

Table 11. Field performance of **RHIZOMANIA RESISTANT** sugarbeet varieties under moderate disease conditions in the **University of Idaho** variety trial at the College of Southern Idaho Breckenridge Farm, **Twin Falls**, Idaho, 2004.

VARIETY	Root Yield	Sugar Content	Gross Sugar	Conduc-	Extrac-	Estimated		Tare (%)	2004 Curly Top Ratings ¹	Rhizomania Resistance ²	
	(T/A)	(%)	(lbs/A)	tivity (mmhos)	tion (%)	Recoverable (lbs/T)	Sugar (lbs/A)			DI	%R (0-3)
ACH Seeds											
Crystal 217R	35.55	14.86	10557	0.889	82.67	245.9	8729	9.0	4.9	2.56	98.5
Crystal 9906R	32.07	14.38	9228	0.808	83.61	240.6	7721	11.0	4.9	2.56	100.0
Crystal C316R	37.89	13.94	10552	0.956	81.50	227.5	8609	9.0	4.5	2.73	99.3
Crystal C318R	29.43	14.96	8794	0.698	85.21	254.9	7489	12.0	5.2	2.17	100.0
Crystal C333R	33.59	15.14	10158	0.813	83.74	253.7	8507	9.0	5.2	2.30	96.9
Crystal C411R	35.14	14.70	10321	0.895	82.55	242.8	8522	8.0	3.8	2.49	100.0
Crystal C412R	34.21	14.45	9871	0.917	82.17	237.8	8116	9.0	4.4	2.31	100.0
Betaseed											
Beta 2YK0016	40.06	14.77	11830	0.938	81.99	242.2	9701	9.0	4.4	2.17	97.1
Beta 3YK0019	37.25	15.21	11320	0.803	83.90	255.3	9496	7.0	4.9	1.94	100.0
Beta 3YK0020	35.39	13.36	9413	1.032	80.31	214.7	7556	12.0	4.6	2.23	100.0
Beta 4035R	32.70	13.54	8858	0.953	81.46	220.6	7213	8.0	4.7	2.10	100.0
Beta 4199R	36.47	14.69	10714	0.823	83.50	245.5	8946	8.0	4.7	2.16	100.0
Beta 4490R	35.78	15.71	11239	0.753	84.68	266.2	9520	11.0	4.7	2.06	100.0
Beta 4614R	33.64	13.34	9071	0.903	82.05	222.4	7474	9.0	5.6	2.31	98.4
Beta 4773R	36.06	14.78	10668	0.903	82.47	243.9	8801	6.0	4.9	2.41	100.0
Beta 4YK0023	36.02	15.39	11050	0.688	85.39	258.9	9322	7.0	4.7	1.92	100.0
Beta 4YK0024	34.75	14.91	10364	0.831	83.45	248.9	8653	7.0	4.8	1.71	98.3
Beta 4YK0025	34.90	15.09	10542	0.743	84.66	255.6	8926	9.0	4.8	1.83	100.0
Hilleshog/Syngenta											
HM 2980RZ	36.29	14.68	10656	0.836	83.34	244.6	8880	8.0	4.6	1.93	96.5
HM 2984RZ	31.18	14.51	9052	0.798	83.78	243.4	7590	10.0	3.7	2.59	99.2
HM 2986RZ	33.28	14.27	9493	0.817	83.48	238.3	7922	12.0	3.8	3.31	96.3
HM 2988RZ	32.54	15.43	10033	0.746	84.70	261.4	8489	12.0	5.1	1.98	99.2
HM 2989RZ	34.77	14.71	10221	0.954	81.74	240.6	8352	10.0	4.6	1.99	99.3
HM 2991RZ	32.61	15.54	10124	0.639	86.12	267.8	8717	9.0	5.1	2.28	100.0
HM 2992RZ	37.06	14.48	10738	0.872	82.80	239.8	8898	11.0	4.5	2.12	99.3
HM 2993RZ	37.84	14.62	11072	0.904	82.41	241.0	9130	8.0	3.8	2.19	100.0
HM 2994RZ	28.99	14.34	8328	0.940	81.83	235.7	6834	12.0	4.1	3.50	94.3
HM 2995RZ	36.76	14.70	10785	0.839	83.29	245.2	8984	11.0	4.7	2.35	100.0
Holly Hybrids											
Acclaim RZ	34.73	13.10	9078	1.118	79.06	207.1	7177	5.0	4.0	2.07	98.2
Eagle RZ	34.48	14.13	9739	0.893	82.42	233.0	8026	8.0	5.0	2.22	93.1
HH 142RZ	32.70	13.98	9139	0.908	82.16	229.9	7512	8.0	4.7	2.02	100.0
Meridian RZ	34.46	13.92	9567	0.971	81.29	226.6	7775	5.0	4.4	2.51	100.0
Phoenix RZ	33.34	13.92	9284	0.911	82.10	228.8	7634	13.0	4.8	2.56	97.5
03HX353RZ	33.64	15.00	10085	0.845	83.29	249.9	8401	11.0	4.7	1.98	100.0
04HX422RZ	33.66	13.88	9344	0.888	82.41	229.0	7705	5.0	4.7	1.87	100.0
04HX431RZ	31.73	14.54	9196	0.884	82.63	240.6	7601	6.0	4.9	2.43	96.1
04HX434RZ	31.50	14.86	9362	0.856	83.11	247.2	7784	13.0	4.6	2.32	100.0
04HX436RZ	32.16	14.35	9145	0.929	82.00	232.7	7490	8.0	4.5	2.03	99.4
04HX437RZ	32.65	14.16	9233	1.014	80.79	229.0	7463	6.0	4.4	2.67	100.0
04HX438RZ	36.54	14.15	10334	0.853	82.96	234.9	8577	6.0	4.7	1.91	100.0
Seedex											
RaptorRZ	32.32	15.26	9860	0.774	84.29	257.3	8310	7.0	5.0	2.65	99.0
SX1521	34.78	15.02	10455	0.873	82.92	249.2	8672	9.0	4.5	2.44	100.0
SX1522	35.22	15.10	10635	0.834	83.46	252.2	8879	9.0	4.8	2.16	100.0
Rhizomania Check Varieties											
HM Owyhee CHECK	19.04	13.74	5199	0.941	81.63	224.9	4243	16.0	4.0	3.70	42.5
ACH Mustang CHECK	21.14	13.67	5773	1.023	80.52	220.4	4651	15.0	4.2	2.67	99.3
Curly Top Susceptible Check									6.3		
Curly Top Resistant Checks ³									4.7		
LSD (0.05)	2.47	0.61	771	0.098	1.43	13.3	678	4.0		0.78	
LSD (0.10)	2.07	0.51	646	0.083	1.20	11.2	568	3.3		0.65	
CV (%)	7.40	4.24	7.95	11.48	1.76	5.59	8.43	43.8		23.91	
Pr>F	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		0.0003	

When comparing yields or sugars of two varieties, the values must differ by a value equal to or greater than the LSD (.05) given at the bottom of each column to be considered statistically different in this test.

Planted April 27, 2004; Harvested October 4, 2004

¹Curly Top Ratings: 0 = no curly top symptoms; 9 = Plants Killed. Disease ratings are from the curly top nursery operated by the Beet Sugar Development Foundation.

²Rhizomania Resistance: DI (disease Index), where 0 = immunity and 9 = highly susceptible.
% R (percent resistant) = percentage of plants with ratings of 0 to 3.

³A factored combined curly top rating of HM Owyhee, Beta 4490R and HH 125 according to the Snake River Growers Seed and Research Committee's Variety Approval Policy.