

Table 3  
**Three Year Performance of Varieties Approved for Unlimited Sale to ACS Growers in 2004**  
**All Crystal Districts \***

Description	Sugar Content (%)			Root Yield (Tons / Acre)			Seedling Vigor Rating** (1=Ex,5=Poor)			Ploidy @	Field Emergence (%)		Bolter (%)		Aphanomyces (1-9) +			
	2003	3 Yr		2003	3 Yr		2003	3 Yr			2003	3 Yr		2003	Foliar		Root	
		Mean	Mean		Mean	Mean		Mean	Mean			Mean	Mean		Mean	Mean	Mean	Mean
Beta 3820(Aph)	17.90	17.38	101	24.59	24.05	99	2.9	2.8	135	3N	86	74	0.00	0.00	2.4	2.9	4.4	4.7
Beta 6225	17.42	17.12	99	24.93	25.06	103	3.0	2.4	119	2N	86	80	0.00	0.01	2.7	3.2	5.0	5.4
Beta 6233	17.99	17.44	101	23.96	24.16	99	2.8	2.4	116	3N	79		0.00	0.00	2.8	3.1	4.9	5.2
Beta 6400(Aph)	18.11	17.77	103	23.11	22.68	93	3.0	2.5	122	3N	79		0.02	0.01	2.6	2.8	4.2	4.5
Beta 6447	18.09	17.59	102	22.50	22.74	94	2.9	2.5	122	3N	74	72	0.00	0.00	3.7	3.4	5.9	5.5
Beta 6600	17.48	17.12	99	25.25	24.80	102	2.9	2.4	115	3N	82	72	0.01	0.02	4.5	4.0	6.3	5.8
Beta 6610	17.75	17.20	100	24.17	24.40	100	3.0	2.4	119	3N	79	73	0.00	0.00	2.8	3.3	4.8	5.1
Croplan Genetics CL101	17.39	16.95	98	25.44	24.75	102	2.5	2.1	104	3N	74	71	0.00	0.00	4.0	3.9	5.6	5.6
Croplan Genetics CL102	17.36	16.82	97	24.86	25.21	104	2.8	2.2	108	3N	75	72	0.00	0.00	3.7	3.8	5.2	5.3
Croplan Genetics CL311 (111)	17.85	17.40	101	23.92	23.99	99	2.5			3N	83		0.00	0.00	3.6		5.7	
Crystal 723	17.99	17.63	102	23.63	23.59	97	2.7	2.2	106	3N	78		0.01	0.00	3.0		4.6	
Crystal 725	17.72	17.37	101	24.72	24.71	102	2.6	2.2	106	3N	81		0.00	0.00	2.8	3.0	4.0	4.5
Crystal 817	17.91	17.58	102	23.63	23.53	97	2.6	2.2	107	3N	83	72	0.00	0.00	4.6	4.4	6.5	6.2
Crystal 820	17.64	17.32	100	25.00	25.02	103	2.7	2.1	102	3N	85		0.00	0.00	2.7	2.8	4.1	4.4
Crystal 822	17.98	17.70	102	23.90	23.79	98	2.3	1.8	88	3N	80		0.00	0.00	2.4	2.6	4.5	4.5
Crystal 952	17.88	17.40	101	23.76	23.63	97	2.3	1.8	87	3N	84		0.00	0.00	2.4	2.7	4.3	4.5
Crystal 955	17.66	17.17	99	24.69	24.82	102	2.9	2.4	115	3N	73	69	0.00	0.00	3.4	3.9	5.4	5.8
Crystal 999	17.82	17.35	100	24.50	24.23	100	2.8	2.1	104	3N	83	79	0.00	0.00	3.1	3.1	4.4	4.8
Crystal R826(Rzm)	17.95	17.39	101	23.44	23.05	95	2.2	1.8	87	3N	88		0.00	0.00	2.7	2.9	4.2	4.6
Hilleshog 2093	17.26	16.90	98	24.33	24.08	99	3.1	2.5	122	2N	79	78	0.00	0.00	5.9	4.7	7.5	6.7
Hilleshog 2129	17.79	17.50	101	22.14	23.32	96	3.2			2N	80		0.00	0.00	3.3		5.8	
Holly HH-811	17.36	16.88	98	25.63	25.54	105	2.9	2.3	114	3N	79	73	0.01	0.00	4.1	3.9	5.7	5.5
Holly HH-956	17.99	17.45	101	24.72	24.60	101	3.0	2.3	111	3N	77		0.01	0.00	3.8		6.4	
Seedex Magnum(SX0816 0922)	17.93	17.38	101	25.39	24.98	103	2.9	2.3	114	3N	81		0.13	0.04	4.0		5.5	
Seedex Monarch	17.23	16.94	98	24.71	23.75	98	2.7	2.2	107	3N	81	76	0.01	0.01	4.6	3.9	6.7	5.8
Seedex Thunder	17.65	16.97	98	25.06	25.27	104	3.0	2.1	100	3N	80	76	0.00	0.01	3.8	3.7	5.9	5.6
Seedex Titan	17.60	17.04	99	24.13	24.38	100	3.0	2.2	107	3N	77	74	0.01	0.00	4.7	4.0	5.4	5.7
Van der Have H46177(Aph & Rzm)	17.69	17.27	100	24.10	23.86	98	3.3	2.8	134	2N	66		0.00	0.00	2.9	2.8	4.6	4.3
Van der Have H66240	17.56	17.08	99	25.67	25.34	104	2.9	2.1	104	3N	80	73	0.00	0.00	3.4	3.5	5.0	5.0
Van der Have H66556	17.53	17.11	99	24.91	24.96	103	3.1	2.4	119	3N	78		0.00	0.01	3.7		5.2	
Van der Have H66561	17.61	17.15	99	25.81	24.97	103	2.8	2.2	105	3N	80		0.06	0.02	4.2		5.9	
Van der Have H66626	17.90	17.43	101	24.83	24.50	101	2.9			3N	74		0.02	0.01	4.1		5.8	
Mean of 32	17.72	17.28	100	24.42	24.30	100	2.8	2.3	110		80	74	0.01	0.00	3.5	3.4	5.3	5.2
LSD .05	0.25			0.70			0.3				4.0		NA		0.9		0.8	

\* 2003 Data from Kindred, Halstad, Climax, Crookston, Grand Forks, Tabor, St Thomas, Cavalier & Humbolt.

+ Lower numbers indicate better Aphanomyces tolerance (1=Health, 9=Dead), from Shakopee nursery. Foliar rating (mid summer) and root rating (October) based upon plant stand and plant health.

@ Ploidy indicates number of chromosomes (2N = diploid, 3N=triploid). Diploids are generally somewhat smaller seedlings, while triploids are generally larger. Diploids can have higher emergence.

Created 11-25-03.