RESULTS OF AMERICAN CRYSTAL'S 2010 OFFICIAL CODED VARIETY TRIALS

Wm. S. Niehaus
Official Trial Manager
American Crystal Sugar Company
Moorhead, Minnesota

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 2010 American Crystal and Minn-Dak official trials and describes the procedures and cultural practices involved in the trials.

Table	Area	Information in the Table
1	ACSC	ACSC approved varieties for 2011.
2	ACSC	Multi-year performance of approved RR varieties (all locations combined).
3	ACSC	Multi-year performance of approved conventional varieties (all locations combined).
4-5	ACSC	Multi-year performance of approved RR varieties under various Rhizomania levels.
6-7	ACSC	Multi-year performance of approved conventional varieties under various Rhizomania levels.
8	ACSC	Two-year performance of approved RR Aphanomyces varieties under Aphanomyces conditions.
9	ACSC	2008 performance of approved RR and conventional varieties (all locations combined).
10-29	ACSC	2010 ACSC RR variety trials and combined by Rhizomania severity.
30-39	ACSC	2010 ACSC Conventional variety trials and combined by Rhizomania severity.
40	ACSC & MD	2010 ACSC Aphanomyces RR variety specialty yield trial.
41-44	ACSC	Approval calculations for ACSC market.
45	MD	Minn-Dak approved varieties for 2011.
46-53	MD	2010 Minn-Dak Biotech variety trials.
54-56	MD	2010 Minn-Dak Conventional variety trials.
57-58	MD	Minn-Dak variety approval calculations.
59-60	MD	Multi-year performance of approved RR varieties in Minn-Dak growing area.
61	ACSC & MD	Aphanomyces disease nursery ratings.
62	ACSC & MD	Cercospora disease nursery ratings.
63	ACSC & MD	Rhizoctonia disease nursery ratings.
64	ACSC & MD	Fusarium disease nursery ratings.
65	ACSC & MD	Official trial sites, cooperators, plant and harvest dates, soil types and disease notes.
66	ACSC & MD	Herbicides and fungicides applied to official trials.

Procedures and Cultural Practices

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

All Crystal and Minn-Dak entries were coded 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 six harvested. Four Minn-Dak official yield trial sites were planted with three harvested (2 conv trials were 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) will not be reported for these varieties for 2010. Disease data is included for all varieties. These varieties will maintain their approval status for 2011. 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 (9oz/A broadcast since 2004). Ground spraying was conducted by American Crystal Sugar technical staff.

All RR trials were conducted as separate tests along side the conventional coded trials. 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 Hamilton, Kennedy, Ada, Casselton, Fairmount, and Hillsboro Aph were not harvested.

Acknowledgements

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Table 1.

Varieties Meeting Approval Criteria for the 2011 Sugarbeet Crop

Roundup Ready Varieties are Currently NOT APPROVED for the 2011 Sugarbeet Crop. ++

Full Market Approved Varieties

Roundup Ready ®		Conventional	
BTS 85RR02 (+Aph)	Hilleshög 4010RR	Beta 1100R	Holly 317
BTS 86RR66	Hilleshög 4012RR (+Aph)	Beta 1115R (+Aph)	Holly 701
BTS 87RR38	Hilleshög 4043RR (+Aph)	Beta 1125R (+Aph)	
BTS 87RR58	Hilleshög 4094RR (+Aph +Rhc)	Beta 1135R (+Rhc)	Seedex Sonic
BTS 87RR68	A Hilleshög 4195RR (9195)	Beta 1140R	Seedex SX0873TT (Deuce)
BTS 88RR21 (+Aph)	A Hilleshög 9199RR	Beta 1301R (+Aph +Rhc)	Seedex Triton
BTS 88RR31 (+Aph)		Beta 1305R (+Aph)	Seedex Vault (SX0842)
BTS 88RR41	Seedex UplanderRR (0884)		
BTS 88RR61 (+Aph)	Seedex UsherRR (0883)	Crystal R308	SESVanderhave H46519
A BTS 89RR10	A Seedex SX0891RR	Crystal R431	SESVanderhave H46531
A BTS 89RR30 (+Aph)	A Seedex SX0893RR	Crystal R434	SESVanderhave H46711
A BTS 89RR40 (+Aph)	A Seedex SX0894RR	Crystal R760	SESVanderhave H48607TT
A BTS 89RR50 (+Aph)		Crystal R761 (+Aph)	SESVanderhave H48716TT
A BTS 89RR83	SESVanderhave H36711RR	Crystal R869	SESVanderhave H48717TT
	SESVanderhave H36811RR (+Aph +Rhc)		SESVanderhave H46801
Crystal 539RR (+Aph)	SESVanderhave H36812RR		SESVanderhave H48810TT
Crystal 658RR (+Aph +Rhc)	SESVanderhave H36813RR		
Crystal 765RR	A SESVanderhave H36913RR		
Crystal 768RR	A SESVanderhave H36915RR	Hilleshög 3035Rz (+Aph +Rhc)	
Crystal 875RR (+Aph)	A SESVanderhave H36916RR	Hilleshög 3052Rz (+Aph +Rhc)	
Crystal 878RR	A SESVanderhave H36917RR (+Aph)		
Crystal 879RR	A SESVanderhave H36918RR		
A Crystal 984RR (+Aph)		**Conventional variety testing was voluntary in 2009 & 2010.**	
A Crystal 985RR (+Aph)		**Data for SOME conventional varieties are from 2008 only.**	
A Crystal 986RR			

Aphanomyces Specialty Approved Varieties (Aph)

Roundup Ready ®		Conventional	
BTS 85RR02	Hilleshög 4012RR	Beta 1115R	Hilleshög 3035Rz (+Rhc)
BTS 88RR21	Hilleshög 4022RR (+Rhc)	Beta 1125R	Hilleshög 3052Rz (+Rhc)
BTS 88RR31	Hilleshög 4043RR	Beta 1301R (+Rhc)	
BTS 88RR61	A Hilleshög 4094RR	Beta 1305R	
A BTS89RR30			
A BTS89RR40	A SES Vanderhave H36811RR		
A BTS89RR50	A SES Vanderhave H36917RR		
		Crystal R761	
Crystal 539RR			
Crystal 658RR (+Rhc)		**Conventional variety testing was voluntary in 2009 & 2010.**	
Crystal 875RR			
A Crystal 984RR		**Data for SOME conventional varieties are from 2008 only.**	
A Crystal 985RR		**No conventional Aph yield trials were conducted in 2009 & 2010.**	

Rhizoctonia Specialty Approved Varieties (Rhc)

Roundup Ready ®		Conventional	
BTS 88RR13	Hilleshög 4022RR (+Aph)	Beta 1301R (+Aph)	Hilleshög 3035Rz (+Aph)
	Hilleshög 4094RR (9094)	Beta 1135R	Hilleshög 3052Rz (+Aph)
		Beta 1833R	
Crystal 658RR (+Aph)			SESVanderhave H46714
	SESVanderhave H36811RR		
		Conventional variety testing was voluntary in 2009 & 2010.	
		Data for SOME conventional varieties are from 2008 only.	

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

++Roundup Ready sugarbeets are a regulated crop as of Aug 13, 2010. Planting in 2011 may not be permitted or additional requirements may be necessary.

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Table 2.

Performance Data of RR Varieties.

During 2008, 2009 & 2010 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.++	
		10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr
Roundup Ready # of locations →		7	6	13		19		7	6	13		19		7	6	13	7	6	13	7	6	13	7	6	13	7	6	13	7	6	13	3	7	2	3	1	3	2	3
Previously Approved																																							
BTS 85RR02	3	47.06	35.96	41.51	103	41.56	104	1313	858	1086	101	1077	102	332	293	313	9268	6994	8131	17.67	15.81	16.74	27.9	23.8	25.9	1.05	1.15	1.10	69	70	70	4.47	4.56	3.5	3.8	4.6	3.6	4.1	4.3
BTS 86RR66	3	44.88	35.57	40.23	99	40.27	101	1268	914	1091	101	1083	103	324	292	308	9152	7494	8323	17.22	15.77	16.50	28.3	25.7	27.0	1.05	1.19	1.12	63	58	60	5.07	5.04	4.6	4.5	4.2	4.3	3.9	4.0
BTS 87RR38	2	46.46	36.34	41.40	102	40.83	102	1334	930	1132	105	1138	108	330	295	312	9479	7574	8527	17.52	15.88	16.70	28.8	25.8	27.3	1.02	1.14	1.08	76	66	71	4.82	4.77	4.3	4.5	3.6	3.7	4.4	4.1
BTS 87RR58	2	46.94	36.17	41.56	103	41.08	103	1346	929	1137	106	1147	109	332	294	313	9518	7539	8529	17.65	15.88	16.77	28.7	25.6	27.2	1.06	1.17	1.12	73	72	72	5.43	5.24	5.1	4.9	5.2	4.8	4.5	4.5
BTS 87RR68	2	47.83	37.65	42.74	106	43.46	109	1213	997	1105	103	1168	111	336	300	318	8503	7945	8224	17.81	16.09	16.95	25.3	26.4	25.9	1.04	1.08	1.06	57	65	61	4.47	4.57	6.7	6.4	4.9	4.5	4.8	4.7
BTS 88RR13	1	41.55	32.96	37.25	92	37.55	94	1142	801	972	90	1001	95	310	281	295	8517	6833	7675	16.58	15.15	15.87	27.5	24.4	25.9	1.07	1.13	1.10	55	65	60	4.61	4.58	5.2	4.6	2.6	2.6	4.0	3.7
BTS 88RR21	1	44.25	33.72	38.98	96	39.25	98	1284	840	1062	99	1076	102	321	284	302	9315	7080	8197	16.97	15.27	16.12	29.0	25.0	27.0	0.92	1.07	1.00	63	74	69	4.85	4.59	4.2	4.1	2.3	2.5	3.7	3.7
BTS 88RR31	1	45.79	35.88	40.84	101	40.78	102	1310	894	1102	102	1120	106	327	293	310	9380	7339	8359	17.44	15.88	16.66	28.7	25.1	26.9	1.08	1.23	1.15	66	73	70	4.66	4.82	3.8	4.0	3.0	3.0	3.6	3.8
BTS 88RR41	1	45.42	35.20	40.31	100	40.16	100	1265	899	1082	101	1118	106	326	290	308	9073	7423	8248	17.30	15.62	16.46	27.9	25.7	26.8	1.02	1.13	1.07	73	77	75	5.14	5.00	5.2	4.9	3.6	3.3	4.2	4.2
BTS 88RR61	1	48.21	37.38	42.80	106	42.30	106	1353	952	1152	107	1153	109	337	299	318	9470	7635	8553	17.84	16.07	16.96	28.2	25.5	26.8	0.99	1.09	1.04	66	73	70	4.50	4.78	4.3	4.4	3.8	3.8	3.6	4.1
Crystal 539RR	3	46.90	35.26	41.08	102	41.28	103	1257	855	1056	98	1062	101	332	290	311	8888	7036	7962	17.62	15.67	16.65	26.8	24.2	25.5	1.04	1.16	1.10	77	71	74	5.39	5.32	4.0	4.1	1.9	1.8	4.4	4.4
Crystal 658RR	3	43.25	32.99	38.12	94	38.35	96	1259	831	1045	97	1054	100	317	281	299	9237	7088	8163	16.74	15.09	15.92	29.2	25.3	27.2	0.90	1.05	0.98	83	72	77	4.46	4.54	3.9	3.9	1.9	2.1	4.2	4.0
Crystal 765RR	2	48.88	39.05	43.97	109	44.04	110	1315	1022	1169	109	1195	113	340	306	323	9138	8025	8582	17.96	16.38	17.17	26.9	26.3	26.6	0.97	1.07	1.02	77	74	75	4.52	4.70	5.7	5.6	4.0	3.9	4.4	4.5
Crystal 768RR	2	46.51	37.81	42.16	104	41.35	103	1352	982	1167	108	1168	111	330	301	316	9594	7816	8705	17.55	16.17	16.86	29.1	26.0	27.5	1.04	1.12	1.08	78	77	77	5.21	5.08	4.8	4.9	4.2	4.3	4.3	4.2
Crystal 875RR	1	46.65	35.79	41.22	102	41.23	103	1396	911	1154	107	1156	109	331	293	312	9891	7448	8669	17.58	15.79	16.68	29.9	25.4	27.7	1.05	1.16	1.10	80	76	78	4.33	4.44	3.3	3.2	5.1	4.6	3.5	3.8
Crystal 878RR	1	47.42	35.97	41.69	103	41.76	104	1356	948	1152	107	1169	111	334	293	314	9547	7721	8634	17.73	15.86	16.79	28.6	26.3	27.4	1.04	1.19	1.11	77	80	78	5.17	5.04	5.7	5.4	4.4	4.3	4.4	4.4
Crystal 879RR	1	44.01	34.39	39.20	97	39.27	98	1301	903	1102	102	1131	107	320	287	303	9459	7513	8486	17.05	15.45	16.25	29.6	26.2	27.9	1.05	1.13	1.09	79	74	76	5.36	5.24	6.0	5.5	3.3	3.3	4.2	4.2
Hilleshög 4010RR	3	NA	36.90	NA	NA	NA	NA	NA	869	NA	NA	NA	NA	NA	297	NA	NA	7003	NA	NA	15.92	NA	NA	23.6	NA	NA	1.06	NA	NA	75	NA	5.13	5.32	4.8	4.4	6.8	6.4	4.5	4.7
Hilleshög 4012RR	3	46.79	35.33	41.06	102	40.88	102	1346	892	1119	104	1129	107	331	291	311	9550	7324	8437	17.57	15.61	16.59	28.9	25.1	27.0	1.01	1.08	1.05	78	72	75	5.00	5.15	4.3	4.4	6.1	5.7	4.5	4.7
Hilleshög 4022RR	2	45.95	34.25	40.10	99	39.96	100	1319	839	1079	100	1065	101	328	286	307	9427	6998	8213	17.42	15.48	16.45	28.8	24.4	26.6	1.03	1.18	1.11	84	64	74	4.26	4.40	5.0	4.9	4.8	4.6	3.6	3.3
Hilleshög 4043RR(9043)	NC	45.79	36.12	40.95	101	41.31	103	1317	893	1105	103	1128	107	327	294	311	9428	7273	8351	17.29	15.71	16.50	28.9	24.7	26.8	0.93	1.00	0.96	74	74	74	5.01	4.85	4.9	4.9	7.5	6.8	4.4	4.5
Hilleshög 4094RR(9094)	1	45.78	35.87	40.83	101	40.25	101	1289	869	1079	100	1070	101	327	293	310	9239	7092	8166	17.39	15.82	16.60	28.3	24.1	26.2	1.03	1.17	1.10	83	77	80	4.28	4.35	4.9	4.4	5.3	4.8	3.8	3.5
Seedex Uplander RR(SX0884)	1	NA	38.92	NA	NA	NA	NA	NA	920	NA	NA	NA	NA	NA	306	NA	NA	7245	NA	NA	16.29	NA	NA	23.7	NA	NA	0.98	NA	NA	85	NA	4.97	4.96	5.1	4.7	4.9	4.9	4.2	4.5
Seedex Usher RR(SX0883)	1	NA	35.85	NA	NA	NA	NA	NA	903	NA	NA	NA	NA	NA	293	NA	NA	7400	NA	NA	15.66	NA	NA	25.3	NA	NA	1.01	NA	NA	84	NA	5.05	4.70	4.8	4.5	5.4	4.7	4.5	4.3
SESVanderhave H36711RR	2	NA	36.63	NA	NA	NA	NA	NA	954	NA	NA	NA	NA	NA	296	NA	NA	7703	NA	NA	15.82	NA	NA	26.0	NA	NA	1.02	NA	NA	79	NA	4.99	5.10	4.5	4.5	4.9	4.6	3.8	4.2
SESVanderhave H36811RR	1	NA	39.11	NA	NA	NA	NA	NA	862	NA	NA	NA	NA	NA	307	NA	NA	6771	NA	NA	16.33	NA	NA	22.1	NA	NA	0.99	NA	NA	84	NA	4.62	4.86	4.7	4.5	4.2	3.7	4.1	4.2
SESVanderhave H36812RR	1	44.88	35.98	40.43	100	40.09	100	1319	924	1121	104	1111	105	324	293	308	9516	7551	8534	17.14	15.70	16.42	29.5	25.8	27.6	0.96	1.03	1.00	78	86	82	5.16	4.95	4.6	4.6	4.9	4.5	4.5	4.5
SESVanderhave H36813RR	1	NA	36.73	NA	NA	NA	NA	NA	951	NA	NA	NA	NA	NA	297	NA	NA	7699	NA	NA	15.86	NA	NA	26.0	NA	NA	1.01	NA	NA	87	NA	4.59	4.57	4.4	4.4	4.9	4.7	4.1	4.4
Newly Approved																																							
BTS 89RR10	NC	50.42	39.57	45.00	111	--	--	1369	911	1140	106	--	--	346	309	328	9412	7140	8276	18.33	16.55	17.44	27.2	23.2	25.2	1.00	1.12	1.06	79	74	76	4.92	4.70	3.7	3.8	5.5	4.9	3.9	4.2
BTS 89RR30	NC	44.71	33.89	39.30	97	--	--	1382	924	1153	107	--	--	323	285	304	9978	7771	8874	17.05	15.29	16.17	30.9	27.4	29.1	0.90	1.06	0.98	80	78	79	5.09	5.08	4.3	4.2	1.6	1.8	3.7	3.8
BTS 89RR40	NC	45.72	37.46	41.59	103	--	--	1368	958	1163	108	--	--	327	300	313	9787	7669	8728	17.39	16.09	16.74	30.0	25.6	27.8	1.04	1.10	1.07	70	69	69	5.07	4.95	4.1	4.3	3.6	3.7	4.2	4.3
BTS 89RR50	NC	45.94	35.19	40.56	100	--	--	1474	944	1209	112	--	--	328	290	309	10527	7819	9173	17.48	15.77	16.63	32.1	27.1	29.6	1.11	1.28	1.19	77	79	78	5.16	5.00	3.9	3.7	2.1	2.1	4.0	4.4
BTS 89RR83	NC	44.07	33.93	39.00	96	--	--	1483	886	1184	110	--	--	320	285	302	10773	7454	9113	16.94	15.30	16.12	33.7	26.2	30.0	0.94	1.06	1.00	77	77	77	4.83	4.68	5.7	4.9	3.2	3.0	3.6	3.6
Crystal 984RR	NC	47.45	37.18	42.32	105	--	--	1360	935	1147	107	--	--	334	299	316	9590	7511	8550	17.70	16.03	16.86	28.8	25.2	27.0	1.00	1.10	1.05	69	77	73	5.14	4.99	4.2	4.3	6.1	--	4.1	--
Crystal 985RR	NC	47.75	36.91	42.33	105	--	--	1326	939	1132	105	--	--	335	297	316	9312	7570	8441	17.74	15.95	16.85	27.8	25.5	26.6	0.97	1.08	1.03	72	77	74	4.30	4.24	4.2	4.2	4.2	--	4.0	--
Crystal 986RR	NC	47.99	37.72	42.85	106	--	--	1461	905	1183	110	--	--	336	301	319	10245	7188	8716	17.82	16.06	16.94	30.5	23.8	27.1	1.01	1.01	1.01	67	63	65	5.45	4.99	4.2	4.6	5.0	--	4.7	4.6
Hilleshog 4195RR(9195)	NC	44.74	34.66	39.70	98	--	--	1294	924	1109	103	--	--	323	288	305	9323	7691	8507	17.20	15.55	16.38	28.9	26.8	27.8	1.07	1.17	1.12	70	66	68	4.39	4.47	5.2	5.0	6.0	--	4.1	3.9
Hilleshög 9199RR	NC	47.01	36.58	41.79	103	--	--	1282	882	1082	101	--	--	332	296	314	9081	7138	8109	17.56	15.85	16.70	27.4	24.1	25.7	0.95	1.04	0.99	61	45	53	4.67	4.66	6.0	5.7	8.0	--	4.9	--
Seedex SX0891RR	NC	46.17	38.64	42.41	105	--	--	1234	910	1072	100	--	--	329	305	317	8796	7187	7992	17.36	16.28	16.82	26.8	23.6	25.2	0.91	1.03	0.97	NA	81	NA	4.76	4.96	4.7	4.8	5.5	--	4.3	--
Seedex SX0893RR	NC	46.45	38.12	42.28	105	--	--	1252	946	1099	102	--	--	330	303	316	8881	7521	8201	17.39	16.14	16.76	26.9	24.9	25.9	0.88	1.00	0.94	NA	77	NA	4.87	4.91	4.8	4.7	4.9	--	4.5	--
Seedex SX0894RR	NC	45.31	37.14	41.22	102	--	--	1208	896	1052	98	--	--	325	298	312	8674	7205	7940	17.20	15.93	16.57	26.7	24.2	25.4	0.95	1.01	0.98	NA	91	NA	4.51	4.45	4.6	4.4	4.9	--	4.3	--
SESVanderhave H36913RR	NC	46.23	37.22	41.73	103	--	--	1252	951	1101	102	--	--	329	299	314	8921	7634	8277	17.34	15.90	16.62	27.2	25.6	26.4	0.88	0.96	0.92	NA	79	NA	4.91	5.03	5.4	5.2	4.4	--	4.1	--
SESVanderhave H36915RR	NC	44.25	36.81	40.53	100	--	--	1256	927	1091	101	--	--	321	297	309	9103	7476	8289	16.97	15.86	16.41	28.4	25.2	26.8	0.94	1.00	0.97	NA	80	NA	4.77	4.91	4.8	4.6	5.1	--	4.1	--
SESVanderhave H36916RR	NC	44.83	36.88	40.86	101	--	--	1261	920	1091	101	--	--	323	297	310	9090	7427	8259	17.14	15.90	16.52	28.1	25.0	26.6	0.97	1.03	1.00	NA	85	NA	4.97	4.94	4.7	4.5	4.7	--	4.3	--
SESVanderhave H36917RR	NC	46.30	38.71	42.50	105	--	--	1297	929	1113	103	--	--	329	305	317	9243	7317	8280	17.42	16.28	16.85	28.1	24.0	26.1	0.95	1.01	0.98	NA	81	NA	4.95	4.98	4.7	4.5	5.0	--	4.3	--
SESVanderhave H36918RR	NC	46.65	38.72	42.69	106	--	--	1242	937	1090	101	--	--	331	305	318	8799	7402	8100	17.46	16.25	16.85	26.6	24.3	25.5	0.91	0.99	0.95	NA	90	NA	4.47	4.41	4.4	4.4	4.8	--	4.4	--
Mean of benchmark varieties		46.00	34.89	40.44		39.97		1294	859	1076		1056		328	289	308	9236	7111	8173	17.40	15.55	16.47	28.2	24.6	26.4	1.00	1.11	1.06	77	71	74								

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

+ 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).

Created 11-9-2010.

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

+++ Sites include Ada, Hillsboro, Crookston, Grand Forks, St Thomas & Hamilton in 2008.

@ All varieties are diploid unless noted.

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

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

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

Table 3.
Performance Data of Conventional Varieties Approved for Sale to ACSC Growers in 2011
During 2008, 2009 & 2010 Growing Seasons (All Locations Combined) +++

Description @	Years / Comm	Rev/Ton			Rev/Acre			Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +			Aph Root+			Fusarium +			Rhizoctonia ++		
		10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08
Conventional # of locations →		6	7	6	6	7	6	6	7	6	6	7	6	6	7	6	6	7	6	6	7	6	6	7	6	3	4	3	2	1	2	2	2	1	2	1	2
Tested in 2010																																					
Crystal R760	1	47.42	--	39.57	1389	--	1170	334	--	308	9801	--	9102	17.69	--	16.49	29.5	--	29.5	1.01	--	1.08	78	--	74	5.66	--	5.1	3.8	--	4.5	5.0	--	--	4.5	--	6.0
Crystal R761	1	46.62	--	38.22	1425	--	1119	331	--	303	10141	--	8856	17.67	--	16.39	30.8	--	29.3	1.14	--	1.25	80	--	72	4.86	--	4.0	3.9	--	4.0	2.3	--	2.3	4.1	--	4.7
Crystal R869	NC	50.76	--	42.58	1398	--	1144	347	--	321	9589	--	8612	18.31	--	16.99	27.7	--	26.8	0.95	--	0.95	84	--	78	4.90	--	4.4	5.7	--	4.7	6.2	--	--	4.3	--	--
SESVanderhave H46519	6	NA	37.52	38.81	NA	949	1076	NA	300	305	NA	7592	8464	NA	16.04	16.27	NA	25.4	27.8	NA	1.06	1.01	NA	82	70	4.47	4.76	4.2	5.1	5.7	4.7	--	4.7	4.7	--	4.3	3.7
SESVanderhave H48717TT	2	45.38	36.02	39.62	1107	987	1071	326	294	308	7964	8064	8336	17.26	15.75	16.46	24.6	27.5	27.0	0.99	1.08	1.03	NA	88	78	5.36	5.39	4.6	6.0	4.9	4.8	--	5.1	4.6	4.2	4.3	4.4
Tested Previously																																					
Beta 1100R	NC	--	--	39.28	--	--	1153	--	--	307	--	--	9012	--	--	16.35	--	--	29.4	--	--	0.99	--	--	72	--	--	4.2	--	--	5.9	--	--	4.9	--	--	3.3
Beta 1115R	NC	--	--	43.10	--	--	1171	--	--	323	--	--	8759	--	--	17.10	--	--	27.1	--	--	0.96	--	--	74	--	--	4.5	--	--	4.3	--	--	5.7	--	--	4.4
Beta 1125R	NC	--	--	38.15	--	--	1184	--	--	302	--	--	9386	--	--	16.33	--	--	31.1	--	--	1.21	--	--	78	--	--	4.2	--	--	4.3	--	--	2.7	--	--	4.8
Beta 1135R	NC	--	--	39.21	--	--	1046	--	--	307	--	--	8186	--	--	16.48	--	--	26.7	--	--	1.14	--	--	70	--	--	4.0	--	--	4.9	--	--	3.5	--	--	2.4
Beta 1140R	NC	--	--	42.63	--	--	1136	--	--	321	--	--	8546	--	--	17.06	--	--	26.6	--	--	1.00	--	--	75	--	--	4.1	--	--	4.8	--	--	5.9	--	--	5.4
Beta 1301R	5	--	--	35.53	--	--	1013	--	--	291	--	--	8304	--	--	15.83	--	--	28.5	--	--	1.26	--	--	72	--	--	3.9	--	--	3.8	--	--	6.0	--	--	2.1
Beta 1305R	5	--	--	38.02	--	--	1005	--	--	302	--	--	7969	--	--	16.30	--	--	26.4	--	--	1.21	--	--	55	--	--	5.2	--	--	4.7	--	--	5.8	--	--	3.8
Beta 1833R	NC	--	--	39.41	--	--	977	--	--	308	--	--	7617	--	--	16.55	--	--	24.7	--	--	1.17	--	--	64	--	--	3.5	--	--	4.7	--	--	--	--	--	1.3
Crystal R308 (3N)	5	--	--	41.68	--	--	1043	--	--	317	--	--	7940	--	--	16.97	--	--	25.1	--	--	1.11	--	--	65	--	--	4.0	--	--	4.2	--	--	2.9	--	--	--
Crystal R431	4	--	--	39.71	--	--	1044	--	--	309	--	--	8112	--	--	16.63	--	--	26.3	--	--	1.18	--	--	72	--	--	4.3	--	--	4.2	--	--	3.3	--	--	--
Crystal R434	4	--	--	38.41	--	--	1050	--	--	303	--	--	8305	--	--	16.41	--	--	27.4	--	--	1.24	--	--	73	--	--	4.7	--	--	4.3	--	--	2.8	--	--	4.6
Hilleshög 3035Rz	3	--	--	40.85	--	--	1083	--	--	314	--	--	8309	--	--	16.75	--	--	26.5	--	--	1.07	--	--	67	--	--	3.6	--	--	4.5	--	--	4.6	--	--	1.6
Hilleshög 3052Rz	2	--	--	39.49	--	--	1104	--	--	308	--	--	8615	--	--	16.46	--	--	28.0	--	--	1.07	--	--	71	--	--	4.2	--	--	4.9	--	--	5.0	--	--	4.2
Holly 317	5	--	--	38.39	--	--	935	--	--	303	--	--	7386	--	--	16.21	--	--	24.4	--	--	1.04	--	--	73	--	--	4.1	--	--	5.3	--	--	4.2	--	--	4.0
Holly 701	NC	--	--	38.86	--	--	1037	--	--	305	--	--	8162	--	--	16.28	--	--	26.8	--	--	1.02	--	--	74	--	--	4.3	--	--	4.9	--	--	4.4	--	--	5.2
Seedex Deuce (SX0873TT)	NC	--	37.47	38.79	--	1017	1125	--	300	305	--	8130	8842	--	15.99	16.24	--	27.2	29.0	--	1.02	0.99	--	91	73	--	5.58	5.2	--	5.9	5.4	--	5.2	--	--	4.6	--
Seedex Sonic	3	--	38.74	39.74	--	1002	1087	--	305	309	--	7914	8473	--	16.30	16.48	--	26.1	27.5	--	1.06	1.03	--	85	72	--	5.07	5.0	--	5.9	6.1	--	4.8	5.0	--	4.8	4.8
Seedex Triton	2	--	--	39.18	--	--	988	--	--	307	--	--	7725	--	--	16.31	--	--	25.2	--	--	0.98	--	--	70	--	--	3.5	--	--	5.0	--	--	5.3	--	--	3.0
Seedex Vault	NC	--	--	38.72	--	--	1028	--	--	305	--	--	8107	--	--	16.23	--	--	26.7	--	--	0.99	--	--	79	--	--	4.6	--	--	4.8	--	--	4.5	--	--	4.2
SESVanderhave H46531	4	--	38.07	38.97	--	921	1061	--	302	306	--	7314	8333	--	16.15	16.34	--	24.2	27.3	--	1.04	1.05	--	72	70	4.58	4.68	4.6	5.4	5.4	5.0	--	4.6	4.5	--	4.4	3.3
SESVanderhave H46711	NC	--	--	41.10	--	--	1099	--	--	315	--	--	8426	--	--	16.70	--	--	26.8	--	--	0.97	--	--	77	--	--	3.8	--	--	4.4	--	--	4.2	--	--	5.3
SESVanderhave H46714	NC	--	--	37.47	--	--	1022	--	--	300	--	--	8188	--	--	15.97	--	--	27.4	--	--	0.99	--	--	77	--	--	4.5	--	--	4.3	--	--	4.8	--	--	2.8
SESVanderhave H46801	NC	--	--	41.27	--	--	1031	--	--	315	--	--	7871	--	--	16.73	--	--	24.9	--	--	0.96	--	--	77	--	--	3.4	--	--	4.4	--	--	--	--	--	--
SESVanderhave H48607TT	2	--	36.57	36.81	--	1040	1131	--	296	297	--	8454	9120	--	15.83	15.89	--	28.8	30.8	--	1.05	1.05	--	87	76	--	5.52	5.4	--	5.5	5.4	--	5.4	6.0	--	4.1	3.8
SESVanderhave H48716TT	NC	--	37.32	39.48	--	981	1048	--	299	308	--	7862	8168	--	16.00	16.40	--	26.4	26.5	--	1.06	1.01	--	92	78	--	5.25	5.0	--	5.7	4.9	--	5.5	5.4	--	4.6	3.4
SESVanderhave H48810TT	NC	--	--	39.38	--	--	1110	--	--	308	--	--	8662	--	--	16.40	--	--	28.2	--	--	1.02	--	--	78	--	--	4.9	--	--	5.2	--	--	--	--	--	--
Mean of benchmark varieties		46.00	34.89	39.01	1294	859	1016	328	289	306	9236	7111	7973	17.40	15.55	16.40	28.2	24.6	26.1	1.00	1.11	1.10	77	71	64												

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

Updated 1-13-2010.

+ 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 Ada, Hillsboro, Crookston, Grand Forks, St Thomas & Hamilton in 2008.

@ All varieties are diploid unless noted.

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

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

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

Table 4.
Performance Data of RR Varieties.
Under Light Rhizomania Conditions During 2008, 2009 & 2010 Growing Seasons +++

Description @	Yrs Com	Rev/Ton						Rev/Acre						Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +		Aph Root+		Fusarium+		Rhizoc.++	
		10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr
Roundup Ready # of locations	→	2	3	5		10		2	3	5		10		2	3	5	2	3	5	2	3	5	2	3	5	2	3	5	2	3	5	3	7	2	3	1	3	2	3
Previously Approved																																							
BTS 85RR02	3	49.99	34.12	42.06	101	41.82	103	1307	739	1023	100	1046	102	344	286	315	8993	6178	7586	18.24	15.44	16.84	26.1	21.6	23.8	1.03	1.17	1.10	70	68	69	4.47	4.56	3.5	3.8	4.6	3.6	4.1	4.3
BTS 86RR66	3	48.25	34.76	41.51	99	40.95	101	1257	809	1033	101	1048	103	337	288	313	8800	6674	7737	17.87	15.57	16.72	26.2	23.1	24.6	1.01	1.15	1.08	66	53	59	5.07	5.04	4.6	4.5	4.2	4.3	3.9	4.0
BTS 87RR38	2	48.42	35.04	41.73	100	40.97	101	1334	811	1072	105	1103	108	338	289	314	9311	6727	8019	17.88	15.58	16.73	27.6	23.3	25.5	0.98	1.12	1.05	77	61	69	4.82	4.77	4.3	4.5	3.6	3.7	4.4	4.1
BTS 87RR58	2	48.60	34.59	41.60	100	40.89	101	1260	785	1023	100	1064	104	339	288	313	8799	6521	7660	17.95	15.57	16.76	26.1	22.7	24.4	1.02	1.19	1.11	78	70	74	5.43	5.24	5.1	4.9	5.2	4.8	4.5	4.5
BTS 87RR68	2	49.08	36.27	42.68	102	43.36	107	1015	889	952	93	1072	105	341	295	318	7055	7203	7129	18.10	15.79	16.95	20.8	24.4	22.6	1.07	1.07	1.07	57	62	59	4.47	4.57	6.7	6.4	4.9	4.5	4.8	4.7
BTS 88RR13	1	44.39	33.23	38.81	93	38.43	95	1158	714	936	91	991	97	322	282	302	8386	6050	7218	17.14	15.17	16.15	26.1	21.4	23.8	1.06	1.07	1.07	56	58	57	4.61	4.58	5.2	4.6	2.6	2.6	4.0	3.7
BTS 88RR21	1	47.53	33.03	40.28	96	39.83	98	1310	742	1026	100	1054	103	334	281	308	9218	6301	7760	17.60	15.14	16.37	27.6	22.4	25.0	0.89	1.08	0.99	65	72	69	4.85	4.59	4.2	4.1	2.3	2.5	3.7	3.7
BTS 88RR31	1	49.08	35.26	42.17	101	41.47	102	1323	802	1063	104	1104	108	341	290	315	9196	6614	7905	18.03	15.74	16.89	27.1	22.7	24.9	1.01	1.23	1.12	70	69	69	4.66	4.82	3.8	4.0	3.0	3.0	3.6	3.8
BTS 88RR41	1	47.62	34.12	40.87	98	40.32	99	1171	773	972	95	1049	103	335	286	310	8233	6479	7356	17.73	15.40	16.57	24.6	22.7	23.7	0.99	1.13	1.06	74	72	73	5.14	5.00	5.2	4.9	3.6	3.3	4.2	4.2
BTS 88RR61	1	50.76	37.03	43.90	105	42.83	105	1324	851	1087	106	1111	109	347	298	323	9074	6846	7960	18.32	15.97	17.15	26.2	22.9	24.6	0.96	1.07	1.02	66	70	68	4.50	4.78	4.3	4.4	3.8	3.8	3.6	4.1
Crystal 539RR	3	50.49	33.88	42.19	101	41.93	103	1270	726	998	97	1027	100	346	285	315	8708	6094	7401	18.28	15.37	16.83	25.1	21.4	23.3	0.97	1.14	1.06	75	68	72	5.39	5.32	4.0	4.1	1.9	1.8	4.4	4.4
Crystal 658RR	3	47.36	32.77	40.07	96	39.41	97	1292	726	1009	99	1038	102	334	280	307	9116	6188	7652	17.51	15.03	16.27	27.4	22.0	24.7	0.83	1.03	0.93	85	70	78	4.46	4.54	3.9	3.9	1.9	2.1	4.2	4.0
Crystal 765RR	2	50.88	38.70	44.79	107	44.48	109	1161	923	1042	102	1119	110	348	305	326	7935	7268	7602	18.33	16.30	17.32	22.8	23.9	23.3	0.95	1.07	1.01	78	69	74	4.52	4.70	5.7	5.6	4.0	3.9	4.4	4.5
Crystal 768RR	2	48.57	36.62	42.60	102	41.55	102	1332	866	1099	107	1125	110	338	296	317	9293	6990	8142	17.92	15.90	16.91	27.5	23.6	25.5	1.00	1.10	1.05	80	75	78	5.21	5.08	4.8	4.9	4.2	4.3	4.3	4.2
Crystal 875RR	1	49.04	34.95	42.00	101	41.55	102	1413	796	1104	108	1122	110	340	289	315	9801	6570	8185	18.02	15.58	16.80	28.8	22.7	25.7	1.00	1.13	1.06	79	72	76	4.33	4.44	3.3	3.2	5.1	4.6	3.5	3.8
Crystal 878RR	1	48.58	33.75	41.17	99	41.32	102	1235	781	1008	98	1076	105	339	284	311	8614	6526	7570	17.93	15.41	16.67	25.5	22.8	24.2	1.01	1.22	1.11	82	77	80	5.17	5.04	5.7	5.4	4.4	4.3	4.4	4.4
Crystal 879RR	1	46.68	33.95	40.31	97	39.99	98	1248	756	1002	98	1074	105	331	285	308	8847	6319	7583	17.58	15.35	16.47	26.8	22.1	24.4	1.04	1.11	1.07	80	69	75	5.36	5.24	6.0	5.5	3.3	3.3	4.2	4.2
Hilleshög 4010RR	3	NA	35.63	NA	NA	NA	NA	NA	766	NA	NA	NA	NA	NA	292	NA	NA	6261	NA	NA	15.64	NA	NA	21.4	NA	NA	1.05	NA	NA	74	NA	5.13	5.32	4.8	4.4	6.8	6.4	4.5	4.7
Hilleshög 4012RR	3	50.68	34.68	42.68	102	41.81	103	1326	808	1067	104	1102	108	347	288	317	9090	6661	7876	18.32	15.45	16.89	26.2	23.0	24.6	0.97	1.05	1.01	80	71	76	5.00	5.15	4.3	4.4	6.1	5.7	4.5	4.7
Hilleshög 4022RR	2	49.36	33.95	41.66	100	40.83	100	1305	757	1031	101	1047	102	342	285	313	9046	6320	7683	18.03	15.42	16.73	26.6	22.1	24.3	0.96	1.18	1.07	84	62	73	4.26	4.40	5.0	4.9	4.8	4.6	3.6	3.3
Hilleshög 4043RR(9043)	NC	49.71	35.85	42.78	102	42.38	104	1241	804	1023	100	1079	106	343	293	318	8567	6564	7565	18.06	15.64	16.85	25.0	22.3	23.6	0.90	0.99	0.95	77	66	72	5.01	4.85	4.9	4.9	7.5	6.8	4.4	4.5
Hilleshög 4094RR(9094)	1	48.80	34.11	41.45	99	40.54	100	1183	743	963	94	1016	99	339	286	312	8250	6182	7216	17.95	15.46	16.70	24.4	21.4	22.9	0.98	1.18	1.08	82	72	77	4.28	4.35	4.9	4.4	5.3	4.8	3.8	3.5
Seedex Uplander RR(SX0884)	1	NA	37.83	NA	NA	NA	NA	NA	793	NA	NA	NA	NA	NA	301	NA	NA	6292	NA	NA	16.09	NA	NA	20.8	NA	NA	1.01	NA	NA	79	NA	4.97	4.96	5.1	4.7	4.9	4.9	4.2	4.5
Seedex Usher RR(SX0883)	1	NA	35.84	NA	NA	NA	NA	NA	802	NA	NA	NA	NA	NA	293	NA	NA	6547	NA	NA	15.67	NA	NA	22.3	NA	NA	1.01	NA	NA	82	NA	5.05	4.70	4.8	4.5	5.4	4.7	4.5	4.3
SESVanderhave H36711RR	2	NA	35.98	NA	NA	NA	NA	NA	845	NA	NA	NA	NA	NA	293	NA	NA	6860	NA	NA	15.68	NA	NA	23.3	NA	NA	1.01	NA	NA	76	NA	4.99	5.10	4.5	4.5	4.9	4.6	3.8	4.2
SESVanderhave H36811RR	1	NA	38.31	NA	NA	NA	NA	NA	759	NA	NA	NA	NA	NA	303	NA	NA	5990	NA	NA	16.18	NA	NA	19.6	NA	NA	1.00	NA	NA	82	NA	4.62	4.86	4.7	4.5	4.2	3.7	4.1	4.2
SESVanderhave H36812RR	1	47.99	35.10	41.55	100	40.58	100	1284	809	1046	102	1067	104	336	290	313	9018	6650	7834	17.75	15.54	16.64	26.9	22.8	24.9	0.95	1.05	1.00	77	83	80	5.16	4.95	4.6	4.6	4.9	4.5	4.5	4.5
SESVanderhave H36813RR	1	NA	35.73	NA	NA	NA	NA	NA	822	NA	NA	NA	NA	NA	292	NA	NA	6716	NA	NA	15.64	NA	NA	22.9	NA	NA	1.00	NA	NA	84	NA	4.59	4.57	4.4	4.4	4.9	4.7	4.1	4.4
Newly Approved																																							
BTS 89RR10	NC	53.64	39.06	46.35	111	--	--	1428	813	1121	109	--	--	359	307	333	9532	6404	7968	18.92	16.44	17.68	26.4	20.9	23.6	0.98	1.11	1.04	83	69	76	4.92	4.70	3.7	3.8	5.5	4.9	3.9	4.2
BTS 89RR30	NC	48.76	33.34	41.05	98	--	--	1389	804	1096	107	--	--	339	282	311	9660	6811	8235	17.83	15.19	16.51	28.5	24.1	26.3	0.88	1.07	0.98	82	74	78	5.09	5.08	4.3	4.2	1.6	1.8	3.7	3.8
BTS 89RR40	NC	48.95	36.80	42.87	103	--	--	1388	867	1128	110	--	--	340	297	318	9641	6987	8314	17.98	15.97	16.98	28.3	23.5	25.9	0.99	1.13	1.06	76	65	71	5.07	4.95	4.1	4.3	3.6	3.7	4.2	4.3
BTS 89RR50	NC	48.70	34.52	41.61	100	--	--	1539	838	1189	116	--	--	339	287	313	10702	6994	8848	17.98	15.61	16.79	31.5	24.4	28.0	1.03	1.25	1.14	80	76	78	5.16	5.00	3.9	3.7	2.1	2.1	4.0	4.4
BTS 89RR83	NC	47.41	33.82	40.61	97	--	--	1503	809	1156	113	--	--	334	284	309	10576	6817	8697	17.59	15.26	16.42	31.7	24.0	27.9	0.90	1.04	0.97	79	69	74	4.83	4.68	5.7	4.9	3.2	3.0	3.6	3.6
Crystal 984RR	NC	50.64	37.07	43.86	105	--	--	1365	836	1100	107	--	--	347	298	323	9379	6695	8037	18.30	16.00	17.15	27.2	22.3	24.8	0.95	1.08	1.02	76	76	76	5.14	4.99	4.2	4.3	6.1	--	4.1	--
Crystal 985RR	NC	49.45	35.35	42.40	102	--	--	1340	803	1071	105	--	--	342	291	316	9253	6574	7913	18.04	15.62	16.83	27.0	22.5	24.7	0.95	1.07	1.01	74	71	72	4.30	4.24	4.2	4.2	4.2	--	4.0	--
Crystal 986RR	NC	52.13	36.43	44.28	106	--	--	1466	770	1118	109	--	--	353	295	324	9901	6190	8045	18.58	15.79	17.19	28.0	20.7	24.3	0.94	1.02	0.98	71	61	66	5.45	4.99	4.2	4.6	5.0	--	4.7	4.6
Hilleshog 4195RR(9195)	NC	48.13	32.95	40.54	97	--	--	1268	800	1034	101	--	--	337	281	309	8848	6817	7833	17.87	15.20	16.54	26.2	24.2	25.2	1.04	1.18	1.11	73	59	66	4.39	4.47	5.2	5.0	6.0	--	4.1	3.9
Hilleshög 9199RR	NC	50.27	35.01	42.64	102	--	--	1229	781	1005	98	--	--	345	289	317	8453	6416	7435	18.20	15.53	16.86	24.5	22.0	23.2	0.93	1.06	1.00	64	39	52	4.67	4.66	6.0	5.7	8.0	--	4.9	--
Seedex SX0891RR	NC	48.82	37.42	43.12	103	--	--	1202	786	994	97	--	--	339	300	320	8365	6285	7325	17.88	16.02	16.95	24.7	20.9	22.8	0.91	1.04	0.98	NA	79	NA	4.76	4.96	4.7	4.8	5.5	--	4.3	--
Seedex SX0893RR	NC	48.29	37.57	42.93	103	--	--	1210	830	1020	100	--	--	337	300	319	8429	6601	7515	17.74	16.02	16.88	24.9	21.9	23.4	0.88	1.00	0.94	NA	76	NA	4.87	4.91	4.8	4.7	4.9	--	4.5	--
Seedex SX0894RR	NC	48.99	36.43	42.71	102	--	--	1197	788	993	97	--	--	340	295	318	8333	6374	7354	17.96	15.77	16.87	24.6	21.5	23.1	0.96	0.99	0.98	NA	87	NA	4.51	4.45	4.6	4.4	4.9	--	4.3	--
SESVanderhave H36913RR	NC	49.72	36.42	43.07	103	--	--	1222	830	1026	100	--	--	343	295	319	8444	6713	7578	18.01	15.74	16.88	24.7	22.7	23.7	0.86	0.96	0.91	NA	78	NA	4.91	5.03	5.4	5.2	4.4	--	4.1	--
SESVanderhave H36915RR	NC	47.12	35.85	41.49	99	--	--	1194	804	999	98	--	--	333	293	313	8428	6538	7483	17.55	15.66	16.60	25.3	22.2	23.8	0.93	0.99	0.96	NA	78	NA	4.77	4.91	4.8	4.6	5.1	--	4.1	--
SESVanderhave H36916RR	NC	48.43	35.70	42.06	101	--	--	1287	816	1051	103	--	--	338	292	315	8986	6667	7826	17.81	15.67	16.74	26.6	22.7	24.7	0.92	1.04	0.98	NA	87	NA	4.97	4.94	4.7	4.5	4.7	--	4.3	--
SESVanderhave H36917RR	NC	49.91	37.46	43.68	105	--	--	1226	804	1015	99	--	--	344	300	322	8465	6425	7445	18.14	16.03	17.08	24.7	21.4	23.0	0.95	1.03	0.99	NA	77	NA	4.95	4.98	4.7	4.5	5.0	--	4.3	--
SESVanderhave H36918RR	NC	51.06	37.89	44.47	107	--	--	1244	808	1026	100	--	--	349	302	325	8488	6429	7458	18.31	16.11	17.21	24.3	21.3	22.8	0.88	1.01	0.95	NA	88	NA	4.47	4.41	4.4	4.4	4.8	--	4.4	--
Mean of benchmark varieties		49.63	33.86	41.75		40.65		1299	750	1024		1022		343	285	314	8977	6280	7629	18.09	15.32	16.71	26.2	22.0	24.1	0.95	1.10	1.02	78	69	74								

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

+ 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).

Created 11-9-2010.

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

+++ Sites include Ada, Hillsboro, Crookston, Grand Forks & Hamilton in 2008.

@ All varieties are diploid unless noted.

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

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

+++ Sites include Climax, Crookston in 2010.

Table 5.
Performance Data of RR Varieties.
Under Moderate to Severe Rhizomania Conditions During 2008, 2009 & 2010 Growing Seasons +++

Description @	Yrs Com	Rev/Ton						Rev/Acre						Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +		Aph Root+		Fusarium+		Rhizoc.++	
		10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	2Yr%	3Yr#	3Yr%	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	09	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr
Roundup Ready # of locations	→	5	3	8		9		5	3	8		9		5	3	8	5	3	8	5	3	8	5	3	8	5	3	8	5	3	8	3	7	2	3	1	3	2	3
Previously Approved																																							
BTS 85RR02	3	45.89	37.77	41.83	104	42.34	104	1314	977	1146	101	1074	99	328	301	314	9363	7810	8587	17.44	16.18	16.81	28.5	26.1	27.3	1.06	1.14	1.10	69	72	70	4.47	4.56	3.5	3.8	4.6	3.6	4.1	4.3
BTS 86RR66	3	43.54	36.39	39.97	99	40.98	101	1271	1020	1146	101	1105	101	318	295	307	9277	8318	8798	16.97	15.97	16.47	29.1	28.4	28.8	1.06	1.22	1.14	61	62	62	5.07	5.04	4.6	4.5	4.2	4.3	3.9	4.0
BTS 87RR38	2	45.70	37.65	41.68	104	41.46	102	1334	1049	1192	105	1155	106	327	300	314	9542	8426	8984	17.38	16.18	16.78	29.2	28.2	28.7	1.04	1.17	1.11	75	71	73	4.82	4.77	4.3	4.5	3.6	3.7	4.4	4.1
BTS 87RR58	2	46.27	37.83	42.05	105	42.45	104	1380	1071	1226	108	1228	113	329	301	315	9802	8548	9175	17.54	16.20	16.87	29.8	28.5	29.1	1.08	1.15	1.12	71	74	72	5.43	5.24	5.1	4.9	5.2	4.8	4.5	4.5
BTS 87RR68	2	47.31	39.00	43.16	107	43.97	108	1292	1106	1199	106	1200	110	333	306	320	9078	8688	8883	17.70	16.38	17.04	27.1	28.4	27.8	1.03	1.09	1.06	56	68	62	4.47	4.57	6.7	6.4	4.9	4.5	4.8	4.7
BTS 88RR13	1	40.41	32.74	36.58	91	37.91	93	1132	885	1009	89	951	87	306	280	293	8542	7592	8067	16.36	15.14	15.75	27.9	27.3	27.6	1.08	1.16	1.12	55	73	64	4.61	4.58	5.2	4.6	2.6	2.6	4.0	3.7
BTS 88RR21	1	42.97	34.34	38.65	96	40.47	99	1274	937	1106	98	1093	100	316	286	301	9353	7856	8605	16.72	15.38	16.05	29.6	27.6	28.6	0.93	1.07	1.00	62	77	69	4.85	4.59	4.2	4.1	2.3	2.5	3.7	3.7
BTS 88RR31	1	44.46	36.54	40.50	101	41.48	102	1304	985	1145	101	1099	101	322	296	309	9439	8056	8747	17.20	16.01	16.61	29.3	27.5	28.4	1.11	1.24	1.17	65	77	71	4.66	4.82	3.8	4.0	3.0	3.0	3.6	3.8
BTS 88RR41	1	44.56	36.21	40.38	100	41.27	101	1307	1026	1167	103	1156	106	322	294	308	9438	8387	8912	17.13	15.83	16.48	29.2	28.7	28.9	1.02	1.12	1.07	73	83	78	5.14	5.00	5.2	4.9	3.6	3.3	4.2	4.2
BTS 88RR61	1	47.15	37.73	42.44	105	43.02	106	1364	1050	1207	107	1185	109	333	301	317	9622	8398	9010	17.64	16.16	16.90	28.9	28.0	28.5	1.01	1.12	1.07	66	77	71	4.50	4.78	4.3	4.4	3.8	3.8	3.6	4.1
Crystal 539RR	3	45.50	36.65	41.08	102	41.73	102	1253	982	1118	99	1086	100	326	296	311	8968	7970	8469	17.37	15.97	16.67	27.5	27.0	27.3	1.06	1.17	1.12	78	74	76	5.39	5.32	4.0	4.1	1.9	1.8	4.4	4.4
Crystal 658RR	3	41.61	33.21	37.41	93	39.03	96	1245	935	1090	96	1046	96	310	282	296	9284	7985	8635	16.44	15.15	15.80	29.9	28.5	29.2	0.92	1.06	0.99	82	73	77	4.46	4.54	3.9	3.9	1.9	2.1	4.2	4.0
Crystal 765RR	2	48.05	39.40	43.73	109	44.41	109	1378	1123	1251	111	1210	111	336	308	322	9633	8797	9215	17.80	16.45	17.13	28.6	28.8	28.7	0.99	1.08	1.04	76	79	77	4.52	4.70	5.7	5.6	4.0	3.9	4.4	4.5
Crystal 768RR	2	45.73	39.00	42.37	105	41.97	103	1365	1099	1232	109	1196	110	327	306	316	9755	8643	9199	17.41	16.43	16.92	29.8	28.4	29.1	1.06	1.14	1.10	77	78	77	5.21	5.08	4.8	4.9	4.2	4.3	4.3	4.2
Crystal 875RR	1	45.73	36.73	41.23	102	42.23	104	1388	1026	1207	107	1197	110	327	296	312	9916	8316	9116	17.41	16.01	16.71	30.3	28.1	29.2	1.07	1.19	1.13	80	80	80	4.33	4.44	3.3	3.2	5.1	4.6	3.5	3.8
Crystal 878RR	1	46.97	38.10	42.54	106	42.80	105	1406	1120	1263	112	1226	112	332	302	317	9936	8956	9446	17.64	16.28	16.96	29.9	29.8	29.9	1.05	1.15	1.10	75	82	79	5.17	5.04	5.7	5.4	4.4	4.3	4.4	4.4
Crystal 879RR	1	42.93	34.87	38.90	97	39.16	96	1319	1051	1185	105	1134	104	316	289	302	9682	8721	9202	16.84	15.57	16.20	30.6	30.3	30.5	1.06	1.14	1.10	78	80	79	5.36	5.24	6.0	5.5	3.3	3.3	4.2	4.2
Hilleshög 4010RR	3	NA	38.16	NA	NA	NA	NA	NA	973	NA	NA	NA	NA	NA	302	NA	NA	7747	NA	NA	16.20	NA	NA	25.7	NA	NA	1.08	NA	NA	77	NA	5.13	5.32	4.8	4.4	6.8	6.4	4.5	4.7
Hilleshög 4012RR	3	45.24	35.96	40.60	101	41.31	101	1356	977	1166	103	1129	104	325	293	309	9748	7989	8869	17.27	15.77	16.52	30.0	27.3	28.7	1.02	1.11	1.07	77	73	75	5.00	5.15	4.3	4.4	6.1	5.7	4.5	4.7
Hilleshög 4022RR	2	44.54	34.51	39.53	98	40.46	99	1322	920	1121	99	1019	94	322	287	305	9563	7672	8618	17.17	15.54	16.36	29.7	26.7	28.2	1.06	1.18	1.12	84	66	75	4.26	4.40	5.0	4.9	4.8	4.6	3.6	3.3
Hilleshög 4043RR(9043)	NC	44.16	36.53	40.35	100	41.65	102	1347	985	1166	103	1137	104	321	296	308	9777	8013	8895	16.97	15.80	16.38	30.5	27.2	28.9	0.94	1.01	0.97	72	81	77	5.01	4.85	4.9	4.9	7.5	6.8	4.4	4.5
Hilleshög 4094RR(9094)	1	44.59	37.60	41.10	102	41.10	101	1332	996	1164	103	1015	93	322	300	311	9639	8005	8822	17.16	16.17	16.66	29.9	26.8	28.4	1.05	1.16	1.11	83	81	82	4.28	4.35	4.9	4.4	5.3	4.8	3.8	3.5
Seedex Uplander RR(SX0884)	1	NA	40.08	NA	NA	NA	NA	NA	1047	NA	NA	NA	NA	NA	311	NA	NA	8191	NA	NA	16.50	NA	NA	26.6	NA	NA	0.95	NA	NA	90	NA	4.97	4.96	5.1	4.7	4.9	4.9	4.2	4.5
Seedex Usher RR(SX0883)	1	NA	35.81	NA	NA	NA	NA	NA	1002	NA	NA	NA	NA	NA	293	NA	NA	8247	NA	NA	15.64	NA	NA	28.4	NA	NA	1.01	NA	NA	87	NA	5.05	4.70	4.8	4.5	5.4	4.7	4.5	4.3
SESVanderhave H36711RR	2	NA	37.33	NA	NA	NA	NA	NA	1063	NA	NA	NA	NA	NA	299	NA	NA	8544	NA	NA	15.98	NA	NA	28.7	NA	NA	1.03	NA	NA	82	NA	4.99	5.10	4.5	4.5	4.9	4.6	3.8	4.2
SESVanderhave H36811RR	1	NA	39.91	NA	NA	NA	NA	NA	965	NA	NA	NA	NA	NA	310	NA	NA	7561	NA	NA	16.49	NA	NA	24.6	NA	NA	0.97	NA	NA	86	NA	4.62	4.86	4.7	4.5	4.2	3.7	4.1	4.2
SESVanderhave H36812RR	1	43.64	36.83	40.24	100	41.16	101	1333	1039	1186	105	1121	103	319	297	308	9716	8450	9083	16.89	15.87	16.38	30.5	28.7	29.6	0.96	1.01	0.98	78	88	83	5.16	4.95	4.6	4.6	4.9	4.5	4.5	4.5
SESVanderhave H36813RR	1	NA	37.79	NA	NA	NA	NA	NA	1079	NA	NA	NA	NA	NA	301	NA	NA	8669	NA	NA	16.08	NA	NA	29.1	NA	NA	1.03	NA	NA	90	NA	4.59	4.57	4.4	4.4	4.9	4.7	4.1	4.4
Newly Approved																																							
BTS 89RR10	NC	48.96	40.00	44.48	111	--	--	1348	1010	1179	104	--	--	341	310	326	9383	7889	8636	18.04	16.65	17.35	27.6	25.6	26.6	1.01	1.11	1.06	77	78	78	4.92	4.70	3.7	3.8	5.5	4.9	3.9	4.2
BTS 89RR30	NC	43.06	34.38	38.72	96	--	--	1380	1045	1212	107	--	--	316	286	301	10110	8731	9421	16.73	15.38	16.05	31.9	30.6	31.3	0.92	1.06	0.99	79	81	80	5.09	5.08	4.3	4.2	1.6	1.8	3.7	3.8
BTS 89RR40	NC	44.38	38.13	41.25	103	--	--	1359	1043	1201	106	--	--	321	303	312	9844	8312	9078	17.13	16.21	16.67	30.6	27.6	29.1	1.07	1.08	1.07	68	73	70	5.07	4.95	4.1	4.3	3.6	3.7	4.2	4.3
BTS 89RR50	NC	44.78	35.75	40.27	100	--	--	1449	1050	1249	111	--	--	323	292	308	10466	8641	9554	17.27	15.91	16.59	32.4	29.8	31.1	1.13	1.31	1.22	76	81	79	5.16	5.00	3.9	3.7	2.1	2.1	4.0	4.4
BTS 89RR83	NC	42.71	33.96	38.33	95	--	--	1472	960	1216	108	--	--	314	285	300	10836	8078	9457	16.68	15.32	16.00	34.5	28.5	31.5	0.95	1.09	1.02	76	85	81	4.83	4.68	5.7	4.9	3.2	3.0	3.6	3.6
Crystal 984RR	NC	46.20	37.35	41.77	104	--	--	1356	1034	1195	106	--	--	329	299	314	9659	8327	8993	17.48	16.08	16.78	29.3	28.0	28.7	1.01	1.12	1.07	66	78	72	5.14	4.99	4.2	4.3	6.1	--	4.1	--
Crystal 985RR	NC	46.99	38.39	42.69	106	--	--	1323	1075	1199	106	--	--	332	304	318	9363	8559	8961	17.60	16.27	16.93	28.2	28.4	28.3	0.97	1.08	1.03	71	83	77	4.30	4.24	4.2	4.2	4.2	--	4.0	--
Crystal 986RR	NC	46.34	39.07	42.71	106	--	--	1461	1039	1250	111	--	--	330	306	318	10405	8170	9287	17.52	16.34	16.93	31.6	26.7	29.2	1.03	1.01	1.02	65	66	65	5.45	4.99	4.2	4.6	5.0	--	4.7	4.6
Hilleshog 4195RR(9195)	NC	43.32	36.44	39.88	99	--	--	1305	1050	1177	104	--	--	317	295	306	9532	8554	9043	16.93	15.92	16.42	30.0	29.2	29.6	1.09	1.16	1.13	69	73	71	4.39	4.47	5.2	5.0	6.0	--	4.1	3.9
Hilleshög 9199RR	NC	45.66	38.22	41.94	104	--	--	1305	978	1141	101	--	--	327	303	315	9353	7792	8573	17.29	16.18	16.74	28.6	25.9	27.3	0.95	1.03	0.99	59	52	55	4.67	4.66	6.0	5.7	8.0	--	4.9	--
Seedex SX0891RR	NC	45.04	39.82	42.43	105	--	--	1244	1036	1140	101	--	--	324	310	317	8960	8099	8530	17.13	16.52	16.83	27.7	26.3	27.0	0.90	1.03	0.97	NA	83	NA	4.76	4.96	4.7	4.8	5.5	--	4.3	--
Seedex SX0893RR	NC	45.67	38.65	42.16	105	--	--	1271	1060	1166	103	--	--	327	305	316	9083	8420	8751	17.24	16.25	16.74	27.7	27.9	27.8	0.87	1.01	0.94	NA	79	NA	4.87	4.91	4.8	4.7	4.9	--	4.5	--
Seedex SX0894RR	NC	43.89	37.82	40.86	102	--	--	1210	1004	1107	98	--	--	319	301	310	8793	8053	8423	16.91	16.09	16.50	27.5	26.9	27.2	0.94	1.03	0.98	NA	95	NA	4.51	4.45	4.6	4.4	4.9	--	4.3	--
SESVanderhave H36913RR	NC	44.84	38.04	41.44	103	--	--	1264	1072	1168	103	--	--	323	302	313	9114	8560	8837	17.06	16.06	16.56	28.2	28.5	28.3	0.88	0.96	0.92	NA	80	NA	4.91	5.03	5.4	5.2	4.4	--	4.1	--
SESVanderhave H36915RR	NC	43.02	37.86	40.44	101	--	--	1280	1051	1165	103	--	--	316	301	309	9381	8414	8897	16.73	16.06	16.39	29.7	28.1	28.9	0.93	0.99	0.96	NA	82	NA	4.77	4.91	4.8	4.6	5.1	--	4.1	--
SESVanderhave H36916RR	NC	43.33	38.07	40.70	101	--	--	1247	1024	1135	100	--	--	317	302	310	9107	8180	8643	16.85	16.15	16.50	28.7	27.2	27.9	0.99	1.03	1.01	NA	84	NA	4.97	4.94	4.7	4.5	4.7	--	4.3	--
SESVanderhave H36917RR	NC	44.82	39.91	42.36	105	--	--	1324	1054	1189	105	--	--	323	310	317	9554	8219	8886	17.11	16.50	16.81	29.5	26.6	28.1	0.94	0.99	0.96	NA	85	NA	4.95	4.98	4.7	4.5	5.0	--	4.3	--
SESVanderhave H36918RR	NC	44.88	39.47	42.18	105	--	--	1243	1063	1153	102	--	--	324	308	316	8935	8366	8651	17.12	16.38	16.75	27.5	27.4	27.4	0.93	0.97	0.95	NA	91	NA	4.47	4.41	4.4	4.4	4.8	--	4.4	--
Mean of benchmark varieties		44.56	35.90	40.23		40.76		1292	968	1130		1090		322	293	308	9341	7939	8640	17.13	15.77	16.45	29.0	27.2	28.1	1.02	1.12	1.07	76	73	75								

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

+ 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).

Created 11-9-2010.

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

+++ Sites include St Thomas in 2008.

@ All varieties are diploid unless noted.

+++ Sites include Argyle, Averill, Casselton in 2009.

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

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

Table 6.
Performance Data of Conventional Varieties Approved for Sale to ACSC Growers in 2011
Under Light Rhizomania Conditions During 2008, 2009 & 2010 Growing Seasons +++

Description @	Years / Comm	Rev/Ton			Rev/Acre			Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +			Aph Root+			Fusarium +			Rhizoctonia ++		
		10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08
Conventional # of locations →		3	2	5	3	2	5	3	2	5	3	2	5	3	2	5	3	2	5	3	2	5	3	2	5	3	4	3	2	1	2	2	2	1	2	1	2
Tested in 2010																																					
Crystal R760	1	49.91	--	38.54	1243	--	1151	344	--	304	8604	--	9060	18.14	--	16.31	25.2	--	29.7	0.95	--	1.11	83	--	74	5.66	--	5.1	3.8	--	4.5	5.0	--	--	4.5	--	6.0
Crystal R761	1	48.84	--	37.17	1269	--	1099	340	--	298	8841	--	8804	18.06	--	16.20	26.1	--	29.5	1.08	--	1.29	83	--	73	4.86	--	4.0	3.9	--	4.0	2.3	--	2.3	4.1	--	4.7
Crystal R869	NC	51.78	--	42.17	1252	--	1129	351	--	319	8516	--	8536	18.54	--	16.92	24.3	--	26.7	0.98	--	0.96	91	--	78	4.90	--	4.4	5.7	--	4.7	6.2	--	--	4.3	--	--
SESVanderhave H46519	6	NA	36.10	38.17	NA	872	1081	NA	294	302	NA	7107	8557	NA	15.72	16.15	NA	24.1	28.3	NA	1.03	1.03	NA	76	71	4.47	4.76	4.2	5.1	5.7	4.7	--	4.7	4.7	--	4.3	3.7
SESVanderhave H48717TT	2	47.86	34.83	39.11	946	975	1063	336	289	306	6650	8099	8317	17.80	15.44	16.37	19.9	28.1	27.1	1.02	1.02	1.05	NA	81	79	5.36	5.39	4.6	6.0	4.9	4.8	--	5.1	4.6	4.2	4.3	4.4
Tested Previously																																					
Beta 1100R	NC	--	--	38.36	--	--	1130	--	--	303	--	--	8927	--	--	16.18	--	--	29.4	--	--	1.02	--	--	72	--	--	4.2	--	--	5.9	--	--	4.9	--	--	3.3
Beta 1115R	NC	--	--	42.40	--	--	1149	--	--	320	--	--	8654	--	--	16.98	--	--	27.0	--	--	0.97	--	--	76	--	--	4.5	--	--	4.3	--	--	5.7	--	--	4.4
Beta 1125R	NC	--	--	37.61	--	--	1172	--	--	300	--	--	9352	--	--	16.23	--	--	31.2	--	--	1.23	--	--	77	--	--	4.2	--	--	4.3	--	--	2.7	--	--	4.8
Beta 1135R	NC	--	--	38.36	--	--	1039	--	--	303	--	--	8206	--	--	16.32	--	--	27.1	--	--	1.16	--	--	71	--	--	4.0	--	--	4.9	--	--	3.5	--	--	2.4
Beta 1140R	NC	--	--	42.15	--	--	1119	--	--	319	--	--	8457	--	--	16.97	--	--	26.5	--	--	1.01	--	--	76	--	--	4.1	--	--	4.8	--	--	5.9	--	--	5.4
Beta 1301R	5	--	--	34.82	--	--	999	--	--	288	--	--	8265	--	--	15.70	--	--	28.6	--	--	1.28	--	--	73	--	--	3.9	--	--	3.8	--	--	6.0	--	--	2.1
Beta 1305R	5	--	--	37.28	--	--	1002	--	--	299	--	--	8011	--	--	16.16	--	--	26.8	--	--	1.22	--	--	57	--	--	5.2	--	--	4.7	--	--	5.8	--	--	3.8
Beta 1833R	NC	--	--	38.70	--	--	979	--	--	305	--	--	7695	--	--	16.41	--	--	25.2	--	--	1.18	--	--	64	--	--	3.5	--	--	4.7	--	--	--	--	--	1.3
Crystal R308 (3N)	5	--	--	40.67	--	--	1043	--	--	313	--	--	8015	--	--	16.79	--	--	25.6	--	--	1.14	--	--	66	--	--	4.0	--	--	4.2	--	--	2.9	--	--	--
Crystal R431	4	--	--	38.79	--	--	1027	--	--	305	--	--	8067	--	--	16.46	--	--	26.4	--	--	1.21	--	--	72	--	--	4.3	--	--	4.2	--	--	3.3	--	--	--
Crystal R434	4	--	--	37.78	--	--	1042	--	--	301	--	--	8301	--	--	16.31	--	--	27.6	--	--	1.27	--	--	74	--	--	4.7	--	--	4.3	--	--	2.8	--	--	4.6
Hilleshög 3035Rz	3	--	--	40.55	--	--	1089	--	--	312	--	--	8387	--	--	16.72	--	--	26.9	--	--	1.10	--	--	68	--	--	3.6	--	--	4.5	--	--	4.6	--	--	1.6
Hilleshög 3052Rz	2	--	--	38.79	--	--	1105	--	--	305	--	--	8683	--	--	16.34	--	--	28.5	--	--	1.10	--	--	72	--	--	4.2	--	--	4.9	--	--	5.0	--	--	4.2
Holly 317	5	--	--	37.38	--	--	928	--	--	299	--	--	7415	--	--	16.03	--	--	24.8	--	--	1.07	--	--	74	--	--	4.1	--	--	5.3	--	--	4.2	--	--	4.0
Holly 701	NC	--	--	38.10	--	--	1031	--	--	302	--	--	8185	--	--	16.13	--	--	27.1	--	--	1.03	--	--	74	--	--	4.3	--	--	4.9	--	--	4.4	--	--	5.2
Seedex Deuce (SX0873TT)	NC	--	36.26	37.87	--	950	1096	--	295	301	--	7726	8716	--	15.72	16.07	--	26.2	28.9	--	0.99	1.01	--	84	74	--	5.58	5.2	--	5.9	5.4	--	5.2	--	--	4.6	--
Seedex Sonic	3	--	37.08	38.88	--	943	1083	--	298	305	--	7576	8519	--	15.92	16.33	--	25.4	27.9	--	1.01	1.06	--	81	72	--	5.07	5.0	--	5.9	6.1	--	4.8	5.0	--	4.8	4.8
Seedex Triton	2	--	--	38.71	--	--	983	--	--	305	--	--	7727	--	--	16.22	--	--	25.3	--	--	0.99	--	--	71	--	--	3.5	--	--	5.0	--	--	5.3	--	--	3.0
Seedex Vault	NC	--	--	38.12	--	--	1026	--	--	302	--	--	8154	--	--	16.13	--	--	27.0	--	--	1.01	--	--	79	--	--	4.6	--	--	4.8	--	--	4.5	--	--	4.2
SESVanderhave H46531	4	--	37.42	38.44	--	850	1051	--	299	304	--	6789	8309	--	15.97	16.25	--	22.6	27.4	--	1.01	1.07	--	65	70	4.58	4.68	4.6	5.4	5.4	5.0	--	4.6	4.5	--	4.4	3.3
SESVanderhave H46711	NC	--	--	40.55	--	--	1096	--	--	312	--	--	8455	--	--	16.62	--	--	27.1	--	--	1.00	--	--	77	--	--	3.8	--	--	4.4	--	--	4.2	--	--	5.3
SESVanderhave H46714	NC	--	--	36.74	--	--	1034	--	--	297	--	--	8351	--	--	15.84	--	--	28.2	--	--	1.02	--	--	76	--	--	4.5	--	--	4.3	--	--	4.8	--	--	2.8
SESVanderhave H46801	NC	--	--	40.93	--	--	1051	--	--	314	--	--	8050	--	--	16.67	--	--	25.6	--	--	0.97	--	--	77	--	--	3.4	--	--	4.4	--	--	--	--	--	--
SESVanderhave H48607TT	2	--	35.22	35.82	--	993	1115	--	290	293	--	8211	9107	--	15.53	15.71	--	28.4	31.1	--	1.02	1.08	--	82	76	--	5.52	5.4	--	5.5	5.4	--	5.4	6.0	--	4.1	3.8
SESVanderhave H48716TT	NC	--	36.52	38.86	--	918	1026	--	296	305	--	7447	8058	--	15.78	16.28	--	25.2	26.4	--	1.01	1.02	--	84	79	--	5.25	5.0	--	5.7	4.9	--	5.5	5.4	--	4.6	3.4
SESVanderhave H48810TT	NC	--	--	38.73	--	--	1097	--	--	305	--	--	8622	--	--	16.29	--	--	28.3	--	--	1.05	--	--	78	--	--	4.9	--	--	5.2	--	--	--	--	--	--
Mean of benchmark varieties		49.63	33.86	38.47	1299	750	1017	343	285	304	8977	6280	8027	18.09	15.32	16.30	26.2	22.0	26.4	0.95	1.10	1.12	78	69	65												

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

Updated 1-13-2010.

+ 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 Ada, Hillsboro, Crookston, Grand Forks & Hamilton in 2008.

@ All varieties are diploid unless noted.

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

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

+++ Sites include Climax, Crookston in 2010.

Table 7.

Performance Data of Conventional Varieties Approved for Sale to ACSC Growers in 2011

Under Moderate to Severe Rhizomania Conditions During 2008, 2009 & 2010 Growing Seasons +++

	Years	Rev/Ton			Rev/Acre			Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +			Aph Root+			Fusarium +			Rhizoctonia ++		
Description @	Comm	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08	10	09	08
Conventional # of locations →		3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	4	3	2	1	2	2	2	1	2	1	2
Tested in 2010																																					
Crystal R760	1	46.42	--	44.61	1443	--	1262	330	--	329	10282	--	9297	17.51	--	17.38	31.3	--	28.2	1.03	--	0.92	76	--	74	5.66	--	5.1	3.8	--	4.5	5.0	--	--	4.5	--	6.0
Crystal R761	1	45.76	--	43.61	1489	--	1225	327	--	325	10661	--	9154	17.52	--	17.34	32.7	--	28.2	1.17	--	1.08	78	--	69	4.86	--	4.0	3.9	--	4.0	2.3	--	2.3	4.1	--	4.7
Crystal R869	NC	50.35	--	44.53	1456	--	1217	346	--	329	10020	--	8978	18.22	--	17.35	29.1	--	27.2	0.94	--	0.90	81	--	81	4.90	--	4.4	5.7	--	4.7	6.2	--	--	4.3	--	--
SESVanderhave H46519	6	NA	39.01	42.09	NA	1026	1054	NA	306	319	NA	8076	8011	NA	16.38	16.83	NA	26.5	25.2	NA	1.08	0.88	NA	91	67	4.47	4.76	4.2	5.1	5.7	4.7	--	4.7	4.7	--	4.3	3.7
SESVanderhave H48717TT	2	44.41	37.50	42.20	1173	1002	1108	322	300	319	8489	8037	8369	17.05	16.11	16.93	26.4	26.9	26.2	0.97	1.12	0.95	NA	97	75	5.36	5.39	4.6	6.0	4.9	4.8	--	5.1	4.6	4.2	4.3	4.4
Tested Previously																																					
Beta 1100R	NC	--	--	43.91	--	--	1272	--	--	326	--	--	9454	--	--	17.17	--	--	29.0	--	--	0.85	--	--	75	--	--	4.2	--	--	5.9	--	--	4.9	--	--	3.3
Beta 1115R	NC	--	--	46.41	--	--	1280	--	--	337	--	--	9282	--	--	17.71	--	--	27.5	--	--	0.87	--	--	65	--	--	4.5	--	--	4.3	--	--	5.7	--	--	4.4
Beta 1125R	NC	--	--	40.78	--	--	1242	--	--	313	--	--	9535	--	--	16.82	--	--	30.4	--	--	1.15	--	--	81	--	--	4.2	--	--	4.3	--	--	2.7	--	--	4.8
Beta 1135R	NC	--	--	43.47	--	--	1090	--	--	325	--	--	8130	--	--	17.28	--	--	25.0	--	--	1.06	--	--	69	--	--	4.0	--	--	4.9	--	--	3.5	--	--	2.4
Beta 1140R	NC	--	--	45.04	--	--	1222	--	--	331	--	--	8972	--	--	17.49	--	--	27.1	--	--	0.93	--	--	73	--	--	4.1	--	--	4.8	--	--	5.9	--	--	5.4
Beta 1301R	5	--	--	39.02	--	--	1089	--	--	306	--	--	8523	--	--	16.48	--	--	27.8	--	--	1.18	--	--	67	--	--	3.9	--	--	3.8	--	--	6.0	--	--	2.1
Beta 1305R	5	--	--	41.86	--	--	1020	--	--	318	--	--	7747	--	--	17.03	--	--	24.4	--	--	1.13	--	--	45	--	--	5.2	--	--	4.7	--	--	5.8	--	--	3.8
Beta 1833R	NC	--	--	42.86	--	--	965	--	--	322	--	--	7248	--	--	17.18	--	--	22.5	--	--	1.08	--	--	61	--	--	3.5	--	--	4.7	--	--	--	--	--	1.3
Crystal R308 (3N)	5	--	--	46.61	--	--	1046	--	--	338	--	--	7575	--	--	17.87	--	--	22.4	--	--	0.98	--	--	64	--	--	4.0	--	--	4.2	--	--	2.9	--	--	--
Crystal R431	4	--	--	44.40	--	--	1123	--	--	329	--	--	8313	--	--	17.48	--	--	25.3	--	--	1.05	--	--	69	--	--	4.3	--	--	4.2	--	--	3.3	--	--	--
Crystal R434	4	--	--	41.60	--	--	1093	--	--	317	--	--	8347	--	--	16.91	--	--	26.4	--	--	1.08	--	--	70	--	--	4.7	--	--	4.3	--	--	2.8	--	--	4.6
Hilleshög 3035Rz	3	--	--	42.33	--	--	1045	--	--	320	--	--	7882	--	--	16.91	--	--	24.6	--	--	0.92	--	--	63	--	--	3.6	--	--	4.5	--	--	4.6	--	--	1.6
Hilleshög 3052Rz	2	--	--	43.11	--	--	1103	--	--	323	--	--	8290	--	--	17.07	--	--	25.8	--	--	0.92	--	--	65	--	--	4.2	--	--	4.9	--	--	5.0	--	--	4.2
Holly 317	5	--	--	43.39	--	--	971	--	--	324	--	--	7278	--	--	17.10	--	--	22.5	--	--	0.89	--	--	67	--	--	4.1	--	--	5.3	--	--	4.2	--	--	4.0
Holly 701	NC	--	--	42.76	--	--	1075	--	--	322	--	--	8093	--	--	17.05	--	--	25.2	--	--	0.97	--	--	77	--	--	4.3	--	--	4.9	--	--	4.4	--	--	5.2
Seedex Deuce (SX0873TT)	NC	--	38.50	43.36	--	1082	1265	--	304	324	--	8528	9463	--	16.25	17.13	--	28.0	29.2	--	1.06	0.92	--	101	71	--	5.58	5.2	--	5.9	5.4	--	5.2	--	--	4.6	--
Seedex Sonic	3	--	39.97	44.03	--	1059	1112	--	310	327	--	8250	8280	--	16.61	17.20	--	26.7	25.4	--	1.12	0.86	--	91	72	--	5.07	5.0	--	5.9	6.1	--	4.8	5.0	--	4.8	4.8
Seedex Triton	2	--	--	41.49	--	--	1013	--	--	316	--	--	7714	--	--	16.74	--	--	24.4	--	--	0.93	--	--	66	--	--	3.5	--	--	5.0	--	--	5.3	--	--	3.0
Seedex Vault	NC	--	--	41.78	--	--	1038	--	--	318	--	--	7901	--	--	16.77	--	--	24.9	--	--	0.89	--	--	79	--	--	4.6	--	--	4.8	--	--	4.5	--	--	4.2
SESVanderhave H46531	4	--	38.78	41.54	--	992	1110	--	305	317	--	7829	8454	--	16.33	16.76	--	25.7	26.7	--	1.08	0.94	--	82	68	4.58	4.68	4.6	5.4	5.4	5.0	--	4.6	4.5	--	4.4	3.3
SESVanderhave H46711	NC	--	--	43.72	--	--	1105	--	--	326	--	--	8232	--	--	17.13	--	--	25.3	--	--	0.84	--	--	77	--	--	3.8	--	--	4.4	--	--	4.2	--	--	5.3
SESVanderhave H46714	NC	--	--	41.17	--	--	966	--	--	315	--	--	7416	--	--	16.60	--	--	23.6	--	--	0.86	--	--	80	--	--	4.5	--	--	4.3	--	--	4.8	--	--	2.8
SESVanderhave H46801	NC	--	--	42.94	--	--	931	--	--	322	--	--	6972	--	--	17.06	--	--	21.6	--	--	0.94	--	--	79	--	--	3.4	--	--	4.4	--	--	--	--	--	--
SESVanderhave H48607TT	2	--	37.87	41.78	--	1089	1209	--	301	318	--	8706	9199	--	16.13	16.77	--	29.1	29.0	--	1.07	0.90	--	94	76	--	5.52	5.4	--	5.5	5.4	--	5.4	6.0	--	4.1	3.8
SESVanderhave H48716TT	NC	--	38.19	42.74	--	1043	1152	--	303	322	--	8274	8674	--	16.23	17.03	--	27.4	27.0	--	1.10	0.95	--	104	74	--	5.25	5.0	--	5.7	4.9	--	5.5	5.4	--	4.6	3.4
SESVanderhave H48810TT	NC	--	--	42.72	--	--	1179	--	--	321	--	--	8879	--	--	16.94	--	--	27.6	--	--	0.88	--	--	74	--	--	4.9	--	--	5.2	--	--	--	--	--	--
Mean of benchmark varieties		44.56	35.90	41.81	1292	968	1010	322	293	318	9341	7939	7683	17.13	15.77	16.88	29.0	27.2	24.2	1.02	1.12	1.00	76	73	59												

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

++ 2010 Revenue estimates based on a $44.01 beet payment at 17.5% sugar and 1.5% loss to molasses. 2009 Revenue estimates based on a $42.40, 2008 based on $42.38. Revenue does not consider hauling costs or production costs.

Updated 1-13-2010.

+ 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 St Thomas in 2008.

@ All varieties are diploid unless noted.

+++ Sites include Argyle, Averill, Casselton in 2009.

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

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

Table 8.
Performance Data of RR Aphanomyces Specialty Varieties.
Aphanomyces Conditions

		Years	Rev/Ton			Rev/Acre			Rec/Ton		Rec/Acre		Sugar		Yield		CR Rating +		Aph Root +		Fusarium +		Rhizoctonia +	
Description **	Ploidy	Comm	10	2 Yr	2 Yr%	10	2 Yr	2 Yr%	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	2 Yr	10	09	10	09
	# of Locations →		1	3	3	1	3	3	1	3	1	3	1	3	1	3	3	7	2	4	1	2	2	1
Roundup Ready																								
BTS 85RR02	2N	3	46.43	42.51	101	1224	1162	146	329.8	317.0	8624	8598	17.50	16.91	25.9	26.9	4.47	4.56	3.5	3.8	4.6	2.7	4.1	4.5
BTS 88RR21	2N	1	38.99	36.96	88	710	868	109	299.7	294.3	5369	6905	15.99	15.70	17.6	23.3	4.85	4.59	4.2	4.1	2.3	2.8	3.7	3.8
BTS 88RR31	2N	1	42.55	39.25	93	1009	1027	129	314.1	303.7	7437	7959	16.72	16.26	23.6	26.2	4.66	4.82	3.8	4.0	3.0	2.9	3.6	4.1
BTS 88RR61	2N	1	43.02	41.05	97	1029	1087	137	316.0	311.1	7569	8230	16.79	16.56	24.0	26.4	4.50	4.78	4.3	4.4	3.8	3.7	3.6	4.5
BTS 89RR30	2N	NC	44.99	39.91	95	1211	1126	142	324.0	306.3	8718	8589	16.99	16.20	26.9	27.8	5.09	5.08	4.3	4.2	1.6	1.9	3.7	3.9
BTS 89RR40	2N	NC	44.25	40.83	97	1003	1008	127	321.0	310.2	7208	7600	17.00	16.53	22.2	24.2	5.07	4.95	4.1	4.3	3.6	3.9	4.2	4.5
BTS 89RR50	2N	NC	45.37	41.07	97	1247	1202	151	325.5	311.1	8924	9097	17.25	16.61	27.4	29.2	5.16	5.00	3.9	3.7	2.1	2.2	4.0	4.7
Crystal 539RR	2N	3	45.21	41.47	98	1102	1079	136	324.8	312.7	7927	8147	17.25	16.68	24.4	26.0	5.39	5.32	4.0	4.1	1.9	1.8	4.4	4.4
Crystal 658RR	2N	3	39.03	36.30	86	891	956	120	299.9	291.6	6744	7637	15.92	15.54	22.1	25.9	4.46	4.54	3.9	3.9	1.9	2.4	4.2	3.7
Crystal 875RR	2N	1	45.18	41.31	98	1264	1187	149	324.7	312.1	9065	8935	17.25	16.66	27.8	28.5	4.33	4.44	3.3	3.2	5.1	4.1	3.5	4.2
Crystal 984RR	2N	NC	45.72	41.96	99	1091	1097	138	326.9	314.7	7783	8220	17.30	16.73	23.7	26.0	5.14	4.99	4.2	4.3	6.1	--	4.1	--
Crystal 985RR	2N	NC	42.06	39.37	93	894	969	122	312.1	304.2	6555	7461	16.63	16.24	20.7	24.3	4.30	4.24	4.2	4.2	4.2	--	4.0	--
Hilleshög 4012RR	2N	3	43.30	40.40	96	868	856	108	317.1	308.4	6302	6494	16.86	16.48	19.7	20.9	5.00	5.15	4.3	4.4	6.1	5.3	4.5	4.8
Hilleshög 4022RR	2N	2	41.49	39.33	93	741	880	111	309.8	304.0	5476	6798	16.57	16.28	17.4	22.2	4.26	4.40	5.0	4.9	4.8	4.4	3.6	3.1
Hilleshög 4043RR(9043)	2N	NC	42.10	40.15	95	945	971	122	312.3	307.4	6962	7376	16.62	16.37	22.1	23.7	5.01	4.85	4.9	4.9	7.5	6.0	4.4	4.5
Hilleshög 4094RR(9094)	2N	1	42.05	39.45	94	828	935	118	312.1	304.5	6049	7197	16.63	16.27	19.0	23.5	4.28	4.35	4.9	4.4	5.3	4.3	3.8	3.2
SESVanderhave H36811RR	2N	1	40.55	39.88	95	751	879	111	306.0	306.4	5552	6654	16.31	16.31	17.7	21.3	4.62	4.86	4.7	4.5	4.2	3.3	4.1	4.3
SESVanderhave H36917RR	2N	NC	40.66	39.97	95	674	863	109	306.5	306.8	5049	6618	16.38	16.37	16.4	21.4	4.95	4.98	4.7	4.5	5.0	--	4.3	--
Aph Susc Checks			44.57	42.19		586	794		322.3	315.8	4183	5892	17.11	16.79	12.8	18.3								
Mean of Aph Specialty Varieties			42.94	40.06		971	1008		315.7	307.0	7073	7695	16.78	16.37	22.1	24.9								

2010 data from Kindred. 2009 sites included Kindred & Hillsboro. 2008 site was Perley. 2Yr% 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+).

Created 11-10-2010.

Table 9.

Performance Data of Conventional and RR Varieties from **2008** Yield Trials

During **2008** Growing Season (All Locations Combined) [Allows comparison between RR & Conventional varieties] #

	Rev/Ton		Rev/Acre		Rec/T	Rec/Ac	Sugar	Yield	LTM	Emerg %	CR +			Aph Rt+			Fusarium +			Rhizoct ++		
Description @	08	08%	08	08%	08	08	08	08	08	08	10	09	08	10	09	08	10	09	08	10	09	08
Roundup Ready # of Locations →	6		6		6	6	6	6	6	6	3	4	3	2	2	1	1	2	2	2	1	1
Beta 85RR02	41.67	107	1061	104	317.0	8079	17.00	25.5	1.15	55	4.47	4.66	4.64	3.5	4.0	4.2	4.6	2.7	2.8	4.1	4.5	6.4
Beta 86RR44	40.80	105	1063	105	313.4	8157	16.83	26.0	1.17	43	--	4.83	4.99	--	4.5	4.4	--	4.8	5.6	--	4.3	5.1
Beta 86RR66	40.36	103	1068	105	311.6	8249	16.76	26.5	1.18	43	5.07	5.00	5.15	4.6	4.3	5.0	4.2	4.4	5.8	3.9	4.1	4.5
Beta 87RR38	39.69	102	1151	113	308.8	8973	16.61	29.1	1.17	70	4.82	4.73	4.33	4.3	4.8	5.1	3.6	3.8	4.8	4.4	3.8	4.5
Beta 87RR58	40.13	103	1167	115	310.6	9034	16.70	29.1	1.18	68	5.43	5.06	4.60	5.1	4.8	5.2	5.2	4.5	5.3	4.5	4.5	5.4
Beta 87RR68	44.90	115	1294	127	330.5	9522	17.58	28.8	1.06	69	4.47	4.66	4.32	6.7	6.2	7.5	4.9	4.0	4.0	4.8	4.6	7.1
Beta 88RR03	37.62	96	1037	102	300.1	8300	16.10	27.8	1.09	66	--	4.65	3.89	--	4.2	4.6	--	2.4	2.9	--	3.5	2.8
Beta 88RR13	38.15	98	1061	104	302.4	8426	16.20	27.9	1.07	69	4.61	4.55	4.08	5.2	3.9	4.9	2.6	2.6	2.6	4.0	3.4	2.1
Beta 88RR21	39.79	102	1104	109	309.2	8585	16.45	27.8	0.99	64	4.85	4.33	4.19	4.2	4.1	4.5	2.3	2.8	2.4	3.7	3.8	--
Beta 88RR31	40.66	104	1156	114	312.8	8909	16.86	28.5	1.22	64	4.66	4.97	4.70	3.8	4.1	4.3	3.0	2.9	3.9	3.6	4.1	--
Beta 88RR41	39.87	102	1189	117	309.5	9220	16.57	29.7	1.09	69	5.14	4.87	4.56	5.2	4.7	5.6	3.6	3.1	3.3	4.2	4.3	--
Beta 88RR61	41.31	106	1155	114	315.5	8823	16.90	28.0	1.12	66	4.50	5.06	4.18	4.3	4.6	4.6	3.8	3.7	3.8	3.6	4.5	--
Beta 88RR71	41.40	106	1134	112	315.9	8634	16.93	27.3	1.14	73	--	4.67	4.45	--	3.9	4.4	--	5.2	--	--	4.4	--
Crystal 539RR	41.69	107	1073	106	317.1	8157	16.99	25.7	1.13	69	5.39	5.25	4.90	4.0	4.2	4.6	1.9	1.8	2.3	4.4	4.4	7.1
Crystal 658RR	38.81	99	1073	106	305.1	8445	16.24	27.7	0.98	63	4.46	4.63	4.24	3.9	3.9	4.8	1.9	2.4	2.4	4.2	3.7	2.9
Crystal 765RR	44.19	113	1247	123	327.6	9240	17.42	28.2	1.05	74	4.52	4.89	3.97	5.7	5.6	7.3	4.0	3.9	4.1	4.4	4.7	7.1
Crystal 768RR	39.73	102	1168	115	309.0	9084	16.63	29.4	1.18	75	5.21	4.94	4.45	4.8	5.0	5.4	4.2	4.4	5.2	4.3	4.1	5.7
Crystal 871RR	39.70	102	1154	114	308.8	8981	16.64	29.1	1.19	69	--	4.90	4.48	--	4.2	4.7	--	2.3	--	--	4.9	--
Crystal 873RR	37.24	95	1217	120	298.5	9751	15.99	32.7	1.06	69	5.90	5.37	4.58	4.6	4.3	5.5	3.4	3.0	--	3.7	3.6	--
Crystal 875RR	41.25	106	1162	114	315.3	8885	16.89	28.2	1.13	68	4.33	4.56	4.27	3.3	3.0	3.8	5.1	4.1	--	3.5	4.2	--
Crystal 878RR	41.89	107	1201	118	318.0	9116	17.03	28.7	1.14	63	5.17	4.91	4.44	5.7	5.1	5.1	4.4	4.2	--	4.4	4.4	--
Crystal 879RR	39.41	101	1189	117	307.6	9280	16.47	30.2	1.09	67	5.36	5.13	4.52	6.0	5.0	5.6	3.3	3.3	--	4.2	4.1	--
Hilleshög 4000RR	39.59	101	991	98	308.4	7761	16.58	25.3	1.17	58	--	4.71	4.55	--	5.4	5.2	--	6.3	7.6	--	4.9	5.0
Hilleshög 4010RR	42.80	110	1094	108	321.8	8238	17.16	25.7	1.07	62	5.13	5.51	4.81	4.8	4.1	4.9	6.8	6.0	6.9	4.5	5.0	4.4
Hilleshög 4012RR	40.52	104	1148	113	312.2	8848	16.69	28.4	1.08	69	5.00	5.29	4.98	4.3	4.5	4.3	6.1	5.3	6.4	4.5	4.8	5.3
Hilleshög 4022RR	39.67	102	1036	102	308.7	8083	16.60	26.3	1.16	70	4.26	4.53	3.80	5.0	4.8	4.8	4.8	4.4	5.3	3.6	3.1	1.6
Hilleshög 4043RR(9043)	42.03	108	1174	116	318.6	8893	16.91	27.9	0.98	66	5.01	4.69	4.49	4.9	4.9	4.6	7.5	6.0	7.3	4.4	4.5	5.3
Hilleshög 4085RR(9085)	40.22	103	1089	107	311.0	8431	16.65	27.1	1.11	69	--	4.35	3.84	--	4.0	4.3	--	4.5	--	--	3.3	--
Hilleshög 4094RR(9094)	39.11	100	1051	104	306.4	8251	16.46	27.0	1.14	69	4.28	4.42	3.78	4.9	4.0	4.8	5.3	4.3	--	3.8	3.2	2.0
Hilleshög 4097RR(9097)	40.17	103	1017	100	310.8	7873	16.65	25.4	1.11	62	--	4.01	3.45	--	5.5	5.4	--	5.9	--	--	4.0	1.4
Hilleshög 4114RR(9114)	44.65	114	1103	109	329.5	8144	17.46	24.7	0.98	53	--	3.88	3.14	--	4.6	5.4	--	6.4	--	--	4.2	--
Seedex SX0881RR (Unicorn)	41.36	106	1116	110	315.8	8528	16.85	27.0	1.06	64	--	5.33	4.69	--	4.3	5.6	--	5.8	6.7	--	4.8	--
Seedex SX0883RR (Usher)	38.16	98	1119	110	302.4	8878	16.19	29.4	1.07	71	--	4.35	5.83	--	4.4	5.2	--	4.1	--	--	4.1	--
Seedex SX0884RR (Uplander)	41.50	106	1072	106	316.3	8170	16.77	25.8	0.96	72	--	4.94	4.80	--	4.3	4.5	--	4.9	--	--	4.7	--
SESVanderhave H36711RR	39.72	102	1051	103	308.9	8190	16.55	26.6	1.10	66	4.99	5.22	4.36	4.5	4.5	5.0	4.9	4.4	7.5	3.8	4.5	4.0
SESVanderhave H36811RR	41.11	105	1049	103	314.7	8031	16.67	25.5	0.94	78	4.62	5.10	4.32	4.7	4.4	5.1	4.2	3.3	--	4.1	4.3	3.2
SESVanderhave H36812RR	39.41	101	1090	107	307.6	8506	16.38	27.6	1.00	69	5.16	4.74	4.82	4.6	4.5	4.9	4.9	4.1	--	4.5	4.6	4.4
SESVanderhave H36813RR	37.82	97	1120	110	301.0	8922	16.10	29.7	1.05	69	4.59	4.55	5.75	4.4	4.4	5.5	4.9	4.4	--	4.1	4.6	3.5
Conventional											--						--					
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	5.66	--	5.07	3.8	--	4.5	5.0	--	--	4.5	--	6.0
Crystal R761	38.22	98	1119	110	302.6	8856	16.39	29.3	1.25	72	4.86	--	4.03	3.9	--	4.0	2.3	--	2.3	4.1	--	4.7
Crystal R869	42.58	109	1144	113	320.8	8612	16.99	26.8	0.95	78	4.90	--	4.44	5.7	--	4.7	6.2	--	--	4.3	--	--
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	--	5.58	5.16	--	5.9	5.4	--	5.2	--	--	4.6	--
Seedex Sonic	39.74	102	1087	107	309.0	8473	16.48	27.5	1.03	72	--	5.07	4.95	--	5.9	6.1	--	4.8	5.0	--	4.8	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	4.47	4.76	4.21	5.1	5.7	4.7	--	4.7	4.7	--	4.3	3.7
SESVanderhave H46531	38.97	100	1061	104	305.8	8333	16.34	27.3	1.05	70	4.58	4.68	4.59	5.4	5.4	5.0	--	4.6	4.5	--	4.4	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	--	5.52	5.42	--	5.5	5.4	--	5.4	6.0	--	4.1	3.8
SESVanderhave H48716TT	39.48	101	1048	103	307.9	8168	16.40	26.5	1.01	78	--	5.25	4.97	--	5.7	4.9	--	5.5	5.4	--	4.6	3.4
SESVanderhave H48717TT	39.62	102	1071	105	308.5	8336	16.46	27.0	1.03	78	5.36	5.39	4.58	6.0	4.9	4.8	--	5.1	4.6	4.2	4.3	4.4
SESVanderhave H48810TT	39.38	101	1110	109	307.5	8662	16.40	28.2	1.02	78	--	--	4.91	--	--	5.2	--	--	--	--	--	--
Mean of benchmark varieties	39.01		1016		306.0	7973	16.40	26.1	1.10	64												

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 costs 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. Varieties in 2009 and 2010 trials were submitted voluntarily by seed companies.

@ All varieties are diploid unless noted.

Created 11-10-2010.

Table 10.
2010 Performance of Varieties - ACSC Commercial Official Trial
ACS Seven Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 85RR02	108	332.3	101	9268	102	1.05	47.06	102	1313	103	17.67	27.88	223	1734	273	0.01	69.3
BTS 86RR66	114	323.5	98	9152	101	1.05	44.88	97	1268	100	17.22	28.33	213	1674	288	0.00	62.5
BTS 87RR38	102	329.9	100	9479	104	1.02	46.46	100	1334	105	17.52	28.75	198	1667	279	0.00	76.0
BTS 87RR58	126	331.8	101	9518	105	1.06	46.94	102	1346	106	17.65	28.69	213	1689	292	0.00	72.9
BTS 87RR68	118	335.5	102	8503	94	1.04	47.83	103	1213	95	17.81	25.32	230	1701	272	0.00	56.6
BTS 88RR13	112	310.1	94	8517	94	1.07	41.55	90	1142	90	16.58	27.46	241	1759	279	0.00	55.4
BTS 88RR21	121	321.0	98	9315	103	0.92	44.25	96	1284	101	16.97	29.02	218	1511	232	0.00	63.2
BTS 88RR31	106	327.2	99	9380	103	1.08	45.79	99	1310	103	17.44	28.74	229	1716	298	0.00	66.4
BTS 88RR41	119	325.7	99	9073	100	1.02	45.42	98	1265	99	17.30	27.86	188	1712	263	0.00	73.2
BTS 88RR61	115	337.0	102	9470	104	0.99	48.21	104	1353	106	17.84	28.15	185	1622	271	0.00	65.7
Crystal 539RR	110	331.7	101	8888	98	1.04	46.90	101	1257	99	17.62	26.80	286	1631	265	0.00	77.0
Crystal 658RR	125	317.0	96	9237	102	0.90	43.25	94	1259	99	16.74	29.19	202	1485	228	0.00	82.8
Crystal 765RR	122	339.7	103	9138	101	0.97	48.88	106	1315	103	17.96	26.90	229	1604	245	0.00	76.5
Crystal 768RR	107	330.1	100	9594	106	1.04	46.51	101	1352	106	17.55	29.05	211	1715	277	0.00	77.6
Crystal 875RR	120	330.7	101	9891	109	1.05	46.65	101	1396	110	17.58	29.90	239	1694	274	0.00	79.6
Crystal 878RR	117	333.8	101	9547	105	1.04	47.42	103	1356	106	17.73	28.61	191	1689	288	0.00	76.7
Crystal 879RR	104	320.0	97	9459	104	1.05	44.01	95	1301	102	17.05	29.56	175	1762	284	0.00	78.6
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	331.3	101	9550	105	1.01	46.79	101	1346	106	17.57	28.92	272	1656	243	0.00	77.5
Hilleshög 4022RR	113	327.8	100	9427	104	1.03	45.95	99	1319	104	17.42	28.82	213	1723	265	0.00	84.1
Hilleshög 4094RR(9094)	123	327.2	99	9239	102	1.03	45.78	99	1289	101	17.39	28.34	207	1725	264	0.00	82.9
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	323.5	98	9516	105	0.96	44.88	97	1319	104	17.14	29.45	200	1615	239	0.00	77.5
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		329.0		9074		1.00	46.23		1274		17.45	27.62	209	1650	258	0.0	76.4
Coeff. of Var. (%)		3.0		7.1		9.2	5.2		8.3		2.5	6.4	25.2	5.6	19.0		9.7
F Value		10.9		6.1		13.8	10.9		4.9		11.2	9.1	6.5	12.3	9.1		48.8
Mean LSD (0.05)		6.1		608		0.05	1.52		95		0.30	1.70	32	62	24		4.0
Mean LSD (0.01)		8.1		803		0.06	2.00		125		0.39	2.24	43	82	32		5.2
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Seven Sites Analyzed 10/28/2010 13:30 Created 10-27-2010.

Vigor not collected. Trial # = 10ACcom

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 11.
2010 Performance of Varieties - ACSC Commercial Official Trial
ACS Two Light Rzm Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 85RR02	108	344.2	101	8993	105	1.03	49.99	102	1307	106	18.24	26.09	130	1921	242	0.00	70.3
BTS 86RR66	114	337.1	99	8800	102	1.01	48.25	98	1257	102	17.87	26.19	112	1853	253	0.00	65.9
BTS 87RR38	102	337.8	99	9311	108	0.98	48.42	99	1334	108	17.88	27.57	110	1834	237	0.00	77.4
BTS 87RR58	126	338.5	100	8799	102	1.02	48.60	99	1260	102	17.95	26.07	125	1863	253	0.00	77.8
BTS 87RR68	118	340.5	100	7055	82	1.07	49.08	100	1015	82	18.10	20.79	140	1977	256	0.00	56.9
BTS 88RR13	112	321.5	95	8386	97	1.06	44.39	91	1158	94	17.14	26.06	143	1945	256	0.00	55.6
BTS 88RR21	121	334.2	98	9218	107	0.89	47.53	97	1310	106	17.60	27.59	119	1651	207	0.00	65.2
BTS 88RR31	106	340.5	100	9196	107	1.01	49.08	100	1323	107	18.03	27.07	126	1876	238	0.00	70.0
BTS 88RR41	119	334.6	98	8233	96	0.99	47.62	97	1171	95	17.73	24.62	108	1873	235	0.00	73.7
BTS 88RR61	115	347.3	102	9074	105	0.96	50.76	104	1324	107	18.32	26.23	103	1793	229	0.00	65.7
Crystal 539RR	110	346.2	102	8708	101	0.97	50.49	103	1270	103	18.28	25.14	151	1792	218	0.00	75.0
Crystal 658RR	125	333.5	98	9116	106	0.83	47.36	97	1292	104	17.51	27.43	105	1633	176	0.00	85.5
Crystal 765RR	122	347.7	102	7935	92	0.95	50.88	104	1161	94	18.33	22.82	129	1817	204	0.00	78.2
Crystal 768RR	107	338.4	99	9293	108	1.00	48.57	99	1332	108	17.92	27.51	119	1881	234	0.00	79.9
Crystal 875RR	120	340.3	100	9801	114	1.00	49.04	100	1413	114	18.02	28.75	145	1835	237	0.00	79.3
Crystal 878RR	117	338.5	100	8614	100	1.01	48.58	99	1235	100	17.93	25.50	109	1917	236	0.00	81.9
Crystal 879RR	104	330.8	97	8847	103	1.04	46.68	95	1248	101	17.58	26.75	94	1984	244	0.00	80.4
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	347.0	102	9090	106	0.97	50.68	103	1326	107	18.32	26.23	146	1840	214	0.00	79.9
Hilleshög 4022RR	113	341.6	100	9046	105	0.96	49.36	101	1305	105	18.03	26.56	102	1870	208	0.00	83.7
Hilleshög 4094RR(9094)	123	339.4	100	8250	96	0.98	48.80	100	1183	96	17.95	24.40	121	1906	209	0.00	81.6
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	336.1	99	9018	105	0.95	47.99	98	1284	104	17.75	26.91	109	1804	216	0.00	77.4
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		340.2		8602		0.97	49.01		1237		17.98	25.35	119	1834	222	0.0	76.7
Coeff. of Var. (%)		2.4		8.6		6.8	4.1		9.2		2.1	8.2	17.7	5.5	13.9		8.6
F Value		5.7		4.0		4.3	5.7		3.4		6.5	5.1	4.0	4.1	3.4		12.2
Mean LSD (0.05)		8.2		946		0.08	2.02		145		0.37	2.67	23	125	37		7.4
Mean LSD (0.01)		11.0		1279		0.11	2.73		196		0.50	3.61	31	170	50		9.9
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Two Light Rzm Sites Analyzed 11/08/2010 11:08 Created 11-8-2010.

Vigor not collected. Trial # = 10ACcomLgt

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 12.
2010 Performance of Varieties - ACSC Commercial Official Trial
ACS Five Moderate-Severe Rzm Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 85RR02	108	327.6	101	9363	101	1.06	45.89	102	1314	102	17.44	28.53	260	1658	285	0.01	69.1
BTS 86RR66	114	318.1	98	9277	100	1.06	43.54	96	1271	99	16.97	29.13	254	1606	303	0.00	61.2
BTS 87RR38	102	326.8	101	9542	103	1.04	45.70	101	1334	103	17.38	29.18	233	1601	294	0.00	75.4
BTS 87RR58	126	329.1	101	9802	106	1.08	46.27	103	1380	107	17.54	29.75	249	1620	312	0.00	71.0
BTS 87RR68	118	333.4	103	9078	98	1.03	47.31	105	1292	100	17.70	27.14	266	1588	278	0.00	56.5
BTS 88RR13	112	305.5	94	8542	92	1.08	40.41	90	1132	88	16.36	27.91	280	1684	288	0.00	55.2
BTS 88RR21	121	315.8	97	9353	101	0.93	42.97	95	1274	99	16.72	29.57	256	1454	241	0.00	62.2
BTS 88RR31	106	321.8	99	9439	102	1.11	44.46	99	1304	101	17.20	29.34	270	1652	321	0.00	65.2
BTS 88RR41	119	322.2	99	9438	102	1.02	44.56	99	1307	101	17.13	29.23	220	1648	275	0.00	72.8
BTS 88RR61	115	332.7	103	9622	104	1.01	47.15	104	1364	106	17.64	28.91	219	1553	290	0.00	66.1
Crystal 539RR	110	326.0	100	8968	97	1.06	45.50	101	1253	97	17.37	27.48	340	1567	281	0.00	77.6
Crystal 658RR	125	310.3	96	9284	100	0.92	41.61	92	1245	97	16.44	29.90	241	1428	248	0.00	81.7
Crystal 765RR	122	336.3	104	9633	104	0.99	48.05	106	1378	107	17.80	28.60	269	1520	263	0.00	75.9
Crystal 768RR	107	327.0	101	9755	105	1.06	45.73	101	1365	106	17.41	29.80	247	1645	295	0.00	76.6
Crystal 875RR	120	327.0	101	9916	107	1.07	45.73	101	1388	108	17.41	30.31	276	1637	290	0.00	79.6
Crystal 878RR	117	332.0	102	9936	107	1.05	46.97	104	1406	109	17.64	29.88	224	1595	309	0.00	74.9
Crystal 879RR	104	315.7	97	9682	105	1.06	42.93	95	1319	102	16.84	30.62	207	1674	300	0.00	77.7
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	325.0	100	9748	105	1.02	45.24	100	1356	105	17.27	30.04	322	1583	254	0.00	76.7
Hilleshög 4022RR	113	322.1	99	9563	103	1.06	44.54	99	1322	103	17.17	29.67	258	1666	288	0.00	84.4
Hilleshög 4094RR(9094)	123	322.3	99	9639	104	1.05	44.59	99	1332	103	17.16	29.93	242	1654	286	0.00	83.4
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	318.5	98	9716	105	0.96	43.64	97	1333	103	16.89	30.48	237	1540	249	0.00	77.7
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		324.5		9263		1.01	45.13		1289		17.23	28.53	245	1577	273	0.0	76.3
Coeff. of Var. (%)		3.2		6.4		9.9	5.7		7.9		2.7	5.6	24.8	5.6	19.8		10.1
F Value		7.7		4.4		10.8	7.7		3.8		7.9	6.0	5.7	8.9	6.6		44.8
Mean LSD (0.05)		7.9		741		0.06	1.95		114		0.39	2.11	42	73	31		4.4
Mean LSD (0.01)		10.4		980		0.08	2.57		151		0.51	2.79	56	96	41		5.8
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Five Moderate-Severe Rzm Sites Analyzed 11/08/2010 10:38 Created 11-8-2010.

Vigor not collected. Trial # = 10ACcomMod

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 13.
2010 Performance of Varieties - ACSC Commercial Official Trial
Averill 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 85RR02	108	334.6	103	9939	109	1.01	47.62	105	1417	112	17.74	29.61	354	1278	313	0.07	39.0
BTS 86RR66	114	319.3	98	9102	100	1.06	43.83	97	1252	99	17.02	28.46	348	1247	363	0.00	29.6
BTS 87RR38	102	328.0	101	9371	103	1.03	45.99	102	1299	102	17.43	28.94	333	1218	352	0.00	52.0
BTS 87RR58	126	334.6	103	9132	100	1.13	47.62	105	1311	103	17.85	27.04	376	1269	397	0.00	39.7
BTS 87RR68	118	328.3	101	7290	80	1.02	46.07	102	1033	81	17.43	21.89	394	1293	302	0.00	30.6
BTS 88RR13	112	299.3	92	7522	83	1.11	38.88	86	981	77	16.08	24.97	452	1343	338	0.00	37.4
BTS 88RR21	121	328.0	101	9346	103	0.88	45.99	102	1307	103	17.28	28.53	319	1114	267	0.00	36.4
BTS 88RR31	106	325.2	100	9424	103	1.10	45.30	100	1310	103	17.37	29.00	416	1248	373	0.00	35.0
BTS 88RR41	119	318.7	98	8540	94	1.02	43.67	96	1176	93	16.95	26.59	276	1376	323	0.00	45.1
BTS 88RR61	115	336.0	103	9995	110	1.10	47.97	106	1429	113	17.88	29.59	325	1302	386	0.00	41.0
Crystal 539RR	110	325.0	100	9061	99	1.12	45.24	100	1259	99	17.36	28.05	529	1190	357	0.00	48.3
Crystal 658RR	125	308.3	95	9318	102	1.03	41.12	91	1244	98	16.43	30.36	349	1236	337	0.00	56.5
Crystal 765RR	122	326.2	100	7843	86	1.02	45.53	101	1093	86	17.33	23.95	424	1218	313	0.00	51.5
Crystal 768RR	107	329.9	101	8885	98	1.04	46.46	103	1253	99	17.53	26.94	334	1196	360	0.00	53.0
Crystal 875RR	120	325.2	100	9827	108	1.10	45.30	100	1374	108	17.37	30.22	433	1293	349	0.00	54.3
Crystal 878RR	117	335.9	103	8516	93	1.05	47.94	106	1216	96	17.86	25.08	300	1251	378	0.00	44.6
Crystal 879RR	104	310.9	96	8286	91	1.06	41.76	92	1112	88	16.61	26.71	306	1385	341	0.00	50.1
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	324.3	100	9772	107	1.01	45.07	100	1364	108	17.23	30.03	442	1166	309	0.00	42.4
Hilleshög 4022RR	113	325.9	100	10374	114	1.06	45.47	100	1437	113	17.35	32.08	370	1284	342	0.00	57.1
Hilleshög 4094RR(9094)	123	318.5	98	10030	110	1.05	43.63	96	1363	107	16.97	31.75	411	1250	329	0.00	54.8
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	322.8	99	10085	111	0.99	44.70	99	1393	110	17.12	31.44	361	1185	318	0.00	54.3
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		325.1		9110		1.02	45.27		1268		17.27	28.03	363	1225	329	0.0	49.5
Coeff. of Var. (%)		3.2		7.0		8.2	5.7		8.6		2.7	5.8	18.8	5.9	12.3	0.0	17.4
F Value		3.5		7.3		4.0	3.5		5.6		4.0	10.3	3.7	6.1	3.9	0.0	7.9
Mean LSD (0.05)		13.1		827		0.11	3.24		139		0.59	2.18	87	95	53	0.0	11.0
Mean LSD (0.01)		17.3		1094		0.15	4.29		184		0.78	2.88	115	125	70		14.6
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Averill MN

Analyzed 10/27/2010 15:16

Created 10-27-2010.

Vigor not collected.

Trial # = 108602

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 14.
2010 Performance of Varieties - ACSC Commercial Official Trial
Reynolds 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 85RR02	108	347.6	102	9952	99	0.90	50.84	103	1458	101	18.28	28.51	147	1744	186	0.00	77.7
BTS 86RR66	114	334.8	98	9832	98	0.94	47.67	97	1405	97	17.69	29.33	153	1643	234	0.00	73.8
BTS 87RR38	102	344.3	101	10807	108	0.87	50.01	101	1573	109	18.09	31.28	140	1608	197	0.00	82.2
BTS 87RR58	126	344.8	101	10946	109	0.90	50.15	102	1594	110	18.15	31.79	139	1667	200	0.00	83.6
BTS 87RR68	118	350.7	103	10541	105	0.88	51.60	105	1551	107	18.40	30.04	137	1668	187	0.00	65.9
BTS 88RR13	112	322.0	94	9282	92	0.85	44.50	90	1282	88	16.96	28.90	158	1637	169	0.00	67.4
BTS 88RR21	121	331.0	97	10657	106	0.81	46.72	95	1507	104	17.36	32.11	149	1530	169	0.00	72.9
BTS 88RR31	106	341.9	100	10037	100	0.94	49.43	100	1451	100	18.04	29.31	182	1703	214	0.00	71.1
BTS 88RR41	119	336.6	99	10148	101	0.89	48.13	98	1450	100	17.72	30.18	131	1665	200	0.00	79.7
BTS 88RR61	115	349.6	102	10063	100	0.91	51.33	104	1478	102	18.38	28.71	144	1607	222	0.00	77.4
Crystal 539RR	110	343.8	101	9460	94	0.89	49.90	101	1371	95	18.08	27.69	190	1632	182	0.00	84.3
Crystal 658RR	125	330.0	97	10247	102	0.76	46.49	94	1443	100	17.26	31.05	136	1467	148	0.00	90.1
Crystal 765RR	122	352.1	103	10897	109	0.84	51.95	105	1612	111	18.45	30.90	138	1557	187	0.00	83.2
Crystal 768RR	107	342.0	100	11028	110	0.88	49.44	100	1592	110	17.98	32.33	132	1648	198	0.00	84.9
Crystal 875RR	120	347.5	102	10576	105	0.93	50.83	103	1543	106	18.30	30.59	162	1741	200	0.00	87.1
Crystal 878RR	117	343.0	100	11435	114	0.93	49.71	101	1651	114	18.07	33.45	141	1624	243	0.00	85.8
Crystal 879RR	104	329.1	96	10467	104	0.89	46.26	94	1472	102	17.35	31.78	131	1673	201	0.00	85.9
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	339.6	100	9561	95	0.93	48.86	99	1374	95	17.91	28.27	184	1678	205	0.00	88.7
Hilleshög 4022RR	113	336.2	99	9996	100	0.90	48.03	97	1427	98	17.70	29.68	161	1664	196	0.00	89.2
Hilleshög 4094RR(9094)	123	333.4	98	10061	100	0.94	47.32	96	1426	98	17.60	30.20	166	1738	207	0.00	94.9
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	339.3	99	10714	107	0.79	48.79	99	1540	106	17.76	31.61	113	1574	157	0.00	86.2
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		341.3		10039		0.87	49.28		1449		17.94	29.44	144	1634	189	0.0	85.6
Coeff. of Var. (%)		2.3		5.5		5.4	4.0		6.7		2.2	4.5	15.5	4.4	13.3	0.0	10.0
F Value		5.7		9.2		6.6	5.7		6.8		6.1	14.6	4.2	5.1	4.8	0.0	8.7
Mean LSD (0.05)		9.9		690		0.06	2.44		118		0.48	1.71	29	87	32	0.0	9.9
Mean LSD (0.01)		13.0		912		0.08	3.22		156		0.64	2.26	38	115	42		13.1
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Reynolds ND Analyzed 10/27/2010 15:29 Created 10-27-2010.

Vigor not collected. Trial # = 108604

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 15.
2010 Performance of Varieties - ACSC Commercial Official Trial
Climax 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 85RR02	108	341.2	103	9399	104	1.00	49.26	105	1357	106	18.07	27.52	107	1800	259	0.00	64.7
BTS 86RR66	114	328.3	99	9429	104	1.04	46.07	98	1324	104	17.46	28.66	107	1768	294	0.00	57.0
BTS 87RR38	102	332.4	100	9992	111	0.95	47.09	100	1415	111	17.57	30.04	96	1696	250	0.00	72.3
BTS 87RR58	126	327.4	99	9339	103	1.04	45.84	97	1308	102	17.42	28.52	117	1795	292	0.00	70.4
BTS 87RR68	118	327.2	98	7021	78	1.09	45.79	97	983	77	17.45	21.46	136	1896	292	0.00	47.4
BTS 88RR13	112	314.0	95	8302	92	1.04	42.53	90	1126	88	16.74	26.37	121	1797	288	0.00	50.0
BTS 88RR21	121	325.9	98	9270	103	0.91	45.46	97	1293	101	17.22	28.48	118	1613	238	0.00	57.2
BTS 88RR31	106	330.2	99	9625	107	1.04	46.52	99	1357	106	17.55	29.12	111	1800	284	0.00	61.1
BTS 88RR41	119	332.5	100	9179	102	0.95	47.10	100	1301	102	17.58	27.58	91	1727	248	0.00	65.1
BTS 88RR61	115	338.7	102	9595	106	0.97	48.65	103	1378	108	17.90	28.34	94	1684	272	0.00	59.9
Crystal 539RR	110	338.3	102	8884	98	0.90	48.55	103	1274	100	17.83	26.25	119	1585	235	0.00	67.5
Crystal 658RR	125	323.5	97	9408	104	0.81	44.88	95	1304	102	16.98	29.16	92	1515	193	0.00	77.9
Crystal 765RR	122	340.4	102	8393	93	0.91	49.05	104	1213	95	17.93	24.56	126	1653	226	0.00	74.0
Crystal 768RR	107	331.5	100	9825	109	1.01	46.86	100	1389	109	17.58	29.64	112	1800	265	0.00	73.7
Crystal 875RR	120	334.1	101	9949	110	0.96	47.50	101	1414	111	17.66	29.76	120	1694	253	0.00	76.7
Crystal 878RR	117	324.9	98	8727	97	1.01	45.22	96	1215	95	17.26	26.87	105	1801	271	0.00	75.4
Crystal 879RR	104	321.9	97	9566	106	1.06	44.48	95	1323	104	17.15	29.68	91	1898	284	0.00	77.3
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	335.9	101	9422	104	0.93	47.94	102	1347	105	17.71	27.98	126	1680	226	0.00	71.7
Hilleshög 4022RR	113	334.1	101	9423	104	0.96	47.51	101	1339	105	17.66	28.20	94	1711	255	0.00	73.1
Hilleshög 4094RR(9094)	123	333.7	100	9671	107	0.93	47.39	101	1373	107	17.61	28.99	116	1665	239	0.00	70.0
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	324.0	98	9430	104	0.92	44.99	96	1309	102	17.12	29.12	93	1687	229	0.00	69.0
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		332.2		9031		0.95	47.02		1278		17.56	27.20	107	1702	247	0.0	68.9
Coeff. of Var. (%)		2.3		6.7		6.8	4.1		7.5		2.1	6.2	15.4	4.4	14.2	0.0	9.3
F Value		4.6		6.9		6.7	4.6		5.4		4.6	9.4	3.2	8.5	4.5	0.0	10.4
Mean LSD (0.05)		9.8		775		0.08	2.44		124		0.47	2.13	21	95	42	0.0	7.4
Mean LSD (0.01)		13.0		1025		0.11	3.22		164		0.62	2.82	28	126	55		9.7
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Climax MN

Analyzed 10/27/2010 15:34

Created 10-27-2010.

Vigor not collected.

Trial # = 108605

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 16.
2010 Performance of Varieties - ACSC Commercial Official Trial
Crookston 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 85RR02	108	347.2	100	8668	106	1.06	50.74	99	1267	106	18.42	24.94	153	2045	225	0.00	76.0
BTS 86RR66	114	345.3	99	8242	101	0.99	50.27	99	1194	100	18.25	24.06	119	1942	212	0.00	74.8
BTS 87RR38	102	343.3	99	8711	107	1.02	49.77	98	1264	106	18.19	25.35	123	1965	224	0.00	82.6
BTS 87RR58	126	348.8	100	8181	100	1.00	51.14	100	1198	100	18.44	23.51	137	1938	213	0.00	85.1
BTS 87RR68	118	353.5	102	7090	87	1.06	52.29	103	1045	87	18.73	20.14	145	2069	221	0.00	66.4
BTS 88RR13	112	329.6	95	8544	105	1.08	46.39	91	1203	101	17.56	25.94	163	2088	224	0.00	61.1
BTS 88RR21	121	342.4	98	9037	111	0.87	49.56	97	1311	110	17.99	26.33	123	1703	177	0.00	73.2
BTS 88RR31	106	350.4	101	8771	107	0.98	51.54	101	1287	108	18.50	25.12	139	1952	191	0.00	78.8
BTS 88RR41	119	336.8	97	7401	91	1.04	48.16	94	1057	88	17.88	21.85	126	2020	222	0.00	82.3
BTS 88RR61	115	356.4	102	8582	105	0.94	53.03	104	1274	107	18.76	24.15	114	1902	185	0.00	71.2
Crystal 539RR	110	353.8	102	8599	105	1.03	52.38	103	1274	107	18.73	24.25	182	2003	202	0.00	82.6
Crystal 658RR	125	344.2	99	8731	107	0.86	49.99	98	1271	106	18.06	25.36	116	1746	158	0.00	93.2
Crystal 765RR	122	355.3	102	7538	92	0.97	52.74	103	1115	93	18.73	21.27	132	1978	182	0.00	82.3
Crystal 768RR	107	345.3	99	8764	107	0.99	50.28	99	1277	107	18.27	25.30	125	1966	203	0.00	86.1
Crystal 875RR	120	346.5	100	9643	118	1.04	50.57	99	1412	118	18.37	27.76	170	1966	221	0.00	82.1
Crystal 878RR	117	352.2	101	8409	103	1.01	51.99	102	1242	104	18.62	23.91	114	2045	200	0.00	88.4
Crystal 879RR	104	339.6	98	8042	98	1.02	48.86	96	1161	97	18.00	23.67	97	2076	203	0.00	83.6
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	358.0	103	8869	109	1.02	53.42	105	1324	111	18.93	24.67	163	1992	203	0.00	88.1
Hilleshög 4022RR	113	349.2	100	8725	107	0.95	51.24	100	1277	107	18.41	25.12	109	2028	160	0.00	94.2
Hilleshög 4094RR(9094)	123	345.1	99	6916	85	1.02	50.23	98	1007	84	18.28	19.96	120	2138	179	0.00	93.2
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	347.9	100	8554	105	0.98	50.93	100	1252	105	18.37	24.61	125	1923	203	0.00	85.9
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		348.2		8173		0.99	51.00		1196		18.40	23.49	131	1965	197	0.0	84.5
Coeff. of Var. (%)		2.3		10.3		6.4	3.9		10.7		2.1	10.0	18.8	5.9	12.8	0.0	8.0
F Value		3.8		4.7		4.2	3.8		4.1		4.2	5.5	4.0	3.9	3.7	0.0	12.7
Mean LSD (0.05)		10.1		960		0.08	2.50		148		0.47	2.69	29	138	30	0.0	7.7
Mean LSD (0.01)		13.3		1269		0.10	3.30		196		0.62	3.56	38	182	40		10.2
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Crookston MN Analyzed 10/27/2010 15:55 Created 10-27-2010.

Vigor not collected. Trial # = 108606

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 17.
2010 Performance of Varieties - ACSC Commercial Official Trial
Grand Forks 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 85RR02	108	322.6	98	9993	98	1.08	44.64	97	1379	96	17.21	31.05	278	1771	266	0.00	69.2
BTS 86RR66	114	320.2	97	10484	103	1.14	44.05	95	1444	101	17.15	32.73	285	1775	309	0.00	59.1
BTS 87RR38	102	328.4	100	9853	97	0.98	46.10	100	1383	97	17.41	30.18	177	1665	255	0.00	78.3
BTS 87RR58	126	332.1	101	10775	106	1.01	47.00	102	1517	106	17.62	32.68	180	1718	268	0.00	73.5
BTS 87RR68	118	336.6	102	10206	100	1.04	48.11	104	1466	102	17.86	30.20	254	1722	253	0.00	56.6
BTS 88RR13	112	308.7	94	8774	86	1.10	41.22	89	1176	82	16.53	28.35	245	1875	264	0.00	49.5
BTS 88RR21	121	320.3	97	10336	101	0.94	44.07	95	1430	100	16.95	31.96	239	1632	205	0.00	57.8
BTS 88RR31	106	325.2	99	10283	101	1.14	45.30	98	1431	100	17.40	31.54	250	1824	309	0.00	66.4
BTS 88RR41	119	330.7	101	10485	103	0.99	46.65	101	1475	103	17.52	31.91	183	1750	237	0.00	82.6
BTS 88RR61	115	340.5	104	10669	105	0.99	49.09	106	1534	107	18.01	31.31	199	1694	242	0.00	60.1
Crystal 539RR	110	330.0	100	10253	101	1.03	46.48	101	1436	100	17.52	31.17	283	1751	228	0.00	80.6
Crystal 658RR	125	312.4	95	10041	99	0.92	42.13	91	1354	95	16.54	32.11	248	1474	231	0.00	86.1
Crystal 765RR	122	336.5	102	10974	108	0.99	48.10	104	1566	109	17.81	32.44	259	1650	231	0.00	79.8
Crystal 768RR	107	331.4	101	10528	103	1.04	46.82	101	1473	103	17.61	32.18	196	1737	277	0.00	81.3
Crystal 875RR	120	331.7	101	10980	108	1.04	46.91	102	1549	108	17.63	33.24	238	1719	265	0.00	81.8
Crystal 878RR	117	337.1	103	10591	104	0.96	48.25	105	1509	105	17.82	31.42	163	1634	252	0.00	78.5
Crystal 879RR	104	321.7	98	11032	108	1.06	44.43	96	1528	107	17.15	34.23	168	1780	291	0.00	81.8
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	330.5	101	11078	109	1.02	46.62	101	1561	109	17.55	33.66	259	1742	234	0.00	76.0
Hilleshög 4022RR	113	322.0	98	10045	99	1.05	44.51	96	1390	97	17.15	31.09	247	1889	218	0.00	83.3
Hilleshög 4094RR(9094)	123	331.3	101	9945	98	1.03	46.80	101	1409	98	17.60	30.03	190	1795	255	0.00	80.3
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	317.4	97	10631	104	1.01	43.37	94	1451	101	16.88	33.52	242	1729	232	0.00	77.0
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		328.7		10192		1.00	46.17		1431		17.43	31.03	214	1703	243	0.0	77.1
Coeff. of Var. (%)		3.1		6.6		8.7	5.5		8.2		2.8	5.4	24.5	6.7	17.5	0.0	10.5
F Value		4.2		5.3		4.5	4.2		4.2		4.2	8.0	4.0	4.2	2.9	0.0	13.2
Mean LSD (0.05)		12.5		834		0.10	3.10		142		0.59	2.17	64	137	52	0.0	9.3
Mean LSD (0.01)		16.6		1103		0.13	4.10		187		0.77	2.87	85	181	68		12.2
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Grand Forks ND Analyzed 10/27/2010 15:44 Created 10-27-2010.

Vigor not collected. Trial # = 108607

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 18.
2010 Performance of Varieties - ACSC Commercial Official Trial
Alvarado 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 85RR02	108	323.4	103	9011	100	0.87	44.86	106	1251	103	17.05	27.84	143	1611	197	0.00	83.3
BTS 86RR66	114	297.3	95	8560	95	0.90	38.38	91	1110	91	15.77	28.62	186	1481	232	0.00	80.1
BTS 87RR38	102	319.8	102	9616	106	0.96	43.96	104	1321	108	16.94	30.14	123	1630	264	0.00	84.9
BTS 87RR58	126	322.4	103	9626	107	0.94	44.59	106	1328	109	17.05	29.95	131	1545	270	0.00	78.8
BTS 87RR68	118	324.9	104	9816	109	0.89	45.22	107	1365	112	17.13	30.27	171	1431	246	0.00	70.7
BTS 88RR13	112	299.1	96	9211	102	0.98	38.84	92	1197	98	15.94	30.76	177	1669	255	0.00	60.9
BTS 88RR21	121	296.7	95	9017	100	0.76	38.24	91	1162	95	15.59	30.44	170	1329	173	0.00	76.0
BTS 88RR31	106	302.0	97	9272	103	0.91	39.55	94	1214	100	16.01	30.77	197	1548	225	0.00	79.0
BTS 88RR41	119	317.1	101	9853	109	0.92	43.29	103	1345	110	16.78	31.07	131	1636	235	0.00	79.6
BTS 88RR61	115	314.4	101	9965	110	0.81	42.62	101	1350	111	16.53	31.77	125	1434	204	0.00	79.5
Crystal 539RR	110	315.3	101	8477	94	0.88	42.86	102	1151	94	16.64	26.89	227	1474	211	0.00	87.9
Crystal 658RR	125	294.3	94	9269	103	0.74	37.64	89	1186	97	15.46	31.47	145	1318	170	0.00	91.2
Crystal 765RR	122	332.0	106	10133	112	0.82	46.99	111	1433	118	17.44	30.50	156	1447	200	0.00	87.9
Crystal 768RR	107	324.1	104	10125	112	0.94	45.01	107	1404	115	17.14	31.34	141	1613	247	0.00	84.6
Crystal 875RR	120	317.7	102	9410	104	0.92	43.44	103	1287	106	16.82	29.55	173	1589	235	0.00	89.1
Crystal 878RR	117	323.6	104	10315	114	0.94	44.91	107	1427	117	17.10	31.99	121	1546	267	0.00	89.7
Crystal 879RR	104	313.1	100	9962	110	0.95	42.30	100	1344	110	16.60	31.90	124	1642	261	0.00	90.4
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	318.6	102	9746	108	0.82	43.67	104	1335	110	16.76	30.52	199	1464	176	0.00	87.6
Hilleshög 4022RR	113	313.9	100	9260	102	0.87	42.49	101	1256	103	16.56	29.47	145	1509	224	0.00	97.2
Hilleshög 4094RR(9094)	123	314.0	100	9292	103	0.87	42.53	101	1258	103	16.56	29.62	131	1500	221	0.00	96.0
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	300.4	96	8689	96	0.79	39.15	93	1132	93	15.80	28.97	145	1416	185	0.00	86.4
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		312.5		9037		0.85	42.16		1219		16.48	28.91	151	1484	212	0.0	87.1
Coeff. of Var. (%)		3.0		5.9		7.5	5.5		7.3		2.8	5.1	17.7	5.8	17.1	0.0	6.4
F Value		9.3		14.7		7.8	9.3		12.5		10.4	16.8	6.6	7.7	5.1	0.0	17.7
Mean LSD (0.05)		11.5		690		0.08	2.84		116		0.57	1.93	31	112	45	0.0	6.4
Mean LSD (0.01)		15.1		913		0.11	3.75		153		0.76	2.55	40	148	60		8.5
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Alvarado MN

Analyzed 09/28/2010 15:28

Created 10-27-2010.

Vigor not collected.

Trial # = 108608

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 19.
2010 Performance of Varieties - ACSC Commercial Official Trial
St Thomas 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 85RR02	108	308.5	98	7861	99	1.43	41.17	96	1046	97	16.87	25.57	375	1893	465	0.00	76.0
BTS 86RR66	114	319.5	101	8442	106	1.27	43.88	103	1160	108	17.25	26.43	300	1871	380	0.00	65.9
BTS 87RR38	102	319.0	101	8224	104	1.31	43.76	102	1131	105	17.24	25.82	372	1864	385	0.00	82.3
BTS 87RR58	126	313.3	99	8450	106	1.38	42.35	99	1141	106	17.06	27.03	404	1899	418	0.00	76.1
BTS 87RR68	118	327.5	104	7631	96	1.32	45.87	107	1070	99	17.69	23.28	370	1836	406	0.00	57.9
BTS 88RR13	112	299.4	95	7893	99	1.37	38.92	91	1028	96	16.35	26.33	366	1904	427	0.00	60.6
BTS 88RR21	121	303.5	96	7594	96	1.26	39.92	93	1000	93	16.43	24.97	404	1655	393	0.00	67.2
BTS 88RR31	106	312.5	99	8085	102	1.45	42.14	99	1086	101	17.08	26.00	320	1941	490	0.00	73.3
BTS 88RR41	119	307.6	98	8101	102	1.30	40.95	96	1081	100	16.68	26.30	376	1830	383	0.00	77.3
BTS 88RR61	115	322.4	102	7418	93	1.25	44.59	104	1023	95	17.36	23.11	301	1745	395	0.00	72.6
Crystal 539RR	110	315.6	100	7405	93	1.40	42.91	100	1007	94	17.19	23.50	472	1825	424	0.00	86.7
Crystal 658RR	125	308.7	98	7640	96	1.18	41.21	96	1024	95	16.60	24.73	331	1651	358	0.00	84.0
Crystal 765RR	122	330.3	105	8325	105	1.27	46.56	109	1170	109	17.81	25.19	382	1718	384	0.00	76.5
Crystal 768RR	107	310.4	99	8132	102	1.39	41.62	97	1094	102	16.89	26.08	428	2016	389	0.00	78.8
Crystal 875RR	120	312.1	99	8677	109	1.31	42.05	98	1168	109	16.92	27.84	380	1837	389	0.00	84.7
Crystal 878RR	117	318.2	101	8724	110	1.37	43.56	102	1194	111	17.28	27.45	398	1913	408	0.00	78.4
Crystal 879RR	104	304.7	97	8711	110	1.32	40.22	94	1151	107	16.56	28.54	303	1887	407	0.00	81.5
Hilleshög 4010RR	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Hilleshög 4012RR	127	311.0	99	8507	107	1.32	41.77	98	1137	106	16.87	27.51	519	1867	336	0.00	88.6
Hilleshög 4022RR	113	310.3	99	8136	103	1.46	41.61	97	1087	101	16.98	26.33	374	1998	461	0.00	92.8
Hilleshög 4094RR(9094)	123	315.0	100	8926	112	1.34	42.77	100	1213	113	17.09	28.28	304	2008	408	0.00	90.4
Seedex Uplander RR(SX0884)	105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Seedex Usher RR(SX0883)	116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36711RR	111	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36811RR	124	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H36812RR	103	312.5	99	8431	106	1.24	42.16	99	1138	106	16.88	26.84	330	1800	363	0.00	84.3
SESVanderhave H36813RR	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trial Mean		314.9		7936		1.30	42.75		1076		17.05	25.23	353	1836	391	0.0	82.1
Coeff. of Var. (%)		4.2		7.2		13.0	7.7		9.1		3.2	6.8	28.8	5.2	24.4	0.0	8.7
F Value		1.8		5.0		1.5	1.8		2.9		2.4	7.2	1.9	5.7	1.0	0.0	13.2
Mean LSD (0.05)		17.5		766		0.22	4.34		132		0.71	2.26	133	117	126	0.0	8.9
Mean LSD (0.01)		23.2		1014		0.30	5.74		174		0.94	2.98	176	155	167		11.8
Sig Mrk		*		**		ns	*		**		**	**	*	**	ns		**

* 2010 Data from St Thomas ND

Analyzed 10/28/2010 09:50

Created 10-27-2010.

Vigor not collected.

Trial # = 108609

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 20.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

ACS Seven Sites - 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	219	334.5	102	10089	109	0.93	47.54	103	1434	111	17.65	30.18	167	1533	243	0.00	68.4
BTS 80RR32	230	329.2	100	10265	111	0.96	46.27	100	1442	111	17.42	31.19	236	1603	231	0.00	68.5
BTS 80RR35	202	344.2	105	9151	99	0.94	49.90	108	1327	103	18.15	26.57	169	1534	251	0.00	67.9
BTS 80RR45	243	326.1	99	9464	103	1.02	45.52	99	1319	102	17.32	29.11	212	1647	274	0.00	74.3
BTS 80RR52	240	335.2	102	9585	104	1.05	47.70	103	1363	105	17.81	28.64	184	1625	318	0.00	67.6
BTS 80RR57	206	343.1	104	9170	99	1.00	49.62	107	1326	102	18.15	26.75	193	1647	264	0.00	79.7
BTS 80RR59	249	340.5	104	8999	98	0.95	48.99	106	1295	100	17.98	26.44	226	1551	241	0.00	77.2
BTS 80RR64	257	321.5	98	10417	113	0.88	44.41	96	1437	111	16.96	32.44	199	1463	219	0.00	82.3
BTS 89RR10	210	346.5	105	9412	102	1.00	50.42	109	1369	106	18.33	27.19	199	1682	256	0.00	79.0
BTS 89RR30	238	322.7	98	9978	108	0.90	44.71	97	1382	107	17.05	30.93	244	1542	206	0.00	80.0
BTS 89RR40	212	327.0	99	9787	106	1.04	45.72	99	1368	106	17.39	29.96	220	1596	306	0.00	70.2
BTS 89RR50	220	327.8	100	10527	114	1.11	45.94	99	1474	114	17.48	32.15	251	1784	290	0.00	77.4
BTS 89RR83	231	320.1	97	10773	117	0.94	44.07	95	1483	115	16.94	33.70	215	1541	238	0.00	77.1
Crystal 091RR	201	330.1	100	9514	103	1.11	46.48	101	1339	104	17.60	28.87	201	1704	333	0.00	58.2
Crystal 092RR	236	332.1	101	8766	95	1.00	46.95	102	1242	96	17.60	26.39	230	1683	247	0.00	66.2
Crystal 093RR	251	343.0	104	9385	102	1.01	49.61	107	1357	105	18.16	27.35	169	1601	295	0.00	58.8
Crystal 094RR	233	339.3	103	8978	97	0.88	48.72	105	1288	100	17.86	26.50	186	1482	224	0.00	66.5
Crystal 095RR	217	333.8	101	9898	107	0.99	47.39	103	1405	109	17.68	29.67	193	1591	268	0.00	71.3
Crystal 096RR	254	326.5	99	9190	100	0.98	45.63	99	1285	99	17.30	28.12	222	1628	245	0.00	61.9
Crystal 873RR	242	313.6	95	10017	109	0.99	42.52	92	1356	105	16.66	32.01	310	1523	250	0.00	60.7
Crystal 981RR	223	326.5	99	10283	112	1.12	45.61	99	1434	111	17.43	31.58	251	1814	292	0.00	77.9
Crystal 984RR	222	334.1	102	9590	104	1.00	47.45	103	1360	105	17.70	28.76	236	1670	244	0.00	68.8
Crystal 985RR	228	335.4	102	9312	101	0.97	47.75	103	1326	102	17.74	27.82	185	1608	255	0.00	71.6
Crystal 986RR	250	336.3	102	10245	111	1.01	47.99	104	1461	113	17.82	30.49	222	1584	283	0.00	66.9
Hilleshög 4043RR(9043)	229	327.3	100	9428	102	0.93	45.79	99	1317	102	17.29	28.88	173	1540	244	0.00	73.6
Hilleshog 4195RR(9195)	258	322.8	98	9323	101	1.07	44.74	97	1294	100	17.20	28.89	296	1760	260	0.00	70.2
Hilleshög 9199RR	203	332.3	101	9081	99	0.95	47.01	102	1282	99	17.56	27.40	227	1577	229	0.00	60.6
Hilleshög 9224RR	218	313.2	95	9010	98	1.00	42.40	92	1220	94	16.65	28.80	256	1561	270	0.00	66.5
Hilleshög 9225RR	256	324.2	99	9482	103	1.03	45.06	98	1315	102	17.23	29.32	285	1662	255	0.00	75.5
Hilleshög 9226RR	221	313.4	95	8698	94	1.07	42.47	92	1177	91	16.73	27.79	289	1704	276	0.00	53.0
Hilleshög 9227RR	253	319.9	97	9151	99	1.06	44.04	95	1257	97	17.05	28.70	226	1762	272	0.00	71.1
Hilleshög 9228RR	248	325.4	99	9504	103	1.04	45.37	98	1326	102	17.31	29.20	227	1723	266	0.00	80.7
Hilleshög 9229RR	209	325.2	99	9207	100	1.12	45.31	98	1282	99	17.37	28.34	310	1827	271	0.00	61.2
Hilleshög 9230RR	237	321.8	98	9270	101	1.04	44.49	96	1281	99	17.13	28.81	270	1664	269	0.00	65.8
Hilleshög 9231RR	246	324.3	99	8956	97	0.99	45.07	98	1242	96	17.19	27.70	294	1605	232	0.00	76.3
Hilleshög 9232RR	224	325.5	99	8465	92	1.03	45.37	98	1174	91	17.29	26.17	311	1620	257	0.00	62.2
Hilleshög 9233RR	232	335.9	102	7149	78	0.94	47.90	104	1019	79	17.74	21.28	207	1542	238	0.00	49.2
Hilleshög 9234RR	241	335.6	102	7042	76	0.99	47.80	103	1001	77	17.77	21.05	193	1629	265	0.00	50.0
Hilleshög 9235RR	211	339.7	103	8164	89	1.13	48.81	106	1174	91	18.10	24.00	240	1806	304	0.00	56.7
Hilleshög 9236RR	261	343.7	104	9435	102	0.97	49.77	108	1363	105	18.15	27.53	175	1582	260	0.00	67.9
Hilleshög 9237RR	215	336.9	102	9147	99	0.97	48.12	104	1306	101	17.81	27.19	257	1542	252	0.00	66.2
Hilleshög 9238RR	252	338.9	103	8843	96	1.06	48.62	105	1269	98	18.00	26.09	212	1707	289	0.00	64.0
Hilleshög 9239RR	226	334.6	102	8671	94	1.00	47.57	103	1234	95	17.73	25.86	205	1649	258	0.00	65.9
Hilleshög 9297RR	255	317.4	97	9733	106	1.09	43.42	94	1330	103	16.94	30.71	258	1729	285	0.00	72.0
Hilleshög 9298RR	207	328.8	100	8578	93	0.99	46.18	100	1204	93	17.43	26.11	233	1683	234	0.00	73.3
Seedex SX0806RR	234	327.3	100	9275	101	0.95	45.80	99	1298	100	17.31	28.34	190	1601	234	0.00	NA
Seedex SX0807RR	205	320.0	97	8940	97	0.98	44.05	95	1229	95	16.98	27.99	198	1673	238	0.00	NA
Seedex SX0808RR	247	331.3	101	9256	100	0.94	46.79	101	1307	101	17.51	27.96	187	1594	233	0.00	NA
Seedex SX0891RR	259	328.8	100	8796	95	0.91	46.17	100	1234	95	17.36	26.81	166	1570	224	0.00	NA
Seedex SX0892RR	216	321.5	98	8729	95	0.96	44.41	96	1205	93	17.03	27.19	202	1632	233	0.00	NA
Seedex SX0893RR	245	330.0	100	8881	96	0.88	46.45	101	1252	97	17.39	26.87	169	1535	208	0.00	NA
Seedex SX0894RR	227	325.2	99	8674	94	0.95	45.31	98	1208	93	17.20	26.68	188	1589	238	0.00	NA
SESVanderhave 36071RR	214	324.2	99	8503	92	0.89	45.05	97	1183	91	17.11	26.19	164	1559	215	0.00	NA
SESVanderhave 36072RR	239	325.5	99	9139	99	0.96	45.39	98	1272	98	17.23	28.18	188	1631	234	0.00	NA
SESVanderhave 36073RR	225	321.5	98	8513	92	0.96	44.41	96	1174	91	17.03	26.53	199	1632	230	0.00	NA
SESVanderhave 36074RR	244	323.2	98	9254	100	0.97	44.83	97	1280	99	17.14	28.74	203	1661	236	0.00	NA
SESVanderhave H36913RR	235	329.1	100	8921	97	0.88	46.23	100	1252	97	17.34	27.15	192	1508	211	0.00	NA
SESVanderhave H36915RR	260	320.8	98	9103	99	0.94	44.25	96	1256	97	16.97	28.41	205	1575	227	0.03	NA
SESVanderhave H36916RR	204	323.2	98	9090	99	0.97	44.83	97	1261	98	17.14	28.13	198	1597	256	0.00	NA
SESVanderhave H36917RR	213	329.3	100	9243	100	0.95	46.30	100	1297	100	17.42	28.13	191	1612	232	0.00	NA
SESVanderhave H36918RR	208	330.8	101	8799	95	0.91	46.65	101	1242	96	17.46	26.57	165	1591	220	0.00	NA
Beta 85RR02(Check)	262	330.6	101	9325	101	1.07	46.62	101	1315	102	17.60	28.21	240	1753	280	0.00	70.3
Crystal 539RR(Check)	263	333.4	101	8843	96	1.01	47.30	102	1253	97	17.68	26.56	276	1639	249	0.00	75.7
Crystal 658RR(Check)	264	318.6	97	9302	101	0.90	43.70	95	1276	99	16.83	29.22	196	1479	231	0.00	81.2
Hilleshög 4012RR(Check)	265	329.7	100	9473	103	1.01	46.38	100	1331	103	17.48	28.80	271	1635	249	0.00	73.1
Trial Mean		328.9		9219		0.99	46.20		1294		17.43	28.08	219	1625	253	0.0	72.1
Coeff. of Var. (%)		2.6		8.9		7.5	4.5		9.6		2.3	8.6	21.7	5.3	15.1		11.0
Mean LSD (0.05)		5.2		701		0.04	1.26		103		0.25	2.07	41	68	23		4.8
Mean LSD (0.01)		6.9		922		0.06	1.66		136		0.33	2.73	54	89	31		6.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Seven Sites

Analyzed 10/28/2010 08:41

Created 11-1-2010.

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

Trial # = 10ACexp

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 21.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

ACS Two Light Rzm Sites - 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	219	350.3	102	10175	117	0.88	51.49	104	1493	118	18.41	29.12	98	1667	208	0.00	70.7
BTS 80RR32	230	338.7	99	9277	107	0.96	48.64	98	1333	106	17.89	27.34	153	1829	205	0.00	68.9
BTS 80RR35	202	357.1	104	8951	103	0.91	53.15	107	1336	106	18.76	24.95	107	1657	229	0.00	71.7
BTS 80RR45	243	340.0	99	9281	107	0.98	48.94	98	1336	106	17.97	27.34	120	1822	236	0.00	74.9
BTS 80RR52	240	350.4	102	9216	106	0.98	51.51	104	1352	107	18.49	26.34	104	1763	257	0.00	71.1
BTS 80RR57	206	351.5	102	8424	97	0.98	51.78	104	1239	98	18.55	23.98	113	1842	231	0.00	83.2
BTS 80RR59	249	354.6	103	8249	95	0.92	52.53	106	1224	97	18.65	23.18	134	1753	205	0.00	75.2
BTS 80RR64	257	334.6	98	9869	113	0.85	47.65	96	1405	111	17.58	29.45	109	1641	187	0.00	83.3
BTS 89RR10	210	359.1	105	9532	109	0.98	53.64	108	1428	113	18.92	26.38	114	1870	222	0.00	83.5
BTS 89RR30	238	339.2	99	9660	111	0.88	48.76	98	1389	110	17.83	28.47	148	1659	187	0.00	82.5
BTS 89RR40	212	340.0	99	9641	111	0.99	48.95	98	1388	110	17.98	28.34	123	1767	259	0.00	76.4
BTS 89RR50	220	338.9	99	10702	123	1.03	48.70	98	1539	122	17.98	31.54	159	1875	247	0.00	80.0
BTS 89RR83	231	333.7	97	10576	121	0.90	47.41	95	1503	119	17.59	31.67	119	1697	204	0.00	79.1
Crystal 091RR	201	346.5	101	9216	106	1.05	50.54	102	1344	107	18.38	26.57	113	1856	291	0.00	55.9
Crystal 092RR	236	340.6	99	7729	89	1.00	49.11	99	1113	88	18.03	22.75	134	1935	220	0.00	64.3
Crystal 093RR	251	358.5	105	9140	105	0.96	53.49	108	1365	108	18.88	25.44	100	1742	247	0.00	60.9
Crystal 094RR	233	352.8	103	8248	95	0.91	52.10	105	1216	96	18.55	23.43	123	1649	228	0.00	71.1
Crystal 095RR	217	348.5	102	9040	104	0.96	51.06	103	1324	105	18.40	25.97	113	1774	241	0.00	70.5
Crystal 096RR	254	339.0	99	8493	98	0.94	48.71	98	1222	97	17.88	24.98	128	1767	216	0.00	63.4
Crystal 873RR	242	327.9	96	9388	108	0.95	46.00	93	1315	104	17.34	28.64	163	1670	235	0.00	63.4
Crystal 981RR	223	341.0	99	9829	113	1.02	49.20	99	1415	112	18.08	28.90	138	1910	240	0.00	79.5
Crystal 984RR	222	346.9	101	9379	108	0.95	50.64	102	1365	108	18.30	27.16	122	1784	222	0.00	75.6
Crystal 985RR	228	341.9	100	9253	106	0.95	49.45	99	1340	106	18.04	26.99	112	1763	232	0.00	73.6
Crystal 986RR	250	353.0	103	9901	114	0.94	52.13	105	1466	116	18.58	27.95	111	1702	241	0.00	71.2
Hilleshög 4043RR(9043)	229	343.1	100	8567	98	0.90	49.71	100	1241	98	18.06	24.96	102	1657	222	0.00	77.0
Hilleshog 4195RR(9195)	258	336.6	98	8848	102	1.04	48.13	97	1268	101	17.87	26.22	151	1937	246	0.00	73.3
Hilleshög 9199RR	203	345.3	101	8453	97	0.93	50.27	101	1229	97	18.20	24.52	139	1736	215	0.00	64.4
Hilleshög 9224RR	218	326.4	95	8164	94	0.99	45.61	92	1139	90	17.31	25.05	165	1728	259	0.00	71.0
Hilleshög 9225RR	256	344.7	100	8941	103	1.02	50.12	101	1300	103	18.26	25.91	150	1892	238	0.00	80.1
Hilleshög 9226RR	221	334.0	97	7700	88	1.02	47.47	95	1095	87	17.70	23.02	129	1963	230	0.00	53.6
Hilleshög 9227RR	253	335.6	98	8248	95	1.00	47.89	96	1175	93	17.77	24.60	134	1933	214	0.00	77.2
Hilleshög 9228RR	248	341.2	99	9372	108	1.00	49.28	99	1356	107	18.06	27.38	129	1874	233	0.00	80.5
Hilleshög 9229RR	209	338.2	99	8730	100	1.16	48.52	98	1252	99	18.06	25.84	198	2112	269	0.00	64.1
Hilleshög 9230RR	237	334.9	98	8817	101	0.98	47.72	96	1259	100	17.71	26.21	153	1798	227	0.00	69.7
Hilleshög 9231RR	246	342.5	100	8165	94	0.93	49.57	100	1178	93	18.06	23.92	147	1805	192	0.00	77.5
Hilleshög 9232RR	224	341.6	100	7793	89	0.98	49.37	99	1124	89	18.06	22.86	152	1818	227	0.00	67.0
Hilleshög 9233RR	232	346.3	101	6638	76	0.90	50.50	102	970	77	18.22	19.08	128	1711	202	0.00	48.8
Hilleshög 9234RR	241	348.4	102	6116	70	1.00	51.04	103	896	71	18.42	17.53	127	1837	243	0.00	50.5
Hilleshög 9235RR	211	351.9	103	7411	85	1.12	51.87	104	1092	87	18.69	21.05	150	2005	280	0.00	59.5
Hilleshög 9236RR	261	353.5	103	8976	103	0.95	52.26	105	1326	105	18.61	25.38	106	1744	235	0.00	69.7
Hilleshög 9237RR	215	354.2	103	8275	95	0.95	52.43	105	1224	97	18.65	23.36	163	1696	228	0.00	67.0
Hilleshög 9238RR	252	351.5	102	7792	89	1.03	51.79	104	1151	91	18.60	22.05	119	1917	252	0.00	71.8
Hilleshög 9239RR	226	349.1	102	8311	95	0.99	51.19	103	1220	97	18.46	23.78	128	1832	240	0.00	71.0
Hilleshög 9297RR	255	334.5	98	9474	109	1.00	47.62	96	1349	107	17.72	28.29	126	1864	239	0.00	75.1
Hilleshög 9298RR	207	341.8	100	7987	92	0.95	49.42	99	1154	92	18.04	23.39	137	1843	201	0.00	75.8
Seedex SX0806RR	234	342.9	100	8761	101	0.94	49.68	100	1267	100	18.08	25.61	110	1840	202	0.00	NA
Seedex SX0807RR	205	334.8	98	8104	93	0.95	47.70	96	1156	92	17.69	24.09	109	1874	202	0.00	NA
Seedex SX0808RR	247	353.4	103	8883	102	0.92	52.23	105	1313	104	18.59	25.13	104	1769	208	0.00	NA
Seedex SX0891RR	259	339.5	99	8365	96	0.91	48.82	98	1202	95	17.88	24.65	104	1781	191	0.00	NA
Seedex SX0892RR	216	336.5	98	7980	92	0.94	48.10	97	1142	91	17.77	23.67	115	1825	208	0.00	NA
Seedex SX0893RR	245	337.2	98	8429	97	0.88	48.29	97	1210	96	17.74	24.90	105	1715	189	0.00	NA
Seedex SX0894RR	227	340.1	99	8333	96	0.96	48.99	99	1197	95	17.96	24.58	119	1847	213	0.00	NA
SESVanderhave 36071RR	214	339.2	99	7764	89	0.88	48.76	98	1115	88	17.83	22.90	93	1725	188	0.00	NA
SESVanderhave 36072RR	239	342.2	100	8459	97	0.93	49.51	100	1222	97	18.04	24.79	110	1798	207	0.00	NA
SESVanderhave 36073RR	225	332.9	97	7680	88	0.96	47.20	95	1085	86	17.61	23.21	130	1845	210	0.00	NA
SESVanderhave 36074RR	244	342.6	100	8520	98	0.93	49.59	100	1233	98	18.05	24.85	119	1829	198	0.00	NA
SESVanderhave H36913RR	235	343.1	100	8444	97	0.86	49.72	100	1222	97	18.01	24.65	115	1692	179	0.00	NA
SESVanderhave H36915RR	260	332.6	97	8428	97	0.93	47.12	95	1194	95	17.55	25.34	132	1768	204	0.00	NA
SESVanderhave H36916RR	204	337.8	98	8986	103	0.92	48.43	97	1287	102	17.81	26.62	116	1738	214	0.00	NA
SESVanderhave H36917RR	213	343.9	100	8465	97	0.95	49.91	100	1226	97	18.14	24.65	111	1845	209	0.00	NA
SESVanderhave H36918RR	208	348.5	102	8488	97	0.88	51.06	103	1244	99	18.31	24.32	97	1754	180	0.00	NA
Beta 85RR02(Check)	262	341.5	100	8948	103	1.03	49.34	99	1294	103	18.11	26.16	135	1929	241	0.00	76.9
Crystal 539RR(Check)	263	349.9	102	8729	100	0.92	51.40	103	1278	101	18.43	25.06	149	1787	190	0.00	75.5
Crystal 658RR(Check)	264	333.5	97	8824	101	0.85	47.36	95	1253	99	17.53	26.48	108	1622	191	0.00	83.7
Hilleshög 4012RR(Check)	265	346.0	101	9405	108	0.99	50.42	101	1370	109	18.29	27.20	139	1849	228	0.00	77.9
Trial Mean		343.0		8707		0.96	49.71		1261		18.11	25.38	126	1799	222	0.0	74.2
Coeff. of Var. (%)		2.2		9.4		5.8	3.8		10.0		2.0	9.0	17.4	4.6	13.1		9.6
Mean LSD (0.05)		7.9		998		0.06	1.93		145		0.38	2.99	23	111	32		8.8
Mean LSD (0.01)		10.4		1326		0.08	2.54		193		0.49	3.98	31	147	43		11.7
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Two Light Rzm Sites Analyzed 11/08/2010 12:02 Created 11-8-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 10ACexpLgt

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 22.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

ACS Five Moderate Rzm Sites - 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	219	328.0	102	10043	107	0.94	45.94	103	1409	108	17.34	30.55	194	1481	256	0.00	67.4
BTS 80RR32	230	324.9	101	10648	113	0.96	45.21	101	1482	114	17.21	32.74	267	1514	241	0.00	68.3
BTS 80RR35	202	339.1	105	9241	98	0.94	48.58	109	1324	101	17.91	27.23	193	1486	259	0.00	66.4
BTS 80RR45	243	320.7	99	9529	101	1.03	44.20	99	1311	100	17.06	29.78	249	1577	290	0.00	74.0
BTS 80RR52	240	328.7	102	9707	103	1.09	46.11	103	1363	104	17.52	29.50	216	1570	341	0.00	66.2
BTS 80RR57	206	339.7	105	9464	100	1.00	48.74	109	1358	104	18.00	27.84	224	1570	276	0.00	78.3
BTS 80RR59	249	334.5	104	9330	99	0.96	47.50	106	1326	102	17.69	27.86	261	1470	254	0.00	78.0
BTS 80RR64	257	315.7	98	10625	113	0.88	43.01	96	1447	111	16.69	33.63	234	1392	232	0.00	82.0
BTS 89RR10	210	340.6	105	9383	100	1.01	48.96	109	1348	103	18.04	27.60	233	1606	269	0.00	77.3
BTS 89RR30	238	315.9	98	10110	107	0.92	43.06	96	1380	106	16.73	31.95	281	1497	212	0.00	79.0
BTS 89RR40	212	321.5	99	9844	104	1.07	44.38	99	1359	104	17.13	30.60	259	1528	324	0.00	67.6
BTS 89RR50	220	323.1	100	10466	111	1.13	44.78	100	1449	111	17.27	32.42	285	1749	306	0.00	76.4
BTS 89RR83	231	314.5	97	10836	115	0.95	42.71	95	1472	113	16.68	34.47	254	1480	250	0.00	76.4
Crystal 091RR	201	323.4	100	9627	102	1.13	44.84	100	1335	102	17.28	29.79	236	1645	349	0.00	59.0
Crystal 092RR	236	328.4	102	9174	97	1.00	46.05	103	1291	99	17.43	27.85	268	1580	257	0.00	67.0
Crystal 093RR	251	336.5	104	9483	101	1.03	47.98	107	1353	104	17.86	28.15	196	1545	313	0.00	58.1
Crystal 094RR	233	334.1	103	9264	98	0.87	47.40	106	1315	101	17.59	27.73	210	1414	221	0.00	64.7
Crystal 095RR	217	328.0	102	10241	109	0.99	45.95	103	1437	110	17.39	31.18	225	1520	279	0.00	71.8
Crystal 096RR	254	321.0	99	9457	100	0.99	44.25	99	1307	100	17.04	29.38	259	1573	255	0.00	61.0
Crystal 873RR	242	307.7	95	10252	109	1.00	41.07	92	1368	105	16.38	33.33	368	1466	255	0.00	59.6
Crystal 981RR	223	320.6	99	10448	111	1.15	44.18	99	1439	110	17.17	32.60	296	1776	312	0.00	77.3
Crystal 984RR	222	329.1	102	9659	103	1.01	46.20	103	1356	104	17.48	29.34	282	1626	252	0.00	65.9
Crystal 985RR	228	332.4	103	9363	99	0.97	46.99	105	1323	101	17.60	28.22	212	1544	263	0.00	70.9
Crystal 986RR	250	329.7	102	10405	110	1.03	46.34	104	1461	112	17.52	31.58	267	1537	300	0.00	65.2
Hilleshög 4043RR(9043)	229	320.5	99	9777	104	0.94	44.16	99	1347	103	16.97	30.52	201	1493	252	0.00	72.3
Hilleshog 4195RR(9195)	258	317.1	98	9532	101	1.09	43.32	97	1305	100	16.93	30.04	353	1691	264	0.00	69.0
Hilleshög 9199RR	203	326.8	101	9353	99	0.95	45.66	102	1305	100	17.29	28.65	260	1511	233	0.00	59.0
Hilleshög 9224RR	218	308.0	95	9360	99	1.00	41.16	92	1251	96	16.40	30.35	290	1494	274	0.00	64.7
Hilleshög 9225RR	256	315.9	98	9684	103	1.03	43.05	96	1318	101	16.82	30.68	339	1574	261	0.00	73.5
Hilleshög 9226RR	221	305.1	94	9094	97	1.09	40.46	90	1208	93	16.33	29.75	354	1597	293	0.00	52.8
Hilleshög 9227RR	253	313.9	97	9511	101	1.09	42.58	95	1287	99	16.77	30.34	262	1694	295	0.00	68.8
Hilleshög 9228RR	248	319.1	99	9578	102	1.06	43.80	98	1316	101	17.00	30.01	265	1663	278	0.00	80.9
Hilleshög 9229RR	209	320.0	99	9399	100	1.10	44.04	98	1293	99	17.09	29.35	353	1713	270	0.00	60.0
Hilleshög 9230RR	237	316.2	98	9467	100	1.07	43.11	96	1291	99	16.87	29.92	316	1612	285	0.00	64.1
Hilleshög 9231RR	246	316.7	98	9259	98	1.00	43.23	97	1266	97	16.84	29.22	354	1527	248	0.00	75.8
Hilleshög 9232RR	224	318.7	99	8744	93	1.04	43.72	98	1196	92	16.98	27.55	374	1540	267	0.00	60.3
Hilleshög 9233RR	232	331.5	103	7344	78	0.95	46.78	104	1037	79	17.53	22.14	237	1477	252	0.00	49.4
Hilleshög 9234RR	241	330.1	102	7417	79	0.99	46.44	104	1042	80	17.50	22.52	218	1545	272	0.00	49.9
Hilleshög 9235RR	211	334.6	104	8459	90	1.13	47.52	106	1205	92	17.85	25.19	275	1725	313	0.00	55.6
Hilleshög 9236RR	261	339.2	105	9605	102	0.97	48.63	109	1375	105	17.94	28.38	201	1515	269	0.00	67.3
Hilleshög 9237RR	215	329.2	102	9484	101	0.98	46.23	103	1335	102	17.45	28.75	292	1482	260	0.00	65.8
Hilleshög 9238RR	252	333.5	103	9265	98	1.07	47.26	106	1315	101	17.74	27.74	248	1623	303	0.00	60.9
Hilleshög 9239RR	226	329.0	102	8812	94	0.99	46.19	103	1239	95	17.45	26.68	236	1577	264	0.00	63.8
Hilleshög 9297RR	255	310.2	96	9823	104	1.11	41.68	93	1320	101	16.61	31.66	312	1677	304	0.00	70.7
Hilleshög 9298RR	207	323.9	100	8820	94	1.00	44.95	100	1224	94	17.20	27.21	270	1618	246	0.00	72.4
Seedex SX0806RR	234	320.8	99	9468	100	0.94	44.22	99	1308	100	16.99	29.42	222	1504	246	0.00	NA
Seedex SX0807RR	205	313.5	97	9277	98	0.99	42.49	95	1257	96	16.67	29.60	234	1592	252	0.00	NA
Seedex SX0808RR	247	322.6	100	9422	100	0.95	44.66	100	1306	100	17.08	29.15	220	1525	243	0.00	NA
Seedex SX0891RR	259	324.2	100	8960	95	0.90	45.04	101	1244	95	17.13	27.66	189	1486	237	0.00	NA
Seedex SX0892RR	216	315.3	98	9034	96	0.96	42.91	96	1229	94	16.74	28.65	237	1555	243	0.00	NA
Seedex SX0893RR	245	326.8	101	9083	96	0.87	45.67	102	1271	97	17.24	27.72	194	1462	215	0.00	NA
Seedex SX0894RR	227	319.5	99	8793	93	0.94	43.89	98	1210	93	16.91	27.46	214	1486	247	0.00	NA
SESVanderhave 36071RR	214	317.9	98	8785	93	0.89	43.52	97	1207	92	16.80	27.50	193	1491	224	0.00	NA
SESVanderhave 36072RR	239	318.9	99	9397	100	0.96	43.76	98	1288	99	16.91	29.53	218	1565	244	0.00	NA
SESVanderhave 36073RR	225	317.2	98	8859	94	0.95	43.36	97	1212	93	16.81	27.90	225	1546	237	0.00	NA
SESVanderhave 36074RR	244	315.1	98	9562	101	0.98	42.87	96	1300	100	16.74	30.38	236	1593	250	0.00	NA
SESVanderhave H36913RR	235	323.4	100	9114	97	0.88	44.84	100	1264	97	17.06	28.17	221	1433	224	0.00	NA
SESVanderhave H36915RR	260	315.8	98	9381	100	0.93	43.02	96	1280	98	16.73	29.70	232	1497	236	0.04	NA
SESVanderhave H36916RR	204	317.1	98	9107	97	0.99	43.33	97	1247	96	16.85	28.66	230	1541	273	0.00	NA
SESVanderhave H36917RR	213	323.3	100	9554	101	0.94	44.82	100	1324	101	17.11	29.54	222	1518	241	0.00	NA
SESVanderhave H36918RR	208	323.6	100	8935	95	0.93	44.88	100	1243	95	17.12	27.50	192	1528	235	0.00	NA
Beta 85RR02(Check)	262	326.2	101	9471	101	1.09	45.53	102	1323	101	17.40	29.02	281	1682	294	0.00	67.7
Crystal 539RR(Check)	263	326.9	101	8872	94	1.04	45.67	102	1241	95	17.39	27.11	327	1581	272	0.00	75.7
Crystal 658RR(Check)	264	312.7	97	9493	101	0.92	42.28	94	1284	98	16.56	30.32	231	1424	246	0.00	80.1
Hilleshög 4012RR(Check)	265	323.1	100	9526	101	1.01	44.76	100	1319	101	17.17	29.51	323	1548	256	0.00	71.2
Trial Mean		323.1		9423		0.99	44.77		1305		17.16	29.18	256	1554	264	0.0	71.2
Coeff. of Var. (%)		2.7		8.7		8.1	4.7		9.5		2.4	8.5	21.6	5.6	15.7		11.6
Mean LSD (0.05)		6.4		918		0.06	1.54		134		0.31	2.70	55	83	29		6.0
Mean LSD (0.01)		8.5		1209		0.08	2.03		177		0.40	3.56	72	109	39		7.9
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Five Moderate Rzm Sites Analyzed 11/08/2010 12:38 Created 11-1-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 10ACexpMod

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 23.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

Averill 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	219	326.9	101	8096	84	0.94	45.70	101	1136	84	17.31	24.70	265	1178	316	0.00	42.9
BTS 80RR32	230	324.4	100	9603	99	0.97	45.09	100	1337	99	17.20	29.63	371	1229	293	0.00	45.5
BTS 80RR35	202	345.0	106	9914	102	0.88	50.10	111	1438	107	18.14	28.88	222	1272	259	0.00	38.4
BTS 80RR45	243	318.6	98	8848	91	1.01	43.69	97	1215	90	16.96	27.83	321	1257	338	0.00	52.7
BTS 80RR52	240	329.2	101	8531	88	1.11	46.24	102	1195	89	17.56	26.10	276	1350	391	0.00	28.5
BTS 80RR57	206	335.6	103	10232	106	1.01	47.80	106	1460	108	17.79	30.51	315	1205	345	0.00	54.4
BTS 80RR59	249	339.7	104	8863	92	0.97	48.81	108	1272	94	17.96	26.22	362	1269	285	0.00	62.9
BTS 80RR64	257	317.4	98	10892	113	0.89	43.39	96	1491	111	16.78	34.33	298	1126	280	0.00	51.0
BTS 89RR10	210	348.7	107	10762	111	0.95	51.01	113	1579	117	18.41	30.80	311	1207	301	0.00	53.1
BTS 89RR30	238	315.4	97	9614	99	0.88	42.89	95	1313	97	16.65	30.42	329	1144	258	0.00	43.2
BTS 89RR40	212	312.1	96	9057	94	1.21	42.09	93	1223	91	16.81	29.05	433	1218	451	0.00	35.3
BTS 89RR50	220	325.8	100	9454	98	1.13	45.44	100	1320	98	17.42	29.03	373	1313	386	0.00	45.7
BTS 89RR83	231	321.4	99	10522	109	0.97	44.38	98	1456	108	17.05	32.73	326	1273	293	0.00	52.7
Crystal 091RR	201	313.9	97	9247	96	1.16	42.54	94	1260	93	16.84	29.30	326	1333	417	0.00	36.5
Crystal 092RR	236	315.9	97	7493	77	1.16	43.03	95	1022	76	16.94	23.74	445	1462	347	0.00	43.3
Crystal 093RR	251	337.3	104	7961	82	1.08	48.22	107	1140	85	17.95	23.59	248	1336	386	0.00	33.6
Crystal 094RR	233	334.5	103	8668	90	0.91	47.55	105	1232	91	17.64	26.01	279	1173	288	0.00	43.6
Crystal 095RR	217	335.9	103	11105	115	0.96	47.90	106	1587	118	17.77	33.05	253	1254	321	0.00	47.4
Crystal 096RR	254	310.3	95	9121	94	1.06	41.65	92	1226	91	16.57	29.43	432	1285	323	0.00	38.0
Crystal 873RR	242	315.5	97	10370	107	1.02	42.91	95	1410	105	16.80	33.02	409	1167	334	0.00	29.6
Crystal 981RR	223	328.6	101	9511	98	1.20	46.11	102	1336	99	17.62	29.01	362	1459	409	0.00	39.9
Crystal 984RR	222	333.8	103	8998	93	1.01	47.39	105	1279	95	17.71	26.96	366	1259	322	0.00	28.6
Crystal 985RR	228	336.9	104	10330	107	1.02	48.12	106	1479	110	17.88	30.66	284	1324	338	0.00	35.9
Crystal 986RR	250	328.8	101	9855	102	1.08	46.15	102	1386	103	17.50	29.98	356	1171	385	0.00	33.0
Hilleshög 4043RR(9043)	229	319.9	98	10687	110	1.02	44.00	97	1472	109	17.02	33.43	308	1263	346	0.00	39.2
Hilleshog 4195RR(9195)	258	316.6	97	9576	99	1.12	43.17	95	1311	97	16.93	30.22	576	1239	329	0.00	30.6
Hilleshög 9199RR	203	337.6	104	7599	79	0.97	48.28	107	1088	81	17.85	22.56	347	1186	308	0.00	27.2
Hilleshög 9224RR	218	311.9	96	7717	80	1.01	42.03	93	1041	77	16.61	24.82	445	1114	327	0.00	31.0
Hilleshög 9225RR	256	319.5	98	9072	94	1.01	43.90	97	1249	93	16.98	28.40	436	1173	314	0.00	38.1
Hilleshög 9226RR	221	293.4	90	7840	81	1.26	37.57	83	1002	74	15.91	26.81	640	1381	380	0.00	32.9
Hilleshög 9227RR	253	316.1	97	10090	104	1.14	43.06	95	1374	102	16.93	32.03	371	1314	395	0.00	40.2
Hilleshög 9228RR	248	321.0	99	10226	106	1.07	44.27	98	1413	105	17.11	31.87	413	1319	330	0.00	43.5
Hilleshög 9229RR	209	322.1	99	8824	91	1.13	44.54	98	1220	90	17.22	27.48	534	1304	338	0.00	34.4
Hilleshög 9230RR	237	310.9	96	9715	100	1.13	41.80	92	1310	97	16.67	31.24	541	1260	348	0.00	34.4
Hilleshög 9231RR	246	317.1	98	9226	95	1.02	43.33	96	1263	94	16.87	29.10	520	1172	294	0.00	43.5
Hilleshög 9232RR	224	320.2	98	7859	81	1.03	44.05	97	1084	80	17.03	24.55	455	1151	324	0.00	32.3
Hilleshög 9233RR	232	339.9	105	7596	79	0.98	48.86	108	1092	81	17.97	22.39	342	1251	302	0.00	20.4
Hilleshög 9234RR	241	333.5	103	7698	80	0.97	47.31	105	1092	81	17.66	23.14	316	1242	309	0.00	22.1
Hilleshög 9235RR	211	336.1	103	9179	95	1.12	47.93	106	1312	97	17.92	27.31	366	1337	374	0.00	30.1
Hilleshög 9236RR	261	352.3	108	10648	110	0.96	51.86	115	1569	116	18.59	30.28	250	1244	317	0.00	46.6
Hilleshög 9237RR	215	340.2	105	10404	108	1.02	48.93	108	1500	111	18.05	30.53	400	1177	336	0.00	40.0
Hilleshög 9238RR	252	333.5	103	8184	85	1.09	47.30	104	1163	86	17.78	24.54	364	1323	359	0.00	32.7
Hilleshög 9239RR	226	328.0	101	8586	89	0.99	45.95	102	1206	89	17.39	26.15	325	1332	296	0.00	30.7
Hilleshög 9297RR	255	316.7	97	10841	112	1.10	43.21	95	1481	110	16.93	34.30	412	1347	342	0.00	43.9
Hilleshög 9298RR	207	323.2	99	9607	99	0.96	44.80	99	1331	99	17.13	29.81	446	1224	263	0.00	43.2
Seedex SX0806RR	234	322.6	99	9824	102	1.0	44.7	99	1366	101	17.1	30.37	335	1221	305	0.0	NA
Seedex SX0807RR	205	317.6	98	11172	115	1.1	43.4	96	1531	114	16.9	35.16	355	1307	337	0.0	NA
Seedex SX0808RR	247	325.7	100	10782	111	1.0	45.4	100	1508	112	17.3	33.03	302	1233	308	0.0	NA
Seedex SX0891RR	259	337.0	104	10687	110	0.9	48.1	106	1530	113	17.8	31.73	250	1192	297	0.0	NA
Seedex SX0892RR	216	306.0	94	10863	112	1.0	40.6	90	1445	107	16.3	35.51	421	1223	329	0.0	NA
Seedex SX0893RR	245	333.6	103	11022	114	0.8	47.3	105	1565	116	17.5	33.07	253	1094	257	0.0	NA
Seedex SX0894RR	227	328.1	101	11121	115	0.9	46.0	102	1563	116	17.3	33.83	291	1139	283	0.0	NA
SESVanderhave 36071RR	214	317.9	98	10000	103	1.0	43.5	96	1373	102	16.9	31.40	307	1355	294	0.0	NA
SESVanderhave 36072RR	239	324.9	100	11463	119	0.9	45.2	100	1601	119	17.2	35.25	278	1170	291	0.0	NA
SESVanderhave 36073RR	225	325.7	100	10912	113	1.0	45.4	100	1528	113	17.2	33.41	307	1176	315	0.0	NA
SESVanderhave 36074RR	244	315.1	97	11194	116	1.0	42.8	95	1522	113	16.8	35.59	340	1325	323	0.0	NA
SESVanderhave H36913RR	235	320.8	99	10675	110	0.9	44.2	98	1472	109	17.0	33.33	283	1153	302	0.0	NA
SESVanderhave H36915RR	260	322.3	99	10903	113	1.0	44.6	98	1516	112	17.1	33.69	331	1226	288	0.0	NA
SESVanderhave H36916RR	204	323.8	100	9926	103	1.0	44.9	99	1382	102	17.2	30.62	302	1245	312	0.0	NA
SESVanderhave H36917RR	213	326.6	100	11755	122	0.9	45.6	101	1647	122	17.3	35.98	323	1192	295	0.0	NA
SESVanderhave H36918RR	208	332.1	102	10164	105	1.0	46.9	104	1439	107	17.6	30.66	301	1195	312	0.0	NA
Beta 85RR02(Check)	262	328.0	101	10460	108	1.11	45.96	102	1467	109	17.50	31.93	420	1277	362	0.00	35.5
Crystal 539RR(Check)	263	328.5	101	9310	96	1.02	46.07	102	1310	97	17.45	28.32	478	1171	307	0.00	49.9
Crystal 658RR(Check)	264	315.4	97	9902	102	0.98	42.90	95	1348	100	16.75	31.46	303	1224	322	0.00	50.6
Hilleshög 4012RR(Check)	265	320.4	99	8418	87	1.06	44.12	97	1159	86	17.06	26.34	474	1197	326	0.00	34.6
Trial Mean		325.1		9673		1.01	45.27		1348		17.28	29.79	360	1245	326	0.0	43.8
Coeff. of Var. (%)		2.6		11.7		8.6	4.5		12.1		2.2	11.8	17.8	5.8	12.7		27.7
Mean LSD (0.05)		12.5		1675		0.14	3.04		240		0.56	5.20	95	110	63		18.1
Mean LSD (0.01)		16.5		2210		0.18	4.01		316		0.75	6.86	126	145	83		23.9
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Averill MN

Analyzed 10/27/2010 14:18

Created 11-1-2010.

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

Trial # = 108302

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 24.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

Reynolds 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	219	351.2	103	11794	120	0.78	51.70	104	1731	122	18.34	33.74	107	1497	162	0.00	76.2
BTS 80RR32	230	345.4	101	12033	122	0.80	50.28	101	1748	123	18.08	34.94	131	1589	149	0.00	78.5
BTS 80RR35	202	358.4	105	9376	95	0.78	53.46	108	1408	99	18.71	25.89	109	1475	167	0.00	80.5
BTS 80RR45	243	337.3	98	10283	105	0.88	48.30	97	1473	104	17.75	30.52	152	1682	183	0.00	91.3
BTS 80RR52	240	352.0	103	10440	106	0.89	51.91	105	1544	109	18.51	29.51	120	1555	232	0.00	76.7
BTS 80RR57	206	353.2	103	8930	91	0.91	52.18	105	1320	93	18.58	25.35	130	1684	213	0.00	86.5
BTS 80RR59	249	351.0	102	10341	105	0.86	51.64	104	1521	107	18.42	29.48	149	1555	201	0.00	86.7
BTS 80RR64	257	331.9	97	11180	114	0.75	46.97	95	1582	111	17.34	33.74	132	1416	150	0.00	90.5
BTS 89RR10	210	355.6	104	9883	100	0.92	52.75	106	1461	103	18.70	27.96	150	1737	197	0.00	84.1
BTS 89RR30	238	334.7	98	10894	111	0.79	47.68	96	1552	109	17.54	32.57	148	1560	143	0.00	94.2
BTS 89RR40	212	338.5	99	10119	103	0.86	48.61	98	1454	102	17.79	29.92	142	1597	193	0.00	80.6
BTS 89RR50	220	341.2	100	11374	116	0.93	49.25	99	1631	115	18.00	33.56	166	1774	193	0.00	89.9
BTS 89RR83	231	328.6	96	11997	122	0.81	46.19	93	1684	118	17.24	36.57	160	1495	170	0.00	83.1
Crystal 091RR	201	347.1	101	9949	101	0.93	50.68	102	1448	102	18.28	28.83	142	1618	242	0.00	67.3
Crystal 092RR	236	347.2	101	9996	102	0.87	50.73	102	1461	103	18.23	28.82	147	1584	198	0.00	73.9
Crystal 093RR	251	352.8	103	10138	103	0.88	52.09	105	1497	105	18.52	28.81	126	1572	214	0.00	68.3
Crystal 094RR	233	348.5	102	9847	100	0.77	51.05	103	1435	101	18.20	28.47	122	1461	161	0.00	67.5
Crystal 095RR	217	337.3	98	10326	105	0.89	48.30	97	1480	104	17.76	30.58	142	1643	203	0.00	75.3
Crystal 096RR	254	347.6	102	9966	101	0.83	50.83	103	1458	103	18.21	28.69	131	1602	169	0.00	68.1
Crystal 873RR	242	323.0	94	10465	106	0.87	44.80	90	1452	102	17.03	32.46	210	1549	191	0.00	67.4
Crystal 981RR	223	335.5	98	11311	115	1.03	47.86	97	1610	113	17.79	33.84	198	1763	250	0.00	84.6
Crystal 984RR	222	347.3	101	10511	107	0.86	50.75	102	1527	107	18.23	30.46	148	1636	178	0.00	82.0
Crystal 985RR	228	349.9	102	9418	96	0.92	51.37	104	1379	97	18.41	27.06	139	1694	211	0.00	77.1
Crystal 986RR	250	351.9	103	10729	109	0.83	51.89	105	1572	111	18.44	30.73	132	1549	186	0.00	75.3
Hilleshög 4043RR(9043)	229	333.0	97	10038	102	0.81	47.24	95	1424	100	17.46	30.16	129	1548	164	0.00	81.7
Hilleshog 4195RR(9195)	258	343.8	100	10184	104	0.91	49.89	101	1481	104	18.10	29.63	149	1786	172	0.00	84.8
Hilleshög 9199RR	203	340.5	99	10279	105	0.86	49.09	99	1485	104	17.89	30.17	163	1670	160	0.00	71.3
Hilleshög 9224RR	218	324.6	95	9845	100	0.86	45.22	91	1366	96	17.09	30.42	168	1568	189	0.00	83.4
Hilleshög 9225RR	256	333.2	97	9927	101	0.93	47.30	95	1403	99	17.60	30.00	229	1667	201	0.00	83.8
Hilleshög 9226RR	221	329.0	96	9672	98	0.89	46.30	93	1365	96	17.35	29.25	162	1621	199	0.00	53.2
Hilleshög 9227RR	253	333.8	97	9352	95	0.89	47.45	96	1329	94	17.59	28.07	152	1708	182	0.00	77.4
Hilleshög 9228RR	248	339.2	99	9682	98	0.89	48.77	98	1390	98	17.86	28.58	128	1731	187	0.00	90.5
Hilleshög 9229RR	209	335.3	98	10054	102	1.04	47.82	96	1439	101	17.80	29.84	204	1950	207	0.00	67.8
Hilleshög 9230RR	237	340.1	99	9736	99	0.91	48.99	99	1402	99	17.91	28.71	152	1689	194	0.00	71.0
Hilleshög 9231RR	246	337.1	98	9693	99	0.86	48.26	97	1385	97	17.71	28.80	187	1578	176	0.00	88.4
Hilleshög 9232RR	224	340.0	99	9327	95	0.89	48.98	99	1336	94	17.90	27.63	171	1664	190	0.00	73.9
Hilleshög 9233RR	232	345.4	101	7071	72	0.82	50.28	101	1022	72	18.11	20.66	137	1515	188	0.00	58.3
Hilleshög 9234RR	241	349.0	102	7642	78	0.87	51.16	103	1114	78	18.33	22.06	139	1614	196	0.00	56.4
Hilleshög 9235RR	211	353.2	103	8403	85	1.05	52.18	105	1243	88	18.70	23.77	161	1877	253	0.00	67.1
Hilleshög 9236RR	261	356.3	104	9774	99	0.82	52.94	107	1453	102	18.65	27.45	127	1576	170	0.00	74.7
Hilleshög 9237RR	215	341.2	100	9775	99	0.86	49.25	99	1410	99	17.93	28.73	184	1584	186	0.00	78.4
Hilleshög 9238RR	252	356.7	104	9726	99	0.95	53.04	107	1443	102	18.79	27.35	151	1708	232	0.00	71.5
Hilleshög 9239RR	226	347.2	101	8740	89	0.89	50.72	102	1270	89	18.25	25.34	151	1616	207	0.00	76.6
Hilleshög 9297RR	255	333.3	97	9883	100	0.94	47.33	95	1401	99	17.61	29.70	148	1754	207	0.00	83.7
Hilleshög 9298RR	207	342.0	100	8635	88	0.87	49.44	100	1243	88	17.97	25.39	145	1641	183	0.00	82.1
Seedex SX0806RR	234	341.5	100	10346	105	0.86	49.32	100	1499	105	17.94	30.14	135	1603	185	0.00	NA
Seedex SX0807RR	205	333.7	97	9198	94	0.82	47.43	96	1303	92	17.51	27.75	109	1639	155	0.00	NA
Seedex SX0808RR	247	357.2	104	9899	101	0.81	53.16	107	1468	103	18.67	27.87	117	1589	162	0.00	NA
Seedex SX0891RR	259	338.1	99	8670	88	0.80	48.51	98	1242	87	17.71	25.74	122	1567	157	0.00	NA
Seedex SX0892RR	216	341.4	100	9366	95	0.85	49.29	99	1353	95	17.93	27.39	117	1643	177	0.00	NA
Seedex SX0893RR	245	346.7	101	9257	94	0.76	50.60	102	1350	95	18.11	26.75	110	1553	133	0.00	NA
Seedex SX0894RR	227	344.8	101	8219	84	0.83	50.14	101	1190	84	18.08	23.98	121	1648	160	0.00	NA
SESVanderhave 36071RR	214	341.0	100	9621	98	0.79	49.21	99	1395	98	17.84	28.08	105	1502	169	0.00	NA
SESVanderhave 36072RR	239	341.2	100	9754	99	0.84	49.25	99	1407	99	17.90	28.65	125	1648	164	0.00	NA
SESVanderhave 36073RR	225	339.5	99	8690	88	0.87	48.85	99	1246	88	17.85	25.68	126	1707	174	0.00	NA
SESVanderhave 36074RR	244	338.8	99	9969	101	0.88	48.68	98	1427	100	17.83	29.63	140	1708	179	0.00	NA
SESVanderhave H36913RR	235	350.3	102	9974	101	0.78	51.47	104	1459	103	18.30	28.64	132	1535	149	0.00	NA
SESVanderhave H36915RR	260	333.8	97	9843	100	0.87	47.45	96	1401	99	17.58	29.43	140	1650	189	0.21	NA
SESVanderhave H36916RR	204	342.3	100	9890	101	0.83	49.53	100	1427	100	17.95	29.05	129	1596	177	0.00	NA
SESVanderhave H36917RR	213	344.7	101	9555	97	0.84	50.12	101	1379	97	18.09	27.95	133	1629	170	0.00	NA
SESVanderhave H36918RR	208	342.8	100	9033	92	0.82	49.66	100	1310	92	17.96	26.40	117	1604	160	0.00	NA
Beta 85RR02(Check)	262	340.6	99	9239	94	0.95	49.11	99	1332	94	17.98	27.17	179	1771	205	0.00	80.7
Crystal 539RR(Check)	263	344.7	101	9783	99	0.89	50.10	101	1421	100	18.13	28.41	176	1650	186	0.00	84.4
Crystal 658RR(Check)	264	333.2	97	9939	101	0.74	47.29	95	1407	99	17.40	29.95	130	1433	142	0.00	92.0
Hilleshög 4012RR(Check)	265	342.6	100	10259	104	0.89	49.59	100	1486	105	18.03	30.00	172	1667	188	0.00	82.3
Trial Mean		342.5		9835		0.86	49.57		1421		17.99	28.81	145	1626	184	0.0	80.6
Coeff. of Var. (%)		2.2		6.6		6.9	3.7		7.2		2.0	6.2	14.9	4.7	16.6		7.9
Mean LSD (0.05)		11.1		1001		0.09	2.70		158		0.52	2.77	32	114	45		9.2
Mean LSD (0.01)		14.6		1321		0.11	3.56		209		0.70	3.66	43	151	59		12.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Reynolds ND

Analyzed 10/27/2010 14:20

Created 11-1-2010.

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

Trial # = 108304

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 25.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

Climax 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	219	335.9	101	10170	118	0.85	47.96	101	1450	119	17.65	30.32	83	1511	226	0.00	60.4
BTS 80RR32	230	333.6	100	9138	106	0.92	47.39	100	1296	106	17.59	27.42	123	1706	216	0.00	65.5
BTS 80RR35	202	349.7	105	8672	101	0.88	51.30	108	1274	105	18.35	24.71	87	1518	248	0.00	62.0
BTS 80RR45	243	330.4	99	8970	105	0.96	46.60	98	1265	104	17.48	27.17	102	1686	261	0.00	67.4
BTS 80RR52	240	335.9	101	8701	101	0.95	47.96	101	1239	102	17.75	25.98	88	1620	280	0.00	58.9
BTS 80RR57	206	348.5	104	8847	103	0.92	51.02	108	1290	106	18.34	25.50	89	1670	242	0.00	75.7
BTS 80RR59	249	345.1	103	8204	96	0.89	50.21	106	1194	98	18.14	23.71	123	1593	219	0.00	62.0
BTS 80RR64	257	325.8	98	9872	115	0.85	45.48	96	1378	113	17.13	30.28	91	1540	219	0.00	76.5
BTS 89RR10	210	351.6	105	9295	108	0.93	51.78	109	1371	113	18.51	26.37	96	1687	242	0.00	75.8
BTS 89RR30	238	330.7	99	9520	111	0.86	46.67	98	1344	110	17.40	28.78	114	1565	215	0.00	77.8
BTS 89RR40	212	328.3	98	9327	109	0.98	46.09	97	1308	107	17.39	28.43	99	1660	287	0.00	72.9
BTS 89RR50	220	328.2	98	10604	124	1.04	46.07	97	1486	122	17.44	32.32	126	1820	283	0.00	73.7
BTS 89RR83	231	321.9	96	10142	118	0.90	44.51	94	1404	115	17.00	31.45	110	1630	225	0.00	72.6
Crystal 091RR	201	344.4	103	8749	102	1.00	50.02	106	1270	104	18.22	25.41	82	1731	292	0.00	49.8
Crystal 092RR	236	332.5	100	8250	96	0.95	47.10	99	1167	96	17.59	24.87	105	1783	231	0.00	53.7
Crystal 093RR	251	348.0	104	8692	101	0.92	50.89	107	1272	104	18.31	24.95	85	1577	269	0.00	50.2
Crystal 094RR	233	343.9	103	7917	92	0.87	49.90	105	1146	94	18.07	23.11	98	1535	234	0.00	60.1
Crystal 095RR	217	339.3	102	8605	100	0.95	48.79	103	1236	101	17.92	25.39	96	1669	258	0.00	61.1
Crystal 096RR	254	329.0	99	8448	98	0.91	46.25	98	1187	97	17.35	25.69	106	1668	223	0.00	56.5
Crystal 873RR	242	321.6	96	9756	114	0.93	44.43	94	1347	111	17.00	30.33	135	1607	248	0.00	55.0
Crystal 981RR	223	332.5	100	9936	116	0.97	47.10	99	1405	115	17.60	29.95	113	1746	253	0.00	71.3
Crystal 984RR	222	334.9	100	9266	108	0.94	47.72	101	1319	108	17.68	27.68	102	1684	244	0.00	68.0
Crystal 985RR	228	335.7	101	8914	104	0.91	47.89	101	1273	104	17.70	26.52	92	1671	235	0.00	65.4
Crystal 986RR	250	341.3	102	9231	108	0.91	49.26	104	1334	110	17.98	26.99	96	1596	252	0.00	65.5
Hilleshög 4043RR(9043)	229	334.1	100	8086	94	0.88	47.50	100	1150	94	17.58	24.20	83	1525	247	0.00	67.2
Hilleshog 4195RR(9195)	258	325.8	98	8525	99	1.02	45.47	96	1192	98	17.30	26.10	128	1790	271	0.00	62.5
Hilleshög 9199RR	203	331.5	99	8822	103	0.94	46.86	99	1248	102	17.51	26.60	129	1652	248	0.00	56.3
Hilleshög 9224RR	218	318.3	95	8272	96	0.95	43.64	92	1134	93	16.86	26.00	123	1584	272	0.00	63.9
Hilleshög 9225RR	256	331.7	99	8696	101	0.96	46.91	99	1232	101	17.55	26.17	127	1710	244	0.00	72.8
Hilleshög 9226RR	221	323.4	97	7407	86	1.02	44.90	95	1029	84	17.18	22.85	124	1787	275	0.00	45.3
Hilleshög 9227RR	253	330.3	99	7945	93	0.94	46.57	98	1120	92	17.46	24.05	112	1724	232	0.00	68.4
Hilleshög 9228RR	248	331.0	99	8824	103	0.95	46.74	99	1248	102	17.49	26.61	112	1657	254	0.00	72.5
Hilleshög 9229RR	209	324.8	97	8661	101	1.15	45.22	95	1207	99	17.38	26.63	186	1931	313	0.00	54.4
Hilleshög 9230RR	237	329.2	99	7928	92	0.93	46.32	98	1115	92	17.39	24.05	117	1630	247	0.00	58.7
Hilleshög 9231RR	246	328.6	98	8430	98	0.88	46.16	97	1183	97	17.31	25.66	144	1653	195	0.00	68.0
Hilleshög 9232RR	224	331.9	99	8129	95	0.95	46.95	99	1148	94	17.53	24.54	143	1656	243	0.00	58.3
Hilleshög 9233RR	232	340.5	102	6378	74	0.85	49.08	104	920	75	17.87	18.68	111	1524	214	0.00	39.8
Hilleshög 9234RR	241	340.4	102	5799	68	0.95	49.04	103	836	69	17.96	16.98	114	1674	251	0.00	32.3
Hilleshög 9235RR	211	345.4	104	7761	90	1.07	50.27	106	1127	93	18.34	22.53	117	1833	308	0.00	46.9
Hilleshög 9236RR	261	340.2	102	8514	99	0.95	49.01	103	1225	101	17.97	25.05	86	1679	264	0.00	56.8
Hilleshög 9237RR	215	345.0	103	8623	100	0.96	50.18	106	1252	103	18.20	25.03	148	1563	277	0.00	55.9
Hilleshög 9238RR	252	344.0	103	7578	88	0.99	49.91	105	1101	90	18.17	21.93	100	1721	275	0.00	63.7
Hilleshög 9239RR	226	340.0	102	8231	96	0.97	48.95	103	1185	97	17.97	24.19	112	1721	253	0.00	62.8
Hilleshög 9297RR	255	327.2	98	8467	99	0.93	45.81	97	1184	97	17.29	25.91	103	1677	243	0.00	62.8
Hilleshög 9298RR	207	328.9	99	7631	89	0.92	46.25	98	1074	88	17.37	23.15	123	1690	217	0.00	61.8
Seedex SX0806RR	234	332.9	100	9018	105	0.88	47.20	100	1280	105	17.53	27.07	97	1653	212	0.00	NA
Seedex SX0807RR	205	326.8	98	7909	92	0.91	45.71	96	1107	91	17.24	24.17	88	1724	218	0.00	NA
Seedex SX0808RR	247	341.2	102	9156	107	0.87	49.24	104	1323	109	17.93	26.78	90	1604	218	0.00	NA
Seedex SX0891RR	259	328.7	99	8015	93	0.85	46.19	97	1124	92	17.29	24.45	86	1662	188	0.00	NA
Seedex SX0892RR	216	328.9	99	7377	86	0.89	46.25	98	1038	85	17.33	22.38	96	1671	209	0.00	NA
Seedex SX0893RR	245	332.6	100	8239	96	0.87	47.13	99	1167	96	17.51	24.78	84	1620	213	0.00	NA
Seedex SX0894RR	227	329.9	99	8126	95	0.91	46.48	98	1142	94	17.41	24.71	102	1697	218	0.00	NA
SESVanderhave 36071RR	214	330.3	99	7683	90	0.86	46.58	98	1082	89	17.37	23.29	76	1633	202	0.00	NA
SESVanderhave 36072RR	239	331.9	99	8536	99	0.88	46.97	99	1206	99	17.48	25.79	91	1653	209	0.00	NA
SESVanderhave 36073RR	225	321.5	96	7936	92	0.91	44.42	94	1095	90	16.99	24.72	103	1686	220	0.00	NA
SESVanderhave 36074RR	244	329.1	99	8449	98	0.87	46.28	98	1188	98	17.32	25.65	103	1628	203	0.00	NA
SESVanderhave H36913RR	235	333.7	100	8875	103	0.79	47.42	100	1261	104	17.49	26.60	98	1506	177	0.00	NA
SESVanderhave H36915RR	260	322.1	97	8085	94	0.91	44.56	94	1118	92	17.02	25.11	115	1651	224	0.00	NA
SESVanderhave H36916RR	204	328.3	98	8542	100	0.86	46.09	97	1197	98	17.28	26.08	91	1604	208	0.00	NA
SESVanderhave H36917RR	213	332.3	100	8442	98	0.90	47.06	99	1193	98	17.51	25.48	104	1720	203	0.00	NA
SESVanderhave H36918RR	208	338.4	101	8425	98	0.85	48.54	102	1210	99	17.77	24.85	82	1658	192	0.00	NA
Beta 85RR02(Check)	262	336.0	101	9071	106	0.99	47.97	101	1293	106	17.78	27.05	119	1784	250	0.00	69.5
Crystal 539RR(Check)	263	341.6	102	8934	104	0.88	49.34	104	1290	106	17.97	26.16	115	1625	212	0.00	70.1
Crystal 658RR(Check)	264	327.2	98	9576	112	0.83	45.82	97	1342	110	17.19	29.22	91	1531	203	0.00	75.0
Hilleshög 4012RR(Check)	265	334.1	100	9532	111	0.94	47.50	100	1356	111	17.65	28.48	120	1641	248	0.00	74.1
Trial Mean		333.6		8582		0.92	47.40		1218		17.61	25.74	107	1659	238	0.0	66.0
Coeff. of Var. (%)		1.8		7.8		5.5	3.1		8.3		1.7	7.5	14.2	3.9	12.3		11.1
Mean LSD (0.05)		9.2		1013		0.08	2.24		152		0.44	2.93	23	97	44		10.8
Mean LSD (0.01)		12.1		1337		0.10	2.96		201		0.58	3.86	30	128	58		14.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Climax MN

Analyzed 10/27/2010 14:23

Created 11-1-2010.

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

Trial # = 108305

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 26.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Crookston 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	219	363.5	103	10344	115	0.92	54.75	105	1562	118	19.10	28.32	112	1821	188	0.00	81.4
BTS 80RR32	230	345.4	98	9622	107	1.01	50.30	97	1403	106	18.28	27.73	182	1954	195	0.00	73.1
BTS 80RR35	202	366.0	104	9315	104	0.95	55.35	106	1412	107	19.25	25.34	122	1800	209	0.00	81.4
BTS 80RR45	243	350.3	99	9813	110	1.00	51.52	99	1442	109	18.51	28.06	137	1962	208	0.00	82.6
BTS 80RR52	240	364.7	103	9859	110	1.02	55.04	106	1491	113	19.25	26.92	118	1910	238	0.00	83.0
BTS 80RR57	206	354.7	101	8110	91	1.04	52.60	101	1208	91	18.77	22.70	136	2016	222	0.00	90.2
BTS 80RR59	249	364.4	103	8318	93	0.98	54.97	106	1261	95	19.20	22.67	143	1918	194	0.00	88.3
BTS 80RR64	257	342.7	97	9952	111	0.87	49.64	95	1447	109	18.01	28.79	127	1744	161	0.00	88.6
BTS 89RR10	210	365.8	104	9870	110	1.03	55.32	106	1504	114	19.32	26.62	131	2053	205	0.00	91.3
BTS 89RR30	238	347.5	99	9832	110	0.89	50.81	98	1438	109	18.28	28.25	182	1753	162	0.00	86.4
BTS 89RR40	212	352.2	100	10098	113	1.00	51.97	100	1494	113	18.60	28.56	145	1879	229	0.00	80.3
BTS 89RR50	220	351.7	100	10966	122	1.02	51.84	100	1623	123	18.60	31.06	193	1935	215	0.00	86.4
BTS 89RR83	231	345.3	98	11188	125	0.90	50.28	97	1631	123	18.18	32.29	124	1761	182	0.00	86.4
Crystal 091RR	201	349.5	99	9817	110	1.11	51.31	99	1443	109	18.57	28.03	146	1972	292	0.00	61.0
Crystal 092RR	236	347.5	99	7252	81	1.06	50.81	98	1062	80	18.43	20.76	163	2093	212	0.00	75.4
Crystal 093RR	251	368.2	104	9740	109	1.01	55.92	107	1482	112	19.42	26.30	115	1918	229	0.00	71.2
Crystal 094RR	233	362.4	103	8737	98	0.96	54.48	105	1314	99	19.07	24.09	144	1767	221	0.00	81.4
Crystal 095RR	217	357.0	101	9661	108	0.99	53.14	102	1440	109	18.82	27.02	129	1887	219	0.00	79.9
Crystal 096RR	254	346.7	98	8711	97	1.00	50.62	97	1283	97	18.33	24.73	152	1865	217	0.00	69.7
Crystal 873RR	242	335.3	95	9089	101	0.97	47.82	92	1294	98	17.73	27.10	191	1730	225	0.00	71.2
Crystal 981RR	223	350.1	99	9805	109	1.08	51.46	99	1440	109	18.57	28.02	162	2078	226	0.00	88.3
Crystal 984RR	222	358.8	102	9572	107	0.98	53.60	103	1423	107	18.92	26.80	139	1895	203	0.00	83.3
Crystal 985RR	228	347.6	99	9676	108	0.99	50.84	98	1421	107	18.36	27.68	133	1856	229	0.00	81.1
Crystal 986RR	250	365.4	104	10846	121	0.97	55.20	106	1645	124	19.22	29.55	124	1809	231	0.00	76.5
Hilleshög 4043RR(9043)	229	353.5	100	9240	103	0.92	52.28	100	1368	103	18.60	26.10	117	1782	196	0.00	86.7
Hilleshog 4195RR(9195)	258	347.4	99	9234	103	1.09	50.78	98	1355	102	18.46	26.42	170	2084	226	0.00	84.9
Hilleshög 9199RR	203	359.3	102	8230	92	0.94	53.73	103	1237	93	18.90	22.70	147	1822	182	0.00	72.7
Hilleshög 9224RR	218	335.4	95	8193	91	1.05	47.83	92	1170	88	17.81	24.40	205	1872	249	0.00	78.4
Hilleshög 9225RR	256	357.0	101	9324	104	1.10	53.15	102	1393	105	18.95	25.91	171	2075	231	0.00	86.7
Hilleshög 9226RR	221	345.6	98	8114	91	1.04	50.35	97	1183	89	18.31	23.41	127	2140	187	0.00	60.6
Hilleshög 9227RR	253	340.9	97	8580	96	1.06	49.20	94	1233	93	18.11	25.26	155	2141	195	0.00	86.4
Hilleshög 9228RR	248	353.1	100	10102	113	1.05	52.20	100	1497	113	18.70	28.52	143	2093	212	0.00	87.5
Hilleshög 9229RR	209	353.0	100	9016	101	1.16	52.18	100	1334	101	18.80	25.51	198	2291	226	0.00	74.2
Hilleshög 9230RR	237	340.6	97	9944	111	1.03	49.12	94	1440	109	18.06	28.99	191	1960	211	0.00	80.7
Hilleshög 9231RR	246	357.1	101	8002	89	0.99	53.16	102	1193	90	18.85	22.34	144	1957	192	0.00	87.1
Hilleshög 9232RR	224	352.4	100	7540	84	1.03	52.03	100	1116	84	18.65	21.31	157	1985	212	0.00	75.8
Hilleshög 9233RR	232	352.7	100	7007	78	0.98	52.10	100	1038	78	18.61	19.75	144	1909	193	0.00	56.8
Hilleshög 9234RR	241	358.6	102	6544	73	1.05	53.56	103	977	74	18.97	18.24	133	1998	233	0.00	68.6
Hilleshög 9235RR	211	358.5	102	7143	80	1.15	53.54	103	1073	81	19.07	19.72	185	2175	253	0.00	73.1
Hilleshög 9236RR	261	363.5	103	9575	107	0.96	54.75	105	1448	109	19.15	26.05	124	1808	212	0.00	81.8
Hilleshög 9237RR	215	364.0	103	8051	90	0.95	54.88	105	1219	92	19.15	21.97	176	1833	180	0.00	79.5
Hilleshög 9238RR	252	360.7	102	8151	91	1.09	54.05	104	1225	92	19.12	22.48	136	2110	232	0.00	80.7
Hilleshög 9239RR	226	359.3	102	8542	95	1.03	53.74	103	1280	97	19.00	23.68	139	1941	230	0.00	79.2
Hilleshög 9297RR	255	341.7	97	10769	120	1.08	49.38	95	1559	118	18.16	31.41	148	2055	235	0.00	87.1
Hilleshög 9298RR	207	355.0	101	8523	95	0.99	52.65	101	1264	95	18.72	24.06	149	1991	185	0.00	89.8
Seedex SX0806RR	234	352.4	100	8527	95	1.01	52.02	100	1257	95	18.62	24.20	122	2030	193	0.00	NA
Seedex SX0807RR	205	343.5	97	8441	94	1.01	49.83	96	1233	93	18.18	24.31	128	2026	188	0.00	NA
Seedex SX0808RR	247	366.9	104	8696	97	0.98	55.58	107	1324	100	19.32	23.56	115	1925	199	0.00	NA
Seedex SX0891RR	259	350.2	99	8831	99	0.97	51.49	99	1303	98	18.48	25.05	119	1899	195	0.00	NA
Seedex SX0892RR	216	344.9	98	8743	98	1.01	50.16	96	1271	96	18.26	25.34	131	1977	209	0.00	NA
Seedex SX0893RR	245	340.7	97	8764	98	0.89	49.14	94	1275	96	17.93	25.41	124	1815	164	0.00	NA
Seedex SX0894RR	227	350.1	99	8747	98	1.01	51.46	99	1287	97	18.51	24.91	130	1997	203	0.00	NA
SESVanderhave 36071RR	214	349.5	99	8028	90	0.90	51.31	99	1178	89	18.38	22.94	108	1818	178	0.00	NA
SESVanderhave 36072RR	239	352.8	100	8583	96	0.99	52.13	100	1271	96	18.62	24.24	126	1952	202	0.00	NA
SESVanderhave 36073RR	225	344.8	98	7505	84	1.02	50.15	96	1090	82	18.26	21.86	158	2004	198	0.00	NA
SESVanderhave 36074RR	244	357.0	101	8688	97	1.01	53.15	102	1296	98	18.85	24.24	131	2039	191	0.00	NA
SESVanderhave H36913RR	235	351.3	100	8103	90	0.94	51.76	99	1197	90	18.51	22.94	132	1873	181	0.00	NA
SESVanderhave H36915RR	260	342.1	97	8843	99	0.96	49.49	95	1282	97	18.06	25.71	144	1887	184	0.00	NA
SESVanderhave H36916RR	204	345.8	98	9583	107	1.00	50.39	97	1400	106	18.28	27.55	140	1874	224	0.00	NA
SESVanderhave H36917RR	213	355.2	101	8595	96	1.01	52.72	101	1278	96	18.77	24.07	115	1964	220	0.00	NA
SESVanderhave H36918RR	208	358.8	102	8640	96	0.91	53.60	103	1295	98	18.87	23.94	109	1849	169	0.00	NA
Beta 85RR02(Check)	262	347.8	99	8973	100	1.07	50.88	98	1321	100	18.46	25.60	148	2069	233	0.00	84.9
Crystal 539RR(Check)	263	358.0	102	8513	95	0.97	53.40	103	1263	95	18.87	23.93	185	1949	165	0.00	81.1
Crystal 658RR(Check)	264	339.3	96	8071	90	0.88	48.82	94	1161	88	17.86	23.76	124	1713	179	0.00	92.8
Hilleshög 4012RR(Check)	265	358.0	102	9310	104	1.05	53.42	103	1392	105	18.95	25.93	156	2054	210	0.00	81.4
Trial Mean		352.6		8957		1.00	52.08		1325		18.63	25.31	144	1940	207	0.0	82.3
Coeff. of Var. (%)		2.6		11.0		6.2	4.3		11.7		2.3	10.5	19.5	5.1	14.6		8.1
Mean LSD (0.05)		12.8		1455		0.09	3.14		226		0.60	3.96	42	148	44		9.3
Mean LSD (0.01)		16.9		1920		0.12	4.15		299		0.79	5.23	56	196	59		12.3
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Crookston MN Analyzed 10/27/2010 14:37 Created 11-1-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 108306

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 27.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Grand Forks ND - All Characters - Moderate RZM

Exp 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 80RR12	219	325.2	100	10770	104	0.96	45.28	100	1505	105	17.22	33.06	174	1646	240	0.00	65.8
BTS 80RR32	230	316.6	98	11556	112	0.98	43.27	96	1578	110	16.81	36.49	297	1653	216	0.00	73.1
BTS 80RR35	202	336.2	104	9802	95	0.99	47.86	106	1395	97	17.81	29.22	208	1681	243	0.00	68.1
BTS 80RR45	243	324.1	100	10382	100	1.03	45.01	100	1439	100	17.22	32.27	258	1727	244	0.00	69.4
BTS 80RR52	240	328.3	101	10639	103	1.08	46.01	102	1496	104	17.49	32.35	225	1706	295	0.00	76.7
BTS 80RR57	206	339.1	105	10144	98	1.02	48.55	108	1456	101	17.98	29.76	250	1698	255	0.00	75.8
BTS 80RR59	249	338.6	104	10808	105	0.98	48.43	107	1544	108	17.93	31.89	247	1616	247	0.00	83.0
BTS 80RR64	257	318.1	98	11555	112	0.90	43.63	97	1582	110	16.82	36.45	218	1564	210	0.00	94.6
BTS 89RR10	210	341.8	105	9902	96	1.06	49.19	109	1422	99	18.15	29.10	220	1794	254	0.00	83.4
BTS 89RR30	238	314.5	97	11033	107	0.91	42.77	95	1505	105	16.64	34.95	318	1576	181	0.00	91.9
BTS 89RR40	212	326.2	101	11442	111	1.05	45.51	101	1594	111	17.35	35.07	230	1682	277	0.00	71.3
BTS 89RR50	220	328.3	101	11830	114	1.11	46.01	102	1654	115	17.51	36.13	259	1947	245	0.00	78.6
BTS 89RR83	231	312.4	96	11588	112	0.99	42.27	94	1565	109	16.60	37.18	249	1666	236	0.00	84.4
Crystal 091RR	201	328.6	101	9675	94	1.12	46.09	102	1357	95	17.54	29.52	223	1819	299	0.00	54.4
Crystal 092RR	236	336.0	104	10409	101	0.91	47.82	106	1489	104	17.73	30.83	210	1655	195	0.00	69.2
Crystal 093RR	251	337.8	104	10457	101	1.00	48.23	107	1489	104	17.89	30.97	207	1585	278	0.00	58.1
Crystal 094RR	233	336.8	104	9837	95	0.82	48.00	107	1410	98	17.68	29.06	199	1482	170	0.00	67.8
Crystal 095RR	217	335.4	103	11053	107	0.95	47.67	106	1578	110	17.72	32.78	201	1616	227	0.00	76.3
Crystal 096RR	254	323.2	100	10278	99	1.01	44.80	99	1436	100	17.17	31.60	216	1769	234	0.00	60.7
Crystal 873RR	242	312.6	96	11912	115	0.95	42.32	94	1605	112	16.59	38.27	335	1542	214	0.00	61.9
Crystal 981RR	223	323.2	100	12106	117	1.13	44.82	99	1674	117	17.28	37.55	249	1955	270	0.00	82.4
Crystal 984RR	222	326.7	101	10813	105	1.02	45.63	101	1511	105	17.36	33.10	307	1765	215	0.00	70.3
Crystal 985RR	228	331.8	102	9613	93	0.93	46.82	104	1358	95	17.53	29.03	219	1648	199	0.00	79.6
Crystal 986RR	250	328.9	101	12014	116	1.03	46.15	102	1679	117	17.48	36.65	248	1712	258	0.00	69.6
Hilleshög 4043RR(9043)	229	319.9	99	10190	99	0.90	44.02	98	1401	98	16.91	31.84	217	1564	211	0.00	85.3
Hilleshog 4195RR(9195)	258	319.6	99	10088	98	1.10	43.97	98	1392	97	17.06	31.50	323	1902	234	0.00	74.8
Hilleshög 9199RR	203	323.6	100	10545	102	1.01	44.91	100	1459	102	17.20	32.68	297	1675	238	0.00	57.7
Hilleshög 9224RR	218	305.3	94	10919	106	1.03	40.61	90	1453	101	16.29	35.75	269	1710	251	0.00	69.2
Hilleshög 9225RR	256	318.6	98	11449	111	1.07	43.72	97	1570	109	16.98	36.05	338	1752	243	0.00	83.9
Hilleshög 9226RR	221	307.7	95	10693	103	1.05	41.17	91	1428	100	16.41	34.71	354	1659	246	0.00	57.7
Hilleshög 9227RR	253	309.0	95	10496	102	1.19	41.48	92	1397	97	16.60	34.27	255	2098	269	0.00	73.8
Hilleshög 9228RR	248	317.5	98	10698	103	1.02	43.47	96	1465	102	16.90	33.69	264	1813	219	0.00	92.1
Hilleshög 9229RR	209	322.1	99	9712	94	1.07	44.57	99	1343	94	17.17	30.18	284	1875	227	0.00	61.2
Hilleshög 9230RR	237	315.7	97	10393	101	1.02	43.05	96	1415	99	16.80	32.88	301	1692	238	0.00	68.2
Hilleshög 9231RR	246	314.9	97	9589	93	1.02	42.85	95	1316	92	16.75	30.23	337	1698	227	0.00	75.2
Hilleshög 9232RR	224	318.9	98	8900	86	1.07	43.80	97	1209	84	17.00	28.31	355	1744	241	0.00	66.7
Hilleshög 9233RR	232	334.5	103	7698	74	0.94	47.47	105	1106	77	17.67	22.62	240	1597	216	0.00	53.1
Hilleshög 9234RR	241	326.0	101	7734	75	1.00	45.48	101	1082	75	17.30	23.69	208	1736	239	0.00	62.3
Hilleshög 9235RR	211	343.4	106	8719	84	1.10	49.55	110	1263	88	18.26	25.39	232	1878	268	0.00	52.3
Hilleshög 9236RR	261	335.1	103	10059	97	0.96	47.61	106	1428	100	17.72	30.09	202	1597	242	0.00	63.9
Hilleshög 9237RR	215	334.8	103	9634	93	0.94	47.54	105	1376	96	17.69	28.62	236	1612	215	0.00	68.3
Hilleshög 9238RR	252	336.8	104	11216	108	1.07	48.01	107	1599	111	17.90	33.28	245	1764	269	0.00	62.2
Hilleshög 9239RR	226	324.4	100	9843	95	1.01	45.09	100	1375	96	17.22	30.24	239	1690	246	0.00	66.9
Hilleshög 9297RR	255	311.4	96	10520	102	1.08	42.04	93	1422	99	16.63	33.81	305	1824	243	0.00	77.2
Hilleshög 9298RR	207	322.4	99	9887	96	1.07	44.62	99	1368	95	17.18	30.69	275	1785	256	0.00	80.3
Seedex SX0806RR	234	326.4	101	10270	99	0.95	45.56	101	1432	100	17.27	31.48	206	1675	210	0.00	NA
Seedex SX0807RR	205	317.3	98	9284	90	1.00	43.43	96	1271	89	16.86	29.25	213	1774	220	0.00	NA
Seedex SX0808RR	247	328.7	101	11007	106	0.93	46.12	102	1542	108	17.37	33.56	188	1637	206	0.00	NA
Seedex SX0891RR	259	323.7	100	9984	97	0.95	44.94	100	1372	96	17.14	31.19	196	1604	235	0.00	NA
Seedex SX0892RR	216	312.8	96	9845	95	0.97	42.37	94	1325	92	16.60	31.61	209	1755	201	0.00	NA
Seedex SX0893RR	245	329.4	102	10303	100	0.86	46.26	103	1440	100	17.35	31.40	187	1561	182	0.00	NA
Seedex SX0894RR	227	324.7	100	9942	96	0.83	45.16	100	1379	96	17.08	30.57	194	1486	179	0.00	NA
SESVanderhave 36071RR	214	318.0	98	9532	92	0.90	43.59	97	1304	91	16.82	29.99	177	1593	210	0.00	NA
SESVanderhave 36072RR	239	321.2	99	9756	94	0.97	44.34	98	1341	93	17.03	30.55	205	1749	204	0.00	NA
SESVanderhave 36073RR	225	315.6	97	9423	91	0.91	43.03	95	1281	89	16.70	29.90	229	1706	174	0.00	NA
SESVanderhave 36074RR	244	315.7	97	11133	108	0.97	43.04	96	1510	105	16.75	35.37	256	1671	213	0.00	NA
SESVanderhave H36913RR	235	324.4	100	9865	95	0.88	45.07	100	1366	95	17.11	30.52	204	1574	188	0.00	NA
SESVanderhave H36915RR	260	323.3	100	10100	98	0.88	44.85	100	1390	97	17.07	31.50	218	1596	185	0.00	NA
SESVanderhave H36916RR	204	313.3	97	9876	96	1.05	42.48	94	1332	93	16.70	31.75	266	1733	250	0.00	NA
SESVanderhave H36917RR	213	325.8	100	10856	105	0.96	45.41	101	1506	105	17.25	33.49	208	1682	216	0.00	NA
SESVanderhave H36918RR	208	329.8	102	10913	106	0.95	46.36	103	1529	107	17.45	33.15	162	1752	203	0.00	NA
Beta 85RR02(Check)	262	328.9	101	10938	106	1.09	46.15	102	1541	107	17.52	33.12	252	1791	271	0.00	75.1
Crystal 539RR(Check)	263	329.9	102	9509	92	1.10	46.38	103	1335	93	17.59	28.77	312	1844	253	0.00	84.0
Crystal 658RR(Check)	264	314.4	97	10517	102	0.88	42.75	95	1428	100	16.61	33.52	235	1441	214	0.00	85.7
Hilleshög 4012RR(Check)	265	322.2	99	10401	101	0.98	44.58	99	1426	99	17.09	32.57	269	1662	220	0.00	75.4
Trial Mean		324.3		10340		0.99	45.06		1435		17.21	31.96	245	1700	230	0.0	76.2
Coeff. of Var. (%)		2.7		8.4		7.7	4.5		8.9		2.3	8.5	22.7	6.9	15.1		11.2
Mean LSD (0.05)		13.2		1335		0.12	3.08		194		0.61	4.21	83	181	53		12.3
Mean LSD (0.01)		17.4		1763		0.15	4.07		256		0.81	5.56	110	239	70		16.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Grand Forks ND Analyzed 10/27/2010 14:38 Created 11-1-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 108307

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 28.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Alvarado 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	219	321.8	103	10572	115	0.80	44.38	106	1458	117	16.90	32.82	124	1432	193	0.00	83.0
BTS 80RR32	230	320.8	103	11256	122	0.75	44.15	105	1547	125	16.79	35.11	139	1394	159	0.00	80.3
BTS 80RR35	202	324.3	104	9034	98	0.81	44.99	107	1253	101	17.03	27.83	126	1381	209	0.00	78.0
BTS 80RR45	243	312.2	100	9640	104	0.92	42.09	100	1296	104	16.53	30.94	153	1559	239	0.00	83.3
BTS 80RR52	240	317.0	102	10052	109	0.95	43.23	103	1369	110	16.79	31.72	135	1490	286	0.00	86.0
BTS 80RR57	206	335.8	108	9668	105	0.85	47.75	114	1371	110	17.64	28.83	131	1508	209	0.00	89.0
BTS 80RR59	249	319.6	103	9276	101	0.77	43.86	104	1272	102	16.75	29.08	165	1324	181	0.00	84.1
BTS 80RR64	257	311.0	100	11050	120	0.72	41.80	100	1482	119	16.29	35.57	133	1287	172	0.00	91.3
BTS 89RR10	210	332.2	107	9306	101	0.87	46.90	112	1310	105	17.48	28.07	145	1560	211	0.00	86.0
BTS 89RR30	238	310.1	99	10498	114	0.76	41.59	99	1407	113	16.27	33.83	174	1415	152	0.00	88.6
BTS 89RR40	212	309.0	99	10382	113	0.86	41.31	98	1386	112	16.31	33.61	152	1386	240	0.00	80.7
BTS 89RR50	220	312.0	100	10540	114	1.04	42.03	100	1416	114	16.64	33.85	183	1730	284	0.00	89.4
BTS 89RR83	231	302.3	97	10784	117	0.74	39.72	95	1416	114	15.86	35.63	143	1303	179	0.00	84.1
Crystal 091RR	201	317.8	102	10422	113	0.96	43.45	103	1423	115	16.84	32.77	138	1584	270	0.00	76.5
Crystal 092RR	236	323.0	104	9605	104	0.77	44.68	106	1327	107	16.91	29.75	139	1437	158	0.00	78.4
Crystal 093RR	251	324.7	104	9912	107	0.89	45.08	107	1374	111	17.12	30.58	123	1492	244	0.00	70.5
Crystal 094RR	233	322.7	104	9317	101	0.77	44.61	106	1288	104	16.91	28.87	172	1388	164	0.00	76.9
Crystal 095RR	217	320.2	103	10431	113	0.82	44.01	105	1433	115	16.83	32.54	124	1434	206	0.00	83.3
Crystal 096RR	254	312.9	100	9734	105	0.79	42.26	101	1311	106	16.44	31.24	132	1452	170	0.00	73.1
Crystal 873RR	242	297.4	95	10089	109	0.76	38.53	92	1306	105	15.64	33.94	263	1279	163	0.00	78.8
Crystal 981RR	223	306.6	98	10421	113	0.94	40.75	97	1385	112	16.27	33.90	197	1682	213	0.00	95.1
Crystal 984RR	222	320.6	103	9812	106	0.83	44.12	105	1350	109	16.87	30.59	160	1477	191	0.00	80.7
Crystal 985RR	228	319.3	102	9591	104	0.78	43.78	104	1313	106	16.75	30.08	139	1359	195	0.00	86.7
Crystal 986RR	250	317.6	102	10242	111	0.81	43.39	103	1397	113	16.70	32.26	166	1449	185	0.00	79.6
Hilleshög 4043RR(9043)	229	308.7	99	9397	102	0.81	41.24	98	1253	101	16.25	30.51	129	1445	196	0.00	85.6
Hilleshog 4195RR(9195)	258	303.1	97	9853	107	0.86	39.90	95	1297	104	16.01	32.50	178	1540	192	0.00	82.2
Hilleshög 9199RR	203	316.1	101	9628	104	0.72	43.03	102	1309	105	16.53	30.45	149	1373	140	0.00	74.6
Hilleshög 9224RR	218	299.0	96	9492	103	0.80	38.90	93	1236	100	15.76	31.72	173	1377	198	0.00	74.6
Hilleshög 9225RR	256	301.2	97	9186	100	0.82	39.44	94	1203	97	15.89	30.44	199	1472	177	0.00	85.6
Hilleshög 9226RR	221	296.6	95	9239	100	0.83	38.32	91	1191	96	15.65	31.20	173	1473	189	0.00	63.6
Hilleshög 9227RR	253	312.1	100	9943	108	0.88	42.06	100	1339	108	16.48	31.83	145	1505	228	0.00	84.1
Hilleshög 9228RR	248	310.8	100	9720	105	0.89	41.76	99	1304	105	16.44	31.29	148	1538	230	0.00	89.8
Hilleshög 9229RR	209	306.8	98	9566	104	0.90	40.78	97	1272	102	16.24	31.16	222	1544	211	0.00	75.8
Hilleshög 9230RR	237	305.4	98	9363	101	0.90	40.47	96	1243	100	16.17	30.49	198	1496	225	0.00	83.0
Hilleshög 9231RR	246	313.0	100	9658	105	0.81	42.28	101	1301	105	16.47	30.92	180	1454	178	0.00	87.5
Hilleshög 9232RR	224	313.3	100	9218	100	0.83	42.36	101	1245	100	16.50	29.36	218	1398	196	0.00	67.4
Hilleshög 9233RR	232	316.7	102	7463	81	0.75	43.17	103	1016	82	16.58	23.58	144	1406	155	0.00	65.2
Hilleshög 9234RR	241	323.7	104	7799	85	0.84	44.85	107	1081	87	17.04	24.08	134	1466	217	0.00	66.3
Hilleshög 9235RR	211	320.5	103	8128	88	0.89	44.08	105	1124	91	16.92	25.12	173	1542	218	0.00	75.0
Hilleshög 9236RR	261	322.7	104	9458	103	0.87	44.61	106	1306	105	17.02	29.31	139	1533	221	0.00	81.1
Hilleshög 9237RR	215	322.7	103	9526	103	0.80	44.61	106	1312	106	16.95	29.59	173	1352	202	0.00	80.3
Hilleshög 9238RR	252	321.5	103	9545	103	0.89	44.31	106	1314	106	16.96	29.71	155	1546	215	0.00	79.6
Hilleshög 9239RR	226	322.8	104	8535	93	0.83	44.65	106	1178	95	16.97	26.44	151	1517	184	0.00	80.7
Hilleshög 9297RR	255	301.8	97	9979	108	0.93	39.57	94	1305	105	16.02	33.13	181	1536	248	0.00	82.2
Hilleshög 9298RR	207	311.8	100	8552	93	0.88	41.99	100	1148	92	16.47	27.54	170	1619	186	0.00	83.0
Seedex SX0806RR	234	301.5	97	7889	86	0.75	39.51	94	1035	83	15.84	26.12	151	1349	176	0.00	NA
Seedex SX0807RR	205	296.5	95	8737	95	0.75	38.32	91	1130	91	15.58	29.40	137	1397	159	0.00	NA
Seedex SX0808RR	247	298.1	96	7720	84	0.76	38.70	92	1002	81	15.67	25.85	174	1337	175	0.00	NA
Seedex SX0891RR	259	305.6	98	7846	85	0.72	40.50	96	1042	84	16.00	25.59	111	1367	154	0.00	NA
Seedex SX0892RR	216	305.8	98	7411	80	0.74	40.54	97	981	79	16.03	24.25	134	1388	155	0.00	NA
Seedex SX0893RR	245	314.2	101	8347	90	0.68	42.57	101	1132	91	16.41	26.52	131	1359	122	0.00	NA
Seedex SX0894RR	227	299.4	96	7759	84	0.71	39.02	93	1013	82	15.68	25.83	144	1305	151	0.00	NA
SESVanderhave 36071RR	214	304.2	98	7396	80	0.65	40.16	96	981	79	15.87	24.18	111	1299	121	0.00	NA
SESVanderhave 36072RR	239	301.0	97	8655	94	0.77	39.38	94	1126	91	15.82	28.93	141	1434	164	0.00	NA
SESVanderhave 36073RR	225	301.6	97	8384	91	0.70	39.52	94	1101	89	15.79	27.69	139	1341	138	0.00	NA
SESVanderhave 36074RR	244	301.7	97	8193	89	0.78	39.57	94	1072	86	15.87	27.19	136	1453	168	0.00	NA
SESVanderhave H36913RR	235	309.4	99	7764	84	0.72	41.39	99	1040	84	16.20	25.06	117	1329	161	0.00	NA
SESVanderhave H36915RR	260	300.1	96	8478	92	0.75	39.19	93	1107	89	15.77	28.23	140	1335	179	0.00	NA
SESVanderhave H36916RR	204	297.3	95	7742	84	0.77	38.51	92	1004	81	15.65	26.00	152	1353	183	0.00	NA
SESVanderhave H36917RR	213	309.3	99	8316	90	0.72	41.38	99	1112	90	16.20	26.86	114	1348	159	0.00	NA
SESVanderhave H36918RR	208	307.5	99	7785	84	0.71	40.97	98	1037	83	16.10	25.32	117	1390	136	0.00	NA
Beta 85RR02(Check)	262	320.0	103	9152	99	0.89	43.95	105	1255	101	16.88	28.62	160	1580	208	0.00	81.4
Crystal 539RR(Check)	263	312.2	100	8419	91	0.85	42.07	100	1136	91	16.46	26.91	212	1486	189	0.00	87.1
Crystal 658RR(Check)	264	301.7	97	9338	101	0.76	39.56	94	1226	99	15.86	30.89	154	1356	177	0.00	90.2
Hilleshög 4012RR(Check)	265	317.8	102	9594	104	0.82	43.45	103	1307	105	16.72	30.30	188	1445	180	0.00	86.4
Trial Mean		311.8		9227		0.81	41.99		1242		16.41	29.59	155	1440	190	0.0	83.0
Coeff. of Var. (%)		3.3		8.6		7.4	5.9		10.1		3.1	7.6	19.1	5.6	16.0		7.3
Mean LSD (0.05)		15.6		1204		0.09	3.74		191		0.77	3.37	43	122	45		8.5
Mean LSD (0.01)		20.6		1589		0.12	4.93		252		1.02	4.45	57	161	59		11.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Alvarado MN

Analyzed 10/27/2010 14:40

Created 11-1-2010.

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

Trial # = 108308

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 29.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
St Thomas 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	219	315.5	101	8833	110	1.20	42.83	102	1199	111	17.01	28.06	308	1690	363	0.00	69.3
BTS 80RR32	230	315.6	101	8631	107	1.29	42.85	103	1179	109	17.10	27.24	418	1719	399	0.00	66.3
BTS 80RR35	202	328.8	106	8080	101	1.27	45.94	110	1129	105	17.76	24.58	325	1678	424	0.00	70.2
BTS 80RR45	243	310.0	100	8342	104	1.32	41.56	99	1115	103	16.83	26.99	369	1704	444	0.00	74.3
BTS 80RR52	240	316.5	102	8701	108	1.39	43.05	103	1190	110	17.21	27.36	334	1753	485	0.00	63.0
BTS 80RR57	206	334.6	108	8151	101	1.21	47.29	113	1156	107	18.00	24.24	293	1767	341	0.00	86.9
BTS 80RR59	249	322.2	104	7439	93	1.19	44.40	106	1027	95	17.34	23.12	383	1608	352	0.00	74.2
BTS 80RR64	257	299.6	96	8635	107	1.19	39.11	94	1126	104	16.18	28.82	415	1600	347	0.00	83.6
BTS 89RR10	210	324.0	104	7378	92	1.27	44.83	107	1017	94	17.51	22.92	344	1748	386	0.00	81.5
BTS 89RR30	238	302.6	97	8471	105	1.27	39.81	95	1113	103	16.42	28.12	477	1804	331	0.00	77.6
BTS 89RR40	212	320.9	103	8165	102	1.33	44.08	105	1124	104	17.39	25.39	321	1771	436	0.00	71.4
BTS 89RR50	220	308.0	99	9149	114	1.42	41.07	98	1226	114	16.82	29.59	456	1985	407	0.00	78.7
BTS 89RR83	231	306.5	99	9328	116	1.27	40.71	97	1240	115	16.61	30.49	412	1725	380	0.00	78.6
Crystal 091RR	201	306.9	99	8864	110	1.50	40.80	98	1176	109	16.81	28.97	355	1904	533	0.00	62.4
Crystal 092RR	236	316.3	102	8175	102	1.33	43.01	103	1112	103	17.16	25.96	403	1823	399	0.00	70.3
Crystal 093RR	251	328.8	106	8735	109	1.29	45.93	110	1220	113	17.76	26.61	283	1760	429	0.00	60.0
Crystal 094RR	233	326.4	105	8283	103	1.08	45.38	109	1156	107	17.48	25.29	282	1561	313	0.00	66.4
Crystal 095RR	217	309.7	100	8245	103	1.33	41.47	99	1109	103	16.84	26.53	432	1663	440	0.00	76.0
Crystal 096RR	254	308.7	99	7965	99	1.28	41.23	99	1072	99	16.74	25.64	379	1787	376	0.00	67.2
Crystal 873RR	242	287.7	92	8469	105	1.39	36.32	87	1073	99	15.75	29.39	678	1811	371	0.00	59.9
Crystal 981RR	223	307.1	99	8671	108	1.48	40.85	98	1161	108	16.82	28.09	493	2052	413	0.00	84.0
Crystal 984RR	222	315.4	101	8201	102	1.37	42.81	102	1111	103	17.13	26.10	443	2022	346	0.00	68.1
Crystal 985RR	228	321.6	103	7827	97	1.21	44.25	106	1081	100	17.34	24.33	294	1695	368	0.00	72.6
Crystal 986RR	250	320.1	103	9237	115	1.46	43.91	105	1268	117	17.45	28.74	450	1821	492	0.00	68.1
Hilleshög 4043RR(9043)	229	320.1	103	8383	104	1.10	43.90	105	1154	107	17.17	26.10	207	1654	318	0.00	70.5
Hilleshog 4195RR(9195)	258	302.8	97	7879	98	1.45	39.85	95	1037	96	16.57	26.15	548	1982	397	0.00	73.9
Hilleshög 9199RR	203	315.6	101	8376	104	1.18	42.86	103	1140	106	17.01	26.49	348	1668	330	0.00	61.9
Hilleshög 9224RR	218	300.6	97	8653	108	1.28	39.35	94	1133	105	16.32	28.77	381	1727	398	0.00	62.9
Hilleshög 9225RR	256	305.9	98	8635	107	1.34	40.60	97	1146	106	16.65	28.19	510	1819	380	0.00	75.1
Hilleshög 9226RR	221	295.9	95	7895	98	1.42	38.24	91	1021	95	16.19	26.70	424	1878	455	0.00	53.6
Hilleshög 9227RR	253	297.8	96	7662	95	1.34	38.69	93	999	92	16.24	25.66	395	1881	388	0.00	69.1
Hilleshög 9228RR	248	305.7	98	7619	95	1.38	40.52	97	1012	94	16.66	24.95	373	1927	414	0.00	89.5
Hilleshög 9229RR	209	311.6	100	8724	109	1.37	41.91	100	1177	109	16.94	27.91	530	1925	356	0.00	59.9
Hilleshög 9230RR	237	308.1	99	8203	102	1.39	41.10	98	1094	101	16.79	26.65	378	1933	421	0.00	65.5
Hilleshög 9231RR	246	301.0	97	8087	101	1.32	39.43	94	1059	98	16.36	26.90	553	1762	363	0.00	81.5
Hilleshög 9232RR	224	302.6	97	8276	103	1.41	39.80	95	1088	101	16.52	27.36	723	1761	393	0.00	61.3
Hilleshög 9233RR	232	319.2	103	6836	85	1.21	43.69	105	935	87	17.20	21.52	329	1629	382	0.00	48.6
Hilleshög 9234RR	241	317.4	102	6132	76	1.23	43.29	104	835	77	17.15	19.42	297	1704	389	0.00	44.3
Hilleshög 9235RR	211	320.4	103	7839	98	1.46	43.98	105	1083	100	17.47	24.22	440	2026	437	0.00	52.9
Hilleshög 9236RR	261	327.7	105	8029	100	1.21	45.71	109	1118	104	17.65	24.61	298	1650	387	0.00	70.3
Hilleshög 9237RR	215	309.2	99	8015	100	1.25	41.36	99	1077	100	16.72	25.74	459	1713	345	0.00	60.2
Hilleshög 9238RR	252	320.9	103	7709	96	1.32	44.09	105	1056	98	17.37	24.14	309	1807	422	0.00	57.6
Hilleshög 9239RR	226	325.3	105	8466	105	1.26	45.13	108	1183	110	17.57	25.65	289	1754	391	0.00	64.0
Hilleshög 9297RR	255	290.0	93	7960	99	1.52	36.85	88	1017	94	15.97	27.39	533	1949	474	0.00	66.5
Hilleshög 9298RR	207	321.0	103	7464	93	1.23	44.12	106	1033	96	17.33	22.90	284	1868	342	0.00	72.1
Seedex SX0806RR	234	310.0	100	8804	110	1.18	41.54	99	1183	110	16.72	28.31	278	1707	346	0.00	NA
Seedex SX0807RR	205	302.9	97	8176	102	1.32	39.87	95	1073	99	16.46	27.06	353	1858	389	0.00	NA
Seedex SX0808RR	247	303.1	97	7873	98	1.26	39.92	96	1034	96	16.43	26.09	322	1826	355	0.00	NA
Seedex SX0891RR	259	314.8	101	7743	96	1.19	42.67	102	1048	97	16.96	24.69	271	1741	345	0.00	NA
Seedex SX0892RR	216	311.3	100	7902	98	1.21	41.85	100	1065	99	16.81	25.34	291	1776	345	0.00	NA
Seedex SX0893RR	245	309.8	100	6827	85	1.25	41.49	99	920	85	16.76	21.96	287	1730	384	0.00	NA
Seedex SX0894RR	227	298.9	96	7474	93	1.42	38.93	93	973	90	16.34	25.05	335	1859	488	0.00	NA
SESVanderhave 36071RR	214	308.6	99	7318	91	1.15	41.20	99	978	91	16.61	23.66	254	1721	323	0.00	NA
SESVanderhave 36072RR	239	305.1	98	7385	92	1.34	40.40	97	977	90	16.60	24.25	365	1861	408	0.00	NA
SESVanderhave 36073RR	225	303.3	98	7030	88	1.28	39.98	96	929	86	16.46	23.06	329	1813	385	0.00	NA
SESVanderhave 36074RR	244	304.7	98	7578	94	1.27	40.32	96	997	92	16.52	25.03	307	1835	370	0.00	NA
SESVanderhave H36913RR	235	308.3	99	7684	96	1.14	41.13	98	1024	95	16.59	25.02	387	1634	310	0.00	NA
SESVanderhave H36915RR	260	298.3	96	7614	95	1.20	38.79	93	995	92	16.14	25.47	342	1712	347	0.00	NA
SESVanderhave H36916RR	204	307.0	99	7958	99	1.37	40.84	98	1062	98	16.72	25.83	303	1794	464	0.00	NA
SESVanderhave H36917RR	213	310.5	100	7544	94	1.23	41.65	100	1016	94	16.79	24.17	329	1766	362	0.00	NA
SESVanderhave H36918RR	208	307.2	99	7030	88	1.21	40.90	98	935	87	16.60	22.92	246	1709	379	0.00	NA
Beta 85RR02(Check)	262	312.3	100	7513	94	1.42	42.07	101	1014	94	17.04	24.11	395	1968	421	0.00	64.4
Crystal 539RR(Check)	263	319.5	103	7421	92	1.37	43.79	105	1013	94	17.35	23.33	447	1789	428	0.00	73.0
Crystal 658RR(Check)	264	300.0	96	7860	98	1.22	39.19	94	1027	95	16.22	26.15	334	1676	377	0.00	84.2
Hilleshög 4012RR(Check)	265	312.0	100	8618	107	1.32	42.02	101	1159	107	16.92	27.72	521	1803	356	0.00	77.0
Trial Mean		311.1		8033		1.29	41.80		1080		16.86	25.84	379	1785	390	0.0	72.5
Coeff. of Var. (%)		2.8		7.8		8.7	4.8		8.7		2.3	7.4	23.7	4.9	16.8		8.7
Mean LSD (0.05)		13.3		961		0.17	3.11		144		0.60	2.96	136	128	97		9.5
Mean LSD (0.01)		17.5		1268		0.23	4.10		189		0.79	3.91	179	169	128		12.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from St Thomas ND Analyzed 10/27/2010 14:45 Created 11-1-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 108309

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 30.
2010 Performance of Varieties - ACSC Conventional Official Trial
ACS Seven Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R760	5	333.8	100	9801	112	1.01	47.42	101	1389	113	17.69	29.45	202	1682	258	0.00	78.4
Crystal R761	2	330.6	100	10141	116	1.14	46.62	99	1425	116	17.67	30.84	228	1880	304	0.00	79.5
Crystal R869	6	347.3	105	9589	110	0.95	50.76	108	1398	113	18.31	27.70	164	1605	255	0.03	84.2
Seedex SX0801TT	3	321.7	97	9040	104	0.97	44.43	94	1249	101	17.06	28.10	168	1634	257	0.06	NA
Seedex SX0802	1	328.5	99	8982	103	1.00	46.12	98	1261	102	17.43	27.33	194	1689	257	0.06	71.1
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	325.5	98	7964	91	0.99	45.38	96	1107	90	17.26	24.56	173	1654	264	0.00	NA
Hilleshög 2417Rz(Check)	8	336.0	101	8285	95	0.92	47.98	102	1185	96	17.73	24.57	170	1591	230	0.03	78.8
Seedex Rezult(Check)	9	337.0	101	7840	90	0.94	48.22	103	1118	91	17.78	23.37	166	1635	234	0.03	82.4
Crystal R434(Check)	10	331.5	100	8898	102	1.15	46.84	100	1254	102	17.72	26.95	232	1770	337	0.00	94.0
Beta 1305R(Check)	11	328.0	99	8413	96	1.09	45.99	98	1175	95	17.49	25.81	202	1701	316	0.03	85.9
Susc 3N - Aph Tol	12	337.5	102	6792	78	0.97	48.34	103	975	79	17.85	20.07	222	1636	235	0.00	92.3
Trial Mean		332.2		8731		1.01	47.03		1233		17.62	26.36	194	1674	266	0.0	84.8
Coeff. of Var. (%)		2.5		10.2		8.2	4.3		10.7		2.1	9.9	21.8	6.0	15.8	641.5	8.3
F Value		13.3		14.4		20.7	13.3		13.0		11.8	16.4	8.9	10.6	14.7	0.9	18.5
Mean LSD (0.05)		5.3		699		0.05	1.31		104		0.27	2.03	24	72	26	0.1	4.5
Mean LSD (0.01)		7.0		928		0.06	1.74		139		0.35	2.69	32	96	34		5.9
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Seven Sites Analyzed 10/28/2010 05:39 Created 10-25-2010.

Vigor not collected. Trial # = 10ACcnv

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 31.
2010 Performance of Varieties - ACSC Conventional Official Trial
ACS Two Light Rzm Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R760	5	343.8	101	8604	109	0.95	49.91	101	1243	109	18.14	25.16	121	1834	209	0.00	83.2
Crystal R761	2	339.5	100	8841	112	1.08	48.84	99	1269	112	18.06	26.14	137	2103	234	0.00	83.1
Crystal R869	6	351.4	103	8516	108	0.98	51.78	105	1252	110	18.54	24.31	106	1918	209	0.00	91.4
Seedex SX0801TT	3	330.2	97	7729	98	0.97	46.53	94	1087	96	17.48	23.47	109	1870	218	0.11	NA
Seedex SX0802	1	336.7	99	8115	103	1.06	48.14	98	1163	102	17.89	24.05	142	1976	243	0.00	77.4
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	335.5	98	6650	84	1.02	47.86	97	946	83	17.80	19.88	111	1917	246	0.00	NA
Hilleshög 2417Rz(Check)	8	347.8	102	7737	98	0.94	50.89	103	1132	100	18.33	22.26	103	1829	205	0.00	79.7
Seedex Rezult(Check)	9	345.7	101	6840	87	0.92	50.38	102	997	88	18.21	19.81	104	1842	185	0.11	85.7
Crystal R434(Check)	10	337.8	99	8655	110	1.16	48.41	98	1235	109	18.05	25.75	140	2101	292	0.00	97.5
Beta 1305R(Check)	11	339.7	100	7789	99	1.05	48.89	99	1114	98	18.04	23.12	127	1906	266	0.00	90.0
Susc 3N - Aph Tol	12	349.5	102	7085	90	1.02	51.32	104	1039	91	18.49	20.29	152	1909	227	0.00	91.8
Trial Mean		341.2		7896		1.01	49.27		1137		18.07	23.21	122	1928	228	0.0	88.3
Coeff. of Var. (%)		2.1		11.1		6.0	3.5		11.6		1.8	10.9	20.2	5.0	13.5	692.8	5.8
F Value		5.7		2.5		5.4	5.7		2.5		5.7	2.4	2.5	4.4	3.1	0.9	3.0
Mean LSD (0.05)		8.5		1450		0.10	2.11		207		0.36	4.41	34	138	54	0.1	11.5
Mean LSD (0.01)		12.1		2039		0.14	3.00		292		0.48	6.18	48	195	76		16.4
Sig Mrk		**		ns		**	**		ns		**	ns	ns	*	*		*

* 2010 Data from ACS Two Light Rzm Sites Analyzed 11/08/2010 14:05 Created 11-8-2010.
Vigor not collected. Trial # = 10ACcnvLgt

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 32.
2010 Performance of Varieties - ACSC Conventional Official Trial
ACS Five Moderate to Severe Rzm Sites - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Rev/T $ ++	Rev/T %Mean	Rev/A $ ++	Rev/A %Mean	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Crystal R760	5	329.7	100	10282	113	1.03	46.42	101	1443	113	17.51	31.25	235	1619	278	0.00	76.4
Crystal R761	2	327.1	100	10661	118	1.17	45.76	99	1489	117	17.52	32.70	264	1790	332	0.00	78.1
Crystal R869	6	345.6	105	10020	111	0.94	50.35	109	1456	114	18.22	29.09	187	1478	274	0.04	81.3
Seedex SX0801TT	3	318.2	97	9564	106	0.97	43.56	94	1314	103	16.88	29.92	192	1536	272	0.04	NA
Seedex SX0802	1	325.2	99	9324	103	0.98	45.30	98	1299	102	17.25	28.62	215	1578	262	0.09	68.6
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	321.6	98	8489	94	0.97	44.41	96	1173	92	17.05	26.40	197	1554	272	0.00	NA
Hilleshög 2417Rz(Check)	8	331.2	101	8502	94	0.92	46.79	101	1203	95	17.49	25.52	198	1499	239	0.04	78.5
Seedex Rezult(Check)	9	334.0	102	8244	91	0.94	47.47	103	1167	92	17.63	24.85	190	1546	254	0.00	81.1
Crystal R434(Check)	10	328.7	100	8995	99	1.15	46.16	100	1263	99	17.58	27.40	269	1637	356	0.00	92.4
Beta 1305R(Check)	11	323.2	98	8669	96	1.10	44.81	97	1198	94	17.26	26.93	232	1619	336	0.04	84.3
Susc 3N - Aph Tol	12	332.5	101	6677	74	0.95	47.11	102	949	75	17.58	19.98	250	1530	239	0.00	92.6
Trial Mean		328.6		9065		1.01	46.14		1272		17.44	27.61	223	1573	281	0.0	83.4
Coeff. of Var. (%)		2.6		9.7		8.8	4.6		10.4		2.2	9.6	21.1	6.6	16.2	623.8	9.2
F Value		8.9		16.0		15.3	8.9		13.6		7.9	20.3	7.2	10.5	13.3	0.9	15.3
Mean LSD (0.05)		6.9		766		0.06	1.71		118		0.35	2.12	32	77	30	0.1	5.1
Mean LSD (0.01)		9.2		1024		0.08	2.28		157		0.47	2.83	42	103	39		6.7
Sig Lvl		0		0		0	0		0		0	0	0	0	0		0
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from ACS Five Moderate to Severe Rzm Sites Analyzed 11/08/2010 14:07 Created 11-8-2010.
Vigor not collected. Trial # = 10ACcnvMod

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 33.
2010 Performance of Varieties - ACSC Conventional Official Trial
Averill 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 R760	5	331.0	100	9633	110	0.93	46.74	100	1355	110	17.47	29.07	305	1279	274	0.00	51.3
Crystal R761	2	329.1	100	9955	114	1.05	46.26	99	1404	114	17.52	30.05	326	1242	363	0.00	61.0
Crystal R869	6	348.1	105	9798	112	0.94	50.97	109	1422	116	18.32	28.49	238	1113	347	0.00	57.3
Seedex SX0801TT	3	315.5	95	10587	121	1.00	42.89	92	1441	117	16.77	33.69	321	1149	351	0.00	NA
Seedex SX0802	1	321.8	97	8704	100	0.98	44.46	95	1203	98	17.08	27.11	327	1186	319	0.21	41.4
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	328.8	99	8827	101	0.97	46.19	99	1238	101	17.41	26.98	285	1284	307	0.00	NA
Hilleshög 2417Rz(Check)	8	336.0	102	8522	98	0.88	47.96	103	1225	100	17.70	25.11	275	1135	275	0.21	55.0
Seedex Rezult(Check)	9	342.1	103	7021	80	0.88	49.48	106	1010	82	17.97	20.54	261	1130	285	0.00	49.2
Crystal R434(Check)	10	331.9	100	8292	95	1.17	46.96	101	1171	95	17.77	24.95	406	1306	417	0.00	56.7
Beta 1305R(Check)	11	324.6	98	8097	93	0.94	45.16	97	1121	91	17.17	25.05	291	1188	309	0.00	51.8
Susc 3N - Aph Tol	12	329.1	100	5970	68	0.89	46.27	99	842	68	17.35	18.19	371	1111	259	0.00	70.5
Trial Mean		330.6		8735		0.97	46.64		1230		17.50	26.49	313	1191	318	0.0	56.6
Coeff. of Var. (%)		3.1		11.4		10.1	5.5		11.7		2.6	11.7	23.6	8.3	15.8	0.0	23.6
F Value		2.4		6.9		2.5	2.4		6.2		2.8	7.1	1.4	1.8	3.1	0.0	1.3
Mean LSD (0.05)		16.6		1426		0.15	4.11		207		0.73	4.57	118	149	75	0.0	20.3
Mean LSD (0.01)		22.4		1916		0.20	5.54		278		0.99	6.14	158	201	101		27.3
Sig Mrk		*		**		*	*		**		*	**	ns	ns	**		ns

* 2010 Data from Averill MN Analyzed 10/27/2010 13:41 Created 10-25-2010.

Vigor not collected. Trial # = 108202

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 34.
2010 Performance of Varieties - ACSC Conventional Official Trial
Reynolds 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 R760	5	329.4	100	10950	111	1.04	46.33	100	1538	110	17.51	33.06	182	1710	275	0.00	88.7
Crystal R761	2	335.2	102	11731	118	1.13	47.78	103	1661	119	17.88	35.73	204	1933	297	0.00	85.6
Crystal R869	6	348.2	106	10717	108	0.88	50.98	110	1562	112	18.29	30.75	140	1608	216	0.00	91.4
Seedex SX0801TT	3	316.8	96	10227	103	0.99	43.23	93	1408	101	16.84	31.62	157	1652	262	0.00	NA
Seedex SX0802	1	327.5	100	10971	111	0.97	45.85	99	1544	111	17.36	32.93	178	1724	224	0.00	80.0
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	322.1	98	9246	93	0.99	44.53	96	1271	91	17.09	29.02	134	1761	260	0.00	NA
Hilleshög 2417Rz(Check)	8	333.5	101	9652	97	0.98	47.35	102	1372	98	17.66	28.72	160	1697	246	0.00	90.8
Seedex Rezult(Check)	9	337.3	102	9418	95	0.93	48.30	104	1341	96	17.79	28.23	154	1675	234	0.00	87.9
Crystal R434(Check)	10	331.6	101	10287	104	1.21	46.88	101	1457	105	17.80	31.02	194	1847	370	0.00	107.9
Beta 1305R(Check)	11	323.5	98	8938	90	1.17	44.88	97	1228	88	17.34	28.15	185	1869	345	0.00	96.2
Susc 3N - Aph Tol	12	313.6	95	6019	61	0.91	42.42	92	814	58	16.58	19.37	225	1665	184	0.00	101.1
Trial Mean		329.1		9906		1.01	46.26		1393		17.47	30.07	175	1733	262	0.0	93.8
Coeff. of Var. (%)		2.5		9.9		10.1	4.4		10.0		2.0	10.3	17.4	7.9	21.1	0.0	5.5
F Value		4.2		8.2		3.0	4.2		9.0		5.9	6.2	2.3	1.6	2.9	0.0	8.7
Mean LSD (0.05)		13.9		1480		0.17	3.45		215		0.60	4.72	50	231	90	0.0	7.6
Mean LSD (0.01)		18.9		1989		0.23	4.67		290		0.81	6.35	67	312	121		10.2
Sig Lvl		0.19		0		1.19	0.19		0		0.02	0	4.09	15.91	1.16		0
Sig Mrk		**		**		*	**		**		**	**	*	ns	*		**

* 2010 Data from Reynolds ND Analyzed 10/27/2010 13:44 Created 10-25-2010.

Vigor not collected. Trial # = 108204

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 35.
2010 Performance of Varieties - ACSC Conventional Official Trial
Climax 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 R760	5	341.4	102	9694	113	0.90	49.30	103	1396	114	17.98	28.49	96	1688	219	0.00	79.4
Crystal R761	2	332.1	99	9975	116	1.09	47.01	98	1408	115	17.69	30.11	114	2004	267	0.00	76.1
Crystal R869	6	348.2	104	9537	111	0.94	51.00	106	1398	114	18.34	27.39	84	1756	232	0.00	89.6
Seedex SX0801TT	3	322.5	96	8295	96	0.94	44.62	93	1150	94	17.06	25.70	89	1786	225	0.00	NA
Seedex SX0802	1	334.3	100	8259	96	0.98	47.55	99	1181	96	17.68	24.57	103	1817	240	0.00	71.7
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	328.0	98	7442	87	0.98	45.98	96	1038	85	17.37	22.83	94	1732	260	0.00	NA
Hilleshög 2417Rz(Check)	8	345.6	103	8330	97	0.92	50.36	105	1213	99	18.20	24.12	79	1713	227	0.00	68.5
Seedex Rezult(Check)	9	337.6	101	6555	76	0.91	48.37	101	937	76	17.78	19.50	94	1750	208	0.21	74.5
Crystal R434(Check)	10	328.7	98	9484	110	1.20	46.16	96	1328	108	17.65	28.91	115	2011	353	0.00	96.2
Beta 1305R(Check)	11	336.6	100	8927	104	1.05	48.13	100	1269	104	17.89	26.71	93	1869	285	0.00	84.4
Susc 3N - Aph Tol	12	346.7	103	7438	87	0.97	50.63	106	1086	89	18.31	21.45	102	1839	227	0.00	91.0
Trial Mean		335.9		8598		0.98	47.94		1225		17.78	25.65	97	1811	248	0.0	83.5
Coeff. of Var. (%)		2.3		10.4		6.1	4.0		11.0		2.1	10.2	16.8	4.5	13.1	0.0	6.0
F Value		4.0		5.4		8.3	4.0		5.0		4.0	5.8	1.7	6.2	5.9	0.0	9.2
Mean LSD (0.05)		11.9		1353		0.09	2.94		199		0.57	4.02	23	123	47	0.0	8.0
Mean LSD (0.01)		16.0		1819		0.12	3.95		268		0.77	5.40	31	166	64		10.8
Sig Mrk		**		**		**	**		**		**	**	ns	**	**		**

* 2010 Data from Climax MN Analyzed 10/27/2010 13:45 Created 10-25-2010.
Vigor not collected. Trial # = 108205

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 36.
2010 Performance of Varieties - ACSC Conventional Official Trial
Crookston 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 R760	5	345.8	100	7545	105	1.01	50.39	100	1096	104	18.29	21.88	145	1984	197	0.00	86.7
Crystal R761	2	347.6	100	7686	107	1.09	50.84	100	1125	107	18.48	22.12	160	2202	203	0.00	90.5
Crystal R869	6	354.5	102	7520	105	1.03	52.56	104	1111	106	18.73	21.25	126	2085	185	0.00	92.1
Seedex SX0801TT	3	338.4	98	7173	100	1.00	48.55	96	1027	98	17.91	21.23	128	1959	209	0.21	NA
Seedex SX0802	1	339.1	98	7984	111	1.15	48.74	96	1146	109	18.09	23.57	180	2134	250	0.00	83.0
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	342.4	99	5839	81	1.07	49.56	98	849	81	18.20	16.96	129	2093	233	0.00	NA
Hilleshög 2417Rz(Check)	8	350.0	101	7134	99	0.96	51.43	102	1049	100	18.46	20.38	128	1943	183	0.00	90.2
Seedex Rezult(Check)	9	354.8	102	7114	99	0.92	52.63	104	1056	101	18.68	20.06	117	1935	161	0.00	97.7
Crystal R434(Check)	10	345.9	100	7802	108	1.11	50.43	100	1137	108	18.42	22.54	164	2190	229	0.00	100.4
Beta 1305R(Check)	11	342.9	99	6625	92	1.05	49.67	98	957	91	18.20	19.40	160	1941	245	0.00	96.2
Susc 3N - Aph Tol	12	352.2	102	6755	94	1.07	51.98	103	996	95	18.67	19.19	203	1981	224	0.00	90.5
Trial Mean		346.6		7194		1.04	50.59		1050		18.37	20.77	148	2045	208	0.0	93.2
Coeff. of Var. (%)		1.9		11.8		6.4	3.2		12.0		1.6	11.8	20.9	5.2	14.9	0.0	4.9
F Value		2.5		1.6		4.0	2.5		1.6		2.5	1.6	2.6	3.4	3.2	0.0	5.7
Mean LSD (0.05)		10.2		1322		0.10	2.51		193		0.47	3.88	49	158	47	0.0	6.5
Mean LSD (0.01)		13.7		1778		0.13	3.38		260		0.63	5.22	66	212	64		8.7
Sig Lvl		2.48		15.2		0.08	2.48		14.62		2.67	15.25	2.12	0.44	0.75		0
Sig Mrk		*		ns		**	*		ns		*	ns	*	**	**		**

* 2010 Data from Crookston MN Analyzed 10/27/2010 13:46 Created 10-25-2010.
Vigor not collected. Trial # = 108206

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 37.
2010 Performance of Varieties - ACSC Conventional Official Trial
Grand Forks 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 R760	5	338.1	100	10677	114	1.05	48.49	100	1531	114	17.95	31.44	240	1612	291	0.00	74.3
Crystal R761	2	331.1	98	10906	116	1.20	46.76	97	1536	115	17.74	33.09	301	1735	351	0.00	77.9
Crystal R869	6	351.7	104	10141	108	0.92	51.85	107	1498	112	18.51	28.72	188	1478	253	0.21	82.1
Seedex SX0801TT	3	328.4	97	9457	101	0.92	46.08	96	1331	99	17.36	28.91	176	1547	248	0.00	NA
Seedex SX0802	1	335.2	99	9077	97	1.02	47.78	99	1291	96	17.78	27.05	226	1616	282	0.00	65.8
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	328.8	98	9023	96	0.94	46.20	96	1267	95	17.38	27.33	233	1420	265	0.00	NA
Hilleshög 2417Rz(Check)	8	335.6	100	8419	90	0.92	47.88	99	1207	90	17.69	24.66	214	1460	240	0.00	69.1
Seedex Rezult(Check)	9	342.3	102	8743	93	0.99	49.52	103	1257	94	18.07	25.69	228	1545	256	0.00	77.7
Crystal R434(Check)	10	336.9	100	9601	102	1.09	48.19	100	1379	103	17.95	28.39	275	1572	332	0.00	93.4
Beta 1305R(Check)	11	334.8	99	9047	97	1.10	47.67	99	1287	96	17.84	27.20	246	1565	347	0.00	87.1
Susc 3N - Aph Tol	12	350.4	104	7911	84	0.96	51.54	107	1166	87	18.49	22.65	260	1486	262	0.00	91.6
Trial Mean		337.1		9370		1.00	48.25		1340		17.86	27.83	237	1542	282	0.0	81.9
Coeff. of Var. (%)		2.3		7.4		9.1	4.0		8.4		1.9	6.6	20.7	5.9	12.9	0.0	8.3
F Value		3.3		6.1		3.8	3.3		4.7		4.2	8.5	1.8	3.1	4.2	0.0	6.1
Mean LSD (0.05)		12.3		1056		0.13	3.04		167		0.53	2.96	74	144	55	0.0	10.4
Mean LSD (0.01)		16.5		1419		0.18	4.10		224		0.72	3.99	99	194	74		14.0
Sig Mrk		**		**		**	**		**		**	**	ns	**	**		**

* 2010 Data from Grand Forks ND — Analyzed 10/27/2010 13:48 — Created 10-25-2010.
Vigor not collected. Trial # = 108207

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 38.
2010 Performance of Varieties - ACSC Conventional Official Trial
Alvarado 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 R760	5	316.3	100	10589	119	0.96	43.09	101	1449	120	16.79	33.37	151	1647	248	0.00	86.5
Crystal R761	2	312.8	99	10539	118	1.09	42.23	99	1415	117	16.72	33.84	171	1909	280	0.00	88.1
Crystal R869	6	332.6	106	10433	117	0.89	47.12	110	1483	123	17.53	31.29	150	1476	242	0.00	89.8
Seedex SX0801TT	3	300.9	95	8035	90	0.90	39.28	92	1046	86	15.92	26.75	120	1579	231	0.00	NA
Seedex SX0802	1	317.5	101	9377	105	0.82	43.39	101	1280	106	16.70	29.56	128	1509	194	0.21	85.5
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	310.0	98	8008	90	0.88	41.53	97	1077	89	16.40	25.72	133	1544	226	0.00	NA
Hilleshög 2417Rz(Check)	8	320.2	102	8364	94	0.77	44.07	103	1158	96	16.80	25.98	128	1456	165	0.00	95.8
Seedex Rezult(Check)	9	315.7	100	8591	96	0.83	42.95	100	1174	97	16.62	27.10	122	1551	189	0.00	96.7
Crystal R434(Check)	10	314.5	100	8770	98	1.03	42.66	100	1180	98	16.73	28.03	164	1618	306	0.00	105.6
Beta 1305R(Check)	11	310.1	98	9345	105	1.03	41.56	97	1257	104	16.54	30.03	147	1672	298	0.21	97.6
Susc 3N - Aph Tol	12	327.2	104	6549	74	0.89	45.79	107	920	76	17.28	19.98	148	1616	209	0.00	102.4
Trial Mean		315.1		8904		0.92	42.80		1210		16.67	28.24	147	1590	235	0.0	96.0
Coeff. of Var. (%)		3.3		12.5		10.1	6.0		14.0		3.0	11.1	21.0	6.3	18.9	0.0	4.7
F Value		2.6		4.6		4.0	2.6		4.2		3.0	5.5	2.2	5.3	3.9	0.0	7.7
Mean LSD (0.05)		15.8		1624		0.14	3.92		244		0.75	4.61	48	156	64	0.0	6.9
Mean LSD (0.01)		21.3		2183		0.18	5.27		328		1.01	6.19	65	209	85		9.3
Sig Lvl		1.89		0.06		0.17	1.89		0.07		1.03	0.01	5.06	0.02	0.12		0
Sig Mrk		*		**		**	*		**		*	**	ns	**	**		**

* 2010 Data from Alvarado MN — Analyzed 10/27/2010 13:48 — Created 10-25-2010.
Vigor not collected. Trial # = 108208

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 39.
2010 Performance of Varieties - ACSC Conventional Official Trial
St Thomas 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 R760	5	333.1	101	9776	116	1.18	47.25	101	1384	117	17.81	29.49	281	1865	309	0.00	80.3
Crystal R761	2	327.6	99	10099	120	1.34	45.90	98	1416	119	17.72	30.71	324	2111	359	0.00	78.8
Crystal R869	6	347.2	105	9041	108	1.10	50.74	109	1318	111	18.43	26.18	220	1727	307	0.00	85.2
Seedex SX0801TT	3	329.1	99	9471	113	1.06	46.26	99	1330	112	17.51	28.85	183	1773	282	0.21	NA
Seedex SX0802	1	322.8	98	8427	100	1.12	44.69	96	1166	98	17.25	26.12	209	1866	291	0.00	71.2
SESVanderhave H46519	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SESVanderhave H48717TT	4	319.0	96	7242	86	1.06	43.75	94	996	84	17.04	22.64	212	1743	289	0.00	NA
Hilleshög 2417Rz(Check)	8	330.7	100	7613	91	1.02	46.67	100	1082	91	17.61	22.82	210	1721	269	0.00	83.3
Seedex Rezult(Check)	9	332.0	100	7584	90	1.10	46.99	101	1069	90	17.67	22.95	185	1848	293	0.00	92.0
Crystal R434(Check)	10	328.6	99	8025	95	1.25	46.14	99	1123	95	17.69	24.57	303	1837	368	0.00	98.5
Beta 1305R(Check)	11	325.0	98	7964	95	1.24	45.25	97	1108	93	17.49	24.53	290	1781	378	0.00	88.6
Susc 3N - Aph Tol	12	343.8	104	6863	82	1.07	49.91	107	1001	84	18.29	19.82	261	1747	278	0.00	98.5
Trial Mean		331.0		8409		1.13	46.73		1186		17.68	25.44	244	1809	308	0.0	88.5
Coeff. of Var. (%)		2.0		5.7		6.7	3.5		6.8		1.7	4.7	15.4	4.4	11.9	0.0	6.3
F Value		5.0		15.8		6.3	5.0		11.1		5.4	23.2	5.4	6.7	4.4	0.0	10.5
Mean LSD (0.05)		11.3		753		0.11	2.79		128		0.52	1.92	62	131	52	0.0	8.1
Mean LSD (0.01)		15.3		1012		0.15	3.78		172		0.71	2.59	84	176	70		10.8
Sig Mrk		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from St Thomas ND Analyzed 10/27/2010 13:57 Created 10-25-2010.

Vigor not collected. Trial # = 108209

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

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

Table 40.
2010 Performance of Varieties - ACSC RR Aph Spec Yield Trial
Kindred ND - All Characters

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.
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	$ ++	%Mean	$ ++	%Mean	%	T/A	ppm	ppm	ppm	%	%
Beta 80RR12	425	319.0	102	7571	121	0.92	43.76	104	1041	122	16.85	23.68	149	1688	210	0.00	63.3
Beta 80RR32	406	321.3	103	5630	90	0.95	44.32	105	780	91	17.03	17.39	157	1814	202	0.00	58.3
Beta 80RR35	423	324.4	104	7876	126	0.94	45.10	107	1097	128	17.16	24.22	162	1710	217	0.00	71.9
Beta 80RR45	445	286.9	92	3418	55	1.18	35.81	85	421	49	15.54	12.08	176	2230	264	0.00	53.4
Beta 80RR52	416	328.1	105	7171	114	0.94	46.02	109	1013	119	17.35	21.64	111	1762	225	0.00	67.2
Beta 80RR57	455	329.1	105	6888	110	0.94	46.26	110	976	114	17.39	20.76	127	1838	195	0.00	75.8
Beta 80RR59	444	320.1	102	5038	80	1.03	44.03	104	695	81	17.03	15.69	203	1859	226	0.00	68.8
Beta 80RR64	415	306.6	98	7994	128	0.85	40.68	97	1063	125	16.20	25.99	147	1659	169	0.00	80.5
Beta 85RR02	456	329.8	106	8624	138	1.01	46.43	110	1224	143	17.50	25.90	154	1908	218	0.00	72.7
Beta 87RR38	402	309.0	99	5779	92	1.04	41.29	98	779	91	16.49	18.53	162	1984	220	0.00	80.5
Beta 88RR13	435	295.2	94	3181	51	1.15	37.88	90	405	47	15.92	10.87	179	2182	248	0.00	44.3
Beta 88RR21	451	299.7	96	5369	86	1.00	38.99	93	710	83	15.99	17.56	180	1867	211	0.00	60.2
Beta 88RR31	412	314.1	101	7437	119	1.01	42.55	101	1009	118	16.72	23.63	168	1901	215	0.00	69.5
Beta 88RR41	439	296.0	95	3862	62	1.18	38.08	90	505	59	15.99	12.77	182	2168	274	0.00	75.3
Beta 88RR61	424	316.0	101	7569	121	1.00	43.02	102	1029	121	16.79	24.02	138	1872	226	0.00	68.8
Beta 89RR10	447	325.1	104	7580	121	1.05	45.27	107	1066	125	17.30	23.02	157	1965	236	0.00	80.7
Beta 89RR30	441	324.0	104	8718	139	0.79	44.99	107	1211	142	16.99	26.90	138	1566	152	0.00	77.4
Beta 89RR40	403	321.0	103	7208	115	0.94	44.25	105	1003	117	17.00	22.15	147	1716	220	0.00	63.8
Beta 89RR50	436	325.5	104	8924	142	0.98	45.37	108	1247	146	17.25	27.35	158	1817	219	0.00	75.3
Beta 89RR83	428	303.2	97	5313	85	0.98	39.85	95	700	82	16.15	17.47	155	1878	206	0.00	73.2
Crystal 091RR	427	319.0	102	6391	102	1.07	43.75	104	882	103	17.01	19.92	119	1978	262	0.00	44.8
Crystal 092RR	458	302.2	97	2527	40	1.20	39.61	94	329	39	16.31	8.46	200	2228	265	0.00	50.3
Crystal 093RR	413	325.7	104	5912	94	1.04	45.42	108	835	98	17.33	17.84	124	1877	263	0.00	47.4
Crystal 094RR	433	329.7	106	5338	85	0.90	46.42	110	763	89	17.39	15.89	136	1714	195	0.00	55.0
Crystal 095RR	421	310.2	99	7541	120	1.08	41.58	99	1011	118	16.60	24.29	159	1940	269	0.00	62.5
Crystal 096RR	457	306.2	98	4095	65	0.98	40.58	96	560	66	16.30	12.83	173	1804	219	0.00	47.9
Crystal 539RR	401	324.8	104	7927	127	1.01	45.21	107	1102	129	17.25	24.43	190	1843	225	0.00	69.5
Crystal 658RR	442	299.9	96	6744	108	0.93	39.03	93	891	104	15.92	22.08	154	1741	203	0.00	68.5
Crystal 873RR	405	299.6	96	6049	97	0.97	38.96	92	792	93	15.94	20.07	187	1782	212	0.00	47.4
Crystal 875RR	446	324.7	104	9065	145	1.01	45.18	107	1264	148	17.25	27.83	162	1921	218	0.00	68.0
Crystal 981RR	438	326.3	104	8527	136	0.98	45.56	108	1197	140	17.30	25.94	169	1795	227	0.00	66.9
Crystal 984RR	417	326.9	105	7783	124	0.96	45.72	108	1091	128	17.30	23.73	154	1816	207	0.00	56.8
Crystal 985RR	414	312.1	100	6555	105	1.01	42.06	100	894	105	16.63	20.66	151	1864	234	0.00	55.0
Crystal 986RR	453	315.8	101	6697	107	1.04	42.98	102	920	108	16.82	20.99	165	1880	246	0.00	56.3
Hilleshög 4012RR	409	317.1	102	6302	101	1.01	43.30	103	868	102	16.86	19.65	188	1874	215	0.00	80.2
Hilleshög 4022RR	440	309.8	99	5476	87	1.08	41.49	98	741	87	16.57	17.43	191	2051	223	0.00	84.9
Hilleshög 4043RR(9043)	434	312.3	100	6962	111	1.00	42.10	100	945	111	16.62	22.10	135	1923	215	0.00	70.6
Hilleshög 4062RR(9062)	449	323.1	103	6249	100	0.99	44.77	106	872	102	17.14	19.17	141	1917	207	0.00	80.2
Hilleshög 4094RR(9094)	411	312.1	100	6049	97	1.02	42.05	100	828	97	16.63	19.01	153	1989	207	0.00	83.9
Hilleshog 4195RR(9195)	426	308.9	99	4866	78	1.09	41.25	98	665	78	16.52	15.31	175	2072	229	0.00	71.1
Seedex SX0807RR	419	310.7	99	6028	96	0.99	41.70	99	823	96	16.51	19.05	127	1970	196	0.00	56.8
Seedex SX0808RR	454	323.4	104	6056	97	0.99	44.86	106	846	99	17.15	18.58	117	1943	209	0.00	57.8
Seedex SX0894RR	432	310.3	99	6058	97	1.01	41.60	99	819	96	16.53	19.31	139	1966	213	0.00	66.9
Seedex SX0902RR	410	305.8	98	6016	96	1.04	40.49	96	800	94	16.34	19.56	141	2020	221	0.00	56.5
Seedex SX0904RR	429	286.7	92	5073	81	1.10	35.75	85	631	74	15.43	17.75	192	2081	232	0.00	65.9
Seedex SX0995RR	422	300.5	96	6219	99	1.06	39.17	93	829	97	16.08	20.19	136	2048	229	0.00	57.8
Seedex Ultra RR(SX0983RR)	437	305.2	98	6682	107	0.98	40.35	96	889	104	16.25	21.72	138	1901	206	0.00	58.3
Seedex Usher RR(SX0883)	443	302.8	97	5942	95	1.07	39.74	94	782	92	16.20	19.59	164	2092	215	0.00	72.4
SESVanderhave 36073RR	418	309.7	99	5523	88	1.02	41.46	98	743	87	16.49	17.76	139	2003	206	0.00	53.7
SESVanderhave 36084RR	430	306.3	98	5944	95	1.01	40.60	96	801	94	16.33	19.03	168	1914	219	0.00	51.0
SESVanderhave H36811RR	452	306.0	98	5552	89	1.00	40.55	96	751	88	16.31	17.70	144	1955	207	0.00	60.7
SESVanderhave H36813RR	407	319.5	102	6827	109	1.01	43.89	104	956	112	16.99	20.81	137	1943	218	0.00	63.0
SESVanderhave H36822RR	459	293.6	94	4681	75	1.14	37.47	89	597	70	15.82	15.95	201	2133	247	0.00	56.8
SESVanderhave H36915RR	420	303.8	97	6686	107	1.01	40.01	95	890	104	16.22	21.70	153	1932	216	0.00	60.7
SESVanderhave H36917RR	408	306.5	98	5049	81	1.05	40.66	96	674	79	16.38	16.36	149	2007	230	0.00	54.7
SESVanderhave H36918RR	450	319.6	102	6248	100	0.95	43.90	104	865	101	16.93	19.36	114	1868	198	0.00	64.1
SESVanderhave H36923RR	448	305.8	98	6260	100	1.01	40.49	96	841	98	16.30	20.14	148	1967	209	0.00	52.9
SESVanderhave H36926RR	404	306.1	98	6065	97	0.98	40.57	96	815	95	16.28	19.50	141	1980	184	0.00	59.9
SESVanderhave H36929RR	431	301.7	97	6467	103	1.01	39.47	94	858	100	16.08	21.11	150	1930	215	0.00	65.4
RR Aph Susc 02	460	322.3	103	4183	67	1.00	44.57	106	586	69	17.11	12.79	172	1837	223	0.00	68.2
Trial Mean		312.4		6263		1.01	42.14		854		16.63	19.79	156	1915	220	0.0	64.2
Coeff. of Var. (%)		3.1		13.4		6.7	5.7		14.3		2.8	13.2	16.3	5.7	11.7		14.0
Mean LSD (0.05)		12.2		1097		0.09	3.02		160		0.58	3.41	31	141	33		10.2
Mean LSD (0.01)		16.1		1447		0.12	3.98		210		0.76	4.50	40	186	43		13.5
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2010 Data from Kindred ND Analyzed 10/12/2010 10:57 Created 10-21-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 108381

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

++ Revenue estimates are based on a $44.01 beet payment at 17.5 % sugar and 1.5 % loss to molasses. Revenue does not consider hauling costs.

Table 41.
Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2011

Description	Approval Status	Rec/Ton 2009	Rec/Ton 2010	Rec/Ton 2 Yr	Rec/Ton % Bench	Rev/Acre 2009	Rev/Acre 2010	Rev/Acre 2 Yr	Rev/Acre % Bench	R/T + $/A Bench	Cercospora Rating + 2007	2008	2009	2010	2 Yr Mean	3 Yr Mean
Previously Approved (3 Yr)																***<=5.40***
Roundup Ready																
BTS 85RR02	Approved	293.2	332.3	312.8	101.4	858	1313	1085.6	100.9	202.3		4.64	4.66	4.47		4.59
BTS 86RR66	Approved	291.6	323.5	307.6	99.7	914	1268	1090.8	101.3	201.1		5.15	5.00	5.07		5.08
BTS 87RR38	Approved	294.8	329.9	312.4	101.3	930	1334	1131.8	105.1	206.4		4.33	4.73	4.82		4.63
BTS 87RR58	Approved	294.1	331.8	313.0	101.5	929	1346	1137.3	105.7	207.1		4.60	5.06	5.43		5.03
BTS 87RR68	Approved	300.2	335.5	317.9	103.1	997	1213	1105.2	102.7	205.7		4.32	4.66	4.47		4.49
BTS 88RR21	Approved	283.8	321.0	302.4	98.1	840	1284	1062.2	98.7	196.7		4.19	4.33	4.85		4.46
BTS 88RR31	Approved	293.0	327.2	310.1	100.5	894	1310	1102.2	102.4	202.9		4.70	4.97	4.66		4.78
BTS 88RR41	Approved	290.1	325.7	307.9	99.8	899	1265	1081.9	100.5	200.3		4.56	4.87	5.14		4.86
BTS 88RR61	Approved	299.4	337.0	318.2	103.2	952	1353	1152.5	107.1	210.2		4.18	5.06	4.50		4.58
Crystal 539RR	Approved	290.3	331.7	311.0	100.8	855	1257	1056.0	98.1	198.9		4.90	5.25	5.39		5.18
Crystal 658RR	Approved	280.9	317.0	299.0	96.9	831	1259	1044.9	97.1	194.0		4.24	4.63	4.46		4.44
Crystal 765RR	Approved	306.1	339.7	322.9	104.7	1022	1315	1168.5	108.6	213.3		3.97	4.89	4.52		4.46
Crystal 768RR	Approved	300.9	330.1	315.5	102.3	982	1352	1167.2	108.4	210.7		4.45	4.94	5.21		4.87
Crystal 875RR	Approved	292.6	330.7	311.6	101.0	911	1396	1153.7	107.2	208.2		4.27	4.56	4.33		4.38
Crystal 878RR	Approved	293.4	333.8	313.6	101.7	948	1356	1152.1	107.0	208.7		4.44	4.91	5.17		4.84
Crystal 879RR	Approved	286.7	320.0	303.3	98.4	903	1301	1101.9	102.4	200.7		4.52	5.13	5.36		5.00
Hilleshög 4010RR	Approved	297.2	NA	NA	NA	869	NA	NA	NA	NA		4.81	5.51	5.13		5.15
Hilleshög 4012RR	Approved	290.6	331.3	311.0	100.8	892	1346	1119.2	104.0	204.8		4.98	5.29	5.00		5.09
Hilleshög 4043RR(9043)	Approved	294.1	327.3	310.7	100.7	893	1317	1105.2	102.7	203.4		4.49	4.69	5.01		4.73
Hilleshög 4094RR(9094)	Approved	293.0	327.2	310.1	100.5	869	1289	1079.1	100.3	200.8		3.78	4.42	4.28		4.16
Seedex Uplander RR(SX0884)	Approved	305.9	NA	NA	NA	920	NA	NA	NA	NA		4.80	4.94	4.97		4.90
Seedex Usher RR(SX0883)	Approved	292.9	NA	NA	NA	903	NA	NA	NA	NA		5.83	4.35	5.05		5.08
SESVanderhave H36711RR	Approved	296.0	NA	NA	NA	954	NA	NA	NA	NA		4.36	5.22	4.99		4.86
SESVanderhave H36811RR	Approved	306.7	NA	NA	NA	862	NA	NA	NA	NA		4.32	5.10	4.62		4.68
SESVanderhave H36812RR	Approved	293.4	323.5	308.4	100.0	924	1319	1121.5	104.2	204.2		4.82	4.74	5.16		4.91
SESVanderhave H36813RR	Approved	296.6	NA	NA	NA	951	NA	NA	NA	NA		5.75	4.55	4.59		4.96
Conventional																
Crystal R760	Approved	--	333.8	--	--	--	1389	--	--	--	5.29	5.07	--	5.66	5.37	5.37
Crystal R761	Approved	--	330.6	--	--	--	1425	--	--	--	4.79	4.03	--	4.86	4.45	4.45
Crystal R869	Approved	--	347.3	--	--	--	1398	--	--	--	--	4.44	--	4.90	4.67	4.67
SESVanderhave H46519	Approved	299.7	NA	--	--	949	NA	--	--	--	4.57	4.21	4.76	4.47	4.61	4.48
SESVanderhave H48717TT	Approved	293.5	325.5	309.5	100.4	987	1107	1047.1	97.3	197.6	5.20	4.58	5.39	5.36	5.37	5.11
Candidates for Approval (2 Yr) - RR															<=5.20	
BTS 88RR13	Not Approved	280.5	310.1	295.3	95.8	801	1142	971.6	90.3	186.0		4.08	4.55	4.61	4.58	--
BTS 89RR10	Approved	308.7	346.5	327.6	106.2	911	1369	1140.1	105.9	212.1			4.48	4.92	4.70	--
BTS 89RR30	Approved	284.5	322.7	303.6	98.4	924	1382	1153.4	107.2	205.6			5.08	5.09	5.08	--
BTS 89RR40	Approved	299.7	327.0	313.3	101.6	958	1368	1162.9	108.0	209.6			4.83	5.07	4.95	--
BTS 89RR50	Approved	290.1	327.8	308.9	100.2	944	1474	1209.3	112.3	212.5			4.84	5.16	5.00	--
BTS 89RR83	Approved	284.7	320.1	302.4	98.1	886	1483	1184.4	110.0	208.1			4.53	4.83	4.68	--
Crystal 873RR	Not Approved	274.3	313.6	294.0	95.3	906	1356	1130.8	105.1	200.4		4.58	5.37	5.90	5.64	--
Crystal 981RR	Not Approved	286.6	326.5	306.5	99.4	979	1434	1206.8	112.1	211.5			5.19	5.29	5.24	--
Crystal 984RR	Approved	298.5	334.1	316.3	102.6	935	1360	1147.2	106.6	209.1			4.84	5.14	4.99	--
Crystal 985RR	Approved	297.4	335.4	316.4	102.6	939	1326	1132.4	105.2	207.8			4.18	4.30	4.24	--
Crystal 986RR	Approved	300.8	336.3	318.6	103.3	905	1461	1182.9	109.9	213.2			4.53	5.45	4.99	--
Hilleshög 4022RR	Not Approved	286.1	327.8	307.0	99.5	839	1319	1079.1	100.2	199.8		3.80	4.53	4.26	4.40	--
Hilleshog 4195RR(9195)	Approved	287.7	322.8	305.3	99.0	924	1294	1108.9	103.0	202.0			4.56	4.39	4.47	--
Hilleshög 9199RR	Approved	295.9	332.3	314.1	101.8	882	1282	1082.1	100.5	202.4			4.64	4.67	4.66	--
Seedex SX0891RR	Approved	304.8	328.8	316.8	102.7	910	1234	1072.0	99.6	202.3			5.17	4.76	4.96	--
Seedex SX0892RR	Not Approved	285.7	321.5	303.6	98.4	927	1205	1065.7	99.0	197.4			4.79	4.64	4.71	--
Seedex SX0893RR	Approved	302.5	330.0	316.2	102.5	946	1252	1099.1	102.1	204.7			4.94	4.87	4.91	--
Seedex SX0894RR	Approved	298.3	325.2	311.8	101.1	896	1208	1052.1	97.7	198.8			4.38	4.51	4.45	--
SESVanderhave H36913RR	Approved	298.7	329.1	313.9	101.8	951	1252	1101.5	102.3	204.1			5.16	4.91	5.03	--
SESVanderhave H36915RR	Approved	297.0	320.8	308.9	100.2	927	1256	1091.2	101.4	201.5			5.05	4.77	4.91	--
SESVanderhave H36916RR	Approved	297.3	323.2	310.2	100.6	920	1261	1090.8	101.3	201.9			4.91	4.97	4.94	--
SESVanderhave H36917RR	Approved	305.1	329.3	317.2	102.8	929	1297	1113.4	103.4	206.3			5.01	4.95	4.98	--
SESVanderhave H36918RR	Approved	305.1	330.8	317.9	103.1	937	1242	1089.5	101.2	204.3			4.36	4.47	4.41	--
Benchmark Varieties																
Beta 85RR02																
Crystal 539RR	Benchmark	293.2	332.3			858.1	1313.0									
Crystal 658RR	Benchmark	290.3	331.7			854.9	1257.0									
Hilleshög 4012RR	Benchmark	280.9	317.0			830.7	1259.0									
	Benchmark	290.6	331.3			892.4	1346.0									
Benchmark mean (adjusted)	Adj. Factor	1.0062	1.000			0.9921	1.000									
+ All Cercospora readings 2008-2010 were adjusted to 1982 basis.		288.75	328.08	308.4		859.03	1293.8	1076.4								

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

I 11-03-2010.

Bench for 2009 & 2010 is mean of 4 varieties (Beta 85RR02, Crystal 539RR, Crystal 658RR, Hilleshög 4012RR).

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

Table 42.
Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

Description	Approval ^ Likely	Rec/Ton 2010	Rec/Ton % Bench	Rev/Acre 2010	Rev/Acre % Bench	R/T + $/A Bench	CR Rating ^^ 2010
Candidates for Retesting (1 Yr)							
BTS 80RR12	NOT	334.5	102.0	1434	110.9	212.8	5.27
BTS 80RR32	On Track	329.2	100.3	1442	111.5	211.8	4.93
BTS 80RR35	On Track	344.2	104.9	1327	102.5	207.5	4.94
BTS 80RR45	NOT	326.1	99.4	1319	102.0	201.4	4.98
BTS 80RR52	On Track	335.2	102.2	1363	105.4	207.6	4.32
BTS 80RR57	On Track	343.1	104.6	1326	102.5	207.0	5.12
BTS 80RR59	On Track	340.5	103.8	1295	100.1	203.9	3.89
BTS 80RR64	On Track	321.5	98.0	1437	111.1	209.1	4.76
Crystal 091RR	On Track	330.1	100.6	1339	103.5	204.1	4.58
Crystal 092RR	On Track	332.1	101.2	1242	96.0	197.2	4.90
Crystal 093RR	On Track	343.0	104.5	1357	104.9	209.4	5.12
Crystal 094RR	On Track	339.3	103.4	1288	99.5	203.0	4.60
Crystal 095RR	On Track	333.8	101.8	1405	108.6	210.4	4.80
Crystal 096RR	NOT	326.5	99.5	1285	99.3	198.8	4.52
Hilleshög 9224RR	NOT	313.2	95.5	1220	94.3	189.7	4.87
Hilleshög 9225RR	NOT	324.2	98.8	1315	101.7	200.5	4.91
Hilleshög 9226RR	NOT	313.4	95.5	1177	91.0	186.5	5.10
Hilleshög 9227RR	NOT	319.9	97.5	1257	97.1	194.6	4.05
Hilleshög 9228RR	NOT	325.4	99.2	1326	102.5	201.7	4.38
Hilleshög 9229RR	NOT	325.2	99.1	1282	99.1	198.2	4.86
Hilleshög 9230RR	NOT	321.8	98.1	1281	99.0	197.1	4.38
Hilleshög 9231RR	NOT	324.3	98.8	1242	96.0	194.9	3.88
Hilleshög 9232RR	NOT	325.5	99.2	1174	90.8	190.0	3.83
Hilleshög 9233RR	On Track	335.9	102.4	1019	78.8	181.2	3.36
Hilleshög 9234RR	On Track	335.6	102.3	1001	77.4	179.7	3.10
Hilleshög 9235RR	NOT	339.7	103.5	1174	90.8	194.3	5.31
Hilleshög 9236RR	On Track	343.7	104.8	1363	105.4	210.1	4.45
Hilleshög 9237RR	On Track	336.9	102.7	1306	100.9	203.6	4.58
Hilleshög 9238RR	On Track	338.9	103.3	1269	98.1	201.4	4.16
Hilleshög 9239RR	On Track	334.6	102.0	1234	95.4	197.4	5.13
Hilleshög 9297RR	NOT	317.4	96.7	1330	102.8	199.6	4.25
Hilleshög 9298RR	On Track	328.8	100.2	1204	93.0	193.3	4.10
Seedex SX0806RR	NOT	327.3	99.7	1298	100.3	200.1	5.13
Seedex SX0807RR	NOT	320.0	97.5	1229	95.0	192.6	4.53
Seedex SX0808RR	NOT	331.3	101.0	1307	101.0	202.0	5.27
SESVanderhave 36071RR	NOT	324.2	98.8	1183	91.4	190.2	4.59
SESVanderhave 36072RR	NOT	325.5	99.2	1272	98.3	197.5	4.61
SESVanderhave 36073RR	NOT	321.5	98.0	1174	90.8	188.8	4.48
SESVanderhave 36074RR	NOT	323.2	98.5	1280	99.0	197.5	4.73
Cnv. Candidates for Retesting (1 Yr)							
Seedex SX0801TT	NOT	321.7	98.1	1249	96.5	194.6	5.03
Seedex SX0802	On Track	328.5	100.1	1261	97.5	197.6	4.26
Benchmark Mean		328.1		1294			

^ NOT = not on track for approval. On Track = data is tracking for potential approval. Created 11-03-2010.

^^ All Cercospora readings 2010 were adjusted to 1982 basis.

Full market approval criteria include: 1) 2 years of official trial data, 2) Cercospora rating must not exceed 5.20 (1982 adjusted data),
3a) R/T >= 100% of Bench or 3b) R/T >= 97% and R/T + $/A equal to 202 of Bench.

Bench for 2009 & 2010 is mean of 4 varieties (Beta 85RR02, Crystal 539RR, Crystal 658RR, Hilleshög 4012RR).

Table 43.
Calculation for Approval of Sugarbeet Varieties for ACSC Aphanomyces Specialty Market for 2011

Yrs Aph Yld	Chk	Description	Approval Status	Root Aph. Rating 2008	2009	2010	2 Yr Mean	3 Yr Mean	Cercospora Rating + 2008	2009	2010	2 Yr Mean	3 Yr Mean
		Previously Approved (3 Yrs)						***<=5.20***					***<=5.40***
		Roundup Ready											
3		BTS 85RR02	Approved	4.16	4.02	3.54	3.78	3.91	4.64	4.66	4.47	4.56	4.59
3		BTS 88RR21	Approved	4.52	4.08	4.19	4.14	4.27	4.19	4.33	4.85	4.59	4.46
3		BTS 88RR31	Approved	4.35	4.10	3.80	3.95	4.08	4.70	4.97	4.66	4.82	4.78
3		BTS 88RR61	Approved	4.55	4.57	4.31	4.44	4.48	4.18	5.06	4.50	4.78	4.58
3		Crystal 539RR	Approved	4.55	4.19	3.97	4.08	4.24	4.90	5.25	5.39	5.32	5.18
3		Crystal 658RR	Approved	4.78	3.95	3.91	3.93	4.21	4.24	4.63	4.46	4.54	4.44
3		Crystal 875RR	Approved	3.79	3.00	3.34	3.17	3.38	4.27	4.56	4.33	4.44	4.38
3		Hilleshög 4012RR	Approved	4.32	4.47	4.26	4.37	4.35	4.98	5.29	5.00	5.15	5.09
3		Hilleshög 4022RR	Approved	4.84	4.80	4.96	4.88	4.87	3.80	4.53	4.26	4.40	4.20
3		Hilleshög 4043RR(9043)	Approved	4.55	4.91	4.90	4.91	4.79	4.49	4.69	5.01	4.85	4.73
		Candidates for Approval					***<=4.90***						***<=5.20***
		Roundup Ready											
2		BTS 89RR30	Approved		4.10	4.25	4.18			5.08	5.09	5.08	
2		BTS 89RR40	Approved		4.49	4.14	4.32			4.83	5.07	4.95	
2		BTS 89RR50	Approved		3.60	3.86	3.73			4.84	5.16	5.00	
2		Crystal 981RR	NO		4.07	3.37	3.72			5.19	5.29	5.24	
2		Crystal 984RR	Approved		4.46	4.19	4.32			4.84	5.14	4.99	
2		Crystal 985RR	Approved		4.15	4.20	4.18			4.18	4.30	4.24	
2		Hilleshög 4094RR(9094)	Approved		3.95	4.87	4.41			4.42	4.28	4.35	
2		Hilleshog 4195RR(9195)	NO		4.84	5.17	5.00			4.56	4.39	4.47	
2		SESVanderhave H36811RR	Approved		4.42	4.66	4.54			5.10	4.62	4.86	
2		SESVanderhave H36917RR	Approved		4.28	4.68	4.48			5.01	4.95	4.98	
		Approval Criteria new varieties					4.90					5.20	
		Criteria to Maintain Approval						5.20					5.40

+ All Cercospora readings 2008-2010 were adjusted to 1982 basis.

Aphanomyces approval criteria include: 1) 2 years of Aph official trial data (exception for RR varieties), 2) Cercospora rating must not exceed 5.20 (1982 adjusted data), 3) Aph root rating <= 4.90 after 2 years.

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.

Table 44.

Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2011

Description	Approval Status	Disease Index + 2008	2009	2010	2 Yr Mean	3 Yr Mean	Cercospora Rating ** 2008	2009	2010	2 Yr Mean	3 Yr Mean
Previously Approved (3 Yr)											
BTS 88RR13	Approved	2.08	3.40	3.95	3.68	3.14	4.08	4.55	4.61	4.58	4.41
Crystal 658RR	Approved	2.88	3.74	4.17	3.96	3.60	4.24	4.63	4.46	4.54	4.44
Hilleshög 4022RR	Approved	1.60	3.10	3.56	3.33	2.75	3.80	4.53	4.26	4.40	4.20
Hilleshög 4094RR(9094)	Approved	1.98	3.22	3.85	3.53	3.01	3.78	4.42	4.28	4.35	4.16
SESVanderhave H36811RR	Approved	3.20	4.28	4.14	4.21	3.87	4.32	5.10	4.62	4.86	4.68
RR Candidates for Approval (2 Yr)											
BTS 80RR12	<2 Yrs		--	4.21	--			--	5.27	--	
BTS 80RR32	<2 Yrs		--	3.94	--			--	4.93	--	
BTS 80RR35	<2 Yrs		--	4.09	--			--	4.94	--	
BTS 80RR45	<2 Yrs		--	4.04	--			--	4.98	--	
BTS 80RR52	<2 Yrs		--	4.17	--			--	4.32	--	
BTS 80RR57	<2 Yrs		--	4.33	--			--	5.12	--	
BTS 80RR59	<2 Yrs		--	4.36	--			--	3.89	--	
BTS 80RR64	<2 Yrs		--	3.56	--			--	4.76	--	
BTS 85RR02	Not Approved		4.48	4.05	4.27			4.66	4.47	4.56	
BTS 86RR66	Not Approved		4.11	3.91	4.01			5.00	5.07	5.04	
BTS 87RR38	Not Approved		3.79	4.36	4.07			4.73	4.82	4.77	
BTS 87RR58	Not Approved		4.46	4.48	4.47			5.06	5.43	5.24	
BTS 87RR68	Not Approved		4.64	4.83	4.74			4.66	4.47	4.57	
BTS 88RR21	Not Approved		3.82	3.65	3.74			4.33	4.85	4.59	
BTS 88RR31	Not Approved		4.07	3.59	3.83			4.97	4.66	4.82	
BTS 88RR41	Not Approved		4.26	4.19	4.23			4.87	5.14	5.00	
BTS 88RR61	Not Approved		4.50	3.63	4.06			5.06	4.50	4.78	
BTS 89RR10	Not Approved		4.54	3.94	4.24			4.48	4.92	4.70	
BTS 89RR30	Not Approved		3.91	3.66	3.79			5.08	5.09	5.08	
BTS 89RR40	Not Approved		4.50	4.20	4.35			4.83	5.07	4.95	
BTS 89RR50	Not Approved		4.75	4.01	4.38			4.84	5.16	5.00	
BTS 89RR83	Not Approved		3.59	3.63	3.61			4.53	4.83	4.68	
Crystal 091RR	<2 Yrs		--	4.02	--			--	4.58	--	
Crystal 092RR	<2 Yrs		--	4.69	--			--	4.90	--	
Crystal 093RR	<2 Yrs		--	4.11	--			--	5.12	--	
Crystal 094RR	<2 Yrs		--	4.44	--			--	4.60	--	
Crystal 095RR	<2 Yrs		--	4.11	--			--	4.80	--	
Crystal 096RR	<2 Yrs		--	3.89	--			--	4.52	--	
Crystal 539RR	Not Approved		4.38	4.37	4.37			5.25	5.39	5.32	
Crystal 765RR	Not Approved		4.68	4.37	4.53			4.89	4.52	4.70	
Crystal 768RR	Not Approved		4.06	4.31	4.18			4.94	5.21	5.08	
Crystal 873RR	Not Approved		3.58	3.67	3.62			5.37	5.90	5.64	
Crystal 875RR	Not Approved		4.16	3.49	3.82			4.56	4.33	4.44	
Crystal 878RR	Not Approved		4.39	4.44	4.41			4.91	5.17	5.04	
Crystal 879RR	Not Approved		4.13	4.19	4.16			5.13	5.36	5.24	
Crystal 981RR	<2 Yrs		--	4.12	--			5.19	5.29	5.24	
Crystal 984RR	<2 Yrs		--	4.15	--			4.84	5.14	4.99	
Crystal 985RR	<2 Yrs		--	3.98	--			4.18	4.30	4.24	
Crystal 986RR	Not Approved		4.59	4.65	4.62			4.53	5.45	4.99	
Hilleshög 4010RR	Not Approved		4.96	4.49	4.73			5.51	5.13	5.32	
Hilleshög 4012RR	Not Approved		4.84	4.53	4.68			5.29	5.00	5.15	
Hilleshög 4043RR(9043)	Not Approved		4.54	4.40	4.47			4.69	5.01	4.85	
Hilleshog 4195RR(9195)	Not Approved		3.67	4.08	3.88			4.56	4.39	4.47	
Hilleshög 9199RR	<2 Yrs		--	4.95	--			4.64	4.67	4.66	
Hilleshög 9227RR	<2 Yrs		--	3.78	--			--	4.05	--	
Hilleshög 9228RR	<2 Yrs		--	3.45	--			--	4.38	--	
Hilleshög 9230RR	<2 Yrs		--	3.67	--			--	4.38	--	
Hilleshög 9231RR	<2 Yrs		--	3.67	--			--	3.88	--	
Hilleshög 9233RR	<2 Yrs		--	4.18	--			--	3.36	--	
Hilleshög 9234RR	<2 Yrs		--	3.81	--			--	3.10	--	
Hilleshög 9297RR	<2 Yrs		--	3.59	--			--	4.25	--	
Hilleshög 9298RR	<2 Yrs		--	3.75	--			--	4.10	--	
Seedex SX0807RR	<2 Yrs		--	4.42	--			--	4.53	--	
Seedex SX0808RR	<2 Yrs		--	4.42	--			--	5.27	--	
Seedex SX0891RR	<2 Yrs		--	4.31	--			5.17	4.76	4.96	
Seedex SX0892RR	<2 Yrs		--	4.23	--			4.79	4.64	4.71	
Seedex SX0893RR	<2 Yrs		--	4.53	--			4.94	4.87	4.91	
Seedex SX0894RR	<2 Yrs		--	4.32	--			4.38	4.51	4.45	
Seedex Uplander RR(SX0884)	Not Approved		4.73	4.20	4.47			4.94	4.97	4.96	
Seedex Usher RR(SX0883)	Not Approved		4.13	4.47	4.30			4.35	5.05	4.70	
SESVanderhave 36073RR	<2 Yrs		--	4.33	--			--	4.48	--	
SESVanderhave H36711RR	Not Approved		4.50	3.83	4.16			5.22	4.99	5.10	
SESVanderhave H36812RR	Not Approved		4.57	4.45	4.51			4.74	5.16	4.95	
SESVanderhave H36813RR	Not Approved		4.63	4.10	4.36			4.55	4.59	4.57	
SESVanderhave H36913RR	<2 Yrs		--	4.11	--			5.16	4.91	5.03	
SESVanderhave H36915RR	<2 Yrs		--	4.08	--			5.05	4.77	4.91	
SESVanderhave H36916RR	<2 Yrs		--	4.30	--			4.91	4.97	4.94	
SESVanderhave H36917RR	<2 Yrs		--	4.27	--			5.01	4.95	4.98	
SESVanderhave H36918RR	<2 Yrs		--	4.37	--			4.36	4.47	4.41	
Conventional Candidates for Approval (2 Yr)											
SESVanderhave H48717TT	Not Approved		4.28	4.23	4.26			5.39	5.36	4.97	
Susceptible Checks											
ACSC Rhiz Chk#01 SEEDMONOHIKARI	Susc Chk	4.17	4.72	4.61	4.67	4.50					
ACSC Rhiz Chk#02 HILLE17	Susc Chk	3.33	4.49	4.21	4.35	4.01					
Filler25 CRYSR434	Susc Chk	3.84	4.22	3.99	4.10	4.02					
ACSC Rhiz Chk#09 CRYSR431	Susc Chk	5.57	4.55	4.64	4.59	4.92					
ACSC Rhiz Chk#08 CRYS539RR	Susc Chk	7.00	4.53	4.22	4.37	5.25					
ACSC Rhiz Chk#11 BETA87RR68	Susc Chk	7.00	4.88	4.60	4.74	5.49					
ACSC Rhiz Chk#15 CRYSR760	Susc Chk	6.03	4.51	4.44	4.48	4.99					
ACSC Rhiz Chk#21 CRYS768RR	Susc Chk	5.69	4.05	4.59	4.32	4.78					
ACSC Rhiz Chk#27 HILL4012RR	Susc Chk	5.29	4.69	4.75	4.72	4.91					
ACSC Rhiz Chk#20 CRYS765RR	Susc Chk	7.00	4.25	4.49	4.37	5.25					
ACSC Rhiz Chk#30 SES36711RR	Susc Chk	3.99	4.50	4.24	4.37	4.24					
ACSC Rhiz Chk#26 BETA86RR44	Susc Chk	5.11	4.37	4.10	4.23	4.53					
ACSC Rhiz Chk#29 BETA87RR58	Susc Chk	5.42	4.46	4.77	4.61	4.88					
USDA Susceptible Check #1 FC901/C817	Susc Chk	2.57	4.66	4.48	4.57	3.90					
Hilleshög 3035 (Resistant)		1.65	3.33	3.57							
Susceptible Hybrid Mean		5.03	4.50	4.47	4.48	4.67				5.20	5.40
Approval Criteria ++		5.03	3.60	3.58	**3.59**	4.20					

+ 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.

+ 2010 data from Ft Collins and NDSU. 2009 data from Ft Collins, 2008 data from Moorhead.

++ Candidates must have better tolerance than susceptible hybrid mean * 80%.

** All readings 2008-2010 were adjusted based on check performance.

Excluded from Susc Mean

Table 45.

Varieties Meeting Criteria for Reservation to Minn-Dak Growers for the 2011 Sugarbeet Crop

Established Varieties Roundup Ready ®			
ACH RR610** (Aph)	Beta 77RR54 (Aph)	HM 4012RR (Aph)	SESVanderhave H36821RR**
ACH RR632 (Aph)	Beta 78RR10	HM 4022RR (Aph)	SESVanderhave H36822RR(Aph)
ACH RR643 (Aph)	Beta 78RR20** (Aph)	HM 4062RR (Aph)	
ACH RR806 (Aph)	Beta 85RR02 (Aph)		
ACH RR830 (Aph)		Seedex Ultra RR	

**** Denotes no seed available**

Specialty Approved Varieties Roundup Ready ®			
ACH RR793 (Aph)	Hilleshog 4204RR	Seedex SX0995RR**(Aph)	SESVanderhave H36923RR**
ACH RR794 (Aph)		Seedex SX0996RR**(Aph)	SESVanderhave H36926RR
ACH RR798 (Aph)			SESVanderhave H36927RR

**** Denotes no seed available**

** Aphanomyces 3-year root rating of 4.90 or better must be obtained to be considered "Aphanomyces Specialty".
** Rhc indicates that the variety has Rhizoctonia tolerance (based on a Rhizoctonia rating of 3.8 or lower).

Varieties listed containing the H7-1 event are not being offered for sale and will not be available until all regulatory approvals are received.

Test Market Varieties Approved for Limited Sales Roundup Ready ®				
ACH RR806 (Aph)	Beta 78RR10	HM 4062RR (Aph, Rhc)	SESVDH H36821RR	SDX Ultra
ACH RR830 (Aph, Rhc)	Beta 78RR20 (Aph)	HM 4083RR (Aph)	SESVDH H36822RR (Aph)	
			SESVDH H36921RR (Aph)	
			SESVDH H36927RR (Aph)	

ACH varieties are labeled as Crystal in the data tables.
HM varieties are labeled as Hilleshög in the data tables.
SDX varieties are labeled as Seedex in the data tables.
VDH varieties are labeled as SESVanderhave in the data tables.
Roundup Ready ® is a registered trademark of Monsanto Company.

Aph indicates variety has Aphanomyces tolerance
Rhc indicates variety has Rhizoctonia tolerance

Created 1-03-2011.

Table 46.
2010 Performance of Varieties - MDFC Commercial RR Official Trial
Barnesville MN - Foxhome MN - Charlesville MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Beta 77RR54	154	335.1	104	10336	99	1.01	17.77	30.75	307	1637	235	0.00	60.9
Beta 78RR10	162	327.2	102	10818	103	1.05	17.40	32.99	225	1689	280	0.00	60.6
Beta 78RR20	153	330.9	103	9600	92	1.00	17.55	29.03	333	1534	246	0.00	55.3
Beta 85RR02	165	329.0	102	9779	93	1.04	17.49	29.69	286	1768	233	0.00	70.7
Crystal RR539	158	319.0	99	8884	85	1.12	17.07	27.73	414	1658	274	0.00	52.8
Crystal RR610	167	330.2	103	10696	102	1.03	17.53	32.36	240	1642	273	0.00	74.3
Crystal RR632	152	313.0	98	9915	95	0.96	16.61	31.65	293	1548	228	0.00	69.8
Crystal RR806	164	317.8	99	10489	100	1.19	17.08	33.00	374	1861	290	0.00	62.4
Crystal RR811	160	307.7	96	10084	96	1.03	16.41	32.74	340	1635	240	0.00	51.5
Crystal RR830	168	322.0	100	12037	115	0.91	17.01	37.44	211	1572	209	0.00	71.1
Hilleshög 4012RR	159	317.7	99	10675	102	1.08	16.96	33.53	382	1655	255	0.00	74.5
Hilleshög 4022RR	155	320.5	100	11257	107	1.06	17.08	35.18	274	1732	261	0.00	82.9
Hilleshög 4062RR(9062)	163	319.0	99	11102	106	1.05	17.00	34.82	270	1707	264	0.00	81.4
Seedex SX0904RR	169	303.3	94	10692	102	1.01	16.17	35.26	319	1673	220	0.00	86.6
Seedex Ultra RR(SX0983RR)	156	324.2	101	11100	106	0.95	17.15	34.21	241	1600	223	0.00	78.5
SESVanderhave H36821RR	161	323.2	101	10425	99	0.97	17.13	32.24	210	1605	251	0.00	71.0
SESVanderhave H36822RR	151	322.0	100	10425	99	1.00	17.10	32.37	248	1639	247	0.00	71.0
SESVanderhave H36921RR	166	311.7	97	11044	105	0.96	16.55	35.36	271	1664	206	0.00	74.6
SESVanderhave H36927RR	157	321.0	100	11238	107	0.98	17.03	34.99	236	1703	221	0.00	71.0
Filler36	170	325.6	101	9167	87	1.04	17.33	28.09	361	1637	239	0.00	71.2
Trial Mean		321.0		10488		1.02	17.07	32.67	292	1658	245	0.0	69.6
Coeff. of Var. (%)		3.6		6.3		8.0	3.2	5.5	22.1	5.4	15.8		10.4
Mean LSD (0.05)		11.3		692		0.06	0.54	2.02	63	80	29		5.8
Mean LSD (0.01)		15.1		926		0.08	0.73	2.70	85	107	38		7.8
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Barnesville MN - Foxhome MN - Charlesville MN Analyzed 10/13/2010 12:05 Created 10-21-2010.

Vigor not collected. Trial # = 10MDCmAll

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

Table 47.
2010 Performance of Varieties - MDFC Commercial RR Official Trial
Barnesville MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Beta 77RR54	154	349.1	107	10444	97	0.98	18.44	29.91	315	1564	236	0.00	63.3
Beta 78RR10	162	339.2	104	11227	105	1.02	17.98	33.11	209	1615	288	0.00	65.1
Beta 78RR20	153	337.2	103	9808	91	1.04	17.90	29.07	350	1523	268	0.00	59.5
Beta 85RR02	165	337.6	103	10451	97	1.01	17.90	30.89	275	1750	220	0.00	73.5
Crystal RR539	158	329.8	101	9374	87	1.15	17.63	28.44	446	1646	288	0.00	60.2
Crystal RR610	167	339.6	104	10515	98	1.05	18.03	31.05	258	1623	292	0.00	79.0
Crystal RR632	152	315.5	96	9547	89	1.02	16.79	30.33	372	1525	253	0.00	77.0
Crystal RR806	164	330.3	101	10880	101	1.22	17.73	33.06	424	1818	307	0.00	69.5
Crystal RR811	160	308.2	94	10606	99	1.13	16.54	34.34	438	1624	283	0.00	55.7
Crystal RR830	168	322.8	99	11890	111	0.92	17.07	36.76	242	1556	212	0.00	77.3
Hilleshög 4012RR	159	323.8	99	11424	106	1.08	17.28	35.29	450	1597	250	0.00	85.3
Hilleshög 4022RR	155	327.3	100	11075	103	1.10	17.47	33.80	347	1751	261	0.00	89.9
Hilleshög 4062RR(9062)	163	327.1	100	11146	104	1.11	17.46	34.20	314	1740	284	0.00	92.4
Seedex SX0904RR	169	306.6	94	10643	99	1.02	16.35	34.75	394	1610	217	0.00	90.6
Seedex Ultra RR(SX0983RR)	156	326.6	100	11542	108	0.97	17.30	35.37	273	1583	234	0.00	83.9
SESVanderhave H36821RR	161	328.3	100	10704	100	1.04	17.45	32.67	235	1658	278	0.00	75.3
SESVanderhave H36822RR	151	330.0	101	10962	102	0.98	17.48	33.18	267	1629	228	0.00	73.5
SESVanderhave H36921RR	166	319.6	98	11544	108	0.97	16.95	36.05	293	1599	219	0.00	75.7
SESVanderhave H36927RR	157	321.4	98	11323	106	1.02	17.10	35.25	286	1744	229	0.00	72.1
Filler36	170	329.2	101	9541	89	1.13	17.58	28.97	452	1605	278	0.00	75.3
Trial Mean		327.5		10732		1.05	17.42	32.82	332	1638	256	0.0	74.7
Coeff. of Var. (%)		3.1		4.5		8.7	2.7	3.5	22.2	4.6	17.7		9.5
Mean LSD (0.05)		12.7		577		0.12	0.57	1.42	93	95	56		8.2
Mean LSD (0.01)		16.9		764		0.15	0.76	1.88	124	126	75		10.9
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Barnesville MN Analyzed 10/13/2010 09:05 Created 10-21-2010.

Vigor not collected. Trial # = 106601

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

Table 48.
2010 Performance of Varieties - MDFC Commercial RR Official Trial
Foxhome MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Beta 77RR54	154	306.3	100	8786	92	0.96	16.29	28.65	369	1511	210	0.00	59.3
Beta 78RR10	162	310.9	102	9502	99	1.00	16.54	30.58	274	1458	286	0.00	60.9
Beta 78RR20	153	299.8	98	8673	91	1.01	16.01	28.91	460	1409	236	0.00	49.5
Beta 85RR02	165	313.6	102	8619	90	1.00	16.68	27.49	347	1623	220	0.00	63.9
Crystal RR539	158	297.3	97	7520	79	1.02	15.88	25.21	471	1479	226	0.00	51.5
Crystal RR610	167	311.8	102	9829	103	0.97	16.55	31.53	297	1469	255	0.00	71.5
Crystal RR632	152	304.6	99	9427	99	0.88	16.10	30.92	289	1378	210	0.00	63.6
Crystal RR806	164	302.0	99	10103	106	1.12	16.23	33.37	386	1688	281	0.00	60.1
Crystal RR811	160	297.3	97	9112	95	0.96	15.81	30.55	383	1455	214	0.00	49.8
Crystal RR830	168	314.2	103	11785	123	0.87	16.58	37.53	220	1453	204	0.00	70.2
Hilleshög 4012RR	159	301.1	98	9191	96	1.00	16.05	30.49	414	1433	241	0.00	65.7
Hilleshög 4022RR	155	306.5	100	10929	114	1.02	16.33	35.69	301	1539	267	0.00	74.0
Hilleshög 4062RR(9062)	163	309.5	101	10538	110	1.00	16.48	34.04	315	1511	260	0.00	70.5
Seedex SX0904RR	169	297.3	97	9776	102	0.93	15.80	32.89	312	1477	214	0.00	80.8
Seedex Ultra RR(SX0983RR)	156	312.7	102	10104	106	0.87	16.50	32.34	284	1387	200	0.00	73.2
SESVanderhave H36821RR	161	314.3	103	9837	103	0.90	16.62	31.24	226	1447	233	0.00	67.9
SESVanderhave H36822RR	151	311.4	102	9320	97	0.96	16.54	30.02	281	1469	254	0.00	70.7
SESVanderhave H36921RR	166	299.7	98	9742	102	0.91	15.90	32.44	342	1504	180	0.00	71.5
SESVanderhave H36927RR	157	309.4	101	10370	108	0.88	16.35	33.57	257	1476	196	0.00	69.4
Filler36	170	304.9	100	8009	84	0.99	16.23	26.27	411	1538	203	0.00	65.7
Trial Mean		306.2		9559		0.96	16.27	31.19	332	1485	229	0.0	65.5
Coeff. of Var. (%)		3.8		8.2		7.8	3.4	6.7	21.1	5.7	14.3		11.4
Mean LSD (0.05)		14.0		946		0.09	0.67	2.54	85	101	39		8.6
Mean LSD (0.01)		18.5		1253		0.12	0.88	3.36	113	134	52		11.3
Sig Lvl		ns		**		**	ns	**	**	**	**		**

* 2010 Data from Foxhome MN Analyzed 10/12/2010 15:48 Created 10-21-2010.

Vigor not collected. Trial # = 106602

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

Table 49.
2010 Performance of Varieties - MDFC Commercial RR Official Trial
Charlesville MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Beta 77RR54	154	350.7	106	11799	106	1.06	18.60	33.71	232	1837	252	0.00	59.8
Beta 78RR10	162	330.2	100	11719	105	1.11	17.63	35.30	183	1999	265	0.00	56.0
Beta 78RR20	153	356.2	108	10334	92	0.97	18.78	29.17	195	1680	238	0.00	56.6
Beta 85RR02	165	334.9	102	10276	92	1.11	17.85	30.68	234	1944	260	0.00	74.5
Crystal RR539	158	330.9	100	9754	87	1.18	17.73	29.51	328	1837	309	0.00	47.0
Crystal RR610	167	341.7	104	11712	105	1.04	18.13	34.48	155	1830	266	0.00	72.5
Crystal RR632	152	319.7	97	10758	96	0.97	16.96	33.66	212	1740	216	0.00	68.7
Crystal RR806	164	320.8	97	10474	94	1.22	17.26	32.54	312	2077	281	0.00	57.7
Crystal RR811	160	316.7	96	10528	94	1.03	16.86	33.33	216	1834	231	0.00	49.2
Crystal RR830	168	328.2	100	12445	111	0.95	17.36	38.06	184	1710	214	0.00	65.9
Hilleshög 4012RR	159	327.2	99	11408	102	1.15	17.51	34.83	289	1922	274	0.00	72.8
Hilleshög 4022RR	155	328.1	100	11767	105	1.06	17.47	36.04	181	1905	254	0.00	84.4
Hilleshög 4062RR(9062)	163	319.9	97	11624	104	1.05	17.04	36.26	172	1877	251	0.00	81.7
Seedex SX0904RR	169	306.7	93	11655	104	1.07	16.41	38.14	245	1929	228	0.00	88.5
Seedex Ultra RR(SX0983RR)	156	333.3	101	11691	105	1.01	17.67	35.00	163	1825	237	0.00	78.1
SESVanderhave H36821RR	161	326.4	99	10702	96	0.98	17.31	32.76	168	1726	244	0.00	69.6
SESVanderhave H36822RR	151	324.8	99	11004	98	1.04	17.28	33.94	188	1816	255	0.00	68.8
SESVanderhave H36921RR	166	314.7	96	11856	106	1.01	16.75	37.55	181	1870	218	0.00	76.5
SESVanderhave H36927RR	157	332.2	101	12019	108	1.02	17.63	36.09	165	1880	231	0.00	71.8
Filler36	170	342.8	104	9955	89	1.02	18.16	29.01	222	1778	241	0.00	72.9
Trial Mean		329.3		11174		1.05	17.52	34.00	211	1851	248	0.0	68.6
Coeff. of Var. (%)		3.7		6.1		6.7	3.4	5.9	21.1	5.6	13.5		10.4
Mean LSD (0.05)		14.3		838		0.08	0.70	2.44	52	118	38		8.4
Mean LSD (0.01)		19.0		1110		0.11	0.93	3.24	69	157	51		11.1
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Charlesville MN Analyzed 10/13/2010 11:57 Created 10-21-2010.

Vigor not collected. Trial # = 106604

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

Table 50.

2010 Performance of Varieties - ACSC Experimental RR Official Trial

Barnesville MN - Foxhome MN - Charlesville MN - All Characters

Adjusted to Comm Trial Status		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%^	%^
BTS 70RR60	312	329.1	103	12032	110	0.97	17.42	36.36	206	1506	265	0.00	67.6
BTS 70RR64	304	321.8	100	10884	100	1.08	17.17	33.69	267	1625	302	0.00	63.8
BTS 70RR70	320	332.8	104	12259	112	1.00	17.63	36.72	277	1583	241	0.00	64.0
BTS 70RR78	335	339.1	106	11484	105	1.02	17.97	33.87	217	1588	283	0.00	73.0
BTS 70RR85	314	329.5	103	11291	103	0.88	17.36	34.13	189	1491	210	0.00	58.8
BTS 70RR99	325	339.7	106	11867	109	1.05	18.02	34.91	178	1623	303	0.00	67.7
BTS 79RR12	310	308.7	96	11569	106	1.00	16.43	37.24	333	1608	219	0.00	71.0
BTS 79RR33	302	306.2	96	9257	85	1.16	16.46	30.00	406	1755	279	0.00	55.1
Crystal RR012	324	335.1	105	11785	108	1.12	17.88	35.09	194	1760	320	0.00	58.5
Crystal RR028	337	336.3	105	11384	104	1.00	17.82	33.65	227	1629	243	0.00	69.1
Crystal RR040	313	344.8	108	10894	100	0.90	18.15	31.49	200	1486	221	0.00	66.4
Crystal RR643	305	320.3	100	10405	95	1.18	17.18	32.40	396	1680	315	0.00	47.6
Crystal RR793	334	328.9	103	10328	95	1.06	17.51	31.28	298	1679	259	0.00	62.2
Crystal RR794	317	327.3	102	10577	97	1.06	17.42	32.23	297	1711	252	0.00	65.5
Crystal RR798	328	325.9	102	11714	107	1.08	17.38	35.89	289	1609	298	0.00	78.1
Hilleshög 4200RR(9200)	319	309.9	97	10886	100	1.17	16.65	35.06	415	1793	275	0.00	58.2
Hilleshög 4204RR(9204)	332	316.5	99	11223	103	1.17	16.99	35.54	344	1808	301	0.00	62.2
Hilleshög 9207RR	308	317.3	99	9560	88	1.04	16.90	30.06	237	1744	246	0.00	60.6
Hilleshög 9249RR	323	300.9	94	10192	93	1.11	16.14	33.78	341	1772	256	0.00	61.8
Hilleshög 9250RR	315	307.4	96	11015	101	1.13	16.48	35.74	343	1743	279	0.00	57.8
Hilleshög 9251RR	339	312.2	97	10838	99	1.21	16.81	34.73	306	1872	324	0.00	64.8
Hilleshög 9252RR	301	306.3	96	10886	100	1.22	16.53	35.35	411	1863	292	0.00	55.9
Hilleshög 9253RR	327	315.6	98	10637	97	1.12	16.90	33.56	353	1682	286	0.00	63.6
Hilleshög 9254RR	321	317.1	99	10674	98	1.07	16.92	33.61	372	1648	255	0.00	74.9
Hilleshög 9255RR	316	302.6	94	10639	97	1.13	16.26	35.13	341	1839	253	0.00	61.3
Hilleshög 9256RR	330	324.9	101	10464	96	1.09	17.33	32.15	306	1695	273	0.00	45.8
Hilleshög 9257RR	309	330.3	103	10350	95	1.06	17.58	31.21	241	1704	272	0.00	55.1
Seedex SX0901RR	326	323.5	101	11114	102	1.01	17.20	34.21	259	1622	249	0.00	77.3
Seedex SX0902RR	303	313.5	98	10771	99	1.00	16.67	34.28	251	1659	231	0.00	59.5
Seedex SX0903RR	336	317.6	99	11562	106	1.03	16.90	36.28	267	1649	250	0.00	75.7
Seedex SX0995RR	331	317.2	99	11378	104	0.98	16.84	35.79	245	1598	234	0.00	74.2
Seedex SX0996RR	318	318.1	99	10849	99	0.97	16.88	33.97	225	1613	228	0.00	71.4
SESVanderhave 36081RR	307	313.7	98	11370	104	1.02	16.69	36.17	284	1650	239	0.00	73.5
SESVanderhave 36082RR	333	318.5	99	10857	99	0.96	16.89	34.00	232	1596	227	0.00	61.6
SESVanderhave 36083RR	311	326.2	102	11280	103	0.96	17.27	34.47	216	1598	233	0.00	71.5
SESVanderhave 36084RR	329	318.0	99	11355	104	1.00	16.90	35.57	242	1640	245	0.00	68.8
SESVanderhave H36923RR	322	311.9	97	11035	101	1.00	16.60	35.29	262	1672	230	0.00	68.4
SESVanderhave H36926RR	306	321.2	100	11105	102	0.98	17.04	34.36	220	1607	239	0.00	81.2
SESVanderhave H36929RR	338	307.9	96	11266	103	1.04	16.43	36.49	282	1722	235	0.00	73.6
Crystal RR539(Check)	340	325.6	102	9200	84	1.09	17.35	28.19	385	1659	256	0.00	51.9
Beta 85RR02(Check)	341	324.5	101	9376	86	1.06	17.29	28.75	295	1775	240	0.00	68.8
Hilleshög 4012RR(Check)	342	315.6	98	10762	99	1.10	16.88	34.01	402	1647	267	0.00	66.8
Trial Mean		320.5		10914		1.05	17.07	33.97	287	1671	260	0.0	65.1
Coeff. of Var. (%)		3.2		5.4		7.9	2.8	4.8	24.0	5.1	15.0		12.9
Mean LSD (0.05)		11.5		882		0.09	0.53	2.22	70	96	42		6.8
Mean LSD (0.01)		15.2		1169		0.12	0.71	2.95	92	128	56		8.9
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Barnesville MN - Foxhome MN - Charlesville MN Analyzed 10/13/2010 12:59 Created 10-22-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 10MDExAll

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

Table 51.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Barnesville MN - All Characters

Adjusted to Comm Trial Status		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%^	%^
BTS 70RR60	312	329.8	101	12236	107	1.02	17.51	36.93	212	1554	293	0.00	69.9
BTS 70RR64	304	332.3	102	11525	101	1.08	17.70	34.52	273	1594	308	0.00	66.0
BTS 70RR70	320	338.9	104	12307	108	0.97	17.92	36.10	323	1504	236	0.00	61.7
BTS 70RR78	335	342.3	105	11981	105	1.01	18.14	34.91	255	1509	283	0.00	78.1
BTS 70RR85	314	335.7	103	12286	107	0.86	17.67	36.40	214	1414	204	0.00	67.2
BTS 70RR99	325	340.7	104	12004	105	1.15	18.19	35.01	254	1613	366	0.00	68.8
BTS 79RR12	310	313.1	96	12355	108	1.02	16.68	39.21	424	1547	228	0.00	75.4
BTS 79RR33	302	309.2	94	9894	86	1.25	16.70	31.77	495	1771	322	0.00	52.0
Crystal RR012	324	335.5	103	11624	102	1.18	17.96	34.45	236	1821	333	0.00	51.2
Crystal RR028	337	335.6	103	11831	103	1.06	17.85	34.76	287	1647	274	0.00	71.5
Crystal RR040	313	347.4	106	11045	97	0.92	18.31	31.84	227	1474	232	0.00	68.4
Crystal RR643	305	332.3	102	11056	97	1.18	17.79	33.08	393	1649	334	0.00	49.2
Crystal RR793	334	330.4	101	10887	95	1.19	17.71	32.71	397	1678	330	0.00	69.9
Crystal RR794	317	333.8	102	11257	98	1.07	17.76	33.59	367	1681	241	0.00	68.8
Crystal RR798	328	335.7	103	12250	107	1.09	17.88	36.27	299	1582	313	0.00	77.7
Hilleshög 4200RR(9200)	319	318.6	97	11561	101	1.17	17.11	36.04	490	1793	258	0.00	56.6
Hilleshög 4204RR(9204)	332	325.8	100	12038	105	1.24	17.54	36.88	377	1933	305	0.00	63.3
Hilleshög 9207RR	308	327.9	100	10477	92	0.99	17.39	31.73	208	1709	223	0.00	62.1
Hilleshög 9249RR	323	317.9	97	10998	96	1.09	16.99	34.63	271	1726	289	0.00	57.8
Hilleshög 9250RR	315	325.2	99	11989	105	1.12	17.37	36.84	314	1758	281	0.00	60.6
Hilleshög 9251RR	339	318.9	97	11223	98	1.21	17.17	35.05	317	1840	333	0.00	68.0
Hilleshög 9252RR	301	315.8	96	11485	100	1.18	16.98	36.10	460	1798	276	0.00	55.1
Hilleshög 9253RR	327	324.0	99	11235	98	1.14	17.36	34.50	374	1699	295	0.00	63.7
Hilleshög 9254RR	321	323.7	99	10712	94	1.11	17.29	32.99	424	1678	263	0.00	79.3
Hilleshög 9255RR	316	321.6	98	11712	102	1.14	17.22	36.26	351	1791	275	0.00	64.1
Hilleshög 9256RR	330	323.2	99	11100	97	1.12	17.29	34.35	406	1747	260	0.00	47.3
Hilleshög 9257RR	309	333.0	102	10612	93	1.08	17.75	31.80	270	1755	270	0.00	55.9
Seedex SX0901RR	326	333.0	102	11715	102	0.96	17.63	35.11	263	1546	234	0.00	83.6
Seedex SX0902RR	303	316.7	97	11229	98	1.06	16.91	35.32	334	1687	249	0.00	59.8
Seedex SX0903RR	336	325.9	100	12243	107	1.03	17.33	37.29	296	1628	249	0.00	69.5
Seedex SX0995RR	331	322.1	98	11515	101	1.02	17.11	35.92	271	1604	258	0.00	78.5
Seedex SX0996RR	318	328.7	100	11494	100	0.96	17.40	35.05	240	1605	219	0.00	74.6
SESVanderhave 36081RR	307	323.9	99	11924	104	1.02	17.22	36.85	310	1606	247	0.00	72.3
SESVanderhave 36082RR	333	323.2	99	11265	98	0.96	17.12	34.97	267	1577	220	0.00	64.5
SESVanderhave 36083RR	311	331.6	101	11376	99	0.97	17.56	34.30	240	1609	232	0.00	75.8
SESVanderhave 36084RR	329	328.0	100	12196	107	1.05	17.45	37.07	281	1689	258	0.00	69.1
SESVanderhave H36923RR	322	313.7	96	10964	96	0.99	16.69	34.96	312	1606	223	0.00	63.7
SESVanderhave H36926RR	306	323.6	99	11660	102	1.00	17.19	35.72	263	1582	252	0.00	81.6
SESVanderhave H36929RR	338	316.0	97	11910	104	1.09	16.90	37.62	331	1780	246	0.00	71.9
Crystal RR539(Check)	340	334.4	102	9731	85	1.04	17.76	29.12	385	1591	243	0.00	55.5
Beta 85RR02(Check)	341	332.2	101	9828	86	1.10	17.71	29.53	317	1762	261	0.00	64.5
Hilleshög 4012RR(Check)	342	324.7	99	11690	102	1.10	17.34	35.97	469	1640	254	0.00	68.4
Trial Mean		327.3		11439		1.07	17.44	34.84	321	1662	268	0.0	66.3
Coeff. of Var. (%)		2.8		4.5		7.7	2.4	3.7	20.7	4.6	14.8		11.8
Mean LSD (0.05)		14.8		776		0.14	0.66	1.99	108	123	66		10.9
Mean LSD (0.01)		19.6		1026		0.18	0.88	2.63	143	163	88		14.4
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Barnesville MN Analyzed 10/12/2010 15:05 Created 10-22-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 106301

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

Table 52.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Foxhome MN - All Characters

Adjusted to Comm Trial Status		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%^	%^
BTS 70RR60	312	308.4	100	9865	101	0.92	16.36	32.01	278	1345	260	0.00	64.7
BTS 70RR64	304	307.6	100	9219	95	1.09	16.47	29.96	340	1503	323	0.00	62.0
BTS 70RR70	320	329.8	107	11201	115	0.90	17.39	33.96	271	1429	218	0.00	64.0
BTS 70RR78	335	330.0	107	10938	112	0.95	17.43	33.20	248	1419	264	0.00	68.7
BTS 70RR85	314	317.3	103	9478	97	0.85	16.71	29.88	223	1338	218	0.00	57.7
BTS 70RR99	325	334.1	109	12069	124	1.01	17.72	36.06	191	1499	305	0.00	62.8
BTS 79RR12	310	298.8	97	9761	100	0.93	15.88	32.58	331	1425	218	0.00	63.6
BTS 79RR33	302	286.5	93	7304	75	1.06	15.38	25.44	501	1521	233	0.00	54.6
Crystal RR012	324	331.7	108	11455	118	1.08	17.67	34.53	211	1600	332	0.00	64.7
Crystal RR028	337	331.5	108	10397	107	0.92	17.50	31.37	235	1396	257	0.00	64.4
Crystal RR040	313	331.1	108	9530	98	0.83	17.39	28.77	225	1357	198	0.00	62.9
Crystal RR643	305	298.8	97	9554	98	1.23	16.15	31.99	537	1530	361	0.00	46.8
Crystal RR793	334	318.8	104	9217	95	0.98	16.92	28.89	307	1502	235	0.00	58.1
Crystal RR794	317	315.3	103	8992	92	0.98	16.74	28.50	279	1476	254	0.00	67.0
Crystal RR798	328	310.9	101	11048	114	1.08	16.62	35.57	366	1498	302	0.00	78.7
Hilleshög 4200RR(9200)	319	296.4	96	10207	105	1.10	15.90	34.47	444	1569	272	0.00	64.7
Hilleshög 4204RR(9204)	332	313.0	102	10359	106	1.01	16.64	33.22	338	1497	260	0.00	66.1
Hilleshög 9207RR	308	307.7	100	8832	91	0.97	16.36	28.69	280	1597	217	0.00	61.7
Hilleshög 9249RR	323	283.3	92	8854	91	1.03	15.19	31.22	439	1529	231	0.00	62.4
Hilleshög 9250RR	315	276.9	90	9111	94	1.09	14.93	32.95	493	1468	287	0.00	53.8
Hilleshög 9251RR	339	311.0	101	10288	106	1.06	16.61	33.10	294	1642	271	0.00	64.7
Hilleshög 9252RR	301	304.1	99	10221	105	1.09	16.29	33.51	385	1653	257	0.00	53.4
Hilleshög 9253RR	327	301.7	98	9524	98	1.07	16.14	31.50	386	1513	277	0.00	64.7
Hilleshög 9254RR	321	301.9	98	9843	101	1.01	16.10	32.61	426	1416	251	0.00	71.2
Hilleshög 9255RR	316	290.4	94	9188	94	1.03	15.54	31.65	311	1677	234	0.00	58.8
Hilleshög 9256RR	330	311.8	101	9720	100	1.05	16.65	31.11	311	1543	286	0.00	44.9
Hilleshög 9257RR	309	318.5	104	9386	96	1.03	16.94	29.43	284	1543	275	0.00	51.9
Seedex SX0901RR	326	305.5	99	9455	97	1.00	16.28	30.92	320	1486	254	0.00	73.5
Seedex SX0902RR	303	297.2	97	9551	98	0.93	15.78	32.17	283	1489	225	0.00	59.7
Seedex SX0903RR	336	298.0	97	9910	102	1.01	15.91	33.19	318	1484	258	0.00	77.8
Seedex SX0995RR	331	309.7	101	10404	107	0.88	16.38	33.51	244	1436	202	0.00	74.6
Seedex SX0996RR	318	305.8	99	9718	100	0.90	16.21	31.71	263	1368	230	0.00	71.2
SESVanderhave 36081RR	307	292.6	95	9810	101	0.97	15.59	33.54	332	1504	228	0.00	70.9
SESVanderhave 36082RR	333	304.9	99	9420	97	0.91	16.18	30.84	271	1377	242	0.00	56.9
SESVanderhave 36083RR	311	315.5	103	10095	104	0.85	16.63	32.02	246	1338	217	0.00	66.6
SESVanderhave 36084RR	329	302.0	98	9951	102	0.95	16.05	32.87	284	1440	240	0.00	66.0
SESVanderhave H36923RR	322	305.3	99	10142	104	0.91	16.19	33.21	298	1497	203	0.00	71.6
SESVanderhave H36926RR	306	309.7	101	9520	98	0.92	16.41	30.66	227	1475	233	0.00	82.2
SESVanderhave H36929RR	338	289.3	94	9792	101	0.98	15.46	33.81	365	1530	220	0.00	73.6
Crystal RR539(Check)	340	304.7	99	8049	83	1.02	16.24	26.40	427	1553	215	0.00	56.2
Beta 85RR02(Check)	341	301.9	98	7753	80	1.04	16.12	25.69	400	1619	233	0.00	75.1
Hilleshög 4012RR(Check)	342	305.5	99	9528	98	0.97	16.25	31.10	405	1363	239	0.00	65.7
Trial Mean		307.5		9730		0.99	16.37	31.61	324	1487	251	0.0	64.3
Coeff. of Var. (%)		3.3		5.3		7.8	3.0	4.9	22.9	5.0	15.3		12.8
Mean LSD (0.05)		15.2		744		0.12	0.71	2.25	111	115	60		11.9
Mean LSD (0.01)		20.1		983		0.16	0.94	2.98	146	152	80		15.8
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Foxhome MN Analyzed 10/13/2010 08:49 Created 10-22-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 106302

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

Table 53.
2010 Performance of Varieties - ACSC Experimental RR Official Trial
Charlesville MN - All Characters

Adjusted to Comm Trial Status		Rec/T	Rec/T	Rec/A	Rec/A	Loss	Sugar	Yield	Na	K	AmN	Bolter	Emerg.
Description @	Code	lbs.	%Mean	lbs.	%Mean	Mol %	%	T/A	ppm	ppm	ppm	%^	%^
BTS 70RR60	312	349.1	107	14078	122	0.94	18.39	40.36	129	1604	253	0.00	68.9
BTS 70RR64	304	324.7	100	11934	103	1.05	17.29	36.68	193	1775	272	0.00	64.4
BTS 70RR70	320	326.0	100	13322	115	1.09	17.42	40.64	248	1813	268	0.00	66.3
BTS 70RR78	335	342.7	105	11479	99	1.10	18.24	33.44	161	1827	303	0.00	71.6
BTS 70RR85	314	335.1	103	12124	105	0.92	17.69	36.19	135	1716	213	0.00	51.1
BTS 70RR99	325	343.3	105	11523	100	0.98	18.13	33.62	107	1756	253	0.00	72.0
BTS 79RR12	310	313.8	96	12665	109	1.03	16.72	40.25	246	1835	215	0.00	73.9
BTS 79RR33	302	320.0	98	10581	91	1.17	17.19	32.96	243	1963	291	0.00	58.3
Crystal RR012	324	336.8	103	12234	106	1.10	17.95	36.30	146	1853	309	0.00	59.9
Crystal RR028	337	339.4	104	11895	103	1.00	17.98	34.90	170	1832	217	0.00	71.6
Crystal RR040	313	355.6	109	12110	105	0.93	18.73	33.91	142	1626	237	0.00	67.4
Crystal RR643	305	326.5	100	10494	91	1.12	17.46	31.92	280	1847	269	0.00	46.6
Crystal RR793	334	334.9	103	10931	94	1.03	17.79	32.55	202	1848	226	0.00	58.3
Crystal RR794	317	332.8	102	11501	99	1.13	17.76	34.54	248	1974	261	0.00	60.6
Crystal RR798	328	330.5	101	11822	102	1.07	17.60	35.65	205	1734	289	0.00	78.4
Hilleshög 4200RR(9200)	319	313.5	96	10772	93	1.23	16.90	34.34	327	2003	298	0.00	53.0
Hilleshög 4204RR(9204)	332	309.5	95	11205	97	1.25	16.74	36.45	315	1982	336	0.00	56.8
Hilleshög 9207RR	308	313.6	96	9278	80	1.16	16.85	29.62	231	1925	302	0.00	58.0
Hilleshög 9249RR	323	300.5	92	10690	92	1.18	16.20	35.46	299	2049	251	0.00	65.2
Hilleshög 9250RR	315	318.6	98	11953	103	1.17	17.09	37.46	240	1983	280	0.00	59.5
Hilleshög 9251RR	339	306.2	94	11037	95	1.34	16.64	36.09	302	2122	366	0.00	62.5
Hilleshög 9252RR	301	298.8	92	10903	94	1.35	16.30	36.42	372	2125	345	0.00	59.1
Hilleshög 9253RR	327	321.3	99	11222	97	1.12	17.19	34.85	287	1824	274	0.00	61.7
Hilleshög 9254RR	321	324.1	99	11466	99	1.11	17.31	35.32	273	1856	267	0.00	74.2
Hilleshög 9255RR	316	294.0	90	11045	95	1.20	15.91	37.72	355	2042	253	0.00	61.4
Hilleshög 9256RR	330	340.3	104	10550	91	1.06	18.08	30.92	198	1784	269	0.00	45.1
Hilleshög 9257RR	309	338.5	104	10959	95	1.05	18.00	32.28	173	1796	275	0.00	57.2
Seedex SX0901RR	326	332.5	102	12271	106	1.04	17.67	36.84	189	1805	261	0.00	75.8
Seedex SX0902RR	303	324.0	99	11484	99	0.99	17.20	35.34	161	1795	228	0.00	59.1
Seedex SX0903RR	336	328.7	101	12625	109	1.04	17.47	38.50	197	1835	250	0.00	79.9
Seedex SX0995RR	331	319.5	98	12203	105	1.02	17.02	38.11	205	1751	246	0.00	68.9
Seedex SX0996RR	318	319.9	98	11352	98	1.03	17.03	35.28	168	1858	233	0.00	68.6
SESVanderhave 36081RR	307	325.6	100	12495	108	1.04	17.32	38.40	207	1823	244	0.00	77.3
SESVanderhave 36082RR	333	327.2	100	11916	103	0.98	17.36	36.34	160	1822	217	0.00	62.9
SESVanderhave 36083RR	311	330.2	101	12289	106	1.05	17.57	37.09	165	1838	258	0.00	72.0
SESVanderhave 36084RR	329	323.9	99	11943	103	1.00	17.20	36.81	168	1782	241	0.00	71.2
SESVanderhave H36923RR	322	317.1	97	11886	103	1.07	16.94	37.46	175	1892	261	0.00	70.1
SESVanderhave H36926RR	306	328.1	101	12121	105	1.00	17.42	36.88	182	1746	242	0.00	79.6
SESVanderhave H36929RR	338	317.7	98	12123	105	1.03	16.92	38.11	170	1855	246	0.00	75.4
Crystal RR539(Check)	340	336.2	103	9711	84	1.20	18.01	28.80	343	1845	306	0.00	43.6
Beta 85RR02(Check)	341	337.8	104	10619	92	1.05	17.95	31.34	188	1940	233	0.00	67.1
Hilleshög 4012RR(Check)	342	319.0	98	11107	96	1.20	17.13	34.88	319	1918	304	0.00	66.3
Trial Mean		325.7		11569		1.09	17.38	35.50	220	1857	266	0.0	64.8
Coeff. of Var. (%)		3.3		6.0		8.1	2.8	5.4	29.4	5.3	14.6		13.9
Mean LSD (0.05)		17.1		1071		0.14	0.77	2.98	101	153	62		12.6
Mean LSD (0.01)		22.6		1418		0.19	1.02	3.93	134	203	82		16.6
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2010 Data from Charlesville MN Analyzed 10/13/2010 11:35 Created 10-22-2010.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 106304

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

Table 54.
2010 Performance of Varieties - MDFC Conventional Official Trial
Barnesville MN - Foxhome MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Seedex SX0801TT	21	341.0	101	9817	98	1.12	18.18	29.00	243	1772	303	0.00	54.6
Seedex SX0909	24	331.8	98	11850	118	1.36	17.94	35.95	324	1883	437	0.00	60.1
SESVanderhave H46531	22	342.0	101	10248	102	1.04	18.15	30.02	255	1523	309	0.11	72.6
SESVanderhave H48021TT	23	338.4	100	11103	111	1.16	18.07	32.99	219	1697	360	0.00	67.2
Beta 1317R(Check)	25	349.7	103	10161	101	1.18	18.68	29.07	206	1695	388	0.00	58.9
Crystal R454(Check)	26	339.0	100	9630	96	1.38	18.28	28.87	348	1771	475	0.00	50.6
Hilleshög 3035(Check)	27	344.8	102	10648	106	1.07	18.32	30.91	240	1571	322	0.00	68.5
Susc 3N - Aph Tol	28	327.1	96	6887	69	1.08	17.45	20.85	320	1655	285	0.00	71.0
Trial Mean		339.2		10043		1.17	18.13	29.71	269	1696	360	0.0	62.9
Coeff. of Var. (%)		3.4		7.1		6.4	3.1	5.7	17.0	4.6	10.4		11.3
Mean LSD (0.05)		23.9		1940		0.14	1.10	6.87	93	129	82		9.1
Mean LSD (0.01)		35.3		2823		0.21	1.62	10.19	137	191	122		13.5
Sig Lvl		ns		*		**	ns	*	ns	**	**		**

* 2010 Data from Barnesville MN - Foxhome MN Analyzed 10/13/2010 13:06 Created 10-21-2010.
Vigor not collected. Trial # = 10MDCvAll
@ Some varieties may not be approved for sale. Refer to approval list for approval status.

Table 55.
2010 Performance of Varieties - MDFC Conventional Official Trial
Barnesville MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Seedex SX0801TT	21	371.3	102	9597	94	1.23	19.81	25.68	257	1869	359	0.00	53.1
Seedex SX0909	24	342.7	95	11451	113	1.54	18.67	33.69	373	2033	520	0.00	62.9
SESVanderhave H46531	22	372.4	103	10792	106	1.13	19.76	28.93	237	1614	363	0.21	77.0
SESVanderhave H48021TT	23	366.6	101	11051	109	1.20	19.52	30.19	173	1769	396	0.00	66.0
Beta 1317R(Check)	25	368.5	102	10171	100	1.24	19.72	27.32	213	1762	419	0.00	59.8
Crystal R454(Check)	26	362.0	100	9065	89	1.46	19.50	25.35	322	1887	514	0.00	52.0
Hilleshög 3035(Check)	27	364.7	101	10894	107	1.13	19.39	29.69	214	1663	354	0.00	73.4
Susc 3N - Aph Tol	28	350.7	97	8299	82	1.21	18.74	23.81	302	1680	385	0.00	76.2
Trial Mean		362.4		10165		1.27	19.39	28.08	261	1785	414	0.0	65.0
Coeff. of Var. (%)		3.4		7.2		6.3	3.2	6.1	14.1	4.5	10.4		7.6
F Value		2.13		8.85		10.07	1.65	13.65	8.09	9.06	7.32		16.2
Mean LSD (0.05)		21.3		1082		0.16	1.02	2.54	72	139	82		7.2
Mean LSD (0.01)		29.3		1473		0.22	1.39	3.46	101	192	114		9.8
Sig Lvl		ns		**		**	ns	**	**	**	**		**

* 2010 Data from Barnesville MN Analyzed 10/12/2010 15:07 Created 10-21-2010.
Vigor not collected. Trial # = 106201
@ Some varieties may not be approved for sale. Refer to approval list for approval status.

Table 56.
2010 Performance of Varieties - MDFC Conventional Official Trial
Foxhome MN - All Characters

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
Seedex SX0801TT	21	309.6	98	10023	101	1.01	16.50	32.28	240	1691	245	0.00	57.1
Seedex SX0909	24	322.1	102	12256	124	1.18	17.27	38.24	272	1725	358	0.00	57.7
SESVanderhave H46531	22	310.4	98	9696	98	0.95	16.49	31.07	277	1441	254	0.00	65.7
SESVanderhave H48021TT	23	308.9	98	11148	112	1.10	16.57	35.81	262	1639	320	0.00	68.1
Beta 1317R(Check)	25	331.7	105	10186	103	1.10	17.67	30.78	204	1610	358	0.00	57.0
Crystal R454(Check)	26	317.7	101	10161	102	1.30	17.16	32.41	369	1644	436	0.00	50.4
Hilleshög 3035(Check)	27	325.4	103	10436	105	1.01	17.27	32.18	267	1479	291	0.00	65.2
Susc 3N - Aph Tol	28	302.4	96	5462	55	0.95	16.10	17.91	327	1629	185	0.00	65.5
Trial Mean		316.0		9921		1.08	16.88	31.34	277	1607	306	0.0	60.8
Coeff. of Var. (%)		3.2		6.8		6.6	2.8	5.3	18.7	4.3	11.2		12.9
Mean LSD (0.05)		18.2		1046		0.14	0.79	2.43	93	129	67		13.6
Mean LSD (0.01)		25.1		1421		0.19	1.09	3.30	128	178	93		18.7
Sig Lvl		ns		**		**	*	**	ns	**	**		ns

* 2010 Data from Foxhome MN Analyzed 10/13/2010 08:38 Created 10-21-2010.

Vigor not collected. Trial # = 106202

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

Table 57.

MDFC Variety Approval Calculations - 2010

		Recoverable Sugar / Ton					Recoverable Sugar / Acre						Cercospora Leaf Spot Ratings				Aphanomyces Root Ratings				
Description	Yrs Comm	2008	2009	2010	3 Yr Mean	3 Yr % App	2008	2009	2010	3 Yr Mean	3 Yr % App	RST + RSA	2008	2009	2010	3 Yr Mean	2008	2009	2010	3 Yr Mean	3 Yr % Limit
Previously Approved																					
BTS 85RR02	3	306.2	313.3	329.0	316.2	102.7	10029	10210	9779	10006	98.2	200.8	4.64	4.66	4.47	4.59	4.16	4.02	3.54	3.91	79.9
BTS 77RR54	1	301.9	309.7	335.1	315.6	102.5	11277	10286	10336	10633	104.3	206.8	4.50	4.50	4.72	4.58	4.49	4.50	4.25	4.41	90.1
Crystal RR539	3	296.6	296.4	319.0	304.0	98.7	9740	10015	8884	9546	93.7	192.4	4.90	5.25	5.39	5.18	4.55	4.19	3.97	4.24	86.6
Crystal RR610	1	306.9	290.6	330.2	309.2	100.4	10998	10259	10696	10651	104.5	204.9	4.14	4.74	5.03	4.64	5.08	4.91	4.33	4.78	97.7
Crystal RR632	1	301.0	300.0	313.0	304.7	98.9	11275	10183	9915	10458	102.6	201.5	4.10	4.50	4.34	4.31	4.60	4.57	4.65	4.61	94.2
Crystal RR643	NC	302.0	307.5	320.3	309.9	100.6	11554	10567	10405	10842	106.4	207.0	4.69	4.98	5.19	4.95	3.85	3.76	4.13	3.91	79.9
Hilleshög 4012RR	3	301.3	292.7	317.7	303.9	98.7	11382	9642	10675	10566	103.7	202.4	4.98	5.29	5.00	5.09	4.32	4.47	4.26	4.35	88.9
Hilleshög 4022RR	2	287.7	300.5	320.5	302.9	98.3	10016	10295	11257	10523	103.3	201.6	3.80	4.53	4.26	4.20	4.84	4.80	4.96	4.87	99.5
Full Market Candidates																					
BTS 78RR10	1	306.8	298.5	327.2	310.8	100.9	11546	11342	10818	11235	110.3	211.2	4.67	4.81	5.37	4.95	5.12	5.20	5.45	5.26	107.5
BTS 78RR20	1	297.2	305.0	330.9	311.0	101.0	10558	10857	9600	10338	101.5	202.4	4.66	4.82	5.50	4.99	3.84	3.71	4.07	3.87	79.1
Crystal RR806	1	301.4	294.1	317.8	304.4	98.8	11099	11221	10489	10936	107.3	206.1	4.73	4.75	4.99	4.82	4.39	3.86	3.63	3.96	80.9
Crystal RR811	1	285.7	283.1	307.7	292.2	94.9	10268	9753	10084	10035	98.5	193.3	4.42	4.92	4.74	4.70	4.84	3.87	4.68	4.46	91.1
Crystal RR830	1	294.1	291.6	322.0	302.6	98.2	11234	11036	12037	11436	112.2	210.5	4.61	4.57	4.86	4.68	5.51	4.23	4.93	4.89	99.9
Hilleshög 4062RR(9062)	1	291.2	295.0	319.0	301.7	97.9	10646	10679	11102	10809	106.1	204.0	4.01	4.35	4.41	4.25	4.85	4.09	4.84	4.59	93.8
Seedex Ultra RR(SX0983RR)	1	312.1	278.9	324.2	305.1	99.0	10353	10224	11100	10559	103.6	202.7	4.85	5.30	5.02	5.06	4.94	4.98	4.86	4.93	100.7
SESVanderhave H36821RR	1	293.5	304.1	323.2	306.9	99.6	10926	9564	10425	10305	101.1	200.8	4.63	4.93	4.73	4.76	5.94	5.49	4.88	5.44	111.1
SESVanderhave H36822RR	1	297.0	300.1	322.0	306.4	99.5	10244	10525	10425	10398	102.0	201.5	5.17	4.85	5.00	5.00	5.08	4.24	4.68	4.67	95.4
Test Market					**2 Yr**	**2 Yr**				**2 Yr**	**2 Yr**	**2 Yr**				**2 Yr**				**2 Yr**	**2 Yr**
BTS 79RR12	NC		284.8	308.7	296.7	95.1		10572	11569	11071	109.7	204.8		5.14	5.39	5.26		3.95	4.21	4.08	83.4
BTS 79RR33	NC		289.5	306.2	297.9	95.4		10218	9257	9737	96.5	192.0		4.03	4.13	4.08		3.76	3.44	3.60	73.5
Crystal RR793	NC		288.9	328.9	308.9	99.0		11227	10328	10777	106.8	205.8		4.47	4.85	4.66		4.28	4.44	4.36	89.1
Crystal RR794	NC		317.0	327.3	322.1	103.2		11826	10577	11202	111.0	214.2		4.69	5.26	4.98		3.94	4.54	4.24	86.6
Crystal RR798	NC		288.4	325.9	307.1	98.4		9560	11714	10637	105.4	203.8		4.65	5.22	4.93		3.83	5.22	4.53	92.5
Hilleshög 4200RR(9200)	NC		288.2	309.9	299.1	95.8		10795	10886	10840	107.5	203.3		5.26	4.77	5.02		3.88	4.84	4.36	89.1
Hilleshög 4204RR(9204)	NC		291.4	316.5	303.9	97.4		10274	11223	10749	106.6	203.9		4.76	4.47	4.61		4.79	5.04	4.91	100.3
Hilleshög 9207RR	NC		296.5	317.3	306.9	98.3		10534	9560	10047	99.6	197.9		4.35	4.09	4.22		6.37	6.32	6.34	129.5
Seedex SX0995RR	NC		290.3	317.2	303.7	97.3		11334	11378	11356	112.6	209.9		4.74	4.56	4.65		4.67	4.80	4.73	96.6
Seedex SX0996RR	NC		295.4	318.1	306.8	98.3		11555	10849	11202	111.0	209.3		4.51	4.65	4.58		4.52	4.59	4.56	93.2
SESVanderhave H36921RR	1		291.2	311.7	301.4	96.6		10485	11044	10764	106.7	203.3		4.78	4.84	4.81		4.77	4.53	4.65	95.0
SESVanderhave H36923RR	NC		298.7	311.9	305.3	97.8		10456	11035	10746	106.5	204.3		4.42	4.69	4.56		4.36	4.72	4.54	92.7
SESVanderhave H36926RR	NC		301.2	321.2	311.2	99.7		11907	11105	11506	114.1	213.7		4.41	4.33	4.37		4.44	4.63	4.54	92.7
SESVanderhave H36927RR	1		291.8	321.0	306.4	98.2		11490	11238	11364	112.6	210.8		4.64	4.30	4.47		4.34	4.36	4.35	88.9
SESVanderhave H36929RR	NC		289.3	307.9	298.6	95.7		11498	11266	11382	112.8	208.5		4.67	4.56	4.62		4.50	4.50	4.50	91.9
Conventional																					
Seedex SX0801TT	NC			341.0		99.0			9817		96.8	195.7			5.03	4.07			5.24	4.97	107.5
Seedex SX0909	NC			331.8		96.3			11850		116.8	213.1			4.07	4.62			4.97	5.26	123.1
SESVanderhave H46531	5	296.4		342.0		99.3	10490		10248		101.0	200.3	4.59	4.68	4.58	5.35	5.04	5.37	5.37	6.03	NA
SESVanderhave H48021TT	NC			338.4		98.2			11103		109.4	207.7			5.35				6.03		NA
Beta 1317R(Check)	6	303.5		349.7			10452		10161												
Crystal R454(Check)	5	311.8		339.0			10435		9630												
Hilleshög 3035(Check)	4	314.9		344.8			10674		10648												
Susc 3N - Aph Tol	NC	317.5		327.1			9270		6887												
Mean of Approved Comm Seed^		299.8	300.8	323.5	308.0		10394	9956	10220	10190											
Mean of Approved Cnv Chks		310.0		344.5			10521		10146												
Disease Approval Criteria				**2 Yr =**	312.2				**2 Yr =**	10088						5.363				4.895	

* Lower numbers indicate better Cerc. resistance (1=Ex,9=Poor). Cercospora cutoff is 97.5% of 5.50 rating or 5.36.

^2010 approval variety mean is from 7 entries, 2009 is from 3 entries, 2008 is from 12 entries.

Table 58.
MDFC Variety Approval Calculations - 2010

		Recoverable Sugar / Ton		Recoverable Sugar / Acre			Cercospora	Aphanomyces	
Description	Yrs Comm	2010	1 Yr % App	2010	1 Yr % App	RST + RSA	2010	2010	1 Yr % Limit
One Year Status									
BTS 70RR60	NC	329.1	101.7	12032	117.7	219.5	5.63	5.07	103.5
BTS 70RR64	NC	321.8	99.5	10884	106.5	206.0	4.86	4.13	84.4
BTS 70RR70	NC	332.8	102.9	12259	120.0	222.8	5.21	5.47	111.7
BTS 70RR78	NC	339.1	104.8	11484	112.4	217.2	5.21	5.18	105.8
BTS 70RR85	NC	329.5	101.9	11291	110.5	212.3	5.18	5.27	107.6
BTS 70RR99	NC	339.7	105.0	11867	116.1	221.1	4.43	4.63	94.6
Crystal RR012	NC	335.1	103.6	11785	115.3	218.9	4.60	5.14	105.1
Crystal RR028	NC	336.3	104.0	11384	111.4	215.3	4.99	7.20	147.1
Crystal RR040	NC	344.8	106.6	10894	106.6	213.2	4.92	5.51	112.5
Hilleshög 9249RR	NC	300.9	93.0	10192	99.7	192.7	5.54	5.19	106.0
Hilleshög 9250RR	NC	307.4	95.0	11015	107.8	202.8	5.07	6.58	134.5
Hilleshög 9251RR	NC	312.2	96.5	10838	106.0	202.6	4.21	4.71	96.2
Hilleshög 9252RR	NC	306.3	94.7	10886	106.5	201.2	4.93	4.71	96.3
Hilleshög 9253RR	NC	315.6	97.6	10637	104.1	201.6	4.40	5.32	108.6
Hilleshög 9254RR	NC	317.1	98.0	10674	104.4	202.5	3.84	5.49	112.1
Hilleshög 9255RR	NC	302.6	93.5	10639	104.1	197.6	5.04	5.84	119.2
Hilleshög 9256RR	NC	324.9	100.4	10464	102.4	202.8	5.20	5.69	116.2
Hilleshög 9257RR	NC	330.3	102.1	10350	101.3	203.4	5.52	5.48	112.0
Seedex SX0901RR	NC	323.5	100.0	11114	108.7	208.8	4.95	4.60	93.9
Seedex SX0902RR	NC	313.5	96.9	10771	105.4	202.3	4.53	4.88	99.7
Seedex SX0903RR	NC	317.6	98.2	11562	113.1	211.3	4.74	4.84	98.8
Seedex SX0904RR	NC	303.3	93.8	10692	104.6	198.4	3.81	4.96	101.2
SESVanderhave 36081RR	NC	313.7	97.0	11370	111.3	208.2	4.83	4.52	92.2
SESVanderhave 36082RR	NC	318.5	98.5	10857	106.2	204.7	4.84	4.89	99.9
SESVanderhave 36083RR	NC	326.2	100.8	11280	110.4	211.2	4.75	4.57	93.3
SESVanderhave 36084RR	NC	318.0	98.3	11355	111.1	209.4	4.92	4.77	97.4
Mean of Approved Comm Seed^		323.5		10220					
Disease Approval Criteria							5.363	4.895	

* Lower numbers indicate better Cerc. resistance (1=Ex,9=Poor). Cercospora cutoff is 97.5% of 5.50 rating or 5.36.

^2010 approval variety mean is from 7 entries, 2009 is from 3 entries, 2008 is from 12 entries.

Table 59.

Three Year Performance Summary of Minn-Dak Entries in 2010

Minn-Dak Farmers Cooperative (All Location)*

		Rec. Sugar / Ton (pounds)			Rec. Sugar / Acre (pounds)			Cercospora Rating** (1-9)		Aphanomyces Root Rating		Rhizoctonia (1=Ex,7=Poor)		Fusarium (1=Ex,9=Poor)	
Description @	Years Comm Seed +	2010	3 Yr Mean	3 Yr % App	2010	3 Yr Mean	3 Yr % App	2010	3 Yr Mean	2010	3 Yr Mean	2009	2010	2009	2010
Previously Approved															
BTS 85RR02	3	329.0	316.2	102.6	9779	10006	98.2	4.47	4.59	3.54	3.91	4.5	4.1	2.7	4.6
BTS 77RR54	1	335.1	315.6	102.4	10336	10633	104.3	4.72	4.58	4.25	4.41	4.9	4.6	3.3	4.2
Crystal RR539	3	319.0	304.0	98.7	8884	9546	93.7	5.39	5.18	3.97	4.24	4.4	4.4	1.8	1.9
Crystal RR610	1	330.2	309.2	100.4	10696	10651	104.5	5.03	4.64	4.33	4.78	4.2	4.6	3.7	3.9
Crystal RR632	1	313.0	304.7	98.9	9915	10458	102.6	4.34	4.31	4.65	4.61	4.1	4.2	2.2	2.0
Crystal RR643	NC	320.3	309.9	100.6	10405	10842	106.4	5.19	4.95	4.13	3.91	4.4	3.8	2.7	3.4
Hilleshög 4012RR	3	317.7	303.9	98.7	10675	10566	103.7	5.00	5.09	4.26	4.35	4.8	4.5	5.3	6.1
Hilleshög 4022RR	2	320.5	302.9	98.3	11257	10523	103.3	4.26	4.20	4.96	4.87	3.1	3.6	4.4	4.8
Full Market Candidates															
BTS 78RR10	1	327.2	310.8	100.9	10818	11235	110.3	5.37	4.95	5.45	5.26	4.4	4.8	4.5	4.8
BTS 78RR20	1	330.9	311.0	101.0	9600	10338	101.5	5.50	4.99	4.07	3.87	4.2	4.4	2.1	2.3
Crystal RR806	1	317.8	304.4	98.8	10489	10936	107.3	4.99	4.82	3.63	3.96	4.7	4.1	2.3	2.4
Crystal RR811	1	307.7	292.2	94.9	10084	10035	98.5	4.74	4.70	4.68	4.46	3.2	3.8	1.7	2.1
Crystal RR830	1	322.0	302.6	98.2	12037	11436	112.2	4.86	4.68	4.93	4.89	3.4	3.8	3.1	2.8
Hilleshög 4062RR(9062)	1	319.0	301.7	98.0	11102	10809	106.1	4.41	4.25	4.84	4.59	3.4	3.6	4.3	4.5
Seedex Ultra RR(SX0983RR)	1	324.2	305.1	99.0	11100	10559	103.6	5.02	5.06	4.86	4.93	--	4.1	3.9	4.6
SESVanderhave H36821RR	1	323.2	306.9	99.6	10425	10305	101.1	4.73	4.76	4.88	5.44	4.7	4.4	7.0	7.3
SESVanderhave H36822RR	1	322.0	306.4	99.5	10425	10398	102.0	5.00	5.00	4.68	4.67	4.2	4.3	3.9	4.5
Test Market Candidates			**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**		**2 Yr**				
BTS 79RR12	NC	308.7	296.7	95.1	11569	11071	109.7	5.39	5.26	4.21	4.08	--	4.0	--	1.1
BTS 79RR33	NC	306.2	297.9	95.4	9257	9737	96.5	4.13	4.08	3.44	3.60	4.0	3.9	--	3.6
Crystal RR793	NC	328.9	308.9	98.9	10328	10777	106.8	4.85	4.66	4.44	4.36	3.8	4.2	--	4.5
Crystal RR794	NC	327.3	322.1	103.2	10577	11202	111.0	5.26	4.98	4.54	4.24	--	4.2	--	5.3
Crystal RR798	NC	325.9	307.1	98.4	11714	10637	105.4	5.22	4.93	5.22	4.53	3.2	3.9	--	5.1
Hilleshög 4200RR(9200)	NC	309.9	299.1	95.8	10886	10840	107.5	4.77	5.02	4.84	4.36	--	4.6	--	4.4
Hilleshög 4204RR(9204)	NC	316.5	303.9	97.4	11223	10749	106.6	4.47	4.61	5.04	4.91	3.7	4.0	--	7.1
Hilleshög 9207RR	NC	317.3	306.9	98.3	9560	10047	99.6	4.09	4.22	6.32	6.34	--	4.5	--	6.9
Seedex SX0995RR	NC	317.2	303.7	97.3	11378	11356	112.6	4.56	4.65	4.80	4.73	--	3.7	--	4.6
Seedex SX0996RR	NC	318.1	306.8	98.3	10849	11202	111.0	4.65	4.58	4.59	4.56	--	4.0	--	4.2
SESVanderhave H36921RR	1	311.7	301.4	96.6	11044	10764	106.7	4.84	4.81	4.53	4.65	4.2	4.2	--	5.7
SESVanderhave H36923RR	NC	311.9	305.3	97.8	11035	10746	106.5	4.69	4.56	4.72	4.54	4.5	4.3	3.3	3.9
SESVanderhave H36926RR	NC	321.2	311.2	99.7	11105	11506	114.1	4.33	4.37	4.63	4.54	--	4.4	--	4.2
SESVanderhave H36927RR	1	321.0	306.4	98.2	11238	11364	112.7	4.30	4.47	4.36	4.35	--	4.0	--	4.5
SESVanderhave H36929RR	NC	307.9	298.6	95.6	11266	11382	112.8	4.56	4.62	4.50	4.50	--	4.0	--	4.5
		2 Yr Mean=	**312.2**	**1 Yr %**	2 Yr Mean=	**10213**	**1 Yr %**								
Conventional				1 Yr											
Seedex SX0801TT	NC	341.0		99.0	9817		96.8	5.03		5.24		--	4.2	--	--
Seedex SX0909	NC	331.8		96.3	11850		116.8	4.07		4.97		--	--	--	--
SESVanderhave H46531	5	342.0		99.3	10248		101.0	4.58		5.37		4.4	--	4.6	--
SESVanderhave H48021TT	NC	338.4		98.2	11103		109.4	5.35		6.03		--	4.0	--	--
Beta 1317R(Check)	6	349.7			10161										
Crystal R454(Check)	5	339.0			9630										
Hilleshög 3035(Check)	4	344.8			10648										
Susc 3N - Aph Tol	NC	327.1			6887										
Prev. Approved Mean^^		323.1	308.3		10243	10190									
2010 Conv. Check Mean		344.5			10146										

* 2008 Foxhome & Fairmount. 2009 Norcross. 2010 Barnesville, Foxhome & Charlesville.

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

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

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

Approved Mean based upon set of established varieties.

Created 11-3-2010.

Table 60.
Three Year Performance Summary of Minn-Dak Entries in 2010
Minn-Dak Farmers Cooperative (All Location)*

	Sugar Content (%)			Root Yield (Tons / Acre)			Loss to Molasses (%)			Field Emergence (%)	
Description @	2010	3 Yr Mean	3 Yr % App	2010	3 Yr Mean	3 Yr % App	2010	3 Yr Mean	3 Yr % App	2010	3 Yr Mean
Previously Approved											
BTS 85RR02	17.5	17.1	102	29.7	31.7	94	1.04	1.27	101	71	60
BTS 77RR54	17.8	17.0	102	30.8	33.9	100	1.01	1.23	98	61	62
Crystal RR539	17.1	16.5	99	27.7	31.4	93	1.12	1.32	105	53	52
Crystal RR610	17.5	16.7	100	32.4	34.5	102	1.03	1.25	99	74	70
Crystal RR632	16.6	16.4	98	31.7	34.4	102	0.96	1.17	93	70	62
Crystal RR643	17.2	16.8	101	32.4	35.0	104	1.18	1.34	106	48	57
Hilleshög 4012RR	17.0	16.4	98	33.5	34.9	103	1.08	1.23	97	74	67
Hilleshög 4022RR	17.1	16.4	98	35.2	34.8	103	1.06	1.27	101	83	67
Full Market Candidates											
BTS 78RR10	17.4	16.8	101	33.0	36.1	107	1.05	1.24	99	61	62
BTS 78RR20	17.6	16.7	100	29.0	33.6	99	1.00	1.19	94	55	57
Crystal RR806	17.1	16.5	99	33.0	35.9	106	1.19	1.30	103	62	64
Crystal RR811	16.4	15.8	95	32.7	34.3	102	1.03	1.20	95	52	53
Crystal RR830	17.0	16.3	97	37.4	37.7	111	0.91	1.12	89	71	67
Hilleshög 4062RR(9062)	17.0	16.3	98	34.8	35.8	106	1.05	1.26	100	81	72
Seedex Ultra RR(SX0983RR)	17.2	16.4	98	34.2	34.7	103	0.95	1.13	89	78	72
SESVanderhave H36821RR	17.1	16.6	99	32.2	33.6	99	0.97	1.21	96	71	64
SESVanderhave H36822RR	17.1	16.5	99	32.4	34.0	101	1.00	1.13	90	71	64
Test Market Candidates		**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**
BTS 79RR12	16.4	16.0	95	37.2	37.1	113	1.00	1.13	95	71	68
BTS 79RR33	16.5	16.1	96	30.0	32.6	99	1.16	1.24	104	55	44
Crystal RR793	17.5	16.6	99	31.3	35.1	107	1.06	1.12	94	62	64
Crystal RR794	17.4	17.2	102	32.2	34.7	106	1.06	1.11	93	66	66
Crystal RR798	17.4	16.5	98	35.9	34.6	105	1.08	1.13	95	78	68
Hilleshög 4200RR(9200)	16.7	16.2	97	35.1	36.4	111	1.17	1.27	107	58	59
Hilleshög 4204RR(9204)	17.0	16.5	98	35.5	35.3	108	1.17	1.27	107	62	57
Hilleshög 9207RR	16.9	16.5	98	30.1	33.0	101	1.04	1.13	95	61	55
Seedex SX0995RR	16.8	16.3	97	35.8	37.4	114	0.98	1.10	92	74	81
Seedex SX0996RR	16.9	16.4	98	34.0	36.7	112	0.97	1.06	89	71	75
SESVanderhave H36921RR	16.6	16.1	96	35.4	35.9	109	0.96	1.06	89	75	77
SESVanderhave H36929RR	16.4	16.0	95	36.5	38.0	116	1.04	1.10	93	74	79
Conventional			1 Yr			1 Yr			1 Yr		
Seedex SX0801TT	18.2		98.7	29.0		97.9	1.12		93	55	
Seedex SX0909	17.9		97.4	36.0		121.4	1.36		112	60	
SESVanderhave H46531	18.2		98.5	30.0		101.4	1.04		86	73	
SESVanderhave H48021TT	18.1		98.1	33.0		111.4	1.16		96	67	
Beta 1317R(Check)	18.7			29.1			1.18			59	
Crystal R454(Check)	18.3			28.9			1.38			51	
Hilleshög 3035(Check)	18.3			30.9			1.07			68	
Susc 3N - Aph Tol	17.5			20.9			1.08			71	
Prev. Approved Mean^^	17.2	16.7	100.0	31.7	33.8	100.0	1.06	1.26	100.0	66.7	62.0
2010 Conv. Check Mean	18.4			29.6			1.21				

* 2008 Foxhome & Fairmount. 2009 Norcross. 2010 Barnesville, Foxhome & Charlesville.

All varieties are diploid unless noted.

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

Approved Mean based upon set of established varieties.

Created 11-3-2010.

Table 61.
2010 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		Foliar	Root	Foliar	Root	Foliar	Root ^^		Foliar		Root		2009		2008		Trial
Chk Code	Description	8/12	9/2	7/22	8/26	Mean	Mean	% Spec	2 Yr	3 Yr	2 Yr	3 Yr	Foliar^	Rt.Indx^^	Foliar^	Rt.Indx^^	Yrs $$
528	BTS 70RR60	2.82	4.37	4.21	5.76	3.52	5.07	103	--	--	--	--	--	--	--	--	1
555	BTS 70RR64	2.69	4.23	2.69	4.02	2.69	4.13	84	--	--	--	--	--	--	--	--	1
584	BTS 70RR70	3.21	4.84	4.47	6.10	3.84	5.47	112	--	--	--	--	--	--	--	--	1
600	BTS 70RR78	2.59	4.52	4.25	5.84	3.42	5.18	106	--	--	--	--	--	--	--	--	1
575	BTS 70RR85	2.60	4.77	4.77	5.76	3.69	5.27	107	--	--	--	--	--	--	--	--	1
537	BTS 70RR99	2.34	4.57	3.27	4.69	2.81	4.63	95	--	--	--	--	--	--	--	--	1
542	BTS 77RR54	2.32	4.64	2.34	3.86	2.33	4.25	87	2.57	2.57	4.38	4.41	2.81	4.50	2.57	4.49	4
562	BTS 78RR10	4.72	5.81	3.03	5.09	3.87	5.45	111	3.51	3.50	5.33	5.26	3.14	5.20	3.49	5.12	3
516	BTS 78RR20	2.77	4.53	2.11	3.61	2.44	4.07	83	2.44	2.40	3.89	3.87	2.43	3.71	2.33	3.84	3
614	BTS 79RR12	2.42	3.38	3.98	5.05	3.20	4.21	86	2.73	--	4.08	--	2.27	3.95	--	--	2
648	BTS 79RR33	2.25	4.04	1.78	2.84	2.01	3.44	70	2.07	--	3.60	--	2.13	3.76	--	--	2
546	BTS 80RR12	2.75	4.45	4.32	6.15	3.54	5.30	108	--	--	--	--	--	--	--	--	1
535	BTS 80RR32	3.27	5.08	4.01	6.12	3.64	5.60	114	--	--	--	--	--	--	--	--	1
588	BTS 80RR35	2.05	3.72	2.65	3.93	2.35	3.83	78	--	--	--	--	--	--	--	--	1
629	BTS 80RR45	3.08	4.90	4.16	5.78	3.62	5.34	109	--	--	--	--	--	--	--	--	1
621	BTS 80RR52	3.05	4.42	4.01	4.93	3.53	4.67	95	--	--	--	--	--	--	--	--	1
574	BTS 80RR57	2.86	4.61	1.81	3.50	2.33	4.05	83	--	--	--	--	--	--	--	--	1
623	BTS 80RR59	3.45	5.35	3.67	6.10	3.56	5.72	117	--	--	--	--	--	--	--	--	1
526	BTS 80RR64	2.55	4.24	3.83	5.76	3.19	5.00	102	--	--	--	--	--	--	--	--	1
561	BTS 85RR02	2.40	3.74	2.60	3.34	2.50	3.54	72	2.50	2.59	3.78	3.91	2.50	4.02	2.77	4.16	6
636	BTS 86RR66	2.49	4.37	4.01	4.76	3.25	4.57	93	2.84	3.03	4.46	4.62	2.43	4.35	3.42	4.96	5
582	BTS 87RR38	2.77	4.75	2.11	3.84	2.44	4.30	88	2.84	3.10	4.55	4.72	3.23	4.80	3.62	5.07	4
641	BTS 87RR58	3.33	5.33	2.98	4.78	3.15	5.05	103	2.76	3.09	4.92	5.03	2.36	4.79	3.76	5.25	4
599	BTS 87RR68	4.70	6.20	5.36	7.24	5.03	6.72	137	4.42	4.80	6.45	6.80	3.82	6.17	5.57	7.52	4
502	BTS 88RR13	4.05	5.31	3.23	5.10	3.64	5.21	106	3.15	3.17	4.57	4.68	2.66	3.93	3.22	4.89	3
645	BTS 88RR21	3.00	4.63	2.26	3.76	2.63	4.19	86	2.56	2.75	4.14	4.27	2.49	4.08	3.15	4.52	3
544	BTS 88RR31	2.50	4.03	2.44	3.58	2.47	3.80	78	2.37	2.41	3.95	4.08	2.27	4.10	2.50	4.35	3
552	BTS 88RR41	4.07	5.63	2.09	4.67	3.08	5.15	105	2.92	3.41	4.91	5.13	2.77	4.67	4.38	5.56	3
589	BTS 88RR61	2.23	3.90	3.26	4.71	2.74	4.31	88	2.59	2.65	4.44	4.48	2.43	4.57	2.77	4.55	3
592	BTS 89RR10	1.99	4.08	1.89	3.25	1.94	3.67	75	2.02	--	3.76	--	2.11	3.86	--	--	2
517	BTS 89RR30	2.90	3.73	3.84	4.77	3.37	4.25	87	2.97	--	4.18	--	2.58	4.10	--	--	2
597	BTS 89RR40	2.45	4.43	2.69	3.84	2.57	4.14	84	2.64	--	4.32	--	2.71	4.49	--	--	2
608	BTS 89RR50	2.82	3.71	3.28	4.01	3.05	3.86	79	2.58	--	3.73	--	2.10	3.60	--	--	2
504	BTS 89RR83	3.86	5.14	5.15	6.19	4.50	5.66	116	3.57	--	4.92	--	2.63	4.18	--	--	2
612	Crystal 091RR	3.45	4.76	3.07	4.62	3.26	4.69	96	--	--	--	--	--	--	--	--	1
583	Crystal 092RR	6.44	6.60	5.11	7.21	5.78	6.90	141	--	--	--	--	--	--	--	--	1
541	Crystal 093RR	3.19	4.93	3.23	4.89	3.21	4.91	100	--	--	--	--	--	--	--	--	1
627	Crystal 094RR	3.88	5.67	3.61	5.57	3.75	5.62	115	--	--	--	--	--	--	--	--	1
602	Crystal 095RR	2.70	4.68	3.83	5.29	3.26	4.99	102	--	--	--	--	--	--	--	--	1
569	Crystal 096RR	3.69	5.22	4.75	6.51	4.22	5.86	120	--	--	--	--	--	--	--	--	1
554	Crystal 539RR	2.43	4.44	2.27	3.49	2.35	3.97	81	2.52	2.61	4.08	4.24	2.69	4.19	2.79	4.55	6
532	Crystal 658RR	2.22	4.24	1.36	3.58	1.79	3.91	80	2.14	2.44	3.93	4.21	2.50	3.95	3.04	4.78	5
634	Crystal 765RR	4.78	5.56	3.65	5.83	4.21	5.70	116	3.94	4.24	5.64	6.17	3.68	5.58	4.83	7.25	4
527	Crystal 768RR	3.17	5.16	2.68	4.48	2.92	4.82	98	3.09	3.50	4.90	5.06	3.25	4.97	4.32	5.37	4
591	Crystal 873RR	3.54	4.83	2.88	4.44	3.21	4.63	95	2.96	3.66	4.45	4.80	2.70	4.27	5.06	5.49	3
577	Crystal 875RR	2.11	3.91	1.72	2.77	1.92	3.34	68	1.93	2.04	3.17	3.38	1.95	3.00	2.24	3.79	3
622	Crystal 878RR	3.66	5.38	4.44	6.12	4.05	5.75	117	3.67	3.63	5.40	5.31	3.28	5.06	3.56	5.11	3
507	Crystal 879RR	4.20	6.00	3.10	6.04	3.65	6.02	123	3.26	3.42	5.50	5.53	2.87	4.99	3.74	5.59	3
632	Crystal 981RR	2.07	3.80	1.93	2.94	2.00	3.37	69	2.42	--	3.72	--	2.84	4.07	--	--	2
515	Crystal 984RR	2.39	4.43	3.28	3.95	2.83	4.19	85	2.90	--	4.32	--	2.96	4.46	--	--	2
651	Crystal 985RR	2.09	3.93	3.19	4.47	2.64	4.20	86	2.68	--	4.18	--	2.72	4.15	--	--	2
626	Crystal 986RR	2.89	4.55	2.42	3.84	2.65	4.20	86	3.07	--	4.64	--	3.48	5.08	--	--	2
519	Crystal R760	2.39	4.37	1.87	3.32	2.13	3.84	78	--	--	--	--	--	--	3.20	4.52	4
522	Crystal R761	2.45	4.20	2.63	3.53	2.54	3.87	79	--	--	--	--	--	--	3.13	4.02	4
598	Crystal R869	2.73	5.02	4.40	6.37	3.57	5.70	116	--	--	--	--	--	--	3.22	4.66	3
586	Crystal RR012	3.13	5.28	3.57	5.00	3.35	5.14	105	--	--	--	--	--	--	--	--	1
543	Crystal RR028	5.55	6.43	6.59	7.97	6.07	7.20	147	--	--	--	--	--	--	--	--	1
593	Crystal RR040	3.62	5.25	4.01	5.76	3.82	5.51	112	--	--	--	--	--	--	--	--	1
559	Crystal RR610	3.14	4.91	2.29	3.76	2.72	4.33	88	2.87	3.05	4.62	4.78	3.02	4.91	3.40	5.08	4
601	Crystal RR632	3.26	4.92	2.63	4.38	2.94	4.65	95	2.64	3.06	4.61	4.61	2.34	4.57	3.91	4.60	4
644	Crystal RR643	2.72	4.49	2.69	3.77	2.71	4.13	84	2.34	2.30	3.94	3.91	1.97	3.76	2.22	3.85	4
503	Crystal RR793	2.97	4.69	2.66	4.18	2.82	4.44	91	2.60	--	4.36	--	2.39	4.28	--	--	2
635	Crystal RR794	2.69	4.14	3.78	4.95	3.24	4.54	93	3.04	--	4.24	--	2.85	3.94	--	--	2
564	Crystal RR798	3.47	4.96	3.45	5.49	3.46	5.22	107	2.83	--	4.53	--	2.20	3.83	--	--	2
548	Crystal RR806	2.54	3.93	2.28	3.33	2.41	3.63	74	2.29	2.49	3.75	3.96	2.17	3.86	2.88	4.39	3
513	Crystal RR811	4.20	5.66	2.11	3.70	3.15	4.68	95	2.91	3.08	4.27	4.46	2.66	3.87	3.42	4.84	3
576	Crystal RR830	2.94	4.77	3.30	5.09	3.12	4.93	101	2.66	3.19	4.58	4.89	2.21	4.23	4.25	5.51	3
631	Hilleshög 4010RR	3.73	5.16	2.61	4.35	3.17	4.75	97	3.05	3.09	4.43	4.60	2.92	4.11	3.17	4.94	5
595	Hilleshög 4012RR	3.04	4.60	2.14	3.92	2.59	4.26	87	2.67	2.47	4.37	4.35	2.75	4.47	2.06	4.32	5
506	Hilleshög 4022RR	3.20	5.22	3.27	4.69	3.23	4.96	101	3.32	3.36	4.88	4.87	3.40	4.80	3.44	4.84	5
607	Hilleshög 4043RR(9043)	2.76	4.55	3.27	5.25	3.01	4.90	100	3.24	3.12	4.91	4.79	3.46	4.91	2.89	4.55	4
619	Hilleshög 4062RR(9062)	3.50	4.94	2.84	4.75	3.17	4.84	99	2.84	3.17	4.46	4.59	2.52	4.09	3.83	4.85	3
536	Hilleshög 4094RR(9094)	3.10	5.09	2.50	4.65	2.80	4.87	99	2.45	2.71	4.41	4.55	2.10	3.95	3.24	4.83	3
553	Hilleshog 4195RR(9195)	3.94	5.22	2.86	5.12	3.40	5.17	106	3.26	--	5.00	--	3.13	4.84	--	--	2
580	Hilleshög 4200RR(9200)	4.00	5.39	2.48	4.29	3.24	4.84	99	2.90	--	4.36	--	2.56	3.88	--	--	2
642	Hilleshög 4204RR(9204)	4.06	5.56	2.66	4.52	3.36	5.04	103	3.35	--	4.91	--	3.35	4.79	--	--	2
530	Hilleshög 9199RR	5.00	5.90	4.21	6.15	4.60	6.03	123	4.08	--	5.70	--	3.55	5.37	--	--	2
539	Hilleshög 9207RR	5.37	5.93	5.29	6.71	5.33	6.32	129	4.75	--	6.34	--	4.17	6.37	--	--	2
572	Hilleshög 9224RR	3.71	5.47	3.41	5.36	3.56	5.41	110	--	--	--	--	--	--	--	--	1
545	Hilleshög 9225RR	3.33	4.51	2.51	4.19	2.92	4.35	89	--	--	--	--	--	--	--	--	1
518	Hilleshög 9226RR	6.78	6.93	4.79	6.82	5.79	6.88	140	--	--	--	--	--	--	--	--	1
590	Hilleshög 9227RR	2.29	4.85	3.08	4.84	2.69	4.84	99	--	--	--	--	--	--	--	--	1
585	Hilleshög 9228RR	3.51	4.99	2.94	4.67	3.22	4.83	99	--	--	--	--	--	--	--	--	1
563	Hilleshög 9229RR	3.07	4.96	3.06	4.48	3.07	4.72	96	--	--	--	--	--	--	--	--	1
547	Hilleshög 9230RR	3.39	4.93	4.27	5.57	3.83	5.25	107	--	--	--	--	--	--	--	--	1
514	Hilleshög 9231RR	3.93	5.61	4.95	5.82	4.44	5.71	117	--	--	--	--	--	--	--	--	1
638	Hilleshög 9232RR	2.78	4.71	3.84	5.28	3.31	5.00	102	--	--	--	--	--	--	--	--	1
570	Hilleshög 9233RR	3.61	5.28	3.99	5.66	3.80	5.47	112	--	--	--	--	--	--	--	--	1

Table 61.
2010 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		Foliar	Root	Foliar	Root	Foliar	Root ^^		Foliar		Root		2009		2008		Trial
Chk	Code Description	8/12	9/2	7/22	8/26	Mean	Mean	% Spec	2 Yr	3 Yr	2 Yr	3 Yr	Foliar^	Rt.Indx^^	Foliar^	Rt.Indx^^	Yrs $$
	524 Hilleshög 9234RR	4.74	5.74	3.75	5.27	4.25	5.51	112	--	--	--	--	--	--	--	--	1
	529 Hilleshög 9235RR	4.74	5.64	3.27	5.15	4.01	5.39	110	--	--	--	--	--	--	--	--	1
	615 Hilleshög 9236RR	4.08	5.00	3.04	4.93	3.56	4.96	101	--	--	--	--	--	--	--	--	1
	649 Hilleshög 9237RR	3.89	5.19	3.26	5.10	3.57	5.15	105	--	--	--	--	--	--	--	--	1
	505 Hilleshög 9238RR	4.41	5.75	3.10	5.71	3.75	5.73	117	--	--	--	--	--	--	--	--	1
	652 Hilleshög 9239RR	3.43	5.28	3.83	5.80	3.63	5.54	113	--	--	--	--	--	--	--	--	1
	581 Hilleshög 9249RR	3.31	4.97	4.05	5.40	3.68	5.19	106	--	--	--	--	--	--	--	--	1
	596 Hilleshög 9250RR	6.31	6.41	4.61	6.75	5.46	6.58	134	--	--	--	--	--	--	--	--	1
	557 Hilleshög 9251RR	2.96	4.90	3.00	4.51	2.98	4.71	96	--	--	--	--	--	--	--	--	1
	610 Hilleshög 9252RR	3.69	5.14	3.12	4.29	3.40	4.71	96	--	--	--	--	--	--	--	--	1
	560 Hilleshög 9253RR	3.18	5.43	3.66	5.20	3.42	5.32	109	--	--	--	--	--	--	--	--	1
	613 Hilleshög 9254RR	4.28	5.56	4.09	5.42	4.19	5.49	112	--	--	--	--	--	--	--	--	1
	525 Hilleshög 9255RR	4.04	5.60	4.17	6.07	4.11	5.84	119	--	--	--	--	--	--	--	--	1
	540 Hilleshög 9256RR	4.14	5.34	3.86	6.04	4.00	5.69	116	--	--	--	--	--	--	--	--	1
	567 Hilleshög 9257RR	3.89	4.97	3.64	6.00	3.76	5.48	112	--	--	--	--	--	--	--	--	1
	604 Hilleshög 9297RR	2.97	4.77	2.63	4.42	2.80	4.60	94	--	--	--	--	--	--	--	--	1
	509 Hilleshög 9298RR	4.18	5.55	3.68	5.69	3.93	5.62	115	--	--	--	--	--	--	--	--	1
	578 Seedex SX0801TT	2.92	4.56	4.33	5.92	3.63	5.24	107	--	--	--	--	--	--	--	--	1
	606 Seedex SX0802	3.13	4.93	3.00	4.20	3.07	4.57	93	--	--	--	--	--	--	--	--	1
	550 Seedex SX0806RR	2.96	5.34	2.86	4.47	2.91	4.90	100	--	--	--	--	--	--	--	--	1
	611 Seedex SX0807RR	3.49	5.10	3.06	4.86	3.27	4.98	102	--	--	--	--	--	--	--	--	1
	566 Seedex SX0808RR	2.79	4.82	2.13	3.47	2.46	4.14	85	--	--	--	--	--	--	--	--	1
	617 Seedex SX0891RR	3.52	4.98	2.90	4.34	3.21	4.66	95	2.94	--	4.85	--	2.67	5.03	--	--	2
	646 Seedex SX0892RR	3.08	4.81	2.88	4.73	2.98	4.77	97	2.88	--	4.52	--	2.78	4.28	--	--	2
	521 Seedex SX0893RR	2.76	4.62	3.38	5.07	3.07	4.84	99	3.07	--	4.71	--	3.07	4.58	--	--	2
	628 Seedex SX0894RR	3.05	4.84	2.68	4.39	2.87	4.62	94	2.67	--	4.39	--	2.47	4.16	--	--	2
	616 Seedex SX0901RR	3.19	4.82	2.67	4.38	2.93	4.60	94	--	--	--	--	--	--	--	--	1
	511 Seedex SX0902RR	3.28	4.94	3.43	4.83	3.36	4.88	100	--	--	--	--	--	--	--	--	1
	603 Seedex SX0903RR	3.02	4.79	3.08	4.88	3.05	4.84	99	--	--	--	--	--	--	--	--	1
	620 Seedex SX0904RR	3.59	4.73	3.83	5.18	3.71	4.96	101	--	--	--	--	--	--	--	--	1
	531 Seedex SX0909	3.06	4.76	3.80	5.17	3.43	4.97	101	--	--	--	--	--	--	--	--	1
	556 Seedex SX0995RR	3.30	4.90	3.07	4.69	3.19	4.80	98	3.15	--	4.73	--	3.11	4.67	--	--	2
	625 Seedex SX0996RR	3.09	4.68	2.97	4.50	3.03	4.59	94	2.93	--	4.56	--	2.82	4.52	--	--	2
	587 Seedex Ultra RR(SX0983RR)	3.37	4.89	3.07	4.83	3.22	4.86	99	3.00	3.33	4.92	4.93	2.78	4.98	3.98	4.94	3
	637 Seedex Uplander RR(SX0884)	3.52	5.08	3.85	5.03	3.69	5.05	103	3.22	3.04	4.66	4.61	2.75	4.28	2.68	4.49	3
	508 Seedex Usher RR(SX0883)	3.12	4.79	2.73	4.78	2.93	4.79	98	2.84	2.78	4.53	4.52	2.75	4.28	2.68	4.49	3
	630 SESVanderhave 36071RR	3.30	5.05	3.08	5.12	3.19	5.08	104	--	--	--	--	--	--	--	--	1
	573 SESVanderhave 36072RR	3.66	5.27	3.42	5.17	3.54	5.22	107	--	--	--	--	--	--	--	--	1
	533 SESVanderhave 36073RR	2.75	4.96	2.99	4.62	2.87	4.79	98	--	--	--	--	--	--	--	--	1
	565 SESVanderhave 36074RR	3.49	4.92	3.27	4.78	3.38	4.85	99	--	--	--	--	--	--	--	--	1
	633 SESVanderhave 36081RR	3.90	5.01	2.33	4.02	3.11	4.52	92	--	--	--	--	--	--	--	--	1
	650 SESVanderhave 36082RR	3.33	5.05	3.22	4.73	3.27	4.89	100	--	--	--	--	--	--	--	--	1
	523 SESVanderhave 36083RR	2.69	4.76	2.75	4.37	2.72	4.57	93	--	--	--	--	--	--	--	--	1
	605 SESVanderhave 36084RR	3.31	4.92	2.69	4.61	3.00	4.77	97	--	--	--	--	--	--	--	--	1
	512 SESVanderhave H36711RR	3.01	4.77	2.30	4.20	2.66	4.49	92	2.81	3.13	4.49	4.65	2.97	4.49	3.76	4.98	4
	538 SESVanderhave H36811RR	2.78	4.76	3.07	4.57	2.93	4.66	95	2.87	3.13	4.54	4.72	2.81	4.42	3.65	5.07	3
	594 SESVanderhave H36812RR	3.52	5.12	2.28	4.13	2.90	4.63	94	2.89	3.08	4.57	4.70	2.89	4.52	3.45	4.94	3
	639 SESVanderhave H36813RR	2.64	4.56	2.50	4.31	2.57	4.43	90	2.66	3.01	4.41	4.76	2.75	4.38	3.71	5.48	3
	558 SESVanderhave H36821RR	4.14	4.92	2.48	4.85	3.31	4.88	100	3.54	4.00	5.19	5.44	3.78	5.49	4.92	5.94	3
	624 SESVanderhave H36822RR	3.45	4.67	3.00	4.69	3.23	4.68	96	3.15	3.10	4.46	4.67	3.08	4.24	3.00	5.08	3
	510 SESVanderhave H36913RR	3.47	4.94	3.81	5.92	3.64	5.43	111	3.58	--	5.21	--	3.51	4.99	--	--	2
	643 SESVanderhave H36915RR	2.59	4.40	3.13	5.17	2.86	4.79	98	2.83	--	4.60	--	2.79	4.42	--	--	2
	549 SESVanderhave H36916RR	2.75	5.15	2.52	4.26	2.64	4.70	96	2.68	--	4.55	--	2.72	4.39	--	--	2
	501 SESVanderhave H36917RR	3.01	4.88	2.83	4.48	2.92	4.68	95	2.79	--	4.48	--	2.67	4.28	--	--	2
	568 SESVanderhave H36918RR	2.71	4.66	2.43	4.11	2.57	4.39	90	2.51	--	4.45	--	2.45	4.51	--	--	2
	520 SESVanderhave H36921RR	3.35	4.89	2.69	4.17	3.02	4.53	92	2.92	--	4.65	--	2.81	4.77	--	--	2
	647 SESVanderhave H36923RR	2.75	4.75	3.25	4.69	3.00	4.72	96	2.88	--	4.54	--	2.75	4.36	--	--	2
	609 SESVanderhave H36926RR	2.60	4.56	3.44	4.71	3.02	4.63	95	2.81	--	4.54	--	2.60	4.44	--	--	2
	551 SESVanderhave H36927RR	2.98	4.56	2.51	4.16	2.75	4.36	89	2.55	--	4.35	--	2.36	4.34	--	--	2
	534 SESVanderhave H36929RR	2.45	4.58	3.11	4.41	2.78	4.50	92	2.79	--	4.50	--	2.80	4.50	--	--	2
	640 SESVanderhave H46519	3.61	5.09	4.06	5.03	3.84	5.06	103	4.08	3.90	5.40	5.17	4.32	5.74	3.53	4.70	8
	579 SESVanderhave H46531	3.76	5.35	4.03	5.39	3.89	5.37	110	3.88	3.72	5.37	5.26	3.86	5.37	3.42	5.04	7
	618 SESVanderhave H48021TT	3.84	5.27	5.38	6.79	4.61	6.03	123	--	--	--	--	--	--	--	--	1
	571 SESVanderhave H48717TT	3.43	5.22	4.94	6.79	4.19	6.01	123	3.86	3.59	5.43	5.23	3.53	4.86	3.06	4.82	4
1	1001 Aph Chk-15 BETA1305R	2.76	4.46	3.43	4.93	3.09	4.69	96	3.22	3.28	4.78	4.69	3.35	4.87	3.39	4.49	8
1	1002 Aph Chk-12 CRYSR434	2.44	4.14	2.44	3.78	2.44	3.96	81	2.61	2.54	4.12	4.19	2.77	4.29	2.41	4.33	7
1	1003 Aph Chk-16 SES46519	3.98	5.19	4.20	6.16	4.09	5.68	116	4.06	3.96	5.60	5.46	4.04	5.53	3.76	5.17	8
1	1004 Aph Chk-25 BETA1584R	3.24	4.46	2.51	4.02	2.88	4.24	87	3.08	2.93	4.55	4.48	3.29	4.85	2.63	4.34	6
1	1005 Aph Chk-20 HILL3035	3.78	4.71	3.58	5.18	3.68	4.95	101	3.09	3.33	4.61	4.81	2.49	4.28	3.81	5.20	6
1	1006 Aph Chk-19 HOLL317	3.26	5.02	3.65	5.25	3.45	5.14	105	3.57	3.43	5.08	5.09	3.69	5.03	3.16	5.11	8
1	1007 Aph Chk-21 SES46532	3.52	5.22	3.44	5.24	3.48	5.23	107	3.64	3.54	5.37	5.17	3.79	5.51	3.35	4.78	7
1	1008 Aph Chk-24 SES46807	4.31	5.45	4.79	6.34	4.55	5.90	120	4.56	4.42	5.82	5.85	4.57	5.75	4.15	5.89	6
1	1009 Aph Chk-22 CRYS539RR	2.63	4.25	2.64	3.96	2.64	4.10	84	2.44	2.48	4.02	4.04	2.24	3.94	2.58	4.09	6
1	1010 Aph Chk-18 BETA85RR02	2.06	4.34	2.29	3.30	2.18	3.82	78	2.43	2.33	4.09	4.07	2.69	4.37	2.13	4.04	6
1	1011 Aph Chk-29 BETA86RR44	1.74	4.57	3.06	4.86	2.40	4.72	96	2.66	2.60	4.66	4.56	2.92	4.60	2.48	4.36	5
1	1012 Aph Chk-31 BETA86RR88	2.86	4.63	2.88	4.81	2.87	4.72	96	2.60	2.93	4.52	4.75	2.34	4.32	3.58	5.21	5
1	1013 Aph Chk-30 BETA86RR66	2.72	4.33	2.89	4.17	2.80	4.25	87	2.64	2.90	4.15	4.42	2.48	4.04	3.42	4.96	5
1	1014 Aph Chk-28 HILL4010RR	3.11	4.90	2.64	4.27	2.87	4.59	94	2.83	2.94	4.50	4.65	2.78	4.41	3.17	4.94	5
1	1015 Aph Chk-26 HILL4022RR	2.73	5.02	3.64	5.71	3.18	5.37	109	2.97	3.13	4.87	4.86	2.76	4.37	3.44	4.84	5
1	1016 Aph Chk-33 CRYS768RR	3.68	5.25	2.56	4.11	3.12	4.68	96	2.95	3.41	4.70	4.93	2.78	4.73	4.32	5.37	4
1	1017 Aph Chk-34 HILL4000RR	3.45	5.28	3.23	5.29	3.34	5.28	108	3.60	3.43	5.29	5.26	3.86	5.29	3.09	5.20	4
1	1018 Aph Chk-35 BETA87RR58	4.01	5.69	2.86	4.96	3.43	5.33	109	3.08	3.30	5.14	5.18	2.72	4.95	3.76	5.25	4
1	1019 Aph Chk-36 BETA87RR68	4.49	5.97	4.04	6.56	4.26	6.27	128	4.73	5.01	7.02	7.19	5.19	7.78	5.57	7.52	4
	1020 Aph Chk-37 BETA77RR74	3.36	5.03	2.25	3.98	2.80	4.51	92	2.63	--	4.24	--	2.46	3.97	--	--	2
	1021 AP CHECK MOD HYBRID#2	4.43	6.14	7.06	8.22	5.75	7.18	147	5.53	5.60	7.41	7.32	5.32	7.64	5.73	7.14	7
	1022 AP CHECK RES HYBRID-1	2.69	4.49	3.20	3.99	2.94	4.24	86	2.82	2.72	4.28	4.21	2.69	4.33	2.52	4.05	9
	1023 AP CHECK SUS HYBRID (AD)	7.77	7.57	6.86	8.50	7.31	8.04	164	6.92	6.85	8.11	8.36	6.53	8.19	6.71	8.87	6
	1024 AP CHECK RES HYBRID-2	3.34	4.28	2.80	4.62	3.07	4.45	91	2.92	2.69	4.64	4.54	2.76	4.82	2.22	4.33	6

Table 61.
2010 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		Foliar	Root	Foliar	Root	Foliar	Root ^^		Foliar		Root		2009		2008		Trial
Chk	Code Description	8/12	9/2	7/22	8/26	Mean	Mean	% Spec	2 Yr	3 Yr	2 Yr	3 Yr	Foliar^	Rt.Indx^^	Foliar^	Rt.Indx^^	Yrs $$
	1025 AP CHECK MOD HYBRID#2	5.33	6.27	6.08	7.33	5.70	6.80	139	5.51	5.59	7.22	7.20	5.32	7.64	5.73	7.14	7
	1026 AP CHECK RES HYBRID-1	2.74	4.54	2.69	4.13	2.72	4.34	89	2.70	2.64	4.33	4.24	2.69	4.33	2.52	4.05	9
	1027 AP CHECK SUS HYBRID (AD)	8.48	7.32	7.03	8.60	7.76	7.96	163	7.15	7.00	8.08	8.34	6.53	8.19	6.71	8.87	6
	1028 AP CHECK RES HYBRID-2	2.92	4.95	3.47	5.00	3.20	4.98	102	2.98	2.73	4.90	4.71	2.76	4.82	2.22	4.33	6
	1029 ACAPMODRR	3.26	5.34	3.26	4.47	3.26	4.90	100	3.26	3.61	4.94	5.08	3.25	4.97	4.32	5.37	4
	1030 ACAPRESRR	2.98	4.29	2.32	3.90	2.65	4.09	84	2.57	2.73	4.02	4.27	2.50	3.95	3.04	4.78	5
	1031 AP CHK SUS HYB#3	3.51	5.48	6.51	7.88	5.01	6.68	136	4.34	4.51	6.13	6.50	3.68	5.58	4.83	7.25	4
	1032 AP CHK SUS HYB#4	5.29	5.82	5.72	7.68	5.50	6.75	138	4.66	4.96	6.46	6.81	3.82	6.17	5.57	7.52	4
	1033 AP CHK MOD RES RR#2	NA	NA	2.91	4.64	2.91	4.64	95	3.19	3.09	4.77	4.70	3.46	4.91	2.89	4.55	4
19	19 Chk Mean	2.75	4.28	2.83	4.28												
	Trial Mean	3.36	4.96	3.35	4.96	3.27	4.89						2.87	4.52	3.36	4.90	
	Coeff. of Var. (%)	22.00	8.13	25.47	13.42												
	F Value	7.94	11.51	8.11	14.52												
	Mean LSD (0.05)	0.96	0.53	0.99	0.78										11	RR Check	
	Mean LSD (0.01)	1.26	0.70	1.30	1.03										8	Conv Check	
	Sig Lvl	**	**	**	**												
	Adjustment Factor	1.0659	0.8678	1.1468	1.1144												
	Approval Criteria	NA	4.90 #	NA	4.90	NA	4.90	4.90	NA	NA	4.90		NA	4.90	NA	4.90	
	Disapproval 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).

2008 data adjusted based upon 10 check varieties, 2009 & 2010 adjusted based upon 19 checks. Check varieties are labeled "Aph Chk". %Spec is a percentage of the Aph Spec approval threshold.

++ 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 and 2010 data from Shakopee & Kindred. 2008 data from Shakopee.

Created 10-11-2010

Table 62.

2010 Cercospora Ratings for Coded Test Entries

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

			Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					
Chk	Code	Description	Rosemt. Ave	BSDF Ave	Foxhome Ave	2010+++ Mean	2 Yr Mean	3 Yr Mean	2009 Mean	2008 Mean	Trial Yrs $$
	528	BTS 70RR60	5.92	5.32	5.36	5.63	--	--	--	--	1
	555	BTS 70RR64	4.78	4.87	5.00	4.86	--	--	--	--	1
	584	BTS 70RR70	5.45	5.11	4.82	5.21	--	--	--	--	1
	600	BTS 70RR78	5.35	5.02	5.11	5.21	--	--	--	--	1
	575	BTS 70RR85	5.43	4.87	5.00	5.18	--	--	--	--	1
	537	BTS 70RR99	4.34	4.91	4.13	4.43	--	--	--	--	1
	542	BTS 77RR54	4.81	4.80	4.48	4.72	4.61	4.58	4.50	4.50	4
	562	BTS 78RR10	5.56	5.06	5.31	5.37	5.09	4.95	4.81	4.67	3
	516	BTS 78RR20	5.99	5.09	4.93	5.50	5.16	4.99	4.82	4.66	3
	614	BTS 79RR12	5.67	5.23	5.00	5.39	5.26	--	5.14	--	2
	648	BTS 79RR33	3.67	4.68	4.50	4.13	4.08	--	4.03	--	2
	546	BTS 80RR12	5.51	5.31	4.75	5.27	--	--	--	--	1
	535	BTS 80RR32	4.99	5.12	4.62	4.93	--	--	--	--	1
	588	BTS 80RR35	5.12	5.20	4.31	4.94	--	--	--	--	1
	629	BTS 80RR45	4.92	4.79	5.30	4.98	--	--	--	--	1
	621	BTS 80RR52	3.85	4.94	4.65	4.32	--	--	--	--	1
	574	BTS 80RR57	5.32	4.80	5.03	5.12	--	--	--	--	1
	623	BTS 80RR59	3.22	4.56	4.55	3.89	--	--	--	--	1
	526	BTS 80RR64	4.56	4.89	5.03	4.76	--	--	--	--	1
	561	BTS 85RR02	4.07	5.07	4.66	4.47	4.56	4.59	4.66	4.64	6
	636	BTS 86RR66	5.19	5.00	4.92	5.07	5.04	5.08	5.00	5.15	5
	582	BTS 87RR38	4.91	4.69	4.76	4.82	4.77	4.63	4.73	4.33	4
	641	BTS 87RR58	5.88	4.77	5.20	5.43	5.24	5.03	5.06	4.60	4
	599	BTS 87RR68	4.14	4.68	4.92	4.47	4.57	4.49	4.66	4.32	4
	502	BTS 88RR13	4.40	4.48	5.15	4.61	4.58	4.41	4.55	4.08	3
	645	BTS 88RR21	4.72	5.04	4.93	4.85	4.59	4.46	4.33	4.19	3
	544	BTS 88RR31	4.58	4.73	4.75	4.66	4.82	4.78	4.97	4.70	3
	552	BTS 88RR41	5.39	4.70	5.08	5.14	5.00	4.86	4.87	4.56	3
	589	BTS 88RR61	4.32	4.91	4.48	4.50	4.78	4.58	5.06	4.18	3
	592	BTS 89RR10	4.80	5.10	4.98	4.92	4.70	--	4.48	--	2
	517	BTS 89RR30	5.05	4.99	5.26	5.09	5.08	--	5.08	--	2
	597	BTS 89RR40	5.29	4.66	5.02	5.07	4.95	--	4.83	--	2
	608	BTS 89RR50	5.41	5.07	4.76	5.16	5.00	--	4.84	--	2
	504	BTS 89RR83	4.72	4.91	4.99	4.83	4.68	--	4.53	--	2
	612	Crystal 091RR	4.15	4.99	5.04	4.58	--	--	--	--	1
	583	Crystal 092RR	4.58	5.22	5.20	4.90	--	--	--	--	1
	541	Crystal 093RR	5.13	5.24	4.98	5.12	--	--	--	--	1
	627	Crystal 094RR	4.40	4.99	4.62	4.60	--	--	--	--	1
	602	Crystal 095RR	4.73	5.18	4.55	4.80	--	--	--	--	1
	569	Crystal 096RR	4.45	4.88	4.30	4.52	--	--	--	--	1
	554	Crystal 539RR	5.76	4.93	5.11	5.39	5.32	5.18	5.25	4.90	6
	532	Crystal 658RR	4.25	4.59	4.75	4.46	4.54	4.44	4.63	4.24	5
	634	Crystal 765RR	4.11	4.85	5.00	4.52	4.70	4.46	4.89	3.97	4
	527	Crystal 768RR	5.41	4.88	5.13	5.21	5.08	4.87	4.94	4.45	4
	591	Crystal 873RR	6.33	5.39	5.55	5.90	5.64	5.28	5.37	4.58	3
	577	Crystal 875RR	3.98	4.87	4.47	4.33	4.44	4.38	4.56	4.27	3
	622	Crystal 878RR	5.53	4.67	4.95	5.17	5.04	4.84	4.91	4.44	3
	507	Crystal 879RR	5.62	5.01	5.18	5.36	5.24	5.00	5.13	4.52	3
	632	Crystal 981RR	5.58	4.99	5.02	5.29	5.24	--	5.19	--	2
	515	Crystal 984RR	5.43	4.70	5.00	5.14	4.99	--	4.84	--	2
	651	Crystal 985RR	3.94	4.87	4.45	4.30	4.24	--	4.18	--	2
	626	Crystal 986RR	5.87	4.99	5.06	5.45	4.99	--	4.53	--	2
	519	Crystal R760	6.16	5.36	4.96	5.66	--	--	--	5.07	4
	522	Crystal R761	4.99	4.89	4.57	4.86	--	--	--	4.03	4
	598	Crystal R869	4.81	5.14	4.82	4.90	--	--	--	4.44	3
	586	Crystal RR012	4.48	4.82	4.61	4.60	--	--	--	--	1
	543	Crystal RR028	4.96	5.36	4.68	4.99	--	--	--	--	1
	593	Crystal RR040	4.96	5.05	4.72	4.92	--	--	--	--	1
	559	Crystal RR610	5.23	4.71	4.97	5.03	4.89	4.64	4.74	4.14	4
	601	Crystal RR632	4.01	4.87	4.46	4.34	4.42	4.31	4.50	4.10	4
	644	Crystal RR643	5.44	4.94	4.93	5.19	5.08	4.95	4.98	4.69	4
	503	Crystal RR793	4.77	4.80	5.07	4.85	4.66	--	4.47	--	2
	635	Crystal RR794	5.33	5.11	5.27	5.26	4.98	--	4.69	--	2
	564	Crystal RR798	5.31	5.04	5.21	5.22	4.93	--	4.65	--	2
	548	Crystal RR806	5.28	4.95	4.44	4.99	4.87	4.82	4.75	4.73	3
	513	Crystal RR811	4.86	4.32	4.93	4.74	4.83	4.70	4.92	4.42	3
	576	Crystal RR830	4.76	4.97	4.97	4.86	4.72	4.68	4.57	4.61	3
	631	Hilleshög 4010RR	5.01	5.31	5.17	5.13	5.32	5.15	5.51	4.81	5
	595	Hilleshög 4012RR	4.91	5.18	5.02	5.00	5.15	5.09	5.29	4.98	5
	506	Hilleshög 4022RR	4.02	4.77	4.25	4.26	4.40	4.20	4.53	3.80	5
	607	Hilleshög 4043RR(9043)	5.28	4.79	4.68	5.01	4.85	4.73	4.69	4.49	4

Table 62.

2010 Cercospora Ratings for Coded Test Entries

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

		Adjusted to 1982 Basis ++				All Data Adjusted to '1982 Basis'				
			Rosemt.	BSDF	Foxhome	2010+++	2 Yr	3 Yr	2009	2008	Trial
Chk	Code	Description	Ave	Ave	Ave	Mean	Mean	Mean	Mean	Mean	Yrs $$
	619	Hilleshög 4062RR(9062)	4.25	4.69	4.45	4.41	4.38	4.25	4.35	4.01	3
	536	Hilleshög 4094RR(9094)	4.19	4.74	3.97	4.28	4.35	4.16	4.42	3.78	3
	553	Hilleshog 4195RR(9195)	4.18	4.92	4.28	4.39	4.47	--	4.56	--	2
	580	Hilleshög 4200RR(9200)	4.49	5.18	4.93	4.77	5.02	--	5.26	--	2
	642	Hilleshög 4204RR(9204)	4.30	4.93	4.34	4.47	4.61	--	4.76	--	2
	530	Hilleshög 9199RR	4.26	5.22	4.93	4.67	4.66	--	4.64	--	2
	539	Hilleshög 9207RR	4.01	4.19	4.15	4.09	4.22	--	4.35	--	2
	572	Hilleshög 9224RR	4.92	4.59	5.06	4.87	--	--	--	--	1
	545	Hilleshög 9225RR	4.70	4.82	5.40	4.91	--	--	--	--	1
	518	Hilleshög 9226RR	5.11	5.10	5.09	5.10	--	--	--	--	1
	590	Hilleshög 9227RR	3.61	4.74	4.23	4.05	--	--	--	--	1
	585	Hilleshög 9228RR	4.13	4.67	4.61	4.38	--	--	--	--	1
	563	Hilleshög 9229RR	4.64	5.10	5.07	4.86	--	--	--	--	1
	547	Hilleshög 9230RR	4.29	4.34	4.60	4.38	--	--	--	--	1
	514	Hilleshög 9231RR	3.48	4.18	4.39	3.88	--	--	--	--	1
	638	Hilleshög 9232RR	3.39	3.95	4.59	3.83	--	--	--	--	1
	570	Hilleshög 9233RR	3.08	3.72	3.55	3.36	--	--	--	--	1
	524	Hilleshög 9234RR	2.91	3.52	3.07	3.10	--	--	--	--	1
	529	Hilleshög 9235RR	5.48	4.97	5.29	5.31	--	--	--	--	1
	615	Hilleshög 9236RR	4.10	4.98	4.61	4.45	--	--	--	--	1
	649	Hilleshög 9237RR	4.10	5.04	5.08	4.58	--	--	--	--	1
	505	Hilleshög 9238RR	3.54	4.69	4.85	4.16	--	--	--	--	1
	652	Hilleshög 9239RR	5.05	5.40	5.01	5.13	--	--	--	--	1
	581	Hilleshög 9249RR	5.70	5.48	5.28	5.54	--	--	--	--	1
	596	Hilleshög 9250RR	5.23	4.81	5.02	5.07	--	--	--	--	1
	557	Hilleshög 9251RR	3.94	4.65	4.30	4.21	--	--	--	--	1
	610	Hilleshög 9252RR	4.73	5.13	5.14	4.93	--	--	--	--	1
	560	Hilleshög 9253RR	4.25	4.71	4.38	4.40	--	--	--	--	1
	613	Hilleshög 9254RR	3.62	3.90	4.22	3.84	--	--	--	--	1
	525	Hilleshög 9255RR	5.20	5.06	4.71	5.04	--	--	--	--	1
	540	Hilleshög 9256RR	4.91	5.59	5.41	5.20	--	--	--	--	1
	567	Hilleshög 9257RR	5.60	5.41	5.47	5.52	--	--	--	--	1
	604	Hilleshög 9297RR	3.87	4.73	4.53	4.25	--	--	--	--	1
	509	Hilleshög 9298RR	3.99	4.57	3.83	4.10	--	--	--	--	1
	578	Seedex SX0801TT	5.31	4.82	4.69	5.03	--	--	--	--	1
	606	Seedex SX0802	3.86	4.78	4.56	4.26	--	--	--	--	1
	550	Seedex SX0806RR	5.24	4.93	5.11	5.13	--	--	--	--	1
	611	Seedex SX0807RR	4.13	4.96	4.92	4.53	--	--	--	--	1
	566	Seedex SX0808RR	5.56	5.02	4.92	5.27	--	--	--	--	1
	617	Seedex SX0891RR	4.56	5.01	4.90	4.76	4.96	--	5.17	--	2
	646	Seedex SX0892RR	4.45	4.83	4.81	4.64	4.71	--	4.79	--	2
	521	Seedex SX0893RR	4.76	4.94	5.04	4.87	4.91	--	4.94	--	2
	628	Seedex SX0894RR	4.33	4.58	4.81	4.51	4.45	--	4.38	--	2
	616	Seedex SX0901RR	4.88	5.06	4.98	4.95	--	--	--	--	1
	511	Seedex SX0902RR	4.19	4.68	5.05	4.53	--	--	--	--	1
	603	Seedex SX0903RR	4.73	4.70	4.80	4.74	--	--	--	--	1
	620	Seedex SX0904RR	3.24	4.45	4.28	3.81	--	--	--	--	1
	531	Seedex SX0909	3.54	4.88	4.33	4.07	--	--	--	--	1
	556	Seedex SX0995RR	4.44	4.55	4.82	4.56	4.65	--	4.74	--	2
	625	Seedex SX0996RR	4.56	4.78	4.69	4.65	4.58	--	4.51	--	2
	587	Seedex Ultra RR(SX0983RR)	5.09	5.02	4.87	5.02	5.16	5.06	5.30	4.85	3
	637	Seedex Uplander RR(SX0884)	5.00	4.99	4.90	4.97	4.96	4.90	4.94	4.80	3
	508	Seedex Usher RR(SX0883)	5.03	5.02	5.11	5.05	4.70	5.08	4.35	5.83	3
	630	SESVanderhave 36071RR	4.32	4.88	4.86	4.59	--	--	--	--	1
	573	SESVanderhave 36072RR	4.33	4.86	4.94	4.61	--	--	--	--	1
	533	SESVanderhave 36073RR	4.25	4.82	4.59	4.48	--	--	--	--	1
	565	SESVanderhave 36074RR	4.57	4.87	4.91	4.73	--	--	--	--	1
	633	SESVanderhave 36081RR	4.60	5.05	5.08	4.83	--	--	--	--	1
	650	SESVanderhave 36082RR	4.82	5.02	4.67	4.84	--	--	--	--	1
	523	SESVanderhave 36083RR	4.73	4.82	4.72	4.75	--	--	--	--	1
	605	SESVanderhave 36084RR	4.84	4.93	5.07	4.92	--	--	--	--	1
	512	SESVanderhave H36711RR	5.09	4.98	4.80	4.99	5.10	4.86	5.22	4.36	4
	538	SESVanderhave H36811RR	4.54	4.74	4.63	4.62	4.86	4.68	5.10	4.32	3
	594	SESVanderhave H36812RR	5.23	5.14	5.05	5.16	4.95	4.91	4.74	4.82	3
	639	SESVanderhave H36813RR	4.46	4.88	4.55	4.59	4.57	4.96	4.55	5.75	3
	558	SESVanderhave H36821RR	4.57	4.94	4.82	4.73	4.83	4.76	4.93	4.63	3
	624	SESVanderhave H36822RR	4.95	5.32	4.79	5.00	4.92	5.00	4.85	5.17	3
	510	SESVanderhave H36913RR	4.78	5.12	4.95	4.91	5.03	--	5.16	--	2
	643	SESVanderhave H36915RR	4.62	5.09	4.74	4.77	4.91	--	5.05	--	2
	549	SESVanderhave H36916RR	4.96	5.08	4.86	4.97	4.94	--	4.91	--	2
	501	SESVanderhave H36917RR	4.89	4.91	5.10	4.95	4.98	--	5.01	--	2

Table 62.

2010 Cercospora Ratings for Coded Test Entries

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

			Adjusted to 1982 Basis ++			All Data Adjusted to '1982 Basis'					
Chk	Code	Description	Rosemt. Ave	BSDF Ave	Foxhome Ave	2010+++ Mean	2 Yr Mean	3 Yr Mean	2009 Mean	2008 Mean	Trial Yrs $$
	568	SESVanderhave H36918RR	4.23	4.79	4.62	4.47	4.41	--	4.36	--	2
	520	SESVanderhave H36921RR	4.81	5.04	4.71	4.84	4.81	--	4.78	--	2
	647	SESVanderhave H36923RR	4.66	4.61	4.83	4.69	4.56	--	4.42	--	2
	609	SESVanderhave H36926RR	4.11	4.46	4.62	4.33	4.37	--	4.41	--	2
	551	SESVanderhave H36927RR	3.94	4.65	4.66	4.30	4.47	--	4.64	--	2
	534	SESVanderhave H36929RR	4.40	4.69	4.76	4.56	4.62	--	4.67	--	2
	640	SESVanderhave H46519	4.21	4.81	4.65	4.47	4.61	4.48	4.76	4.21	8
	579	SESVanderhave H46531	4.48	4.61	4.75	4.58	4.63	4.62	4.68	4.59	7
	618	SESVanderhave H48021TT	5.72	4.93	5.04	5.35	--	--	--	--	1
	571	SESVanderhave H48717TT	5.78	4.93	4.95	5.36	5.37	5.11	5.39	4.58	4
Chk	1101	ACSC CR Rz Chk-14 SES46532	4.89	4.69	5.00	4.87	4.76	4.68	4.65	4.51	7
Chk	1102	ACSC CR Rz Chk-15 SES46807	4.88	5.19	4.82	4.94	4.89	4.84	4.84	4.75	6
Chk	1103	ACSC CR Rz Chk-18 HILL2415	4.76	5.35	5.08	4.99	5.03	4.96	5.07	4.82	7
Chk	1104	ACSC CR Rz Chk-20 HOLL317	4.61	4.86	5.04	4.78	4.72	4.57	4.65	4.27	8
Chk	1105	ACSC CR Rz Chk-21 HILL3035	4.57	4.55	4.20	4.47	4.42	4.26	4.36	3.94	6
Chk	1106	ACSC CR Rz Chk-22 SES46519	4.22	4.37	4.77	4.40	4.49	4.47	4.58	4.44	8
Chk	1107	ACSC CR Rz Chk-23 BETA1301R	4.70	4.33	4.62	4.59	4.51	4.39	4.42	4.14	8
Chk	1108	ACSC CR Rz Chk-26 CRYSR431	4.96	5.11	4.84	4.97	4.88	4.86	4.80	4.81	7
Chk	1109	ACSC CR Rz Chk-17 BETA85RR02	5.27	5.08	4.91	5.13	5.10	4.90	5.07	4.51	6
Chk	1110	ACSC CR RR Chk-19 CRYS539RR	5.96	4.89	5.27	5.52	5.31	5.09	5.09	4.65	6
Chk	1111	ACSC CR RR Chk-29 BETA86RR44	4.96	5.00	5.18	5.03	5.07	5.04	5.12	4.99	5
Chk	1112	ACSC CR RR Chk-30 BETA86RR66	5.45	5.19	4.99	5.27	5.18	5.17	5.09	5.15	5
Chk	1113	ACSC CR RR Chk-31 BETA86RR88	4.60	4.67	4.66	4.63	4.48	4.46	4.33	4.44	5
Chk	1114	ACSC CR RR Chk-28 HILL4010RR	5.00	5.45	5.18	5.16	5.28	5.12	5.41	4.81	5
Chk	1115	ACSC CR RR Chk-24 HILL4012RR	4.99	5.11	5.59	5.17	5.24	5.15	5.31	4.98	5
Chk	1116	ACSC CR RR Chk-37 SES36711RR	4.92	4.87	5.07	4.94	5.01	4.79	5.08	4.36	4
Chk	1117	ACSC CR RR Chk-33 HILL4043RR	5.19	4.77	4.25	4.85	4.72	4.64	4.58	4.49	4
Chk	1118	ACSC CR RR Chk-34 HILL4000RR	4.58	4.94	4.66	4.69	4.70	4.65	4.71	4.55	4
Chk	1119	ACSC CR RR Chk-35 BETA87RR58	5.56	5.16	5.27	5.39	5.14	4.96	4.88	4.60	4
Chk	1120	ACSC CR RR Chk-36 BETA87RR68	4.37	4.86	5.03	4.66	4.66	4.55	4.67	4.32	4
	1121	ACSC CR RR Chk-38 BETA77RR54	4.76	4.91	4.67	4.77	4.89	4.76	5.01	4.50	4
Std	1122	Crystal 30 Std	3.34	4.89	5.40	4.24	4.22	3.91	4.20	3.28	35
Std	1123	Maribo Monova Std	4.85	5.55	5.55	5.20	5.16	5.18	5.12	5.23	31
Std	1124	Maribo Unica Std	4.54	5.13	5.01	4.81	4.83	4.75	4.86	4.57	31
Std	1125	Bush Johnson 19 Std	4.53	5.52	5.34	4.98	4.70	4.71	4.41	4.74	31
Std	1126	Crystal Mustang Std	5.99	5.63	6.16	5.94	5.66	5.48	5.37	5.12	3
StdB	1127	CR CHECK MOD SUSC HYBRID-1	5.09	5.01	5.04	5.06	5.04	5.15	5.03	5.37	11
StdB	1128	CR CHECK MOD SUSC HYBRID-2	4.69	4.86	4.90	4.78	4.63	4.49	4.47	4.20	7
StdB	1129	CR CHECK RES HYBRID	2.89	3.43	4.34	3.39	3.29	2.97	3.20	2.32	11
StdB	1130	CR CHECK RES SOURCE	1.86	2.44	3.68	2.46	2.38	2.13	2.30	1.64	11
StdB	1131	CR CHECK SUSC HYBRID	6.25	5.29	5.79	5.89	5.76	5.24	5.63	4.20	7
StdB	1132	CR CHECK MOD SUSC HYBRID-1	5.11	5.04	5.33	5.15	5.09	5.18	5.03	5.37	11
StdB	1133	CR CHECK MOD SUSC HYBRID-2	4.78	5.00	5.07	4.91	4.69	4.53	4.47	4.20	7
StdB	1134	CR CHECK RES HYBRID	2.55	3.73	3.95	3.19	3.19	2.90	3.20	2.32	11
StdB	1135	CR CHECK RES SOURCE	1.97	2.56	3.67	2.54	2.42	2.16	2.30	1.64	11
StdB	1136	CR CHECK SUSC HYBRID	5.90	5.29	5.74	5.71	5.67	5.18	5.63	4.20	7
StdB	1137	CR CHK MOD SUS HYB#3	5.74	4.91	5.11	5.37	5.31	5.17	5.25	4.90	6
StdB	1138	CR CHK MOD RES HYB#4	3.87	4.84	4.28	4.22	4.39	4.35	4.56	4.27	3
20		Trial Mean	4.70	4.86	4.82	4.77					
		Coeff. of Var. (%)	9.18	5.48	7.22						
		F Value	14.86	8.71	7.32						
		Mean LSD (0.05)	0.54	0.39	0.42						
		Mean LSD (0.01)	0.71	0.52	0.55						
		Sig Lvl	**	**	**						
		Adj Factor	1.34018	1.08053	1.01986						

* 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 10-19-2010.

Table 63.
2010 Rhizoctonia Ratings for OVT Entries
Rhizoctonia Nursery - USDA Ft Collins

Sus Chk	Chk @	Code	Description	Unadj Ft Collins 8/19	Unadj NDSU 8/5	Adj Ft Collins 2010	Adj NDSU 2010	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Unadj 2009 Mean	Adj 2008 Mean	Unadj 2008 Mean	Years
		528	BTS 70RR60	5.42	5.67	4.18	4.45	4.31	--	--	--	--	--	--	1
		555	BTS 70RR64	5.33	5.35	4.11	4.20	4.15	--	--	--	--	--	--	1
		584	BTS 70RR70	5.07	4.88	3.91	3.83	3.87	--	--	--	--	--	--	1
		600	BTS 70RR78	5.25	5.08	4.05	3.99	4.02	--	--	--	--	--	--	1
		575	BTS 70RR85	5.41	5.55	4.17	4.36	4.26	--	--	--	--	--	--	1
		537	BTS 70RR99	4.77	5.14	3.68	4.03	3.85	--	--	--	--	--	--	1
		542	BTS 77RR54	6.03	5.69	4.65	4.47	4.56	4.71	--	4.87	6.04	--	--	4
		562	BTS 78RR10	5.97	6.44	4.60	5.05	4.83	4.63	--	4.44	5.51	--	--	3
		516	BTS 78RR20	5.84	5.38	4.50	4.22	4.36	4.30	--	4.25	5.27	--	--	3
		614	BTS 79RR12	5.30	5.03	4.08	3.95	4.02	--	--	--	--	--	--	2
		648	BTS 79RR33	5.19	4.88	4.00	3.83	3.91	3.97	--	4.02	4.99	--	--	2
		546	BTS 80RR12	5.08	5.75	3.91	4.51	4.21	--	--	--	--	--	--	1
		535	BTS 80RR32	4.86	5.26	3.74	4.13	3.94	--	--	--	--	--	--	1
		588	BTS 80RR35	5.12	5.39	3.94	4.23	4.09	--	--	--	--	--	--	1
		629	BTS 80RR45	5.05	5.33	3.89	4.18	4.04	--	--	--	--	--	--	1
		621	BTS 80RR52	5.31	5.41	4.09	4.25	4.17	--	--	--	--	--	--	1
		574	BTS 80RR57	5.63	5.50	4.34	4.32	4.33	--	--	--	--	--	--	1
		623	BTS 80RR59	5.54	5.68	4.27	4.46	4.36	--	--	--	--	--	--	1
		526	BTS 80RR64	4.51	4.65	3.47	3.65	3.56	--	--	--	--	--	--	1
		561	BTS 85RR02	5.37	5.05	4.14	3.96	4.05	4.27	4.96	4.48	5.56	6.36	3.86	6
		636	BTS 86RR66	4.83	5.21	3.72	4.09	3.91	4.01	4.16	4.11	5.10	4.47	2.71	5
		582	BTS 87RR38	5.75	5.46	4.43	4.29	4.36	4.07	4.22	3.79	4.70	4.50	2.73	4
		641	BTS 87RR58	5.85	5.68	4.51	4.46	4.48	4.47	4.79	4.46	5.53	5.42	3.29	4
		599	BTS 87RR68	6.10	6.33	4.70	4.97	4.83	4.74	5.53	4.64	5.76	7.12	4.32	4
		502	BTS 88RR13	4.76	5.40	3.67	4.24	3.95	3.68	3.14	3.40	4.22	2.08	1.26	3
		645	BTS 88RR21	4.33	5.06	3.34	3.97	3.65	3.74	--	3.82	4.74	--	--	3
		544	BTS 88RR31	4.75	4.49	3.66	3.52	3.59	3.83	--	4.07	5.05	--	--	3
		552	BTS 88RR41	4.80	5.96	3.70	4.68	4.19	4.23	--	4.26	5.29	--	--	3
		589	BTS 88RR61	5.02	4.31	3.87	3.38	3.63	4.06	--	4.50	5.58	--	--	3
		592	BTS 89RR10	5.70	4.44	4.39	3.49	3.94	4.24	--	4.54	5.63	--	--	2
		517	BTS 89RR30	4.35	5.06	3.35	3.97	3.66	3.79	--	3.91	4.85	--	--	2
		597	BTS 89RR40	4.79	5.99	3.69	4.70	4.20	4.35	--	4.50	5.58	--	--	2
		608	BTS 89RR50	5.07	5.24	3.91	4.11	4.01	4.38	--	4.75	5.89	--	--	2
		504	BTS 89RR83	4.24	5.08	3.27	3.99	3.63	3.61	--	3.59	4.46	--	--	2
		612	Crystal 091RR	5.15	5.19	3.97	4.07	4.02	--	--	--	--	--	--	1
		583	Crystal 092RR	5.99	6.06	4.62	4.76	4.69	--	--	--	--	--	--	1
		541	Crystal 093RR	5.34	5.23	4.11	4.11	4.11	--	--	--	--	--	--	1
		627	Crystal 094RR	5.80	5.63	4.47	4.42	4.44	--	--	--	--	--	--	1
		602	Crystal 095RR	5.28	5.28	4.07	4.14	4.11	--	--	--	--	--	--	1
		569	Crystal 096RR	4.96	5.05	3.82	3.96	3.89	--	--	--	--	--	--	1
		554	Crystal 539RR	6.14	5.11	4.73	4.01	4.37	4.37	5.29	4.38	5.43	7.14	4.33	6
		532	Crystal 658RR	5.68	5.06	4.38	3.97	4.17	3.96	3.60	3.74	4.64	2.88	1.75	5
		634	Crystal 765RR	5.32	5.92	4.10	4.65	4.37	4.53	5.38	4.68	5.81	7.07	4.29	4
		527	Crystal 768RR	5.78	5.30	4.45	4.16	4.31	4.18	4.68	4.06	5.04	5.69	3.45	4
		591	Crystal 873RR	4.68	4.75	3.61	3.73	3.67	3.62	--	3.58	4.44	--	--	3
		577	Crystal 875RR	4.77	4.21	3.68	3.30	3.49	3.82	--	4.16	5.16	--	--	3
		622	Crystal 878RR	5.70	5.71	4.39	4.48	4.44	4.41	--	4.39	5.45	--	--	3
		507	Crystal 879RR	5.08	5.69	3.91	4.47	4.19	4.16	--	4.13	5.12	--	--	3
		632	Crystal 981RR	5.46	5.13	4.21	4.03	4.12	--	--	--	--	--	--	2
		515	Crystal 984RR	5.32	5.35	4.10	4.20	4.15	--	--	--	--	--	--	2
		651	Crystal 985RR	5.20	5.04	4.01	3.96	3.98	--	--	--	--	--	--	2
		626	Crystal 986RR	6.15	5.82	4.74	4.57	4.65	4.62	--	4.59	5.69	--	--	2
		519	Crystal R760	5.71	5.81	4.40	4.56	4.48	--	--	--	--	6.03	3.66	4
		522	Crystal R761	5.39	5.28	4.15	4.14	4.15	--	--	--	--	4.66	2.83	4
		598	Crystal R869	5.70	5.28	4.39	4.14	4.27	--	--	--	--	--	--	3
		586	Crystal RR012	4.92	5.01	3.79	3.93	3.86	--	--	--	--	--	--	1
		543	Crystal RR028	5.03	6.43	3.88	5.05	4.46	--	--	--	--	--	--	1
		593	Crystal RR040	5.77	5.30	4.45	4.16	4.30	--	--	--	--	--	--	1
		559	Crystal RR610	5.74	5.98	4.42	4.69	4.56	4.38	--	4.21	5.22	--	--	4
		601	Crystal RR632	5.43	5.29	4.18	4.15	4.17	4.15	--	4.13	5.13	--	--	4
		644	Crystal RR643	4.97	4.74	3.83	3.72	3.77	4.09	--	4.41	5.47	--	--	4
		503	Crystal RR793	5.31	5.41	4.09	4.25	4.17	3.97	--	3.78	4.69	--	--	2
		635	Crystal RR794	5.44	5.45	4.19	4.28	4.23	--	--	--	--	--	--	2
		564	Crystal RR798	4.84	5.14	3.73	4.03	3.88	3.54	--	3.20	3.97	--	--	2
		548	Crystal RR806	5.16	5.27	3.98	4.14	4.06	4.40	--	4.75	5.89	--	--	3
		513	Crystal RR811	4.91	4.98	3.78	3.91	3.85	3.51	2.99	3.18	3.94	1.96	1.19	3
		576	Crystal RR830	4.82	4.99	3.71	3.92	3.82	3.62	--	3.42	4.24	--	--	3

Table 63.
2010 Rhizoctonia Ratings for OVT Entries
Rhizoctonia Nursery - USDA Ft Collins

Sus Chk	Chk @	Code	Description	Unadj Ft Collins 8/19	Unadj NDSU 8/5	Adj Ft Collins 2010	Adj NDSU 2010	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Unadj 2009 Mean	Adj 2008 Mean	Unadj 2008 Mean	Years
		631	Hilleshög 4010RR	5.86	5.70	4.52	4.47	4.49	4.73	4.62	4.96	6.16	4.40	2.67	5
		595	Hilleshög 4012RR	5.85	5.79	4.51	4.54	4.53	4.68	4.89	4.84	6.01	5.29	3.21	5
		506	Hilleshög 4022RR	4.90	4.26	3.78	3.34	3.56	3.33	2.75	3.10	3.85	1.60	0.97	5
		607	Hilleshög 4043RR(9043)	5.98	5.33	4.61	4.18	4.40	4.47	4.74	4.54	5.64	5.29	3.21	4
		619	Hilleshög 4062RR(9062)	4.88	4.43	3.76	3.48	3.62	3.52	--	3.42	4.24	--	--	3
		536	Hilleshög 4094RR(9094)	5.08	4.82	3.91	3.78	3.85	3.53	3.01	3.22	3.99	1.98	1.20	3
		553	Hilleshog 4195RR(9195)	5.57	4.92	4.29	3.86	4.08	3.88	--	3.67	4.56	--	--	2
		580	Hilleshög 4200RR(9200)	6.19	5.74	4.77	4.51	4.64	--	--	--	--	--	--	2
		642	Hilleshög 4204RR(9204)	5.19	5.16	4.00	4.05	4.02	3.88	--	3.73	4.63	--	--	2
		530	Hilleshög 9199RR	6.33	6.39	4.88	5.02	4.95	--	--	--	--	--	--	2
		539	Hilleshög 9207RR	5.83	5.71	4.49	4.48	4.49	--	--	--	--	--	--	2
		590	Hilleshög 9227RR	5.00	4.72	3.85	3.70	3.78	--	--	--	--	--	--	1
		585	Hilleshög 9228RR	4.55	4.33	3.51	3.40	3.45	--	--	--	--	--	--	1
		547	Hilleshög 9230RR	4.86	4.57	3.74	3.59	3.67	--	--	--	--	--	--	1
		514	Hilleshög 9231RR	4.66	4.77	3.59	3.74	3.67	--	--	--	--	--	--	1
		570	Hilleshög 9233RR	5.33	5.42	4.11	4.25	4.18	--	--	--	--	--	--	1
		524	Hilleshög 9234RR	4.91	4.89	3.78	3.84	3.81	--	--	--	--	--	--	1
		557	Hilleshög 9251RR	5.20	4.64	4.01	3.64	3.82	--	--	--	--	--	--	1
		560	Hilleshög 9253RR	4.70	4.94	3.62	3.88	3.75	--	--	--	--	--	--	1
		613	Hilleshög 9254RR	4.27	4.54	3.29	3.56	3.43	--	--	--	--	--	--	1
		604	Hilleshög 9297RR	4.95	4.28	3.81	3.36	3.59	--	--	--	--	--	--	1
		509	Hilleshög 9298RR	4.68	4.96	3.61	3.89	3.75	--	--	--	--	--	--	1
		578	Seedex SX0801TT	5.55	5.27	4.28	4.14	4.21	--	--	--	--	--	--	1
		611	Seedex SX0807RR	6.02	5.36	4.64	4.21	4.42	--	--	--	--	--	--	1
		566	Seedex SX0808RR	6.06	5.32	4.67	4.18	4.42	--	--	--	--	--	--	1
		617	Seedex SX0891RR	5.94	5.14	4.58	4.03	4.31	--	--	--	--	--	--	2
		646	Seedex SX0892RR	5.76	5.12	4.44	4.02	4.23	--	--	--	--	--	--	2
		521	Seedex SX0893RR	6.14	5.51	4.73	4.32	4.53	--	--	--	--	--	--	2
		628	Seedex SX0894RR	5.93	5.18	4.57	4.07	4.32	--	--	--	--	--	--	2
		511	Seedex SX0902RR	5.37	4.93	4.14	3.87	4.00	--	--	--	--	--	--	1
		620	Seedex SX0904RR	5.08	4.55	3.91	3.57	3.74	--	--	--	--	--	--	1
		556	Seedex SX0995RR	5.06	4.50	3.90	3.53	3.72	--	--	--	--	--	--	2
		625	Seedex SX0996RR	5.51	4.86	4.25	3.81	4.03	--	--	--	--	--	--	2
		587	Seedex Ultra RR(SX0983RR)	5.59	5.05	4.31	3.96	4.14	--	--	--	--	--	--	3
		637	Seedex Uplander RR(SX0884)	5.27	5.54	4.06	4.35	4.20	4.47	--	4.73	5.87	--	--	3
		508	Seedex Usher RR(SX0883)	6.23	5.27	4.80	4.14	4.47	4.30	--	4.13	5.12	--	--	3
		533	SESVanderhave 36073RR	5.77	5.38	4.45	4.22	4.33	--	--	--	--	--	--	1
		650	SESVanderhave 36082RR	5.86	5.22	4.52	4.10	4.31	--	--	--	--	--	--	1
		605	SESVanderhave 36084RR	5.51	5.17	4.25	4.06	4.15	--	--	--	--	--	--	1
		512	SESVanderhave H36711RR	5.38	4.47	4.15	3.51	3.83	4.16	4.10	4.50	5.58	3.99	2.42	4
		538	SESVanderhave H36811RR	5.51	5.13	4.25	4.03	4.14	4.21	3.87	4.28	5.31	3.20	1.94	3
		594	SESVanderhave H36812RR	6.12	5.34	4.72	4.19	4.45	4.51	4.49	4.57	5.67	4.43	2.69	3
		639	SESVanderhave H36813RR	5.62	4.94	4.33	3.88	4.10	4.36	4.07	4.63	5.74	3.48	2.11	3
		558	SESVanderhave H36821RR	5.74	5.49	4.42	4.31	4.37	4.56	--	4.75	5.89	--	--	3
		624	SESVanderhave H36822RR	5.64	5.47	4.35	4.29	4.32	4.27	--	4.21	5.23	--	--	3
		510	SESVanderhave H36913RR	5.35	5.22	4.12	4.10	4.11	--	--	--	--	--	--	2
		643	SESVanderhave H36915RR	5.79	4.72	4.46	3.70	4.08	--	--	--	--	--	--	2
		549	SESVanderhave H36916RR	5.77	5.29	4.45	4.15	4.30	--	--	--	--	--	--	2
		501	SESVanderhave H36917RR	5.84	5.16	4.50	4.05	4.27	--	--	--	--	--	--	2
		568	SESVanderhave H36918RR	5.85	5.39	4.51	4.23	4.37	--	--	--	--	--	--	2
		520	SESVanderhave H36921RR	5.52	5.27	4.25	4.14	4.19	4.22	--	4.24	5.26	--	--	2
		647	SESVanderhave H36923RR	5.72	5.36	4.41	4.21	4.31	4.41	--	4.51	5.60	--	--	2
		609	SESVanderhave H36926RR	5.98	5.27	4.61	4.14	4.37	--	--	--	--	--	--	2
		551	SESVanderhave H36927RR	5.58	4.84	4.30	3.80	4.05	--	--	--	--	--	--	2
		534	SESVanderhave H36929RR	5.32	5.05	4.10	3.96	4.03	--	--	--	--	--	--	2
		618	SESVanderhave H48021TT	5.04	5.28	3.88	4.14	4.01	--	--	--	--	--	--	1
		571	SESVanderhave H48717TT	5.20	5.68	4.01	4.46	4.23	4.26	4.29	4.28	5.31	4.37	2.65	4
1	1	1301	ACSC Rhiz Chk#01 SEEDMONOHIKARI	6.22	5.65	4.79	4.43	4.61	4.67	4.50	4.72	5.86	4.17	2.53	5
1	1	1302	ACSC Rhiz Chk#02 HILLE17	4.62	6.18	3.56	4.85	4.21	4.35	4.01	4.49	5.57	3.33	2.02	5
	1	1303	Filler25 CRYSR434	5.10	5.15	3.93	4.04	3.99	4.10	4.02	4.22	5.24	3.84	2.33	5
1	1	1304	ACSC Rhiz Chk#09 CRYSR431	5.83	6.09	4.49	4.78	4.64	4.59	4.92	4.55	5.65	5.57	3.38	3
1	1	1305	ACSC Rhiz Chk#08 CRYS539RR	5.69	5.16	4.38	4.05	4.22	4.37	5.29	4.53	5.62	7.14	4.33	2
1		1306	ACSC Rhiz Chk#11 BETA87RR68	5.92	5.90	4.56	4.63	4.60	4.74	5.53	4.88	6.06	7.12	4.32	2
1	1	1307	ACSC Rhiz Chk#15 CRYSR760	5.49	5.92	4.23	4.65	4.44	4.48	4.99	4.51	5.60	6.03	3.66	2
	1	1308	ACSC Rhiz Chk#16 HILL3035	4.46	4.71	3.44	3.70	3.57	3.45	2.85	3.33	4.13	1.65	1.00	2
1	1	1309	ACSC Rhiz Chk#21 CRYS768RR	6.09	5.71	4.69	4.48	4.59	4.32	4.78	4.05	5.03	5.69	3.45	2
		1310	ACSC Rhiz Chk#24 BETA86RR88	5.88	4.99	4.53	3.92	4.22	4.44	4.84	4.67	5.79	5.64	3.42	2

Table 63.
2010 Rhizoctonia Ratings for OVT Entries
Rhizoctonia Nursery - USDA Ft Collins

Sus Chk	Chk @	Code	Description	Unadj Ft Collins 8/19	Unadj NDSU 8/5	Adj Ft Collins 2010	Adj NDSU 2010	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Unadj 2009 Mean	Adj 2008 Mean	Unadj 2008 Mean	Years
		1311	ACSC Rhiz Chk#25 HILL4043RR	5.59	5.20	4.31	4.08	4.19	4.43	4.71	4.66	5.78	5.29	3.21	2
1		1312	ACSC Rhiz Chk#27 HILL4012RR	6.24	5.97	4.81	4.69	4.75	4.72	4.91	4.69	5.82	5.29	3.21	2
	1	1313	ACSC Rhiz Chk#28 CRYS658RR	5.55	4.88	4.28	3.83	4.05	3.90	3.56	3.74	4.64	2.88	1.75	5
1		1314	ACSC Rhiz Chk#20 CRYS765RR	5.87	5.68	4.52	4.46	4.49	4.37	5.27	4.25	5.28	7.07	4.29	2
	1	1315	ACSC Rhiz Chk#30 SES36711RR	5.81	5.11	4.48	4.01	4.24	4.37	4.24	4.50	5.58	3.99	2.42	4
1		1316	ACSC Rhiz Chk#31 HILL4000RR	5.98	5.79	4.61	4.54	4.58	4.72	4.80	4.86	6.03	4.96	3.01	4
		1317	ACSC Rhiz Chk#32 HILL4010RR	5.94	5.91	4.58	4.64	4.61	4.79	4.66	4.96	6.16	4.40	2.67	5
	1	1318	ACSC Rhiz Chk#33 BETA77RR74	5.03	4.23	3.88	3.32	3.60	3.57	3.01	3.54	4.39	1.89	1.15	4
		1319	ACSC Rhiz Chk#34 BETA86RR66	5.39	5.49	4.15	4.31	4.23	4.17	4.27	4.11	5.10	4.47	2.71	5
		1320	ACSC Rhiz Chk#35 SES36812RR	5.59	5.52	4.31	4.33	4.32	4.44	4.44	4.57	5.67	4.43	2.69	3
1		1321	ACSC Rhiz Chk#26 BETA86RR44	5.02	5.52	3.87	4.33	4.10	4.23	4.53	4.37	5.42	5.11	3.10	2
		1322	ACSC Rhiz Chk#17 HILL4022RR	5.60	4.56	4.31	3.58	3.95	3.59	2.93	3.23	4.01	1.60	0.97	2
1		1323	ACSC Rhiz Chk#29 BETA87RR58	5.88	6.37	4.53	5.00	4.77	4.61	4.88	4.46	5.53	5.42	3.29	4
		1324	Red Beet Hybrid	5.32	6.27	4.10	4.92	4.51	4.30	--	4.09	5.08	--	--	2
		1325	Susceptible Check - (FC901/C817)//413	5.81	NA	4.48	NA	4.48	4.57	3.90	4.66	5.78	2.57	1.56	9
		1326	Highly Resistant Check FC705/1	2.43	NA	1.87	NA	1.87	2.20	2.29	2.53	3.14	2.47	1.50	9
		1327	Resistant Check FC703	2.81	NA	2.17	NA	2.17	2.59	2.29	3.02	3.75	1.68	1.02	9
		1328	Highly Resistant Check FC709-2	3.95	NA	3.04	NA	3.04	2.36	--	1.68	2.08	--	--	4
12	11		Mean of Check Varieties	5.445	5.345	4.195	4.195	4.195	4.197	4.197	4.198	5.210	4.198	2.547	
			Mean of Susc Checks	5.738	5.828	4.421	4.575	4.498	4.514	4.842	4.531	5.623	5.575	3.383	
			Trial Mean	5.36	5.27	4.13	4.14								
			Coeff. of Var. (%)	11.61	9.84	11.61	9.84								
			F Value	4.39	4.43	4.39	4.43								
			Mean LSD (0.05)	0.77	0.66	0.59	0.52								
			Mean LSD (0.01)	1.02	0.86	0.79	0.68								
			Sig Lvl	**	**	**	**								
			Adjustment Factor			0.7705	0.7849				0.8059		1.6482		

++ Adjustment is based upon check varieties.

Table 64.
2010 Fusarium Readings for Coded Test Entries
ACSC Nurseries - Moorhead, MN

Chk	Code	Description	Moorhead Site 6/14	7/1	7/29	Raw 2010 Mean	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Adj 2008 Mean	Years
	542	BTS 77RR54	3.30	3.98	3.57	3.61	4.19	3.72	3.59	3.25	3.33	4
	562	BTS 78RR10	3.46	4.76	4.20	4.17	4.84	4.70	--	4.55	--	3
	516	BTS 78RR20	2.07	2.47	1.44	2.00	2.32	2.20	--	2.09	--	3
	614	BTS 79RR12	0.95	1.18	0.96	0.99	1.15	--	--	--	--	2
	648	BTS 79RR33	2.81	3.26	3.38	3.10	3.60	--	--	--	--	2
	546	BTS 80RR12	2.85	2.58	2.45	2.62	3.04	--	--	--	--	1
	535	BTS 80RR32	1.92	2.18	1.61	1.91	2.22	--	--	--	--	1
	588	BTS 80RR35	1.93	2.17	2.64	2.22	2.58	--	--	--	--	1
	629	BTS 80RR45	3.36	2.86	2.77	2.98	3.46	--	--	--	--	1
	621	BTS 80RR52	2.41	2.13	1.34	1.98	2.30	--	--	--	--	1
	574	BTS 80RR57	4.20	5.23	5.51	4.99	5.79	--	--	--	--	1
	623	BTS 80RR59	3.25	4.50	5.09	4.28	4.97	--	--	--	--	1
	526	BTS 80RR64	2.62	2.08	1.39	2.02	2.35	--	--	--	--	1
	561	BTS 85RR02	3.24	4.26	4.34	3.97	4.61	3.64	3.34	2.66	2.75	6
	636	BTS 86RR66	3.23	3.96	3.76	3.62	4.20	4.31	4.79	4.41	5.77	5
	582	BTS 87RR38	2.64	3.43	3.16	3.10	3.60	3.70	4.07	3.79	4.82	4
	641	BTS 87RR58	3.93	4.57	5.05	4.48	5.20	4.84	4.99	4.48	5.29	4
	599	BTS 87RR68	3.99	4.56	4.28	4.23	4.91	4.46	4.32	4.00	4.04	4
	502	BTS 88RR13	2.60	2.37	1.76	2.24	2.60	2.60	2.59	2.61	2.56	3
	645	BTS 88RR21	2.10	2.26	1.55	1.95	2.26	2.53	2.48	2.79	2.40	3
	544	BTS 88RR31	2.70	2.77	2.30	2.59	3.01	2.96	3.29	2.91	3.94	3
	552	BTS 88RR41	3.14	3.02	3.05	3.07	3.56	3.33	3.30	3.10	3.25	3
	589	BTS 88RR61	3.30	3.41	2.99	3.26	3.78	3.75	3.78	3.72	3.82	3
	592	BTS 89RR10	4.18	4.72	5.21	4.71	5.47	4.90	--	4.32	--	2
	517	BTS 89RR30	1.47	1.22	1.46	1.42	1.65	1.78	--	1.91	--	2
	597	BTS 89RR40	2.85	3.47	2.98	3.10	3.60	3.74	--	3.89	--	2
	608	BTS 89RR50	1.73	1.70	2.21	1.84	2.14	2.15	--	2.16	--	2
	504	BTS 89RR83	3.59	2.84	1.98	2.79	3.24	3.04	--	2.84	--	2
	612	Crystal 091RR	3.44	3.06	2.85	3.12	3.62	--	--	--	--	1
	583	Crystal 092RR	3.07	2.51	1.78	2.47	2.87	--	--	--	--	1
	541	Crystal 093RR	3.06	3.13	3.17	3.11	3.61	--	--	--	--	1
	627	Crystal 094RR	2.79	2.19	2.58	2.54	2.95	--	--	--	--	1
	602	Crystal 095RR	3.42	3.89	3.35	3.54	4.11	--	--	--	--	1
	569	Crystal 096RR	2.66	2.15	1.79	2.21	2.57	--	--	--	--	1
	554	Crystal 539RR	1.78	1.66	1.37	1.61	1.87	1.81	1.99	1.75	2.34	6
	532	Crystal 658RR	1.42	1.84	1.64	1.61	1.87	2.13	2.22	2.39	2.39	5
	634	Crystal 765RR	3.07	3.57	3.67	3.41	3.96	3.94	3.99	3.91	4.11	4
	527	Crystal 768RR	2.94	4.35	3.67	3.61	4.19	4.29	4.60	4.40	5.23	4
	591	Crystal 873RR	3.52	2.84	2.25	2.90	3.37	3.20	--	3.02	--	3
	577	Crystal 875RR	4.13	4.61	4.71	4.43	5.14	4.61	--	4.09	--	3
	622	Crystal 878RR	3.50	3.98	3.80	3.75	4.35	4.26	--	4.17	--	3
	507	Crystal 879RR	3.26	2.79	2.57	2.86	3.32	3.31	--	3.30	--	3
	632	Crystal 981RR	2.42	2.27	1.98	2.25	2.61	--	--	--	--	2
	515	Crystal 984RR	4.14	5.75	5.94	5.25	6.10	--	--	--	--	2
	651	Crystal 985RR	3.38	3.82	3.55	3.59	4.17	--	--	--	--	2
	626	Crystal 986RR	3.89	4.57	4.57	4.34	5.04	--	--	--	--	2
	519	Crystal R760	3.65	4.85	4.61	4.34	5.04	--	--	--	--	4
	522	Crystal R761	1.80	2.03	2.16	2.00	2.32	--	--	--	2.26	4
	598	Crystal R869	4.29	5.90	6.10	5.37	6.23	--	--	--	--	3
	559	Crystal RR610	3.32	3.68	3.07	3.35	3.89	3.78	4.00	3.67	4.45	4
	601	Crystal RR632	2.33	1.91	1.06	1.76	2.04	2.10	2.35	2.15	2.84	4
	644	Crystal RR643	2.81	3.16	2.69	2.89	3.36	3.04	3.25	2.73	3.67	4
	503	Crystal RR793	3.93	3.86	3.72	3.85	4.47	--	--	--	--	2
	635	Crystal RR794	3.34	4.76	5.47	4.54	5.27	--	--	--	--	2
	564	Crystal RR798	4.07	4.87	4.18	4.38	5.09	--	--	--	--	2
	548	Crystal RR806	2.11	2.15	1.81	2.03	2.36	2.32	--	2.28	--	3
	513	Crystal RR811	2.05	1.71	1.46	1.78	2.07	1.88	1.88	1.70	1.86	3
	576	Crystal RR830	2.86	2.43	1.80	2.40	2.79	2.92	--	3.05	--	3
	631	Hilleshög 4010RR	4.46	6.42	6.47	5.83	6.77	6.37	6.55	5.98	6.91	5
	595	Hilleshög 4012RR	4.08	5.85	5.91	5.29	6.14	5.72	5.94	5.31	6.36	5
	506	Hilleshög 4022RR	2.96	4.72	4.56	4.12	4.78	4.60	4.84	4.41	5.34	5

Table 64.
2010 Fusarium Readings for Coded Test Entries
ACSC Nurseries - Moorhead, MN

Chk	Code	Description	Moorhead Site 6/14	7/1	7/29	Raw 2010 Mean	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Adj 2008 Mean	Years
	607	Hilleshög 4043RR(9043)	5.21	6.88	7.33	6.46	7.50	6.77	6.94	6.05	7.26	4
	619	Hilleshög 4062RR(9062)	2.85	4.64	4.04	3.84	4.46	4.36	--	4.27	--	3
	536	Hilleshög 4094RR(9094)	3.27	5.60	4.70	4.53	5.26	4.79	--	4.32	--	3
	553	Hilleshog 4195RR(9195)	3.88	5.93	5.78	5.17	6.00	--	--	--	--	2
	580	Hilleshög 4200RR(9200)	3.35	4.11	3.90	3.79	4.40	--	--	--	--	2
	642	Hilleshög 4204RR(9204)	4.45	6.80	7.20	6.10	7.08	--	--	--	--	2
	530	Hilleshög 9199RR	6.01	7.12	7.70	6.92	8.03	--	--	--	--	2
	539	Hilleshög 9207RR	4.58	6.29	7.11	5.94	6.90	--	--	--	--	2
	572	Hilleshög 9224RR	2.61	2.08	2.15	2.29	2.66	--	--	--	--	1
	518	Hilleshög 9226RR	4.97	6.58	7.32	6.25	7.26	--	--	--	--	1
	638	Hilleshög 9232RR	4.14	3.84	3.26	3.75	4.35	--	--	--	--	1
	570	Hilleshög 9233RR	3.83	4.58	3.59	4.01	4.66	--	--	--	--	1
	524	Hilleshög 9234RR	2.60	2.79	1.64	2.35	2.73	--	--	--	--	1
	529	Hilleshög 9235RR	3.57	4.92	5.24	4.60	5.34	--	--	--	--	1
	615	Hilleshög 9236RR	5.06	6.13	5.80	5.66	6.57	--	--	--	--	1
	505	Hilleshög 9238RR	4.30	4.51	3.99	4.32	5.02	--	--	--	--	1
	509	Hilleshög 9298RR	4.24	6.10	6.54	5.59	6.49	--	--	--	--	1
	566	Seedex SX0808RR	3.83	4.90	4.93	4.53	5.26	--	--	--	--	1
	617	Seedex SX0891RR	4.56	5.15	4.63	4.78	5.55	--	--	--	--	2
	646	Seedex SX0892RR	3.42	4.47	3.82	3.94	4.57	--	--	--	--	2
	521	Seedex SX0893RR	3.31	4.68	4.96	4.26	4.95	--	--	--	--	2
	628	Seedex SX0894RR	3.93	4.58	4.13	4.21	4.89	--	--	--	--	2
	511	Seedex SX0902RR	3.71	4.49	4.69	4.30	4.99	--	--	--	--	1
	620	Seedex SX0904RR	3.18	3.82	2.99	3.36	3.90	--	--	--	--	1
	556	Seedex SX0995RR	3.65	4.20	4.11	3.97	4.61	--	--	--	--	2
	625	Seedex SX0996RR	2.81	4.08	3.96	3.62	4.20	--	--	--	--	2
	587	Seedex Ultra RR(SX0983RR)	3.10	4.41	4.38	3.98	4.62	4.27	--	3.91	--	3
	637	Seedex Uplander RR(SX0884)	3.63	4.24	4.76	4.20	4.88	4.90	--	4.92	--	3
	508	Seedex Usher RR(SX0883)	3.85	4.99	5.02	4.61	5.35	4.73	--	4.11	--	3
	533	SESVanderhave 36073RR	3.47	4.16	3.59	3.73	4.33	--	--	--	--	1
	523	SESVanderhave 36083RR	3.69	4.63	4.17	4.16	4.83	--	--	--	--	1
	605	SESVanderhave 36084RR	3.41	4.24	4.13	3.95	4.59	--	--	--	--	1
	512	SESVanderhave H36711RR	3.41	4.83	4.24	4.20	4.88	4.64	5.58	4.41	7.47	4
	538	SESVanderhave H36811RR	3.42	4.03	3.43	3.63	4.21	3.73	--	3.25	--	3
	594	SESVanderhave H36812RR	3.70	4.43	4.34	4.20	4.88	4.49	--	4.10	--	3
	639	SESVanderhave H36813RR	3.80	4.53	4.22	4.22	4.90	4.66	--	4.42	--	3
	558	SESVanderhave H36821RR	4.80	6.95	7.10	6.28	7.29	7.13	--	6.97	--	3
	624	SESVanderhave H36822RR	3.22	4.62	3.80	3.89	4.52	4.19	--	3.86	--	3
	510	SESVanderhave H36913RR	2.69	4.08	4.42	3.75	4.35	--	--	--	--	2
	643	SESVanderhave H36915RR	3.42	4.64	4.92	4.36	5.06	--	--	--	--	2
	549	SESVanderhave H36916RR	3.88	4.23	4.10	4.07	4.73	--	--	--	--	2
	501	SESVanderhave H36917RR	4.38	4.45	4.07	4.34	5.04	--	--	--	--	2
	568	SESVanderhave H36918RR	3.68	4.70	4.04	4.17	4.84	--	--	--	--	2
	520	SESVanderhave H36921RR	4.21	5.39	5.21	4.93	5.72	--	--	--	--	2
	647	SESVanderhave H36923RR	2.69	3.93	3.39	3.37	3.91	3.60	--	3.28	--	2
	609	SESVanderhave H36926RR	3.74	3.82	3.37	3.62	4.20	--	--	--	--	2
	551	SESVanderhave H36927RR	3.14	4.38	4.04	3.87	4.49	--	--	--	--	2
	534	SESVanderhave H36929RR	3.23	4.39	4.04	3.87	4.49	--	--	--	--	2
	1201	Fusarium Chk #19 SEEDMONOHIKARI	2.68	3.71	4.40	3.62	4.20	4.38	4.24	4.56	3.95	5
	1202	Fusarium Chk #21 CRYS184	2.75	3.90	3.53	3.42	3.97	3.95	3.97	3.93	4.00	5
	1203	Fusarium Chk #02 CRYS820	1.87	2.98	2.71	2.49	2.89	3.37	3.29	3.86	3.12	10
	1204	Fusarium Chk #25 SES46177	4.82	7.06	7.37	6.39	7.42	7.21	7.30	6.99	7.49	11
	1205	Fusarium Chk #03 BETA1301R	4.00	5.36	5.66	5.01	5.82	5.57	5.71	5.32	5.98	8
	1206	Fusarium Chk #04 CRYSR434	2.11	1.88	2.08	2.05	2.38	3.22	3.08	4.06	2.80	7
	1207	Fusarium Chk #15 BETA1305	2.49	4.17	4.14	3.60	4.18	4.68	5.06	5.18	5.81	6
1	1208	Fusarium Chk #08 HILL4000RR	4.52	6.84	7.46	6.26	7.27	6.86	7.10	6.45	7.60	4
1	1209	Fusarium Chk #07 CRYS658RR	1.93	2.10	1.70	1.91	2.22	2.27	2.31	2.33	2.39	5
1	1210	Fusarium Chk #12 HILL4012RR	4.16	5.34	5.95	5.13	5.96	5.67	5.90	5.38	6.36	5
1	1211	Fusarium Chk #13 HILL4043RR	4.34	6.55	6.90	5.96	6.92	6.71	6.89	6.50	7.26	4
1	1212	Fusarium Chk #14 BETA86RR44	3.24	5.00	4.90	4.38	5.09	5.00	5.20	4.91	5.61	5
1	1213	Fusarium Chk #16 BETA87RR58	3.05	4.56	4.12	3.90	4.53	4.48	4.75	4.44	5.29	2

Table 64.
2010 Fusarium Readings for Coded Test Entries
ACSC Nurseries - Moorhead, MN

Chk	Code	Description	Moorhead Site 6/14	7/1	7/29	Raw 2010 Mean	Adj 2010 Mean	2 Yr Mean	3 Yr Mean	Adj 2009 Mean	Adj 2008 Mean	Years
1	1214	Fusarium Chk #17 CRYS765RR	3.32	3.77	3.63	3.56	4.13	4.17	4.15	4.21	4.11	2
1	1215	Fusarium Chk #18 CRYS768RR	2.89	3.83	3.99	3.59	4.17	4.28	4.59	4.39	5.23	2
1	1216	Fusarium Chk #26 BETA87RR68	3.61	4.08	4.10	3.92	4.55	4.28	4.20	4.00	4.04	1
	1217	Fusarium Chk #27 CRYS539RR	1.80	1.75	1.68	1.77	2.06	1.90	2.05	1.75	2.34	1
1	1218	Fusarium Chk #09 HILL4010RR	4.35	5.76	6.39	5.46	6.34	6.08	6.36	5.82	6.91	5
	1219	FS CHECK MOD RES #2	4.00	3.50	3.43	3.64	4.23	4.22	4.18	4.21	4.11	4
	1220	FS CHECK MOD SUSC HYBRID	3.78	4.60	4.71	4.37	5.07	5.15	5.55	5.22	6.34	6
	1221	FS CHECK RES HYBRID	2.27	2.66	2.05	2.30	2.67	3.23	2.86	3.78	2.13	6
	1222	FS CHECK SUSC HYBRID#1	7.02	8.34	9.32	8.25	9.58	8.35	8.09	7.13	7.55	6
	1223	Red Beet Hybrid	3.93	4.33	4.19	4.19	4.86	--	--	--	--	2
10		Mean of 10 Check Varieties	3.54	4.78	4.91	4.41	5.12	4.98		4.84		
		Trial Mean	3.35	4.07	3.92	3.78						
		Coeff. of Var. (%)	22.77	14.77	16.78	13.32						
		F Value	7.09	27.73	30.86	31.28						
		Mean LSD (0.05)	0.96	0.75	0.83	0.64						
		Mean LSD (0.01)	1.26	0.99	1.09	0.85						
		Sig Lvl	**	**	**	**						
		Adjustment Factor	NA	NA	NA	1.1610	1.1610			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 65.

Planting & Harvest Dates, Previous Crop and Disease Levels for 2010 ACSC & Minn-Dak Official Trial Sites *

Location	District / Trial Type	Cooperator	Planting Date	Harvest Date	Preceding Crop	Soil Type	Diseases Present @			
							Aph	Rhc	Rzm	Maggot
Casselton	Mhd/Hlb	Ryan Radermacher	4/27	Abandoned	Wheat	Medium Light	V	V	L	N
Averill	Mhd/Hlb	Oberg Farms	4/26	10/13	Wheat	Light	M-V	L	M-V	N
Ada	Mhd/Hlb	Corey Jacobson	4/19	Abandoned	Dry Beans	Medium	NA	NA	NA	NA
Reynolds	Mhd/Hlb	Darrell & Jeremie Larson	4/24	9/29	Wheat	Medium	L	M	V	N
Climax	EGF/Crk	Todd Evenson	4/25	9/28	Wheat	Medium Light	M	M-V	L-M	N
Crookston	EGF/Crk	Bruce Erdmann	4/20	10/11	Wheat	Medium	V	L	L	N
Grand Forks	EGF/Crk	Drees Farming Assc.	4/23	10/3	Wheat	Medium	L	L	L-M	N
Alvarado	EGF/Crk	Jared & Wendell Sands	4/21	9/21	Wheat	Medium Heavy	L	M	M	N
St Thomas	Dtn	Kennelly Farms	4/22	9/17	Wheat	Medium Light	L	M	M	L
Kennedy	Dtn	Tungseth Farms	4/20	Abandoned	Wheat	Heavy	NA	NA	NA	NA
Hamilton	Dtn	Vivatson Farms	4/21	Abandoned	Wheat	Heavy	M-V	NA	NA	NA
Kindred Aph	Specialty Aph	Nipstad Farms	4/23	10/5	Soybeans	Medium Heavy	V	N	L	N
Hillsboro Aph	Specialty Aph	CCK Farms Inc.	5/21	Abandoned	Soybeans	Medium	M-V	N	L	N
S. Moorhead	Fusarium	Nyquist Farms	4/26	Abandoned	Wheat	Medium	L	N	N	N
Moorhead	Fusarium	Nelson Farms	4/26	NA	Soybeans	Medium	L	N	N	N
Moorhead Rhc	Rhc Nurs	ACSC Tech Services Ctr	5/26	NA	Soybeans	Heavy	M	V	L	N
Hickson Rhc	Rhc Nurs	Vince Ulstad	5/20	NA	Wheat	Medium Heavy	M	V	N	N
Foxhome CR	Cercospora	Kevin Etzler	5/20	NA	Wheat	Medium	NA	N	M	N
Barnesville	Minn-Dak	Maier Farms	4/27	10/6	Wheat	Medium	L	M	M	N
Foxhome	Minn-Dak	Mike Albertson Farms	4/19	10/7	Wheat	Medium	L	M	V	N
Fairmount	Minn-Dak	Wayne Miller	5/19	Abandoned	Wheat	Medium Light	L	L-M	M	N
Charlesville	Minn-Dak	Chadd Berger	4/22	10/8	Wheat	Medium	M	L	M-V	N

* Fertilizer applied in accordance to ACSC recommendations. Created 11-10-2010

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

Table 66.
Herbicides and Fungicides Applied to Official Trials

		Herbicide			Fungicide		
Area	Location	Spray Dates	Herbicide & Rate(prod)/Ac.	Water Used/Method	Spray Dates	Fungicide Used	Water Used/Method
ASCS	Alvarado	5/10,6/3,6/14 5/18,6/24	MR1 RU1,RU2	10 gal. (Ground) "	6/7 8/6/,8/19 9/4	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	Averill	5/20,5/26,6/1,6/14 6/1,6/23	MR1 RU1,RU2	10 gal. (Ground) "	6/5 8/3,8/18 9/1	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	Climax	5/20,6/3,6/14 6/2,6/23	MR1 RU1,RU2	10 gal. (Ground) "	6/7 8/5,8/19 9/4	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	Crookston	5/20,6/3,6/16 5/20,6/24,7/21	MR1 RU1,RU2	10 gal. (Ground) "	6/7 8/5,8/19 9/4	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	Grand Forks	5/20,6/2,6/16,6/23 6/2,6/24	MR1 RU1,RU2	10 gal. (Ground) "	6/6 8/6,8/19 9/4	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground)
ACSC	Kindred Aph.	5/20,6/14,7/12	RU1,RU2,RU2	10 gal. (Ground) "	6/6 8/6,8/19 9/1	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	Reynolds	5/20,6/2,6/14 6/2,6/23	MR1 RU1,RU2	10 gal. (Ground) "	6/6 8/5,8/19 9/1	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
ACSC	St. Thomas	5/20,6/3,6/14 6/3,6/24 6/3,6/14	MR1 RU1,RU2 L1,L1	10 gal. (Ground) " "	6/7 8/6,8/19	Quadris Eminent,Super Tin	10 gal. (Ground) 15 gal. (Ground)
MDAK	Barnesville	5/21,6/2,6/9 5/20,6/22	MR1 RU1,RU2	10 gal. (Ground) "	6/6 8/5,8/19 8/28	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
MDAK	Charlesville	5/22,6/22	RU1,RU2	10 gal. (Ground)	6/5 8/5,8/19 8/28	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "
MDAK	Foxhome	5/21,6/1,6/9,6/16 5/20,6/21	MR1 RU1,RU2	10 gal. (Ground) "	6/5 8/5,8/19 8/28	Quadris Eminent,Super Tin Headline	10 gal. (Ground) 15 gal. (Ground) "

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

MR1 = 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).

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

L1 = Lorsban 1 pt./A

Quadris applied at 9 oz./A;Eminent at 13 oz./A;Super Tin at 5oz./A;Headline at 9oz./A