	7.27	6.96	6.41	6.26	5.52	5.28	--	5.04	--	3
	523	Crystal RR012	4.82	5.73	5.55	4.96	5.16	4.55	--	--	--	--	2
	589	Crystal RR632	3.84	5.12	4.87	4.47	4.27	3.77	2.90	2.65	2.04	2.15	5
	544	Crystal RR643	3.17	4.13	4.33	4.16	3.73	3.29	3.32	3.12	3.36	2.73	5
	509	Crystal RR794	3.92	6.88	6.53	6.14	5.73	5.05	5.16	--	5.27	--	3
	630	Crystal RR798	3.71	4.11	4.40	4.32	4.03	3.55	4.32	--	5.09	--	3
	550	Crystal RR806	3.75	5.42	4.36	4.02	4.45	3.92	3.14	2.86	2.36	2.28	4
	566	Crystal RR830	3.82	4.83	4.24	4.26	4.12	3.63	3.21	3.16	2.79	3.05	4
	529	Hilleshög 4012RR	4.64	6.72	6.48	6.43	5.85	5.16	5.65	5.54	6.14	5.31	6
	533	Hilleshög 4022RR	3.73	5.43	5.33	4.87	4.60	4.06	4.42	4.42	4.78	4.41	6
	613	Hilleshög 4043RR	4.34	7.22	7.46	6.57	6.28	5.54	6.52	6.36	7.50	6.05	5
	577	Hilleshög 4062RR	4.03	6.30	6.09	5.36	5.35	4.72	4.59	4.48	4.46	4.27	4
	620	Hilleshög 4094RR	3.93	6.08	5.65	5.23	5.03	4.44	4.85	4.67	5.26	4.32	4
	518	Hilleshog 4195RR	4.42	6.63	6.22	5.91	5.69	5.02	5.51	--	6.00	--	3
	604	Hilleshög 4199RR(9199)	6.43	8.12	8.18	7.58	7.46	6.58	7.31	--	8.03	--	3
	520	Hilleshög 4204RR	4.46	6.98	6.72	5.93	5.82	5.13	6.11	--	7.08	--	3
	540	Hilleshög 9236RR	4.38	6.94	5.83	6.06	5.39	4.75	5.66	--	6.57	--	2
	595	Hilleshög 9237RR	6.20	7.34	6.87	7.09	6.71	5.92	--	--	--	--	2
	554	Hilleshög 9238RR	4.50	6.33	5.46	5.84	5.28	4.66	4.84	--	5.02	--	2
	587	Hilleshög 4251RR(9251)	3.72	6.16	5.95	5.44	5.09	4.49	--	--	--	--	2
	515	Hilleshög 9300RR	3.81	4.98	5.19	4.51	4.51	3.98	--	--	--	--	1
	517	Hilleshög 9301RR	3.37	5.03	4.74	4.18	4.18	3.69	--	--	--	--	1
	536	Hilleshög 9304RR	4.11	5.38	4.62	4.62	4.47	3.94	--	--	--	--	1
	511	Hilleshog 9307RR	3.90	4.28	4.58	4.76	3.88	3.42	--	--	--	--	1
	570	Hilleshog 9308RR	3.42	5.30	5.25	4.53	4.51	3.98	--	--	--	--	1
	547	Hilleshog 9311RR	4.11	5.70	5.23	4.94	4.70	4.14	--	--	--	--	1
	543	Maribo 101RR	4.97	6.79	5.75	6.17	5.77	5.09	--	--	--	--	1
	622	Maribo 103RR	3.46	4.87	4.51	4.28	4.08	3.60	--	--	--	--	1
	501	Maribo 104RR	5.08	6.49	5.61	6.01	5.62	4.96	--	--	--	--	1

Table 63. 2011 Fusarium Readings for Official Trial Entries  
ACSC Nurseries - Moorhead, MN

Chk	Code	Description	Moorhead Site				Raw	Adj	2 Yr	3 Yr	Adj	Adj	Years
			7/7	7/25	8/9	9/8	2011	2011			2010	2009	
							Mean	Mean	Mean	Mean	Mean	Mean	
	506	Seedex SX0806RR	4.53	6.93	6.79	5.72	6.08	5.36	--	--	--	--	2
	531	Seedex SX0808RR	3.71	6.42	5.54	5.43	5.15	4.54	4.90	--	5.26	--	2
	562	Seedex SX0814RR	4.18	5.85	5.38	4.54	5.04	4.44	--	--	--	--	1
	628	Seedex Vision RR(SX0891)	3.99	6.46	5.86	5.45	5.25	4.63	5.09	--	5.55	--	3
	538	Seedex Victor RR(SX0894)	3.93	5.46	5.12	4.97	4.79	4.22	4.56	--	4.89	--	3
	596	Seedex SX0901RR	4.38	5.94	5.77	5.41	5.16	4.55	--	--	--	--	2
	571	Seedex SX0903RR	4.77	5.85	5.33	5.51	5.17	4.56	--	--	--	--	2
	579	Seedex SX0904RR	3.59	5.54	5.19	4.99	4.56	4.02	3.96	--	3.90	--	2
	612	Seedex SX0918RR	4.78	6.48	5.95	5.41	5.56	4.90	--	--	--	--	1
	563	Seedex SX0995RR	4.92	7.02	6.10	6.27	5.96	5.26	4.93	--	4.61	--	3
	519	Seedex Ultra RR	2.94	5.95	5.15	4.78	4.24	3.74	4.18	4.09	4.62	3.91	4
	575	Seedex Uplander RR	3.84	6.18	6.28	5.97	5.30	4.67	4.78	4.82	4.88	4.92	4
	610	Seedex Usher RR	3.79	5.92	5.32	4.85	4.86	4.29	4.82	4.58	5.35	4.11	4
	532	SESVanderhave H36072RR	4.18	7.00	6.09	5.92	5.60	4.94	--	--	--	--	2
	504	SESVanderhave H36083RR	4.67	5.77	5.12	5.30	4.92	4.34	4.58	--	4.83	--	2
	537	SESVanderhave H36084RR	5.22	6.66	5.77	6.29	5.71	5.04	4.81	--	4.59	--	2
	603	SESVanderhave H36178RR	4.55	6.76	6.00	5.51	5.42	4.78	--	--	--	--	1
	545	SESVanderhave H36179RR	3.37	4.98	4.93	4.96	4.19	3.70	--	--	--	--	1
	629	SESVanderhave H36187RR	4.92	6.82	6.39	6.01	5.86	5.17	--	--	--	--	1
	627	SESVanderhave H36188RR	4.17	5.37	5.32	5.10	4.56	4.02	--	--	--	--	1
	503	SESVanderhave H36711RR	3.89	6.80	5.40	5.22	5.41	4.77	4.82	4.68	4.88	4.41	5
	564	SESVanderhave H36811RR	3.81	6.05	5.66	5.13	4.97	4.38	4.30	3.95	4.21	3.25	4
	530	SESVanderhave H36812RR	4.68	5.58	5.19	5.54	4.79	4.22	4.55	4.40	4.88	4.10	4
	539	SESVanderhave H36813RR	4.09	6.13	5.87	5.67	5.03	4.44	4.67	4.58	4.90	4.42	4
	631	SESVanderhave H36822RR	5.17	6.43	5.86	5.94	5.47	4.82	4.67	4.40	4.52	3.86	4
	546	SESVanderhave H36916RR	4.13	6.34	5.84	5.44	5.11	4.51	4.62	--	4.73	--	3
	617	SESVanderhave H36917RR	5.10	6.02	5.79	5.77	5.45	4.81	4.92	--	5.04	--	3
	576	SESVanderhave H36918RR	4.81	6.88	5.99	5.82	5.74	5.06	4.95	--	4.84	--	3
	522	SESVanderhave H36923RR	3.83	5.98	5.49	4.95	5.07	4.47	4.19	3.89	3.91	3.28	3
	569	SESVanderhave H36926RR	4.60	6.72	6.15	5.94	5.66	4.99	4.60	--	4.20	--	3
	616	SESVanderhave H36927RR	3.79	6.02	5.68	5.26	4.94	4.36	4.42	--	4.49	--	3
	702	Crystal R434	4.46	7.29	6.02	5.08	5.46	4.81	--	--	--	--	8
	707	Crystal R761	4.53	7.34	5.80	4.91	5.39	4.75	3.54	--	2.32	--	5
	705	Crystal R869	4.80	7.65	7.33	7.29	6.47	5.71	5.97	--	6.23	--	4
	701	Seedex SX8818TT	4.46	7.34	5.83	5.97	5.66	4.99	--	--	--	--	1
	704	Seedex SX8819TT	4.89	7.55	6.27	5.97	5.92	5.22	--	--	--	--	1
	706	SESVanderhave H46119	4.52	7.47	6.24	5.57	5.69	5.02	--	--	--	--	1
	703	SESVanderhave H48173TT	4.61	7.44	6.29	6.22	5.86	5.17	--	--	--	--	1
1	1201	Fus Chk #07 CRY5658RR	3.67	4.09	4.59	4.47	4.00	3.53	2.87	2.69	2.22	2.33	6
1	1202	Fus Chk #08 HILL4000RR	4.56	7.82	7.87	6.64	6.53	5.76	6.51	6.49	7.27	6.45	5
1	1203	Fus Chk #09 HILL4010RR	4.57	7.64	7.24	6.49	6.32	5.57	5.96	5.91	6.34	5.82	6
1	1204	Fus Chk #12 HILL4012RR	4.94	7.61	6.93	6.62	6.45	5.69	5.82	5.68	5.96	5.38	6
1	1205	Fus Chk #13 HILL4043RR	4.06	6.86	6.92	6.51	5.93	5.23	6.07	6.22	6.92	6.50	5
1	1206	Fus Chk #14 BETA86RR44	4.63	7.31	7.28	6.71	6.37	5.62	5.35	5.20	5.09	4.91	6
1	1207	Fus Chk #16 BETA87RR58	4.27	6.35	6.22	5.94	5.51	4.86	4.69	4.61	4.53	4.44	3
1	1208	Fus Chk #17 CRY5765RR	3.12	5.40	5.82	5.17	4.47	3.94	4.04	4.09	4.13	4.21	3
1	1209	Fus Chk #18 CRY5768RR	4.23	6.26	6.53	5.46	5.52	4.87	4.52	4.47	4.17	4.39	3
1	1210	Fus Chk #26 BETA87RR68	4.67	5.77	6.30	6.29	5.65	4.98	4.77	4.51	4.55	4.00	2
	1211	Fus Chk #27 CRY5539RR	2.82	4.19	4.65	3.28	3.67	3.24	2.65	2.35	2.06	1.75	2
	1212	FS CHECK RES RR #1	4.07	4.03	3.83	3.90	3.57	3.15	2.60	2.32	2.06	1.75	1
	1213	FS CHECK SUS RR #2	4.81	7.16	6.85	6.42	6.00	5.29	5.82	5.82	6.34	5.82	1
	1214	FS CHK MOD RR RES #2	4.22	6.30	6.08	5.57	5.35	4.72	4.47	4.38	4.23	4.21	5
	1215	FS CHK MOD RR SUS #1	4.81	6.84	6.95	6.13	6.05	5.34	4.75	4.65	4.17	4.44	5
	1216	FS CHECK SUS RR #2	5.25	7.32	6.60	6.66	6.08	5.36	5.85	5.84	6.34	5.82	1
	1217	FS CHK MOD RR SUS #1	4.19	6.93	6.95	6.07	5.92	5.22	4.69	4.61	4.17	4.44	5
10		Mean of 10 Check Varieties	4.27	6.51	6.57	6.03	5.68		5.00	5.06		5.12	
		Trial Mean	4.14	5.89	5.61	5.27	5.07		4.47				
		Coeff. of Var. (%)	14.99	9.95	9.84	11.80	8.58						
		F Value	2.92	6.46	5.85	7.71	7.08						
		Mean LSD (0.05)	1.03	1.06	1.01	0.84	0.81						
		Mean LSD (0.01)	1.36	1.40	1.33	1.11	1.07						
		Sig Lvl	**	**	**	**	**						
		Adjustment Factor	NA	NA	NA	NA	0.8819		0.8819		1.161	0.948	

\*2010 Adjustment (1.161) is based upon 10 varieties (BTS 86RR44, BTS 87RR58, BTS 87RR68, Crystal 658RR, Crystal 765RR, Crystal 768RR, Hilleshög 4000RR, Hilleshög 4010RR, Hilleshög 4012RR, Hilleshög 4043RR)

Table 64. Planting & Harvest Dates, Previous Crop and Disease Levels for 2011 ACSC Official Trial Sites \*

Location	District / Trial Type	Cooperator	Planting Date	Harvest Date	Preceding Crop	Soil Type	Diseases Present @				
							Aph	Rhc	Rzm	Fus	Maggot
Casselton	Mhd/Hlb	Howe Farms	5/7	Abandoned	Wheat	Medium Light	M-V	NA	NA	N	NA
Glyndon ++	Mhd/Hlb	Oberg Farms	6/3	10/4	Wheat	Light	M	L	V	M-V	N
Halstad **	Mhd/Hlb	Peter Steen	5/19	10/5	Wheat	Medium Heavy	L	N	M-V	N	N
Buxton	Mhd/Hlb	Mark Osland	5/20	9/29	Wheat	Medium	L	L	N	N	N
Crookston East	EGF/Crk	Gary Hoerner	5/20	10/8	Wheat	Medium Light	M	L-M	L-M	N	N
Crookston	EGF/Crk	Bruce Erdmann	5/16	10/9	Wheat	Medium Light	L	L	M-V	N	N
Grand Forks	EGF/Crk	Drees Farming Assc.	5/19	9/27	Wheat	Medium	L	M	L-M	N	N
Angus	EGF/Crk	Tony Pulkrabek	5/17	9/12	Wheat	Medium Heavy	M	N	N	N	N
St Thomas	Dtn	T.J. Hall	5/12	9/15	Soybeans	Medium Light	L	N	N	N	N
Grafton	Dtn	Olson Brothers LLP	5/18	9/19	Wheat	Heavy	L	N	L	N	N
Stephen	Dtn	Dale Price	5/17	Abandoned	Wheat	Heavy	NA	NA	NA	NA	NA
Kindred Aph	Specialty Aph	Nipstad Farms	5/26	10/1	Soybeans	Medium Heavy	M-V	N	N	N	N
Hillsboro Aph	Specialty Aph	Jason Lovas	5/6	9/30	Soybeans	Medium	M-V	N	N	N	N
Glyndon Fus	Fusarium	Kirk Watt	5/20	Abandoned	Wheat	Medium	NA	L-M	N	L	N
Moorhead Fus	Fusarium	Nelson Farms	6/7	NA	Corn	Medium	M	N	N	M-V	N
Mhd South Rhc	Rhc Nurs	ACSC Tech Services Ctr	6/9	NA	Fallow	Heavy	M	M-V	N	N	N
Moorhead Rhc	Rhc Nurs	ACSC Tech Services Ctr	6/7	NA	Soybeans	Heavy	M	M-V	N	N	N
Hickson Rhc	Rhc Nurs	Vince Ulstad	5/26	Abandoned	Soybeans	Medium Heavy	M	L	N	N	N
Foxhome CR	Cercospora	Kevin Etzler	5/17	NA	Wheat	Medium	NA	L-M	N	N	N
Barnesville	Minn-Dak	Maier Farms	5/18	10/3	Wheat	Medium	L	N	N	N	N
Foxhome	Minn-Dak	Mike Albertson	5/7	Abandoned	Wheat	Medium Light	M-V	NA	NA	NA	NA
Fairmount	Minn-Dak	Wayne Miller	6/3	10/2	Wheat	Medium	L	M	N	N	N
Charlesville	Minn-Dak	Chadd Berger	5/18	Abandoned	Wheat	Medium	NA	NA	NA	NA	NA

\* Fertilizer applied in accordance to ACSC recommendations.

Created 10-23-2011

@ Disease notes for Aph., Rhizoc., Rhizomania, Fusarium and Root Maggot were based upon visual evaluations (N=none, L=light, M=moderate, V=severe, NA=not observed)  
Rhizomania severity also was estimated by calculating the relative performance of susceptible varieties in the trials.

++ Glyndon had severe Fusarium and was not included in all location mean. Individual trial results available on [crystalsugar.com](http://crystalsugar.com). Conventional trial lost to water damage.

\*\* Some root aphids were present in part of this site.

Table 65.  
Herbicides and Fungicides Applied to ACSC & MDAF Official Trials

Area	Location	Herbicide			Fungicide		
		Spray Dates	Herbicide & Rate	Water Used/Method	Spray Dates	Fungicide Used	Water Used/Method
ACSC	Glyndon	6/20	MR	10 gal. (Ground)	7/8	Quadris	10 gal. (Ground)
		6/20,7/8	RU1,RU2	"	8/10	Super Tin	15 gal. (Ground)
					8/29	Headline	"
ACSC	Halstad	6/5,6/9	MR,MR	10 gal. (Ground)	7/6	Quadris	10 gal. (Ground)
		6/6,7/6	RU1,RU2	"	7/19,8/10	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Buxton	6/5,6/10	MR,MR	10 gal. (Ground)	7/5	Quadris	10 gal. (Ground)
		6/9,7/6	RU1,RU2	"	7/19,8/10	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Crookston East	6/4,6/9	MR,MR	10 gal. (Ground)	7/6	Quadris	10 gal. (Ground)
		6/9,7/5	RU1,RU2	"	7/21,8/8	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Crookston	6/4,6/9	MR,MR	10 gal. (Ground)	7/6	Quadris	10 gal. (Ground)
		6/3,7/5	RU1,RU2	"	7/21,8/8	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Grand Forks	6/4,6/9	MR,MR	10 gal. (Ground)	7/5	Quadris	10 gal. (Ground)
		6/9,7/5	RU1,RU2	"	7/21,8/5	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Angus	6/2	MR2	Air	7/6	Quadris	10 gal. (Ground)
		6/9	MR	10 gal. (Ground)	7/26,8/11	Proline,Super Tin	15 gal. (Ground)
		6/9,7/5,8/4	RU1,RU2,RU2	10 gal. (Ground)	8/25	Headline	"
ACSC	St Thomas	6/6,6/11	MR,MR	10 gal. (Ground)	7/5	Quadris	10 gal. (Ground)
		6/6,7/5	RU1,RU2	"	7/26,8/11	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
ACSC	Grafton	6/4,6/9	MR,MR	10 gal. (Ground)	7/7	Quadris	10 gal. (Ground)
		6/9,7/5,8/4	RU1,RU2,RU2	"	7/29	Proline	15 gal. (Ground)
					8/25	Headline	"
ACSC	Kindred Aph	6/9,6/20	MR,MR	10 gal. (Ground)	7/6	Quadris	10 gal. (Ground)
		6/18,7/6	RU1,RU2	"	7/20,8/10	Proline,Super Tin	15 gal. (Ground)
							"
ACSC	Hillsboro Aph	6/4,6/9	MR,MR	10 gal. (Ground)	7/6	Quadris	10 gal. (Ground)
		6/4,7/5	RU1,RU2	"	7/19,8/5	Proline,Super Tin	15 gal. (Ground)
					8/25	Headline	"
MDAF	Barnesville	NA	MR	10 gal. (Ground)	7/7	Quadris	10 gal. (Ground)
		6/9,7/7	RU1,RU2	"	7/20,8/5	Proline,Super Tin	15 gal. (Ground)
					8/29	Headline	"
MDAF	Fairmount	NA	MR	10 gal. (Ground)	NA	Quadris	10 gal. (Ground)
		6/20,7/25	RU1,RU2	"	8/5,8/20	Proline,Super Tin	15 gal. (Ground)
					8/29	Headline	"

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

MR = Micro Rate, Progress (5.8 fl.oz./A), Nortron (3 fl.oz./A), Upbeet (1/8 oz./A), Select Max (3 fl.oz./A), Stinger (1.3 fl.oz./A), Quad7 (1 gal./100 gal. water), Scoil (1 gal./100 gal. water).

MR2 = Micro Rate by air.

RU1 = Roundup Powermax (32 oz./A), Weather Gard (2 qts./100 gal water).

RU2 = Roundup Powermax (22 oz./A), Weather Gard (2 qts./100 gal water).

Counter 15G ws applied at 11.9 lbs./A at St.Thomas & Grafton.

Quadris applied at 15 oz./A;Proline at 5 oz./A;Super Tin at 5oz./A;Headline at 9oz./A