

2011 Western Regional Red/Specialty Trial

Table of Contents

Table 1	Trial Locations and Cultural Management	Page 1
Table 2	Clone Descriptions	Page 2
Table 3	Percent Stand and Stems/Hill	Page 3
Table 4	Vine Size and Maturity	Page 4
Table 5	Total Yield	Page 5
Table 6	Yield and Percent <4 oz.	Page 6
Table 7	Yield and Percent 4-6 oz.	Page 7
Table 8	Yield and Percent 6-10 oz.	Page 8
Table 9	Yield and Percent >10 oz.	Page 9
Table 10	Yield and Percent 4-10 oz.	Page 10
Table 11	Yield and Percent Culls	Page 11
Table 12	Specific Gravity	Page 12
Table 13	Average Tuber Size and Tubers Per Plant	Page 13
Table 14	Tuber Uniformity, Fresh Merit Score, Process Merit Score and Process Color	Page 14
Table 15	Tuber Shape and Length Width Ratio	Page 15
Table 16	Skin and Flesh Color	Page 16
Table 17	Eye Depth and External Defects	Page 17
Table 18	Internal Defects	Page 18
Table 19	Disease Evaluations	Page 19
Table 20	Culinary Tuber Quality	Page 20
Table 21	Tuber Composition	Page 21
Table 22	Entry Location Comments	Page 22
Table 23	Entry Location Comments Continued	Page 23
Table 24	Entry Location Comments Continued	Page 24
Table 25	Entry Summary	Page 25
Table 26	2 Year Summary of Graduating Entries	Page 26
Compiled By		Back Cover

Table 1. Western Regional Red/Specialty Potato Variety Trial - Locations, Cooperators, and Cultural Information

Locations	Cooperators	Trial	Irrigation	Fertilizer N-P-K-S (lb/A)	Planting Date	Vine Kill Date	Vine Kill Method	Harvest Date	Pesticides Applied		
									Herbicides	Insecticides	Fungicides
Tulelake California (TUL)*	R. Wilson D. Kirby	Late	Sprinkler	204-80-48-21S	5/23/2011	9/16/2011	Reglone	10/12/2011	Outlook Matrix	Movento Coragen Alias 4F	Endura Quadris Tanos
San Luis Valley Colorado (SLV)	D. Holm, C. Gray	Late	Pivot	120-60-40-25S-2.5Zr	5/20/2011	9/6/2011	Reglone	9/28/2011	Dual Magnum Matrix SG Eptam 7E	Endigo ZC Fulfill	Bravo WS Quadris
Aberdeen Idaho (AB)	J. Stark, R. Novy, J. Whitworth, P. Bain, M. Chappell	Early	Sprinkler	235-160-150-50S	5/4/2011	8/21/2011	Mechanical	9/8/2011	Martix Sencor Eptham	Admire Pro	Echo 720 Dithane DF-2
Klamath Falls Oregon (KLM)*	B. Charlton, D. Culp	Late	Sprinkler	161-173-34-43S	5/24/2011	9/12/2011	Reglone PRO AMS	10/17/2011	Matrix Prowl H2O Outlook Eptam 7E	Admire Pro Leverage Endigo Movento Assail 70 WP Fulfill	Moncut Ridomil Gold Bravo
Springlake Texas (SPL)*	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	104-21-21-109	3/24/2011	7/23/2011	Mechanical	7/31/2011	Sencor Roundup Treflan Dual	Movento Admire Pro Epimek	None
Mt. Vernon Washington (OTH)	M. Pavek, R. Knowles, Z. Holden	Early	Overhead Linear	180-100-350	4/7/2011	8/1/2011	Mechanical	8/22/2011	Matrix Metribuzin DF Chateau	Omega	Penncozeb

*California Comment: Tulelake experienced a wet and cool spring. Plants took 4 weeks to emerge. From mid June through August, the growing conditions were favorable.

*Oregon Comment: Klamath experienced a wet and cool spring. Insecticide applications were higher than normal due to raising seed potatoes on site.

*Texas Comment: These trials were subjected to below average precipitation for the entire growing season. High temperatures were 10 degrees higher and low temperatures were 5 degrees higher than normal. The plots received a sever freeze on 4 and 5 May. Psyllid population was low. Collectively these factors contributed to very low yield for all trials.

Table 2. Description of Clones - 2011 Western Regional Red/Specialty Trial

Clone/Variety	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Flesh Color	Entered			
	Female	Male							By	Seed Year	DISPO	
Red/White Flesh												
1 Dk Red Norland	RedKote	ND626	Red-purple	Small	Early	Oval	Dark Red	White	Check	P	***	
2 Red LaSoda	Triumph	Katahdin	Red-purple	Med	Med	Oval	Lt. Red	White	Check	P	***	
3 ATTX01178-1R	ND5084-3R	Winema	Lavender	Med	Early	Oblong	Red	White	TX	CO	1	
4 ATTX98453-6R	A93490-1R	A91846-5R	Lavender	Med	Med	Round	Red	White	TX	CO	1	
5 CO00291-5R	CO94019-1R	Rio Colorado	Dk Red-purple	Large	Med-late	Round	Red	White	CO	CO	1	
6 CO99076-6R	AC91848-1	Rio Colorado	Red-Purple	Medium	Early	Round	Red	White	CO	CO	2	
7 CO99256-2R	Rio Colorado	Colorado Rose	Purple	Large	Medium	Oval	Red	White	CO	CO	2	
8 OR04131-2	Mazama	Modoc	Purple	S-medium	Medium	Round	Dark red	White	OR	OR	1	
Red-Purple/Yellow Flesh												
9 A99331-2RY	Inca Gold	COA94019-5R	Dk Red-purple	M-large	Medium	Round	Red/white	Yellow	ID	OR	2	
10 ATTX98510-1R/Y	T48YF	A93456-6R	Lavender	Large	Late	Oblong	Red	Yellow	TX	CO	1	
11 CO01399-10P/Y	VC1015-5P/Y	Colorado Rose	Purple	Large	Medium	Round	Purple	Yellow	CO	CO	1	
12 COTX01403-4R/Y	VC1015-7R/Y	Winema	Lavender	Small	Early	Oblong	Red	Yellow	TX	CO	1	
Purple/Purple Flesh												
13 Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Purple	Check	CO	***	
14 POR05PG56-1	POR01PG46-1	POR01PG22-1	Blue-purple	Medium	Early	Blocky	Purple	Purple	OR	OR	1	
Yellow Flesh												
15 Yukon Gold	Norgleam	W5279-4	Pink	Med	Early	Oval	White	Yellow	Check	P	***	
16 A99433-5Y	Chipeta	MSG274-3	White	M-large	Med-late	Round	Yellow	Yellow	ID	OR	2	
17 ATC00293 -1W/Y	Agria	TXA1655-IDY	Purple	Large	Medium	Oblong	White	Yellow	CO	CO	2	
18 OR04036-5	POR02PG26-5	AO93487-2R	purple	Small	Early	Blocky	Yellow	Yellow	OR	OR	1	

Table 3. Percent Stand and Stems/Hill

		Percent Stand						Stems/Hill					
Entry	Clone/Variety	CA	CO	ID	OR	TX	WA	Mean	CO	ID	TX	WA	Mean
		TUL ¹	SLV	AB	KLM	SPL	OTH		SLV	AB	SPL	OTH	
Red/White Flesh													
1	Dk Red Norland	92	99	100	100	100	86	96	4.4	3.3	1.7	2.6	3.0
2	Red LaSoda	90	99	99	98	100	100	98	3.2	2.9	1.6	2.2	2.5
3	ATTX01178-1R	80	91	99	98	97	94	93	2.7	2.6	1.6	2.0	2.2
4	ATTX98453-6R	80	96	93	93	99	80	90	3.1	2.3	1.4	2.3	2.3
5	CO00291-5R	73	96	95	93	33	88	80	3.1	2.8	1.6	2.3	2.5
6	CO99076-6R	74	92	96	87	86	94	88	4.2	3.7	1.4	2.4	2.9
7	CO99256-2R	83	99	100	89	88	97	93	4.8	3.2	1.5	2.5	3.0
Red-Purple/Yellow Flesh													
8	OR04131-2	---	---	---	85	---	64	74	---	---	---	2.7	2.7
9	A99331-2RY	91	98	96	94	95	92	94	6.4	4.3	1.4	2.4	3.6
10	ATTX98510-1R/Y	94	99	99	98	100	98	98	6	5.6	1.9	3.0	4.0
11	CO01399-10P/Y	92	98	96	97	96	97	96	3.4	3.4	1.6	3.1	2.9
12	COTX01403-4R/Y	84	98	90	93	98	79	90	5.3	3.6	1.6	2.5	3.2
Purple/Purple Flesh													
13	Purple Majesty	90	98	100	96	---	100	97	5.7	4.8	---	2.8	4.4
14	POR05PG56-1	---	---	---	97	---	97	97	---	---	---	3.0	3.0
Yellow Flesh													
15	Yukon Gold	83	97	95	89	88	67	86	2.5	2.4	1.1	2.3	2.1
16	A99433-5Y	94	96	94	98	98	91	95	4.1	3.4	1.3	2.1	2.7
17	ATC00293 -1W/Y	66	98	99	92	93	100	91	3.8	2.6	1.2	1.6	2.3
18	OR04036-5	---	---	---	97	---	94	95	---	---	---	2.5	2.5
Mean		84	97	97	94	91	90	92	4	3	1	2	2.9

^{1/}Measured 36 days after planting

Table 4. Vine Size and Vine Maturity

Entry Clone/Variety	Vine Size (1-5 large)					Vine Maturity (1-5 late)			
	CO SLV	ID AB	OR KLM	TX SPL	Mean	CO SLV	ID AB	TX SPL	Mean
Red/White Flesh									
1 Dk Red Norland	2.0	1.3	4.3	2.0	2.4	1.0	1.0	2.0	1.3
2 Red LaSoda	4.0	2.5	3.6	4.4	3.6	2.8	3.3	4.7	3.6
3 ATTX01178-1R	3.8	1.8	3.1	3.3	3.0	3.0	2.8	3.0	2.9
4 ATTX98453-6R	3.0	1.0	2.8	2.4	2.3	2.0	1.0	2.5	1.8
5 CO00291-5R	5.0	3.3	2.8	3.9	3.7	3.3	3.5	4.3	3.7
6 CO99076-6R	3.3	2.0	2.9	3.0	2.8	1.8	2.0	2.8	2.2
7 CO99256-2R	5.0	3.0	2.6	4.4	3.8	3.0	2.8	4.7	3.5
8 OR04131-2	---	---	2.9	---	2.9	---	---	---	---
Red-Purple/Yellow Flesh									
9 A99331-2RY	4	2.3	3.3	4.3	3.4	3	3.0	4.8	3.5
10 ATTX98510-1R/Y	4.8	2.5	3.6	3.9	3.7	2.0	2.3	3.8	2.7
11 CO01399-10P/Y	4.5	2.3	3.4	4.0	3.5	3.8	3.5	4.8	4.0
12 COTX01403-4R/Y	3.0	1.0	4.0	2.1	2.5	2.3	1.0	2.0	1.8
Purple/Purple Flesh									
13 Purple Majesty	3	1.3	4.0	---	2.8	2	1.0	---	1.4
14 POR05PG56-1	---	---	3.1	---	3.1	---	---	---	---
Yellow Flesh									
15 Yukon Gold	3.8	2.3	3.5	3.3	3.2	2.0	2.0	3.4	2.5
16 A99433-5Y	5.0	3.3	3.0	4.5	3.9	3.5	3.5	4.9	4.0
17 ATC00293-1W/Y	4.8	2.8	2.9	4.6	3.7	3.0	3.3	4.9	3.7
18 OR04036-5	---	---	3.4	---	3.4	---	---	---	---
Mean	3.9	2.2	3.3	3.6	3.2	2.5	2.4	3.7	2.8

Table 5. Total Yield

Entry Clone/Variety	Total Yield (cwt/A)						Mean	Rank	
	CA	CO	ID	OR	TX	WA			
	TUL	SLV	AB	KLM	SPL ¹	OTH			
Red/White Flesh									
1 Dk Red Norland	524	475	431	640	119	549	524	3	
2 Red LaSoda	609	654	512	835	197	689	660	1	
3 ATTX01178-1R	609	593	430	622	162	510	553	2	
4 ATTX98453-6R	470	424	346	482	157	442	433	6	
5 CO00291-5R	289	357	217	396	43	130	278	8	
6 CO99076-6R	415	421	357	452	125	549	439	5	
7 CO99256-2R	436	567	444	602	90	501	510	4	
8 OR04131-2	---	---	---	374	---	350	362	7	
Red-Purple/Yellow Flesh									
9 A99331-2RY	478	376	404	556	64	427	448	4	
10 ATTX98510-1R/Y	693	446	531	717	105	622	602	1	
11 CO01399-10P/Y	663	539	454	686	100	649	598	2	
12 COTX01403-4R/Y	597	454	417	648	124	556	534	3	
Purple/Purple Flesh									
13 Purple Majesty	521	377	413	639	---	474	485	2	
14 POR05PG56-1	---	---	---	555	---	493	524	1	
Yellow Flesh									
15 Yukon Gold	425	339	354	540	177	385	408	4	
16 A99433-5Y	529	458	355	513	78	533	478	2	
17 ATC00293 -1W/Y	439	402	391	494	91	530	451	3	
18 OR04036-5	---	---	---	621	---	485	553	1	
Mean	513	459	404	576	116	493	491		

^{1/}Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 6. Yield and Percent < 4 oz

Entry		Clone/Variety		Yield < 4 oz (Cwt/A & %)							Percent < 4 oz (Cwt/A & %)						
				CA	CO	ID	OR	TX	WA	Mean Rank	CA	CO	ID	OR	TX	WA	Mean Rank
				TUL	SLV	AB	KLM	SPL ¹	OTH		TUL	SLV	AB	KLM	SPL ¹	OTH	
Red/White Flesh																	
1	Dk Red Norland	72	68	45	57	104	53	59	6	14	14	10	9	90	10	11	6
2	Red LaSoda	58	39	36	47	131	74	51	8	9	6	7	6	67	11	8	8
3	ATTX01178-IR	59	36	33	70	72	71	54	7	10	6	8	11	49	14	10	7
4	ATTX98453-6R	76	43	47	70	113	72	62	5	16	10	14	14	74	16	14	5
5	CO00291-5R	126	67	97	100	36	104	99	3	44	19	45	25	83	80	43	2
6	CO99076-6R	93	71	88	76	103	91	84	4	22	17	25	17	83	17	20	4
7	CO99256-2R	131	131	152	149	64	205	154	2	30	23	34	25	74	41	31	3
8	OR04131-2	---	---	---	209	---	202	205	1	---	---	---	56	---	58	57	1
Red-Purple/Yellow Flesh																	
9	A99331-2RY	195	137	205	195	58	167	180	1	41	36	51	35	90	39	40	1
10	ATTX98510-IR/Y	119	86	178	152	89	124	132	3	17	19	33	21	87	20	22	3
11	CO01399-10P/Y	93	112	147	153	66	162	133	2	14	21	33	22	65	25	23	2
12	COTX01403-4R/Y	60	40	50	44	87	37	46	4	10	9	12	7	71	7	9	4
Purple/Purple Flesh																	
13	Purple Majesty	187	209	291	200	---	249	227	2	36	55	70	31	---	53	49	2
14	POR05PG56-1	---	---	---	306	---	348	327	1	---	---	---	55	---	70	63	1
Yellow Flesh																	
15	Yukon Gold	41	40	64	36	105	26	41	4	10	12	19	7	60	7	11	4
16	A99433-5Y	139	87	67	121	59	106	104	1	26	19	19	24	76	20	22	1
17	ATC00293 -IW/Y	81	46	105	58	73	126	83	3	18	11	27	12	81	24	18	2
18	OR04036-5	---	---	---	123	---	74	99	2	---	---	---	20	---	15	18	3
Mean		102	81	107	120	83	127	119		21	19	27	22	75	29	26	

^{1/}Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 7. Yield and Percent 4-6 oz.

Entry Clone/Variety		Yield 4-6 oz (Cwt/A)						Percent 4-6 oz (%)						Mean Rank	
		CA	ID	OR	TX	WA	Mean	Rank	CA	ID	OR	TX	WA		
		TUL	AB	KLM	SPL ¹	OTH			TUL	AB	KLM	SPL ¹	OTH		
Red/White Flesh															
1	Dk Red Norland	116	74	92	10	102	96	3	22	17	14	6	19	18	6
2	Red LaSoda	105	46	92	35	126	92	5	17	9	11	18	18	14	8
3	ATTX01178-1R	117	42	106	42	115	95	4	19	10	17	25	23	17	7
4	ATTX98453-6R	101	62	84	24	71	80	7	22	18	17	14	16	18	5
5	CO00291-5R	100	73	95	4	23	73	8	35	34	24	8	17	28	2
6	CO99076-6R	135	91	58	17	108	98	2	33	26	13	13	20	23	4
7	CO99256-2R	125	126	143	9	162	139	1	29	28	24	10	32	28	1
8	OR04131-2	---	---	79	---	92	85	6	---	---	21	---	26	24	3
Red-Purple/Yellow Flesh															
9	A99331-2RY	145	109	118	0	139	128	2	30	27	21	0	32	28	1
10	ATTX98510-1R/Y	130	116	121	9	124	123	3	19	22	17	8	20	19	3
11	CO01399-10P/Y	128	127	169	16	179	151	1	19	28	25	15	28	25	2
12	COTX01403-4R/Y	85	47	75	13	77	71	4	14	11	11	10	14	13	4
Purple/Purple Flesh															
13	Purple Majesty	142	77	172	---	149	135	1	27	19	27	---	32	26	1
14	POR05PG56-1	---	---	148	---	112	130	2	---	---	27	---	23	25	2
Yellow Flesh															
15	Yukon Gold	68	63	60	49	46	59	4	16	18	11	27	12	14	4
16	A99433-5Y	192	100	127	17	126	136	2	36	28	25	23	24	28	1
17	ATC00293 -1W/Y	78	94	87	12	167	106	3	18	24	18	13	32	23	3
18	OR04036-5	---	---	167	---	128	147	1	---	---	27	---	26	27	2
Mean		118	83	111	18	114	108		24	21	19	14	23	22	

^{1/}Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 8. Yield and Percent 6-10 oz.

Entry Clone/Variety		Yield 6-10 oz (Cwt/A)						Percent 6-10 oz (%)							
		CA	ID	OR	TX	WA	Mean	Rank	CA	ID	OR	TX	WA	Mean	Rank
		TUL	AB	KLM	SPL ¹	OTH			TUL	AB	KLM	SPL ¹	OTH		
Red/White Flesh															
1	Dk Red Norland	207	218	230	1	235	223	2	40	51	36	1	43	42	1
2	Red LaSoda	217	194	293	10	297	251	1	36	38	35	5	43	38	2
3	ATTX01178-1R	212	175	174	37	203	191	3	35	41	28	21	40	36	5
4	ATTX98453-6R	166	143	135	18	197	160	5	35	42	28	11	44	37	3
5	CO00291-5R	50	43	108	3	3	51	8	17	20	27	6	2	17	7
6	CO99076-6R	155	130	146	4	223	164	4	37	36	32	4	41	37	4
7	CO99256-2R	133	146	175	6	99	138	6	30	33	29	6	20	28	6
8	OR04131-2	---	---	57	---	45	51	7	---	---	15	---	13	14	8
Red-Purple/Yellow Flesh															
9	A99331-2RY	107	72	143	0	89	103	4	22	18	26	0	21	22	4
10	ATTX98510-1R/Y	242	173	197	5	221	208	1	35	33	27	4	36	33	2
11	CO01399-10P/Y	237	148	212	15	222	205	2	36	32	31	16	34	33	1
12	COTX01403-4R/Y	187	169	173	18	147	169	3	31	41	27	15	26	31	3
Purple/Purple Flesh															
13	Purple Majesty	122	31	122	---	65	85	1	23	8	19	---	14	16	1
14	POR05PG56-1	---	---	48	---	26	37	2	---	---	9	---	5	7	2
Yellow Flesh															
15	Yukon Gold	156	159	165	23	136	154	2	37	45	31	12	35	37	2
16	A99433-5Y	176	118	143	1	171	152	3	33	33	28	1	32	32	4
17	ATC00293 -1W/Y	136	133	149	6	185	151	4	31	34	30	6	35	32	3
18	OR04036-5	---	---	217	---	232	224	1	---	---	35	---	48	41	1
Mean		167	137	160	10	155	151		32	34	27	8	30	30	

¹Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 9. Yield and Percent >10 oz.

Entry Clone/Variety		Yield >10 oz (Cwt/A)							Percent >10 oz (%)							Mean Rank	
		CA	CO	ID	OR	TX	WA	Mean Rank	CA	CO	ID	OR	TX	WA	Mean Rank		
		TUL	SLV	AB	KLM	SPL ¹	OTH		TUL	SLV	AB	KLM	SPL ¹	OTH			
Red/White Flesh																	
1	Dk Red Norland	91	86	89	141	2	153	112	3	17	18	20	22	1	28	21	4
2	Red LaSoda	142	285	188	224	0	187	205	1	23	44	37	27	0	27	32	1
3	ATTX01178-1R	164	294	157	155	5	88	172	2	27	50	36	25	3	17	31	2
4	ATTX98453-6R	87	143	89	122	2	99	108	4	19	34	25	25	1	22	25	3
5	CO00291-5R	6	47	3	53	0	0	22	7	2	13	1	13	0	0	6	7
6	CO99076-6R	19	100	38	93	0	118	74	5	5	24	10	21	0	21	16	5
7	CO99256-2R	23	61	17	90	0	18	42	6	5	11	4	15	0	4	8	6
8	OR04131-2	---	---	---	0	---	3	1	8	---	---	---	0	---	1	0	8
Red-Purple/Yellow Flesh																	
9	A99331-2RY	13	5	7	63	0	24	22	4	3	1	2	11	0	6	5	4
10	ATTX98510-1R/Y	179	38	56	165	0	149	117	2	26	8	11	23	0	24	18	2
11	CO01399-10P/Y	175	96	21	111	0	65	94	3	26	18	4	16	0	10	15	3
12	COTX01403-4R/Y	187	131	136	188	3	283	185	1	31	29	33	29	2	51	35	1
Purple/Purple Flesh																	
13	Purple Majesty	31	13	6	78	---	7	27	1	6	3	2	12	---	2	5	1
14	POR05PG56-1	---	---	---	8	---	5	6	2	---	---	---	1	---	1	1	2
Yellow Flesh																	
15	Yukon Gold	121	81	55	229	0	164	130	1	28	24	16	43	0	43	31	1
16	A99433-5Y	19	57	67	76	0	116	67	3	4	13	19	15	0	22	14	3
17	ATC00293 -1W/Y	83	61	40	117	0	38	68	2	19	15	10	24	0	7	15	2
18	OR04036-5	---	---	---	81	---	46	63	4	---	---	---	13	---	10	11	4
Mean		89	100	65	111	1	87	84		16	20	15	19	1	16	16	

^{1/}Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 10. Yield and Percent 4 -10 oz.

Entry Clone/Variety		Yield 4-10 oz (Cwt/A)							Percent 4-10 oz (%)								
		CA	CO	ID	OR	TX	WA	Mean Rank	CA	CO	ID	OR	TX	WA	Mean Rank		
		TUL	SLV	AB	KLM	SPL ¹	OTH		TUL	SLV	AB	KLM	SPL ¹	OTH			
Red/White Flesh																	
1	Dk Red Norland	323	307	292	322	11	337	316	2	62	65	68	50	10	61	61	1
2	Red LaSoda	323	235	240	385	45	423	321	1	53	36	47	46	23	61	49	7
3	ATTX01178-1R	329	222	218	280	79	318	273	4	54	38	51	45	49	62	50	5
4	ATTX98453-6R	268	228	205	219	42	268	238	6	57	54	59	45	27	61	55	4
5	CO00291-5R	150	239	116	204	6	26	147	7	52	67	54	51	15	20	49	6
6	CO99076-6R	290	240	222	204	21	331	257	5	70	57	62	45	17	60	59	2
7	CO99256-2R	257	370	271	318	15	261	296	3	59	65	61	53	17	52	58	3
8	OR04131-2	---	---	---	136	---	137	137	8	---	---	---	36	---	39	38	8
Red-Purple/Yellow Flesh																	
9	A99331-2RY	252	229	181	261	0	228	230	4	53	61	45	47	0	53	52	3
10	ATTX98510-1R/Y	372	321	290	318	14	345	329	2	54	72	54	44	13	56	56	2
11	CO01399-10P/Y	364	329	275	381	31	400	350	1	55	61	61	56	31	62	59	1
12	COTX01403-4R/Y	271	260	215	247	31	223	243	3	45	57	52	38	25	40	47	4
Purple/Purple Flesh																	
13	Purple Majesty	264	155	107	295	---	215	207	1	51	41	26	46	---	45	42	1
14	POR05PG56-1	---	---	---	197	---	138	167	2	---	---	---	35	---	28	32	2
Yellow Flesh																	
15	Yukon Gold	223	214	223	225	72	183	213	4	53	63	63	42	41	47	54	4
16	A99433-5Y	367	302	218	270	18	298	291	2	69	66	61	53	24	56	61	2
17	ATC00293 -1W/Y	214	277	226	236	18	353	261	3	49	69	58	48	19	66	58	3
18	OR04036-5	---	---	---	384	---	359	372	1	---	---	---	62	---	74	68	1
Mean		285	262	220	271	29	269	258		56	58	55	47	22	53	53	

¹/Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 11. Yield and Percent Culls

Entry Clone/Variety		Yield Culls (Cwt/A)							Percent Culls (%)							Mean Rank			
		CA	CO	ID	OR	TX	WA	Mean	Rank	CA	CO	ID	OR	TX	WA			Mean	Rank
		TUL	SLV	AB	KLM	SPL ¹	OTH			TUL	SLV	AB	KLM	SPL ¹	OTH				
Red/White Flesh																			
1	Dk Red Norland	38	14	6	120	2	7	37	3	7	3	1	19	2	1	6	3		
2	Red LaSoda	86	95	48	180	20	5	83	1	14	15	9	22	10	1	12	1		
3	ATTX01178-1R	57	40	21	118	6	33	54	2	9	7	5	19	4	6	9	2		
4	ATTX98453-6R	40	9	5	73	0	3	26	4	8	2	1	15	0	1	6	4		
5	CO00291-5R	7	4	0	40	1	0	10	8	2	1	0	10	2	0	3	8		
6	CO99076-6R	13	10	10	79	1	9	24	5	3	2	3	17	1	2	6	5		
7	CO99256-2R	25	5	4	45	11	17	19	6	6	1	1	7	10	3	4	7		
8	OR04131-2	---	---	---	29	---	8	19	7	---	---	---	8	---	2	5	6		
Red-Purple/Yellow Flesh																			
9	A99331-2RY	19	5	10	37	6	8	16	4	4	1	3	7	10	2	3	4		
10	ATTX98510-1R/Y	24	1	8	82	1	4	24	2	3	0	2	11	1	1	3	2		
11	CO01399-10P/Y	31	2	10	41	4	22	21	3	5	0	2	6	4	3	3	3		
12	COTX01403-4R/Y	80	24	15	168	2	13	60	1	13	5	4	26	2	2	10	1		
Purple/Purple Flesh																			
13	Purple Majesty	40	0	8	66	---	2	23	1	8	0	2	10	---	0	4	2		
14	POR05PG56-1	---	---	---	44	---	3	23	2	---	---	---	8	---	1	4	1		
Yellow Flesh																			
15	Yukon Gold	40	4	12	49	0	13	23	2	9	1	3	9	0	3	5	2		
16	A99433-5Y	4	12	4	46	0	13	16	4	1	3	1	9	0	2	3	4		
17	ATC00293-1W/Y	61	19	19	83	0	14	39	1	14	5	5	17	0	3	9	1		
18	OR04036-5	---	---	---	34	---	5	20	3	---	---	---	5	---	1	3	3		
Mean		38	16	12	74	4	10	30		7	3	3	13	3	2	5			

^{1/}Yield data not included in entry means. See comment Page 1 for Springlake, TX.

Table 12. Specific Gravity

		Specific Gravity							
Entry	Clone/Variety	CA	CO	ID	OR	TX	WA	Mean	Rank
		TUL	SLV	AB	KLM	SPL	OTH		
Red/White Flesh									
1	Dk Red Norland	1.065	1.073	1.066	1.070	1.055	1.073	1.067	6
2	Red LaSoda	1.078	1.084	1.072	1.072	1.045	1.075	1.071	4
3	ATTX01178-1R	1.064	1.074	1.063	1.066	1.052	1.066	1.064	8
4	ATTX98453-6R	1.068	1.076	1.070	1.070	1.067	1.070	1.070	5
5	CO00291-5R	1.073	1.087	1.063	1.071	1.039	1.061	1.066	7
6	CO99076-6R	1.08	1.090	1.078	1.079	1.062	1.083	1.079	1
7	CO99256-2R	1.081	1.098	1.072	1.078	1.039	1.069	1.073	3
8	OR04131-2	---	---	---	1.076	---	1.072	1.074	2
Red-Purple/Yellow Flesh									
9	A99331-2RY	1.086	1.090	1.073	1.076	1.031	1.066	1.070	2
10	ATTX98510-1R/Y	1.075	1.090	1.074	1.071	1.060	1.076	1.074	1
11	CO01399-10P/Y	1.072	1.082	1.064	1.073	1.049	1.067	1.068	3
12	COTX01403-4R/Y	1.063	1.074	1.066	1.064	1.048	1.067	1.064	4
Purple/Purple Flesh									
13	Purple Majesty	1.077	1.090	1.078	1.080	---	1.087	1.082	1
14	POR05PG56-1	---	---	---	1.077	---	1.077	1.077	2
Yellow Flesh									
15	Yukon Gold	1.086	1.093	1.086	1.084	1.060	1.086	1.083	2
16	A99433-5Y	1.098	1.102	1.081	1.092	1.049	1.084	1.084	1
17	ATC00293 -1W/Y	1.074	1.087	1.067	1.076	1.043	1.070	1.070	3
18	OR04036-5	---	---	---	1.064	---	1.070	1.067	4
Mean		1.076	1.086	1.071	1.074	1.050	1.073	1.072	

Table 13. Average Tuber Size and Tubers Per Plant

Entry		Clone/Variety		Average Tuber Size (oz)						Tubers/plant					
				CA	ID	OR	TX	WA	Mean	CA	ID	OR	TX	WA	Mean
				TUL	AB	KLM	SPL ¹	OTH		TUL	AB	KLM	SPL ¹	OTH	
Red/White Flesh															
1	Dk Red Norland	6.0	6.1	5.9	1.8	8.6	6.7	8.0	6.9	9.8	5.5	6.6	7.8		
2	Red LaSoda	6.6	7.7	8.3	1.5	8.2	7.7	8.7	6.6	8.8	10.6	7.5	7.9		
3	ATTX01178-1R	6.5	7.1	6.0	2.8	7.4	6.7	9.9	6.0	9.3	4.9	6.6	7.9		
4	ATTX98453-6R	5.6	5.9	5.9	2.5	7.6	6.2	8.8	6.2	7.6	5.3	6.7	7.3		
5	CO00291-5R	3.8	3.6	4.2	1.9	3.3	3.7	8.8	6.2	9.1	6.0	3.9	7.0		
6	CO99076-6R	4.8	4.6	5.6	2.0	7.2	5.5	9.7	7.9	8.0	6.0	7.4	8.2		
7	CO99256-2R	4.4	3.9	4.7	1.7	4.9	4.4	10.2	11.2	12.2	5.1	9.4	10.8		
8	OR04131-2	---	---	2.8	---	4.1	3.5	---	---	13.3	---	11.9	12.6		
Red-Purple/Yellow Flesh															
9	A99331-2RY	3.8	3.1	3.6	0.6	4.8	3.8	11.5	13.3	14.3	8.2	8.5	11.9		
10	ATTX98510-1R/Y	6.0	4.1	4.6	1.7	6.8	5.4	10.3	13.0	13.6	5.0	8.2	11.3		
11	CO01399-10P/Y	6.2	4.1	5.0	2.1	6.0	5.3	9.8	11.1	12.3	4.1	9.7	10.7		
12	COTX01403-4R/Y	6.9	6.4	7.4	2.5	10.1	7.7	8.6	7.1	8.1	4.2	6.2	7.5		
Purple/Purple Flesh															
13	Purple Majesty	4.2	2.5	4.0	---	4.4	3.8	11.7	16.1	14.0	---	9.6	12.8		
14	POR05PG56-1	---	---	3.1	---	3.6	3.3	---	---	16.0	---	12.4	14.2		
Yellow Flesh															
15	Yukon Gold	6.7	5.5	8.1	2.3	9.6	7.5	6.4	6.6	6.4	7.4	5.6	6.2		
16	A99433-5Y	4.6	5.0	4.6	1.3	6.8	5.3	10.3	7.4	9.7	5.2	7.7	8.8		
17	ATC00293 -1W/Y	5.4	4.6	6.6	1.1	6.1	5.7	10.4	8.4	7.0	7.4	7.5	8.3		
18	OR04036-5	---	---	4.9	---	7.1	6.0	---	---	11.3	---	6.5	8.9		
Mean		5.4	5.0	5.3	1.8	6.5	5.5	9.5	8.9	10.6	6.1	7.9	9.5		

^{1/} Tuber data not included in entry means. See comment Page 1 for Springlake, TX.

Table 14. Tuber Uniformity, Fresh Merit Score, Process Merit Score and Process Color

Entry	Clone/Variety	Tuber Uniformity (1-5 excellent)				Fresh Merit Score (1-5 best)						Process Merit score (1-5 best) CO/ SLV	Process CO/SLV	
		CA	OR	WA	Mean	CA	CO	ID	TX	Mean	Rank		fry color (4=darkest) Harvest	45°F
		TUL	KLM	OTH		TUL	SLV	AB	SPL					
Red/White Flesh														
1	Dk Red Norland	4.0	3.8	3.0	3.6	3.5	3.0	3.5	3.2	3.3	2	4.0	1.0	2.0
2	Red LaSoda	2.4	3.6	2.0	2.7	2.3	3.0	1.0	2.9	2.3	6	1.0	2.0	3.0
3	ATTX01178-1R	4.0	4.4	2.3	3.6	2.6	4.0	2.0	3.5	3.0	3	1.0	3.0	4.0
4	ATTX98453-6R	3.5	3.6	3.7	3.6	3.4	1.0	3.0	3.7	2.8	5	1.0	3.0	3.0
5	CO00291-5R	3.0	4.1	4.0	3.7	2.4	1.0	2.5	2.3	2.0	7	1.0	3.0	3.0
6	CO99076-6R	3.8	3.9	3.3	3.7	2.9	2.0	3.3	3.8	3.0	4	1.0	2.0	3.0
7	CO99256-2R	2.6	3.8	3.7	3.3	2.5	5.0	3.8	2.4	3.4	1	5.0	1.0	2.0
8	OR04131-2	---	4.5	3.7	4.1	---	---	---	---	---	---	---	---	---
Red-Purple/Yellow Flesh														
9	A99331-2RY	3.4	4.3	3.0	3.6	3.4	1.0	2.8	2.0	2.3	4	1.0	2.0	3.0
10	ATTX98510-1R/Y	4.0	3.5	2.3	3.3	3.5	3.0	3.8	3.2	3.4	2	1.0	2.0	3.0
11	CO01399-10P/Y	4.1	4.4	3.7	4.0	3.3	5.0	3.3	3.0	3.6	1	5.0	0.0	2.0
12	COTX01403-4R/Y	3.0	2.7	2.0	2.6	3.8	2.0	2.5	3.7	3.0	3	1.0	2.0	3.0
Purple/Purple Flesh														
13	Purple Majesty	4.1	2.5	3.7	3.4	3.6	2.0	2.0	---	2.5	1	1.0	---	---
14	POR05PG56-1	---	4.0	4.0	4.0	---	---	---	---	---	---	---	---	---
Yellow Flesh														
15	Yukon Gold	3.8	4.3	3.7	3.9	4.0	1.0	2.5	3.1	2.7	3	1.0	2.0	3.0
16	A99433-5Y	3.1	4.0	3.7	3.6	3.8	5.0	3.3	1.5	3.4	1	5.0	1.0	1.0
17	ATC00293 -1W/Y	4.0	3.8	3.3	3.7	3.9	4.0	2.5	2.0	3.1	2	5.0	1.0	1.0
18	OR04036-5	---	4.1	4.0	4.1	---	---	---	---	---	---	---	---	---
Mean		3.5	3.8	3.3	3.6	3.3	2.8	2.8	2.9	2.9		2.3	1.8	2.6

Table 15. Tuber Shape and Length Width Ratio

Entry Clone/Variety		Tuber Shape (1 - 5 long)					L/W					
		CA	CO	ID	TX	WA	Mean	CA	CO	OR	WA	Mean
		TUL	SLV	AB	SPL	OTH		TUL	SLV	KLM	OTH	
Red/White Flesh												
1	Dk Red Norland	2.1	2.0	2.5	2.0	2.0	2.1	1.10	1.20	1.17	1.18	1.16
2	Red LaSoda	2.3	2.0	3.3	2.5	1.0	2.2	1.10	1.10	1.16	1.14	1.12
3	ATTX01178-1R	1.5	1.0	1.0	1.1	1.0	1.1	1.00	1.03	1.05	1.02	1.03
4	ATTX98453-6R	1.8	1.0	2.3	2.0	1.0	1.6	1.10	1.13	1.10	1.12	1.11
5	CO00291-5R	1.6	1.0	1.0	1.5	1.0	1.2	1.20	1.11	1.16	1.03	1.13
6	CO99076-6R	1.4	1.0	1.8	1.5	1.0	1.3	1.00	1.02	1.05	1.08	1.04
7	CO99256-2R	2.1	1.0	1.0	1.5	1.0	1.3	1.20	1.21	1.15	1.16	1.18
8	OR04131-2	---	---	---	---	1.0	1.0	---	---	1.03	1.05	1.04
Red-Purple/Yellow Flesh												
9	A99331-2RY	1.6	2.0	1.5	1.5	1.0	1.5	1.10	1.06	1.04	1.06	1.07
10	ATTX98510-1R/Y	1.8	1.0	1.5	1.5	1.0	1.4	1.00	1.02	1.05	1.04	1.03
11	CO01399-10P/Y	1.5	1.0	1.3	1.9	1.0	1.3	1.00	1.10	1.09	1.15	1.09
12	COTX01403-4R/Y	2.8	3.0	3.0	2.0	1.0	2.4	1.20	1.25	1.27	1.26	1.24
Purple/Purple Flesh												
13	Purple Majesty	4.0	3.0	4.0	---	1.7	3.2	1.80	1.31	1.57	1.54	1.56
14	POR05PG56-1	---	---	---	---	3.3	3.3	---	---	1.50	1.38	1.44
Yellow Flesh												
15	Yukon Gold	3.7	2.0	2.8	2.5	1.0	2.4	1.40	1.24	1.23	1.30	1.29
16	A99433-5Y	1.9	2.0	1.0	1.5	1.0	1.5	1.20	1.17	1.15	1.26	1.20
17	ATC00293 -1W/Y	3.5	2.0	3.3	1.5	2.0	2.5	1.50	1.18	1.32	1.41	1.35
18	OR04036-5	---	---	---	---	2.3	2.3	---	---	1.53	1.34	1.43
Mean		2.2	1.7	2.1	1.8	1.4	1.9	1.19	1.14	1.20	1.20	1.19

Table 16. Skin and Flesh Color

Entry		Clone/Variety		Skin Color (1 - 5 dark)						Tuber Skin (1-5 heavy)					Flesh Color (1 - 5 dark)					
				CA	CO	OR	TX	WA		ID	OR	TX		CA	CO	OR	TX			
				TUL	SLV	KLM	SPL	OTH	Mean	AB	KLM	SPL	Mean	TUL	SLV ¹	KLM	SPL	Mean		
Red/White Flesh																				
1	Dk Red Norland	2.1	1.0	2.8	2.9	3.0	2.3	2.5	1.5	1.0	1.7	1.0	1.0	1.0	1.0	1.0				
2	Red LaSoda	1.6	1.0	2.5	2.5	2.3	2.0	2.3	1.5	1.0	1.6	1.9	1.0	1.3	1.0	1.3				
3	ATTX01178-1R	1.9	2.0	3.3	3.0	3.0	2.6	3.3	1.1	1.0	1.8	1.3	1.0	1.0	1.0	1.1				
4	ATTX98453-6R	2.1	1.0	3.0	3.7	3.0	2.6	3.0	2.1	1.0	2.0	1.1	1.0	1.0	1.0	1.0				
5	CO00291-5R	4.0	5.0	4.5	4.0	5.0	4.5	4.5	1.3	1.0	2.3	1.1	1.0	1.0	1.0	1.0				
6	CO99076-6R	4.0	5.0	4.4	4.5	4.0	4.4	4.0	1.1	1.0	2.0	1.0	1.0	1.0	1.0	1.0				
7	CO99256-2R	3.6	5.0	4.6	3.8	4.3	4.3	4.0	1.4	1.0	2.1	1.4	1.0	1.0	1.0	1.1				
8	OR04131-2	---	---	4.1	---	4.0	4.1	---	1.1	---	1.1	---	---	1.1	---	1.1				
Red-Purple/Yellow Flesh																				
9	A99331-2RY	2.0	1.0	2.3	1.0	3.7	2.0	2.8	1.5	1.0	1.8	3.9	3.0	3.0	4.0	3.5				
10	ATTX98510-1R/Y	1.5	2.0	2.8	3.5	4.0	2.8	2.0	1.5	1.0	1.5	2.8	4.0	2.3	2.4	2.9				
11	CO01399-10P/Y	3.3	2.0	3.5	5.0	3.7	3.5	4.0	1.8	1.0	2.3	2.6	3.0	2.0	3.0	2.7				
12	COTX01403-4R/Y	1.3	1.0	2.6	3.6	1.7	2.0	2.0	1.5	1.0	1.5	3.1	3.0	2.1	3.4	2.9				
Purple/Purple Flesh																				
13	Purple Majesty	5.0	5.0	4.5	---	5.0	4.9	5.0	1.9	---	3.4	5.0	5.0	4.1	---	4.7				
14	POR05PG56-1	---	---	3.0	---	2.0	2.5	---	1.5	---	1.5	---	---	3.0	---	3.0				
Yellow Flesh																				
15	Yukon Gold	1.2	1.0	1.9	1.0	1.0	1.2	1.3	1.1	1.0	1.1	3.0	2.0	2.0	2.5	2.4				
16	A99433-5Y	1.4	1.0	2.9	1.0	3.0	1.9	2.0	2.0	1.0	1.7	2.4	2.0	1.5	2.1	2.0				
17	ATC00293 -1W/Y	1.4	1.0	3.0	1.0	2.0	1.7	1.3	1.8	1.0	1.3	3.5	4.0	2.3	3.2	3.2				
18	OR04036-5	---	---	3.1	---	1.0	2.1	---	1.4	---	1.4	---	---	2.5	---	2.5				
Mean		2.4	2.3	3.3	2.9	3.1	2.8	2.9	1.5	1.0	1.8	2.3	2.2	1.8	2.0	2.1				

Table 17. Eye Depth and External Defects

		Eye Depth ¹	External Defects ²									
Entry	Clone/Variety		Greening		Growth Cracks		Knobs		Shatter Bruise		Scab	
Red/White Flesh												
1	Dk Red Norland	3.3	4.4		4.5		4.8		4.0		4.8	
2	Red LaSoda	1.7	3.8	KLM 3.5	3.8	CO 2.0	4.2	KLM 3.3	3.9	WA 2.0	4.3	AB 2.8
3	ATTX01178-1R	3.4	3.8		4.6		4.8		3.5	KLM 2.5	4.9	
4	ATTX98453-6R	3.5	4.3		4.7		4.7		3.1	WA 1.0	4.6	
5	CO00291-5R	3.9	4.4		4.7		5.0		4.5		4.8	
6	CO99076-6R	3.6	4.8		4.4	KLM 3.4	4.9		3.8	WA 2.0	4.4	
7	CO99256-2R	4.0	4.4		4.9		5.0		3.8		4.5	
8	OR04131-2	3.8	4.6		5.0		4.8		3.0	WA 2.0	5.0	
Red-Purple/Yellow Flesh												
9	A99331-2RY	3.5	4.2	KLM 3.5	5.0		4.6		4.5		4.6	
10	ATTX98510-1R/Y	2.7	4.3		4.6		5.0		4.0		4.9	
11	CO01399-10P/Y	3.6	4.8		4.6		4.9		4.3		4.5	
12	COTX01403-4R/Y	3.7	4.0	KLM 3.3	4.5		4.8		4.0		4.2	AB 2.5
Purple/Purple Flesh												
13	Purple Majesty	3.7	5.0		4.8		4.7		4.2		3.6	AB 2.3
14	POR05PG56-1	4.0	5.0		4.9		4.9		4.2		5.0	
Yellow Flesh												
15	Yukon Gold	3.9	4.5		4.8		4.9		4.5		4.1	AB 2.3
16	A99433-5Y	3.8	4.3		4.7		5.0		4.0		4.8	
17	ATC00293 -1W/Y	3.8	3.9		4.3		4.8		4.5		4.6	
18	OR04036-5	4.1	4.8		5.0		4.9		3.2		5.0	
Mean		3.5	4.4		4.7		4.8		3.9		4.6	

^{1/} Average of 5 sites (1-5 shallow).

^{2/} Average of up to 5 sites (1 severe-5 none).

Table 18. Internal Defects

		Percent Incidence (%) ¹								Blackspot Bruise				Zebra Chip ²
Entry	Clone/Variety	HH		BC		IBS		VD		OR	1-5=none			% Zebra chip
										KLM (%)	TX	CO	WA	
Red/White Flesh														
1	Dk Red Norland	1		0		0		4		28	5.0	4.5	5.0	0
2	Red LaSoda	12	CA 43	30	WA 61	0		9	CA 20	3	5.0	5.0	5.0	0
3	ATTX01178-1R	1		0		0		3		23	5.0	4.9	5.0	0
4	ATTX98453-6R	0		1		1		4	CA 15	15	5.0	5.0	4.0	0
5	CO00291-5R	0		0		0		2		28	5.0	4.7	5.0	0
6	CO99076-6R	2		0		0		3		33	5.0	4.7	4.0	0
7	CO99256-2R	2		2		1		8	CA 33	10	5.0	4.6	5.0	0
8	OR04131-2	0		0		0		3		28	---	---	4.0	0
Red-Purple/Yellow Flesh														
9	A99331-2RY	0		0		0		1		0	5.0	5.0	5.0	0
10	ATTX98510-1R/Y	6		7	KLM 15	0		4		13	5.0	4.5	5.0	0
11	CO01399-10P/Y	0		0		3	WA 8	7	CA 23	5	5.0	5.0	5.0	0
12	COTX01403-4R/Y	7	CA 35	9	KLM 28	0		1		8	5.0	4.7	5.0	0
Purple/Purple Flesh														
13	Purple Majesty	2		0		0		6	CA 18	3	---		5.0	0
14	POR05PG56-1	0		0		0		0		8	---	---	5.0	0
Yellow Flesh														
15	Yukon Gold	2		1		0		10	CA 39	8	5.0	5.0	5.0	0
16	A99433-5Y	5	AB 20	0		0		3		15	5.0	4.5	5.0	0
17	ATC00293 -1W/Y	15	AB 58	0		1		3		18	5.0	5.0	5.0	0
18	OR04036-5	0		0		0		0		25	---	---	4.0	0
Mean		3		3		0		4		15	5.0	4.8	4.8	0

^{1/} Percent based on 10 cut tubers averaged from 6 sites. CO HH data included brown center

^{2/} Zebra chip data collected Spring Lake, TX.

Table 19. Disease Evaluation

		Corvallis, Oregon			Aberdeen, Idaho		Tulelake, CA
Entry	Clone/Variety	L. Blight			Vert. ⁴	Early blight ⁴	Vert. ⁵
		Foliar ¹	Tuber ²	AUDPC ³			
Red/White Flesh							
1	Dk Red Norland	9	10	1345	1.3	1.0	8.0
2	Red LaSoda	9	0	1400	3.5	2.8	6.3
3	ATTX01178-1R	4	0	235	3.3	2.8	4.8
4	ATTX98453-6R	6	0	459	1.3	1.0	7.3
5	CO00291-5R	8	0	1023	3.5	3.5	4.0
6	CO99076-6R	8	0	1165	2.0	1.8	6.3
7	CO99256-2R	6	0	910	3.0	2.8	4.5
8	OR04131-2	9	0	1400	---	---	---
Red-Purple/Yellow Flesh							
9	A99331-2RY	9	5	1389	3.3	3.0	5.3
10	ATTX98510-1R/Y	9	0	1384	2.3	2.3	6.3
11	CO01399-10P/Y	9	5	1337	3.0	3.3	3.0
12	COTX01403-4R/Y	9	3	1397	1.3	1.0	8.5
Purple/Purple Flesh							
13	Purple Majesty	9	3	1395	1.3	1.0	7.8
14	POR05PG56-1	9	0	1397	---	---	---
Yellow Flesh							
15	Yukon Gold	9	0	1390	2.5	2.3	6.9
16	A99433-5Y	6	0	932	3.0	3.0	3.0
17	ATC00293 -1W/Y	9	8	1341	3.3	3.0	5.8
18	OR04036-5	9	3	1397	---	---	---
Mean		8	2	1183	2.5	2.3	5.8

^{1/}Ratings are averages for 4 reps: 1=no foliar injury; 2=1-5%; 3=5-10%; 4=10-20%; 5=20-40%; 6=40-60%; 7=60-75%; 8=75-90%; 9=≥90-100% injury. Taken 10/13/09

^{2/} % of late blight infected tubers at harvest (10 randomly selected tubers).

^{3/} AUDPC = Area Under the Disease Progress Curve.

^{4/} Disease rating (1-5 best).

^{5/} Vert wilt rating 0-9, 9 worst 90-100% plants show symptoms taken on 9/1/11

Table 20. Culinary Tuber Quality

		Washington Culinary Quality ¹					
Entry	Clone/Variety	Boiling	Baking	Micro	Total	Overall Rank	Rank
Red/White Flesh							
1	Dk Red Norland	16.8	18.7	17.5	53.0	11	5
2	Red LaSoda	18.0	18.2	17.8	54.0	9	4
3	ATTX01178-1R	20.2	18.0	19.8	58.0	2	1
4	ATTX98453-6R	17.9	17.0	16.7	51.5	16	8
5	CO00291-5R	17.8	15.6	18.5	51.9	14	7
6	CO99076-6R	18.4	20.2	17.8	56.4	4	2
7	CO99256-2R	18.2	17.2	16.8	52.2	13	6
8	OR04131-2	17.8	16.4	20.0	54.2	8	3
Red-Purple/Yellow Flesh							
9	A99331-2RY	18.7	17.7	18.2	54.5	7	3
10	ATTX98510-1R/Y	19.0	16.0	16.8	51.8	15	4
11	CO01399-10P/Y	19.0	19.3	16.5	54.8	6	2
12	COTX01403-4R/Y	17.0	19.8	18.2	55.0	5	1
Purple/Purple Flesh							
13	Purple Majesty	15.0	18.0		33.0	18	2
14	POR05PG56-1	18.3	18.5	16.8	53.7	10	1
Yellow Flesh							
15	Yukon Gold	19.3	20.2	18.0	57.5	3	2
16	A99433-5Y	20.7	21.8	16.5	59.0	1	1
17	ATC00293 -1W/Y	17.3	18.5	16.7	52.5	12	3
18	OR04036-5	16.5	15.7	17.8	50.0	17	4
Mean		18.1	18.2	17.7	53.0		

^{1/} Higher score = better quality, maximum = 25 per test. Knowles & Fuller, Pullman, WA.

Table 21. Tuber Composition

		Aberdeen, Idaho					
Entry	Clone/Variety	Solids	Protein ¹	Dextrose ²	Sucrose ²	Vitamin C ³	TGA ⁴
Red/White Flesh							
1	Dk Red Norland	18.9	4.7	0.033	0.137	26.2	3.3
2	Red LaSoda	20.0	4.8	0.062	0.137	27.8	3.6
3	ATTX01178-1R	18.9	5.1	0.081	0.185	20.5	3.7
4	ATTX98453-6R	19.5	4.4	0.097	0.199	26.7	3.2
5	CO00291-5R	16.8	4.5	0.100	0.186	18.3	6.2
6	CO99076-6R	20.7	4.8	0.078	0.188	25.4	3.5
7	CO99256-2R	19.6	5.1	0.046	0.107	23.4	9.2
8	OR04131-2	---	---	---	---	---	---
Red-Purple/Yellow Flesh							
9	A99331-2RY	19.6	4.6	0.047	0.165	23.0	4.3
10	ATTX98510-1R/Y	20.6	4.2	0.050	0.162	32.8	5.2
11	CO01399-10P/Y	19.0	4.0	0.015	0.139	25.4	4.5
12	COTX01403-4R/Y	18.1	5.0	0.045	0.246	28.2	2.9
Purple/Purple Flesh							
13	Purple Majesty	21.1	3.7	0.004	0.147	25.9	5.8
14	POR05PG56-1	---	---	---	---	---	---
Yellow Flesh							
15	Yukon Gold	23.4	4.9	0.016	0.197	39.7	5.0
16	A99433-5Y	21.5	5.4	0.015	0.162	24.4	2.8
17	ATC00293 -1W/Y	18.9	4.7	0.029	0.108	20.4	5.4
18	OR04036-5	---	---	---	---	---	---
Mean		19.8	4.6	0.048	0.164	25.9	4.6

^{1/} % Dry Weight Basis^{2/} % Fresh Weight Basis^{3/} % Fresh Weight Basis (mg/100g)^{4/} % Fresh Weight Basis (mg/100g), using Lenepe as check with reading of 43.7

Table 22. Entry Location Comments

Entry	Clone/Variety	Aberdeen, ID	Klamath Falls, OR
Red/White Flesh			
1	Dk Red Norland	large, lt red, deep eyes	70% bronze, lumpy, junk
2	Red LaSoda	Big, deep eyes	Lumpy, large, poor
3	ATTX01178-1R	skinned, green, attached stolons	Impact bruise, junk
4	ATTX98453-6R	big, flat, attached stolons	SB, IB, poor, drop
5	CO00291-5R	dark red, round, small	IB, smooth, fair
6	CO99076-6R	medium dark red, round, attached stolons	Growth cracks, shiny, keep?
7	CO99256-2R	medium red, uniform, attached stolons	Dull skin, dark red, fair
8	OR04131-2	---	Small, low bronze, keep
Red-Purple/Yellow Flesh			
9	A99331-2RY	mostly red with white, some tear drop shape	Smile, nice, ok
10	ATTX98510-1R/Y	lt red, good size	Dull, flat, drop
11	CO01399-10P/Y	nice round purple, attached stolons	Bronze, good shape, keep
12	COTX01403-4R/Y	large, lt red, oval, scab	Large, pale, junk, drop
Purple/Purple Flesh			
13	Purple Majesty	very small, misshaped	Total cull, 100% bronze, junk
14	POR05PG56-1	---	Small, green?, fair
Yellow Flesh			
15	Yukon Gold	large, yellow, scab	Smooth, pretty, keep
16	A99433-5Y	round, scaley buff, deep ends	Poor skin, lenticel scar, drop
17	ATC00293 -1W/Y	oval yellow/purple eyes, misshaped	Rot, IB, lenticel scar, ok
18	OR04036-5	---	IB, smooth, drop?

Table 23. Entry Location Comments Continued

Entry Clone/Variety		Springlake, TX
Red/White Flesh		
1	Dk Red Norland	light skin color, variable color, small, silver scurf, heavy set, heat sproutssmall, nice shape
2	Red LaSoda	chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell, yield+
3	ATTX01178-1R	feathering+++ , drop, early, some pointed, large tubers, sticky stolon nice, yield+
4	ATTX98453-6R	smooth, light skin color, BOT+, yield+, poor skin finish, no heat sproutssmall, yield-, nice, yield+
5	CO00291-5R	great color+, small, , BOTsmall
6	CO99076-6R	feathering, ZC?, heat sprouts+, sticky stolon, drop+late, small, yield-, late, small, yield-
7	CO99256-2R	heat sprouts+++ , drop+++ , light set, low yield, nice colorlate, small, yield-
8	OR04131-2	---
Red-Purple/Yellow Flesh		
9	A99331-2RY	heavy set, very small size, small potato+, purple eyeslate
10	ATTX98510-1R/Y	very light flesh+, small, heavy set, dropsmall
11	CO01399-10P/Y	nice shape, alligator hide, poor skin finish, dropsmall
12	COTX01403-4R/Y	BOT+, ZC?nice
Purple/Purple Flesh		
13	Purple Majesty	---
14	POR05PG56-1	---
Yellow Flesh		
15	Yukon Gold	ROT++, low yield, better rep, less ROT
16	A99433-5Y	heat sprouts+++ , drop++, marble size, very light flesh
17	ATC00293 -1W/Y	many small, road map, yield-, poor skin finish, drop, heat sprouts+++
18	OR04036-5	---

Table 24. Entry Location Comments Continued

Entry	Clone/Variety	Othello, WA	Tulelake, CA
Red/White Flesh			
1	Dk Red Norland	Nice red color, some irregularly shaped tubers.	
2	Red LaSoda	Deep eyes, irregular shape, light red, sticky stolons.	
3	ATTX01178-1R	Red, poor skin set, sticky stolons.	
4	ATTX98453-6R	Uniform shape, wide size range, red, deep eyes.	
5	CO00291-5R	Deep purple-red, small, sticky stolons.	Seed was moldy and had few eyes
6	CO99076-6R	Nice deep red, deep eyes, wide size range.	Seed was dehydrated
7	CO99256-2R	Nice deep red, good shape and size, sticky stolons.	Seed was small and dehydrated
8	OR04131-2	Nice deep red color, uniform size.	
Red-Purple/Yellow Flesh			
9	A99331-2RY	Nice red-yellow multicolor, some sticky stolons.	
10	ATTX98510-1R/Y	Red, flat, deep eyes, rough tubers - DISCARD.	flat shape (donut shape)
11	CO01399-10P/Y	Nice deep purple, flat, bronzing, sticky stolons.	
12	COTX01403-4R/Y	Pink, large size range, sticky stolons - DISCARD.	Seed was small and dehydrated
Purple/Purple Flesh			
13	Purple Majesty	Deep purple, bronzing, nice shape and size.	
14	POR05PG56-1	Nice purple-lilac color, oblong, uniform size.	
Yellow Flesh			
15	Yukon Gold	Large size range, smooth shape, pink eyes.	
16	A99433-5Y	Round russet, deep eyes, wide size range - DISCARD.	
17	ATC00293 -1W/Y	Light yellow with purple eyes, some Rhizoctonia.	
18	OR04036-5	Oblong yellow, some russetting, nice shape.	

** The term "sticky stolons" refers to tubers that stay attached to the plant during harvest. This may not be a problem if plants are vine killed or fully matured prior to harvest, however, it generally indicates late maturation.

Table 25. Summary Means

Entry	Clone/Variety	Year	Yield Summary ¹						Tuber Characteristics		Quality		
			<4 oz.	4-6 oz.	6-10 oz.	>10 oz.	Culls	Total	% 4-10 oz.	Tuber Size oz./tuber	Spec. grav.	Culinary quality ²	Fresh Merit ³
Red/White Flesh													
1	Dk Red Norland	***	59	96	223	112	37	524	61	6.7	1.067	53.0	3.3
2	Red LaSoda	***	51	92	251	205	83	660	49	7.7	1.071	54.0	2.3
3	ATTX01178-1R	1	54	95	191	172	54	553	50	6.7	1.064	58.0	3.0
4	ATTX98453-6R	1	62	80	160	108	26	433	55	6.2	1.070	51.5	2.8
5	CO00291-5R	1	99	73	51	22	10	278	49	3.7	1.066	51.9	2.0
6	CO99076-6R	2	84	98	164	74	24	439	59	5.5	1.079	56.4	3.0
7	CO99256-2R	2	154	139	138	42	19	510	58	4.4	1.073	52.2	3.4
8	OR04131-2	1	205	85	51	1	19	362	38	3.5	1.074	54.2	---
Red-Purple/Yellow Flesh													
9	A99331-2RY	2	180	128	103	22	16	448	52	3.8	1.070	54.5	2.3
10	ATTX98510-1R/Y	1	132	123	208	117	24	602	56	5.4	1.074	51.8	3.4
11	CO01399-10P/Y	1	133	151	205	94	21	598	59	5.3	1.068	54.8	3.6
12	COTX01403-4R/Y	1	46	71	169	185	60	534	47	7.7	1.064	55.0	3.0
Purple/Purple Flesh													
13	Purple Majesty	***	227	135	85	27	23	485	42	3.8	1.082	33.0	2.5
14	POR05PG56-1	1	327	130	37	6	23	524	32	3.3	1.077	53.7	---
Yellow Flesh													
15	Yukon Gold	***	41	59	154	130	23	408	54	7.5	1.083	57.5	2.7
16	A99433-5Y	2	104	136	152	67	16	478	61	5.3	1.084	59.0	3.4
17	ATC00293-1W/Y	2	83	106	151	68	39	451	58	5.7	1.070	52.5	3.1
18	OR04036-5	1	99	147	224	63	20	553	68	6.0	1.067	50.0	---
Mean			119	108	151	84	30	491	53	5.5	1.072	53.0	2.9

^{1/}Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

^{2/} Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

^{3/} Scale = 1-5 best

Table 26. 2-Year Summary of Graduating Entries

Entry	Clone/Variety	Yield Summary ¹						Tuber Characteristics		Quality		
		<4 oz.	4-6 oz.	6-10 oz.	>10 oz.	Culls	Total	% 4-10 oz.	Tuber Size oz./tuber	Spec. grav.	Culinary quality ²	Fresh Merit ³
1	Dk Red Norland	64	93	200	108	41	507	59	6.8	1.067	56.6	3.4
2	Red LaSoda	52	79	199	182	78	583	47	7.7	1.070	56.1	2.4
6	CO99076-6R	80	90	151	68	33	422	58	5.6	1.077	54.0	3.0
7	CO99256-2R	143	128	140	41	21	488	58	4.6	1.072	52.6	3.4
9	A99331-2RY	180	120	92	20	25	434	47	4.0	1.074	54.1	2.8
15	Yukon Gold	45	61	135	129	30	398	51	7.2	1.083	58.3	3.0
16	A99433-5Y	106	120	149	56	27	458	59	5.3	1.081	57.6	3.5
17	ATC00293 -1W/Y	79	99	149	77	45	453	56	5.7	1.071	56.2	3.5

^{1/}Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

^{2/} Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

^{3/} Scale = 1-5 best