

Table 3. Field performance of **COMMERCIAL** sugarbeet varieties¹ in the Oregon State University Variety Trial at the **MALHEUR EXPERIMENT STATION, ONTARIO, Oregon, 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	50.45	17.20	17359	0.818	84.13	289.4	14609 c-f ^z	4.5	5.1	3.7	4.9
Crystal 217R ⁴	44.44	17.75	15771	0.853	83.77	297.4	13215 h	-	-	3.6	5.4
Crystal 9906R ^{4,5}	44.38	17.61	15624	0.759	84.98	299.3	13278 gh	-	5.1	-	5.5
Betaseed											
Beta 4035R ⁴	48.58	17.26	16770	0.826	84.02	290.2	14095 e-h	5.4	5.0	4.2	5.5
Beta 4199R ⁴	49.22	17.85	17575	0.829	84.10	300.3	14783 b-e	-	5.3	3.8	5.3
Beta 4490R ⁴	50.11	17.32	17357	0.818	84.16	291.6	14612 c-f	4.6	4.8	3.8	4.8
Beta 4773R ⁴	48.02	17.65	16952	0.825	84.12	297.0	14264 def	-	4.8	4.1	5.8
Beta 8220B	55.27	16.63	18383	0.842	83.69	278.3	15388 abc	4.6	4.8	3.5	4.9
Beta 8348	48.85	16.87	16495	0.846	83.69	282.5	13811 fgh	5.2	6.2	4.6	6.2
Beta 8600	57.38	16.71	19187	0.788	84.43	282.3	16209 a	-	-	3.7	4.9
Beta 8859	49.13	17.74	17430	0.650	86.43	306.7	15056 bcd	-	5.1	4.2	5.4
Hilleshog/Syngenta											
HM 1642	49.25	17.75	17494	0.766	84.91	301.5	14867 b-e	4.9	5.0	4.1	5.9
HM 2980RZ ⁴	52.38	17.35	18188	0.859	83.61	290.2	15214 bc	4.9	4.7	4.6	4.9
HM 2984RZ ⁴	48.16	17.34	16709	0.740	85.19	295.4	14235 def	-	4.8	3.1	3.9
HM 2986RZ ⁴	47.81	17.35	16598	0.736	85.23	295.8	14156 efg	-	-	3.4	4.2
HM Oasis	50.94	17.27	17591	0.695	85.77	296.3	15090 bcd	4.2	4.7	2.9	3.9
HM Owyhee	51.77	16.89	17468	0.746	85.02	287.3	14858 b-e	4.2	4.3	3.3	3.5
HM PM21	49.65	17.41	17308	0.693	85.82	298.9	14864 b-e	4.6	4.4	3.1	3.7
Holly Hybrids-Spreckels											
AcclaimRZ ⁴	53.3	16.79	17906	0.879	83.23	279.6	14912 b-e	-	-	3.9	4.5
EagleRZ ⁴	53.24	16.52	17591	0.870	83.30	275.3	14652 c-f	-	6.2	4.4	5.1
HH 120	48.92	17.14	16770	0.823	84.05	288.3	14099 e-h	5.9	5.6	4.0	5.9
HH 125 ⁵	50.36	17.96	18087	0.683	86.05	309.1	15564 ab	5.9	5.8	4.6	6.8
PhoenixRZ ⁴	53.64	16.97	18207	0.844	83.74	284.2	15246 bc	-	5.3	4.9	5.0
Seedex											
SX Cascade	53.03	17.05	18082	0.651	86.30	294.3	15605 ab	4.1	5.2	3.2	3.9
SX Orbit	50.30	17.84	17955	0.694	85.88	306.5	15429 abc	-	4.8	4.1	5.1
SX Puma	48.46	16.93	16377	0.703	85.59	289.8	14023 e-h	4.3	4.7	3.6	4.3
SX RaptorRZ ⁴	51.98	17.00	17664	0.834	83.88	285.1	14815 b-e	-	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)	2.66	0.48	1018	0.053	0.75	9.8	899				
LSD (0.10)	2.23	0.40	853	0.044	0.63	8.2	754				
CV (%)	5.3	2.8	5.9	6.8	0.9	3.4	6.1				
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 $P \leq 0.05$.

Planted 31 March, 2003; Harvested October 22-23, 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.