

Table 5. Field performance of **COMMERCIAL** sugarbeet varieties¹ in the Amalgamated Sugar Co. LLC Variety Trial at the **PAUL DUNCAN FARM, MINIDOKA, Idaho, 2003.**

VARIETY	Root ² Yield (T/A)	Sugar Content (%)	Gross Sugar (lbs/A)	Conduc- tivity (mmhos)	Extrac- tion (%)	Estimated		Curly Top Ratings ³			
						Recoverable Sugar (lbs/T)	(lbs/A)	1999	2001	2002	2003
ACH Seeds											
ACH Mustang	41.92	14.73	12308	0.891	82.60	243.6	10174 h-k ^Z	4.5	5.1	3.7	4.9
Crystal 217R ⁴	47.74	15.42	14712	0.866	83.11	256.5	12234 a	-	-	3.6	5.4
Crystal 9906R ^{4,5}	39.40	14.35	11311	0.947	81.74	235.0	9260 k	-	5.1	-	5.5
Betaseed											
Beta 4035R ⁴	42.39	14.85	12567	0.946	81.89	243.3	10293 f-k	5.4	5.0	4.2	5.5
Beta 4199R ⁴	41.81	15.55	13009	0.805	83.94	261.2	10929 b-h	-	5.3	3.8	5.3
Beta 4490R ⁴	43.42	14.74	12733	0.950	81.81	241.3	10416 e-j	4.6	4.8	3.8	4.8
Beta 4773R ⁴	45.44	15.20	13815	0.894	82.69	251.4	11425 a-e	-	4.8	4.1	5.8
Beta 8220B	47.15	14.15	13340	0.916	82.12	232.5	10960 b-h	4.6	4.8	3.5	4.9
Beta 8348	44.97	15.34	13729	0.874	82.97	254.7	11383 a-e	5.2	6.2	4.6	6.2
Beta 8600	49.18	14.19	13946	0.922	82.02	233.1	11449 a-e	-	-	3.7	4.9
Beta 8859	42.94	15.44	13258	0.732	84.88	262.1	11257 a-g	-	5.1	4.2	5.4
Hilleshog/Syngenta											
HM 1642	40.84	15.45	12571	0.850	83.32	257.6	10472 d-j	4.9	5.0	4.1	5.9
HM 2980RZ ⁴	45.40	14.85	13479	0.921	82.23	244.3	11088 b-h	4.9	4.7	4.6	4.9
HM 2984RZ ⁴	38.01	15.19	11508	0.816	83.72	254.3	9632 jk	-	4.8	3.1	3.9
HM 2986RZ ⁴	40.57	15.34	12419	0.753	84.58	259.6	10507 c-j	-	-	3.4	4.2
HM Oasis	40.19	14.73	11779	0.800	83.80	247.2	9870 ijk	4.2	4.7	2.9	3.9
HM Owyhee	44.48	14.42	12813	0.851	83.06	239.6	10645 b-j	4.2	4.3	3.3	3.5
HM PM21	40.64	14.99	12151	0.721	84.92	254.6	10319 f-j	4.6	4.4	3.1	3.7
Holly Hybrids-Spreckels											
AcclaimRZ ⁴	49.43	14.45	14266	0.955	81.67	236.2	11654 ab	-	-	3.9	4.5
EagleRZ ⁴	44.10	14.24	12544	0.973	81.37	231.9	10214 g-k	-	6.2	4.4	5.1
HH 120	44.11	14.27	12591	1.004	80.97	231.2	10194 h-k	5.9	5.6	4.0	5.9
HH 125 ⁵	43.86	15.59	13680	0.804	83.97	261.8	11489 a-d	5.9	5.8	4.6	6.8
PhoenixRZ ⁴	47.12	14.80	13975	0.894	82.57	244.6	11559 abc	-	5.3	4.9	5.0
Seedex											
SX Cascade	41.28	14.64	12058	0.739	84.58	247.8	10203 h-k	4.1	5.2	3.2	3.9
SX Orbit	42.49	15.11	12820	0.818	83.68	252.8	10727 b-i	-	4.8	4.1	5.1
SX Puma	44.13	15.24	13421	0.758	84.48	257.8	11345 a-f	4.3	4.7	3.6	4.3
SX RaptorRZ ⁴	44.44	15.39	13664	0.875	82.98	255.6	11344 a-f	-	4.7	4.1	5.7
Curly Top Susceptible Check								6.4	6.9	5.6	6.8
Curly Top Resistant Check (US 41)								4.7	5.3	3.5	5.1
LSD (0.05)	3.94	0.62	1172	0.104	1.52	14.2	1052				
LSD (0.10)	3.30	0.52	982	0.088	1.27	11.9	882				
CV (%)	9.2	4.2	9.2	12.3	1.9	5.8	9.9				
Pr>F	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001				

When comparing yields or sugars of two varieties, the values must differ by a value equal to or greater than the LSD (0.05) given at the bottom of each column to be considered statistically different in this test.

^ZMeans followed by the same letter are not significantly different at P ≤ 0.05.

Planted April 1, 2003; Harvested October 9-10, 2003.

¹ All entries are commercial seed obtained locally.

² Root yields have been tared 5%.

³ Curly Top Ratings: 0 = no curly top symptoms; 9 = plants killed. To calculate and compare the average curly top resistance of two or more varieties, use only those years data in which the compared varieties all have ratings.

The Beet Sugar Development Foundation's 2000 Curly Top test results are omitted due to inconsistent ratings; a result of severe stand loss at cultivation.

⁴ Entered as a rhizomania resistant variety.

⁵ Entered as a rhizoctonia resistant variety.