RESULTS OF AMERICAN CRYSTAL'S 2012 OFFICIAL CODED VARIETY TRIALS

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

This report presents data from the 2012 American Crystal and Minn-Dak official trials and describes the procedures and cultural practices involved in the trials.

Table	Area	Information in the Table
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38	ACSC & MD	Rhizoctonia disease nursery ratings.
39	ACSC & MD	Fusarium disease nursery ratings.
40	ACSC & MD	Official trial sites, cooperators, plant and harvest dates, soil types and disease notes.
41	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 by 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 . We continued plant-to-stand trials (4.5 inch spacing) to evaluate the commercial and experimental RR varieties. All seed in the ACSC yield trials was treated with Tachigaren and an insecticide. 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.

Five sites were abandoned due to variable emergence dates. Aphanomyces RRV sites experienced dry conditions with very few symptoms which prevented disease ratings and yield evaluations. No Aphanomyces yield trials were harvested in 2012. Rhizomania was not visually observed at any of the harvested sites in 2012.

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 was not reported for these varieties in 2010. The seed size issue primarily affected SES/Seedex varieties in the ACSC area yield trials.

In January 2009, the ACSC Seed Committee exempted the currently approved conventional varieties from continued variety testing – 31 conventional varieties are approved for sale in 2013; many of these varieties were not tested in 2009-2012 yield trials. Conventional trials were discontinued in 2012. Data for conventional varieties tested in previous years can be found in Tables 21 and 22.

Roundup Powermax herbicide and full rates of fungicides were applied using a pickup sprayer driven down the alleys. Rhizoctonia was prevalent in 2012 even with two applications of Quadris, a band application shortly after planting and a broadcast treatment at the 6 leaf stage. Ground spraying was conducted by American Crystal Sugar technical staff.

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

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 Felton, Eldred, Argyle, Hallock, Kennedy, Kindred Aph, Hillsboro Aph, Foxhome were not harvested.

Acknowledgements

Thanks to the beet seed companies for their participation in the official variety testing program and to all grower-cooperators, agricultural, and beet seed staffs for their assistance. Special thanks are extended to Jason Brantner for Rhizoctonia inoculum and Dr. Mohamed Khan for CR nursery infection, Randy Nelson, Jason Brantner and Aaron Carlson for RRV disease ratings, USDA staff in Michigan for CR nursery ratings, the Betaseed staff for Aphanomyces and Cercospora ratings in the Shakopee area and Todd Cymbaluk (NWROC, U of M – Crookston) for sampling and coding all variety entries.

Table 1. Varieties Meeting Approval Criteria for the 2013 Sugarbeet Crop ++

Full Market Approved Varieties

Roundup Ready ®

	BTS 80RR12	hR	Hilleshög 4012RR (+Aph)
hR	BTS 80RR32	hR	Hilleshög 4022RR (+Aph +Rhc)
hR	BTS 80RR52 (+Aph)		Hilleshög 4043RR (+Aph)
A hR	BTS 81RR17 (+Aph)	hR	Hilleshög 4094RR (+Aph +Rhc)
A	BTS 81RR41 (+Aph)		Hilleshög 4195RR (+Rhc)
A hR	BTS 81RR78 (+Aph)	A	Hilleshög 4236RR (9236)
	BTS 89RR10 (+Rhc)	A	Hilleshög 4300RR (9300)
	BTS 89RR30 (+Aph)	A	Hilleshög 4303RR (9303)
	BTS 89RR40 (+Aph)	A	Hilleshög 9302RR (+Rhc)
hR	BTS 89RR50 (+Aph)	A	Maribo 102RR
hR	BTS 89RR83	A	Maribo 104RR (+Rhc)
hR	Crystal 093RR	hR	Seedex UsherRR (+Aph)
hR	Crystal 095RR (+Aph)		Seedex VisionRR
A hR	Crystal 101RR	hR	Seedex VictorRR (+Aph)
A	Crystal 106RR		Seedex WranglerRR (808)
	Crystal 658RR (+Aph +Rhc)	A	Seedex SX0814RR
	Crystal 765RR	A	Seedex SX0816RR (+Aph)
	Crystal 768RR		
	Crystal 875RR (+Aph +Rhc)	hR	SESVdh 36711RR
	Crystal 878RR	hR	SESVdh 36812RR
A hR	Crystal 981RR (+Aph)		SESVdh 36813RR (+Aph)
	Crystal 985RR (+Aph)	hR	SESVdh 36916RR
	Crystal 986RR (+Aph)		SESVdh 36917RR
			SESVdh 36918RR (+Aph)
		A	SESVdh 36175RR
		A	SESVdh 36179NRR

Conventional

	Beta 1100R		Holly 317
	Beta 1115R (+Aph)		Holly 701
	Beta 1125R (+Aph)		
	Beta 1135R (+Rhc)		Seedex Sonic
	Beta 1140R	hR	Seedex SX0873TT (Deuce)
	Beta 1301R (+Aph +Rhc)		Seedex Triton
	Beta 1305R (+Aph)		Seedex Vault (SX0842)
	Crystal R308		SESVanderhave H46519
	Crystal R431		SESVanderhave H46531
	Crystal R434		SESVanderhave H46711
	Crystal R760	hR	SESVanderhave H48607TT
hR	Crystal R761 (+Aph)	hR	SESVanderhave H48716TT
	Crystal R869	hR	SESVanderhave H48717TT
			SESVanderhave H46801
		hR	SESVanderhave H48810TT
	Hilleshög 3035Rz (+Aph +Rhc)		
	Hilleshög 3052Rz (+Aph +Rhc)		

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

Aphanomyces Specialty Approved Varieties (Aph)

Roundup Ready ®

hR	BTS 80RR52	hR	Hilleshög 4012RR
A hR	BTS 81RR17	hR	Hilleshög 4022RR (+Rhc)
A	BTS 81RR41		Hilleshög 4043RR
A hR	BTS 81RR78	hR	Hilleshög 4094RR (+Rhc)
	BTS 89RR30		
	BTS 89RR40	hR	Seedex VictorRR
hR	BTS 89RR50		
		hR	Seedex UsherRR
hR	Crystal 095RR	A	Seedex SX0816RR
	Crystal 658RR (+Rhc)		
	Crystal 875RR (+Rhc)		
	Crystal 985RR		SESVdh 36813RR
	Crystal 986RR		SESVdh 36918RR
A hR	Crystal 981RR		

Conventional

	Beta 1115R		Hilleshög 3035Rz (+Rhc)
	Beta 1125R		Hilleshög 3052Rz (+Rhc)
	Beta 1301R (+Rhc)		
	Beta 1305R		
hR	Crystal R761		

Conventional variety testing was voluntary since 2009.

Data for SOME conventional varieties are from 2008 only.
No conventional Aph yield trials were conducted since 2009.

Rhizoctonia Specialty Approved Varieties (Rhc)

Roundup Ready ®

	BTS 89RR10	hR	Hilleshög 4022RR (+Aph)
		hR	Hilleshög 4094RR (+Aph)
		A	Hilleshög 4195RR
	Crystal 658RR (+Aph)	A	Hilleshög 9302RR
	Crystal 875RR (+Aph)		
		A	Maribo 104RR

Conventional

	Beta 1301R (+Aph)		Hilleshög 3035Rz (+Aph)
	Beta 1135R		Hilleshög 3052Rz (+Aph)
	Beta 1833R		
			SESVanderhave H46714

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

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

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

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

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Table 2. Performance Data of RR Varieties.During 2010, 2011, 2012 Growing Seasons (All Locations Combined) +++

	Yrs	Rev/Ton					Rev/Acre					Rec/Ton		Rec/Acre		Sugar		Yield		Molasses		Emerg		Bolter		CR +		Aph Root+		Rhizoc.++		Fusarium+	
Description @	Com	12	2 Yr	2Y%	3Yr#	3Y%	12	2 Yr	2Y%	3Yr#	3Yr%	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr	12	2 Yr
Previous Approved # locations →		6	14		21		6	14		21		6	14	6	14	6	14	6	14	6	14	6	14	6	14	3	6	1	3	3	6	3	4
BTS 80RR12	1	66.22	56.23	110	53.33	108	1796	1420	110	1425	111	373	344	10149	8623	19.74	18.29	27.4	24.9	1.11	1.10	54	59	0.00	0.00	4.65	4.76	6.1	5.5	4.4	4.6	2.7	3.1
BTS 80RR32	1	62.20	52.03	102	50.11	102	1813	1437	112	1439	112	358	328	10518	9048	19.13	17.61	29.7	27.6	1.21	1.20	59	59	0.00	0.00	4.66	4.92	4.4	4.9	3.9	4.1	2.5	3.3
BTS 80RR52	1	61.66	52.84	104	51.13	104	1772	1388	108	1380	107	356	331	10293	8642	19.21	17.90	29.2	26.0	1.40	1.33	53	57	0.02	0.01	4.40	4.51	4.0	4.5	3.7	3.9	2.8	3.4
BTS 89RR10	1	67.42	57.10	112	54.87	111	1699	1305	101	1327	103	377	347	9563	7876	20.20	18.66	25.7	22.6	1.36	1.31	57	60	0.01	0.01	5.10	5.09	2.3	3.2	4.1	3.9	4.6	4.7
BTS 89RR30	2	57.28	47.77	94	46.75	95	1715	1348	105	1359	105	341	312	10280	8794	18.44	16.95	30.6	28.2	1.41	1.33	51	57	0.00	0.00	4.92	5.04	6.0	5.6	4.2	4.4	2.5	3.0
BTS 89RR40	2	62.07	52.87	104	50.49	102	1743	1395	108	1386	108	358	331	10110	8714	19.32	17.93	28.6	26.3	1.43	1.36	53	57	0.00	0.00	5.16	5.25	3.6	4.2	4.9	4.9	4.3	4.5
BTS 89RR50	2	56.94	48.57	95	47.69	97	1670	1350	105	1391	108	339	316	10038	8766	18.58	17.28	29.9	27.9	1.62	1.51	53	59	0.00	0.00	5.30	5.16	4.8	4.4	4.9	5.1	3.0	3.4
BTS 89RR83	2	58.74	47.85	94	46.59	95	1776	1371	107	1408	109	346	313	10552	8949	18.59	16.88	30.9	28.7	1.30	1.25	56	59	0.00	0.00	4.89	4.85	3.6	4.3	3.6	4.1	3.4	3.9
Crystal 093RR	NC	63.67	55.15	108	53.30	108	1754	1408	109	1391	108	364	340	10055	8638	19.53	18.28	27.8	25.3	1.35	1.28	51	51	0.00	0.00	4.82	4.99	4.2	4.6	4.4	4.4	3.5	3.9
Crystal 095RR	1	62.05	52.04	102	50.49	102	1720	1365	106	1378	107	358	328	9959	8579	19.28	17.74	28.0	26.1	1.40	1.34	52	58	0.00	0.00	4.83	4.85	4.6	4.6	4.6	4.7	4.1	4.2
Crystal 658RR	5	59.62	49.12	96	47.16	96	1693	1312	102	1294	100	349	317	10004	8444	18.63	17.01	29.1	26.6	1.18	1.15	56	60	0.00	0.00	4.28	4.38	3.4	4.0	4.1	3.9	2.4	2.8
Crystal 765RR	4	65.25	55.45	109	53.26	108	1848	1462	114	1413	110	369	341	10506	8924	19.74	18.28	28.7	26.1	1.29	1.25	56	56	0.00	0.00	4.70	4.70	5.7	5.9	3.9	4.2	4.1	4.3
Crystal 768RR	4	61.75	51.59	101	49.90	101	1826	1404	109	1387	108	357	326	10620	8819	19.19	17.65	30.1	26.9	1.36	1.33	56	62	0.00	0.00	5.37	5.23	3.9	4.4	4.4	4.4	4.2	4.4
Crystal 875RR	3	60.21	50.89	100	49.48	100	1642	1318	102	1344	104	351	324	9622	8371	18.98	17.58	27.6	25.9	1.43	1.39	57	61	0.00	0.00	4.26	4.25	2.7	2.9	4.0	4.0	4.4	4.3
Crystal 878RR	3	62.06	52.55	103	50.84	103	1754	1376	107	1369	106	358	330	10167	8581	19.26	17.83	28.7	25.9	1.37	1.32	51	59	0.00	0.00	4.81	5.06	4.8	5.1	4.4	4.4	4.1	4.3
Crystal 985RR	2	61.58	52.26	103	50.76	103	1666	1351	105	1342	104	356	329	9700	8507	19.10	17.71	27.6	25.9	1.30	1.27	54	59	0.00	0.00	4.41	4.39	3.1	3.4	4.4	4.5	3.5	3.9
Crystal 986RR	1	65.98	56.20	110	53.46	109	1841	1434	111	1443	112	372	344	10420	8701	19.78	18.34	28.3	25.2	1.19	1.16	56	52	0.00	0.00	4.78	4.96	4.4	4.8	4.3	4.2	4.3	4.9
Hilleshög 4012RR	5	58.49	50.81	100	49.47	100	1605	1302	101	1316	102	345	324	9538	8283	18.67	17.53	28.0	25.6	1.43	1.34	58	61	0.00	0.00	5.46	5.35	4.0	4.3	4.8	4.9	6.1	5.6
Hilleshög 4022RR	4	59.92	50.99	100	49.31	100	1632	1303	101	1309	102	350	324	9592	8261	18.93	17.58	27.7	25.4	1.43	1.36	59	64	0.01	0.01	4.36	4.31	4.1	4.5	3.3	3.4	4.7	4.4
Hilleshög 4043RR	2	61.64	52.92	104	50.54	103	1541	1282	100	1294	100	356	332	8949	8022	19.10	17.79	25.3	24.2	1.29	1.22	44	57	0.31	0.16	4.56	4.70	4.7	4.7	4.8	5.0	6.8	6.2
Hilleshög 4094RR	3	59.38	51.21	101	49.40	100	1611	1298	101	1295	100	348	325	9498	8215	18.85	17.61	27.6	25.3	1.45	1.35	58	63	0.00	0.00	4.34	4.17	3.7	4.4	3.3	3.3	4.5	4.5
Hilleshog 4195RR	2	57.11	48.27	95	47.09	96	1650	1303	101	1300	101	340	314	9860	8441	18.50	17.12	29.2	26.8	1.51	1.42	55	59	0.00	0.00	4.65	4.63	4.2	4.7	3.7	3.7	5.6	5.3
Hilleshög 4236RR(9236)	NC	64.57	55.34	109	53.48	109	1579	1299	101	1321	102	367	341	9023	7988	19.68	18.29	24.8	23.4	1.33	1.26	51	56	0.00	0.00	4.71	4.73	5.4	5.1	5.2	5.5	5.8	5.3
Seedex Usher RR	3	61.16	51.69	102	na	na	1725	1386	108	na	na	354	327	10049	8736	18.98	17.56	28.6	26.7	1.26	1.21	57	60	0.06	0.03	4.59	4.64	5.0	4.9	4.3	4.5	4.6	4.5
Seedex Victor RR(894)	2	63.03	52.78	104	50.29	102	1715	1349	105	1302	101	361	331	9880	8418	19.26	17.71	27.6	25.4	1.20	1.17	55	57	0.07	0.04	4.41	4.37	4.7	4.7	4.6	4.6	4.2	4.2
Seedex Vision RR(891)	1	64.38	55.22	108	52.21	106	1776	1411	110	1352	105	366	340	10137	8641	19.49	18.15	27.9	25.3	1.19	1.15	55	58	0.02	0.01	4.49	4.45	5.2	5.0	4.6	4.5	5.1	4.8
Seedex Wrangler RR(808)	1	59.28	51.28	101	49.78	101	1647	1321	103	1316	102	348	326	9714	8351	18.70	17.49	28.2	25.6	1.31	1.21	51	58	0.06	0.03	4.43	4.29	4.6	4.7	4.2	4.4	4.2	4.4
SESVdh 36711RR	4	59.90	50.81	100	na	na	1747	1396	109	na	na	350	324	10236	8847	18.81	17.45	29.4	27.3	1.31	1.26	54	55	0.12	0.06	4.77	4.67	4.4	4.5	4.5	4.6	4.7	4.8
SESVdh 36812RR	3	59.10	50.63	99	48.71	99	1635	1361	106	1347	104	347	323	9665	8690	18.72	17.43	28.1	27.0	1.36	1.28	49	55	0.00	0.00	4.76	4.77	4.7	5.0	4.2	4.5	4.7	4.5
SESVdh 36813RR	3	60.77	51.74	102	na	na	1727	1375	107	na	na	353	327	10068	8641	18.90	17.58	28.7	26.3	1.25	1.23	55	55	0.19	0.10	4.33	4.40	4.8	4.7	4.5	4.7	4.8	4.6
SESVdh 36916RR	2	61.14	51.96	102	49.58	101	1701	1373	107	1336	104	354	328	9908	8636	18.97	17.59	28.2	26.3	1.25	1.19	53	58	0.07	0.04	4.68	4.69	4.5	4.8	4.6	4.6	5.0	4.8
SESVdh 36917RR	1	63.58	54.23	107	51.59	105	1742	1387	108	1357	105	363	336	9994	8562	19.37	17.99	27.7	25.4	1.21	1.17	55	57	0.07	0.04	4.61	4.56	4.7	4.7	4.4	4.6	4.9	4.8
SESVdh 36918RR	1	63.56	54.55	107	51.92	105	1748	1371	107	1328	103	363	338	10035	8431	19.34	18.03	27.9	24.9	1.19	1.15	57	59	0.00	0.00	4.28	4.35	4.7	4.6	4.7	4.9	5.0	5.0
Newly Approved																																	
BTS 81RR17	NC	60.01	50.86	100	--	--	1736	1343	104	--	--	350	324	10213	8508	19.01	17.63	29.5	26.2	1.51	1.44	58	59	0.00	0.00	4.36	4.52	3.3	3.7	4.0	4.0	2.5	3.0
BTS 81RR41	NC	67.61	57.89	114	--	--	1874	1460	114	--	--	378	350	10544	8784	20.14	18.71	28.2	25.0	1.23	1.21	58	58	0.04	0.02	4.16	4.15	3.3	4.3	4.5	4.7	3.1	3.5
BTS 81RR78	NC	64.88	55.65	109	--	--	1761	1415	110	--	--	368	342	10043	8657	19.67	18.31	27.5	25.3	1.26	1.21	54	60	0.00	0.00	4.51	4.70	4.9	4.9	4.5	4.5	3.4	3.7
Crystal 981RR	NC	57.52	50.00	98	48.54	99	1778	1443	112	1440	112	341	321	10623	9238	18.64	17.51	31.4	28.8	1.60	1.48	56	62	0.00	0.00	5.15	5.18	3.1	3.6	4.5	4.7	2.9	3.2
Crystal 101RR	NC	58.69	50.16	99	--	--	1752	1396	108	--	--	346	321	10351	8907	18.79	17.51	30.1	27.7	1.52	1.46	53	58	0.00	0.00	4.71	4.71	3.0	3.6	4.8	4.7	3.0	3.0
Crystal 106RR	NC	67.12	58.17	114	--	--	1730	1383	107	--	--	376	351	9733	8307	20.07	18.75	26.0	23.6	1.23	1.18	55	61	0.00	0.00	4.17	4.16	3.7	4.2	4.4	4.5	2.7	3.5
Hilleshög 4300RR(9300)	NC	59.42	50.44	99	--	--	1701	1336	104	--	--	348	322	10001	8471	18.77	17.38	28.9	26.1	1.36	1.27	56	62	0.00	0.00	4.82	4.76	4.2	4.4	4.6	4.4	3.6	3.8
Hilleshög 9302RR	NC	63.43	55.14	108	--	--	1634	1337	104	--	--	363	340	9409	8222	19.40	18.19	26.2	24.2	1.26	1.19	50	58	0.00	0.00	4.34	4.17	4.2	4.5	3.6	3.6	4.3	--
Hilleshög 4303RR(9303)	NC	64.48	55.54	109	--	--	1666	1374	107	--	--	367	341	9529	8441	19.67	18.31	26.2	24.8	1.33	1.23	50	56	0.00	0.00	4.62	4.42	4.0	4.4	5.2	--	5.4	--
Maribo 102RR	NC	63.79	55.69	109	--	--	1689	1449	113	--	--	364	342	9664	8895	19.46	18.25	26.6	26.0	1.24	1.14	50	60	0.00	0.00	4.88	5.03	4.3	4.1	4.7	--	5.2	--
Maribo 104RR	NC	63.50	55.36	109	--	--	1515	1209	94	--	--	363	341	8668	7382	19.42	18.25	23.9	21.5	1.27	1.21	48	56	0.00	0.00	3.82	3.64	4.5	4.6	4.0	3.7	4.8	4.9
Seedex SX0814RR	NC	60.53	51.94	102	--	--	1643	1335	104	--	--	352	328	9589	8395	18.91	17.63	27.4	25.5	1.30	1.23	49	56	0.19	0.10	4.76	4.77	4.4	4.5	4.5	4.6	4.2	4.3
Seedex SX0816RR	NC	62.76	54.30	107	--	--	1815	1420	110	--	--	360	337	10484	8749	19.20	18.00	29.4	25.9	1.17	1.15	56	57	0.00	0.00	4.43	4.49	4.2	4.4	4.7	4.6	5.3	--
SESVdh 36175RR	NC	59.78	52.13	102	--	--	1720	1373	107	--	--	350	329	10129	8619	18.76	17.64	29.3	26.2	1.29	1.20	61	62	0.12	0.06	4.22	4.42	4.1	4.3	4.3	4.4	4.7	--
SESVdh 36179NRR	NC	61.34	52.90	104	--	--	1693	1343	104	--	--	355	332	9857	8378	19.01	17.76	28.0	25.2	1.24	1.18	51	57	0.08	0.04	4.64	4.70	4.9	4.9	4.4	4.6	3.8	3.7
Mean of benchmark varieties		60.16	50.90		49.27		1631	1287		1289		351	324	9577	8162	18.90	17.50	27.6	25.2	1.36	1.30	54	60										

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

++ 2012 Revenue estimates based on a $51.53 beet payment at 17.5% sugar and 1.5% loss to molasses. 2011 Revenue estimates based on a $47.65 and 2010 based on $44.01. Revenue does not consider hauling or production costs.

+ Aph Ratings from Shakopee & RRV (resist = 4.9, susc = 5.5). CR from Rosemount, Michigan & Foxhome (resist = 4.5, susc = 5.2). Fusarium from RRV (resist = 3.0, susc = 5.0). Rhizoc. From Ft Collins, Mhd & Crk (resist = 3.8, susc = 5).

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

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

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

+++ Sites include Casselton, Ada, Hillsboro, Crookston, Grand Forks, St Thomas in 2012.

Created 11-2-2012.

Table 3. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - 6 sites

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	109	372.6	105	10149	102	1.11	66.22	108	1796	105	19.74	27.41	153	1728	348	0.00	54.5
BTS 80RR32	104	358.2	101	10518	106	1.21	62.20	101	1813	106	19.13	29.73	246	1827	366	0.00	59.0
BTS 80RR52	122	356.2	100	10293	103	1.40	61.66	100	1772	104	19.21	29.17	213	2019	472	0.02	52.9
BTS 89RR10	115	376.9	106	9563	96	1.36	67.42	110	1699	99	20.20	25.67	240	2040	423	0.01	57.5
BTS 89RR30	126	340.6	96	10280	103	1.41	57.28	93	1715	100	18.44	30.56	310	2106	420	0.00	51.3
BTS 89RR40	118	357.7	101	10110	101	1.43	62.07	101	1743	102	19.32	28.57	251	2049	474	0.00	53.2
BTS 89RR50	102	339.3	95	10038	101	1.62	56.94	93	1670	98	18.58	29.94	345	2315	511	0.00	53.2
BTS 89RR83	123	345.8	97	10552	106	1.30	58.74	96	1776	104	18.59	30.94	283	1936	390	0.00	55.7
Crystal 095RR	114	357.6	101	9959	100	1.40	62.05	101	1720	101	19.28	28.03	229	1969	480	0.00	51.7
Crystal 658RR	130	349.0	98	10004	100	1.18	59.62	97	1693	99	18.63	29.07	218	1815	352	0.00	56.3
Crystal 765RR	120	369.1	104	10506	105	1.29	65.25	106	1848	108	19.74	28.74	273	1894	393	0.00	56.2
Crystal 768RR	107	356.6	100	10620	107	1.36	61.75	101	1826	107	19.19	30.11	245	2044	422	0.00	56.3
Crystal 875RR	113	351.1	99	9622	97	1.43	60.21	98	1642	96	18.98	27.63	292	2064	453	0.00	57.0
Crystal 878RR	128	357.7	101	10167	102	1.37	62.06	101	1754	103	19.26	28.70	225	2007	450	0.00	51.1
Crystal 985RR	124	356.0	100	9700	97	1.30	61.58	100	1666	97	19.10	27.55	236	1912	413	0.00	53.7
Crystal 986RR	103	371.7	105	10420	105	1.19	65.98	107	1841	108	19.78	28.25	222	1779	372	0.00	55.8
Hilleshög 4012RR	131	344.9	97	9538	96	1.43	58.49	95	1605	94	18.67	27.96	389	2095	408	0.00	58.4
Hilleshög 4022RR	112	350.0	98	9592	96	1.43	59.92	98	1632	95	18.93	27.67	269	2128	448	0.01	59.0
Hilleshög 4043RR	121	356.2	100	8949	90	1.29	61.64	100	1541	90	19.10	25.32	200	1920	416	0.31	43.6
Hilleshög 4094RR	101	348.1	98	9498	95	1.45	59.38	97	1611	94	18.85	27.57	283	2144	451	0.00	58.2
Hilleshog 4195RR	119	340.0	96	9860	99	1.51	57.11	93	1650	96	18.50	29.17	342	2194	460	0.00	54.7
Seedex Usher RR	125	354.4	100	10049	101	1.26	61.16	100	1725	101	18.98	28.58	228	1880	392	0.06	56.6
Seedex Victor RR(SX0894)	106	361.1	102	9880	99	1.20	63.03	103	1715	100	19.26	27.60	205	1870	359	0.07	55.3
Seedex Vision RR(SX0891)	110	366.0	103	10137	102	1.19	64.38	105	1776	104	19.49	27.88	181	1871	360	0.02	55.3
Seedex Wrangler RR(808)	108	347.7	98	9714	98	1.31	59.28	97	1647	96	18.70	28.18	248	2039	380	0.06	50.9
SESVdh 36711RR	116	350.0	98	10236	103	1.31	59.90	98	1747	102	18.81	29.44	254	1892	419	0.12	53.7
SESVdh 36812RR	127	347.1	98	9665	97	1.36	59.10	96	1635	96	18.72	28.12	287	1990	424	0.00	49.0
SESVdh 36813RR	111	353.1	99	10068	101	1.25	60.77	99	1727	101	18.90	28.67	225	1926	376	0.19	54.5
SESVdh 36916RR	117	354.4	100	9908	99	1.25	61.14	100	1701	99	18.97	28.20	227	1900	382	0.07	53.1
SESVdh 36917RR	129	363.1	102	9994	100	1.21	63.58	103	1742	102	19.37	27.71	183	1955	352	0.07	54.7
SESVdh 36918RR	105	363.0	102	10035	101	1.19	63.56	103	1748	102	19.34	27.87	185	1924	340	0.00	57.0
Beta 85RR02(Check)	132	358.6	101	9144	92	1.40	62.31	101	1583	93	19.33	25.67	295	2000	449	0.00	46.0
Trial Mean		355.4		9961		1.33	61.43		1711		19.10	28.30	249	1976	411	0.0	54.2
Coeff. of Var. (%)		3.3		5.8		8.4	5.3		7.1		2.8	5.2	21.8	6.5	13.4		15.7
Mean LSD (0.05)		7.5		515		0.07	2.09		100		0.34	1.37	42	75	32		4.7
Mean LSD (0.01)		9.9		680		0.09	2.77		133		0.45	1.81	56	99	42		6.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from 6 sites

Analyzed 10/24/2012 14:08

Created 10-24-2012.

^ Vigor not collected.

Trial # = 12ACCom

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

1-Nov 10:17

Table 4. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - Casselton ND

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	109	352.9	103	11979	108	1.16	60.72	105	2058	110	18.80	33.99	163	1728	378	0.00	74.1
BTS 80RR32	104	348.7	102	12888	116	1.16	59.54	103	2198	118	18.59	37.04	234	1755	348	0.00	78.4
BTS 80RR52	122	354.9	104	12207	110	1.36	61.28	106	2102	113	19.09	34.54	184	1895	477	0.00	73.7
BTS 89RR10	115	367.1	107	10656	96	1.39	64.70	112	1869	100	19.75	29.25	233	1971	470	0.00	79.4
BTS 89RR30	126	324.3	95	11661	105	1.48	52.73	91	1896	102	17.70	35.97	317	2046	489	0.00	72.8
BTS 89RR40	118	346.9	101	11433	103	1.43	59.04	102	1936	104	18.77	33.19	251	1965	496	0.00	74.8
BTS 89RR50	102	327.3	96	10077	91	1.75	53.58	93	1640	88	18.12	30.97	434	2289	588	0.00	62.7
BTS 89RR83	123	332.4	97	12268	111	1.31	55.01	95	2026	109	17.93	36.98	281	1846	420	0.00	73.4
Crystal 095RR	114	343.7	101	10723	97	1.48	58.15	101	1821	98	18.65	31.03	237	2004	521	0.00	66.1
Crystal 658RR	130	321.6	94	11462	104	1.26	51.97	90	1853	99	17.34	35.65	257	1763	415	0.00	67.8
Crystal 765RR	120	355.3	104	12553	113	1.31	61.41	107	2174	117	19.08	35.26	301	1783	432	0.00	74.2
Crystal 768RR	107	348.9	102	12278	111	1.36	59.60	103	2091	112	18.79	35.29	230	1955	450	0.00	75.6
Crystal 875RR	113	337.3	99	10111	91	1.51	56.35	98	1688	91	18.37	29.98	365	2062	489	0.00	72.7
Crystal 878RR	128	352.2	103	12284	111	1.41	60.54	105	2105	113	19.01	34.97	243	1892	498	0.00	71.1
Crystal 985RR	124	342.8	100	10640	96	1.35	57.92	101	1790	96	18.49	31.22	246	1911	448	0.00	73.5
Crystal 986RR	103	360.0	105	12356	112	1.24	62.71	109	2153	115	19.23	34.31	236	1689	421	0.00	73.5
Hilleshög 4012RR	131	315.2	92	8897	80	1.65	50.18	87	1415	76	17.42	28.33	559	2071	525	0.00	86.3
Hilleshög 4022RR	112	342.1	100	10777	97	1.50	57.72	100	1819	98	18.61	31.52	254	2141	502	0.00	80.5
Hilleshög 4043RR	121	326.0	95	9266	84	1.38	53.22	92	1509	81	17.68	28.55	261	1888	476	0.14	69.4
Hilleshög 4094RR	101	335.4	98	10307	93	1.45	55.83	97	1718	92	18.22	30.71	322	1945	487	0.00	74.7
Hilleshog 4195RR	119	327.7	96	11065	100	1.56	53.67	93	1810	97	17.92	33.77	365	2119	507	0.00	75.2
Seedex Usher RR	125	341.5	100	11200	101	1.31	57.54	100	1887	101	18.39	32.75	242	1858	437	0.07	70.8
Seedex Victor RR(SX0894)	106	353.7	103	10974	99	1.25	60.94	106	1882	101	18.94	31.24	228	1830	403	0.00	70.4
Seedex Vision RR(SX0891)	110	352.2	103	10967	99	1.28	60.52	105	1892	101	18.89	30.99	215	1862	420	0.00	62.8
Seedex Wrangler RR(808)	108	332.4	97	10845	98	1.36	55.01	95	1796	96	17.98	32.59	288	1994	418	0.29	61.0
SESVdh 36711RR	116	339.8	99	10988	99	1.39	57.08	99	1848	99	18.39	32.39	274	1902	475	0.22	63.0
SESVdh 36812RR	127	334.8	98	10275	93	1.46	55.66	97	1706	91	18.20	30.80	357	1896	494	0.00	59.3
SESVdh 36813RR	111	336.9	99	10659	96	1.29	56.25	98	1778	95	18.14	31.73	270	1824	418	0.07	65.7
SESVdh 36916RR	117	333.2	97	10404	94	1.35	55.21	96	1725	92	18.01	31.16	283	1830	457	0.14	62.3
SESVdh 36917RR	129	354.3	104	10926	99	1.30	61.11	106	1881	101	19.01	30.90	215	1939	411	0.07	67.4
SESVdh 36918RR	105	346.5	101	11120	100	1.21	58.95	102	1891	101	18.54	32.13	220	1906	355	0.00	61.4
Beta 85RR02(Check)	132	350.8	103	10016	90	1.40	60.14	104	1724	92	18.94	28.43	314	1886	469	0.00	59.5
Trial Mean		341.8		11071		1.38	57.63		1865		18.47	32.43	277	1920	456	0.0	70.4
Coeff. of Var. (%)		2.9		6.0		7.2	4.8		6.9		2.5	5.6	18.9	5.3	11.6		12.4
Mean LSD (0.05)		12.4		847		0.12	3.45		164		0.58	2.32	63	128	65		10.0
Mean LSD (0.01)		16.3		1120		0.16	4.56		217		0.76	3.07	84	169	86		13.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Casselton ND Analyzed 10/23/2012 11:55 Created 10-24-2012.

^ Vigor not collected. Trial # = 128601

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

1-Nov 10:20

Table 5. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - Ada MN

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	109	364.0	105	10699	102	1.07	63.82	109	1876	106	19.26	29.57	131	1548	373	0.00	44.6
BTS 80RR32	104	344.6	100	11082	106	1.22	58.42	100	1874	105	18.46	32.21	260	1595	425	0.00	47.7
BTS 80RR52	122	331.8	96	10257	98	1.50	54.82	93	1696	95	18.08	30.96	236	1839	584	0.00	44.0
BTS 89RR10	115	369.0	107	10078	96	1.39	65.22	111	1779	100	19.84	27.33	257	1832	492	0.00	50.6
BTS 89RR30	126	330.8	96	10834	103	1.39	54.55	93	1786	101	17.93	32.79	362	1832	462	0.00	43.5
BTS 89RR40	118	349.0	101	10298	98	1.45	59.62	102	1761	99	18.89	29.45	250	1828	549	0.00	40.5
BTS 89RR50	102	332.0	96	10329	99	1.53	54.90	94	1704	96	18.14	31.25	341	1952	542	0.00	45.7
BTS 89RR83	123	344.2	100	10967	105	1.17	58.31	99	1857	105	18.38	31.86	252	1611	386	0.00	50.9
Crystal 095RR	114	343.1	99	10402	99	1.42	57.99	99	1757	99	18.57	30.33	232	1766	547	0.00	44.0
Crystal 658RR	130	340.3	98	11094	106	1.12	57.20	97	1863	105	18.14	32.69	182	1559	386	0.00	45.6
Crystal 765RR	120	358.1	104	11234	107	1.24	62.18	106	1951	110	19.14	31.35	302	1612	421	0.00	43.7
Crystal 768RR	107	351.3	102	11663	111	1.29	60.28	103	1999	112	18.85	33.31	210	1739	463	0.00	46.0
Crystal 875RR	113	332.9	96	9996	95	1.40	55.13	94	1652	93	18.04	30.07	294	1772	507	0.00	48.0
Crystal 878RR	128	345.7	100	10529	100	1.30	58.72	100	1784	100	18.58	30.52	204	1753	470	0.00	44.7
Crystal 985RR	124	340.6	99	10146	97	1.34	57.30	98	1705	96	18.37	29.84	247	1691	497	0.00	51.3
Crystal 986RR	103	364.2	105	10716	102	1.22	63.90	109	1878	106	19.43	29.59	230	1610	432	0.00	54.4
Hilleshög 4012RR	131	339.8	98	10310	98	1.43	57.07	97	1728	97	18.43	30.45	375	1832	479	0.00	45.9
Hilleshög 4022RR	112	336.2	97	10129	97	1.46	56.05	96	1687	95	18.27	30.17	314	1869	515	0.00	51.4
Hilleshög 4043RR	121	347.6	101	9461	90	1.28	59.24	101	1612	91	18.66	27.26	206	1677	469	0.36	32.5
Hilleshög 4094RR	101	338.8	98	9813	94	1.52	56.79	97	1642	92	18.46	28.96	303	1941	555	0.00	50.3
Hilleshog 4195RR	119	329.4	95	10188	97	1.49	54.16	92	1678	94	17.96	30.83	373	1819	530	0.00	45.3
Seedex Usher RR	125	341.4	99	10786	103	1.23	57.52	98	1817	102	18.31	31.59	269	1517	452	0.21	52.9
Seedex Victor RR(SX0894)	106	348.0	101	10673	102	1.17	59.36	101	1820	102	18.57	30.61	214	1620	396	0.14	46.7
Seedex Vision RR(SX0891)	110	357.0	103	10718	102	1.11	61.88	105	1858	105	18.97	30.09	175	1552	386	0.00	51.1
Seedex Wrangler RR(808)	108	338.6	98	10407	99	1.33	56.73	97	1740	98	18.26	30.81	246	1841	453	0.00	47.4
SESVdh 36711RR	116	338.3	98	10171	97	1.35	56.65	97	1705	96	18.26	29.92	280	1690	493	0.00	41.6
SESVdh 36812RR	127	341.5	99	9457	90	1.31	57.53	98	1588	89	18.38	27.92	265	1696	470	0.00	40.0
SESVdh 36813RR	111	353.6	102	11049	105	1.26	60.93	104	1905	107	18.94	31.26	208	1669	452	0.22	47.4
SESVdh 36916RR	117	346.2	100	10406	99	1.14	58.87	100	1766	99	18.45	30.15	232	1549	385	0.07	49.7
SESVdh 36917RR	129	354.5	103	10582	101	1.18	61.17	104	1828	103	18.90	29.67	163	1718	400	0.00	46.3
SESVdh 36918RR	105	355.3	103	10921	104	1.15	61.39	105	1888	106	18.92	30.62	175	1716	372	0.00	55.0
Beta 85RR02(Check)	132	352.2	102	9870	94	1.33	60.53	103	1694	95	18.95	28.04	266	1704	485	0.00	42.0
Trial Mean		345.6		10477		1.31	58.69		1777		18.59	30.36	252	1717	463	0.0	46.6
Coeff. of Var. (%)		3.1		5.0		7.8	5.0		6.1		2.7	4.7	22.2	7.5	10.7		23.0
Mean LSD (0.05)		13.2		649		0.12	3.68		135		0.63	1.74	70	151	60		12.2
Mean LSD (0.01)		17.4		857		0.16	4.87		178		0.84	2.30	92	200	80		16.2
Sig Lvl		**		**		**	**		**		**	**	**	**	**		ns

* 2012 Data from Ada MN

Analyzed 10/23/2012 10:40

Created 10-24-2012.

^ Vigor not collected.

Trial # = 128603

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

1-Nov 10:21

Table 6. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - Hillsboro ND

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	109	407.6	104	9827	100	1.14	76.00	106	1833	102	21.51	24.16	151	1705	372	0.00	58.0
BTS 80RR32	104	397.8	101	10303	105	1.19	73.27	102	1894	105	21.07	25.99	239	1737	377	0.00	57.7
BTS 80RR52	122	387.3	99	9830	100	1.46	70.34	98	1782	99	20.81	25.52	241	1995	515	0.07	52.9
BTS 89RR10	115	404.9	103	9528	97	1.38	75.27	105	1764	98	21.61	23.69	220	2044	446	0.07	62.3
BTS 89RR30	126	378.9	96	9650	98	1.48	67.99	94	1729	96	20.39	25.49	333	2114	463	0.00	47.9
BTS 89RR40	118	386.3	98	9260	94	1.48	70.07	97	1680	93	20.80	24.02	264	2045	502	0.00	52.4
BTS 89RR50	102	373.4	95	9875	100	1.62	66.47	92	1752	97	20.30	26.56	329	2297	523	0.00	63.4
BTS 89RR83	123	385.6	98	10022	102	1.31	69.86	97	1809	101	20.58	26.19	296	1870	414	0.00	58.6
Crystal 095RR	114	391.1	99	9938	101	1.42	71.41	99	1813	101	20.99	25.43	219	1903	512	0.00	51.7
Crystal 658RR	130	404.1	103	9747	99	1.14	75.02	104	1799	100	21.31	24.35	200	1743	352	0.00	64.4
Crystal 765RR	120	402.9	102	9917	101	1.33	74.69	104	1832	102	21.48	24.71	278	1959	412	0.00	57.0
Crystal 768RR	107	395.3	101	10178	103	1.34	72.57	101	1862	104	21.09	25.87	222	2009	422	0.00	54.6
Crystal 875RR	113	388.4	99	9398	95	1.45	70.63	98	1710	95	20.89	24.21	309	1982	484	0.00	59.4
Crystal 878RR	128	396.2	101	10027	102	1.36	72.83	101	1844	103	21.16	25.29	204	1973	461	0.00	54.0
Crystal 985RR	124	386.1	98	9446	96	1.29	70.01	97	1705	95	20.60	24.67	230	1825	428	0.00	53.7
Crystal 986RR	103	410.2	104	9837	100	1.17	76.72	107	1843	103	21.68	23.95	216	1745	366	0.00	48.3
Hilleshög 4012RR	131	386.1	98	9616	98	1.35	70.01	97	1744	97	20.66	24.93	329	2030	384	0.00	53.7
Hilleshög 4022RR	112	387.9	99	9566	97	1.46	70.51	98	1733	96	20.86	24.78	242	2034	503	0.00	55.3
Hilleshög 4043RR	121	396.7	101	9137	93	1.31	72.97	101	1673	93	21.12	23.25	186	1866	450	0.36	45.0
Hilleshög 4094RR	101	378.6	96	9722	99	1.48	67.89	94	1736	97	20.41	25.85	268	2138	482	0.00	53.9
Hilleshog 4195RR	119	374.1	95	10200	104	1.46	66.64	93	1815	101	20.18	27.37	326	2078	460	0.00	60.7
Seedex Usher RR	125	397.2	101	10102	103	1.32	73.11	102	1856	103	21.18	25.53	239	1934	423	0.00	52.1
Seedex Victor RR(SX0894)	106	396.1	101	9865	100	1.25	72.81	101	1807	101	21.08	25.07	186	1905	392	0.14	62.5
Seedex Vision RR(SX0891)	110	401.8	102	9850	100	1.21	74.40	103	1814	101	21.30	24.75	159	1858	388	0.07	56.6
Seedex Wrangler RR(808)	108	392.2	100	9886	100	1.31	71.71	100	1807	101	20.97	25.22	209	1968	414	0.00	53.3
SESVdh 36711RR	116	392.6	100	10459	106	1.23	71.83	100	1913	106	20.89	26.71	186	1797	411	0.14	56.1
SESVdh 36812RR	127	389.4	99	9616	98	1.36	70.93	99	1750	97	20.85	24.70	245	2000	433	0.00	50.0
SESVdh 36813RR	111	387.7	99	9953	101	1.29	70.45	98	1807	101	20.67	25.72	233	1929	402	0.29	54.1
SESVdh 36916RR	117	398.3	101	10259	104	1.34	73.40	102	1887	105	21.24	25.88	218	1954	440	0.00	56.6
SESVdh 36917RR	129	401.5	102	10120	103	1.19	74.29	103	1870	104	21.28	25.24	181	1936	345	0.22	52.1
SESVdh 36918RR	105	406.1	103	10502	107	1.15	75.60	105	1953	109	21.44	25.93	131	1827	354	0.00	57.8
Beta 85RR02(Check)	132	397.8	101	9407	96	1.39	73.28	102	1730	96	21.30	23.70	267	1897	477	0.00	52.9
Trial Mean		393.1		9845		1.33	71.97		1798		20.99	25.15	236	1940	431	0.0	55.3
Coeff. of Var. (%)		2.5		5.8		8.8	3.8		6.2		2.1	5.9	17.8	5.7	15.7		16.6
Mean LSD (0.05)		12.4		733		0.14	3.47		143		0.58	1.91	52	135	81		10.4
Mean LSD (0.01)		16.4		969		0.19	4.59		188		0.77	2.53	69	178	107		13.8
Sig Lvl		**		*		**	**		**		**	**	**	**	**		ns

* 2012 Data from Hillsboro ND

Analyzed 10/23/2012 12:24

Created 10-24-2012.

^ Vigor not collected.

Trial # = 128604

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

1-Nov 10:24

Table 7. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - Crookston MN

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	109	404.7	106	8524	99	0.88	75.21	109	1585	102	21.11	20.99	103	1418	265	0.00	62.0
BTS 80RR32	104	390.8	102	8437	98	0.94	71.31	103	1547	99	20.48	21.38	143	1467	287	0.00	62.8
BTS 80RR52	122	379.2	99	8095	94	1.16	68.09	99	1452	93	20.13	21.42	132	1782	377	0.00	54.9
BTS 89RR10	115	398.7	104	8198	95	1.08	73.52	106	1507	97	21.02	20.66	124	1713	336	0.00	60.4
BTS 89RR30	126	369.1	96	8309	96	1.26	65.27	94	1464	94	19.73	22.70	203	1882	406	0.00	55.6
BTS 89RR40	118	390.7	102	8735	101	1.17	71.30	103	1593	102	20.71	22.40	142	1743	390	0.00	61.4
BTS 89RR50	102	367.1	96	9139	106	1.32	64.70	94	1614	104	19.67	24.75	157	1950	448	0.00	56.1
BTS 89RR83	123	378.2	99	9528	110	1.11	67.81	98	1709	110	20.03	25.19	174	1692	347	0.00	61.6
Crystal 095RR	114	384.0	100	8769	102	1.15	69.41	100	1581	102	20.35	22.94	136	1656	402	0.00	60.4
Crystal 658RR	130	375.5	98	8554	99	1.00	67.03	97	1530	98	19.77	22.69	145	1564	307	0.00	61.2
Crystal 765RR	120	404.7	106	8704	101	1.01	75.20	109	1614	104	21.26	21.63	139	1623	300	0.00	60.4
Crystal 768RR	107	374.8	98	8834	102	1.17	66.84	97	1571	101	19.91	23.69	167	1833	356	0.00	64.3
Crystal 875RR	113	374.0	98	8453	98	1.24	66.63	96	1509	97	19.93	22.50	181	1823	409	0.00	60.2
Crystal 878RR	128	388.6	101	8585	100	1.13	70.70	102	1562	100	20.55	22.10	144	1718	363	0.00	52.6
Crystal 985RR	124	388.1	101	8370	97	1.07	70.56	102	1525	98	20.47	21.45	154	1576	353	0.00	56.5
Crystal 986RR	103	394.6	103	8710	101	0.98	72.36	105	1593	102	20.72	22.16	135	1537	301	0.00	56.3
Hilleshög 4012RR	131	382.3	100	9064	105	1.10	68.95	100	1636	105	20.20	23.64	181	1780	314	0.00	66.0
Hilleshög 4022RR	112	378.6	99	8388	97	1.20	67.90	98	1502	97	20.12	22.17	149	1904	368	0.00	60.0
Hilleshög 4043RR	121	389.2	102	8361	97	1.02	70.88	103	1531	98	20.48	21.27	120	1585	329	0.60	47.6
Hilleshög 4094RR	101	383.8	100	8702	101	1.20	69.35	100	1570	101	20.39	22.75	146	1978	348	0.00	64.6
Hilleshog 4195RR	119	366.2	96	8806	102	1.34	64.44	93	1556	100	19.64	23.93	230	2016	421	0.00	60.7
Seedex Usher RR	125	378.8	99	8432	98	1.06	67.97	98	1510	97	20.00	22.34	126	1673	332	0.00	63.2
Seedex Victor RR(SX0894)	106	383.1	100	8359	97	0.97	69.16	100	1507	97	20.12	21.88	128	1546	296	0.09	57.3
Seedex Vision RR(SX0891)	110	396.3	103	8679	101	0.98	72.85	105	1595	103	20.79	21.92	122	1607	290	0.00	56.8
Seedex Wrangler RR(808)	108	372.5	97	8251	96	1.07	66.20	96	1467	94	19.69	22.10	163	1766	298	0.00	58.6
SESVdh 36711RR	116	373.2	97	9326	108	1.08	66.41	96	1658	107	19.74	25.07	143	1686	334	0.26	60.9
SESVdh 36812RR	127	379.8	99	9260	107	1.06	68.23	99	1663	107	20.05	24.38	132	1681	328	0.00	58.6
SESVdh 36813RR	111	380.9	99	8848	103	1.04	68.54	99	1594	102	20.07	23.25	137	1744	289	0.26	59.1
SESVdh 36916RR	117	382.8	100	9071	105	1.02	69.09	100	1632	105	20.18	23.81	142	1660	301	0.09	56.5
SESVdh 36917RR	129	372.6	97	8275	96	1.09	66.22	96	1470	94	19.71	22.20	125	1772	327	0.00	63.0
SESVdh 36918RR	105	392.8	103	8392	97	0.95	71.86	104	1531	98	20.59	21.50	119	1624	262	0.00	65.8
Beta 85RR02(Check)	132	377.6	99	7942	92	1.19	67.63	98	1422	91	20.08	21.10	178	1786	386	0.00	50.6
Trial Mean		382.9		8628		1.09	69.11		1556		20.24	22.56	148	1712	340	0.0	59.2
Coeff. of Var. (%)		2.6		5.9		7.6	4.0		6.6		2.3	5.6	15.1	5.8	14.0		11.5
Mean LSD (0.05)		13.0		727		0.11	3.64		145		0.60	1.78	31	135	64		8.5
Mean LSD (0.01)		17.2		962		0.15	4.82		192		0.79	2.36	41	179	85		11.2
Sig Lvl		**		**		**	**		*		**	**	**	**	**		**

* 2012 Data from Crookston MN

Analyzed 10/24/2012 12:09

Created 10-24-2012.

^ Vigor not collected.

Trial # = 128606

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

1-Nov 10:26

Table 8. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - Grand Forks ND

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	109	352.2	107	10881	103	1.13	60.54	113	1863	108	18.74	30.69	228	1761	328	0.00	55.6
BTS 80RR32	104	329.6	101	10825	103	1.29	54.21	101	1788	104	17.77	33.04	370	1952	345	0.00	62.1
BTS 80RR52	122	333.3	102	11191	106	1.50	55.25	103	1853	107	18.16	34.05	302	2177	473	0.07	54.6
BTS 89RR10	115	346.1	106	9872	94	1.49	58.82	110	1679	97	18.80	28.69	411	2158	430	0.00	50.2
BTS 89RR30	126	313.6	96	11476	109	1.39	49.75	93	1817	105	17.07	36.59	396	2164	359	0.00	52.9
BTS 89RR40	118	329.6	101	11034	105	1.42	54.21	101	1819	106	17.90	33.39	377	1994	433	0.00	54.8
BTS 89RR50	102	304.2	93	11114	105	1.78	47.11	88	1717	100	16.98	36.85	533	2410	543	0.00	56.1
BTS 89RR83	123	310.1	95	11052	105	1.41	48.76	91	1745	101	16.92	35.52	480	2024	381	0.00	54.8
Crystal 095RR	114	327.9	100	10553	100	1.51	53.74	100	1721	100	17.91	31.85	379	2041	490	0.00	51.8
Crystal 658RR	130	317.7	97	10104	96	1.23	50.90	95	1613	94	17.11	31.71	319	1961	314	0.00	59.7
Crystal 765RR	120	343.5	105	10912	103	1.40	58.10	108	1851	107	18.58	31.75	399	2005	408	0.00	57.7
Crystal 768RR	107	317.4	97	10713	102	1.59	50.80	95	1719	100	17.47	33.68	474	2230	469	0.00	56.4
Crystal 875RR	113	323.2	99	10185	97	1.49	52.42	98	1651	96	17.65	31.43	376	2169	445	0.00	59.4
Crystal 878RR	128	324.9	99	10583	100	1.52	52.91	99	1718	100	17.77	32.64	330	2158	485	0.00	53.8
Crystal 985RR	124	341.1	104	10795	102	1.32	57.43	107	1814	105	18.37	31.75	328	1991	371	0.00	52.4
Crystal 986RR	103	349.6	107	11301	107	1.23	59.81	111	1934	112	18.71	32.52	312	1840	352	0.00	58.8
Hilleshög 4012RR	131	313.1	96	10644	101	1.47	49.62	92	1683	98	17.13	33.90	593	2149	350	0.00	59.5
Hilleshög 4022RR	112	321.2	98	10054	95	1.52	51.86	97	1613	94	17.57	31.55	423	2147	453	0.00	58.4
Hilleshög 4043RR	121	338.9	103	9900	94	1.26	56.80	106	1656	96	18.20	29.43	234	2013	359	0.14	43.3
Hilleshög 4094RR	101	315.3	96	9972	95	1.53	50.21	94	1583	92	17.30	31.73	436	2183	449	0.00	58.3
Hilleshog 4195RR	119	329.1	100	10518	100	1.49	54.07	101	1736	101	17.95	32.05	460	2165	413	0.00	53.5
Seedex Usher RR	125	330.7	101	10438	99	1.23	54.51	102	1714	99	17.76	31.60	292	1866	349	0.07	58.6
Seedex Victor RR(SX0894)	106	335.3	102	10207	97	1.24	55.81	104	1694	98	18.01	30.41	277	1958	343	0.07	59.5
Seedex Vision RR(SX0891)	110	343.2	105	10751	102	1.17	58.01	108	1822	106	18.33	31.36	244	1878	321	0.00	60.6
Seedex Wrangler RR(808)	108	315.2	96	9982	95	1.37	50.19	93	1593	92	17.13	31.80	401	2060	368	0.07	52.3
SESVdh 36711RR	116	315.7	96	10373	98	1.38	50.33	94	1653	96	17.16	32.64	437	1894	404	0.14	60.2
SESVdh 36812RR	127	308.9	94	10383	98	1.47	48.43	90	1632	95	16.92	33.39	455	2058	427	0.00	51.9
SESVdh 36813RR	111	330.3	101	10458	99	1.20	54.42	101	1721	100	17.72	31.66	285	1922	319	0.21	59.2
SESVdh 36916RR	117	325.9	99	10578	100	1.33	53.17	99	1723	100	17.62	32.56	322	1999	380	0.07	56.0
SESVdh 36917RR	129	341.8	104	10668	101	1.26	57.61	107	1798	104	18.35	31.31	262	2036	338	0.07	56.7
SESVdh 36918RR	105	333.1	102	10342	98	1.31	55.18	103	1711	99	17.96	31.06	286	2064	363	0.00	59.3
Beta 85RR02(Check)	132	324.0	99	9516	90	1.59	52.66	98	1544	90	17.79	29.35	507	2188	461	0.00	47.0
Trial Mean		327.7		10543		1.39	53.68		1724		17.78	32.25	373	2051	398	0.0	55.8
Coeff. of Var. (%)		3.9		5.4		8.7	6.6		7.5		3.1	4.1	22.6	5.6	13.5		9.4
Mean LSD (0.05)		15.7		665		0.15	4.39		154		0.67	1.62	104	140	66		6.1
Mean LSD (0.01)		20.8		878		0.20	5.80		203		0.89	2.14	138	185	87		8.1
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Grand Forks ND Analyzed 10/24/2012 12:27 Created 10-24-2012.

^ Vigor not collected. Trial # = 128607

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

1-Nov 10:27

Table 9. 2012 Performance of Varieties - ACSC RR Commercial Yield Trial - St Thomas ND

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	109	358.9	105	9355	101	1.27	62.41	109	1625	104	19.21	26.08	132	2192	357	0.00	37.8
BTS 80RR32	104	335.7	98	9595	103	1.46	55.91	97	1592	102	18.24	28.72	225	2391	412	0.00	45.9
BTS 80RR52	122	346.7	102	9883	106	1.45	59.00	103	1685	108	18.81	28.48	183	2436	409	0.00	36.6
BTS 89RR10	115	375.1	110	9078	98	1.43	66.94	117	1617	104	20.18	24.28	186	2526	369	0.00	38.6
BTS 89RR30	126	323.3	95	9860	106	1.48	52.46	91	1599	102	17.64	30.52	254	2608	359	0.00	37.8
BTS 89RR40	118	345.6	101	9890	106	1.67	58.69	102	1677	107	18.96	28.64	224	2737	488	0.00	37.6
BTS 89RR50	102	325.9	96	9710	105	1.73	53.17	93	1582	101	18.02	29.87	276	3010	438	0.00	34.6
BTS 89RR83	123	320.9	94	9809	106	1.50	51.79	90	1580	101	17.55	30.62	217	2585	401	0.00	36.4
Crystal 095RR	114	358.2	105	9898	107	1.42	62.21	108	1717	110	19.32	27.67	169	2459	387	0.00	41.0
Crystal 658RR	130	331.5	97	9241	99	1.34	54.73	95	1525	98	17.91	27.91	202	2318	350	0.00	44.2
Crystal 765RR	120	355.8	104	9970	107	1.43	61.55	107	1726	111	19.22	28.00	216	2409	389	0.00	41.5
Crystal 768RR	107	346.0	101	10237	110	1.46	58.79	102	1741	112	18.77	29.58	185	2540	393	0.00	38.1
Crystal 875RR	113	348.4	102	9729	105	1.50	59.48	104	1663	107	18.93	27.84	223	2585	392	0.00	45.1
Crystal 878RR	128	337.0	99	9163	99	1.53	56.27	98	1529	98	18.37	27.23	212	2579	420	0.00	32.8
Crystal 985RR	124	336.4	99	8941	96	1.44	56.12	98	1487	95	18.26	26.70	219	2460	386	0.00	33.0
Crystal 986RR	103	351.3	103	9697	104	1.34	60.29	105	1658	106	18.90	27.71	202	2255	364	0.00	43.6
Hilleshög 4012RR	131	330.4	97	9081	98	1.58	54.45	95	1490	95	18.08	27.60	290	2742	394	0.00	40.3
Hilleshög 4022RR	112	333.7	98	8753	94	1.49	55.35	96	1451	93	18.18	26.30	227	2666	364	0.07	45.9
Hilleshög 4043RR	121	338.0	99	7568	81	1.48	56.55	98	1264	81	18.39	22.47	191	2486	422	0.21	20.1
Hilleshög 4094RR	101	340.0	100	8708	94	1.54	57.11	99	1455	93	18.55	25.85	217	2738	389	0.00	49.3
Hilleshog 4195RR	119	311.7	91	8318	90	1.73	49.20	86	1314	84	17.31	26.68	313	2994	437	0.00	28.6
Seedex Usher RR	125	333.6	98	9322	100	1.38	55.34	96	1545	99	18.06	27.97	201	2442	350	0.00	43.1
Seedex Victor RR(SX0894)	106	351.4	103	9136	98	1.33	60.31	105	1567	100	18.90	26.05	194	2398	323	0.00	35.0
Seedex Vision RR(SX0891)	110	353.5	104	9693	104	1.34	60.88	106	1671	107	19.02	27.39	155	2436	339	0.07	43.1
Seedex Wrangler RR(808)	108	335.7	98	9128	98	1.40	55.93	97	1523	98	18.19	27.14	183	2629	323	0.00	33.6
SESVdh 36711RR	116	342.8	100	10028	108	1.39	57.92	101	1691	108	18.53	29.33	189	2371	382	0.00	40.3
SESVdh 36812RR	127	332.0	97	9064	98	1.51	54.88	96	1490	95	18.09	27.49	265	2614	378	0.00	33.7
SESVdh 36813RR	111	330.5	97	9125	98	1.43	54.47	95	1501	96	17.96	27.72	209	2475	372	0.07	43.0
SESVdh 36916RR	117	338.2	99	8884	96	1.33	56.62	99	1488	95	18.26	26.31	170	2386	338	0.07	38.5
SESVdh 36917RR	129	354.5	104	9323	100	1.27	61.17	107	1604	103	19.00	26.44	157	2341	308	0.07	42.4
SESVdh 36918RR	105	343.1	101	8883	96	1.35	58.00	101	1501	96	18.51	25.89	180	2412	341	0.00	45.9
Beta 85RR02(Check)	132	348.6	102	8178	88	1.52	59.52	104	1395	89	18.95	23.51	241	2563	414	0.00	23.2
Trial Mean		341.1		9289		1.45	57.42		1561		18.51	27.31	210	2525	381	0.0	38.5
Coeff. of Var. (%)		4.5		6.6		9.2	7.4		8.8		3.7	5.2	21.7	7.7	15.1		18.0
Mean LSD (0.05)		19.2		770		0.16	5.35		173		0.87	1.79	56	234	71		8.8
Mean LSD (0.01)		25.3		1018		0.21	7.07		228		1.15	2.36	74	309	93		11.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from St Thomas ND Analyzed 10/24/2012 14:04 Created 10-24-2012.

^ Vigor not collected. Trial # = 128609

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

1-Nov 10:28

Table 10. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - 6 sites

justed 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 81RR17	214	350.4	99	10213	102	1.51	60.01	98	1736	101	19.01	29.48	243	2123	504	0.00	58.4
BTS 81RR41	222	378.0	106	10544	105	1.23	67.61	110	1874	109	20.14	28.16	190	1744	414	0.04	58.1
BTS 81RR78	243	368.2	104	10043	100	1.26	64.88	106	1761	103	19.67	27.51	177	1803	418	0.00	53.8
BTS 82RR11	206	346.7	98	10975	110	1.40	58.99	96	1856	108	18.73	31.97	263	2166	408	0.08	61.2
BTS 82RR22	248	372.1	105	10283	103	1.23	65.98	108	1813	106	19.84	27.84	216	1845	380	0.00	66.7
BTS 82RR28	209	345.2	97	10674	107	1.41	58.58	96	1800	105	18.67	31.21	270	2091	437	0.00	60.4
BTS 82RR33	226	356.0	100	11989	120	1.19	61.56	100	2057	120	19.01	34.09	263	1891	328	0.04	62.4
BTS 82RR62	247	345.1	97	11892	119	1.24	58.55	96	2000	117	18.50	34.93	249	1981	349	0.31	62.7
BTS 82RR80	216	358.0	101	10242	102	1.33	62.09	101	1767	103	19.22	28.86	216	1857	448	0.00	59.2
BTS 82RR91	210	369.4	104	9357	93	1.41	65.23	106	1647	96	19.88	25.44	237	2059	453	0.04	61.9
Crystal 981RR	245	341.3	96	10623	106	1.60	57.52	94	1778	104	18.64	31.43	355	2313	492	0.00	56.3
Crystal 093RR	232	363.7	102	10055	100	1.35	63.67	104	1754	102	19.53	27.81	179	1961	453	0.00	50.6
Crystal 101RR	239	345.6	97	10351	103	1.52	58.69	96	1752	102	18.79	30.13	287	2250	468	0.00	53.0
Crystal 106RR	223	376.3	106	9733	97	1.23	67.12	110	1730	101	20.07	26.02	193	1716	425	0.00	55.1
Crystal 244RR	253	370.0	104	9263	93	1.31	65.42	107	1633	95	19.82	25.08	241	1944	405	0.04	56.7
Crystal 245RR	236	360.3	101	10044	100	1.39	62.73	102	1736	101	19.40	28.18	235	1934	473	0.19	52.8
Crystal 246RR	208	352.5	99	11821	118	1.20	60.60	99	2017	117	18.83	33.91	234	1929	332	0.04	56.0
Crystal 247RR	215	358.6	101	11224	112	1.18	62.27	102	1932	113	19.12	31.69	248	1921	318	0.00	53.5
Crystal 248RR	224	347.2	98	10787	108	1.34	59.13	96	1822	106	18.69	31.45	239	2084	393	0.04	55.3
Crystal 249RR	202	348.7	98	9034	90	1.57	59.56	97	1530	89	18.98	26.25	329	2271	487	0.35	55.0
Hilleshög 4236RR(9236)	220	366.9	103	9023	90	1.33	64.57	105	1579	92	19.68	24.81	230	1898	436	0.00	50.9
Hilleshög 4300RR(9300)	244	348.3	98	10001	100	1.36	59.42	97	1701	99	18.77	28.86	283	2114	386	0.00	56.4
Hilleshög 9302RR	235	362.8	102	9409	94	1.26	63.43	104	1634	95	19.40	26.20	240	1923	368	0.00	50.1
Hilleshög 4303RR(9303)	241	366.6	103	9529	95	1.33	64.48	105	1666	97	19.67	26.23	238	1901	430	0.00	50.0
Hilleshög 9409RR	217	358.1	101	10159	101	1.36	62.12	101	1756	102	19.26	28.53	274	1978	425	0.00	51.1
Hilleshög 9410RR	252	349.4	98	9556	95	1.38	59.73	97	1622	94	18.83	27.64	234	2085	424	0.00	56.2
Hilleshög 9411RR	229	343.9	97	9287	93	1.38	58.24	95	1564	91	18.57	27.23	284	2096	411	0.00	58.9
Hilleshög 9412RR	233	348.0	98	9912	99	1.45	59.37	97	1681	98	18.84	28.76	298	2167	436	0.00	56.9
Hilleshög 9413RR	204	349.6	98	9733	97	1.32	59.80	98	1658	97	18.80	28.04	250	2011	395	0.04	54.9
Hilleshög 9414RR	242	338.0	95	10563	106	1.42	56.60	92	1755	102	18.32	31.61	277	2107	441	0.00	52.1
Hilleshög 9415RR	227	340.1	96	9844	98	1.48	57.20	93	1644	96	18.47	29.23	306	2233	434	0.00	54.4
Hilleshög 9448RR	238	366.7	103	9907	99	1.20	64.50	105	1735	101	19.54	27.19	193	1746	392	0.00	50.8
Maribo 102RR	207	364.2	103	9664	97	1.24	63.79	104	1689	98	19.46	26.64	230	1777	402	0.00	49.5
Maribo 104RR	211	363.1	102	8668	87	1.27	63.50	104	1515	88	19.42	23.89	240	1801	409	0.00	48.4
Maribo 200RR	246	367.4	103	8583	86	1.38	64.69	106	1506	88	19.74	23.45	295	2130	393	0.00	57.0
Maribo 201RR	231	342.5	96	10240	102	1.32	57.83	94	1720	100	18.43	30.12	254	1980	396	0.00	52.9
Maribo 202RR	234	342.9	97	10357	103	1.35	57.94	95	1742	101	18.49	30.42	227	2057	414	0.00	53.4
Maribo 203RR	203	343.5	97	9451	94	1.45	58.09	95	1589	93	18.62	27.76	293	2207	433	0.00	54.6
Seedex SX0814RR	250	352.3	99	9589	96	1.30	60.53	99	1643	96	18.91	27.36	252	1951	394	0.19	49.0
Seedex SX0816RR	228	360.4	102	10484	105	1.17	62.76	102	1815	106	19.20	29.36	198	1910	321	0.00	55.5
Seedex SX0826RR	254	350.6	99	10008	100	1.33	60.06	98	1709	100	18.85	28.69	257	2065	385	0.00	51.9
Seedex SX0827RR	213	354.7	100	10082	101	1.28	61.22	100	1732	101	19.02	28.59	246	1926	386	0.19	51.4
Seedex SX0828RR	237	353.3	100	10023	100	1.26	60.80	99	1718	100	18.93	28.57	243	1953	361	0.12	50.4
Seedex SX0829NRR	218	356.9	101	9948	99	1.27	61.79	101	1713	100	19.11	28.09	247	1920	380	0.00	54.1
SESVdh 36175RR	201	349.6	98	10129	101	1.29	59.78	98	1720	100	18.76	29.27	253	2045	357	0.12	60.6
SESVdh 36179NRR	240	355.2	100	9857	98	1.24	61.34	100	1693	99	19.01	28.03	255	1934	352	0.08	50.7
SESVdh 36271RR	212	355.7	100	10034	100	1.26	61.48	100	1727	101	19.05	28.38	227	1924	375	0.04	51.7
SESVdh 36272RR	251	361.4	102	10865	109	1.09	63.03	103	1885	110	19.17	30.32	185	1819	288	0.00	54.5
SESVdh 36273RR	221	355.3	100	9823	98	1.22	61.38	100	1684	98	19.00	27.93	199	1956	349	0.00	57.7
SESVdh 36274RR	230	358.3	101	9543	95	1.27	62.20	102	1650	96	19.18	26.80	219	1964	371	0.00	46.5
SESVdh 36275RR	249	341.1	96	10017	100	1.30	57.46	94	1679	98	18.34	29.60	262	2084	351	0.00	52.6
SESVdh 36276NRR	225	351.3	99	9743	97	1.27	60.28	98	1660	97	18.82	28.02	240	1912	379	0.08	54.1
SESVdh 36277NRR	205	351.2	99	9538	95	1.30	60.24	98	1626	95	18.86	27.41	279	1953	383	0.15	51.8
SESVdh 36219TTRR	219	349.7	98	9969	100	1.28	59.83	98	1698	99	18.77	28.67	245	1878	396	0.19	54.0
Filler32	255	364.0	103	10286	103	1.15	63.75	104	1786	104	19.36	28.63	191	1801	341	0.00	51.7
Filler30	256	360.0	101	9260	93	1.35	62.64	102	1600	93	19.35	25.99	332	1933	414	0.00	53.1
Beta 85RR02(Check)	257	360.0	101	8969	90	1.39	62.66	102	1552	90	19.39	25.12	321	1981	435	0.00	46.6
Crystal 875RR(Check)	258	348.0	98	9348	93	1.46	59.36	97	1588	93	18.85	27.04	297	2094	466	0.00	57.3
Crystal 658RR(Check)	259	345.9	97	10323	103	1.15	58.78	96	1738	101	18.45	30.29	225	1812	330	0.00	55.2
Hilleshög 4012RR(Check)	260	349.7	98	9668	97	1.43	59.83	98	1645	96	18.91	27.89	351	2086	431	0.00	55.0
Trial Mean		355.0		10009		1.32	61.27		1717		19.07	28.47	251	1983	401	0.04	54.6
Coeff. of Var. (%)		2.4		6.2		7.0	3.8		6.8		2.1	6.1	18.8	5.4	11.8		13.3
Mean LSD (0.05)		7.1		655		0.07	1.96		117		0.33	1.92	37	90	37		5.2
Mean LSD (0.01)		9.4		863		0.09	2.58		154		0.44	2.53	48	119	49		6.8
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from 6 sites

10/24/2012 16:10

Created 10-24-2012.

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

Trial # = 12ACExp

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

Table 11. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - Casselton ND

justed 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 81RR17	214	326.0	97	11637	108	1.62	53.23	95	1913	107	17.92	35.37	272	2136	591	0.00	72.0
BTS 81RR41	222	356.6	106	12221	114	1.41	61.62	110	2116	118	19.25	34.23	225	1794	530	0.00	72.5
BTS 81RR78	243	354.1	105	11726	109	1.29	60.93	108	2021	113	19.03	33.15	206	1810	446	0.00	69.7
BTS 82RR11	206	327.8	97	10670	99	1.54	53.73	96	1752	98	17.93	32.51	346	2196	489	0.00	72.9
BTS 82RR22	248	353.7	105	10802	101	1.36	60.82	108	1862	104	19.04	30.38	266	1952	424	0.00	79.5
BTS 82RR28	209	327.6	97	11452	107	1.61	53.66	96	1890	105	17.98	34.72	345	2287	520	0.00	75.8
BTS 82RR33	226	328.4	98	13348	124	1.22	53.89	96	2202	123	17.67	40.45	311	1873	338	0.00	73.0
BTS 82RR62	247	329.3	98	13628	127	1.23	54.14	96	2241	125	17.72	41.41	247	1851	369	0.21	75.9
BTS 82RR80	216	339.2	101	11297	105	1.40	56.85	101	1905	106	18.36	32.92	244	1862	500	0.00	78.6
BTS 82RR91	210	348.9	104	9170	85	1.61	59.52	106	1567	87	19.05	26.17	298	2156	559	0.21	78.9
Crystal 981RR	245	326.3	97	10267	96	1.69	53.31	95	1672	93	18.00	31.67	443	2311	544	0.00	62.0
Crystal 093RR	232	343.1	102	10535	98	1.47	57.90	103	1784	99	18.63	30.50	197	2011	524	0.00	60.9
Crystal 101RR	239	331.2	98	10854	101	1.70	54.65	97	1797	100	18.24	32.69	369	2273	582	0.00	71.4
Crystal 106RR	223	356.3	106	10708	100	1.38	61.53	110	1859	104	19.20	29.76	238	1727	516	0.00	66.8
Crystal 244RR	253	348.3	103	8950	83	1.42	59.32	106	1539	86	18.84	25.42	286	2000	465	0.00	75.5
Crystal 245RR	236	331.8	99	9493	88	1.59	54.83	98	1568	87	18.18	28.66	335	1950	595	0.00	68.2
Crystal 246RR	208	334.4	99	13284	124	1.22	55.51	99	2213	123	17.97	39.58	257	1764	386	0.21	66.4
Crystal 247RR	215	338.2	100	13547	126	1.19	56.59	101	2269	126	18.12	40.01	231	1873	338	0.00	66.6
Crystal 248RR	224	333.7	99	11297	105	1.49	55.33	99	1875	104	18.20	33.85	299	2068	503	0.00	60.7
Crystal 249RR	202	319.7	95	8502	79	1.86	51.50	92	1370	76	17.81	26.57	493	2368	635	0.43	68.0
Hilleshög 4236RR(9236)	220	349.3	104	9393	87	1.50	59.62	106	1604	89	18.96	26.81	281	1967	530	0.00	62.5
Hilleshög 4300RR(9300)	244	336.0	100	10534	98	1.44	55.96	100	1767	98	18.24	31.05	354	2012	455	0.00	67.9
Hilleshög 9302RR	235	340.1	101	9845	92	1.44	57.09	102	1664	93	18.43	28.73	326	1932	480	0.00	61.5
Hilleshög 4303RR(9303)	241	346.9	103	9841	92	1.44	58.95	105	1675	93	18.80	28.39	335	1823	515	0.00	64.7
Hilleshög 9409RR	217	333.8	99	10457	97	1.46	55.35	99	1742	97	18.17	31.22	366	1949	491	0.00	67.0
Hilleshög 9410RR	252	335.7	100	10413	97	1.44	55.90	100	1741	97	18.24	30.83	261	2038	478	0.00	78.6
Hilleshög 9411RR	229	327.3	97	10287	96	1.37	53.56	95	1698	95	17.74	31.06	291	1933	442	0.00	77.8
Hilleshög 9412RR	233	328.6	98	11162	104	1.47	53.95	96	1836	102	17.91	33.94	337	2069	473	0.00	73.8
Hilleshög 9413RR	204	339.7	101	10896	101	1.36	56.98	101	1820	101	18.35	32.27	312	1879	438	0.00	63.0
Hilleshög 9414RR	242	316.5	94	11313	105	1.50	50.60	90	1812	101	17.32	35.68	347	2005	508	0.00	69.6
Hilleshög 9415RR	227	324.9	97	11027	103	1.50	52.94	94	1798	100	17.76	34.03	343	2101	487	0.00	76.5
Hilleshög 9448RR	238	342.9	102	11450	107	1.29	57.86	103	1944	108	18.45	33.10	249	1681	463	0.00	70.2
Maribo 102RR	207	344.4	102	9831	92	1.37	58.26	104	1678	93	18.60	28.32	297	1794	476	0.00	61.8
Maribo 104RR	211	352.5	105	10315	96	1.27	60.50	108	1784	99	18.90	28.90	298	1724	411	0.00	63.2
Maribo 200RR	246	354.8	105	8828	82	1.62	61.11	109	1534	85	19.36	24.54	383	2288	512	0.00	73.6
Maribo 201RR	231	325.2	97	10073	94	1.49	53.00	94	1655	92	17.76	30.65	335	1975	512	0.00	58.8
Maribo 202RR	234	322.2	96	10336	96	1.46	52.20	93	1677	93	17.57	32.02	290	2018	486	0.00	71.1
Maribo 203RR	203	327.6	97	10976	102	1.47	53.65	96	1797	100	17.85	33.61	356	2004	484	0.00	69.7
Seedex SX0814RR	250	341.7	101	9847	92	1.32	57.52	102	1679	94	18.41	28.27	285	1860	426	0.64	50.4
Seedex SX0816RR	228	345.8	103	11408	106	1.25	58.65	104	1937	108	18.57	33.00	236	1966	359	0.00	61.0
Seedex SX0826RR	254	337.7	100	11004	102	1.34	56.42	100	1850	103	18.24	32.40	306	1903	424	0.00	60.8
Seedex SX0827RR	213	342.1	102	10185	95	1.37	57.64	103	1719	96	18.48	29.72	272	1874	460	0.21	56.8
Seedex SX0828RR	237	335.7	100	11164	104	1.25	55.89	100	1866	104	18.06	33.18	312	1844	370	0.21	61.2
Seedex SX0829NRR	218	335.4	100	10078	94	1.42	55.82	99	1688	94	18.21	29.82	338	1941	466	0.00	62.2
SESVdh 36175RR	201	333.5	99	11959	111	1.30	55.29	98	1987	111	17.99	35.74	302	1922	390	0.21	71.1
SESVdh 36179NRR	240	339.0	101	10864	101	1.28	56.78	101	1824	102	18.24	31.93	272	1810	408	0.00	65.2
SESVdh 36271RR	212	342.2	102	11326	105	1.23	57.68	103	1915	107	18.37	32.93	240	1819	383	0.00	59.9
SESVdh 36272RR	251	345.4	103	12615	117	1.11	58.55	104	2141	119	18.43	36.49	206	1745	325	0.00	66.6
SESVdh 36273RR	221	337.8	100	10675	99	1.28	56.45	101	1779	99	18.17	31.70	219	1934	386	0.00	70.0
SESVdh 36274RR	230	340.4	101	9309	87	1.31	57.18	102	1566	87	18.34	27.28	266	1907	412	0.00	50.7
SESVdh 36275RR	249	324.8	96	11124	104	1.24	52.91	94	1811	101	17.49	34.28	295	1840	364	0.00	58.6
SESVdh 36276NRR	225	336.5	100	10678	99	1.30	56.10	100	1785	99	18.11	31.53	242	1813	420	0.00	61.6
SESVdh 36277NRR	205	332.6	99	10270	96	1.33	55.04	98	1708	95	17.98	30.75	303	1832	441	0.00	60.3
SESVdh 36219TTRR	219	327.7	97	10127	94	1.32	53.71	96	1675	93	17.72	30.53	317	1688	462	0.21	66.0
Filler32	255	337.6	100	11305	105	1.27	56.41	100	1893	105	18.17	33.41	219	1894	397	0.00	60.5
Filler30	256	338.6	101	9608	89	1.49	56.69	101	1616	90	18.42	28.13	450	1856	503	0.00	61.1
Beta 85RR02(Check)	257	342.2	102	9641	90	1.50	57.66	103	1624	90	18.61	28.14	462	1901	492	0.00	60.6
Crystal 875RR(Check)	258	331.8	99	9575	89	1.55	54.83	98	1583	88	18.14	28.86	356	2126	507	0.00	71.9
Crystal 658RR(Check)	259	317.4	94	11898	111	1.21	50.89	91	1915	107	17.09	37.34	280	1740	366	0.00	70.7
Hilleshög 4012RR(Check)	260	333.4	99	9372	87	1.55	55.26	98	1558	87	18.24	28.05	397	2015	533	0.00	75.0
Trial Mean		336.7		10740		1.41	56.16		1796		18.25	31.81	304	1945	463	0.00	67.1
Coeff. of Var. (%)		2.4		6.1		6.7	3.9		6.8		2.0	5.9	16.0	5.1	10.9		10.8
Mean LSD (0.05)		12.1		1039		0.14	3.32		190		0.57	2.98	76	147	75		10.6
Mean LSD (0.01)		16.0		1374		0.18	4.39		250		0.74	3.94	100	193	99		14.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Casselton ND

10/24/2012 14:36

Created 10-24-2012.

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

Trial # = 128301

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

Table 12. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - Ada MN

justed 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 81RR17	214	337.6	98	10134	95	1.48	56.45	96	1695	94	18.38	30.03	242	1926	539	0.00	62.0
BTS 81RR41	222	377.5	109	10745	101	1.15	67.52	115	1915	106	20.02	28.59	151	1476	430	0.00	61.2
BTS 81RR78	243	354.0	102	10463	98	1.21	60.99	104	1803	100	18.93	29.52	169	1602	442	0.00	59.4
BTS 82RR11	206	345.5	100	12097	114	1.26	58.65	100	2046	114	18.56	35.14	211	1773	432	0.21	56.7
BTS 82RR22	248	367.5	106	11004	104	1.18	64.75	110	1935	108	19.57	29.98	192	1614	413	0.00	58.9
BTS 82RR28	209	344.2	100	11705	110	1.38	58.30	99	1978	110	18.59	34.09	246	1731	509	0.00	64.5
BTS 82RR33	226	344.9	100	13974	132	1.18	58.49	100	2366	131	18.44	40.56	266	1598	397	0.00	68.6
BTS 82RR62	247	339.1	98	12956	122	1.08	56.88	97	2171	121	18.04	38.28	200	1605	345	0.43	64.5
BTS 82RR80	216	349.2	101	11006	104	1.32	59.68	102	1879	104	18.79	31.57	175	1646	510	0.00	58.5
BTS 82RR91	210	360.7	104	9656	91	1.36	62.86	107	1686	94	19.41	26.71	223	1819	486	0.00	64.8
Crystal 981RR	245	332.7	96	11409	107	1.53	55.10	94	1885	105	18.18	34.38	309	2033	537	0.00	60.9
Crystal 093RR	232	352.4	102	10380	98	1.38	60.56	103	1784	99	19.01	29.48	185	1777	520	0.00	45.4
Crystal 101RR	239	342.1	99	10436	98	1.40	57.71	98	1759	98	18.52	30.54	252	1887	489	0.00	46.9
Crystal 106RR	223	364.3	105	9643	91	1.28	63.87	109	1684	94	19.51	26.67	158	1513	520	0.00	56.3
Crystal 244RR	253	357.8	103	9108	86	1.33	62.06	106	1586	88	19.23	25.26	221	1667	499	0.00	56.8
Crystal 245RR	236	352.3	102	10745	101	1.40	60.53	103	1840	102	19.03	30.58	226	1655	547	0.00	49.4
Crystal 246RR	208	335.2	97	13025	123	1.15	55.79	95	2164	120	17.91	38.95	235	1669	363	0.00	62.2
Crystal 247RR	215	356.3	103	12350	116	1.11	61.62	105	2135	119	18.93	34.67	243	1586	356	0.00	58.4
Crystal 248RR	224	339.4	98	11726	110	1.27	56.96	97	1961	109	18.26	34.67	208	1846	417	0.00	59.3
Crystal 249RR	202	346.0	100	8672	82	1.47	58.79	100	1474	82	18.78	25.14	248	1949	524	0.21	53.2
Hilleshög 4236RR(9236)	220	358.3	104	9521	90	1.30	62.20	106	1643	91	19.23	26.77	201	1638	492	0.00	51.3
Hilleshög 4300RR(9300)	244	333.9	97	10369	98	1.27	55.45	94	1718	95	17.98	31.18	265	1883	398	0.00	53.9
Hilleshög 9302RR	235	351.6	102	10458	98	1.16	60.33	103	1796	100	18.75	29.72	228	1641	384	0.00	48.8
Hilleshög 4303RR(9303)	241	356.9	103	10060	95	1.26	61.81	105	1743	97	19.12	28.16	213	1611	469	0.00	51.9
Hilleshög 9409RR	217	360.2	104	10686	101	1.24	62.70	107	1856	103	19.25	29.76	243	1663	428	0.00	36.3
Hilleshög 9410RR	252	328.7	95	9479	89	1.36	54.01	92	1557	86	17.80	28.90	237	1830	478	0.00	56.8
Hilleshög 9411RR	229	328.6	95	9987	94	1.29	53.98	92	1636	91	17.74	30.50	256	1786	439	0.00	53.4
Hilleshög 9412RR	233	342.6	99	9994	94	1.34	57.85	98	1681	93	18.48	29.31	277	1741	476	0.00	58.0
Hilleshög 9413RR	204	344.4	100	10315	97	1.23	58.33	99	1746	97	18.45	29.95	222	1632	429	0.00	61.1
Hilleshög 9414RR	242	324.4	94	10939	103	1.37	52.78	90	1775	99	17.61	33.88	237	1800	497	0.00	50.7
Hilleshög 9415RR	227	317.7	92	9693	91	1.52	50.93	87	1548	86	17.42	30.68	309	2029	527	0.00	55.0
Hilleshög 9448RR	238	355.9	103	10371	98	1.22	61.51	105	1789	99	19.01	29.24	180	1531	456	0.00	50.5
Maribo 102RR	207	352.4	102	10101	95	1.22	60.55	103	1738	97	18.84	28.62	215	1569	443	0.00	48.1
Maribo 104RR	211	363.3	105	9084	86	1.21	63.55	108	1589	88	19.36	25.04	210	1572	434	0.00	50.5
Maribo 200RR	246	352.5	102	9124	86	1.36	60.58	103	1562	87	18.99	26.00	283	1880	452	0.00	55.3
Maribo 201RR	231	332.5	96	10119	95	1.25	55.05	94	1673	93	17.88	30.53	223	1666	440	0.00	56.6
Maribo 202RR	234	330.6	96	11366	107	1.35	54.52	93	1875	104	17.88	34.41	238	1782	480	0.00	52.9
Maribo 203RR	203	329.5	95	9164	86	1.42	54.22	92	1507	84	17.90	27.90	308	1896	484	0.00	56.9
Seedex SX0814RR	250	338.4	98	10215	96	1.26	56.69	96	1710	95	18.20	30.27	240	1690	442	0.00	45.5
Seedex SX0816RR	228	357.6	103	11559	109	1.07	62.01	106	1995	111	18.96	32.51	185	1551	351	0.00	55.1
Seedex SX0826RR	254	337.7	98	10504	99	1.27	56.50	96	1756	98	18.18	31.19	265	1788	421	0.00	49.7
Seedex SX0827RR	213	346.4	100	10614	100	1.25	58.88	100	1800	100	18.57	30.68	204	1645	444	0.21	53.0
Seedex SX0828RR	237	348.7	101	10262	97	1.22	59.52	101	1753	97	18.67	29.37	208	1684	418	0.00	46.7
Seedex SX0829NRR	218	350.8	101	11273	106	1.24	60.11	102	1925	107	18.78	32.29	210	1690	426	0.00	48.4
SESVdh 36175RR	201	343.3	99	11364	107	1.12	58.04	99	1914	106	18.30	33.22	203	1618	367	0.00	65.2
SESVdh 36179NRR	240	328.3	95	9992	94	1.17	53.89	92	1637	91	17.60	30.43	315	1657	363	0.00	49.4
SESVdh 36271RR	212	342.2	99	10291	97	1.28	57.75	98	1735	96	18.41	30.01	221	1728	449	0.00	52.9
SESVdh 36272RR	251	358.4	104	12708	120	0.98	62.23	106	2204	122	18.90	35.52	176	1473	309	0.00	54.0
SESVdh 36273RR	221	346.9	100	10727	101	1.16	59.04	100	1823	101	18.52	30.98	197	1671	387	0.00	54.0
SESVdh 36274RR	230	353.2	102	10578	100	1.24	60.78	103	1820	101	18.91	29.92	180	1706	433	0.00	42.6
SESVdh 36275RR	249	335.3	97	10693	101	1.21	55.84	95	1778	99	17.97	31.93	236	1771	381	0.00	50.6
SESVdh 36276NRR	225	337.7	98	10226	96	1.30	56.49	96	1706	95	18.19	30.44	218	1768	459	0.00	57.7
SESVdh 36277NRR	205	344.1	99	11056	104	1.22	58.28	99	1869	104	18.43	32.14	217	1689	413	0.43	49.8
SESVdh 36219TTRR	219	348.8	101	10844	102	1.22	59.57	101	1849	103	18.67	31.10	183	1612	441	0.00	53.7
Filler32	255	357.7	103	11088	104	1.04	62.05	106	1914	106	18.93	31.21	175	1524	339	0.00	50.8
Filler30	256	347.6	100	10073	95	1.21	59.21	101	1714	95	18.58	29.03	302	1584	408	0.00	47.6
Beta 85RR02(Check)	257	351.4	102	10101	95	1.33	60.30	103	1731	96	18.93	28.75	288	1712	475	0.00	39.9
Crystal 875RR(Check)	258	343.0	99	9633	91	1.46	57.95	99	1629	91	18.60	28.14	278	1859	526	0.00	57.4
Crystal 658RR(Check)	259	329.7	95	11461	108	1.06	54.27	92	1883	105	17.54	34.81	198	1515	345	0.00	53.4
Hilleshög 4012RR(Check)	260	341.1	99	10075	95	1.43	57.42	98	1694	94	18.49	29.56	354	1782	510	0.00	48.4
Trial Mean		345.9		10623		1.26	58.75		1800		18.57	30.81	229	1704	443	0.00	54.0
Coeff. of Var. (%)		2.5		6.1		7.5	4.0		6.7		2.2	6.1	20.0	5.6	10.6		16.3
Mean LSD (0.05)		13.1		1012		0.14	3.64		187		0.62	2.93	70	145	72		12.6
Mean LSD (0.01)		17.4		1337		0.19	4.80		247		0.82	3.87	93	191	95		16.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Ada MN

10/23/2012 11:42

Created 10-24-2012.

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

Trial # = 128303

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

Table 13. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - Hillsboro ND

justed 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 81RR17	214	398.6	99	10190	100	1.49	73.50	99	1887	100	21.43	25.30	248	2032	527	0.00	50.4
BTS 81RR41	222	428.4	107	10896	107	1.18	82.01	110	2083	111	22.58	25.10	188	1616	423	0.00	51.9
BTS 81RR78	243	409.7	102	9836	96	1.15	76.69	103	1816	97	21.60	24.21	169	1644	397	0.00	52.4
BTS 82RR11	206	390.5	97	11224	110	1.38	71.23	96	2033	108	20.90	28.94	277	1944	458	0.00	69.8
BTS 82RR22	248	428.3	107	10701	105	1.08	81.99	110	2032	108	22.47	25.24	158	1641	340	0.00	70.9
BTS 82RR28	209	388.9	97	10434	102	1.27	70.76	95	1892	101	20.74	26.88	210	1875	413	0.00	57.8
BTS 82RR33	226	415.8	104	11993	117	1.06	78.41	105	2245	119	21.84	28.96	204	1738	289	0.00	52.1
BTS 82RR62	247	390.9	97	11916	117	1.14	71.32	96	2151	114	20.68	30.73	209	1791	334	0.28	61.0
BTS 82RR80	216	398.3	99	10532	103	1.29	73.44	99	1933	103	21.21	26.52	211	1831	443	0.00	54.1
BTS 82RR91	210	412.0	103	9791	96	1.41	77.35	104	1844	98	22.02	23.56	230	1878	510	0.00	65.0
Crystal 981RR	245	397.7	99	11527	113	1.46	73.27	98	2080	111	21.35	29.58	265	2185	458	0.00	59.8
Crystal 093RR	232	409.9	102	10628	104	1.33	76.73	103	1983	106	21.81	25.96	140	1895	468	0.00	54.4
Crystal 101RR	239	380.8	95	10659	104	1.60	68.46	92	1930	103	20.67	27.78	295	2216	550	0.00	55.6
Crystal 106RR	223	421.8	105	9915	97	1.17	80.12	108	1895	101	22.26	23.41	169	1594	418	0.00	61.0
Crystal 244RR	253	417.5	104	9923	97	1.26	78.92	106	1853	99	22.14	23.66	250	1854	394	0.00	57.6
Crystal 245RR	236	392.3	98	10666	104	1.31	71.74	96	1923	102	20.91	27.52	203	1780	468	0.28	55.3
Crystal 246RR	208	405.6	101	11905	116	1.12	75.50	101	2198	117	21.40	29.61	200	1783	318	0.00	51.9
Crystal 247RR	215	402.7	100	11406	112	1.16	74.69	100	2101	112	21.28	28.47	215	1826	343	0.00	51.0
Crystal 248RR	224	386.9	96	10968	107	1.32	70.22	94	1977	105	20.65	28.59	222	1926	435	0.28	59.0
Crystal 249RR	202	405.1	101	9235	90	1.47	75.37	101	1700	90	21.75	23.06	266	2048	502	0.28	57.0
Hilleshög 4236RR(9236)	220	412.4	103	8809	86	1.28	77.47	104	1656	88	21.90	21.35	199	1825	441	0.00	45.0
Hilleshög 4300RR(9300)	244	401.1	100	10345	101	1.24	74.26	100	1910	102	21.29	25.72	204	1905	379	0.00	63.0
Hilleshög 9302RR	235	416.8	104	9205	90	1.21	78.71	106	1714	91	21.99	22.54	212	1784	393	0.00	45.9
Hilleshög 4303RR(9303)	241	415.4	103	9671	95	1.28	78.34	105	1810	96	22.04	23.50	222	1828	428	0.00	50.4
Hilleshög 9409RR	217	403.5	100	10875	106	1.35	74.93	101	1986	106	21.53	27.25	217	1896	467	0.00	48.4
Hilleshög 9410RR	252	404.2	101	10224	100	1.31	75.09	101	1889	100	21.50	25.58	218	1955	415	0.00	50.7
Hilleshög 9411RR	229	398.5	99	10091	99	1.34	73.47	99	1867	99	21.30	25.16	239	2016	419	0.00	65.5
Hilleshög 9412RR	233	390.4	97	10354	101	1.47	71.18	96	1865	99	21.01	26.75	291	2066	489	0.00	60.7
Hilleshög 9413RR	204	388.4	97	10706	105	1.29	70.62	95	1929	103	20.75	27.77	221	1887	416	0.00	57.3
Hilleshög 9414RR	242	373.4	93	10315	101	1.45	66.35	89	1800	96	20.09	28.03	310	2171	449	0.00	47.9
Hilleshög 9415RR	227	382.3	95	10522	103	1.39	68.87	93	1893	101	20.52	27.49	273	2143	414	0.00	46.2
Hilleshög 9448RR	238	406.3	101	9936	97	1.17	75.74	102	1845	98	21.47	24.45	202	1735	371	0.00	43.6
Maribo 102RR	207	402.9	100	9927	97	1.18	74.74	100	1830	97	21.31	24.99	248	1716	366	0.00	56.7
Maribo 104RR	211	414.9	103	9667	95	1.19	78.18	105	1789	95	21.93	23.59	189	1665	409	0.00	54.4
Maribo 200RR	246	413.2	103	8896	87	1.35	77.68	104	1659	88	21.97	21.68	282	1998	421	0.00	56.4
Maribo 201RR	231	385.0	96	10005	98	1.29	69.65	94	1784	95	20.54	26.39	271	1926	393	0.00	41.6
Maribo 202RR	234	385.8	96	10727	105	1.23	69.86	94	1926	102	20.48	27.91	192	1887	384	0.00	46.4
Maribo 203RR	203	379.8	95	10214	100	1.47	68.16	92	1809	96	20.47	27.25	301	2083	477	0.00	48.2
Seedex SX0814RR	250	393.9	98	10295	101	1.33	72.17	97	1887	100	21.02	26.04	239	1818	461	0.00	51.6
Seedex SX0816RR	228	415.0	103	10822	106	1.07	78.22	105	2030	108	21.80	26.17	157	1802	294	0.00	55.8
Seedex SX0826RR	254	388.9	97	10090	99	1.42	70.76	95	1833	98	20.85	26.07	256	2009	472	0.00	51.3
Seedex SX0827RR	213	400.3	100	11231	110	1.15	74.02	99	2058	110	21.12	28.30	239	1769	341	0.57	53.9
Seedex SX0828RR	237	393.6	98	10153	99	1.24	72.09	97	1869	99	20.92	25.78	250	1884	366	0.00	52.1
Seedex SX0829NRR	218	404.3	101	9632	94	1.17	75.12	101	1780	95	21.33	23.86	215	1791	364	0.00	55.8
SESVdh 36175RR	201	393.9	98	9481	93	1.30	72.19	97	1740	93	20.99	23.93	268	1939	398	0.28	46.4
SESVdh 36179NRR	240	416.7	104	10119	99	1.21	78.70	106	1901	101	22.05	24.48	190	1897	361	0.28	47.9
SESVdh 36271RR	212	399.1	99	10157	99	1.21	73.67	99	1860	99	21.17	25.48	219	1787	382	0.00	51.6
SESVdh 36272RR	251	403.8	101	10282	101	1.01	75.01	101	1881	100	21.17	25.69	168	1702	276	0.00	54.1
SESVdh 36273RR	221	409.9	102	9376	92	1.11	76.72	103	1744	93	21.60	22.78	155	1781	335	0.00	57.3
SESVdh 36274RR	230	402.0	100	10006	98	1.23	74.47	100	1835	98	21.33	25.23	210	1873	380	0.00	48.7
SESVdh 36275RR	249	390.6	97	10188	100	1.24	71.23	96	1840	98	20.74	26.30	240	1993	348	0.00	54.1
SESVdh 36276NRR	225	405.9	101	9491	93	1.20	75.61	102	1752	93	21.51	23.62	196	1781	385	0.00	52.1
SESVdh 36277NRR	205	418.2	104	9578	94	1.23	79.12	106	1802	96	22.16	22.87	233	1876	374	0.00	43.6
SESVdh 36219TTRR	219	400.4	100	9983	98	1.22	74.05	100	1836	98	21.22	25.02	211	1781	393	0.00	49.6
Filler32	255	412.0	103	9977	98	1.16	77.36	104	1872	100	21.75	24.24	186	1650	390	0.00	50.7
Filler30	256	419.8	105	9452	92	1.22	79.56	107	1781	95	22.23	22.74	264	1778	378	0.00	57.6
Beta 85RR02(Check)	257	405.0	101	8661	85	1.32	75.33	101	1614	86	21.56	21.23	308	1915	409	0.00	45.3
Crystal 875RR(Check)	258	387.1	96	9182	90	1.49	70.22	94	1686	90	20.86	23.52	277	2012	516	0.00	53.9
Crystal 658RR(Check)	259	392.1	98	10703	105	1.12	71.68	96	1941	103	20.73	27.64	204	1697	339	0.00	62.7
Hilleshög 4012RR(Check)	260	392.2	98	9622	94	1.40	71.71	96	1743	93	21.01	24.80	317	2028	432	0.00	62.7
Trial Mean		401.7		10222		1.27	74.40		1880		21.35	25.61	227	1869	407	0.00	53.9
Coeff. of Var. (%)		1.9		6.3		7.0	3.0		6.6		1.7	6.3	17.8	4.9	13.0		15.6
Mean LSD (0.05)		14.9		1157		0.16	4.24		215		0.67	3.04	74	167	92		13.6
Mean LSD (0.01)		19.7		1531		0.21	5.61		285		0.90	4.02	97	221	122		18.0
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Hillsboro ND

10/24/2012 14:39

Created 10-24-2012.

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

Trial # = 128304

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

Table 14. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - Crookston MN

justed 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 81RR17	214	378.5	99	8229	94	1.17	67.87	99	1478	94	20.09	21.66	139	1837	375	0.00	60.6
BTS 81RR41	222	398.9	105	8573	98	0.94	73.47	107	1577	100	20.89	21.55	109	1457	304	0.21	56.7
BTS 81RR78	243	393.2	103	8425	96	1.08	71.91	105	1543	98	20.73	21.35	109	1555	385	0.00	53.3
BTS 82RR11	206	377.1	99	9474	108	1.11	67.51	99	1697	107	19.97	25.06	133	1963	297	0.21	57.6
BTS 82RR22	248	386.2	101	8117	93	1.09	69.98	102	1483	94	20.41	20.65	141	1539	382	0.00	68.8
BTS 82RR28	209	385.7	101	9762	111	1.07	69.86	102	1770	112	20.35	25.24	128	1748	318	0.00	56.2
BTS 82RR33	226	384.3	101	9329	106	0.96	69.47	101	1693	107	20.18	24.13	163	1630	251	0.21	62.9
BTS 82RR62	247	382.2	100	9955	114	1.07	68.91	101	1797	114	20.18	25.96	147	1810	296	0.00	57.8
BTS 82RR80	216	382.8	101	8270	94	1.11	69.07	101	1492	94	20.25	21.60	133	1573	386	0.00	52.3
BTS 82RR91	210	390.9	103	8289	95	1.10	71.30	104	1518	96	20.66	21.00	143	1786	326	0.00	58.6
Crystal 981RR	245	365.9	96	9209	105	1.29	64.42	94	1629	103	19.59	24.97	206	1960	411	0.00	55.7
Crystal 093RR	232	392.4	103	8811	101	1.03	71.68	105	1613	102	20.65	22.35	101	1596	340	0.00	54.7
Crystal 101RR	239	373.0	98	9658	110	1.16	66.37	97	1726	109	19.82	25.70	134	1885	358	0.00	58.0
Crystal 106RR	223	393.3	103	8085	92	0.97	71.95	105	1489	94	20.65	20.29	112	1437	335	0.00	53.5
Crystal 244RR	253	397.8	104	8698	99	1.00	73.17	107	1608	102	20.92	21.62	130	1606	299	0.00	52.5
Crystal 245RR	236	390.0	102	9313	106	1.09	71.02	104	1706	108	20.61	23.59	138	1661	356	0.00	52.1
Crystal 246RR	208	377.1	99	9467	108	1.08	67.50	99	1696	107	19.93	25.04	166	1860	283	0.00	55.0
Crystal 247RR	215	387.2	102	8743	100	1.06	70.25	103	1585	100	20.42	22.53	213	1722	290	0.00	50.4
Crystal 248RR	224	381.8	100	9597	110	1.02	68.80	100	1729	109	20.10	25.11	128	1806	272	0.00	55.3
Crystal 249RR	202	384.3	101	8069	92	1.25	69.45	101	1460	92	20.47	20.90	170	1974	394	0.43	55.1
Hilleshög 4236RR(9236)	220	395.7	104	8261	94	1.01	72.59	106	1519	96	20.80	20.76	129	1630	306	0.00	54.8
Hilleshög 4300RR(9300)	244	368.9	97	8400	96	1.18	65.24	95	1486	94	19.62	22.77	159	1907	355	0.00	56.4
Hilleshög 9302RR	235	388.4	102	8244	94	0.97	70.61	103	1502	95	20.41	21.09	148	1647	264	0.00	54.1
Hilleshög 4303RR(9303)	241	392.5	103	8384	96	1.01	71.72	105	1532	97	20.62	21.40	132	1627	299	0.00	55.0
Hilleshög 9409RR	217	383.7	101	9164	105	1.11	69.31	101	1657	105	20.28	23.88	161	1764	331	0.00	61.9
Hilleshög 9410RR	252	384.7	101	9032	103	1.13	69.58	102	1634	103	20.37	23.45	117	1831	354	0.00	57.5
Hilleshög 9411RR	229	373.6	98	8242	94	1.19	66.56	97	1467	93	19.87	22.05	159	1988	348	0.00	50.4
Hilleshög 9412RR	233	381.5	100	9281	106	1.17	68.69	100	1670	106	20.23	24.39	151	2023	327	0.00	51.7
Hilleshög 9413RR	204	380.4	100	9035	103	1.10	68.40	100	1628	103	20.12	23.67	130	1830	319	0.00	56.4
Hilleshög 9414RR	242	373.4	98	9763	111	1.19	66.49	97	1744	110	19.87	25.98	170	1846	374	0.00	48.2
Hilleshög 9415RR	227	375.9	99	9090	104	1.23	67.17	98	1633	103	20.05	23.93	167	2060	358	0.00	53.4
Hilleshög 9448RR	238	390.4	103	8601	98	0.99	71.15	104	1575	100	20.52	21.82	106	1584	310	0.00	54.5
Maribo 102RR	207	385.2	101	8550	98	1.00	69.72	102	1552	98	20.27	22.06	131	1553	316	0.00	49.7
Maribo 104RR	211	377.3	99	7821	89	1.03	67.55	99	1407	89	19.88	20.54	125	1571	334	0.00	52.3
Maribo 200RR	246	387.9	102	7150	82	1.11	70.46	103	1306	83	20.51	18.24	161	1898	298	0.00	57.4
Maribo 201RR	231	364.7	96	9800	112	1.07	64.11	94	1728	109	19.32	26.72	140	1779	307	0.00	56.4
Maribo 202RR	234	372.7	98	9623	110	1.11	66.29	97	1712	108	19.74	25.79	119	1823	334	0.00	54.1
Maribo 203RR	203	377.4	99	8516	97	1.19	67.56	99	1526	97	20.07	22.51	181	2007	327	0.00	52.5
Seedex SX0814RR	250	375.8	99	7914	90	1.09	67.13	98	1411	89	19.86	21.17	152	1758	321	0.43	52.7
Seedex SX0816RR	228	386.0	101	9156	104	0.98	69.94	102	1662	105	20.28	23.69	115	1670	272	0.00	58.6
Seedex SX0826RR	254	369.8	97	8873	101	1.08	65.48	96	1576	100	19.57	23.89	155	1865	286	0.00	53.5
Seedex SX0827RR	213	374.8	98	8947	102	1.12	66.87	98	1600	101	19.86	23.74	134	1760	355	0.00	51.4
Seedex SX0828RR	237	373.3	98	8729	100	1.08	66.47	97	1559	99	19.75	23.21	142	1777	310	0.21	50.9
Seedex SX0829NRR	218	379.1	100	9194	105	1.07	68.05	99	1647	104	20.01	24.33	136	1765	317	0.00	60.2
SESVdh 36175RR	201	377.3	99	8929	102	1.03	67.54	99	1601	101	19.90	23.56	149	1848	260	0.00	68.2
SESVdh 36179NRR	240	383.1	101	8614	98	1.02	69.13	101	1561	99	20.18	22.30	124	1713	297	0.00	45.2
SESVdh 36271RR	212	377.5	99	8656	99	1.03	67.60	99	1559	99	19.91	22.71	146	1639	308	0.00	51.3
SESVdh 36272RR	251	376.6	99	8842	101	0.93	67.37	98	1590	101	19.77	23.20	107	1705	231	0.00	54.2
SESVdh 36273RR	221	377.9	99	8566	98	1.07	67.70	99	1537	97	19.97	22.62	122	1822	302	0.00	60.4
SESVdh 36274RR	230	372.3	98	8037	92	1.06	66.18	97	1431	91	19.67	21.54	145	1752	305	0.00	46.8
SESVdh 36275RR	249	365.7	96	9098	104	1.11	64.38	94	1603	102	19.39	24.82	144	1862	313	0.00	57.1
SESVdh 36276NRR	225	376.3	99	8815	101	1.00	67.28	98	1578	100	19.82	23.33	137	1683	281	0.21	55.5
SESVdh 36277NRR	205	372.0	98	7942	91	1.03	66.10	96	1414	90	19.63	21.28	150	1698	292	0.21	56.4
SESVdh 36219TTRR	219	374.0	98	9593	109	1.08	66.64	97	1711	108	19.78	25.57	152	1735	321	0.43	56.4
Filler32	255	391.2	103	9047	103	0.86	71.37	104	1664	105	20.44	22.77	115	1453	240	0.00	57.7
Filler30	256	380.8	100	7754	88	1.19	68.51	100	1399	89	20.24	20.21	210	1752	386	0.00	58.1
Beta 85RR02(Check)	257	383.9	101	7903	90	1.16	69.36	101	1430	91	20.36	20.52	161	1723	385	0.00	49.9
Crystal 875RR(Check)	258	370.8	97	8498	97	1.20	65.76	96	1509	96	19.73	22.87	182	1802	385	0.00	60.3
Crystal 658RR(Check)	259	376.4	99	8504	97	0.98	67.31	98	1521	96	19.79	22.58	138	1597	283	0.00	51.5
Hilleshög 4012RR(Check)	260	378.3	99	9108	104	1.18	67.81	99	1637	104	20.10	23.96	206	1831	362	0.00	53.2
Trial Mean		380.9		8763		1.08	68.52		1579		20.12	22.92	144	1750	322	0.00	55.2
Coeff. of Var. (%)		2.1		7.0		6.8	3.3		7.3		1.9	6.8	14.7	5.0	14.2		10.4
Mean LSD (0.05)		12.4		988		0.11	3.41		186		0.58	2.52	33	127	69		8.3
Mean LSD (0.01)		16.4		1305		0.15	4.50		245		0.77	3.32	43	168	91		10.9
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Crookston MN

10/24/2012 14:41

Created 10-24-2012.

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

Trial # = 128306

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

Table 15. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - Grand Forks ND

justed 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 81RR17	214	311.2	97	11166	106	1.63	49.27	96	1761	104	17.15	35.88	381	2226	515	0.00	56.1
BTS 81RR41	222	344.3	108	11088	105	1.25	57.80	112	1859	110	18.53	32.05	303	1810	372	0.00	54.6
BTS 81RR78	243	331.5	104	10672	101	1.36	54.49	106	1756	104	17.95	32.12	258	1933	430	0.00	44.4
BTS 82RR11	206	314.2	98	12173	116	1.41	50.03	97	1934	114	17.11	38.71	369	2225	355	0.00	57.9
BTS 82RR22	248	327.7	103	11159	106	1.34	53.52	104	1813	107	17.78	34.04	348	2006	372	0.00	61.5
BTS 82RR28	209	303.2	95	11004	105	1.52	47.19	92	1712	101	16.66	36.05	476	2140	438	0.00	55.5
BTS 82RR33	226	317.7	99	12513	119	1.41	50.95	99	2011	119	17.30	39.06	436	2134	355	0.00	64.5
BTS 82RR62	247	303.7	95	12133	115	1.45	47.32	92	1890	112	16.61	39.87	453	2174	380	0.43	58.6
BTS 82RR80	216	328.5	103	10917	104	1.35	53.71	104	1776	105	17.81	33.20	357	1911	400	0.00	54.2
BTS 82RR91	210	338.1	106	10540	100	1.36	56.19	109	1759	104	18.29	30.87	315	2009	388	0.00	54.3
Crystal 981RR	245	302.2	95	11081	105	1.76	46.94	91	1724	102	16.76	36.54	638	2480	482	0.00	50.2
Crystal 093RR	232	330.1	103	11073	105	1.43	54.15	105	1823	108	17.92	33.40	280	2027	455	0.00	47.2
Crystal 101RR	239	308.5	97	10843	103	1.63	48.58	95	1710	101	17.01	34.89	469	2406	439	0.00	42.9
Crystal 106RR	223	345.0	108	10224	97	1.19	57.99	113	1720	102	18.54	29.32	293	1690	354	0.00	47.5
Crystal 244RR	253	327.2	102	10354	98	1.44	53.39	104	1692	100	17.80	31.44	390	2097	411	0.21	52.7
Crystal 245RR	236	329.4	103	10849	103	1.40	53.97	105	1780	105	17.90	32.60	327	2059	403	0.64	48.9
Crystal 246RR	208	320.8	100	12578	120	1.28	51.73	101	2022	120	17.36	39.25	387	1994	320	0.00	49.6
Crystal 247RR	215	318.9	100	11732	112	1.19	51.27	100	1882	111	17.20	36.57	369	2003	250	0.00	47.1
Crystal 248RR	224	309.0	97	11215	107	1.42	48.69	95	1759	104	16.88	36.28	347	2186	379	0.00	47.5
Crystal 249RR	202	307.7	96	10758	102	1.68	48.37	94	1683	99	17.01	35.00	553	2414	462	0.43	47.7
Hilleshög 4236RR(9236)	220	333.2	104	9831	93	1.43	54.94	107	1627	96	18.10	29.25	400	2001	431	0.00	48.7
Hilleshög 4300RR(9300)	244	311.3	97	10749	102	1.44	49.28	96	1703	101	17.01	34.19	436	2219	364	0.00	44.7
Hilleshög 9302RR	235	327.1	102	10136	96	1.30	53.36	104	1653	98	17.71	30.72	304	2022	353	0.00	47.7
Hilleshög 4303RR(9303)	241	335.6	105	10114	96	1.37	55.55	108	1661	98	18.20	30.25	335	2041	397	0.00	40.8
Hilleshög 9409RR	217	320.1	100	10822	103	1.53	51.55	100	1742	103	17.52	33.67	458	2131	457	0.00	51.8
Hilleshög 9410RR	252	316.9	99	9778	93	1.41	50.72	99	1562	92	17.27	30.73	350	2169	372	0.00	48.2
Hilleshög 9411RR	229	308.7	97	9288	88	1.57	48.62	95	1469	87	16.97	29.84	500	2229	436	0.00	53.8
Hilleshög 9412RR	233	307.5	96	9801	93	1.53	48.30	94	1542	91	16.88	31.64	549	2277	390	0.00	48.7
Hilleshög 9413RR	204	309.3	97	8883	84	1.43	48.75	95	1412	83	16.87	28.36	391	2107	394	0.00	52.0
Hilleshög 9414RR	242	317.3	99	11740	112	1.43	50.86	99	1873	111	17.31	36.93	362	2256	369	0.00	50.7
Hilleshög 9415RR	227	311.3	97	10161	97	1.48	49.29	96	1610	95	17.02	32.35	423	2221	389	0.00	48.4
Hilleshög 9448RR	238	335.7	105	10704	102	1.25	55.58	108	1780	105	18.09	31.47	287	1813	369	0.00	50.5
Maribo 102RR	207	331.0	104	10636	101	1.30	54.38	106	1755	104	17.90	31.70	311	1828	400	0.00	40.9
Maribo 104RR	211	325.6	102	8456	80	1.41	52.98	103	1380	82	17.70	25.69	408	2006	407	0.00	37.3
Maribo 200RR	246	326.6	102	8599	82	1.36	53.23	104	1396	83	17.74	26.16	467	2108	329	0.00	46.8
Maribo 201RR	231	309.3	97	11113	106	1.41	48.75	95	1762	104	16.85	35.61	392	2078	390	0.00	52.4
Maribo 202RR	234	308.2	96	10918	104	1.42	48.47	94	1729	102	16.81	34.98	298	2178	385	0.00	45.9
Maribo 203RR	203	318.0	100	9688	92	1.48	51.00	99	1561	92	17.37	30.11	338	2255	399	0.00	55.9
Seedex SX0814RR	250	317.5	99	10514	100	1.38	50.88	99	1691	100	17.29	32.72	359	2102	370	0.00	50.5
Seedex SX0816RR	228	319.9	100	10557	100	1.20	51.51	100	1699	100	17.24	32.90	297	1949	294	0.00	48.8
Seedex SX0826RR	254	321.1	101	10351	98	1.38	51.80	101	1671	99	17.47	31.94	337	2147	365	0.00	48.6
Seedex SX0827RR	213	319.1	100	10497	100	1.34	51.31	100	1694	100	17.31	32.65	374	2017	358	0.00	46.7
Seedex SX0828RR	237	317.2	99	10736	102	1.34	50.79	99	1726	102	17.21	33.55	358	2018	359	0.21	49.9
Seedex SX0829NRR	218	320.4	100	10574	101	1.30	51.62	100	1697	100	17.37	32.93	400	1967	348	0.00	53.5
SESVdh 36175RR	201	313.2	98	10024	95	1.42	49.76	97	1602	95	17.05	31.71	379	2274	345	0.21	50.2
SESVdh 36179NRR	240	319.6	100	9999	95	1.41	51.42	100	1608	95	17.40	31.19	439	2081	374	0.21	49.0
SESVdh 36271RR	212	323.2	101	10370	99	1.33	52.37	102	1684	100	17.49	32.07	343	2000	357	0.21	46.6
SESVdh 36272RR	251	330.4	103	10738	102	1.20	54.22	105	1766	104	17.78	32.30	283	1973	289	0.00	54.6
SESVdh 36273RR	221	312.0	98	10402	99	1.35	49.47	96	1643	97	16.97	33.32	333	2102	349	0.00	52.9
SESVdh 36274RR	230	326.9	102	10349	98	1.35	53.31	104	1680	99	17.70	31.82	348	2068	354	0.00	49.7
SESVdh 36275RR	249	307.9	96	10413	99	1.43	48.42	94	1645	97	16.78	33.67	460	2245	335	0.00	46.8
SESVdh 36276NRR	225	312.5	98	10078	96	1.40	49.58	96	1602	95	17.00	32.13	456	2041	381	0.21	49.0
SESVdh 36277NRR	205	304.4	95	9382	89	1.53	47.50	92	1458	86	16.71	30.90	627	2095	422	0.00	52.9
SESVdh 36219TTRR	219	311.1	97	10449	99	1.40	49.25	96	1653	98	16.95	33.40	388	2026	392	0.43	53.5
Filler32	255	323.7	101	10196	97	1.26	52.50	102	1647	97	17.49	31.44	299	1933	341	0.00	44.4
Filler30	256	322.0	101	9631	92	1.53	52.03	101	1545	91	17.65	29.96	554	2094	440	0.00	50.7
Beta 85RR02(Check)	257	325.2	102	9417	90	1.51	52.85	103	1522	90	17.78	28.90	490	2094	438	0.00	43.0
Crystal 875RR(Check)	258	319.6	100	10132	96	1.52	51.43	100	1628	96	17.49	31.56	421	2203	436	0.00	47.4
Crystal 658RR(Check)	259	316.4	99	10114	96	1.25	50.59	98	1618	96	17.09	31.97	339	1945	318	0.00	47.3
Hilleshög 4012RR(Check)	260	316.9	99	10786	103	1.50	50.72	99	1723	102	17.32	33.97	545	2224	379	0.00	45.4
Trial Mean		319.5		10520		1.41	51.41		1692		17.40	32.79	393	2091	384	0.00	49.8
Coeff. of Var. (%)		2.7		5.7		7.0	4.3		6.4		2.2	5.7	22.0	5.4	10.8		11.8
Mean LSD (0.05)		13.4		916		0.15	3.47		162		0.62	2.93	128	175	65		8.8
Mean LSD (0.01)		17.7		1209		0.21	4.58		214		0.81	3.86	169	231	86		11.6
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from Grand Forks ND

10/24/2012 14:45

Created 10-24-2012.

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

Trial # = 128307

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

Table 16. 2012 Performance of Varieties - ACSC Experimental RR Official Trial - St Thomas ND

justed 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 81RR17	214	352.1	101	10160	108	1.60	60.50	102	1747	110	19.19	28.96	173	2565	490	0.00	48.8
BTS 81RR41	222	366.8	106	9891	106	1.43	64.59	109	1742	109	19.75	27.29	176	2319	424	0.00	52.4
BTS 81RR78	243	368.4	106	9260	99	1.39	65.02	110	1633	103	19.80	25.17	140	2269	420	0.00	44.9
BTS 82RR11	206	323.7	93	10324	110	1.68	52.62	89	1678	105	17.85	31.87	238	2967	436	0.00	55.3
BTS 82RR22	248	372.1	107	10008	107	1.31	66.03	112	1770	111	19.93	27.02	165	2335	342	0.00	60.5
BTS 82RR28	209	322.3	93	9948	106	1.62	52.17	88	1621	102	17.70	30.70	222	2812	431	0.00	50.7
BTS 82RR33	226	348.4	100	10916	116	1.34	59.44	101	1871	118	18.76	31.32	190	2345	349	0.00	54.1
BTS 82RR62	247	330.7	95	10794	115	1.51	54.53	92	1761	111	18.01	33.08	236	2686	372	0.57	57.5
BTS 82RR80	216	347.5	100	9494	101	1.42	59.20	100	1616	102	18.77	27.36	166	2306	430	0.00	55.1
BTS 82RR91	210	363.8	105	9089	97	1.66	63.75	108	1590	100	19.84	25.02	190	2755	486	0.00	49.6
Crystal 981RR	245	328.5	95	10555	113	1.83	53.92	91	1726	108	18.21	32.34	284	2945	527	0.00	51.9
Crystal 093RR	232	358.2	103	9222	98	1.46	62.19	105	1603	101	19.36	25.76	158	2442	433	0.00	40.1
Crystal 101RR	239	337.0	97	9755	104	1.58	56.30	95	1625	102	18.42	29.12	210	2795	415	0.00	41.2
Crystal 106RR	223	374.0	108	10000	107	1.43	66.55	113	1779	112	20.14	26.89	176	2358	419	0.00	46.4
Crystal 244RR	253	377.2	109	9009	96	1.35	67.47	114	1605	101	20.22	24.07	167	2412	356	0.00	44.2
Crystal 245RR	236	360.1	104	9415	100	1.56	62.71	106	1637	103	19.55	26.32	178	2524	478	0.28	42.0
Crystal 246RR	208	347.1	100	10915	116	1.36	59.11	100	1857	117	18.71	31.63	147	2567	333	0.00	47.2
Crystal 247RR	215	349.4	101	9826	105	1.39	59.72	101	1685	106	18.83	28.17	181	2565	336	0.00	49.7
Crystal 248RR	224	329.2	95	10112	108	1.50	54.13	92	1665	105	17.95	30.75	210	2737	365	0.00	49.5
Crystal 249RR	202	331.7	96	9243	99	1.64	54.82	93	1534	96	18.22	27.72	252	2971	393	0.28	49.4
Hilleshög 4236RR(9236)	220	351.0	101	8393	90	1.45	60.19	102	1441	91	19.00	23.87	187	2338	439	0.00	41.3
Hilleshög 4300RR(9300)	244	340.7	98	9823	105	1.54	57.34	97	1653	104	18.56	28.72	268	2729	377	0.00	53.9
Hilleshög 9302RR	235	348.3	100	8598	92	1.44	59.42	101	1464	92	18.86	24.73	214	2572	356	0.00	42.4
Hilleshög 4303RR(9303)	241	358.0	103	9262	99	1.57	62.13	105	1604	101	19.45	26.21	190	2537	482	0.00	36.6
Hilleshög 9409RR	217	354.6	102	9254	99	1.43	61.19	104	1594	100	19.14	26.11	178	2448	392	0.00	40.6
Hilleshög 9410RR	252	328.3	95	8713	93	1.60	53.87	91	1414	89	17.97	27.10	203	2731	442	0.00	44.8
Hilleshög 9411RR	229	329.7	95	8014	86	1.53	54.26	92	1309	82	17.98	24.48	270	2618	399	0.00	53.3
Hilleshög 9412RR	233	340.1	98	9097	97	1.74	57.15	97	1536	97	18.72	26.76	223	2971	484	0.00	48.9
Hilleshög 9413RR	204	336.4	97	8835	94	1.61	56.12	95	1475	93	18.44	26.18	213	2895	399	0.28	38.0
Hilleshög 9414RR	242	321.1	93	9263	99	1.57	51.85	88	1487	93	17.59	29.24	223	2549	458	0.00	46.8
Hilleshög 9415RR	227	325.9	94	8678	93	1.69	53.21	90	1415	89	17.96	26.78	312	2895	432	0.00	47.0
Hilleshög 9448RR	238	370.4	107	8508	91	1.30	65.58	111	1505	95	19.81	23.15	142	2123	388	0.00	30.5
Maribo 102RR	207	372.8	107	9131	97	1.38	66.23	112	1620	102	20.03	24.50	162	2204	415	0.00	40.1
Maribo 104RR	211	344.2	99	6724	72	1.50	58.30	99	1128	71	18.70	19.71	203	2298	475	0.00	31.6
Maribo 200RR	246	373.2	108	9098	97	1.41	66.36	112	1618	102	20.09	24.29	201	2587	334	0.00	51.2
Maribo 201RR	231	341.3	98	10582	113	1.31	57.49	97	1773	111	18.37	31.28	159	2388	336	0.00	48.0
Maribo 202RR	234	341.7	98	9630	103	1.55	57.60	98	1615	102	18.61	28.35	206	2643	425	0.00	48.9
Maribo 203RR	203	331.7	96	8401	90	1.72	54.80	93	1381	87	18.27	25.47	236	3056	435	0.00	40.8
Seedex SX0814RR	250	343.9	99	8976	96	1.40	58.20	99	1512	95	18.58	26.20	232	2421	359	0.00	43.1
Seedex SX0816RR	228	345.0	99	9341	100	1.35	58.52	99	1574	99	18.59	27.53	187	2529	330	0.00	56.1
Seedex SX0826RR	254	348.5	100	9372	100	1.44	59.48	101	1598	100	18.86	26.98	194	2671	350	0.00	47.2
Seedex SX0827RR	213	347.1	100	9375	100	1.44	59.09	100	1597	100	18.79	27.13	237	2501	367	0.28	49.1
Seedex SX0828RR	237	346.7	100	9082	97	1.44	58.98	100	1541	97	18.78	26.21	191	2589	362	0.00	42.7
Seedex SX0829NRR	218	353.3	102	9127	97	1.34	60.82	103	1573	99	19.01	25.80	181	2379	352	0.00	43.7
SESVdh 36175RR	201	336.5	97	9177	98	1.54	56.15	95	1526	96	18.34	27.45	216	2743	398	0.00	61.0
SESVdh 36179NRR	240	347.4	100	9683	103	1.38	59.19	100	1655	104	18.77	27.82	203	2535	321	0.00	48.7
SESVdh 36271RR	212	347.8	100	9393	100	1.47	59.29	100	1599	101	18.86	27.04	192	2613	384	0.00	46.3
SESVdh 36272RR	251	353.9	102	10129	108	1.29	60.99	103	1749	110	19.00	28.67	171	2334	322	0.00	44.4
SESVdh 36273RR	221	354.9	102	9453	101	1.34	61.28	104	1624	102	19.10	26.87	164	2423	342	0.00	50.7
SESVdh 36274RR	230	353.7	102	9033	96	1.39	60.94	103	1552	98	19.07	25.53	156	2549	345	0.00	40.4
SESVdh 36275RR	249	327.4	94	8610	92	1.53	53.64	91	1409	89	17.88	26.40	215	2907	348	0.00	45.6
SESVdh 36276NRR	225	345.5	100	9291	99	1.35	58.63	99	1568	99	18.61	27.22	203	2400	343	0.00	47.3
SESVdh 36277NRR	205	345.7	100	9211	98	1.43	58.71	99	1565	98	18.73	26.62	192	2574	361	0.28	45.8
SESVdh 36219TTRR	219	340.5	98	9298	99	1.39	57.26	97	1574	99	18.42	27.22	204	2443	355	0.00	43.8
Filler32	255	364.2	105	10270	110	1.34	63.88	108	1793	113	19.54	28.77	143	2403	361	0.00	45.6
Filler30	256	356.7	103	9290	99	1.44	61.76	105	1609	101	19.25	26.28	200	2505	382	0.00	46.0
Beta 85RR02(Check)	257	351.0	101	8305	89	1.53	60.18	102	1420	89	19.07	23.71	231	2573	419	0.00	40.6
Crystal 875RR(Check)	258	333.7	96	9162	98	1.56	55.37	94	1518	95	18.22	27.53	263	2546	433	0.00	53.2
Crystal 658RR(Check)	259	343.9	99	9354	100	1.30	58.20	99	1577	99	18.50	27.27	175	2357	327	0.00	46.4
Hilleshög 4012RR(Check)	260	330.3	95	9408	100	1.55	54.43	92	1558	98	18.08	28.34	287	2732	371	0.00	48.8
Trial Mean		347.0		9371		1.47	59.05		1591		18.81	27.17	201	2566	394	0.00	46.9
Coeff. of Var. (%)		2.5		6.1		6.8	4.0		6.7		2.2	5.8	16.7	6.3	11.3		14.9
Mean LSD (0.05)		16.5		1060		0.19	4.59		201		0.79	2.95	62	305	81		12.4
Mean LSD (0.01)		21.9		1403		0.25	6.08		266		1.05	3.91	82	404	107		16.4
Sig Lvl		**		**		**	**		**		**	**	**	**	**		**

* 2012 Data from St Thomas ND 10/24/2012 14:46 Created 10-24-2012.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 128309

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

Table 17. Calculation for Approval of Sugarbeet Varieties for ACSC Market for 2013

Description	Approval Status	Rec/Ton 2011	Rec/Ton 2012	Rec/Ton 2 Yr	Rec/Ton % Bench	Rev/Acre 2011	Rev/Acre 2012	Rev/Acre 2 Yr	Rev/Acre % Bench	R/T + $/A Bench	Cercospora Rating + 2010	2011	2012	2 Yr Mean	3 Yr Mean
Previously Approved (3 Yr)															**<=5.40**
Roundup Ready															
BTS 80RR12	Approved	315.0	372.6	343.8	106.1	1044	1796	1420.1	110.4	216.5	5.27	5.27	4.86		5.13
BTS 80RR32	Approved	298.0	358.2	328.1	101.3	1061	1813	1437.2	111.7	213.0	4.93	4.93	5.18		5.01
BTS 80RR52	Approved	306.3	356.2	331.3	102.2	1004	1772	1387.9	107.9	210.1	4.32	4.32	4.61		4.42
BTS 89RR10	Approved	317.0	376.9	346.9	107.1	912	1699	1305.4	101.5	208.5	4.92	4.92	5.08		4.97
BTS 89RR30	Approved	284.3	340.6	312.5	96.4	981	1715	1348.0	104.8	201.2	5.09	5.09	5.17		5.12
BTS 89RR40	Approved	304.9	357.7	331.3	102.2	1047	1743	1395.0	108.4	210.7	5.07	5.07	5.33		5.15
BTS 89RR50	Approved	291.7	339.3	315.5	97.4	1029	1670	1349.5	104.9	202.3	5.16	5.16	5.01		5.11
BTS 89RR83	Approved	279.3	345.8	312.6	96.5	967	1776	1371.4	106.6	203.0	4.83	4.83	4.81		4.82
Crystal 093RR	Approved	316.4	363.7	340.0	104.9	1061	1754	1407.5	109.4	214.3	5.12	5.12	5.16		5.13
Crystal 095RR	Approved	298.7	357.6	328.1	101.3	1010	1720	1364.9	106.1	207.4	4.80	4.80	4.88		4.82
Crystal 658RR	Approved	285.6	349.0	317.3	97.9	930	1693	1311.7	101.9	199.9	4.46	4.46	4.47		4.46
Crystal 765RR	Approved	312.4	369.1	340.8	105.2	1076	1848	1462.0	113.6	218.8	4.52	4.52	4.70		4.58
Crystal 768RR	Approved	296.3	356.6	326.5	100.7	982	1826	1403.9	109.1	209.9	5.21	5.21	5.09		5.17
Crystal 875RR	Approved	296.9	351.1	324.0	100.0	994	1642	1318.1	102.5	202.4	4.33	4.33	4.24		4.30
Crystal 878RR	Approved	302.5	357.7	330.1	101.9	998	1754	1375.8	106.9	208.8	5.17	5.17	5.31		5.22
Crystal 985RR	Approved	302.1	356.0	329.1	101.5	1035	1666	1350.5	105.0	206.5	4.30	4.30	4.37		4.32
Crystal 986RR	Approved	315.6	371.7	343.6	106.1	1028	1841	1434.4	111.5	217.5	5.45	5.45	5.14		5.35
Hilleshög 4012RR	Approved	302.8	344.9	323.9	99.9	998	1605	1301.5	101.2	201.1	5.00	5.00	5.24		5.08
Hilleshög 4022RR	Approved	298.7	350.0	324.4	100.1	975	1632	1303.3	101.3	201.4	4.26	4.26	4.26		4.26
Hilleshög 4043RR	Approved	306.9	356.2	331.6	102.3	1023	1541	1282.0	99.6	202.0	5.01	5.01	4.84		4.95
Hilleshög 4094RR	Approved	302.5	348.1	325.3	100.4	985	1611	1298.2	100.9	201.3	4.28	4.28	4.00		4.18
Hilleshog 4195RR	Approved	288.7	340.0	314.4	97.0	957	1650	1303.3	101.3	198.3	4.39	4.39	4.60		4.46
Hilleshög 4236RR(9236)	Approved	314.4	366.9	340.7	105.1	1020	1579	1299.4	101.0	206.1	4.45	4.45	4.75		4.55
Seedex Usher RR	Approved	299.4	354.4	326.9	100.9	1046	1725	1385.5	107.7	208.6	5.05	5.05	4.70		4.93
Seedex Victor RR(894)	Approved	300.5	361.1	330.8	102.1	983	1715	1348.9	104.8	206.9	4.51	4.51	4.33		4.45
Seedex Vision RR(891)	Approved	314.2	366.0	340.1	105.0	1047	1776	1411.4	109.7	214.7	4.76	4.76	4.41		4.64
Seedex Wrangler RR(808)	Approved	303.5	347.7	325.6	100.5	994	1647	1320.7	102.7	203.1	5.27	5.27	4.16		4.90
SESVdh 36711RR	Approved	297.5	350.0	323.8	99.9	1045	1747	1396.0	108.5	208.4	4.99	4.99	4.58		4.86
SESVdh 36812RR	Approved	299.1	347.1	323.1	99.7	1086	1635	1360.5	105.7	205.5	5.16	5.16	4.78		5.03
SESVdh 36813RR	Approved	301.2	353.1	327.2	101.0	1022	1727	1374.5	106.8	207.8	4.59	4.59	4.46		4.55
SESVdh 36916RR	Approved	301.4	354.4	327.9	101.2	1045	1701	1373.0	106.7	207.9	4.97	4.97	4.70		4.88
SESVdh 36917RR	Approved	309.7	363.1	336.4	103.8	1031	1742	1386.7	107.8	211.6	4.95	4.95	4.51		4.80
SESVdh 36918RR	Approved	312.2	363.0	337.6	104.2	994	1748	1371.2	106.6	210.8	4.47	4.47	4.41		4.45
Candidates for Approval (2 Yr)														<=5.20	
Roundup Ready															
BTS 81RR17	Approved	297.5	350.4	323.9	100.0	951	1736	1343.3	104.4	204.4	--	4.68	4.36	4.52	--
BTS 81RR41	Approved	322.4	378.0	350.2	108.1	1047	1874	1460.4	113.5	221.6	--	4.14	4.16	4.15	--
BTS 81RR78	Approved	315.6	368.2	341.9	105.5	1068	1761	1414.7	110.0	215.5	--	4.88	4.51	4.70	--
Crystal 981RR	Approved	300.4	341.3	320.9	99.0	1109	1778	1443.2	112.2	211.2	5.29	5.21	5.15	5.18	5.22
Crystal 101RR	Approved	297.1	345.6	321.3	99.2	1040	1752	1395.9	108.5	207.7	--	4.72	4.71	4.71	--
Crystal 106RR	Approved	326.4	376.3	351.3	108.4	1036	1730	1382.6	107.5	215.9	--	4.15	4.17	4.16	--
Hilleshög 4300RR(9300)	Approved	296.4	348.3	322.4	99.5	970	1701	1335.6	103.8	203.3	--	4.71	4.82	4.76	--
Hilleshög 9302RR	Approved	317.3	362.8	340.0	104.9	1040	1634	1337.1	103.9	208.9	--	4.00	4.34	4.17	--
Hilleshög 4303RR(9303)	Approved	316.3	366.6	341.5	105.4	1082	1666	1373.9	106.8	212.2	--	4.22	4.62	4.42	--
Maribo 102RR	Approved	320.1	364.2	342.2	105.6	1208	1689	1448.6	112.6	218.2	--	5.19	4.88	5.03	--
Maribo 104RR	Approved	318.6	363.1	340.9	105.2	902	1515	1208.6	93.9	199.1	--	3.45	3.82	3.64	--
Seedex SX0814RR	Approved	303.8	352.3	328.1	101.2	1027	1643	1334.8	103.7	205.0	--	4.78	4.76	4.77	--
Seedex SX0816RR	Approved	313.3	360.4	336.9	104.0	1026	1815	1420.5	110.4	214.4	--	4.54	4.43	4.49	--
SESVdh 36175RR	Approved	308.1	349.6	328.9	101.5	1026	1720	1373.3	106.7	208.2	--	4.61	4.22	4.42	--
SESVdh 36179NRR	Approved	308.0	355.2	331.6	102.3	994	1693	1343.5	104.4	206.8	--	4.77	4.64	4.70	--

Benchmark Varieties		Rec/Ton 2010	Rec/Ton 2011	Rec/Ton 2012	Rev/Acre 2010	Rev/Acre 2011	Rev/Acre 2012
Beta 85RR02(Check)	Benchmark	332.3	302.2	358.6	1313.0	944.7	1583.0
Crystal 539RR	Benchmark	331.7	298.1		1257.0	896.5	
Crystal 658RR	Benchmark	317.0	285.6	349.0	1259.0	930.3	1693.0
Hilleshög 4012RR	Benchmark	331.3	302.8	344.9	1346.0	998.0	1605.0
Crystal 875RR	Benchmark			351.1			1642.0
Benchmark mean		328.08	297.18	350.90	1293.8	942.4	1630.8

Rec/Ton 2 Yr	Rec/Ton % Bench	Rev/Acre 2 Yr	Rev/Acre % Bench
324.0		1286.56	

+ All Cercospora readings 2010-2012 were adjusted to 1982 basis.

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

Created 10-29-2012.

Bench for 2012 added Crystal 875RR and dropped Crystal 539RR.

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

Table 18. Calculation for Approval of Sugarbeet Varieties for ACSC Aphanomyces Specialty Market for 2013

Yrs Aph Yld	Description	Approval Status	Root Aph. Rating 2010	2011	2012	2 Yr Mean	3 Yr Mean	Cercospora Rating + 2010	2011	2012	2 Yr Mean	3 Yr Mean
	Previously Approved (3 Yrs)						**<=5.20**					**<=5.40**
	Roundup Ready											
3	BTS 80RR52	Approved	4.67	4.93	4.04	4.49	4.55	4.32	4.61	4.40	4.51	4.45
4	BTS 89RR30	Approved	4.25	5.14	5.97	5.56	5.12	5.09	5.17	4.92	5.04	5.06
4	BTS 89RR40	Approved	4.14	4.76	3.62	4.19	4.17	5.07	5.33	5.16	5.25	5.19
4	BTS 89RR50	Approved	3.86	4.07	4.80	4.43	4.24	5.16	5.01	5.30	5.16	5.16
3	Crystal 095RR	Approved	4.99	4.62	4.63	4.62	4.74	4.80	4.88	4.83	4.85	4.83
5	Crystal 658RR	Approved	3.91	4.52	3.42	3.97	3.95	4.46	4.47	4.28	4.38	4.40
5	Crystal 875RR	Approved	3.34	3.14	2.71	2.92	3.06	4.33	4.24	4.26	4.25	4.27
4	Crystal 985RR	Approved	4.20	3.75	3.15	3.45	3.70	4.30	4.37	4.41	4.39	4.36
3	Crystal 986RR	Approved	4.20	5.21	4.41	4.81	4.60	5.45	5.14	4.78	4.96	5.12
5	Hilleshög 4012RR	Approved	4.26	4.64	4.03	4.34	4.31	5.00	5.24	5.46	5.35	5.23
5	Hilleshög 4022RR	Approved	4.96	4.80	4.11	4.45	4.62	4.26	4.26	4.36	4.31	4.29
5	Hilleshög 4043RR	Approved	4.90	4.69	4.70	4.69	4.76	5.01	4.84	4.56	4.70	4.80
4	Hilleshög 4094RR	Approved	4.87	5.16	3.72	4.44	4.58	4.28	4.00	4.34	4.17	4.21
3	Seedex Usher RR	Approved	4.79	4.73	4.98	4.86	4.83	5.05	4.70	4.59	4.64	4.78
3	Seedex Victor RR(894)	Approved	4.62	4.71	4.68	4.69	4.67	4.51	4.33	4.41	4.37	4.42
3	SESVdh 36813RR	Approved	4.43	4.57	4.76	4.66	4.59	4.59	4.46	4.33	4.40	4.46
3	SESVdh 36918RR	Approved	4.39	4.50	4.69	4.60	4.53	4.47	4.41	4.28	4.35	4.39
	Candidates for Approval					**<=4.90**						**<=5.20**
	Roundup Ready											
2	BTS 81RR17	Approved	--	4.06	3.25	3.66	--	--	4.68	4.36	4.52	--
2	BTS 81RR41	Approved	--	5.33	3.34	4.34	--	--	4.14	4.16	4.15	--
2	BTS 81RR78	Approved	--	4.83	4.87	4.85	--	--	4.88	4.51	4.70	--
4	Crystal 981RR	Approved	3.37	4.03	3.08	3.55	3.49	5.29	5.21	5.15	5.18	5.22
2	Seedex SX0816RR	Approved	--	4.52	4.19	4.35	--	--	4.54	4.43	4.49	--
2	SESVdh 36179NRR	NO	--	4.94	4.90	4.92	--	--	4.77	4.64	4.70	--
	Approval Criteria new varieties					4.90					5.20	
	Criteria to Maintain Approval						5.20					5.40

+ All Cercospora readings 2010-2012 were adjusted to 1982 basis.

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

To maintain Aphanomyces approval criteria include: 1) Cercospora 3 year mean must not exceed 5.40, 2) Aph root rating <= 5.20 after 3 years.

Table 19. Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2013.

Sus Chk 10 11 12	Description	Code	Approval	2010 DI	2011 DI	2012 DI	2Yr DI	3Yr DI	CR 2010	CR 2011	CR 2012	2 Yr Mean	3 Yr Mean
	Previously Approved (3 Yr)												
	BTS 89RR10	588	Approved	3.94	3.63	4.14	3.88	3.90	4.92	5.08	5.10	5.09	5.03
	Crystal 658RR	542	Approved	4.17	3.78	4.09	3.94	4.01	4.46	4.47	4.28	4.38	4.40
	Crystal 875RR	584	Approved	3.49	4.06	4.00	4.03	3.85	4.33	4.24	4.26	4.25	4.27
	Hilleshög 4022RR	583	Approved	3.56	3.48	3.29	3.38	3.44	4.26	4.26	4.36	4.31	4.29
	Hilleshög 4094RR	577	Approved	3.8	3.29	3.28	3.29	3.48	4.28	4.00	4.34	4.17	4.21
	Candidates for Approval (2 Yr)												
	BTS 80RR12	612	Not Approved	4.21	4.80	4.42	4.61	4.48	5.27	4.86	4.65	4.76	4.93
	BTS 80RR32	540	Not Approved	3.94	4.23	3.88	4.05	4.01	4.93	5.18	4.66	4.92	4.92
	BTS 80RR52	574	Not Approved	4.17	4.14	3.73	3.94	4.02	4.32	4.61	4.40	4.51	4.45
	BTS 81RR17	518	Not Approved	--	4.09	4.00	4.05	--	--	4.68	4.36	4.52	--
	BTS 81RR41	594	Not Approved	--	4.83	4.55	4.69	--	--	4.14	4.16	4.15	--
	BTS 81RR78	552	Not Approved	--	4.57	4.50	4.54	--	--	4.88	4.51	4.70	--
	BTS 82RR11	554	<2 Yrs	--	--	4.25	--	--	--	--	5.55	--	--
	BTS 82RR22	617	<2 Yrs	--	--	4.61	--	--	--	--	4.65	--	--
	BTS 82RR28	558	<2 Yrs	--	--	3.94	--	--	--	--	4.66	--	--
	BTS 82RR33	596	<2 Yrs	--	--	4.09	--	--	--	--	4.74	--	--
	BTS 82RR62	615	<2 Yrs	--	--	4.43	--	--	--	--	4.52	--	--
	BTS 82RR80	502	<2 Yrs	--	--	4.63	--	--	--	--	4.77	--	--
	BTS 82RR91	533	<2 Yrs	--	--	4.81	--	--	--	--	4.72	--	--
	BTS 89RR30	637	Not Approved	3.66	4.54	4.24	4.39	4.15	5.09	5.17	4.92	5.04	5.06
	BTS 89RR40	563	Not Approved	4.20	5.02	4.85	4.94	4.69	5.07	5.33	5.16	5.25	5.19
	BTS 89RR50	619	Not Approved	4.01	5.30	4.88	5.09	4.73	5.16	5.01	5.30	5.16	5.16
	BTS 89RR83	535	Not Approved	3.63	4.53	3.58	4.05	3.91	4.83	4.81	4.89	4.85	4.84
	Crystal 093RR	624	Not Approved	4.11	4.43	4.43	4.43	4.32	5.12	5.16	4.82	4.99	5.03
	Crystal 095RR	523	Not Approved	4.11	4.87	4.57	4.72	4.51	4.80	4.88	4.83	4.85	4.83
	Crystal 101RR	603	Not Approved	--	4.67	4.75	4.71	--	--	4.72	4.71	4.71	--
	Crystal 106RR	613	Not Approved	--	4.52	4.40	4.46	--	--	4.15	4.17	4.16	--
	Crystal 244RR	595	<2 Yrs	--	--	4.46	--	--	--	--	4.93	--	--
	Crystal 245RR	520	<2 Yrs	--	--	4.75	--	--	--	--	5.29	--	--
	Crystal 246RR	569	<2 Yrs	--	--	4.31	--	--	--	--	4.49	--	--
	Crystal 247RR	506	<2 Yrs	--	--	4.48	--	--	--	--	4.68	--	--
	Crystal 248RR	610	<2 Yrs	--	--	4.49	--	--	--	--	4.94	--	--
	Crystal 249RR	590	<2 Yrs	--	--	4.02	--	--	--	--	4.50	--	--
	Crystal 765RR	626	Not Approved	4.37	4.58	3.87	4.22	4.27	4.52	4.70	4.70	4.70	4.64
	Crystal 768RR	536	Not Approved	4.31	4.42	4.39	4.41	4.37	5.21	5.09	5.37	5.23	5.23
	Crystal 878RR	546	Not Approved	4.44	4.50	4.38	4.44	4.44	5.17	5.31	4.81	5.06	5.10
	Crystal 981RR	572	Not Approved	4.12	4.93	4.45	4.69	4.50	5.29	5.21	5.15	5.18	5.22
	Crystal 985RR	622	Not Approved	3.98	4.56	4.40	4.48	4.31	4.30	4.37	4.41	4.39	4.36
	Crystal 986RR	501	Not Approved	4.65	4.00	4.31	4.16	4.32	5.45	5.14	4.78	4.96	5.12
	Hilleshög 4012RR	635	Not Approved	4.53	5.02	4.80	4.91	4.78	5.00	5.24	5.46	5.35	5.23
	Hilleshög 4043RR	630	Not Approved	4.40	5.29	4.78	5.03	4.82	5.01	4.84	4.56	4.70	4.80
	Hilleshog 4195RR	570	Approved	4.08	3.78	3.67	3.73	3.84	4.39	4.60	4.65	4.63	4.55
	Hilleshög 4236RR(9236)	625	Not Approved	--	5.86	5.23	5.55	--	4.45	4.75	4.71	4.73	4.64
	Hilleshög 4300RR(9300)	545	Not Approved	--	4.32	4.56	4.44	--	--	4.71	4.82	4.76	--
	Hilleshög 4303RR(9303)	611	<2 Yrs	--	--	5.20	--	--	--	4.22	4.62	4.42	--
	Hilleshög 9302RR	599	Approved	--	3.47	3.63	3.55	--	--	4.00	4.34	4.17	--
	Hilleshög 9411RR	573	<2 Yrs	--	--	3.92	--	--	--	--	3.69	--	--
	Hilleshög 9412RR	633	<2 Yrs	--	--	3.28	--	--	--	--	4.40	--	--
	Hilleshög 9413RR	553	<2 Yrs	--	--	3.65	--	--	--	--	4.52	--	--
	Hilleshög 9415RR	538	<2 Yrs	--	--	3.76	--	--	--	--	4.49	--	--
	Maribo 102RR	628	<2 Yrs	--	--	4.70	--	--	--	5.19	4.88	5.03	--
	Maribo 104RR	576	Approved	--	3.36	3.98	3.67	--	--	3.45	3.82	3.64	--
	Maribo 200RR	560	<2 Yrs	--	--	4.01	--	--	--	--	4.27	--	--
	Maribo 203RR	582	<2 Yrs	--	--	3.59	--	--	--	--	4.44	--	--
	Seedex SX0814RR	587	Not Approved	--	4.68	4.55	4.61	--	--	4.78	4.76	4.77	--
	Seedex SX0816RR	537	Not Approved	--	4.55	4.71	4.63	--	--	4.54	4.43	4.49	--
	Seedex SX0826RR	548	<2 Yrs	--	--	4.17	--	--	--	--	4.45	--	--
	Seedex SX0828RR	567	<2 Yrs	--	--	4.25	--	--	--	--	4.72	--	--
	Seedex Usher RR	530	Not Approved	4.47	4.63	4.34	4.48	4.48	5.05	4.70	4.59	4.64	4.78
	Seedex Victor RR(894)	511	Not Approved	4.32	4.57	4.57	4.57	4.49	4.51	4.33	4.41	4.37	4.42
	Seedex Vision RR(891)	541	Not Approved	4.31	4.46	4.61	4.53	4.46	4.76	4.41	4.49	4.45	4.55
	Seedex Wrangler RR(808)	614	Not Approved	4.42	4.51	4.21	4.36	4.38	5.27	4.16	4.43	4.29	4.62

Table 19. Calculation for Approval of Sugarbeet Varieties for ACSC Rhizoctonia Specialty Market for 2013.

Sus Chk 10	11	12	Description	Code	Approval	2010 DI	2011 DI	2012 DI	2Yr DI	3Yr DI	CR 2010	CR 2011	CR 2012	2 Yr Mean	3 Yr Mean
			SESVdh 36175RR	561	Not Approved	--	4.55	4.32	4.44	--	--	4.61	4.22	4.42	--
			SESVdh 36179NRR	623	Not Approved	--	4.80	4.40	4.60	--	--	4.77	4.64	4.70	--
			SESVdh 36271RR	586	<2 Yrs	--	--	4.40	--	--	--	--	4.65	--	--
			SESVdh 36273RR	627	<2 Yrs	--	--	4.47	--	--	--	--	4.19	--	--
			SESVdh 36274RR	519	<2 Yrs	--	--	4.17	--	--	--	--	4.68	--	--
			SESVdh 36275RR	507	<2 Yrs	--	--	3.94	--	--	--	--	4.28	--	--
			SESVdh 36711RR	531	Not Approved	3.83	4.69	4.50	4.60	4.34	4.99	4.58	4.77	4.67	4.78
			SESVdh 36812RR	609	Not Approved	4.45	4.73	4.23	4.48	4.47	5.16	4.78	4.76	4.77	4.90
			SESVdh 36813RR	580	Not Approved	4.10	4.77	4.55	4.66	4.47	4.59	4.46	4.33	4.40	4.46
			SESVdh 36916RR	606	Not Approved	4.30	4.52	4.65	4.59	4.49	4.97	4.70	4.68	4.69	4.78
			SESVdh 36917RR	528	Not Approved	4.27	4.80	4.38	4.59	4.49	4.95	4.51	4.61	4.56	4.69
			SESVdh 36918RR	631	Not Approved	4.37	5.14	4.66	4.90	4.72	4.47	4.41	4.28	4.35	4.39
			Susceptible Checks												
1			Rhiz Chk#01 SEEDMONOHIKARI	--		4.61	--	--	--	--					
1			Rhiz Chk#02 HILLE17	--		4.21	--	--	--	--					
1			Rhiz Chk#09 CRYSR431	--		4.64	--	--	--	--					
1	1	1	Rhiz Chk#08 CRYS539RR	1301		4.22	5.03	5.06	5.05	4.77					
1	1	1	Rhiz Chk#11 BETA87RR68	1302		4.60	4.95	3.81	4.38	4.45					
1			Rhiz Chk#15 CRYSR760	--		4.44	--	--	--	--					
1	1		Rhiz Chk#21 CRYS768RR	1305		4.59	4.39	4.28	4.34	4.42					
1	1	1	Rhiz Chk#27 HILL4012RR	1309		4.75	4.76	4.69	4.73	4.73					
1	1		Rhiz Chk#20 CRYS765RR	1304		4.49	4.50	3.87	4.18	4.29					
1	1	1	Rhiz Chk#30 SES36711RR	1312		4.24	4.48	4.46	4.47	4.40					
1			Rhiz Chk#26 BETA86RR44	1308		4.10	4.35	4.78	4.57	4.41					
1	1	1	Rhiz Chk#29 BETA87RR58	1311		4.77	4.77	4.76	4.77	4.77					
	1	1	Rhiz Chk#24 BETA86RR88	1306		4.22	4.83	4.75	4.79	4.60					
	1	1	Rhiz Chk#25 HILL4043RR	1307		4.19	4.59	4.95	4.77	4.58					
	1	1	Rhiz Chk#31 HILL4000RR	1313		4.58	5.19	5.04	5.11	4.94					
	1	1	Rhiz Chk#32 HILL4010RR	1314		4.61	4.46	4.99	4.73	4.69					
	1	1	Rhiz Chk#34 BETA86RR66	1316		4.23	4.72	4.51	4.61	4.48					
	1	1	Rhiz Chk#35 SES36812RR	1317		4.32	4.63	4.53	4.58	4.50					
		1	Rhiz Chk#36 BETA85RR02	1318		4.05	4.78	4.76	4.77	4.53					
12	13	12	Mean of Susceptible Checks			4.47	4.72	4.69	4.70	4.63					
			Minimum Rating for Approval			3.576	3.773	3.7535	3.820	4.16					
			Approval Target Multiplier			0.80	0.80	0.80	0.80	0.90					
			Approval Target (Susc Chk Mean * Multiplier)			3.576	3.773	3.7535	3.820	4.16	5.20	5.20	5.20	5.20	5.40
			Approval Target (Prev Approved)												

+ Ratings notes follow:

Disease Index is based on a scale of 0 (=healthy) to 7 (= plant dead).

All ratings adjusted based upon check performance.

3 yrs of data may be considered for initial approval.

Table 20. Projected Calculation for Approval of Sugarbeet Varieties for ACSC Market

Description	Approval ^ Likely	Rec/Ton 2012	Rec/Ton % Bench	Rev/Acre 2012	Rev/Acre % Bench	R/T + $/A Bench	CR Rating ^^ 2012
Candidates for Retesting (1 Yr)							
BTS 82RR11	Not On Track	346.7	98.8	1856	113.8	212.6	5.55
BTS 82RR22	On Track	372.1	106.0	1813	111.2	217.2	4.65
BTS 82RR28	On Track	345.2	98.4	1800	110.4	208.8	4.66
BTS 82RR33	On Track	356.0	101.5	2057	126.2	227.6	4.74
BTS 82RR62	On Track	345.1	98.3	2000	122.6	221.0	4.52
BTS 82RR80	On Track	358.0	102.0	1767	108.3	210.3	4.77
BTS 82RR91	On Track	369.4	105.3	1647	101.0	206.3	4.72
Crystal 244RR	On Track	370.0	105.5	1633	100.2	205.6	4.93
Crystal 245RR	Not On Track	360.3	102.7	1736	106.5	209.1	5.29
Crystal 246RR	On Track	352.5	100.5	2017	123.7	224.1	4.49
Crystal 247RR	On Track	358.6	102.2	1932	118.5	220.7	4.68
Crystal 248RR	On Track	347.2	98.9	1822	111.7	210.7	4.94
Crystal 249RR	Not On Track	348.7	99.4	1530	93.8	193.2	4.50
Hilleshög 9409RR	On Track	358.1	102.0	1756	107.7	209.7	4.42
Hilleshög 9410RR	Not On Track	349.4	99.6	1622	99.5	199.0	4.74
Hilleshög 9411RR	Not On Track	343.9	98.0	1564	95.9	193.9	3.69
Hilleshög 9412RR	On Track	348.0	99.2	1681	103.1	202.2	4.40
Hilleshög 9413RR	Not On Track	349.6	99.6	1658	101.7	201.3	4.52
Hilleshög 9414RR	Not On Track	338.0	96.3	1755	107.6	203.9	4.76
Hilleshög 9415RR	Not On Track	340.1	96.9	1644	100.8	197.8	4.49
Hilleshög 9448RR	On Track	366.7	104.5	1735	106.4	210.9	4.82
Maribo 200RR	On Track	367.4	104.7	1506	92.4	197.1	4.27
Maribo 201RR	On Track	342.5	97.6	1720	105.5	203.1	5.09
Maribo 202RR	On Track	342.9	97.7	1742	106.8	204.5	5.01
Maribo 203RR	Not On Track	343.5	97.9	1589	97.4	195.3	4.44
Seedex SX0826RR	On Track	350.6	99.9	1709	104.8	204.7	4.45
Seedex SX0827RR	On Track	354.7	101.1	1732	106.2	207.3	4.57
Seedex SX0828RR	On Track	353.3	100.7	1718	105.4	206.1	4.72
Seedex SX0829NRR	On Track	356.9	101.7	1713	105.0	206.7	4.84
SESVdh 36271RR	On Track	355.7	101.4	1727	105.9	207.3	4.65
SESVdh 36272RR	On Track	361.4	103.0	1885	115.6	218.6	4.17
SESVdh 36273RR	On Track	355.3	101.3	1684	103.3	204.5	4.19
SESVdh 36274RR	On Track	358.3	102.1	1650	101.2	203.3	4.68
SESVdh 36275RR	Not On Track	341.1	97.2	1679	102.9	200.1	4.28
SESVdh 36276NRR	On Track	351.3	100.1	1660	101.8	201.9	4.15
SESVdh 36277NRR	On Track	351.2	100.1	1626	99.7	199.8	5.15
SESVdh 36219TTRR	On Track	349.7	99.7	1698	104.1	203.8	4.44
Benchmarks							
Beta 85RR02(Check)		358.6	102.2	1583	97.1	199.3	
Crystal 539RR							
Crystal 658RR		349.0	99.5	1693	103.8	203.3	
Hilleshög 4012RR		344.9	98.3	1605	98.4	196.7	
Crystal 875RR		351.1	100.1	1642	100.7	200.7	
Benchmark Mean		350.9		1631			

^ NOT = not on track for approval. On Track = data is tracking for potential approval. Created 10-29-2012.

^^ All Cercospora readings 2012 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 2012 added Crystal 875RR and dropped Crystal 539RR.

Table 21. Performance Data of Conventional Varieties Approved for Sale to ACSC Growers in 2013
During 2009, 2010 & 2011 Growing Seasons (All Locations Combined) +++
(Data expressed as % of benchmark for all agronimic characters. Disease ratings are not % of benchmark)

Description @	Years	Rev/Ton			Rev/Acre			Rec/Ton			Rec/Acre			Sugar			Yield			Molasses			Emergence			CR +			Aph Root+			Fusarium +			Rhizoctonia ++		
	Comm	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09	11	10	09
Conventional # of locations →		8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	8	7	6	3	3	4	2	2	1	1	1	2	2	2	1
Crystal R434	8	100	--	--	101	--	--	100	--	--	101	--	--	101	--	--	102	--	--	116	--	--	96	--	--	4.96	--	--	4.6	--	--	4.8	--	--	4.4	--	--
Crystal R760	5	--	103	--	--	107	--	--	102	--	--	106	--	--	102	--	--	104	--	--	101	--	--	102	--	--	5.66	--	--	3.8	--	--	5.0	--	--	4.5	--
Crystal R761	5	97	101	--	109	110	--	99	101	--	113	110	--	100	102	--	117	109	--	113	114	--	94	104	--	4.92	4.86	--	4.8	3.9	--	4.8	2.3	--	4.5	4.1	--
Crystal R869	4	117	110	--	109	108	--	109	106	--	102	104	--	108	105	--	95	98	--	92	95	--	97	110	--	5.24	4.90	--	6.1	5.7	--	5.7	6.2	--	4.0	4.3	--
Seedex Deuce (SX0873TT)	4	--	--	107	--	--	118	--	--	104	--	--	114	--	--	103	--	--	110	--	--	92	--	--	127	--	--	5.6	--	--	5.9	--	--	5.2	--	--	4.6
Seedex Sonic	7	--	--	111	--	--	117	--	--	106	--	--	111	--	--	105	--	--	106	--	--	95	--	--	119	--	--	5.1	--	--	5.9	--	--	4.8	--	--	4.8
SESVanderhave H46519	9	--	na	108	--	na	111	--	na	104	--	na	107	--	na	103	--	na	103	--	na	95	--	na	115	--	4.47	4.8	--	5.1	5.7	--	--	4.7	--	--	4.3
SESVanderhave H46531	8	--	--	109	--	--	107	--	--	105	--	--	103	--	--	104	--	--	98	--	--	94	--	--	101	--	4.58	4.7	--	5.4	5.4	--	--	4.6	--	--	4.4
SESVanderhave H48607TT	6	--	--	105	--	--	121	--	--	102	--	--	119	--	--	102	--	--	117	--	--	95	--	--	122	--	--	5.5	--	--	5.5	--	--	5.4	--	--	4.1
SESVanderhave H48716TT	5	--	--	107	--	--	114	--	--	104	--	--	111	--	--	103	--	--	107	--	--	95	--	--	129	--	--	5.3	--	--	5.7	--	--	5.5	--	--	4.6
SESVanderhave H48717TT	5	--	99	103	--	86	115	--	99	102	--	86	113	--	99	101	--	87	112	--	99	97	--	na	123	--	5.36	5.4	--	6.0	4.9	--	--	5.1	--	4.2	4.3
Mean of benchmark varieties		41.65	46.00	34.89	942	1294	859	297	328	289	6748	9236	7111	16.10	17.40	15.55	22.8	28.2	24.6	1.25	1.00	1.11	65	77	71												

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

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

Created 11-5-2012.

+ Aph Ratings from Shakopee & RRV (resist = 4.9, susc = 5.5). CR from Rosemount, Michigan & Foxhome (resist = 4.5, susc = 5.2). Fusarium from RRV (resist = 3.0, susc = 5.0). Rhizoc. From Ft Collins & RRV (resist = 3.8, susc = 5).

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

@ All varieties are diploid unless noted.

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

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

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

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

Table 22. Performance Data of Conventional and RR Varieties from **2008** Yield Trials - All Locations Combined

[Allows comparison between RR & Conventional varieties] #

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

+ Aph Ratings from Shakopee & RRV (resist = 4.9, susc = 5.5). CR from Rosemount, Michigan & Foxhome (resist = 4.5, susc = 5.2). Fusarium from RRV (resist = 3.0, susc = 5.0).

++ Rhizoctonia ratings from Ft Collins & RRV (res=3.8, susc=5).

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

@ All varieties are diploid unless noted.

Created 11-1-2011.

Table 23.

Varieties Meeting Approval Criteria for the 2013 Minn-Dak Sugarbeet Crop

Established Varieties			
			SES/VDH 36926RR
ACH RR830 (Rhc)	Beta 70RR64 (Aph)	HM 4022RR (Rhc)	SES/VDH 36084RR
ACH RR012 (Rhc)	Beta 70RR70 (Rhc)	HM 4062RR (Rhc)	
	Beta 70RR99		Seedex Ultra RR
			Seedex Wildcat RR
			Seedex Vapor RR

Conditionally Approved Varieties			
		SES/VDH 36927RR	

Specialty Approved Varieties			
	HM 4204RR (Rhc)		
	HM 4251RR (Rhc)	SES/VDH 36188RR (Aph)	

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

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

Test Market Varieties Approved for Limited Sales			
	SES/VDH 36185RR	Seedex 0917RR	
	SES/VDH 36187RR		

ACH varieties are labeled as Crystal in the data tables.
HM varieties are labeled as Hilleshög in the data tables.
SES/VDH varieties are labeled as SESVdh in the data tables.

Aph indicates variety has Aphanomyces spec approval.
Rhc indicates variety has Rhizoctonia spec approval.

Created 11-29-2012.

Table 24. 2012 Performance of Varieties - MDFC RR Commercial Yield Trial - 3 sites

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 70RR64	157	364.9	104	12103	103	1.38	19.62	33.37	274	1935	455	0.00	58.6
BTS 70RR70	151	363.9	103	12894	109	1.24	19.45	35.56	249	1846	382	0.00	63.0
BTS 70RR99	162	358.5	102	12372	105	1.43	19.35	34.66	221	2026	485	0.02	58.3
Crystal RR830	154	346.5	98	12377	105	1.27	18.59	35.90	265	1900	379	0.00	60.3
Crystal RR012	159	360.9	102	11910	101	1.47	19.50	33.17	239	2035	512	0.00	63.2
Hilleshög 4062RR	155	347.3	99	10922	93	1.52	18.86	31.58	286	2201	484	0.00	59.8
Hilleshög 4204RR	163	332.6	94	10818	92	1.67	18.30	32.53	420	2336	520	0.00	45.4
Hilleshög 4251RR(9251)	153	344.7	98	11336	96	1.52	18.77	32.93	297	2174	491	0.00	58.6
Hilleshög 4022RR	160	351.0	100	11006	93	1.44	18.99	31.37	262	2127	456	0.00	63.4
SESVdh 36926RR	156	357.1	101	12008	102	1.30	19.16	33.65	274	1914	399	0.02	63.2
SESVdh 36927RR	161	348.8	99	11877	101	1.30	18.74	34.01	255	1889	409	0.12	58.6
Seedex Ultra RR	158	351.0	100	11966	101	1.32	18.88	34.26	284	1919	410	0.00	53.2
Seedex Vapor RR(SX0995)	152	352.8	100	12113	103	1.37	19.01	34.43	276	1957	444	0.05	58.4
MD RR Filler#1	164	356.4	101	11510	98	1.39	19.21	32.42	260	1974	461	0.00	61.4
Filler27	165	346.8	98	11768	100	1.68	19.02	34.00	401	2314	538	0.00	57.6
Trial Mean		352.2		11799		1.42	19.03	33.59	284	2037	455	0.0	58.9
Coeff. of Var. (%)		3.5		5.5		8.1	3.0	4.9	22.6	5.8	12.5		14.6
Mean LSD (0.05)		11.7		773		0.11	0.52	2.05	53	126	53		5.7
Mean LSD (0.01)		15.7		1042		0.15	0.71	2.77	71	170	72		7.5
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2012 Data from 3 sites

10/16/2012 13:25

Created 10-17-2012.

^ Vigor not collected.

Trial # = 12MDCom

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

Table 25. 2012 Performance of Varieties - MDFC RR Commercial Yield Trial - Barnesville MN

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 70RR64	157	345.1	102	11966	101	1.56	18.81	34.82	355	1971	554	0.00	49.7
BTS 70RR70	151	344.6	102	12571	106	1.31	18.55	36.53	286	1852	416	0.00	54.7
BTS 70RR99	162	348.0	103	12411	105	1.56	18.93	35.91	281	2092	547	0.00	45.6
Crystal RR830	154	329.5	97	12864	108	1.36	17.84	38.96	314	1963	416	0.00	49.9
Crystal RR012	159	338.9	100	11922	100	1.54	18.48	35.01	293	2003	553	0.00	52.7
Hilleshög 4062RR	155	332.4	98	10998	93	1.65	18.24	33.14	369	2212	558	0.00	54.4
Hilleshög 4204RR	163	322.2	95	10981	93	1.72	17.81	34.07	476	2294	545	0.00	37.5
Hilleshög 4251RR(9251)	153	329.4	97	10989	93	1.64	18.12	33.41	333	2172	569	0.00	51.3
Hilleshög 4022RR	160	340.9	101	11241	95	1.48	18.55	32.88	296	2104	479	0.00	59.1
SESVdh 36926RR	156	339.4	100	11684	98	1.26	18.24	34.49	312	1776	395	0.00	56.1
SESVdh 36927RR	161	341.2	101	12554	106	1.29	18.35	36.63	284	1794	422	0.14	51.4
Seedex Ultra RR	158	338.3	100	11990	101	1.36	18.30	35.32	349	1873	430	0.00	41.9
Seedex Vapor RR(SX0995)	152	345.1	102	11901	100	1.39	18.63	34.68	296	1933	454	0.07	49.4
MD RR Filler#1	164	342.9	101	11944	101	1.41	18.56	34.84	308	1858	485	0.00	56.4
Filler27	165	339.4	100	11998	101	1.70	18.67	35.41	389	2226	579	0.00	51.7
Trial Mean		338.5		11868		1.48	18.41	35.07	329	2008	494	0.0	50.8
Coeff. of Var. (%)		4.2		5.3		7.4	3.5	3.6	20.8	5.5	10.7		15.2
Mean LSD (0.05)		16.3		733		0.13	0.74	1.50	79	130	61		8.9
Mean LSD (0.01)		21.6		973		0.17	0.99	2.00	105	173	81		11.8
Sig Lvl		ns		**		**	ns	**	**	**	**		**

* 2012 Data from Barnesville MN 10/16/2012 11:32 Created 10-17-2012.

^ Vigor not collected. Trial # = 126601

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

Tabel 26. 2012 Performance of Varieties - MDFC RR Commercial Yield Trial - Fairmount ND

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 70RR64	157	367.1	105	11708	105	1.29	19.64	32.05	214	1932	407	0.00	57.8
BTS 70RR70	151	358.1	102	12472	112	1.17	19.10	34.99	203	1766	366	0.00	60.7
BTS 70RR99	162	352.2	101	12068	109	1.42	19.04	34.45	180	2009	503	0.07	60.0
Crystal RR830	154	345.3	99	12003	108	1.17	18.43	34.84	222	1766	353	0.00	57.6
Crystal RR012	159	356.9	102	10952	99	1.48	19.29	31.03	207	2035	528	0.00	62.0
Hilleshög 4062RR	155	351.4	100	9911	89	1.50	19.04	28.52	222	2283	470	0.00	55.6
Hilleshög 4204RR	163	321.9	92	9198	83	1.68	17.77	28.97	389	2482	502	0.00	39.6
Hilleshög 4251RR(9251)	153	349.0	100	10805	97	1.45	18.92	30.98	239	2226	444	0.00	61.1
Hilleshög 4022RR	160	340.9	97	9922	89	1.46	18.53	29.27	230	2148	483	0.00	57.3
SESVdh 36926RR	156	352.3	101	11431	103	1.35	18.96	32.39	291	1960	415	0.00	65.2
SESVdh 36927RR	161	338.5	97	10845	98	1.33	18.27	31.97	246	1919	432	0.14	59.3
Seedex Ultra RR	158	354.6	101	11560	104	1.25	18.98	32.86	212	1920	383	0.00	59.0
Seedex Vapor RR(SX0995)	152	353.5	101	11267	101	1.32	19.00	32.00	240	1923	427	0.07	58.3
MD RR Filler#1	164	355.4	102	11280	102	1.36	19.11	31.95	222	1996	444	0.00	59.3
Filler27	165	350.4	100	11218	101	1.61	19.12	32.21	331	2358	504	0.00	54.0
Trial Mean		349.8		11109		1.39	18.88	31.90	243	2048	444	0.0	57.8
Coeff. of Var. (%)		3.2		4.8		8.4	2.8	4.6	25.2	6.0	13.9		18.8
Mean LSD (0.05)		13.8		656		0.14	0.64	1.81	73	146	71		12.5
Mean LSD (0.01)		18.3		872		0.18	0.86	2.41	97	194	94		16.6
Sig Lvl		**		**		**	**	**	**	**	**		ns

* 2012 Data from Fairmount ND 10/17/2012 15:19 Created 10-17-2012.

^ Vigor not collected. Trial # = 126603

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

Table 27. 2012 Performance of Varieties - MDFC RR Commercial Yield Trial - Norcross MN

Description @	Code	Rec/T lbs.	Rec/T %Mean	Rec/A lbs.	Rec/A %Mean	Loss Mol %	Sugar %	Yield T/A	Na ppm	K ppm	AmN ppm	Bolter %	Emerg. %
BTS 70RR64	157	382.4	104	12519	101	1.31	20.42	33.10	255	1916	411	0.00	67.2
BTS 70RR70	151	388.5	105	13683	110	1.24	20.67	35.18	258	1913	362	0.00	74.0
BTS 70RR99	162	377.1	102	12595	101	1.31	20.16	33.43	207	1989	414	0.00	68.9
Crystal RR830	154	364.3	99	12232	98	1.27	19.48	33.86	263	1968	369	0.00	73.4
Crystal RR012	159	385.8	105	12928	104	1.40	20.67	33.62	217	2065	456	0.00	75.0
Hilleshög 4062RR	155	360.4	98	12026	97	1.40	19.40	33.15	270	2114	422	0.00	70.6
Hilleshög 4204RR	163	355.9	97	12258	99	1.62	19.43	34.49	393	2244	511	0.00	59.3
Hilleshög 4251RR(9251)	153	355.1	96	12225	98	1.47	19.25	34.49	323	2124	456	0.00	63.3
Hilleshög 4022RR	160	369.2	100	11815	95	1.37	19.81	32.02	250	2127	401	0.00	73.6
SESVdh 36926RR	156	379.3	103	12922	104	1.28	20.23	34.07	210	1994	386	0.07	67.8
SESVdh 36927RR	161	366.5	100	12277	99	1.26	19.59	33.47	231	1938	377	0.07	66.5
Seedex Ultra RR	158	357.7	97	12277	99	1.35	19.25	34.62	295	1960	418	0.00	58.8
Seedex Vapor RR(SX0995)	152	361.1	98	13075	105	1.40	19.46	36.52	299	2021	442	0.00	66.2
MD RR Filler#1	164	370.4	101	11314	91	1.42	19.94	30.48	250	2065	458	0.00	68.6
Filler27	165	351.1	95	12141	98	1.72	19.29	34.47	478	2361	529	0.00	67.3
Trial Mean		368.3		12419		1.39	19.80	33.80	280	2053	427	0.0	68.0
Coeff. of Var. (%)		3.1		6.0		8.3	2.7	6.3	21.4	6.0	12.3		9.0
Mean LSD (0.05)		14.0		896		0.14	0.66	2.59	73	149	64		7.4
Mean LSD (0.01)		18.6		1191		0.18	0.87	3.45	97	198	85		9.8
Sig Lvl		**		**		**	**	*	**	**	**		**

* 2012 Data from Norcross MN

10/17/2012 15:33

Created 10-17-2012.

^ Vigor not collected.

Trial # = 126604

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

Table 28. 2012 Performance of Varieties - MDFC Experimental RR Official Trial - 3 sites

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 72RR10	306	345.9	98	11758	100	1.59	18.86	34.24	318	2282	502	0.00	60.7
BTS 72RR22	333	358.6	102	11668	99	1.44	19.38	32.25	268	2027	484	0.08	61.9
BTS 72RR50	317	385.7	109	12346	105	1.26	20.55	31.96	194	1765	430	0.00	68.7
BTS 72RR82	323	343.8	98	10987	93	1.53	18.69	31.90	330	2052	513	0.08	54.4
BTS 72RR95	309	344.8	98	11488	97	1.50	18.75	33.25	278	2090	505	0.00	64.7
Crystal RR210	313	368.3	105	11525	98	1.30	19.69	31.35	178	1830	444	0.00	54.9
Crystal RR228NT	305	361.8	103	12306	104	1.33	19.42	34.14	235	1865	449	0.08	63.3
Crystal RR241	328	364.1	103	12138	103	1.41	19.60	33.50	240	2073	448	0.00	62.7
Crystal RR260	339	345.0	98	13653	116	1.37	18.62	39.79	374	2042	384	0.00	68.5
Crystal RR299	320	352.6	100	13493	114	1.24	18.88	38.37	285	1853	365	0.08	65.4
Hilleshog 9309RR	302	349.5	99	10464	89	1.40	18.86	29.80	299	1995	445	0.00	55.0
Hilleshog 4303RR(9310)	310	365.9	104	11631	99	1.35	19.62	31.85	257	1828	457	0.08	54.3
Hilleshög 9420RR	316	350.2	99	11543	98	1.51	19.00	32.82	337	2068	490	0.00	50.3
Hilleshög 9421RR	334	346.2	98	11075	94	1.44	18.73	31.71	222	2116	468	0.00	66.4
Hilleshög 9422RR	326	355.3	101	10607	90	1.35	19.10	29.92	235	2068	410	0.00	63.5
Hilleshög 9423RR	307	336.4	95	11578	98	1.49	18.29	34.14	358	1993	489	0.00	58.7
Hilleshög 9424RR	331	347.5	99	11470	97	1.45	18.83	33.32	315	2070	462	0.00	65.0
Hilleshög 9449RR	322	361.6	103	11504	98	1.30	19.39	31.65	214	1819	442	0.00	59.5
Hilleshög 9451RR	318	357.4	101	11873	101	1.28	19.14	33.35	283	1771	410	0.08	62.5
Maribo 108RR	337	353.1	100	11472	97	1.35	19.02	32.10	267	1877	451	0.00	56.0
Maribo 213RR	308	346.1	98	11700	99	1.47	18.75	33.89	296	2097	464	0.00	65.1
Maribo 214RR	329	344.7	98	12159	103	1.41	18.63	35.33	225	2083	451	0.00	60.7
Maribo 215RR	314	333.6	95	10984	93	1.56	18.21	32.68	301	2171	514	0.00	60.7
Seedex SX0901RR	301	353.8	100	12193	103	1.37	19.03	34.76	264	1991	427	0.08	54.6
Seedex SX0903RR	340	352.5	100	12541	106	1.28	18.89	35.35	227	1897	397	0.15	57.2
Seedex SX0904RR	321	340.8	97	11282	96	1.40	18.42	33.29	323	2106	406	0.00	51.5
Seedex SX0917RR	338	355.1	101	11338	96	1.30	19.03	31.89	235	1933	400	0.00	47.0
Seedex SX0924RR	304	351.4	100	11902	101	1.33	18.89	33.68	247	2060	387	0.00	53.7
Seedex SX0925RR	335	347.7	99	12362	105	1.35	18.73	35.27	306	2046	392	0.00	53.5
Seedex SX0929RR	324	352.8	100	10680	91	1.38	18.99	30.21	229	2038	440	0.00	57.6
SESVdh 36084RR	312	363.0	103	11934	101	1.28	19.43	32.72	210	1873	411	0.00	55.0
SESVdh 36185RR	319	366.8	104	12444	106	1.22	19.55	34.11	200	1858	371	0.15	56.8
SESVdh 36186RR	303	362.8	103	11225	95	1.32	19.44	31.02	218	1991	404	0.00	44.3
SESVdh 36187RR	327	355.8	101	12067	102	1.25	19.03	34.30	206	1847	397	0.00	56.0
SESVdh 36188RR	332	334.9	95	11645	99	1.40	18.14	34.49	319	2100	411	0.00	55.9
SESVdh 36221RR	311	350.3	99	12066	102	1.37	18.86	34.94	290	2048	405	0.00	51.1
SESVdh 36222RR	325	354.9	101	12611	107	1.28	19.01	35.41	255	1907	386	0.15	53.7
SESVdh 36223RR	336	343.0	97	11916	101	1.37	18.52	34.48	303	2059	404	0.00	54.0
SESVdh 36224RR	315	361.7	103	11917	101	1.29	19.38	32.70	224	1930	397	0.00	53.4
SESVdh 36228TTRR	330	340.6	97	11887	101	1.39	18.42	34.72	319	1939	450	0.08	54.4
Crystal RR830(Check)	341	339.9	96	12400	105	1.27	18.27	36.40	273	1886	383	0.00	54.6
SESVdh 36927RR(Check)	342	350.4	99	11951	101	1.34	18.86	34.40	265	1942	420	0.15	58.0
Hilleshög 4062RR(Check)	343	351.0	100	10957	93	1.49	19.02	31.32	277	2151	475	0.00	56.8
BTS 70RR99(Check)	344	359.7	102	12240	104	1.42	19.39	34.03	211	2037	479	0.00	59.1
Trial Mean		352.4		11795		1.37	18.98	33.48	266	1988	434	0.0	57.8
Coeff. of Var. (%)		2.8		6.7		7.1	2.4	6.0	22.8	5.2	11.1		14.6
Mean LSD (0.05)		9.4		678		0.09	0.43	1.99	56	109	50		7.2
Mean LSD (0.01)		12.4		892		0.12	0.58	2.63	74	144	66		9.5
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2012 Data from 3 sites

10/16/2012 10:32

Created 10-17-2012.

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

Trial # = 12MDExp

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

Table 29. 2012 Performance of Varieties - MDFC Experimental RR Official Trial - Barnesville MN

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 72RR10	306	345.4	101	12529	103	1.53	18.78	36.07	339	2214	478	0.00	59.0
BTS 72RR22	333	348.5	102	12173	100	1.50	18.92	34.71	298	1988	531	0.21	67.2
BTS 72RR50	317	373.6	109	12875	106	1.26	19.96	34.67	227	1686	447	0.00	66.3
BTS 72RR82	323	339.7	99	11759	96	1.54	18.50	34.54	402	2038	515	0.21	54.6
BTS 72RR95	309	334.5	98	11269	92	1.65	18.35	33.31	367	2107	587	0.00	64.1
Crystal RR210	313	361.0	105	12015	99	1.35	19.40	33.33	212	1850	477	0.00	57.0
Crystal RR228NT	305	350.9	102	12958	106	1.40	18.94	36.85	271	1823	504	0.00	65.7
Crystal RR241	328	349.3	102	11815	97	1.54	18.99	33.78	291	2065	543	0.00	64.7
Crystal RR260	339	336.4	98	13974	115	1.35	18.17	41.21	348	1985	401	0.00	71.6
Crystal RR299	320	339.9	99	14269	117	1.32	18.33	41.70	317	1916	405	0.00	66.6
Hilleshog 9309RR	302	344.2	101	10822	89	1.49	18.68	31.21	346	2019	492	0.00	53.7
Hilleshog 4303RR(9310)	310	354.3	103	11832	97	1.42	19.12	33.47	333	1785	510	0.21	54.2
Hilleshög 9420RR	316	339.0	99	11402	94	1.55	18.48	33.77	409	2109	502	0.00	48.3
Hilleshög 9421RR	334	334.6	98	10985	90	1.48	18.19	32.35	251	2104	496	0.00	64.6
Hilleshög 9422RR	326	342.7	100	11149	91	1.42	18.53	32.69	273	2095	442	0.00	65.0
Hilleshög 9423RR	307	333.0	97	12253	101	1.49	18.12	36.81	326	2016	499	0.00	61.3
Hilleshög 9424RR	331	340.9	100	11877	97	1.46	18.49	35.19	344	2027	473	0.00	62.9
Hilleshög 9449RR	322	352.9	103	12017	99	1.35	19.00	34.08	258	1773	483	0.00	54.2
Hilleshög 9451RR	318	348.2	102	12207	100	1.33	18.75	34.88	340	1783	440	0.00	58.5
Maribo 108RR	337	349.9	102	11851	97	1.35	18.85	33.46	310	1819	457	0.00	57.5
Maribo 213RR	308	339.3	99	12090	99	1.50	18.45	35.34	336	2089	493	0.00	61.4
Maribo 214RR	329	335.8	98	12622	104	1.45	18.23	37.68	262	2073	475	0.00	56.9
Maribo 215RR	314	323.6	95	11134	91	1.59	17.72	33.84	373	2065	552	0.00	61.8
Seedex SX0901RR	301	339.6	99	12434	102	1.42	18.37	37.13	339	1922	461	0.21	51.1
Seedex SX0903RR	340	345.3	101	13190	108	1.29	18.55	37.88	282	1855	409	0.21	58.2
Seedex SX0904RR	321	328.7	96	11703	96	1.46	17.87	35.10	372	2030	459	0.00	50.7
Seedex SX0917RR	338	338.2	99	11777	97	1.36	18.27	34.41	322	1959	423	0.00	44.3
Seedex SX0924RR	304	339.5	99	12301	101	1.38	18.34	35.68	309	2013	429	0.00	47.1
Seedex SX0925RR	335	340.5	99	12388	102	1.34	18.36	36.10	341	1975	397	0.00	49.9
Seedex SX0929RR	324	345.7	101	11610	95	1.36	18.63	33.63	281	1932	444	0.00	54.8
SESVdh 36084RR	312	349.5	102	12101	99	1.32	18.81	34.40	263	1857	436	0.00	50.6
SESVdh 36185RR	319	350.9	102	13072	107	1.34	18.89	37.01	249	1953	428	0.21	56.1
SESVdh 36186RR	303	351.1	103	11308	93	1.34	18.89	32.05	266	1972	423	0.00	35.6
SESVdh 36187RR	327	348.8	102	12891	106	1.29	18.72	36.40	234	1881	410	0.00	53.6
SESVdh 36188RR	332	328.6	96	12177	100	1.39	17.81	36.93	373	1999	420	0.00	55.6
SESVdh 36221RR	311	336.5	98	12175	100	1.39	18.20	36.20	349	2027	421	0.00	46.3
SESVdh 36222RR	325	344.7	101	13251	109	1.33	18.55	37.94	295	1886	425	0.43	49.4
SESVdh 36223RR	336	325.5	95	12305	101	1.45	17.71	37.80	373	2016	454	0.00	52.5
SESVdh 36224RR	315	347.7	102	12507	103	1.39	18.77	35.64	285	1941	461	0.00	50.7
SESVdh 36228TTRR	330	332.9	97	12468	102	1.33	17.98	37.32	324	1849	427	0.21	53.0
Crystal RR830(Check)	341	326.7	95	12169	100	1.38	17.71	37.31	347	1946	430	0.00	48.5
SESVdh 36927RR(Check)	342	339.0	99	12473	102	1.40	18.34	36.92	327	1899	466	0.21	60.1
Hilleshög 4062RR(Check)	343	342.4	100	11431	94	1.55	18.65	33.37	302	2159	520	0.00	53.6
BTS 70RR99(Check)	344	343.0	100	12754	105	1.52	18.65	37.03	273	2058	527	0.00	52.9
Trial Mean		342.4		12190		1.42	18.52	35.48	312	1967	465	0.00	56.2
Coeff. of Var. (%)		2.7		6.7		6.0	2.3	6.1	19.3	4.4	9.6		14.3
Mean LSD (0.05)		14.6		1144		0.13	0.67	3.12	91	128	68		12.1
Mean LSD (0.01)		19.4		1511		0.17	0.90	4.11	120	169	91		16.0
Sig Lvl		**		**		**	**	**	**	**	**		**

* 2012 Data from Barnesville MN

10/19/2012 11:01

Created 10-17-2012.

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

Trial # = 126301

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

Table 30. 2012 Performance of Varieties - MDFC Experimental RR Official Trial - Fairmount ND

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 72RR10	306	339.8	97	10855	99	1.60	18.59	32.15	248	2381	520	0.00	53.6
BTS 72RR22	333	355.8	101	10881	100	1.38	19.23	30.03	194	2052	464	0.00	52.1
BTS 72RR50	317	377.9	108	11095	102	1.23	20.16	29.52	164	1760	427	0.00	60.9
BTS 72RR82	323	338.1	96	9687	89	1.51	18.40	28.69	247	2167	503	0.00	49.8
BTS 72RR95	309	338.0	96	10681	98	1.43	18.38	31.47	210	2060	495	0.00	56.0
Crystal RR210	313	365.2	104	10882	100	1.25	19.53	29.78	139	1781	443	0.00	45.1
Crystal RR228NT	305	362.8	103	11802	108	1.32	19.49	32.47	165	1916	458	0.21	53.9
Crystal RR241	328	362.4	103	11454	105	1.36	19.47	31.73	204	2098	422	0.00	54.7
Crystal RR260	339	346.0	99	12585	115	1.44	18.73	36.21	352	2188	401	0.00	63.9
Crystal RR299	320	350.9	100	12496	114	1.21	18.78	35.74	245	1854	359	0.21	59.8
Hilleshog 9309RR	302	340.8	97	8969	82	1.35	18.38	26.13	268	2000	418	0.00	45.1
Hilleshog 4303RR(9310)	310	367.3	105	10752	98	1.29	19.65	29.16	187	1826	446	0.00	48.1
Hilleshög 9420RR	316	344.5	98	10887	100	1.51	18.75	31.43	273	2050	531	0.00	42.7
Hilleshög 9421RR	334	336.3	96	10409	95	1.43	18.27	30.82	181	2089	488	0.00	51.9
Hilleshög 9422RR	326	353.3	101	9332	85	1.34	19.01	26.30	197	2076	412	0.00	51.7
Hilleshög 9423RR	307	327.0	93	10399	95	1.57	17.92	31.67	366	2036	540	0.00	48.1
Hilleshög 9424RR	331	351.1	100	10392	95	1.46	19.01	29.84	222	2163	475	0.00	60.7
Hilleshög 9449RR	322	356.5	102	10520	96	1.26	19.09	29.53	165	1809	432	0.00	55.1
Hilleshög 9451RR	318	357.8	102	10740	98	1.21	19.09	30.04	203	1751	396	0.00	58.6
Maribo 108RR	337	352.2	100	10550	97	1.38	19.02	29.70	203	1962	478	0.00	48.3
Maribo 213RR	308	342.7	98	10924	100	1.49	18.62	32.05	225	2135	503	0.00	62.8
Maribo 214RR	329	343.6	98	10942	100	1.42	18.59	31.78	173	2109	478	0.00	54.5
Maribo 215RR	314	337.6	96	10489	96	1.50	18.37	31.00	220	2154	511	0.00	53.6
Seedex SX0901RR	301	354.3	101	11211	103	1.35	19.06	31.83	196	2059	429	0.00	53.2
Seedex SX0903RR	340	350.1	100	11524	106	1.26	18.78	32.67	166	1954	402	0.00	46.2
Seedex SX0904RR	321	346.0	99	11220	103	1.33	18.62	32.60	226	2162	373	0.00	48.5
Seedex SX0917RR	338	353.4	101	10690	98	1.20	18.88	30.20	158	1916	368	0.00	44.7
Seedex SX0924RR	304	341.9	97	10684	98	1.31	18.43	31.07	196	2160	376	0.00	53.4
Seedex SX0925RR	335	349.6	100	12216	112	1.27	18.77	34.90	235	2017	367	0.00	44.9
Seedex SX0929RR	324	352.6	101	10062	92	1.29	18.91	28.50	173	2015	403	0.00	53.8
SESVdh 36084RR	312	361.9	103	11040	101	1.26	19.35	30.42	174	1836	424	0.00	55.3
SESVdh 36185RR	319	368.4	105	11658	107	1.15	19.56	31.69	130	1811	362	0.21	49.8
SESVdh 36186RR	303	365.7	104	10475	96	1.23	19.51	28.67	143	2013	365	0.00	38.3
SESVdh 36187RR	327	358.9	102	10862	99	1.19	19.13	30.62	146	1834	381	0.00	50.9
SESVdh 36188RR	332	329.5	94	10418	95	1.42	17.90	31.40	245	2205	432	0.00	48.7
SESVdh 36221RR	311	354.2	101	11512	105	1.32	19.05	32.82	204	2057	409	0.00	47.9
SESVdh 36222RR	325	358.5	102	11997	110	1.22	19.16	33.32	181	1925	376	0.00	51.5
SESVdh 36223RR	336	349.4	100	10972	100	1.32	18.82	31.08	227	2087	389	0.00	47.0
SESVdh 36224RR	315	362.8	103	10729	98	1.23	19.40	29.27	153	1920	391	0.00	52.6
SESVdh 36228TTRR	330	340.0	97	10707	98	1.43	18.45	31.15	243	2054	479	0.00	46.4
Crystal RR830(Check)	341	331.9	95	12199	112	1.21	17.83	36.81	221	1792	382	0.00	54.9
SESVdh 36927RR(Check)	342	353.5	101	10886	100	1.32	18.98	30.88	224	1984	411	0.21	47.7
Hilleshög 4062RR(Check)	343	348.7	99	10137	93	1.49	18.93	29.07	258	2207	479	0.00	53.9
BTS 70RR99(Check)	344	353.3	101	11606	106	1.39	19.05	33.01	166	1994	486	0.00	56.6
Trial Mean		350.8		10922		1.34	18.89	31.12	207	2009	434	0.0	51.8
Coeff. of Var. (%)		3.0		6.5		7.9	2.6	6.3	25.8	5.6	11.8		18.1
Mean LSD (0.05)		16.3		1055		0.15	0.78	3.00	81	170	76		13.1
Mean LSD (0.01)		21.6		1395		0.20	1.03	3.98	107	224	100		17.3
Sig Lvl		**		**		**	**	**	**	**	**		ns

* 2012 Data from Fairmount ND 10/16/2012 08:30 Created 10-17-2012.

^ Vigor not collected. Bolter & emergence not adjusted to commercial status. Trial # = 126303

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

Table 31. 2012 Performance of Varieties - MDFC Experimental RR Official Trial - Norcross MN

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 72RR10	306	349.4	96	11921	97	1.62	19.06	34.17	375	2249	514	0.00	68.6
BTS 72RR22	333	374.7	103	11663	95	1.43	20.14	31.15	290	2064	452	0.00	66.1
BTS 72RR50	317	403.3	110	12936	105	1.29	21.44	30.99	205	1879	423	0.00	81.4
BTS 72RR82	323	357.9	98	11425	93	1.53	19.40	32.29	348	1921	537	0.00	58.8
BTS 72RR95	309	365.7	100	12936	105	1.37	19.64	35.90	234	2080	423	0.00	74.9
Crystal RR210	313	377.9	103	11483	93	1.28	20.15	29.98	190	1901	416	0.00	63.3
Crystal RR228NT	305	367.1	100	11905	97	1.27	19.62	32.25	273	1870	389	0.00	71.2
Crystal RR241	328	390.1	107	13520	110	1.28	20.76	35.20	200	2081	372	0.00	71.1
Crystal RR260	339	353.6	97	14677	119	1.30	18.94	42.19	401	1912	346	0.00	69.3
Crystal RR299	320	366.8	100	13835	113	1.17	19.49	37.76	284	1746	338	0.00	71.9
Hilleshog 9309RR	302	367.3	101	11759	96	1.35	19.69	32.14	273	1930	430	0.00	67.8
Hilleshog 4303RR(9310)	310	379.3	104	12600	102	1.31	20.26	34.06	253	1901	417	0.00	61.9
Hilleshög 9420RR	316	372.3	102	12513	102	1.38	19.98	34.05	318	2022	418	0.00	60.5
Hilleshög 9421RR	334	373.6	102	11962	97	1.39	20.03	32.07	224	2146	418	0.00	85.1
Hilleshög 9422RR	326	370.6	101	11476	93	1.28	19.79	31.25	235	2006	372	0.00	74.9
Hilleshög 9423RR	307	349.9	96	12126	99	1.35	18.82	34.49	355	1873	414	0.00	67.9
Hilleshög 9424RR	331	353.6	97	12305	100	1.44	19.12	34.74	390	2029	442	0.00	71.5
Hilleshög 9449RR	322	376.9	103	12124	99	1.27	20.11	32.18	229	1825	405	0.00	71.8
Hilleshög 9451RR	318	368.0	101	12799	104	1.28	19.64	34.88	315	1766	396	0.28	69.5
Maribo 108RR	337	354.8	97	11949	97	1.29	19.02	33.50	293	1789	413	0.00	63.6
Maribo 213RR	308	353.3	97	12041	98	1.37	19.03	33.54	324	2068	396	0.00	68.6
Maribo 214RR	329	354.5	97	12943	105	1.35	19.08	36.03	251	2117	401	0.00	73.4
Maribo 215RR	314	336.3	92	11259	92	1.59	18.39	33.04	329	2352	484	0.00	65.8
Seedex SX0901RR	301	371.1	102	13190	107	1.30	19.81	35.83	265	1955	381	0.00	58.3
Seedex SX0903RR	340	363.7	100	12712	103	1.26	19.42	34.80	238	1895	378	0.28	67.9
Seedex SX0904RR	321	346.0	95	10676	87	1.43	18.73	30.92	393	2171	399	0.00	54.9
Seedex SX0917RR	338	379.3	104	11662	95	1.30	20.22	31.06	220	1919	408	0.00	53.0
Seedex SX0924RR	304	376.6	103	13032	106	1.27	20.07	35.06	230	2005	358	0.00	59.5
Seedex SX0925RR	335	353.4	97	11995	98	1.48	19.12	32.91	342	2236	427	0.00	64.4
Seedex SX0929RR	324	358.2	98	10014	81	1.52	19.40	27.92	245	2198	492	0.00	63.6
SESVdh 36084RR	312	380.5	104	12562	102	1.24	20.22	32.49	187	1928	373	0.00	58.7
SESVdh 36185RR	319	379.4	104	12579	102	1.14	20.11	33.30	242	1811	325	0.00	65.7
SESVdh 36186RR	303	369.4	101	11864	97	1.38	19.83	31.77	258	2023	439	0.00	61.3
SESVdh 36187RR	327	355.3	97	12631	103	1.27	19.01	35.70	248	1828	407	0.00	63.8
SESVdh 36188RR	332	351.3	96	12342	100	1.36	18.90	34.75	332	2119	374	0.00	62.8
SESVdh 36221RR	311	364.0	100	12622	103	1.36	19.52	34.83	317	2069	382	0.00	60.3
SESVdh 36222RR	325	364.4	100	12536	102	1.26	19.42	34.53	292	1890	355	0.00	60.3
SESVdh 36223RR	336	353.2	97	12435	101	1.32	18.99	35.16	314	2082	366	0.00	62.3
SESVdh 36224RR	315	375.6	103	12410	101	1.21	19.97	32.80	240	1913	336	0.00	56.2
SESVdh 36228TTRR	330	345.1	94	12401	101	1.41	18.64	36.01	405	1857	449	0.00	65.0
Crystal RR830(Check)	341	362.6	99	12782	104	1.22	19.35	34.96	266	1878	350	0.00	60.9
SESVdh 36927RR(Check)	342	360.0	99	12601	102	1.27	19.27	35.06	235	1983	382	0.00	67.1
Hilleshög 4062RR(Check)	343	359.6	98	11351	92	1.39	19.36	31.91	267	2066	431	0.00	63.0
BTS 70RR99(Check)	344	386.0	106	12396	101	1.36	20.64	31.97	202	2082	419	0.00	68.3
Trial Mean		365.3		12294		1.34	19.59	33.67	280	1987	406	0.0	65.8
Coeff. of Var. (%)		2.9		6.1		7.2	2.5	5.4	25.2	5.5	11.4		10.6
Mean LSD (0.05)		19.7		1320		0.17	0.93	3.40	130	205	83		12.0
Mean LSD (0.01)		26.2		1750		0.23	1.25	4.51	173	272	110		15.9
Sig Lvl		**		**		**	**	**	*	**	**		**

* 2012 Data from Norcross MN

10/17/2012 15:56

Created 10-17-2012.

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

Trial # = 126304

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

Table 32. Three Year Performance Summary of Minn-Dak Entries in 2012 MDFC (All Locations). *

	Years	Rec. Sugar / Ton (pounds)			Rec. Sugar / Acre (pounds)			Sugar Content (%)			Root Yield (Tons / Acre)			Field Emergence (%)		Cercospora Rating** (1-9)		Aphanomyces Root Rating		Rhizoctonia (1=Ex,7=Poor)		Fusarium (1=Ex,9=Poor)		Bolters (%)	
	Comm		3 Yr	3 Yr %		3 Yr	3 Yr %		3 Yr	3 Yr %		3 Yr	3 Yr %		3 Yr		3 Yr		3 Yr						
Description @	Seed +	2012	Mean	Est.	2012	Mean	Est.	2012	Mean	Est.	2012	Mean	App.	2012	Mean	2012	Mean	2012	Mean	2011	2012	2011	2012	2011	2012
Established Varieties																									
Crystal RR830	3	346.5	330.9	99.2	12377	10281	112.1	18.6	17.7	99	35.9	31.0	107	60	62	4.60	4.80	9.00	6.25	3.4	3.9	3.6	3.5	0.00	0.00
Hilleshög 4022RR	4	351.0	336.4	100.9	11006	9549	104.1	19.0	18.1	101	31.4	28.5	98	63	72	4.36	4.29	4.11	4.62	3.5	3.3	4.1	4.7	0.00	0.00
Hilleshög 4062RR	3	347.3	331.9	99.5	10922	9440	102.9	18.9	17.9	100	31.6	28.4	98	60	69	4.38	4.23	9.00	6.28	2.9	3.5	4.7	4.7	0.00	0.00
Seedex Ultra RR	3	351.0	331.9	99.5	11966	9701	105.8	18.9	17.8	99	34.3	28.9	99	53	63	4.64	4.72	9.00	6.30	4.6	4.2	3.7	5.0	0.00	0.00
SESVdh 36926RR	1	357.1	340.4	102.1	12008	9773	106.6	19.2	18.2	101	33.7	28.6	98	63	68	4.38	4.39	9.00	6.24	4.4	4.5	5.0	4.6	0.00	0.02
Specialty, Conditional & Candidates																									
BTS 70RR64	1	364.9	341.8	102.5	12103	9790	106.7	19.6	18.3	102	33.4	28.5	98	59	60	5.21	5.16	9.00	5.93	4.7	4.6	4.9	4.0	0.00	0.00
BTS 70RR70	1	363.9	342.1	102.6	12894	10459	114.0	19.5	18.3	102	35.6	30.3	104	63	63	4.62	4.98	9.00	6.63	3.8	3.7	3.9	2.6	0.00	0.00
BTS 70RR99	1	358.5	345.1	103.5	12372	10105	110.2	19.4	18.6	104	34.7	29.1	100	58	63	4.33	4.45	9.00	6.16	3.9	3.8	4.0	2.8	0.00	0.02
Crystal RR012	1	360.9	344.9	103.4	11910	9949	108.5	19.5	18.6	104	33.2	28.8	99	63	59	4.54	4.64	8.92	6.37	4.1	3.3	4.6	2.8	0.00	0.00
Hilleshög 4204RR	2	332.6	325.6	97.6	10818	9335	101.8	18.3	17.7	99	32.5	28.7	99	45	55	4.69	4.55	9.00	6.40	3.3	3.8	5.1	5.8	0.00	0.00
Hilleshög 4251RR(9251)	1	344.7	327.7	98.2	11336	9547	104.1	18.8	17.8	99	32.9	29.1	100	59	62	4.35	4.31	9.00	6.17	3.7	3.7	4.5	5.1	0.00	0.00
Seedex SX0901RR	NC	353.8	337.0	101.0	12193	9771	106.5	19.0	18.1	101	34.8	28.9	99	55	64	4.15	4.46	4.57	4.64	4.8	4.6	4.6	4.9	0.00	0.08
Seedex SX0903RR	NC	352.5	330.1	99.0	12541	10147	110.6	18.9	17.7	99	35.3	30.3	104	57	64	4.23	4.42	4.22	4.50	4.4	4.7	4.6	5.0	0.00	0.15
Seedex SX0904RR	NC	340.8	319.5	95.8	11282	9224	100.6	18.4	17.2	96	33.3	28.8	99	51	65	4.17	4.01	3.84	4.40	3.8	4.1	4.0	3.8	0.00	0.00
Seedex Vapor RR(SX0995)	1	352.8	334.3	100.2	12113	9948	108.5	19.0	17.9	100	34.4	29.6	102	58	63	4.48	4.57	9.00	6.22	4.5	4.2	5.3	4.7	0.00	0.05
SESVdh 36084RR	NC	363.0	340.6	102.1	11934	9626	105.0	19.4	18.2	102	32.7	28.1	97	55	60	4.70	4.77	5.05	4.86	4.4	4.5	5.0	5.3	0.00	0.00
SESVdh 36927RR	3	348.8	330.5	99.1	11877	9662	105.3	18.7	17.7	99	34.0	28.9	99	59	64	4.11	4.28	9.00	6.07	4.5	4.6	4.4	4.7	0.00	0.12
Test Market Candidates			**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**	**2 Yr %**		**2 Yr**		**2 Yr**		**2 Yr**							
Hilleshog 9309RR	NC	349.5	344.7	101.2	10464	8211	94.3	18.9	18.6	101	29.8	23.5	90	55	58	4.56	4.36	3.63	4.42	3.1	3.6	--	4.3	0.00	0.00
Hilleshog 4303RR(9310)	NC	365.9	352.2	103.4	11631	8786	100.9	19.6	18.9	103	31.8	24.4	94	54	59	4.40	4.41	4.72	4.78	--	5.3	--	5.6	0.00	0.08
Maribo 108RR	NC	353.1	346.8	101.8	11472	9154	105.1	19.0	18.6	101	32.1	25.8	99	56	58	5.12	5.12	3.18	3.62	--	4.9	--	5.0	0.00	0.00
Seedex SX0917RR	NC	355.1	346.2	101.6	11338	8767	100.7	19.0	18.6	101	31.9	24.8	96	47	52	4.60	4.44	5.70	5.40	4.8	4.2	--	5.1	0.00	0.00
SESVdh 36185RR	NC	366.8	350.6	102.9	12444	9132	104.9	19.5	18.8	102	34.1	25.5	98	57	57	4.40	4.44	4.63	4.72	4.5	4.8	--	5.4	0.00	0.15
SESVdh 36186RR	NC	362.8	348.8	102.4	11225	8618	99.0	19.4	18.7	102	31.0	24.3	94	44	53	4.73	4.69	4.99	5.04	4.6	4.4	--	4.9	0.00	0.00
SESVdh 36187RR	NC	355.8	347.4	102.0	12067	9066	104.1	19.0	18.6	101	34.3	25.9	100	56	58	4.58	4.55	4.47	4.67	4.9	4.5	5.2	5.0	0.00	0.00
SESVdh 36188RR	NC	334.9	331.2	97.2	11645	8844	101.6	18.1	17.9	98	34.5	26.3	101	56	60	4.05	4.14	4.10	4.31	3.9	4.0	4.0	4.2	0.00	0.00
First Year Varieties				**1 Yr %**			**1 Yr %**			**1 Yr %**			**1 Yr %**												
BTS 72RR10	NC	345.9		98.7	11758		100.9	18.9		100	34.2		103	61		4.67		4.87			4.6		--		0.00
BTS 72RR22	NC	358.6		102.3	11668		100.1	19.4		103	32.3		97	62		4.31		3.19			4.5		--		0.08
BTS 72RR50	NC	385.7		110.0	12346		105.9	20.5		109	32.0		96	69		3.89		6.03			4.3		--		0.00
BTS 72RR82	NC	343.8		98.1	10987		94.3	18.7		99	31.9		96	54		5.00		5.09			4.6		--		0.08
BTS 72RR95	NC	344.8		98.3	11488		98.6	18.7		99	33.2		100	65		4.57		3.93			3.0		--		0.00
Crystal RR210	NC	368.3		105.1	11525		98.9	19.7		104	31.3		94	55		4.59		6.03			4.4		--		0.00
Crystal RR228NT	NC	361.8		103.2	12306		105.6	19.4		103	34.1		102	63		4.33		3.49			4.4		--		0.08
Crystal RR241	NC	364.1		103.9	12138		104.1	19.6		104	33.5		100	63		4.29		6.70			4.5		--		0.00
Crystal RR260	NC	345.0		98.4	13653		117.1	18.6		99	39.8		119	69		4.58		4.37			4.6		--		0.00
Crystal RR299	NC	352.6		100.6	13493		115.8	18.9		100	38.4		115	65		4.48		4.04			4.2		--		0.08
Hilleshög 9420RR	NC	350.2		99.9	11543		99.0	19.0		101	32.8		98	50		4.76		4.63			--		--		0.00
Hilleshög 9421RR	NC	346.2		98.8	11075		95.0	18.7		99	31.7		95	66		4.60		3.25			--		--		0.00
Hilleshög 9422RR	NC	355.3		101.3	10607		91.0	19.1		101	29.9		90	64		3.69		4.42			3.8		--		0.00
Hilleshög 9423RR	NC	336.4		96.0	11578		99.3	18.3		97	34.1		102	59		4.87		4.90			--		--		0.00
Hilleshög 9424RR	NC	347.5		99.1	11470		98.4	18.8		100	33.3		100	65		4.45		3.67			3.6		--		0.00
Hilleshög 9449RR	NC	361.6		103.2	11504		98.7	19.4		103	31.6		95	60		4.66		4.46			--		--		0.00
Hilleshög 9451RR	NC	357.4		102.0	11873		101.9	19.1		101	33.4		100	63		5.38		4.69			--		--		0.08
Maribo 213RR	NC	346.1		98.7	11700		100.4	18.7		99	33.9		102	65		4.49		3.41			3.6		--		0.00
Maribo 214RR	NC	344.7		98.3	12159		104.3	18.6		99	35.3		106	61		4.68		6.22			--		--		0.00
Maribo 215RR	NC	333.6		95.1	10984		94.2	18.2		96	32.7		98	61		5.03		4.48			--		--		0.00
Seedex SX0924RR	NC	351.4		100.2	11902		102.1	18.9		100	33.7		101	54		4.74		4.63			4.2		--		0.00
Seedex SX0925RR	NC	347.7		99.2	12362		106.1	18.7		99	35.3		106	53		4.42		5.43			4.6		4.7		0.00
Seedex SX0929RR	NC	352.8		100.6	10680		91.6	19.0		101	30.2		91	58		4.02		3.80			3.8		4.1		0.00
SESVdh 36221RR	NC	350.3		99.9	12066		103.5	18.9		100	34.9		105	51		4.64		5.97			4.8		--		0.00
SESVdh 36222RR	NC	354.9		101.2	12611		108.2	19.0		101	35.4		106	54		4.32		5.03			4.6		--		0.15
SESVdh 36223RR	NC	343.0		97.8	11916		102.2	18.5		98	34.5		103	54		4.25		3.95			4.0		3.7		0.00
SESVdh 36224RR	NC	361.7		103.2	11917		102.2	19.4		103	32.7		98	53		4.27		4.52			--		--		0.00
SESVdh 36228TTRR	NC	340.6		97.2	11887		102.0	18.4		97	34.7		104	54		4.46		4.12			--		--		0.08
Prev. Approved Mean^^		350.6	334.3		11656	9748.8		18.9			33.4														
Prev Approved Mean - 2 Yr only			340.8			8963.1		17.1			33.4														

* 2012 Barnesville, Fairmount & Norcross. 2011 Barnesville & Foxhome. 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. Created 10-30-2012.

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

Est. = Established commercial varieties.

Table 33. ACSC Official Trial Disease Nurseries 2010 - 2012 (Varieties tested in 2012)

Cercospora, Aphanomyces, Rhizoctonia & Fusarium

		CR					Aph					Rhizoctonia					Fusarium				
		12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr
Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	RR Approved																				
612	BTS 80RR12	4.65	4.86	5.27	4.76	4.93	6.08	4.87	5.30	5.48	5.42	4.42	4.80	4.21	4.61	4.48	2.67	3.55	3.04	3.11	3.09
540	BTS 80RR32	4.66	5.18	4.93	4.92	4.92	4.43	5.33	5.60	4.88	5.12	3.88	4.23	3.94	4.05	4.01	2.46	4.22	2.22	3.34	2.96
574	BTS 80RR52	4.40	4.61	4.32	4.51	4.45	4.04	4.93	4.67	4.49	4.55	3.73	4.14	4.17	3.94	4.02	2.77	3.93	2.30	3.35	3.00
588	BTS 89RR10	5.10	5.08	4.92	5.09	5.03	2.32	4.13	3.67	3.22	3.37	4.14	3.63	3.94	3.88	3.90	4.62	4.74	5.47	4.68	4.95
637	BTS 89RR30	4.92	5.17	5.09	5.04	5.06	5.97	5.14	4.25	5.56	5.12	4.24	4.54	3.66	4.39	4.15	2.50	3.54	1.65	3.02	2.56
563	BTS 89RR40	5.16	5.33	5.07	5.25	5.19	3.62	4.76	4.14	4.19	4.17	4.85	5.02	4.20	4.94	4.69	4.29	4.79	3.60	4.54	4.22
619	BTS 89RR50	5.30	5.01	5.16	5.16	5.16	4.80	4.07	3.86	4.43	4.24	4.88	5.30	4.01	5.09	4.73	3.02	3.77	2.14	3.40	2.98
535	BTS 89RR83	4.89	4.81	4.83	4.85	4.84	3.62	5.05	5.66	4.33	4.78	3.58	4.53	3.63	4.05	3.91	3.39	4.42	3.24	3.90	3.68
624	Crystal 093RR	4.82	5.16	5.12	4.99	5.03	4.19	5.08	4.91	4.63	4.73	4.43	4.43	4.11	4.43	4.32	3.45	4.26	3.61	3.86	3.77
523	Crystal 095RR	4.83	4.88	4.80	4.85	4.83	4.63	4.62	4.99	4.62	4.74	4.57	4.87	4.11	4.72	4.51	4.06	4.44	4.11	4.25	4.20
542	Crystal 658RR	4.28	4.47	4.46	4.38	4.40	3.42	4.52	3.91	3.97	3.95	4.09	3.78	4.17	3.94	4.01	2.39	3.16	1.87	2.77	2.47
626	Crystal 765RR	4.70	4.70	4.52	4.70	4.64	5.69	6.12	5.70	5.91	5.84	3.87	4.58	4.37	4.22	4.27	4.10	4.49	3.96	4.30	4.18
536	Crystal 768RR	5.37	5.09	5.21	5.23	5.23	3.91	4.83	4.82	4.37	4.52	4.39	4.42	4.31	4.41	4.37	4.20	4.50	4.19	4.35	4.30
584	Crystal 875RR	4.26	4.24	4.33	4.25	4.27	2.71	3.14	3.34	2.92	3.06	4.00	4.06	3.49	4.03	3.85	4.45	4.12	5.14	4.28	4.57
546	Crystal 878RR	4.81	5.31	5.17	5.06	5.10	4.76	5.44	5.75	5.10	5.32	4.38	4.50	4.44	4.44	4.44	4.08	4.59	4.35	4.34	4.34
622	Crystal 985RR	4.41	4.37	4.30	4.39	4.36	3.15	3.75	4.20	3.45	3.70	4.40	4.56	3.98	4.48	4.31	3.51	4.24	4.17	3.88	3.97
501	Crystal 986RR	4.78	5.14	5.45	4.96	5.12	4.41	5.21	4.20	4.81	4.60	4.31	4.00	4.65	4.16	4.32	4.30	5.52	5.04	4.91	4.95
635	Hilleshög 4012RR	5.46	5.24	5.00	5.35	5.23	4.03	4.64	4.26	4.34	4.31	4.80	5.02	4.53	4.91	4.78	6.13	5.16	6.14	5.65	5.81
583	Hilleshög 4022RR	4.36	4.26	4.26	4.31	4.29	4.11	4.80	4.96	4.45	4.62	3.29	3.48	3.56	3.38	3.44	4.71	4.06	4.78	4.39	4.52
630	Hilleshög 4043RR	4.56	4.84	5.01	4.70	4.80	4.70	4.69	4.90	4.69	4.76	4.78	5.29	4.40	5.03	4.82	6.80	5.54	7.50	6.17	6.61
577	Hilleshög 4094RR	4.34	4.00	4.28	4.17	4.21	3.72	5.16	4.87	4.44	4.58	3.28	3.29	3.85	3.29	3.48	4.47	4.44	5.26	4.45	4.72
570	Hilleshog 4195RR	4.65	4.60	4.39	4.63	4.55	4.20	5.21	5.17	4.71	4.86	3.67	3.78	4.08	3.73	3.84	5.60	5.02	6.00	5.31	5.54
625	Hilleshög 4236RR(9236)	4.71	4.75	4.45	4.73	4.64	5.37	4.88	4.96	5.12	5.07	5.23	5.86	--	5.55	--	5.84	4.75	6.57	5.30	5.72
530	Seedex Usher RR	4.59	4.70	5.05	4.64	4.78	4.98	4.73	4.79	4.86	4.83	4.34	5.13	4.47	4.74	4.65	4.62	4.94	5.35	4.78	4.97
511	Seedex Victor RR(894)	4.41	4.33	4.51	4.37	4.42	4.68	4.71	4.62	4.69	4.67	4.57	4.82	4.32	4.69	4.57	4.21	4.55	4.89	4.38	4.55
541	Seedex Vision RR(891)	4.49	4.41	4.76	4.45	4.55	5.17	4.73	4.66	4.95	4.85	4.61	4.57	4.31	4.59	4.50	5.05	4.22	5.55	4.64	4.94
614	Seedex Wrangler RR(808)	4.43	4.16	5.27	4.29	4.62	4.63	4.79	4.14	4.71	4.52	4.21	4.68	4.42	4.45	4.44	4.18	4.44	5.26	4.31	4.63
531	SESVdh 36711RR	4.77	4.58	4.99	4.67	4.78	4.45	4.62	4.49	4.53	4.52	4.50	4.56	3.83	4.53	4.30	4.74	4.38	4.88	4.56	4.67
609	SESVdh 36812RR	4.76	4.78	5.16	4.77	4.90	4.73	5.19	4.63	4.96	4.85	4.23	4.77	4.45	4.50	4.48	4.73	4.44	4.88	4.59	4.68
580	SESVdh 36813RR	4.33	4.46	4.59	4.40	4.46	4.76	4.57	4.43	4.66	4.59	4.55	4.81	4.10	4.68	4.49	4.80	4.82	4.90	4.81	4.84
606	SESVdh 36916RR	4.68	4.70	4.97	4.69	4.78	4.50	5.04	4.70	4.77	4.75	4.65	4.80	4.30	4.73	4.58	5.03	4.81	4.73	4.92	4.85
528	SESVdh 36917RR	4.61	4.51	4.95	4.56	4.69	4.68	4.68	4.68	4.68	4.68	4.38	5.14	4.27	4.76	4.60	4.86	5.06	5.04	4.96	4.99
631	SESVdh 36918RR	4.28	4.41	4.47	4.35	4.39	4.69	4.50	4.39	4.60	4.53	4.66	4.68	4.37	4.67	4.57	5.00	4.47	4.84	4.74	4.77
	Newly Approved																				
518	BTS 81RR17	4.36	4.68	--	4.52	--	3.25	4.06	--	3.66	--	4.00	4.09	--	4.05	--	2.50	3.47	--	2.98	--
594	BTS 81RR41	4.16	4.14	--	4.15	--	3.34	5.33	--	4.34	--	4.55	4.83	--	4.69	--	3.07	3.97	--	3.52	--
552	BTS 81RR78	4.51	4.88	--	4.70	--	4.87	4.83	--	4.85	--	4.50	4.57	--	4.54	--	3.41	3.93	--	3.67	--
603	Crystal 101RR	4.71	4.72	--	4.71	--	2.97	4.14	--	3.55	--	4.75	4.67	--	4.71	--	2.95	3.00	--	2.98	--
613	Crystal 106RR	4.17	4.15	--	4.16	--	3.65	4.74	--	4.20	--	4.40	4.52	--	4.46	--	2.73	4.28	--	3.51	--
572	Crystal 981RR	5.15	5.21	5.29	5.18	5.22	3.08	4.03	3.37	3.55	3.49	4.45	4.93	4.12	4.69	4.50	2.87	3.54	2.61	3.20	3.01
545	Hilleshög 4300RR(9300)	4.82	4.71	--	4.76	--	4.16	4.72	--	4.44	--	4.56	4.32	--	4.44	--	3.59	3.98	--	3.78	--
599	Hilleshög 9302RR	4.34	4.00	--	4.17	--	4.20	4.88	--	4.54	--	3.63	4.39	--	4.01	--	4.33	--	--	--	--
611	Hilleshög 4303RR(9303)	4.62	4.22	--	4.42	--	4.00	4.87	--	4.44	--	5.20	--	--	--	--	5.44	--	--	--	--
628	Maribo 102RR	4.88	5.19	--	5.03	--	4.33	3.95	--	4.14	--	4.70	--	--	--	--	5.19	--	--	--	--
576	Maribo 104RR	3.82	3.45	--	3.64	--	4.46	4.73	--	4.59	--	3.98	4.10	--	4.04	--	4.75	5.36	--	5.06	--
587	Seedex SX0814RR	4.76	4.78	--	4.77	--	4.38	4.59	--	4.49	--	4.55	4.79	--	4.67	--	4.18	4.63	--	4.41	--
537	Seedex SX0816RR	4.43	4.54	--	4.49	--	4.19	4.52	--	4.35	--	4.71	4.46	--	4.58	--	5.27	--	--	--	--
561	SESVdh 36175RR	4.22	4.61	--	4.42	--	4.10	4.55	--	4.32	--	4.32	4.18	--	4.25	--	4.65	--	--	--	--
623	SESVdh 36179NRR	4.64	4.77	--	4.70	--	4.90	4.94	--	4.92	--	4.40	4.49	--	4.44	--	3.76	3.70	--	3.73	--

CR ratings on a scale of 1-9. Resistant < 4.5, Susceptible > 5.2

Aph root ratings on a scale of 1-9. Resistant < 4.9, Susceptible > 5.5. Specialty level is 4.9.

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

Fusarium ratings on a scale of 1-9. Resistant < 3.0, Susceptible > 5.0

Green highlighted ratings indicate specialty or good resistance.

Red highlighted ratings indicate level of concern for some fields.

+ Some varieties are not approved for sale in 2013. Please check variety approval list.

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

Created 11-1-2012.

Table 34. MDFC Official Trial Disease Nurseries 2010 - 2012 (Varieties tested in 2012)

Cercospora, Aphanomyces, Rhizoctonia & Fusarium

		CR					Aph					Rhizoctonia					Fusarium				
		12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr	12	11	10	2 Yr	3 Yr
Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	Commercial Seed																				
522	BTS 70RR64	5.21	5.41	4.86	5.31	5.16	NA	4.67	4.13	6.84	5.93	4.57	4.69	4.15	4.63	4.47	4.02	4.94	--	4.48	--
565	BTS 70RR70	4.62	5.11	5.21	4.86	4.98	NA	5.41	5.47	7.21	6.63	3.75	3.83	3.87	3.79	3.81	2.63	3.93	--	3.28	--
512	BTS 70RR99	4.33	4.59	4.43	4.46	4.45	NA	4.85	4.63	6.92	6.16	3.85	3.94	3.85	3.90	3.88	2.78	3.99	--	3.38	--
516	Crystal RR830	4.60	4.92	4.86	4.76	4.80	NA	4.81	4.93	6.91	6.25	3.91	3.36	3.82	3.63	3.70	3.45	3.63	2.79	3.54	3.29
529	Crystal RR012	4.54	4.79	4.60	4.66	4.64	NA	5.04	5.14	6.98	6.37	3.27	4.12	3.86	3.69	3.75	2.85	4.55	--	3.70	--
534	Hilleshög 4062RR	4.38	3.91	4.41	4.15	4.23	NA	4.98	4.84	6.99	6.28	3.54	2.87	3.62	3.20	3.34	4.73	4.72	4.46	4.72	4.64
589	Hilleshög 4204RR	4.69	4.50	4.47	4.59	4.55	NA	5.15	5.04	7.08	6.40	3.81	3.33	4.02	3.57	3.72	5.82	5.13	7.08	5.48	6.01
527	Hilleshög 4251RR(9251)	4.35	4.36	4.21	4.35	4.31	NA	4.79	4.71	6.89	6.17	3.69	3.67	3.82	3.68	3.73	5.10	4.49	--	4.80	--
583	Hilleshög 4022RR	4.36	4.26	4.26	4.31	4.29	4.11	4.80	4.96	4.45	4.62	3.29	3.48	3.56	3.38	3.44	4.71	4.06	4.78	4.39	4.52
568	SESVdh 36926RR	4.38	4.45	4.33	4.42	4.39	NA	5.09	4.63	7.04	6.24	4.54	4.41	4.37	4.48	4.44	4.56	4.99	4.20	4.78	4.59
532	SESVdh 36927RR	4.11	4.44	4.30	4.28	4.28	NA	4.86	4.36	6.93	6.07	4.57	4.49	4.05	4.53	4.37	4.71	4.36	4.49	4.53	4.52
601	Seedex Ultra RR	4.64	4.49	5.02	4.56	4.72	NA	5.05	4.86	7.02	6.30	4.18	4.56	4.14	4.37	4.29	4.97	3.74	4.62	4.35	4.44
607	Seedex Vapor RR(SX0995)	4.48	4.68	4.56	4.58	4.57	NA	4.86	4.80	6.93	6.22	4.25	4.54	3.72	4.40	4.17	4.68	5.26	4.61	4.97	4.85
	Experimental Seed																				
581	BTS 72RR10	4.67	--	--	--	--	4.87	--	--	--	--	4.55	--	--	--	--	--	--	--	--	--
629	BTS 72RR22	4.31	--	--	--	--	3.19	--	--	--	--	4.50	--	--	--	--	--	--	--	--	--
544	BTS 72RR50	3.89	--	--	--	--	6.03	--	--	--	--	4.28	--	--	--	--	--	--	--	--	--
602	BTS 72RR82	5.00	--	--	--	--	5.09	--	--	--	--	4.55	--	--	--	--	--	--	--	--	--
524	BTS 72RR95	4.57	--	--	--	--	3.93	--	--	--	--	3.02	--	--	--	--	--	--	--	--	--
562	Crystal RR210	4.59	--	--	--	--	6.03	--	--	--	--	4.37	--	--	--	--	--	--	--	--	--
550	Crystal RR228NT	4.33	--	--	--	--	3.49	--	--	--	--	4.41	--	--	--	--	--	--	--	--	--
564	Crystal RR241	4.29	--	--	--	--	6.70	--	--	--	--	4.48	--	--	--	--	--	--	--	--	--
605	Crystal RR260	4.58	--	--	--	--	4.37	--	--	--	--	4.60	--	--	--	--	--	--	--	--	--
559	Crystal RR299	4.48	--	--	--	--	4.04	--	--	--	--	4.22	--	--	--	--	--	--	--	--	--
521	Hilleshog 9309RR	4.56	4.17	--	4.36	--	3.63	5.22	--	4.42	--	3.62	3.09	--	3.35	--	4.31	--	--	--	--
616	Hilleshog 4303RR(9310)	4.40	4.43	--	4.41	--	4.72	4.84	--	4.78	--	5.32	--	--	--	--	5.63	--	--	--	--
579	Hilleshög 9420RR	4.76	--	--	--	--	4.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--
517	Hilleshög 9421RR	4.60	--	--	--	--	3.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--
543	Hilleshög 9422RR	3.69	--	--	--	--	4.42	--	--	--	--	3.78	--	--	--	--	--	--	--	--	--
526	Hilleshög 9423RR	4.87	--	--	--	--	4.90	--	--	--	--	--	--	--	--	--	--	--	--	--	--
592	Hilleshög 9424RR	4.45	--	--	--	--	3.67	--	--	--	--	3.61	--	--	--	--	--	--	--	--	--
598	Hilleshög 9449RR	4.66	--	--	--	--	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
551	Hilleshög 9451RR	5.38	--	--	--	--	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--
618	Maribo 108RR	5.12	5.13	--	5.12	--	3.18	4.06	--	3.62	--	4.86	--	--	--	--	5.05	--	--	--	--
604	Maribo 213RR	4.49	--	--	--	--	3.41	--	--	--	--	3.65	--	--	--	--	--	--	--	--	--
503	Maribo 214RR	4.68	--	--	--	--	6.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
593	Maribo 215RR	5.03	--	--	--	--	4.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
636	Seedex SX0901RR	4.15	4.28	4.95	4.21	4.46	4.57	4.76	4.60	4.66	4.64	4.60	4.82	--	4.71	--	4.87	4.55	--	4.71	--
510	Seedex SX0903RR	4.23	4.27	4.74	4.25	4.42	4.22	4.44	4.84	4.33	4.50	4.68	4.38	--	4.53	--	5.01	4.56	--	4.79	--
575	Seedex SX0904RR	4.17	4.06	3.81	4.12	4.01	3.84	4.41	4.96	4.12	4.40	4.12	3.77	3.74	3.94	3.88	3.82	4.02	3.90	3.92	3.91
513	Seedex SX0917RR	4.60	4.29	--	4.44	--	5.70	5.10	--	5.40	--	4.19	4.84	--	4.51	--	5.12	--	--	--	--
525	Seedex SX0924RR	4.74	--	--	--	--	4.63	--	--	--	--	4.16	--	--	--	--	--	--	--	--	--
571	Seedex SX0925RR	4.42	--	--	--	--	5.43	--	--	--	--	4.63	--	--	--	--	4.68	--	--	--	--
555	Seedex SX0929RR	4.02	--	--	--	--	3.80	--	--	--	--	3.82	--	--	--	--	4.09	--	--	--	--
578	SESVdh 36084RR	4.70	4.69	4.92	4.69	4.77	5.05	4.76	4.77	4.91	4.86	4.48	4.43	4.15	4.46	4.35	5.29	5.04	4.59	5.16	4.97
539	SESVdh 36185RR	4.40	4.49	--	4.44	--	4.63	4.81	--	4.72	--	4.84	4.49	--	4.66	--	5.40	--	--	--	--
634	SESVdh 36186RR	4.73	4.65	--	4.69	--	4.99	5.09	--	5.04	--	4.39	4.64	--	4.52	--	4.88	--	--	--	--
509	SESVdh 36187RR	4.58	4.52	--	4.55	--	4.47	4.88	--	4.67	--	4.53	4.90	--	4.71	--	5.01	5.17	--	5.09	--
585	SESVdh 36188RR	4.05	4.23	--	4.14	--	4.10	4.53	--	4.31	--	3.96	3.88	--	3.92	--	4.16	4.02	--	4.09	--
620	SESVdh 36221RR	4.64	--	--	--	--	5.97	--	--	--	--	4.77	--	--	--	--	--	--	--	--	--
557	SESVdh 36222RR	4.32	--	--	--	--	5.03	--	--	--	--	4.62	--	--	--	--	--	--	--	--	--
600	SESVdh 36223RR	4.25	--	--	--	--	3.95	--	--	--	--	4.04	--	--	--	--	3.71	--	--	--	--
515	SESVdh 36224RR	4.27	--	--	--	--	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
549	SESVdh 36228TTRR	4.46	--	--	--	--	4.12	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NA - Aph ratings were not available for some varieties due to non-uniform seed treatments.

CR ratings on a scale of 1-9. Resistant < 4.5, Susceptible > 5.2

Aph root ratings on a scale of 1-9. Resistant < 4.9, Susceptible > 5.5. Specialty level is 4.95.

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

Fusarium ratings on a scale of 1-9. Resistant < 3.0, Susceptible > 5.0

+ Some varieties are not approved for sale in 2013. Please check variety approval list.

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

Created 11-14-12

Table 35. Official Trial Disease Nurseries 2010 - 2012 - Cercospora, Aphanomyces, Rhizoctonia & Fusarium

	All Ratings Adjusted		CR			Aph			Rhizoctonia			Fusarium		
Trial			12	11	10	12	11	10	12	11	10	12	11	10
Yrs	Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
3	522	BTS 70RR64	5.21	5.41	4.86	9.00	4.67	4.13	4.57	4.69	4.15	4.02	4.94	--
3	565	BTS 70RR70	4.62	5.11	5.21	9.00	5.41	5.47	3.75	3.83	3.87	2.63	3.93	--
3	512	BTS 70RR99	4.33	4.59	4.43	9.00	4.85	4.63	3.85	3.94	3.85	2.78	3.99	--
1	581	BTS 72RR10	4.67	--	--	4.87	--	--	4.55	--	--	--	--	--
1	629	BTS 72RR22	4.31	--	--	3.19	--	--	4.50	--	--	--	--	--
1	544	BTS 72RR50	3.89	--	--	6.03	--	--	4.28	--	--	--	--	--
1	602	BTS 72RR82	5.00	--	--	5.09	--	--	4.55	--	--	--	--	--
1	524	BTS 72RR95	4.57	--	--	3.93	--	--	3.02	--	--	--	--	--
3	612	BTS 80RR12	4.65	4.86	5.27	6.08	4.87	5.30	4.42	4.80	4.21	2.67	3.55	3.04
3	540	BTS 80RR32	4.66	5.18	4.93	4.43	5.33	5.60	3.88	4.23	3.94	2.46	4.22	2.22
3	574	BTS 80RR52	4.40	4.61	4.32	4.04	4.93	4.67	3.73	4.14	4.17	2.77	3.93	2.30
2	518	BTS 81RR17	4.36	4.68	--	3.25	4.06	--	4.00	4.09	--	2.50	3.47	--
2	594	BTS 81RR41	4.16	4.14	--	3.34	5.33	--	4.55	4.83	--	3.07	3.97	--
2	552	BTS 81RR78	4.51	4.88	--	4.87	4.83	--	4.50	4.57	--	3.41	3.93	--
1	554	BTS 82RR11	5.55	--	--	4.65	--	--	4.25	--	--	3.06	--	--
1	617	BTS 82RR22	4.65	--	--	3.95	--	--	4.61	--	--	4.79	--	--
1	558	BTS 82RR28	4.66	--	--	4.51	--	--	3.94	--	--	2.00	--	--
1	596	BTS 82RR33	4.74	--	--	5.11	--	--	4.09	--	--	2.27	--	--
1	615	BTS 82RR62	4.52	--	--	5.74	--	--	4.43	--	--	3.17	--	--
1	502	BTS 82RR80	4.77	--	--	3.37	--	--	4.63	--	--	3.12	--	--
1	533	BTS 82RR91	4.72	--	--	3.42	--	--	4.81	--	--	5.23	--	--
4	588	BTS 89RR10	5.10	5.08	4.92	2.32	4.13	3.67	4.14	3.63	3.94	4.62	4.74	5.47
4	637	BTS 89RR30	4.92	5.17	5.09	5.97	5.14	4.25	4.24	4.54	3.66	2.50	3.54	1.65
4	563	BTS 89RR40	5.16	5.33	5.07	3.62	4.76	4.14	4.85	5.02	4.20	4.29	4.79	3.60
4	619	BTS 89RR50	5.30	5.01	5.16	4.80	4.07	3.86	4.88	5.30	4.01	3.02	3.77	2.14
4	535	BTS 89RR83	4.89	4.81	4.83	3.62	5.05	5.66	3.58	4.53	3.63	3.39	4.42	3.24
3	624	Crystal 093RR	4.82	5.16	5.12	4.19	5.08	4.91	4.43	4.43	4.11	3.45	4.26	3.61
3	523	Crystal 095RR	4.83	4.88	4.80	4.63	4.62	4.99	4.57	4.87	4.11	4.06	4.44	4.11
2	603	Crystal 101RR	4.71	4.72	--	2.97	4.14	--	4.75	4.67	--	2.95	3.00	--
2	613	Crystal 106RR	4.17	4.15	--	3.65	4.74	--	4.40	4.52	--	2.73	4.28	--
1	595	Crystal 244RR	4.93	--	--	3.78	--	--	4.46	--	--	5.33	--	--
1	520	Crystal 245RR	5.29	--	--	3.49	--	--	4.75	--	--	3.56	--	--
1	569	Crystal 246RR	4.49	--	--	3.85	--	--	4.31	--	--	3.30	--	--
1	506	Crystal 247RR	4.68	--	--	3.68	--	--	4.48	--	--	2.32	--	--
1	610	Crystal 248RR	4.94	--	--	3.59	--	--	4.49	--	--	3.25	--	--
1	590	Crystal 249RR	4.50	--	--	3.03	--	--	4.02	--	--	5.00	--	--
7	542	Crystal 658RR	4.28	4.47	4.46	3.42	4.52	3.91	4.09	3.78	4.17	2.39	3.16	1.87
6	626	Crystal 765RR	4.70	4.70	4.52	5.69	6.12	5.70	3.87	4.58	4.37	4.10	4.49	3.96
6	536	Crystal 768RR	5.37	5.09	5.21	3.91	4.83	4.82	4.39	4.42	4.31	4.20	4.50	4.19
5	584	Crystal 875RR	4.26	4.24	4.33	2.71	3.14	3.34	4.00	4.06	3.49	4.45	4.12	5.14
5	546	Crystal 878RR	4.81	5.31	5.17	4.76	5.44	5.75	4.38	4.50	4.44	4.08	4.59	4.35
4	572	Crystal 981RR	5.15	5.21	5.29	3.08	4.03	3.37	4.45	4.93	4.12	2.87	3.54	2.61
4	622	Crystal 985RR	4.41	4.37	4.30	3.15	3.75	4.20	4.40	4.56	3.98	3.51	4.24	4.17
4	501	Crystal 986RR	4.78	5.14	5.45	4.41	5.21	4.20	4.31	4.00	4.65	4.30	5.52	5.04
3	529	Crystal RR012	4.54	4.79	4.60	8.92	5.04	5.14	3.27	4.12	3.86	2.85	4.55	--
1	562	Crystal RR210	4.59	--	--	6.03	--	--	4.37	--	--	--	--	--
1	550	Crystal RR228NT	4.33	--	--	3.49	--	--	4.41	--	--	--	--	--
1	564	Crystal RR241	4.29	--	--	6.70	--	--	4.48	--	--	--	--	--
1	605	Crystal RR260	4.58	--	--	4.37	--	--	4.60	--	--	--	--	--
1	559	Crystal RR299	4.48	--	--	4.04	--	--	4.22	--	--	--	--	--
5	516	Crystal RR830	4.60	4.92	4.86	9.00	4.81	4.93	3.91	3.36	3.82	3.45	3.63	2.79
7	635	Hilleshög 4012RR	5.46	5.24	5.00	4.03	4.64	4.26	4.80	5.02	4.53	6.13	5.16	6.14
7	583	Hilleshög 4022RR	4.36	4.26	4.26	4.11	4.80	4.96	3.29	3.48	3.56	4.71	4.06	4.78
6	630	Hilleshög 4043RR	4.56	4.84	5.01	4.70	4.69	4.90	4.78	5.29	4.40	6.80	5.54	7.50
5	534	Hilleshög 4062RR	4.38	3.91	4.41	9.00	4.98	4.84	3.54	2.87	3.62	4.73	4.72	4.46
5	577	Hilleshög 4094RR	4.34	4.00	4.28	3.72	5.16	4.87	3.28	3.29	3.85	4.47	4.44	5.26
4	570	Hilleshog 4195RR	4.65	4.60	4.39	4.20	5.21	5.17	3.67	3.78	4.08	5.60	5.02	6.00
4	589	Hilleshög 4204RR	4.69	4.50	4.47	9.00	5.15	5.04	3.81	3.33	4.02	5.82	5.13	7.08
3	625	Hilleshög 4236RR(9236)	4.71	4.75	4.45	5.37	4.88	4.96	5.23	5.86	--	5.84	4.75	6.57
3	527	Hilleshög 4251RR(9251)	4.35	4.36	4.21	9.00	4.79	4.71	3.69	3.67	3.82	5.10	4.49	--
2	545	Hilleshög 4300RR(9300)	4.82	4.71	--	4.16	4.72	--	4.56	4.32	--	3.59	3.98	--
2	611	Hilleshög 4303RR(9303)	4.62	4.22	--	4.00	4.87	--	5.20	--	--	5.44	--	--
2	616	Hilleshog 4303RR(9310)	4.40	4.43	--	4.72	4.84	--	5.32	--	--	5.63	--	--
2	599	Hilleshög 9302RR	4.34	4.00	--	4.20	4.88	--	3.63	4.39	--	4.33	--	--
2	521	Hilleshog 9309RR	4.56	4.17	--	3.63	5.22	--	3.62	3.96	--	4.31	--	--
1	514	Hilleshög 9409RR	4.42	--	--	3.50	--	--	--	--	--	--	--	--
1	556	Hilleshög 9410RR	4.74	--	--	4.08	--	--	--	--	--	--	--	--
1	573	Hilleshög 9411RR	3.69	--	--	3.68	--	--	3.92	--	--	--	--	--
1	633	Hilleshög 9412RR	4.40	--	--	4.56	--	--	3.28	--	--	--	--	--
1	553	Hilleshög 9413RR	4.52	--	--	4.67	--	--	3.65	--	--	--	--	--
1	504	Hilleshög 9414RR	4.76	--	--	7.79	--	--	--	--	--	--	--	--
1	538	Hilleshög 9415RR	4.49	--	--	3.54	--	--	3.76	--	--	--	--	--
1	579	Hilleshög 9420RR	4.76	--	--	4.63	--	--	--	--	--	--	--	--
1	517	Hilleshög 9421RR	4.60	--	--	3.25	--	--	--	--	--	--	--	--
1	543	Hilleshög 9422RR	3.69	--	--	4.42	--	--	3.78	--	--	--	--	--

Table 35. Official Trial Disease Nurseries 2010 - 2012 - Cercospora, Aphanomyces, Rhizoctonia & Fusarium

	All Ratings Adjusted		CR			Aph			Rhizoctonia			Fusarium		
Trial			12	11	10	12	11	10	12	11	10	12	11	10
Yrs	Code	Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
1	526	Hilleshög 9423RR	4.87	--	--	4.90	--	--	--	--	--	--	--	--
1	592	Hilleshög 9424RR	4.45	--	--	3.67	--	--	3.61	--	--	--	--	--
1	505	Hilleshög 9448RR	4.82	--	--	5.66	--	--	--	--	--	--	--	--
1	598	Hilleshög 9449RR	4.66	--	--	4.46	--	--	--	--	--	--	--	--
1	551	Hilleshög 9451RR	5.38	--	--	4.69	--	--	--	--	--	--	--	--
2	628	Maribo 102RR	4.88	5.19	--	4.33	3.95	--	4.70	--	--	5.19	--	--
2	576	Maribo 104RR	3.82	3.45	--	4.46	4.73	--	3.98	4.10	--	4.75	5.36	--
2	618	Maribo 108RR	5.12	5.13	--	3.18	4.06	--	4.86	--	--	5.05	--	--
1	560	Maribo 200RR	4.27	--	--	4.38	--	--	4.01	--	--	--	--	--
1	632	Maribo 201RR	5.09	--	--	4.99	--	--	--	--	--	--	--	--
1	508	Maribo 202RR	5.01	--	--	5.65	--	--	--	--	--	--	--	--
1	582	Maribo 203RR	4.44	--	--	3.89	--	--	3.59	--	--	--	--	--
1	604	Maribo 213RR	4.49	--	--	3.41	--	--	3.65	--	--	--	--	--
1	503	Maribo 214RR	4.68	--	--	6.22	--	--	--	--	--	--	--	--
1	593	Maribo 215RR	5.03	--	--	4.48	--	--	--	--	--	--	--	--
2	587	Seedex SX0814RR	4.76	4.78	--	4.38	4.59	--	4.55	4.79	--	4.18	4.63	--
2	537	Seedex SX0816RR	4.43	4.54	--	4.19	4.52	--	4.71	4.46	--	5.27	--	--
1	548	Seedex SX0826RR	4.45	--	--	4.02	--	--	4.17	--	--	3.77	--	--
1	597	Seedex SX0827RR	4.57	--	--	5.97	--	--	--	--	--	--	--	--
1	567	Seedex SX0828RR	4.72	--	--	4.06	--	--	4.25	--	--	4.14	--	--
1	591	Seedex SX0829NRR	4.84	--	--	3.90	--	--	--	--	--	3.38	--	--
3	636	Seedex SX0901RR	4.15	4.28	4.95	4.57	4.76	4.60	4.60	4.38	--	4.87	4.56	--
3	510	Seedex SX0903RR	4.23	4.27	4.74	4.22	4.44	4.84	4.68	3.77	--	5.01	4.02	--
3	575	Seedex SX0904RR	4.17	4.06	3.81	3.84	4.41	4.96	4.12	4.84	3.74	3.82	4.90	3.90
2	513	Seedex SX0917RR	4.60	4.29	--	5.70	5.10	--	4.19	4.06	--	5.12	--	--
1	525	Seedex SX0924RR	4.74	--	--	4.63	--	--	4.16	--	--	--	--	--
1	571	Seedex SX0925RR	4.42	--	--	5.43	--	--	4.63	--	--	4.68	--	--
1	555	Seedex SX0929RR	4.02	--	--	3.80	--	--	3.82	--	--	4.09	--	--
5	601	Seedex Ultra RR	4.64	4.49	5.02	9.00	5.05	4.86	4.18	4.61	4.14	4.97	4.67	4.62
5	530	Seedex Usher RR	4.59	4.70	5.05	4.98	4.73	4.79	4.34	5.13	4.47	4.62	4.94	5.35
4	607	Seedex Vapor RR(SX0995)	4.48	4.68	4.56	9.00	4.86	4.80	4.25	4.56	3.72	4.68	3.74	4.61
4	511	Seedex Victor RR(894)	4.41	4.33	4.51	4.68	4.71	4.62	4.57	4.82	4.32	4.21	4.55	4.89
4	541	Seedex Vision RR(891)	4.49	4.41	4.76	5.17	4.73	4.66	4.61	4.57	4.31	5.05	4.22	5.55
3	614	Seedex Wrangler RR(808)	4.43	4.16	5.27	4.63	4.79	4.14	4.21	4.68	4.42	4.18	4.44	5.26
3	578	SESVdh 36084RR	4.70	4.69	4.92	5.05	4.76	4.77	4.48	4.55	4.15	5.29	4.78	4.59
2	561	SESVdh 36175RR	4.22	4.61	--	4.10	4.55	--	4.32	4.18	--	4.65	--	--
2	623	SESVdh 36179NRR	4.64	4.77	--	4.90	4.94	--	4.40	4.49	--	3.76	3.70	--
2	539	SESVdh 36185RR	4.40	4.49	--	4.63	4.81	--	4.84	4.64	--	5.40	--	--
2	634	SESVdh 36186RR	4.73	4.65	--	4.99	5.09	--	4.39	4.90	--	4.88	--	--
2	509	SESVdh 36187RR	4.58	4.52	--	4.47	4.88	--	4.53	3.88	--	5.01	4.02	--
2	585	SESVdh 36188RR	4.05	4.23	--	4.10	4.53	--	3.96	4.69	--	4.16	4.77	--
1	608	SESVdh 36219TTRR	4.44	--	--	4.67	--	--	--	--	--	--	--	--
1	620	SESVdh 36221RR	4.64	--	--	5.97	--	--	4.77	--	--	--	--	--
1	557	SESVdh 36222RR	4.32	--	--	5.03	--	--	4.62	--	--	--	--	--
1	600	SESVdh 36223RR	4.25	--	--	3.95	--	--	4.04	--	--	3.71	--	--
1	515	SESVdh 36224RR	4.27	--	--	4.52	--	--	--	--	--	--	--	--
1	549	SESVdh 36228TTRR	4.46	--	--	4.12	--	--	--	--	--	--	--	--
1	586	SESVdh 36271RR	4.65	--	--	4.85	--	--	4.40	--	--	--	--	--
1	566	SESVdh 36272RR	4.17	--	--	5.15	--	--	--	--	--	--	--	--
1	627	SESVdh 36273RR	4.19	--	--	3.10	--	--	4.47	--	--	--	--	--
1	519	SESVdh 36274RR	4.68	--	--	5.16	--	--	4.17	--	--	4.67	--	--
1	507	SESVdh 36275RR	4.28	--	--	4.72	--	--	3.94	--	--	--	--	--
1	547	SESVdh 36276NRR	4.15	--	--	3.34	--	--	--	--	--	3.12	--	--
1	621	SESVdh 36277NRR	5.15	--	--	3.33	--	--	--	--	--	3.54	--	--
6	531	SESVdh 36711RR	4.77	4.58	4.99	4.45	4.62	4.49	4.50	4.56	3.83	4.74	4.38	4.88
5	609	SESVdh 36812RR	4.76	4.78	5.16	4.73	5.19	4.63	4.23	4.77	4.45	4.73	4.44	4.88
5	580	SESVdh 36813RR	4.33	4.46	4.59	4.76	4.57	4.43	4.55	4.81	4.10	4.80	4.82	4.90
4	606	SESVdh 36916RR	4.68	4.70	4.97	4.50	5.04	4.70	4.65	4.80	4.30	5.03	4.81	4.73
4	528	SESVdh 36917RR	4.61	4.51	4.95	4.68	4.68	4.68	4.38	5.14	4.27	4.86	5.06	5.04
4	631	SESVdh 36918RR	4.28	4.41	4.47	4.69	4.50	4.39	4.66	4.68	4.37	5.00	4.47	4.84
4	568	SESVdh 36926RR	4.38	4.45	4.33	9.00	5.09	4.63	4.54	4.49	4.37	4.56	4.36	4.20
4	532	SESVdh 36927RR	4.11	4.44	4.30	9.00	4.86	4.36	4.57	5.03	4.05	4.71	4.81	4.49
8	1101	CR Chk-19 CRYS539RR	5.27	5.30	5.52	--	--	--	--	--	--	--	--	--
7	1102	CR Chk-31 BETA86RR88	4.82	4.80	4.63	--	--	--	--	--	--	--	--	--
6	1103	CR CHK-37 SES36711RR	4.82	4.80	4.94	--	--	--	--	--	--	--	--	--
7	1104	CR Chk-30 BETA86RR66	4.98	5.13	5.27	--	--	--	--	--	--	--	--	--
6	1105	CR Chk-34 HILL4000RR	4.71	4.52	4.69	--	--	--	--	--	--	--	--	--
6	1106	CR CHK-36 BETA87RR68	4.61	4.81	4.66	--	--	--	--	--	--	--	--	--
7	1107	CR Chk-24 HILL4012RR	5.33	5.27	5.17	--	--	--	--	--	--	--	--	--
6	1108	CR Chk-35 BETA87RR58	5.32	5.25	5.39	--	--	--	--	--	--	--	--	--
6	1109	CR Chk-33 HILL4043RR	4.64	4.77	4.85	--	--	--	--	--	--	--	--	--
8	1110	CR Chk-17 BETA85RR02	5.07	5.17	5.13	--	--	--	--	--	--	--	--	--
7	1111	CR Chk-28 HILL4010RR	5.24	5.04	5.16	--	--	--	--	--	--	--	--	--
7	1112	CR Chk-29 BETA86RR44	4.93	4.90	5.03	--	--	--	--	--	--	--	--	--
1	1113	Filler27	5.31	--	--	--	--	--	--	--	--	--	--	--

Table 35. Official Trial Disease Nurseries 2010 - 2012 - Cercospora, Aphanomyces, Rhizoctonia & Fusarium

	All Ratings Adjusted	CR			Aph			Rhizoctonia			Fusarium		
Trial		12	11	10	12	11	10	12	11	10	12	11	10
Yrs	Code Description +	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
8	1114 CR CHK MOD SUS HYB#3	4.96	5.25	5.37	--	--	--	--	--	--	--	--	--
5	1115 CR CHK MOD RES HYB#4	4.28	4.37	4.22	--	--	--	--	--	--	--	--	--
8	1001 Aph Chk-22 CRYS539RR	--	--	--	2.75	4.06	4.10	--	--	--	--	--	--
7	1002 Aph Chk-29 BETA86RR44	--	--	--	5.47	4.97	4.72	--	--	--	--	--	--
7	1003 Aph Chk-30 BETA86RR66	--	--	--	5.02	4.45	4.25	--	--	--	--	--	--
7	1004 Aph Chk-26 HILL4022RR	--	--	--	4.21	4.96	5.37	--	--	--	--	--	--
6	1005 Aph Chk-35 BETA87RR58	--	--	--	5.49	5.50	5.33	--	--	--	--	--	--
2	1006 Aph Chk-39 CRYS879RR	--	--	--	6.38	6.14	6.02	--	--	--	--	--	--
2	1007 Aph Chk-42 BETA78RR10	--	--	--	3.38	5.09	5.45	--	--	--	--	--	--
6	1008 Aph Chk-33 CRYS768RR	--	--	--	3.75	5.00	4.68	--	--	--	--	--	--
7	1009 Aph Chk-31 BETA86RR88	--	--	--	4.55	4.39	4.72	--	--	--	--	--	--
8	1010 Aph Chk-18 BETA85RR02	--	--	--	4.04	4.09	3.82	--	--	--	--	--	--
6	1011 Aph Chk-34 HILL4000RR	--	--	--	5.83	5.24	5.28	--	--	--	--	--	--
2	1012 Aph Chk-41 CRYS765RR	--	--	--	6.07	6.11	5.70	--	--	--	--	--	--
6	1013 Aph Chk-36 BETA87RR68	--	--	--	5.15	6.31	6.27	--	--	--	--	--	--
7	1014 Aph Chk-28 HILL4010RR	--	--	--	9.00	5.13	4.59	--	--	--	--	--	--
2	1015 Aph Chk-40 CRYS878RR	--	--	--	4.13	5.47	5.75	--	--	--	--	--	--
6	1016 ACAPMODRR	--	--	--	4.21	4.97	4.90	--	--	--	--	--	--
7	1017 ACAPRESRR	--	--	--	3.05	4.61	4.09	--	--	--	--	--	--
6	1018 AP CHK SUS HYB#3	--	--	--	6.00	6.15	6.68	--	--	--	--	--	--
6	1019 AP CHK SUS HYB#4	--	--	--	5.43	6.51	6.75	--	--	--	--	--	--
6	1020 AP CHK MOD RES RR#2	--	--	--	3.05	4.60	4.64	--	--	--	--	--	--
6	1021 AP CHK SUS HYB#3	--	--	--	5.59	6.15	6.68	--	--	--	--	--	--
6	1022 AP CHK SUS HYB#4	--	--	--	5.16	6.51	6.75	--	--	--	--	--	--
7	1023 ACAPRESRR	--	--	--	3.46	4.61	4.09	--	--	--	--	--	--
7	1201 Fus Chk #07 CRYS658RR	--	--	--	--	--	--	--	--	--	2.68	5.76	2.22
6	1202 Fus Chk #08 HILL4000RR	--	--	--	--	--	--	--	--	--	6.62	5.57	7.27
7	1203 Fus Chk #09 HILL4010RR	--	--	--	--	--	--	--	--	--	6.14	5.69	6.34
7	1204 Fus Chk #12 HILL4012RR	--	--	--	--	--	--	--	--	--	5.72	5.23	5.96
6	1205 Fus Chk #13 HILL4043RR	--	--	--	--	--	--	--	--	--	6.70	5.62	6.92
7	1206 Fus Chk #14 BETA86RR44	--	--	--	--	--	--	--	--	--	5.30	4.86	5.09
4	1207 Fus Chk #16 BETA87RR58	--	--	--	--	--	--	--	--	--	4.79	3.94	4.53
4	1208 Fus Chk #17 CRYS765RR	--	--	--	--	--	--	--	--	--	4.54	4.87	4.13
4	1209 Fus Chk #18 CRYS768RR	--	--	--	--	--	--	--	--	--	4.13	4.98	4.17
3	1210 Fus Chk #26 BETA87RR68	--	--	--	--	--	--	--	--	--	4.54	3.24	4.55
2	1211 FS CHECK RES RR #1	--	--	--	--	--	--	--	--	--	2.39	5.29	2.06
2	1212 FS CHECK SUS RR #2	--	--	--	--	--	--	--	--	--	6.70	4.72	6.34
4	1301 Rhiz Chk#08 CRYS539RR	--	--	--	--	--	--	5.06	4.95	4.22	--	--	--
4	1302 Rhiz Chk#11 BETA87RR68	--	--	--	--	--	--	3.81	3.09	4.60	--	--	--
4	1303 Rhiz Chk#17 HILL4022RR	--	--	--	--	--	--	3.27	4.50	3.95	--	--	--
4	1304 Rhiz Chk#20 CRYS765RR	--	--	--	--	--	--	3.87	4.39	4.49	--	--	--
4	1305 Rhiz Chk#21 CRYS768RR	--	--	--	--	--	--	4.28	4.83	4.59	--	--	--
4	1306 Rhiz Chk#24 BETA86RR88	--	--	--	--	--	--	4.75	4.59	4.22	--	--	--
4	1307 Rhiz Chk#25 HILL4043RR	--	--	--	--	--	--	4.95	4.35	4.19	--	--	--
4	1308 Rhiz Chk#26 BETA86RR44	--	--	--	--	--	--	4.78	4.76	4.10	--	--	--
4	1309 Rhiz Chk#27 HILL4012RR	--	--	--	--	--	--	4.69	3.95	4.75	--	--	--
7	1310 Rhiz Chk#28 CRYS658RR	--	--	--	--	--	--	4.12	4.77	4.05	--	--	--
6	1311 Rhiz Chk#29 BETA87RR58	--	--	--	--	--	--	4.76	4.48	4.77	--	--	--
6	1312 Rhiz Chk#30 SES36711RR	--	--	--	--	--	--	4.46	5.19	4.24	--	--	--
6	1313 Rhiz Chk#31 HILL4000RR	--	--	--	--	--	--	5.04	4.46	4.58	--	--	--
7	1314 Rhiz Chk#32 HILL4010RR	--	--	--	--	--	--	4.99	3.26	4.61	--	--	--
6	1315 Rhiz Chk#33 BETA77RR74	--	--	--	--	--	--	3.50	4.72	3.60	--	--	--
7	1316 Rhiz Chk#34 BETA86RR66	--	--	--	--	--	--	4.51	4.63	4.23	--	--	--
5	1317 Rhiz Chk#35 SES36812RR	--	--	--	--	--	--	4.53	4.78	4.32	--	--	--
8	1318 Rhiz Chk#36 BETA85RR02	--	--	--	--	--	--	4.76	2.79	4.05	--	--	--
7	1319 RES RHC #1	--	--	--	--	--	--	3.38	3.52	3.95	--	--	--
7	1320 MOD RHC #6	--	--	--	--	--	--	3.97	3.78	4.17	--	--	--
8	1321 SUS RHC #3	--	--	--	--	--	--	4.86	4.47	4.22	--	--	--
2	1322 SUS RHC #4	--	--	--	--	--	--	3.98	5.17	4.49	--	--	--
7	1323 MOD RHC #5	--	--	--	--	--	--	4.63	4.36	4.61	--	--	--
5	1324 RES RHC #2	--	--	--	--	--	--	3.56	--	--	--	--	--

CR ratings on a scale of 1-9. Resistant < 4.5, Susceptible > 5.2

Aph root ratings on a scale of 1-9. Resistant < 4.9, Susceptible > 5.5. Specialty level is 4.9.

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

Fusarium ratings on a scale of 1-9. Resistant < 3.0, Susceptible > 5.0

Green highlighted ratings indicate specialty or good resistance.

Red highlighted ratings indicate level of concern for some fields.

+ Some varieties are not approved for sale in 2013. Please check variety approval list.

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

Created 11-1-2012.

Table 36. 2012 Aphanomyces Readings for Official Trial Entries
Shakopee, MN

2012 Chk++	Code	Description	Foliar^ Unadj Shak 7/22 % Mean	Root^^ Unadj Shak 8/28 % Mean	Foliar^ Adj Shak 7/22 % Mean	Root^^ Adj Shak++ 8/26 % Mean	2011 Foliar^	2011 Rt.Indx^^	2010 Foliar^	2010 Rt.Indx^^	Trial Yrs $$
	522	BTS 70RR64	7.17	7.46	7.61	9.00	2.58	4.67	2.69	4.13	3
	565	BTS 70RR70	8.19	8.19	8.69	9.00	4.04	5.41	3.84	5.47	3
	512	BTS 70RR99	7.90	7.83	8.38	9.00	2.46	4.85	2.81	4.63	3
	581	BTS 72RR10	3.09	3.76	3.28	4.87	--	--	--	--	1
	629	BTS 72RR22	1.98	2.46	2.10	3.19	--	--	--	--	1
	544	BTS 72RR50	4.08	4.65	4.33	6.03	--	--	--	--	1
	602	BTS 72RR82	3.34	3.93	3.55	5.09	--	--	--	--	1
	524	BTS 72RR95	2.14	3.03	2.27	3.93	--	--	--	--	1
	612	BTS 80RR12	4.02	4.69	4.27	6.08	3.08	4.87	3.54	5.30	3
	540	BTS 80RR32	2.53	3.42	2.69	4.43	3.66	5.33	3.64	5.60	3
	574	BTS 80RR52	2.27	3.12	2.41	4.04	2.80	4.93	3.53	4.67	3
	518	BTS 81RR17	1.55	2.51	1.65	3.25	2.52	4.06	--	--	2
	594	BTS 81RR41	1.77	2.58	1.88	3.34	3.36	5.33	--	--	2
	552	BTS 81RR78	3.02	3.76	3.21	4.87	3.12	4.83	--	--	2
	554	BTS 82RR11	2.91	3.59	3.09	4.65	--	--	--	--	1
	617	BTS 82RR22	1.61	3.05	1.71	3.95	--	--	--	--	1
	558	BTS 82RR28	2.70	3.48	2.87	4.51	--	--	--	--	1
	596	BTS 82RR33	2.75	3.94	2.92	5.11	--	--	--	--	1
	615	BTS 82RR62	3.15	4.43	3.34	5.74	--	--	--	--	1
	502	BTS 82RR80	1.62	2.60	1.72	3.37	--	--	--	--	1
	533	BTS 82RR91	1.78	2.64	1.89	3.42	--	--	--	--	1
	588	BTS 89RR10	1.27	1.79	1.35	2.32	2.12	4.13	1.94	3.67	4
	637	BTS 89RR30	3.74	4.61	3.97	5.97	3.54	5.14	3.37	4.25	4
	563	BTS 89RR40	1.90	2.79	2.02	3.62	2.66	4.76	2.57	4.14	4
	619	BTS 89RR50	3.30	3.70	3.50	4.80	2.38	4.07	3.05	3.86	4
	535	BTS 89RR83	1.83	2.79	1.94	3.62	3.25	5.05	4.50	5.66	4
	624	Crystal 093RR	2.47	3.23	2.62	4.19	3.32	5.08	3.21	4.91	3
	523	Crystal 095RR	2.47	3.57	2.62	4.63	2.99	4.62	3.26	4.99	3
	603	Crystal 101RR	1.77	2.29	1.88	2.97	2.06	4.14	--	--	2
	613	Crystal 106RR	2.33	2.82	2.47	3.65	2.70	4.74	--	--	2
	595	Crystal 244RR	2.11	2.92	2.24	3.78	--	--	--	--	1
	520	Crystal 245RR	1.99	2.69	2.11	3.49	--	--	--	--	1
	569	Crystal 246RR	2.23	2.97	2.37	3.85	--	--	--	--	1
	506	Crystal 247RR	1.95	2.84	2.07	3.68	--	--	--	--	1
	610	Crystal 248RR	2.15	2.77	2.28	3.59	--	--	--	--	1
	590	Crystal 249RR	1.76	2.34	1.87	3.03	--	--	--	--	1
	542	Crystal 658RR	1.61	2.64	1.71	3.42	2.22	4.52	1.79	3.91	7
	626	Crystal 765RR	3.22	4.39	3.42	5.69	4.37	6.12	4.21	5.70	6
	536	Crystal 768RR	1.63	3.02	1.73	3.91	2.94	4.83	2.92	4.82	6
	584	Crystal 875RR	1.71	2.09	1.81	2.71	1.78	3.14	1.92	3.34	5
	546	Crystal 878RR	2.60	3.67	2.76	4.76	3.25	5.44	4.05	5.75	5
	572	Crystal 981RR	1.60	2.38	1.70	3.08	2.09	4.03	2.00	3.37	4
	622	Crystal 985RR	1.59	2.43	1.69	3.15	1.77	3.75	2.64	4.20	4
	501	Crystal 986RR	2.20	3.40	2.34	4.41	3.03	5.21	2.65	4.20	4
	529	Crystal RR012	6.47	6.88	6.87	8.92	3.16	5.04	3.35	5.14	3
	562	Crystal RR210	4.19	4.65	4.45	6.03	--	--	--	--	1
	550	Crystal RR228NT	2.05	2.69	2.18	3.49	--	--	--	--	1
	564	Crystal RR241	4.67	5.17	4.96	6.70	--	--	--	--	1
	605	Crystal RR260	2.70	3.37	2.87	4.37	--	--	--	--	1
	559	Crystal RR299	2.11	3.12	2.24	4.04	--	--	--	--	1
	516	Crystal RR830	7.38	7.63	7.83	9.00	3.52	4.81	3.12	4.93	5
	635	Hilleshög 4012RR	2.47	3.11	2.62	4.03	3.35	4.64	2.59	4.26	7
	583	Hilleshög 4022RR	2.65	3.17	2.81	4.11	3.20	4.80	3.23	4.96	7
	630	Hilleshög 4043RR	2.86	3.63	3.04	4.70	3.06	4.69	3.01	4.90	6
	534	Hilleshög 4062RR	7.15	7.50	7.59	9.00	3.13	4.98	3.17	4.84	5
	577	Hilleshög 4094RR	2.34	2.87	2.48	3.72	3.13	5.16	2.80	4.87	5
	570	Hilleshog 4195RR	2.69	3.24	2.86	4.20	3.21	5.21	3.40	5.17	4
	589	Hilleshög 4204RR	7.02	7.42	7.45	9.00	3.54	5.15	3.36	5.04	4
	625	Hilleshög 4236RR(9236)	3.18	4.14	3.38	5.37	3.06	4.88	3.56	4.96	3
	527	Hilleshög 4251RR(9251)	7.21	7.36	7.65	9.00	2.88	4.79	2.98	4.71	3

Table 36. 2012 Aphanomyces Readings for Official Trial Entries
Shakopee, MN

2012 Chk++	Code	Description	Foliar^ Unadj Shak 7/22 % Mean	Root^^ Unadj Shak 8/28 % Mean	Foliar^ Adj Shak 7/22 % Mean	Root^^ Adj Shak++ 8/26 % Mean	2011 Foliar^	2011 Rt.Indx^^	2010 Foliar^	2010 Rt.Indx^^	Trial Yrs $$
	545	Hilleshög 4300RR(9300)	2.69	3.21	2.86	4.16	3.09	4.72	--	--	2
	611	Hilleshög 4303RR(9303)	2.46	3.09	2.61	4.00	3.22	4.87	--	--	2
	616	Hilleshog 4303RR(9310)	2.85	3.64	3.02	4.72	3.00	4.84	--	--	2
	599	Hilleshög 9302RR	2.29	3.24	2.43	4.20	2.95	4.88	--	--	2
	521	Hilleshog 9309RR	2.34	2.80	2.48	3.63	3.13	5.22	--	--	2
	514	Hilleshög 9409RR	1.53	2.70	1.62	3.50	--	--	--	--	1
	556	Hilleshög 9410RR	2.35	3.15	2.49	4.08	--	--	--	--	1
	573	Hilleshög 9411RR	2.16	2.84	2.29	3.68	--	--	--	--	1
	633	Hilleshög 9412RR	2.45	3.52	2.60	4.56	--	--	--	--	1
	553	Hilleshög 9413RR	2.81	3.60	2.98	4.67	--	--	--	--	1
	504	Hilleshög 9414RR	5.10	6.01	5.41	7.79	--	--	--	--	1
	538	Hilleshög 9415RR	2.09	2.73	2.22	3.54	--	--	--	--	1
	579	Hilleshög 9420RR	2.67	3.57	2.83	4.63	--	--	--	--	1
	517	Hilleshög 9421RR	1.60	2.51	1.70	3.25	--	--	--	--	1
	543	Hilleshög 9422RR	2.53	3.41	2.69	4.42	--	--	--	--	1
	526	Hilleshög 9423RR	2.76	3.78	2.93	4.90	--	--	--	--	1
	592	Hilleshög 9424RR	2.20	2.83	2.34	3.67	--	--	--	--	1
	505	Hilleshög 9448RR	3.80	4.37	4.03	5.66	--	--	--	--	1
	598	Hilleshög 9449RR	3.25	3.44	3.45	4.46	--	--	--	--	1
	551	Hilleshög 9451RR	3.03	3.62	3.22	4.69	--	--	--	--	1
	628	Maribo 102RR	2.89	3.34	3.07	4.33	2.84	3.95	--	--	2
	576	Maribo 104RR	2.97	3.44	3.15	4.46	2.67	4.73	--	--	2
	618	Maribo 108RR	2.50	2.45	2.65	3.18	2.64	4.06	--	--	2
	560	Maribo 200RR	2.78	3.38	2.95	4.38	--	--	--	--	1
	632	Maribo 201RR	3.11	3.85	3.30	4.99	--	--	--	--	1
	508	Maribo 202RR	3.50	4.36	3.71	5.65	--	--	--	--	1
	582	Maribo 203RR	2.11	3.00	2.24	3.89	--	--	--	--	1
	604	Maribo 213RR	2.00	2.63	2.12	3.41	--	--	--	--	1
	503	Maribo 214RR	4.37	4.80	4.64	6.22	--	--	--	--	1
	593	Maribo 215RR	2.58	3.46	2.74	4.48	--	--	--	--	1
	587	Seedex SX0814RR	2.64	3.38	2.80	4.38	2.87	4.59	--	--	2
	537	Seedex SX0816RR	2.18	3.23	2.31	4.19	2.62	4.52	--	--	2
	548	Seedex SX0826RR	2.36	3.10	2.50	4.02	--	--	--	--	1
	597	Seedex SX0827RR	4.03	4.61	4.28	5.97	--	--	--	--	1
	567	Seedex SX0828RR	2.46	3.13	2.61	4.06	--	--	--	--	1
	591	Seedex SX0829NRR	2.12	3.01	2.25	3.90	--	--	--	--	1
	636	Seedex SX0901RR	2.85	3.53	3.02	4.57	3.05	4.76	2.93	4.60	3
	510	Seedex SX0903RR	2.44	3.26	2.59	4.22	2.97	4.44	3.05	4.84	3
	575	Seedex SX0904RR	2.02	2.96	2.14	3.84	2.88	4.41	3.71	4.96	3
	513	Seedex SX0917RR	3.62	4.40	3.84	5.70	3.58	5.10	--	--	2
	525	Seedex SX0924RR	2.77	3.57	2.94	4.63	--	--	--	--	1
	571	Seedex SX0925RR	3.09	4.19	3.28	5.43	--	--	--	--	1
	555	Seedex SX0929RR	2.12	2.93	2.25	3.80	--	--	--	--	1
	601	Seedex Ultra RR	7.58	7.61	8.05	9.00	3.33	5.05	3.22	4.86	5
	530	Seedex Usher RR	3.17	3.84	3.36	4.98	3.31	4.73	2.93	4.79	5
	607	Seedex Vapor RR(SX0995)	7.39	7.71	7.84	9.00	3.10	4.86	3.19	4.80	4
	511	Seedex Victor RR(SX0894)	3.06	3.61	3.25	4.68	2.96	4.71	2.87	4.62	4
	541	Seedex Vision RR(SX0891)	3.02	3.99	3.21	5.17	3.08	4.73	3.21	4.66	4
	614	Seedex Wrangler (808)RR	2.48	3.57	2.63	4.63	2.72	4.79	2.46	4.14	3
	578	SESVdh 36084RR	3.21	3.90	3.41	5.05	2.75	4.76	3.00	4.77	3
	561	SESVdh 36175RR	2.09	3.16	2.22	4.10	2.74	4.55	--	--	2
	623	SESVdh 36179NRR	3.12	3.78	3.31	4.90	3.15	4.94	--	--	2
	539	SESVdh 36185RR	2.19	3.57	2.32	4.63	2.79	4.81	--	--	2
	634	SESVdh 36186RR	3.02	3.85	3.21	4.99	3.12	5.09	--	--	2
	509	SESVdh 36187RR	2.40	3.45	2.55	4.47	2.80	4.88	--	--	2
	585	SESVdh 36188RR	2.09	3.16	2.22	4.10	2.78	4.53	--	--	2
	608	SESVdh 36219TTRR	2.64	3.60	2.80	4.67	--	--	--	--	1
	620	SESVdh 36221RR	3.87	4.61	4.11	5.97	--	--	--	--	1
	557	SESVdh 36222RR	2.93	3.88	3.11	5.03	--	--	--	--	1
	600	SESVdh 36223RR	2.02	3.05	2.14	3.95	--	--	--	--	1

Table 36. 2012 Aphanomyces Readings for Official Trial Entries
Shakopee, MN

2012 Chk++	Code	Description	Foliar^ Unadj Shak 7/22 % Mean	Root^^ Unadj Shak 8/28 % Mean	Foliar^ Adj Shak 7/22 % Mean	Root^^ Adj Shak++ 8/26 % Mean	2011 Foliar^	2011 Rt.Indx^^	2010 Foliar^	2010 Rt.Indx^^	Trial Yrs $$
	515	SESVdh 36224RR	2.18	3.49	2.31	4.52	--	--	--	--	1
	549	SESVdh 36228TTRR	2.61	3.18	2.77	4.12	--	--	--	--	1
	586	SESVdh 36271RR	2.81	3.74	2.98	4.85	--	--	--	--	1
	566	SESVdh 36272RR	3.03	3.97	3.22	5.15	--	--	--	--	1
	627	SESVdh 36273RR	1.14	2.39	1.21	3.10	--	--	--	--	1
	519	SESVdh 36274RR	3.17	3.98	3.36	5.16	--	--	--	--	1
	507	SESVdh 36275RR	2.82	3.64	2.99	4.72	--	--	--	--	1
	547	SESVdh 36276NRR	1.63	2.58	1.73	3.34	--	--	--	--	1
	621	SESVdh 36277NRR	1.81	2.57	1.92	3.33	--	--	--	--	1
	531	SESVdh 36711RR	2.54	3.43	2.70	4.45	2.91	4.62	2.66	4.49	6
	609	SESVdh 36812RR	2.76	3.65	2.93	4.73	3.54	5.19	2.90	4.63	5
	580	SESVdh 36813RR	2.84	3.67	3.01	4.76	3.22	4.57	2.57	4.43	5
	606	SESVdh 36916RR	2.56	3.47	2.72	4.50	3.13	5.04	2.64	4.70	4
	528	SESVdh 36917RR	2.73	3.61	2.90	4.68	2.84	4.68	2.92	4.68	4
	631	SESVdh 36918RR	2.17	3.62	2.30	4.69	2.87	4.50	2.57	4.39	4
	568	SESVdh 36926RR	7.36	7.41	7.81	9.00	2.87	5.09	3.02	4.63	4
	532	SESVdh 36927RR	6.92	7.23	7.34	9.00	3.34	4.86	2.75	4.36	4
1	1001	Aph Chk-22 CRYS539RR	1.50	2.12	1.59	2.75	2.44	4.06	2.64	4.10	8
1	1002	Aph Chk-29 BETA86RR44	3.59	4.22	3.81	5.47	2.85	4.97	2.40	4.72	7
1	1003	Aph Chk-30 BETA86RR66	3.36	3.87	3.57	5.02	2.51	4.45	2.80	4.25	7
1	1004	Aph Chk-26 HILL4022RR	2.31	3.25	2.45	4.21	3.26	4.96	3.18	5.37	7
1	1005	Aph Chk-35 BETA87RR58	2.89	4.24	3.07	5.49	3.55	5.50	3.43	5.33	6
1	1006	Aph Chk-39 CRYS879RR	3.15	4.92	3.34	6.38	4.20	6.14	3.65	6.02	2
1	1007	Aph Chk-42 BETA78RR10	1.84	2.61	1.95	3.38	3.11	5.09	3.87	5.45	2
1	1008	Aph Chk-33 CRYS768RR	1.65	2.89	1.75	3.75	2.78	5.00	3.12	4.68	6
1	1009	Aph Chk-31 BETA86RR88	2.58	3.51	2.74	4.55	2.74	4.39	2.87	4.72	7
1	1010	Aph Chk-18 BETA85RR02	2.63	3.12	2.79	4.04	2.34	4.09	2.18	3.82	8
1	1011	Aph Chk-34 HILL4000RR	4.12	4.50	4.37	5.83	3.22	5.24	3.34	5.28	6
1	1012	Aph Chk-41 CRYS765RR	3.24	4.68	3.44	6.07	4.11	6.11	4.21	5.70	2
1	1013	Aph Chk-36 BETA87RR68	2.71	3.97	2.88	5.15	4.33	6.31	4.26	6.27	6
1	1014	Aph Chk-28 HILL4010RR	8.21	8.24	8.71	9.00	3.71	5.13	2.87	4.59	7
1	1015	Aph Chk-40 CRYS878RR	2.13	3.19	2.26	4.13	3.57	5.47	4.05	5.75	2
	1016	ACAPMODRR	2.22	3.25	2.36	4.21	2.85	4.97	3.26	4.90	6
	1017	ACAPRESRR	1.74	2.35	1.85	3.05	2.52	4.61	2.65	4.09	7
	1018	AP CHK SUS HYB#3	3.76	4.63	3.99	6.00	4.00	6.15	5.01	6.68	6
	1019	AP CHK SUS HYB#4	3.25	4.19	3.45	5.43	4.28	6.51	5.50	6.75	6
	1020	AP CHK MOD RES RR#2	4.08	4.57	4.33	5.92	2.90	4.60	2.91	4.64	6
	1021	AP CHK SUS HYB#3	2.69	4.31	2.86	5.59	4.00	6.15	5.01	6.68	6
	1022	AP CHK SUS HYB#4	2.74	3.98	2.91	5.16	4.28	6.51	5.50	6.75	6
	1023	ACAPRESRR	1.82	2.67	1.93	3.46	2.52	4.61	2.65	4.09	7
15		Trial Mean	2.76	4.18	2.93	5.42					
		Coeff. of Var. (%)	34.7	20.0	34.7	20.0					
		F Value	12.1	12.5	12.1	12.5					
		Mean LSD (0.05)	1.19	1.04	1.26	1.35					
		Mean LSD (0.01)	1.57	1.37	1.67	1.78					
		Sig Lvl	**	**	**	**					
		Adjustment Factor	1.0614	1.2960							

* Significant at 5%. ** Significant at 1%. ns Not significant.
2nd column for each trait is percent of check. General Mean used as check.
Mean LSD is only appropriate for comparing entry means with each other when F value is significant.
^ Foliar Aph Rating was taken during summer to fall (1=healthy, 9+=severe damage).
^^ 2012 Root Rating was taken in early fall (1=healthy, 9+=severe damage).
If adjustment resulted in a disease rating > 9, the rating was changed to 9.
++ Adjustment made to minimize fluctuation for disease levels in disease nursery based upon check varieties.
Data adjusted to 2000-2002 nursery levels.

Table 37. 2012 Cercospora Ratings for Official Trial Entries

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

Chk	Code	Description	Adjusted to 1982 Basis ++ Rosemt. Avg	BSDF Avg	Foxhome Avg	All Data Adjusted to '1982 Basis' 2012 Mean	2 Yr Mean	3 Yr Mean	2011 Mean	2010 Mean	Trial Yrs $$
	522	BTS 70RR64	5.38	5.13	5.13	5.21	5.31	5.16	5.41	4.86	3
	565	BTS 70RR70	4.81	4.49	4.56	4.62	4.86	4.98	5.11	5.21	3
	512	BTS 70RR99	4.66	3.85	4.49	4.33	4.46	4.45	4.59	4.43	3
	581	BTS 72RR10	4.94	4.56	4.50	4.67	--	--	--	--	1
	629	BTS 72RR22	4.41	4.20	4.31	4.31	--	--	--	--	1
	544	BTS 72RR50	4.41	3.28	3.99	3.89	--	--	--	--	1
	602	BTS 72RR82	5.32	4.71	4.98	5.00	--	--	--	--	1
	524	BTS 72RR95	4.89	4.42	4.41	4.57	--	--	--	--	1
	612	BTS 80RR12	4.76	4.34	4.86	4.65	4.76	4.93	4.86	5.27	3
	540	BTS 80RR32	4.98	4.27	4.74	4.66	4.92	4.92	5.18	4.93	3
	574	BTS 80RR52	4.45	4.42	4.33	4.40	4.51	4.45	4.61	4.32	3
	518	BTS 81RR17	4.58	4.14	4.36	4.36	4.52	--	4.68	--	2
	594	BTS 81RR41	4.17	3.99	4.32	4.16	4.15	--	4.14	--	2
	552	BTS 81RR78	4.53	4.27	4.75	4.51	4.70	--	4.88	--	2
	554	BTS 82RR11	5.54	6.05	5.06	5.55	--	--	--	--	1
	617	BTS 82RR22	4.87	4.20	4.88	4.65	--	--	--	--	1
	558	BTS 82RR28	4.75	4.49	4.74	4.66	--	--	--	--	1
	596	BTS 82RR33	4.63	4.84	4.75	4.74	--	--	--	--	1
	615	BTS 82RR62	4.40	4.49	4.67	4.52	--	--	--	--	1
	502	BTS 82RR80	5.14	4.49	4.67	4.77	--	--	--	--	1
	533	BTS 82RR91	4.96	4.49	4.71	4.72	--	--	--	--	1
	588	BTS 89RR10	5.13	5.34	4.82	5.10	5.09	5.03	5.08	4.92	4
	637	BTS 89RR30	5.12	4.42	5.21	4.92	5.04	5.06	5.17	5.09	4
	563	BTS 89RR40	5.34	4.99	5.14	5.16	5.25	5.19	5.33	5.07	4
	619	BTS 89RR50	5.26	5.63	5.03	5.30	5.16	5.16	5.01	5.16	4
	535	BTS 89RR83	4.91	4.77	5.00	4.89	4.85	4.84	4.81	4.83	4
	624	Crystal 093RR	4.87	4.77	4.81	4.82	4.99	5.03	5.16	5.12	3
	523	Crystal 095RR	5.08	4.42	4.98	4.83	4.85	4.83	4.88	4.80	3
	603	Crystal 101RR	4.87	4.91	4.34	4.71	4.71	--	4.72	--	2
	613	Crystal 106RR	4.29	4.06	4.16	4.17	4.16	--	4.15	--	2
	595	Crystal 244RR	4.79	4.99	5.02	4.93	--	--	--	--	1
	520	Crystal 245RR	5.52	5.34	5.00	5.29	--	--	--	--	1
	569	Crystal 246RR	4.70	4.27	4.48	4.49	--	--	--	--	1
	506	Crystal 247RR	4.86	4.42	4.75	4.68	--	--	--	--	1
	610	Crystal 248RR	5.41	4.77	4.64	4.94	--	--	--	--	1
	590	Crystal 249RR	4.74	4.20	4.54	4.50	--	--	--	--	1
	542	Crystal 658RR	4.45	3.99	4.40	4.28	4.38	4.40	4.47	4.46	7
	626	Crystal 765RR	4.62	4.49	4.98	4.70	4.70	4.64	4.70	4.52	6
	536	Crystal 768RR	5.47	5.56	5.09	5.37	5.23	5.23	5.09	5.21	6
	584	Crystal 875RR	4.10	4.20	4.47	4.26	4.25	4.27	4.24	4.33	5
	546	Crystal 878RR	5.29	4.27	4.87	4.81	5.06	5.10	5.31	5.17	5
	572	Crystal 981RR	5.43	5.48	4.55	5.15	5.18	5.22	5.21	5.29	4
	622	Crystal 985RR	4.42	4.42	4.38	4.41	4.39	4.36	4.37	4.30	4
	501	Crystal 986RR	5.10	4.56	4.68	4.78	4.96	5.12	5.14	5.45	4
	529	Crystal RR012	4.63	4.34	4.66	4.54	4.66	4.64	4.79	4.60	3
	562	Crystal RR210	4.74	4.42	4.60	4.59	--	--	--	--	1
	550	Crystal RR228NT	4.49	3.99	4.51	4.33	--	--	--	--	1
	564	Crystal RR241	4.19	4.27	4.42	4.29	--	--	--	--	1
	605	Crystal RR260	5.01	4.14	4.58	4.58	--	--	--	--	1
	559	Crystal RR299	4.44	4.49	4.50	4.48	--	--	--	--	1
	516	Crystal RR830	4.75	4.49	4.57	4.60	4.76	4.80	4.92	4.86	5
	635	Hilleshög 4012RR	5.39	5.56	5.43	5.46	5.35	5.23	5.24	5.00	7
	583	Hilleshög 4022RR	4.09	4.42	4.57	4.36	4.31	4.29	4.26	4.26	7
	630	Hilleshög 4043RR	4.37	4.49	4.81	4.56	4.70	4.80	4.84	5.01	6
	534	Hilleshög 4062RR	4.26	4.34	4.53	4.38	4.15	4.23	3.91	4.41	5
	577	Hilleshög 4094RR	4.31	4.27	4.44	4.34	4.17	4.21	4.00	4.28	5

Table 37. 2012 Cercospora Ratings for Official Trial Entries

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

Chk	Code	Description	Adjusted to 1982 Basis ++ Rosemt. Avg	BSDF Avg	Foxhome Avg	All Data Adjusted to '1982 Basis' 2012 Mean	2 Yr Mean	3 Yr Mean	2011 Mean	2010 Mean	Trial Yrs $$
	570	Hilleshog 4195RR	4.52	4.84	4.59	4.65	4.63	4.55	4.60	4.39	4
	589	Hilleshög 4204RR	4.41	5.06	4.59	4.69	4.59	4.55	4.50	4.47	4
	625	Hilleshög 4236RR(9236)	4.65	4.99	4.50	4.71	4.73	4.64	4.75	4.45	3
	527	Hilleshög 4251RR(9251)	4.27	4.49	4.30	4.35	4.35	4.31	4.36	4.21	3
	545	Hilleshög 4300RR(9300)	4.79	4.91	4.77	4.82	4.76	--	4.71	--	2
	611	Hilleshög 4303RR(9303)	4.55	4.56	4.76	4.62	4.42	--	4.22	--	2
	616	Hilleshog 4303RR(9310)	4.61	3.99	4.60	4.40	4.41	--	4.43	--	2
	599	Hilleshög 9302RR	4.27	4.42	4.33	4.34	4.17	--	4.00	--	2
	521	Hilleshog 9309RR	4.28	4.99	4.42	4.56	4.36	--	4.17	--	2
	514	Hilleshög 9409RR	4.27	4.42	4.57	4.42	--	--	--	--	1
	556	Hilleshög 9410RR	4.38	4.84	5.00	4.74	--	--	--	--	1
	573	Hilleshög 9411RR	3.35	3.77	3.94	3.69	--	--	--	--	1
	633	Hilleshög 9412RR	4.20	4.71	4.30	4.40	--	--	--	--	1
	553	Hilleshög 9413RR	4.22	4.71	4.63	4.52	--	--	--	--	1
	504	Hilleshög 9414RR	4.51	4.71	5.07	4.76	--	--	--	--	1
	538	Hilleshög 9415RR	4.61	4.27	4.60	4.49	--	--	--	--	1
	579	Hilleshög 9420RR	4.42	5.06	4.81	4.76	--	--	--	--	1
	517	Hilleshög 9421RR	4.11	4.71	4.99	4.60	--	--	--	--	1
	543	Hilleshög 9422RR	3.34	3.70	4.04	3.69	--	--	--	--	1
	526	Hilleshög 9423RR	4.58	5.13	4.90	4.87	--	--	--	--	1
	592	Hilleshög 9424RR	4.39	4.49	4.47	4.45	--	--	--	--	1
	505	Hilleshög 9448RR	4.63	4.91	4.92	4.82	--	--	--	--	1
	598	Hilleshög 9449RR	4.58	4.56	4.86	4.66	--	--	--	--	1
	551	Hilleshög 9451RR	5.36	5.70	5.08	5.38	--	--	--	--	1
	628	Maribo 102RR	4.89	4.84	4.90	4.88	5.03	--	5.19	--	2
	576	Maribo 104RR	4.06	3.63	3.77	3.82	3.64	--	3.45	--	2
	618	Maribo 108RR	5.04	5.06	5.25	5.12	5.12	--	5.13	--	2
	560	Maribo 200RR	4.20	4.42	4.19	4.27	--	--	--	--	1
	632	Maribo 201RR	4.86	5.13	5.28	5.09	--	--	--	--	1
	508	Maribo 202RR	4.72	5.13	5.18	5.01	--	--	--	--	1
	582	Maribo 203RR	4.56	4.34	4.41	4.44	--	--	--	--	1
	604	Maribo 213RR	4.41	4.49	4.57	4.49	--	--	--	--	1
	503	Maribo 214RR	4.55	4.56	4.94	4.68	--	--	--	--	1
	593	Maribo 215RR	4.56	5.34	5.19	5.03	--	--	--	--	1
	587	Seedex SX0814RR	4.56	4.91	4.82	4.76	4.77	--	4.78	--	2
	537	Seedex SX0816RR	4.07	4.56	4.67	4.43	4.49	--	4.54	--	2
	548	Seedex SX0826RR	4.08	4.49	4.77	4.45	--	--	--	--	1
	597	Seedex SX0827RR	4.05	4.77	4.90	4.57	--	--	--	--	1
	567	Seedex SX0828RR	4.56	4.91	4.69	4.72	--	--	--	--	1
	591	Seedex SX0829NRR	4.76	4.77	4.99	4.84	--	--	--	--	1
	636	Seedex SX0901RR	3.97	4.14	4.35	4.15	4.21	4.46	4.28	4.95	3
	510	Seedex SX0903RR	3.80	4.34	4.56	4.23	4.25	4.42	4.27	4.74	3
	575	Seedex SX0904RR	4.11	4.20	4.19	4.17	4.12	4.01	4.06	3.81	3
	513	Seedex SX0917RR	4.25	4.71	4.85	4.60	4.44	--	4.29	--	2
	525	Seedex SX0924RR	4.42	4.77	5.02	4.74	--	--	--	--	1
	571	Seedex SX0925RR	3.99	4.34	4.92	4.42	--	--	--	--	1
	555	Seedex SX0929RR	3.84	3.85	4.36	4.02	--	--	--	--	1
	601	Seedex Ultra RR	4.13	4.71	5.09	4.64	4.56	4.72	4.49	5.02	5
	530	Seedex Usher RR	4.09	4.91	4.77	4.59	4.64	4.78	4.70	5.05	5
	607	Seedex Vapor RR(SX0995)	3.77	4.84	4.84	4.48	4.58	4.57	4.68	4.56	4
	511	Seedex Victor RR(SX0894)	4.19	4.56	4.49	4.41	4.37	4.42	4.33	4.51	4
	541	Seedex Vision RR(SX0891)	4.29	4.49	4.70	4.49	4.45	4.55	4.41	4.76	4
	614	Seedex Wrangler (808)RR	4.31	4.34	4.63	4.43	4.29	4.62	4.16	5.27	3
	578	SESVdh 36084RR	4.45	4.84	4.79	4.70	4.69	4.77	4.69	4.92	3
	561	SESVdh 36175RR	3.74	4.42	4.50	4.22	4.42	--	4.61	--	2
	623	SESVdh 36179NRR	4.03	4.91	4.97	4.64	4.70	--	4.77	--	1
	539	SESVdh 36185RR	4.20	4.42	4.59	4.40	4.44	--	4.49	--	2
	634	SESVdh 36186RR	4.39	4.77	5.04	4.73	4.69	--	4.65	--	2
	509	SESVdh 36187RR	4.26	4.71	4.78	4.58	4.55	--	4.52	--	2
	585	SESVdh 36188RR	3.96	3.85	4.34	4.05	4.14	--	4.23	--	2

Table 37. 2012 Cercospora Ratings for Official Trial Entries

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

		Adjusted to 1982 Basis ++				All Data Adjusted to '1982 Basis'					
Chk	Code	Description	Rosemt. Avg	BSDF Avg	Foxhome Avg	2012 Mean	2 Yr Mean	3 Yr Mean	2011 Mean	2010 Mean	Trial Yrs $$
	608	SESVdh 36219TTRR	4.02	4.49	4.82	4.44	--	--	--	--	1
	620	SESVdh 36221RR	4.20	4.84	4.88	4.64	--	--	--	--	1
	557	SESVdh 36222RR	4.09	4.27	4.61	4.32	--	--	--	--	1
	600	SESVdh 36223RR	3.89	4.49	4.36	4.25	--	--	--	--	1
	515	SESVdh 36224RR	4.08	4.27	4.45	4.27	--	--	--	--	1
	549	SESVdh 36228TTRR	4.10	4.49	4.77	4.46	--	--	--	--	1
	586	SESVdh 36271RR	4.21	4.91	4.84	4.65	--	--	--	--	1
	566	SESVdh 36272RR	4.09	4.14	4.30	4.17	--	--	--	--	1
	627	SESVdh 36273RR	3.92	4.34	4.32	4.19	--	--	--	--	1
	519	SESVdh 36274RR	4.41	4.63	5.00	4.68	--	--	--	--	1
	507	SESVdh 36275RR	4.20	4.27	4.36	4.28	--	--	--	--	1
	547	SESVdh 36276NRR	4.01	4.06	4.39	4.15	--	--	--	--	1
	621	SESVdh 36277NRR	5.10	5.27	5.08	5.15	--	--	--	--	1
	531	SESVdh 36711RR	4.45	4.91	4.93	4.77	4.67	4.78	4.58	4.99	6
	609	SESVdh 36812RR	4.22	5.06	5.01	4.76	4.77	4.90	4.78	5.16	5
	580	SESVdh 36813RR	4.08	4.20	4.72	4.33	4.40	4.46	4.46	4.59	5
	606	SESVdh 36916RR	4.32	4.91	4.81	4.68	4.69	4.78	4.70	4.97	4
	528	SESVdh 36917RR	4.14	4.84	4.83	4.61	4.56	4.69	4.51	4.95	4
	631	SESVdh 36918RR	4.04	4.42	4.39	4.28	4.35	4.39	4.41	4.47	4
	568	SESVdh 36926RR	3.96	4.56	4.63	4.38	4.42	4.39	4.45	4.33	4
	532	SESVdh 36927RR	3.56	4.27	4.49	4.11	4.28	4.28	4.44	4.30	4
1	1101	CR Chk-19 CRYS539RR	5.66	5.20	4.96	5.27	5.28	5.36	5.30	5.52	8
1	1102	CR Chk-31 BETA86RR88	5.06	4.84	4.55	4.82	4.81	4.75	4.80	4.63	7
1	1103	CR CHK-37 SES36711RR	4.57	4.91	4.98	4.82	4.81	4.86	4.80	4.94	6
1	1104	CR Chk-30 BETA86RR66	4.99	4.77	5.17	4.98	5.05	5.12	5.13	5.27	7
1	1105	CR Chk-34 HILL4000RR	4.33	4.91	4.90	4.71	4.62	4.64	4.52	4.69	6
1	1106	CR CHK-36 BETA87RR68	4.23	4.71	4.89	4.61	4.71	4.69	4.81	4.66	6
1	1107	CR Chk-24 HILL4012RR	5.19	5.48	5.33	5.33	5.30	5.26	5.27	5.17	7
1	1108	CR Chk-35 BETA87RR58	5.73	5.13	5.11	5.32	5.29	5.32	5.25	5.39	6
1	1109	CR Chk-33 HILL4043RR	4.57	4.56	4.78	4.64	4.70	4.75	4.77	4.85	6
1	1110	CR Chk-17 BETA85RR02	5.31	5.06	4.84	5.07	5.12	5.12	5.17	5.13	8
1	1111	CR Chk-28 HILL4010RR	5.12	5.41	5.20	5.24	5.14	5.15	5.04	5.16	7
1	1112	CR Chk-29 BETA86RR44	4.98	4.77	5.05	4.93	4.92	4.95	4.90	5.03	7
	1113	Filler27	5.45	5.63	4.86	5.31	--	--	--	--	1
	1114	CR CHK MOD SUS HYB#3	5.27	4.84	4.75	4.96	5.11	5.19	5.25	5.37	8
	1115	CR CHK MOD RES HYB#4	4.01	4.42	4.40	4.28	4.33	4.29	4.37	4.22	5
12		Trial Mean	4.54	4.61	4.71	4.60					
		Coeff. of Var. (%)	5.96	9.08	5.65						
		F Value	15.29	4.41	7.17						
		Mean LSD (0.05)	0.34	0.58	0.31						
		Mean LSD (0.01)	0.44	0.76	0.41						
		Sig Lvl	**	**	**						
		Adj Factor	1.03350	1.13930	0.93600						

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

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

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

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

Created 10-15-2012.

Table 38. 2012 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - RRV & NWROC

Sus Chk ^	Chk @	Code	Description	Unadj TSC-E 7/18	Unadj TSC-W 7/26	Unadj UM-Crk 8/15	Adj TSC-E 7/18	Adj TSC-W 7/26	Adj UM-Crk 8/15	Adj 2012 Mean	2 Yr Mean	3 Yr Mean	Adj 2011 Mean	Adj 2010 Mean
		522	BTS 70RR64	6.20	3.64	3.60	4.75	4.56	4.40	4.57	4.63	4.47	4.69	4.15
		565	BTS 70RR70	5.31	3.01	2.78	4.07	3.77	3.39	3.75	3.79	3.81	3.83	3.87
		512	BTS 70RR99	5.29	2.95	3.11	4.06	3.70	3.80	3.85	3.90	3.88	3.94	3.85
		581	BTS 72RR10	6.11	3.53	3.72	4.68	4.42	4.54	4.55	--	--	--	--
		629	BTS 72RR22	5.92	3.82	3.41	4.54	4.79	4.16	4.50	--	--	--	--
		544	BTS 72RR50	6.12	3.18	3.40	4.69	3.98	4.15	4.28	--	--	--	--
		602	BTS 72RR82	5.76	3.92	3.54	4.42	4.91	4.32	4.55	--	--	--	--
		524	BTS 72RR95	3.75	2.41	2.58	2.88	3.02	3.15	3.02	--	--	--	--
		612	BTS 80RR12	5.59	3.83	3.42	4.29	4.80	4.18	4.42	4.61	4.48	4.80	4.21
		540	BTS 80RR32	5.28	3.05	3.09	4.05	3.82	3.77	3.88	4.05	4.01	4.23	3.94
		574	BTS 80RR52	5.23	3.03	2.78	4.01	3.80	3.39	3.73	3.94	4.02	4.14	4.17
		518	BTS 81RR17	4.79	3.41	3.33	3.67	4.27	4.07	4.00	4.05	--	4.09	--
		594	BTS 81RR41	6.37	3.38	3.71	4.88	4.24	4.53	4.55	4.69	--	4.83	--
		552	BTS 81RR78	6.11	3.71	3.42	4.68	4.65	4.18	4.50	4.54	--	4.57	--
		554	BTS 82RR11	5.46	3.20	3.73	4.19	4.01	4.55	4.25	--	--	--	--
		617	BTS 82RR22	6.01	3.81	3.65	4.61	4.77	4.46	4.61	--	--	--	--
		558	BTS 82RR28	4.29	3.20	3.71	3.29	4.01	4.53	3.94	--	--	--	--
		596	BTS 82RR33	5.37	3.32	3.28	4.12	4.16	4.00	4.09	--	--	--	--
		615	BTS 82RR62	6.19	3.38	3.52	4.75	4.24	4.30	4.43	--	--	--	--
		502	BTS 82RR80	5.88	3.64	3.94	4.51	4.56	4.81	4.63	--	--	--	--
		533	BTS 82RR91	5.77	3.99	4.11	4.42	5.00	5.02	4.81	--	--	--	--
		588	BTS 89RR10	5.83	3.08	3.34	4.47	3.86	4.08	4.14	3.88	3.90	3.63	3.94
		637	BTS 89RR30	5.88	3.68	2.94	4.51	4.61	3.59	4.24	4.39	4.15	4.54	3.66
		563	BTS 89RR40	6.41	3.87	3.93	4.91	4.85	4.80	4.85	4.94	4.69	5.02	4.20
		619	BTS 89RR50	6.07	3.86	4.21	4.65	4.84	5.14	4.88	5.09	4.73	5.30	4.01
		535	BTS 89RR83	4.43	3.05	2.88	3.40	3.82	3.52	3.58	4.05	3.91	4.53	3.63
		624	Crystal 093RR	6.32	3.44	3.39	4.85	4.31	4.14	4.43	4.43	4.32	4.43	4.11
		523	Crystal 095RR	6.16	3.60	3.66	4.72	4.51	4.47	4.57	4.72	4.51	4.87	4.11
		603	Crystal 101RR	6.27	3.75	3.89	4.81	4.70	4.75	4.75	4.71	--	4.67	--
		613	Crystal 106RR	6.28	3.38	3.39	4.81	4.24	4.14	4.40	4.46	--	4.52	--
		595	Crystal 244RR	5.77	3.50	3.74	4.42	4.39	4.57	4.46	--	--	--	--
		520	Crystal 245RR	6.28	3.75	3.87	4.81	4.70	4.73	4.75	--	--	--	--
		569	Crystal 246RR	6.02	3.39	3.33	4.62	4.25	4.07	4.31	--	--	--	--
		506	Crystal 247RR	6.21	3.57	3.45	4.76	4.47	4.21	4.48	--	--	--	--
		610	Crystal 248RR	6.12	3.37	3.73	4.69	4.22	4.55	4.49	--	--	--	--
		590	Crystal 249RR	4.74	3.25	3.56	3.63	4.07	4.35	4.02	--	--	--	--
		542	Crystal 658RR	5.62	3.07	3.38	4.31	3.85	4.13	4.09	3.94	4.01	3.78	4.17
		626	Crystal 765RR	5.59	3.26	2.66	4.29	4.09	3.25	3.87	4.22	4.27	4.58	4.37
		536	Crystal 768RR	5.63	3.43	3.73	4.32	4.30	4.55	4.39	4.41	4.37	4.42	4.31
		584	Crystal 875RR	4.98	3.57	3.03	3.82	4.47	3.70	4.00	4.03	3.85	4.06	3.49
		546	Crystal 878RR	5.66	3.38	3.75	4.34	4.24	4.58	4.38	4.44	4.44	4.50	4.44
		572	Crystal 981RR	5.92	3.64	3.49	4.54	4.56	4.26	4.45	4.69	4.50	4.93	4.12
		622	Crystal 985RR	5.77	3.57	3.52	4.42	4.47	4.30	4.40	4.48	4.31	4.56	3.98
		501	Crystal 986RR	5.35	3.46	3.69	4.10	4.34	4.51	4.31	4.16	4.32	4.00	4.65
		529	Crystal RR012	4.16	2.65	2.70	3.19	3.32	3.30	3.27	3.69	3.75	4.12	3.86
		562	Crystal RR210	6.19	3.45	3.31	4.75	4.32	4.04	4.37	--	--	--	--
		550	Crystal RR228NT	5.43	3.67	3.65	4.16	4.60	4.46	4.41	--	--	--	--
		564	Crystal RR241	5.78	3.40	3.89	4.43	4.26	4.75	4.48	--	--	--	--
		605	Crystal RR260	5.73	3.82	3.78	4.39	4.79	4.62	4.60	--	--	--	--
		559	Crystal RR299	5.72	3.38	3.31	4.39	4.24	4.04	4.22	--	--	--	--
		516	Crystal RR830	5.11	3.15	3.16	3.92	3.95	3.86	3.91	3.63	3.70	3.36	3.82
		635	Hilleshög 4012RR	6.24	3.96	3.82	4.78	4.96	4.66	4.80	4.91	4.78	5.02	4.53
		583	Hilleshög 4022RR	3.99	2.76	2.75	3.06	3.46	3.36	3.29	3.38	3.44	3.48	3.56
		630	Hilleshög 4043RR	6.13	3.95	3.83	4.70	4.95	4.68	4.78	5.03	4.82	5.29	4.40
		534	Hilleshög 4062RR	4.46	3.00	2.82	3.42	3.76	3.44	3.54	3.20	3.34	2.87	3.62
		577	Hilleshög 4094RR	4.21	2.82	2.53	3.23	3.53	3.09	3.28	3.29	3.48	3.29	3.85
		570	Hilleshog 4195RR	4.93	2.76	3.10	3.78	3.46	3.79	3.67	3.73	3.84	3.78	4.08
		589	Hilleshög 4204RR	5.30	3.07	2.89	4.06	3.85	3.53	3.81	3.57	3.72	3.33	4.02

Table 38. 2012 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - RRV & NWROC

Sus Chk ^	Chk @	Code	Description	Unadj TSC-E 7/18	Unadj TSC-W 7/26	Unadj UM-Crk 8/15	Adj TSC-E 7/18	Adj TSC-W 7/26	Adj UM-Crk 8/15	Adj 2012 Mean	2 Yr Mean	3 Yr Mean	Adj 2011 Mean	Adj 2010 Mean
		625	Hilleshög 4236RR(9236)	6.46	4.31	4.37	4.95	5.40	5.34	5.23	5.55	--	5.86	--
		527	Hilleshög 4251RR(9251)	4.76	2.94	3.06	3.65	3.68	3.74	3.69	3.68	3.73	3.67	3.82
		545	Hilleshög 4300RR(9300)	5.82	3.76	3.69	4.46	4.71	4.51	4.56	4.44	--	4.32	--
		611	Hilleshög 4303RR(9303)	6.59	4.23	4.29	5.05	5.30	5.24	5.20	--	--	--	--
		616	Hilleshog 4303RR(9310)	6.43	4.23	4.69	4.93	5.30	5.73	5.32	--	--	--	--
		599	Hilleshög 9302RR	4.95	2.75	3.00	3.80	3.45	3.66	3.63	3.55	--	3.47	--
		521	Hilleshog 9309RR	5.00	2.76	2.92	3.83	3.46	3.57	3.62	3.35	--	3.09	--
		573	Hilleshög 9411RR	5.38	2.88	3.30	4.12	3.61	4.03	3.92	--	--	--	--
		633	Hilleshög 9412RR	3.91	2.81	2.72	3.00	3.52	3.32	3.28	--	--	--	--
		553	Hilleshög 9413RR	4.76	3.10	2.79	3.65	3.88	3.41	3.65	--	--	--	--
		538	Hilleshög 9415RR	4.70	3.06	3.14	3.60	3.83	3.83	3.76	--	--	--	--
		543	Hilleshög 9422RR	4.63	2.82	3.48	3.55	3.53	4.25	3.78	--	--	--	--
		592	Hilleshög 9424RR	4.78	2.98	2.80	3.66	3.73	3.42	3.61	--	--	--	--
		628	Maribo 102RR	6.18	3.69	3.87	4.74	4.62	4.73	4.70	--	--	--	--
		576	Maribo 104RR	5.05	3.40	3.12	3.87	4.26	3.81	3.98	3.67	--	3.36	--
		618	Maribo 108RR	5.93	3.95	4.16	4.55	4.95	5.08	4.86	--	--	--	--
		560	Maribo 200RR	4.99	3.54	3.08	3.83	4.44	3.76	4.01	--	--	--	--
		582	Maribo 203RR	4.90	2.65	3.02	3.76	3.32	3.69	3.59	--	--	--	--
		604	Maribo 213RR	5.04	3.16	2.56	3.86	3.96	3.13	3.65	--	--	--	--
		587	Seedex SX0814RR	5.89	3.71	3.67	4.52	4.65	4.48	4.55	4.61	--	4.68	--
		537	Seedex SX0816RR	6.36	3.77	3.70	4.88	4.72	4.52	4.71	4.63	--	4.55	--
		548	Seedex SX0826RR	5.73	3.09	3.47	4.39	3.87	4.24	4.17	--	--	--	--
		567	Seedex SX0828RR	5.37	3.49	3.50	4.12	4.37	4.27	4.25	--	--	--	--
		636	Seedex SX0901RR	6.34	3.33	3.91	4.86	4.17	4.77	4.60	4.71	--	4.82	--
		510	Seedex SX0903RR	6.28	3.68	3.78	4.81	4.61	4.62	4.68	4.53	--	4.38	--
		575	Seedex SX0904RR	5.46	2.99	3.62	4.19	3.75	4.42	4.12	3.94	3.88	3.77	3.74
		513	Seedex SX0917RR	5.89	3.05	3.46	4.52	3.82	4.22	4.19	4.51	--	4.84	--
		525	Seedex SX0924RR	5.57	3.16	3.49	4.27	3.96	4.26	4.16	--	--	--	--
		571	Seedex SX0925RR	6.13	3.59	3.85	4.70	4.50	4.70	4.63	--	--	--	--
		555	Seedex SX0929RR	4.99	3.07	3.10	3.83	3.85	3.79	3.82	--	--	--	--
		601	Seedex Ultra RR	5.75	3.13	3.44	4.41	3.92	4.20	4.18	4.37	4.29	4.56	4.14
		530	Seedex Usher RR	5.92	3.40	3.45	4.54	4.26	4.21	4.34	4.48	4.48	4.63	4.47
		607	Seedex Vapor RR(SX0995)	5.95	3.23	3.39	4.56	4.05	4.14	4.25	4.40	4.17	4.54	3.72
		511	Seedex Victor RR(894)	5.99	3.64	3.72	4.59	4.56	4.54	4.57	4.57	4.49	4.57	4.32
		541	Seedex Vision RR(891)	5.87	3.69	3.85	4.50	4.62	4.70	4.61	4.53	4.46	4.46	4.31
		614	Seedex Wrangler RR(808)	6.20	3.04	3.34	4.75	3.81	4.08	4.21	4.36	4.38	4.51	4.42
		578	SESVdh 36084RR	5.95	3.60	3.58	4.56	4.51	4.37	4.48	4.46	4.35	4.43	4.15
		561	SESVdh 36175RR	6.18	3.15	3.51	4.74	3.95	4.29	4.32	4.44	--	4.55	--
		623	SESVdh 36179NRR	5.61	3.55	3.64	4.30	4.45	4.44	4.40	4.60	--	4.80	--
		539	SESVdh 36185RR	6.42	3.96	3.79	4.92	4.96	4.63	4.84	4.66	--	4.49	--
		634	SESVdh 36186RR	6.13	3.39	3.47	4.70	4.25	4.24	4.39	4.52	--	4.64	--
		509	SESVdh 36187RR	6.34	3.37	3.68	4.86	4.22	4.49	4.53	4.71	--	4.90	--
		585	SESVdh 36188RR	4.94	3.31	3.24	3.79	4.15	3.96	3.96	3.92	--	3.88	--
		620	SESVdh 36221RR	6.27	3.68	4.00	4.81	4.61	4.88	4.77	--	--	--	--
		557	SESVdh 36222RR	6.34	3.44	3.85	4.86	4.31	4.70	4.62	--	--	--	--
		600	SESVdh 36223RR	5.54	3.19	3.17	4.25	4.00	3.87	4.04	--	--	--	--
		586	SESVdh 36271RR	6.15	3.40	3.46	4.72	4.26	4.22	4.40	--	--	--	--
		627	SESVdh 36273RR	5.71	3.64	3.65	4.38	4.56	4.46	4.47	--	--	--	--
		519	SESVdh 36274RR	5.92	3.13	3.32	4.54	3.92	4.05	4.17	--	--	--	--
		507	SESVdh 36275RR	5.47	3.19	2.97	4.19	4.00	3.63	3.94	--	--	--	--
		531	SESVdh 36711RR	6.14	3.28	3.84	4.71	4.11	4.69	4.50	4.60	4.34	4.69	3.83
		609	SESVdh 36812RR	5.47	3.36	3.50	4.19	4.21	4.27	4.23	4.48	4.47	4.73	4.45
		580	SESVdh 36813RR	5.62	3.59	3.96	4.31	4.50	4.84	4.55	4.66	4.47	4.77	4.10
		606	SESVdh 36916RR	6.20	3.74	3.69	4.75	4.69	4.51	4.65	4.59	4.49	4.52	4.30
		528	SESVdh 36917RR	5.93	3.44	3.51	4.55	4.31	4.29	4.38	4.59	4.49	4.80	4.27
		631	SESVdh 36918RR	6.07	3.68	3.87	4.65	4.61	4.73	4.66	4.90	4.72	5.14	4.37
		568	SESVdh 36926RR	6.05	3.78	3.47	4.64	4.74	4.24	4.54	4.48	4.44	4.41	4.37
		532	SESVdh 36927RR	6.28	3.44	3.75	4.81	4.31	4.58	4.57	4.53	4.37	4.49	4.05

Table 38. 2012 Rhizoctonia Ratings for OVT Entries

Rhizoctonia Nursery - RRV & NWROC

Sus Chk ^	Chk @	Code	Description	Unadj TSC-E 7/18	Unadj TSC-W 7/26	Unadj UM-Crk 8/15	Adj TSC-E 7/18	Adj TSC-W 7/26	Adj UM-Crk 8/15	Adj 2012 Mean	2 Yr Mean	3 Yr Mean	Adj 2011 Mean	Adj 2010 Mean
1	1	1301	Rhiz Chk#08 CRYS539RR	6.29	3.96	4.41	4.82	4.96	5.38	5.06	5.05	4.77	5.03	4.22
1	1	1302	Rhiz Chk#11 BETA87RR68	5.15	2.79	3.26	3.95	3.50	3.98	3.81	4.38	4.45	4.95	4.60
	1	1303	Rhiz Chk#17 HILL4022RR	4.05	2.68	2.74	3.11	3.36	3.35	3.27	3.18	3.44	3.09	3.95
		1304	Rhiz Chk#20 CRYS765RR	5.40	2.82	3.22	4.14	3.53	3.93	3.87	4.18	4.29	4.50	4.49
	1	1305	Rhiz Chk#21 CRYS768RR	5.83	3.19	3.58	4.47	4.00	4.37	4.28	4.34	4.42	4.39	4.59
1	1	1306	Rhiz Chk#24 BETA86RR88	6.36	3.65	3.94	4.88	4.57	4.81	4.75	4.79	4.60	4.83	4.22
1	1	1307	Rhiz Chk#25 HILL4043RR	6.16	4.28	3.89	4.72	5.36	4.75	4.95	4.77	4.58	4.59	4.19
	1	1308	Rhiz Chk#26 BETA86RR44	6.40	3.76	3.87	4.91	4.71	4.73	4.78	4.57	4.41	4.35	4.10
1	1	1309	Rhiz Chk#27 HILL4012RR	6.15	4.02	3.54	4.72	5.04	4.32	4.69	4.73	4.73	4.76	4.75
	1	1310	Rhiz Chk#28 CRYS658RR	5.54	3.42	3.13	4.25	4.29	3.82	4.12	4.04	4.04	3.95	4.05
1	1	1311	Rhiz Chk#29 BETA87RR58	6.59	3.69	3.77	5.05	4.62	4.60	4.76	4.77	4.77	4.77	4.77
1	1	1312	Rhiz Chk#30 SES36711RR	5.69	3.65	3.64	4.36	4.57	4.44	4.46	4.47	4.40	4.48	4.24
1	1	1313	Rhiz Chk#31 HILL4000RR	6.87	4.07	3.89	5.27	5.10	4.75	5.04	5.11	4.94	5.19	4.58
1	1	1314	Rhiz Chk#32 HILL4010RR	6.48	4.16	3.92	4.97	5.21	4.79	4.99	4.73	4.69	4.46	4.61
	1	1315	Rhiz Chk#33 BETA77RR74	4.38	2.89	2.88	3.36	3.62	3.52	3.50	3.38	3.45	3.26	3.60
1	1	1316	Rhiz Chk#34 BETA86RR66	5.58	3.64	3.83	4.28	4.56	4.68	4.51	4.61	4.48	4.72	4.23
1	1	1317	Rhiz Chk#35 SES36812RR	6.00	3.49	3.79	4.60	4.37	4.63	4.53	4.58	4.50	4.63	4.32
1	1	1318	Rhiz Chk#36 BETA85RR02	5.93	3.51	4.37	4.55	4.40	5.34	4.76	4.77	4.53	4.78	4.05
		1319	RES RHC #1	4.24	2.62	2.96	3.25	3.28	3.61	3.38	3.08	3.37	2.79	3.95
		1320	MOD RHC #6	5.19	3.36	3.04	3.98	4.21	3.71	3.97	3.87	3.97	3.78	4.17
		1321	SUS RHC #3	6.13	4.11	3.87	4.70	5.15	4.73	4.86	4.78	4.59	4.70	4.22
		1322	SUS RHC #4	5.58	3.07	3.13	4.28	3.85	3.82	3.98	4.22	4.31	4.47	4.49
		1323	MOD RHC #5	6.10	3.97	3.48	4.68	4.97	4.25	4.63	4.53	4.56	4.43	4.61
		1324	RES RHC #2	4.44	3.01	2.88	3.40	3.77	3.52	3.56	--	--	--	--
12	17		Mean of Check Varieties	5.850	3.579	3.674	4.485	4.485	4.485	4.485	4.485	4.423	4.485	4.298
			Mean of Susc Checks ^	6.104	3.743	3.854	4.680	4.690	4.706	4.692	4.729	4.635	4.716	4.498
			Trial Mean	5.65	3.41	3.48	4.33	4.27	4.25					
			Coeff. of Var. (%)	9.55	12.15	8.61	9.55	12.15	8.61					
			F Value	7.58	4.79	9.21	7.58	4.79	9.21					
			Mean LSD (0.05)	0.67	0.50	0.39	0.51	0.63	0.48					
			Mean LSD (0.01)	0.88	0.66	0.51	0.67	0.83	0.62					
			Sig Lvl	**	**	**	**	**	**					
			Adjustment Factor	0.7667	1.2531	1.2210								
			Approval Limit (80% of susc checks)	4.88	2.99	3.08	3.744	3.752	3.765	3.754	3.783	3.708	3.773	3.598

++ Adjustment is based upon check varieties.

@ Ratings adjusted for disease severity on basis of 17 RR varieties.

Lower numbers indicate better tolerance (0=Ex, 7=Poor).

^ Approval criteria is based upon mean of 12 susc varieties (or 3.82). Previous year susc means include different checks.

Table 39. 2012 Fusarium Readings for Official Trial Entries

ACSC Nurseries - 3 RRV Sites

Chk	Code	Variety Description	Unadjusted Ratings			Adjusted Ratings +			Adj 2012	2 Yr	3 Yr	Adj 2011	Adj 2010	Trial
		Adjusted Ratings +	N Mhd	SE Mhd	SW Mhd	N Mhd	SE Mhd	SW Mhd						
		# of ratings →	2	2	3	2	2	3	Mean	Mean	Mean	Mean	Mean	Years
	522	BTS 70RR64	4.50	4.19	2.60	3.98	4.34	3.75	4.02	4.48	--	4.94	--	3
	565	BTS 70RR70	2.68	2.82	1.80	2.37	2.92	2.60	2.63	3.28	--	3.93	--	3
	512	BTS 70RR99	2.96	2.81	1.95	2.62	2.91	2.81	2.78	3.38	--	3.99	--	3
	612	BTS 80RR12	3.21	2.67	1.67	2.84	2.77	2.41	2.67	3.11	3.09	3.55	3.04	3
	540	BTS 80RR32	2.42	2.72	1.68	2.14	2.82	2.42	2.46	3.34	2.96	4.22	2.22	3
	574	BTS 80RR52	2.93	2.86	1.92	2.59	2.96	2.77	2.77	3.35	3.00	3.93	2.30	3
	518	BTS 81RR17	2.27	2.31	2.14	2.01	2.39	3.09	2.50	2.98	--	3.47	--	2
	594	BTS 81RR41	3.03	3.07	2.32	2.68	3.18	3.35	3.07	3.52	--	3.97	--	2
	552	BTS 81RR78	3.33	3.45	2.58	2.94	3.57	3.72	3.41	3.67	--	3.93	--	2
	554	BTS 82RR11	2.43	2.91	2.79	2.15	3.01	4.02	3.06	--	--	--	--	1
	617	BTS 82RR22	5.56	4.51	3.32	4.92	4.67	4.79	4.79	--	--	--	--	1
	558	BTS 82RR28	1.43	1.92	1.90	1.26	1.99	2.74	2.00	--	--	--	--	1
	596	BTS 82RR33	1.88	1.82	2.26	1.66	1.89	3.26	2.27	--	--	--	--	1
	615	BTS 82RR62	3.02	3.35	2.34	2.67	3.47	3.38	3.17	--	--	--	--	1
	502	BTS 82RR80	3.38	2.95	2.30	2.99	3.06	3.32	3.12	--	--	--	--	1
	533	BTS 82RR91	5.71	5.06	3.74	5.05	5.24	5.40	5.23	--	--	--	--	1
	588	BTS 89RR10	5.52	4.40	3.07	4.88	4.56	4.43	4.62	4.68	4.95	4.74	5.47	4
	637	BTS 89RR30	2.85	2.47	1.67	2.52	2.56	2.41	2.50	3.02	2.56	3.54	1.65	4
	563	BTS 89RR40	4.73	4.42	2.84	4.18	4.58	4.10	4.29	4.54	4.22	4.79	3.60	4
	619	BTS 89RR50	2.94	3.11	2.24	2.60	3.22	3.23	3.02	3.40	2.98	3.77	2.14	4
	535	BTS 89RR83	3.41	3.68	2.31	3.01	3.81	3.33	3.39	3.90	3.68	4.42	3.24	4
	624	Crystal 093RR	3.19	3.88	2.44	2.82	4.02	3.52	3.45	3.86	3.77	4.26	3.61	3
	523	Crystal 095RR	4.28	4.23	2.78	3.78	4.38	4.01	4.06	4.25	4.20	4.44	4.11	3
	603	Crystal 101RR	2.84	2.93	2.30	2.51	3.04	3.32	2.95	2.98	--	3.00	--	2
	613	Crystal 106RR	2.66	2.93	1.95	2.35	3.04	2.81	2.73	3.51	--	4.28	--	2
	595	Crystal 244RR	6.34	4.84	3.72	5.61	5.01	5.37	5.33	--	--	--	--	1
	520	Crystal 245RR	4.49	3.44	2.18	3.97	3.56	3.14	3.56	--	--	--	--	1
	569	Crystal 246RR	3.49	3.15	2.47	3.09	3.26	3.56	3.30	--	--	--	--	1
	506	Crystal 247RR	2.03	2.26	1.95	1.79	2.34	2.81	2.32	--	--	--	--	1
	610	Crystal 248RR	3.50	2.89	2.53	3.09	2.99	3.65	3.25	--	--	--	--	1
	590	Crystal 249RR	5.89	4.85	3.30	5.21	5.02	4.76	5.00	--	--	--	--	1
	542	Crystal 658RR	2.22	2.43	1.86	1.96	2.52	2.68	2.39	2.77	2.47	3.16	1.87	7
	626	Crystal 765RR	4.75	3.84	2.86	4.20	3.98	4.13	4.10	4.30	4.18	4.49	3.96	6
	536	Crystal 768RR	4.93	4.05	2.81	4.36	4.20	4.05	4.20	4.35	4.30	4.50	4.19	6
	584	Crystal 875RR	4.88	4.56	2.98	4.31	4.72	4.30	4.45	4.28	4.57	4.12	5.14	5
	546	Crystal 878RR	4.37	4.33	2.69	3.86	4.49	3.88	4.08	4.34	4.34	4.59	4.35	5
	572	Crystal 981RR	2.68	2.51	2.52	2.37	2.60	3.64	2.87	3.20	3.01	3.54	2.61	4
	622	Crystal 985RR	3.44	3.60	2.61	3.04	3.73	3.77	3.51	3.88	3.97	4.24	4.17	4
	501	Crystal 986RR	5.02	4.52	2.61	4.44	4.68	3.77	4.30	4.91	4.95	5.52	5.04	4
	529	Crystal RR012	2.46	3.13	2.17	2.17	3.24	3.13	2.85	3.70	--	4.55	--	3
	516	Crystal RR830	3.41	3.79	2.37	3.01	3.93	3.42	3.45	3.54	3.29	3.63	2.79	5
	635	Hilleshög 4012RR	7.03	5.69	4.36	6.22	5.89	6.29	6.13	5.65	5.81	5.16	6.14	7
	583	Hilleshög 4022RR	5.41	4.83	3.02	4.78	5.00	4.36	4.71	4.39	4.52	4.06	4.78	7
	630	Hilleshög 4043RR	7.64	6.40	4.86	6.75	6.63	7.01	6.80	6.17	6.61	5.54	7.50	6
	534	Hilleshög 4062RR	5.28	4.78	3.17	4.67	4.95	4.57	4.73	4.72	4.64	4.72	4.46	5
	577	Hilleshög 4094RR	5.15	4.61	2.83	4.55	4.78	4.08	4.47	4.45	4.72	4.44	5.26	5
	570	Hilleshog 4195RR	6.42	5.65	3.65	5.68	5.85	5.27	5.60	5.31	5.54	5.02	6.00	4
	589	Hilleshög 4204RR	6.84	5.86	3.70	6.05	6.07	5.34	5.82	5.48	6.01	5.13	7.08	4
	625	Hilleshög 4236RR(9236)	7.15	5.75	3.64	6.32	5.96	5.25	5.84	5.30	5.72	4.75	6.57	3
	527	Hilleshög 4251RR(9251)	5.99	4.99	3.36	5.30	5.17	4.85	5.10	4.80	--	4.49	--	3
	545	Hilleshög 4300RR(9300)	4.64	3.32	2.24	4.10	3.44	3.23	3.59	3.78	--	3.98	--	2
	611	Hilleshög 4303RR(9303)	6.76	5.37	3.32	5.98	5.56	4.79	5.44	--	--	--	--	2
	616	Hilleshog 4303RR(9310)	6.98	5.48	3.49	6.17	5.68	5.03	5.63	--	--	--	--	2
	599	Hilleshög 9302RR	5.06	4.46	2.70	4.47	4.62	3.90	4.33	--	--	--	--	2
	521	Hilleshog 9309RR	4.74	4.73	2.67	4.19	4.90	3.85	4.31	--	--	--	--	2
	628	Maribo 102RR	6.59	5.03	3.15	5.83	5.21	4.54	5.19	--	--	--	--	2
	576	Maribo 104RR	4.82	5.91	2.69	4.26	6.12	3.88	4.75	4.86	--	4.96	--	2
	618	Maribo 108RR	6.57	4.95	2.92	5.81	5.13	4.21	5.05	--	--	--	--	2
	587	Seedex SX0814RR	4.71	4.03	2.92	4.16	4.18	4.21	4.18	4.31	--	4.44	--	2
	537	Seedex SX0816RR	5.97	5.25	3.52	5.28	5.44	5.08	5.27	--	--	--	--	2
	548	Seedex SX0826RR	4.31	3.80	2.47	3.81	3.94	3.56	3.77	--	--	--	--	1
	567	Seedex SX0828RR	4.67	4.11	2.79	4.13	4.26	4.02	4.14	--	--	--	--	1
	591	Seedex SX0829NRR	3.41	3.06	2.74	3.01	3.17	3.95	3.38	--	--	--	--	1

Table 39. 2012 Fusarium Readings for Official Trial Entries

ACSC Nurseries - 3 RRV Sites

Chk	Code	Variety Description	Unadjusted Ratings N Mhd	Unadjusted Ratings SE Mhd	Unadjusted Ratings SW Mhd	Adjusted Ratings + N Mhd	Adjusted Ratings + SE Mhd	Adjusted Ratings + SW Mhd	Adj 2012 Mean	2 Yr Mean	3 Yr Mean	Adj 2011 Mean	Adj 2010 Mean	Trial Years
		Adjusted Ratings +												
		# of ratings →	2	2	3	2	2	3						
	636	Seedex SX0901RR	5.62	4.86	3.19	4.97	5.03	4.60	4.87	4.71	--	4.55	--	3
	510	Seedex SX0903RR	5.77	4.73	3.49	5.10	4.90	5.03	5.01	4.79	--	4.56	--	3
	575	Seedex SX0904RR	4.29	3.66	2.68	3.79	3.79	3.87	3.82	3.92	3.91	4.02	3.90	3
	513	Seedex SX0917RR	6.43	5.03	3.09	5.68	5.21	4.46	5.12	--	--	--	--	2
	571	Seedex SX0925RR	5.67	4.42	3.09	5.01	4.58	4.46	4.68	--	--	--	--	1
	555	Seedex SX0929RR	4.27	4.35	2.77	3.78	4.51	4.00	4.09	--	--	--	--	1
	601	Seedex Ultra RR	6.08	4.72	3.21	5.38	4.89	4.63	4.97	4.35	4.44	3.74	4.62	5
	530	Seedex Usher RR	6.11	4.21	2.83	5.40	4.36	4.08	4.62	4.45	4.75	4.29	5.35	5
	607	Seedex Vapor RR(SX0995)	5.19	4.61	3.24	4.59	4.78	4.67	4.68	4.97	4.85	5.26	4.61	4
	511	Seedex Victor RR(894)	4.39	4.54	2.81	3.88	4.70	4.05	4.21	4.22	4.44	4.22	4.89	4
	541	Seedex Vision RR(891)	5.80	4.88	3.45	5.13	5.06	4.98	5.05	4.84	5.08	4.63	5.55	4
	614	Seedex Wrangler RR(808)	4.64	4.14	2.88	4.10	4.29	4.15	4.18	4.36	4.66	4.54	5.26	3
	578	SESVdh 36084RR	6.29	5.56	3.15	5.56	5.76	4.54	5.29	5.16	4.97	5.04	4.59	3
	561	SESVdh 36175RR	5.53	4.47	3.08	4.89	4.63	4.44	4.65	--	--	--	--	2
	623	SESVdh 36179NRR	4.25	3.98	2.35	3.76	4.12	3.39	3.76	3.73	--	3.70	--	2
	539	SESVdh 36185RR	6.16	5.28	3.67	5.45	5.47	5.29	5.40	--	--	--	--	2
	634	SESVdh 36186RR	6.02	4.99	2.88	5.32	5.17	4.15	4.88	--	--	--	--	2
	509	SESVdh 36187RR	5.87	4.93	3.29	5.19	5.11	4.75	5.01	5.09	--	5.17	--	2
	585	SESVdh 36188RR	4.13	4.71	2.74	3.65	4.88	3.95	4.16	4.09	--	4.02	--	2
	600	SESVdh 36223RR	3.76	4.00	2.54	3.32	4.14	3.66	3.71	--	--	--	--	1
	519	SESVdh 36274RR	5.25	5.04	2.88	4.64	5.22	4.15	4.67	--	--	--	--	1
	547	SESVdh 36276NRR	2.95	3.36	2.26	2.61	3.48	3.26	3.12	--	--	--	--	1
	621	SESVdh 36277NRR	4.32	3.55	2.16	3.82	3.68	3.12	3.54	--	--	--	--	1
	531	SESVdh 36711RR	6.01	4.30	3.08	5.31	4.45	4.44	4.74	4.75	4.79	4.77	4.88	6
	609	SESVdh 36812RR	5.63	4.31	3.30	4.98	4.47	4.76	4.73	4.48	4.61	4.22	4.88	5
	580	SESVdh 36813RR	5.75	4.66	3.12	5.08	4.83	4.50	4.80	4.62	4.71	4.44	4.90	5
	606	SESVdh 36916RR	5.77	5.01	3.32	5.10	5.19	4.79	5.03	4.77	4.75	4.51	4.73	4
	528	SESVdh 36917RR	5.76	5.02	2.97	5.09	5.20	4.28	4.86	4.83	4.90	4.81	5.04	4
	631	SESVdh 36918RR	5.56	5.15	3.29	4.92	5.34	4.75	5.00	5.03	4.97	5.06	4.84	4
	568	SESVdh 36926RR	5.27	4.46	3.06	4.66	4.62	4.41	4.56	4.78	4.59	4.99	4.20	4
	532	SESVdh 36927RR	5.34	4.44	3.33	4.72	4.60	4.80	4.71	4.53	4.52	4.36	4.49	4
1	1201	Fus Chk #07 CRYS658RR	2.77	2.76	1.90	2.45	2.86	2.74	2.68	3.11	2.81	3.53	2.22	7
1	1202	Fus Chk #08 HILL4000RR	7.51	5.96	4.89	6.64	6.17	7.05	6.62	6.19	6.55	5.76	7.27	6
1	1203	Fus Chk #09 HILL4010RR	6.71	5.78	4.51	5.93	5.99	6.51	6.14	5.86	6.02	5.57	6.34	7
1	1204	Fus Chk #12 HILL4012RR	6.73	5.19	4.05	5.95	5.38	5.84	5.72	5.71	5.79	5.69	5.96	7
1	1205	Fus Chk #13 HILL4043RR	7.60	6.33	4.72	6.72	6.56	6.81	6.70	5.96	6.28	5.23	6.92	6
1	1206	Fus Chk #14 BETA86RR44	5.96	5.40	3.49	5.27	5.59	5.03	5.30	5.46	5.33	5.62	5.09	7
1	1207	Fus Chk #16 BETA87RR58	5.19	5.05	3.16	4.59	5.23	4.56	4.79	4.83	4.73	4.86	4.53	4
1	1208	Fus Chk #17 CRYS765RR	5.39	4.39	2.98	4.77	4.55	4.30	4.54	4.24	4.20	3.94	4.13	4
1	1209	Fus Chk #18 CRYS768RR	4.84	4.07	2.70	4.28	4.22	3.90	4.13	4.50	4.39	4.87	4.17	4
1	1210	Fus Chk #26 BETA87RR68	5.18	4.46	3.07	4.58	4.62	4.43	4.54	4.76	4.69	4.98	4.55	3
	1211	FS CHECK RES RR #1	2.70	2.09	1.81	2.39	2.17	2.61	2.39	2.77	2.53	3.15	2.06	2
	1212	FS CHECK SUS RR #2	7.24	5.86	5.28	6.40	6.07	7.62	6.70	5.99	6.11	5.29	6.34	2
10		Mean of 10 Check Varieties	5.788	4.939	3.547	5.117	5.117	5.117	5.117					
		Trial Mean	4.77	4.21	2.89	4.22	4.36	4.17	4.25					
		Coeff. of Var. (%)	9.58	12.35	14.32	9.58	12.35	14.32	12.04					
		F Value	33.18	20.45	13.20	33.18	20.45	13.20	12.80					
		Mean LSD (0.05)	0.71	0.64	0.53	0.63	0.66	0.76	0.87					
		Mean LSD (0.01)	0.94	0.85	0.69	0.83	0.88	1.00	1.14					
		Sig Lvl	**	**	**	**	**	**	**					
		Adjustment Factor				0.8841	1.0360	1.4426				1.161	0.948	

+ Ratings adjusted for variation in infection levels in disease sites.

+ Adjustment is based upon 10 RR varieties.

Lower numbers indicate better tolerance (0=Ex, 3=Good, 9=Poor).

Created 10-24-2012.

Table 40. Planting & Harvest Dates, Previous Crop and Disease Levels for 2012 ACSC Official Trial Sites *

Location	District / Trial Type	Cooperator	Planting Date	Harvest Date	Preceeding Crop	Soil Type	Diseases Present @					Comments
							Aph	Rhc	Rzm	Fus	Maggot	
Casselton	Mhd/Hlb	Howe Farms	4/24	10/1	Wheat	Medium Light	L	M	N	N	N	
Felton	Mhd/Hlb	Oberg Farms	4/25	Abandoned	Soybeans	Medium Light	N	L	N	M-V	N	Variable emerg. dates
Ada	Mhd/Hlb	Corey Jacobson	4/20	10/9	Wheat	Medium Heavy	N	L	N	N	N	
Hillsboro	Mhd/Hlb	M & R Steenson Farms	4/24	9/27	Wheat	Medium	N	M	N	N	N	Phoma leaf spot
Eldred	EGF/Crk	Double D Inc.	5/2	Abandoned	Wheat	Medium Light	L	N	M-V	N	N	Variable emerg. dates
Crookston	EGF/Crk	Dan Cymbaluk	4/26	10/15	Wheat	Medium Light	N	L	N	N	N	
Grand Forks	EGF/Crk	Drees Farming Assc.	5/1	9/25	Wheat	Medium	N	L-M	N	N	N	
Argyle	EGF/Crk	Brent Riopelle	4/27	Abandoned	Wheat	Medium Heavy	N	L	N	N	N	Variable emerg. dates
St Thomas	Dtn	Kennelly Farms	4/29	9/19	Potatoes	Medium Light	N	L	N	N	N	
Kennedy	Dtn	J & C Farms	4/28	Abandoned	Wheat	Heavy	N	L	N	N	N	Variable emerg. dates
Hallock	Dtn	Billy McGovern	4/28	Abandoned	Wheat	Heavy	N	N	N	N	N	Variable emerg. dates
Kindred Aph	Specialty Aph	Nipstad Farms	4/30	Abandoned	Wheat	Medium Heavy	L	N	N	N	N	
Hillsboro Aph	Specialty Aph	Jason Lovas	5/2	Abandoned	Soybeans	Medium	L	N	N	N	N	
Mhd Fus-N	Fusarium	Nelson Farms	5/1	8/23	Soybeans	Medium	NA	L	N	V	N	
Mhd Fus-SW	Fusarium	Kevin Martin	5/7	8/23	Soybeans	Medium	L	N	N	M	N	
Mhd Fus-SE	Fusarium	Oberg Farms	5/1	7/18	Soybeans	Medium	L	L	N	V	N	
Mhd Rhc-E	Rhc Nurs	ACSC Tech Services Ctr	5/7	7/18	Soybeans	Heavy	L	V	N	N	N	
Mhd Rhc-W	Rhc Nurs	ACSC Tech Services Ctr	5/7	7/26	Soybeans	Heavy	L	M-V	N	N	N	
NWROC Rhc	Rhc Nurs	Albert Sims	5/3	8/15	Corn	Medium Heavy	L	M-V	N	N	N	
Foxhome CR	Cercospora	Kevin Etzler	5/10	8/16	Corn	Medium	NA	N	N	N	N	
Barnesville	Minn-Dak	Maier Farms	4/25	10/8	Wheat	Medium	N	N	N	N	N	Some weak stands.
Foxhome	Minn-Dak	Mike Albertson	4/26	Abandoned	Wheat	Medium Light	L	M	M-V	N	N	Rhc & gaps.
Fairmount	Minn-Dak	Wayne Miller	4/26	10/2	Wheat	Medium	N	L	N	N	N	
Norcross	Minn-Dak	Vipond Grain Farms	4/20	10/3	Corn	Medium	L-M	M	N	N	N	

* Fertilizer applied in accordance to ACSC recommendations.

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

Created 11-2-2012

Table 41. Herbicides and Fungicides Applied to ACSC & MDFC Official Trials

		Herbicide			Fungicide		
Area	Location	Spray Dates	Herbicide & Rate	Water Used/Method	Spray Dates	Fungicide Used	Water Used/Method
ASCS	Casselton	6/1,6/18	RU1,RU2	10 gal. (Ground)	4/24,5/31 7/20,8/6 8/22,9/6	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "
ACSC	Ada	5/24,6/25	RU1,RU2	10 gal. (Ground)	4/23,5/31 7/20,8/6 8/22,9/9	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "
ACSC	Hillsboro	5/25,6/18	RU1,RU2	10 gal. (Ground)	4/25,5/31 7/20 8/8 9/9	Quadris Agritin/Inspire Agritin/Proline Headline	18.5/10 gal. (Ground) Air Air Air
ACSC	Crookston	5/16,6/5	RU1,RU2	10 gal. (Ground)	5/1,6/1 7/20,8/7 8/23,9/9	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "
ACSC	Grand Forks	6/4,6/25	RU1,RU2	10 gal. (Ground)	5/1,6/2 7/20,8/7 8/23,9/9	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground)
ACSC	St. Thomas	5/21,6/12,7/10	RU1,RU2,RU2	10 gal. (Ground)	5/3,5/31 7/21,8/7 8/22	Quadris App. 1/ App. 2 Headline	18.5/10 gal. (Ground) 15 gal. (Ground) "
MDAK	Barnesville	5/24,6/12	RU1,RU2	10 gal. (Ground)	4/25,5/31 7/19,8/6 8/22,9/9	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "
MDAK	Fairmount	5/25,6/27	RU1,RU2	10 gal. (Ground)	4/30,5/31 7/20,8/6 8/22,9/6	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "
MDAK	Norcross	5/25,6/27	RU1,RU2	10 gal. (Ground)	4/24,5/31 7/20,8/6 8/22,9/6	Quadris App. 1/ App. 2 App. 3/ App. 4	18.5/10 gal. (Ground) 15 gal. (Ground) "

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

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

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

Counter 20G ws applied at 9.0 lbs./A at St.Thomas & Fairmount.

Quadris applied at 15 oz.&14oz./A App.1=Agritin(6oz./A), Topsin(5.6oz./A) App. 2 = Agritin (6oz./A), Proline (5oz./A)

App. 3 = Headline (9oz./A) App. 4 = Agritin (8oz./A)