

**Table 4.** Field performance of **EXPERIMENTAL** sugarbeet varieties in the Oregon State University Variety Trial at the **MALHEUR EXPERIMENT STATION, ONTARIO, Oregon, 2003**

VARIETY	Root <sup>1</sup> Yield (T/A)	Sugar Content (%)	Gross Sugar (lbs/A)	Conduc- tivity (mmhos)	Extrac- tion (%)	Estimated Recoverable Sugar		Curly Top Rating 2003
						(lbs/T)	(lbs/A)	
<b>ACH Seeds</b>								
Crystal 217R <sup>2</sup>	45.21	18.00	16274	0.869	83.60	301.0	13605 o <sup>z</sup>	5.4
Crystal 103	52.14	17.78	18513	0.829	84.08	299.0	15565 b-k	4.3
Crystal 316R <sup>3</sup>	51.92	18.16	18880	0.743	85.30	309.9	16109 a-e	5.4
Crystal 317R <sup>3</sup>	51.46	17.85	18374	0.779	84.76	302.4	15571 b-k	5.3
Crystal 318R <sup>3</sup>	50.42	18.05	18186	0.651	86.46	312.2	15721 b-i	5.8
Crystal 319R <sup>3</sup>	51.71	17.43	18033	0.904	83.01	289.4	14974 i-m	5.4
<b>Betaseed</b>								
Beta 4490R <sup>2</sup>	50.42	18.04	18193	0.825	84.18	303.6	15316 g-m	4.8
Beta 2YK0014 <sup>3,4</sup>	52.01	17.28	17969	0.819	84.13	290.7	15118 h-m	6.1
Beta 2YK0016 <sup>3</sup>	51.86	17.98	18651	0.851	83.84	301.6	15638 b-j	4.8
Beta 3YK0018 <sup>3</sup>	49.90	17.87	17828	0.753	85.12	304.2	15176 g-m	5.6
Beta 3YK0019 <sup>3</sup>	50.75	18.10	18369	0.801	84.52	305.9	15524 c-l	5.1
Beta 3YK0020 <sup>3</sup>	48.39	17.89	17306	0.822	84.20	301.3	14576 mn	4.9
Beta 3YK0021 <sup>3</sup>	52.33	17.46	18278	0.881	83.34	291.0	15229 g-m	5.2
Beta 3YK0022 <sup>3</sup>	48.95	18.13	17740	0.769	84.94	308.0	15069 h-m	4.8
<b>Hilleshog/Syngenta</b>								
HM 2986RZ <sup>2</sup>	49.71	17.90	17800	0.764	84.98	304.3	15128 h-m	4.2
HM 2987	50.96	18.37	18727	0.626	86.86	319.2	16265 abc	4.4
HM 2988RZ <sup>3</sup>	48.86	18.43	18016	0.705	85.84	316.5	15467 d-l	5.5
HM 2989RZ <sup>3</sup>	48.21	18.20	17560	0.773	84.91	309.2	14913 j-m	5.3
HM 2990	53.00	18.40	19489	0.681	86.15	317.0	16795 a	3.9
<b>Holly Hybrids-Spreckels</b>								
00HX011RZ <sup>3</sup>	52.08	17.76	18501	0.679	86.06	305.7	15931 b-g	6.2
01HX047RZ <sup>3</sup>	52.41	17.88	18738	0.691	85.92	307.3	16100 a-f	6.4
02HX226RZ <sup>3</sup>	49.56	17.57	17414	0.765	84.90	298.3	14786 lm	4.9
03HX351RZ <sup>3</sup>	55.36	17.47	19349	0.809	84.30	294.6	16315 ab	5.0
03HX353RZ <sup>3</sup>	47.20	18.57	17536	0.717	85.71	318.4	15033 h-m	5.0
03HX355RZ <sup>3</sup>	46.25	17.97	16604	0.811	84.37	303.2	14009 no	5.2
03HX356	49.87	18.14	18075	0.797	84.58	307.0	15289 g-m	5.3
03HX359RZ <sup>3</sup>	52.57	17.44	18332	0.854	83.69	292.0	15344 f-l	5.5
<b>Seedex</b>								
SX RaptorRZ <sup>2</sup>	52.96	17.70	18739	0.835	84.00	297.3	15739 b-h	5.7
SX1518	38.98	18.49	14426	0.723	85.61	316.6	12355 p	5.3
SX1519 <sup>3</sup>	52.08	17.70	18427	0.867	83.57	295.8	15398 e-l	4.5
SX1520	52.01	18.11	18828	0.681	86.10	311.8	16213 a-d	5.2
SX1521 <sup>3</sup>	46.86	18.64	17474	0.762	85.13	317.4	14877 klm	4.9
Curly Top Susceptible Check								6.8
Curly Top Resistant Check (US 41)								5.1
LSD (0.05)	2.17	0.47	866	0.056	0.77	9.2	759	
LSD (0.10)	1.82	0.39	726	0.047	0.64	7.8	636	
CV (%)	4.3	2.6	4.8	7.2	0.9	3.0	5.0	
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.

<sup>z</sup>Means followed by the same letter are not significantly different at  $P \leq 0.05$ .

Planted 31 March, 2003; Harvested October 23-24, 2003.

<sup>1</sup> Root yields have been tared 5%.

<sup>2</sup> Commercial check varieties.

<sup>3</sup> Entered as a rhizomania resistant variety.

<sup>4</sup> Entered as a rhizoctonia resistant variety.