

2008 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 and Fresh Merit Score	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 and Metribuzin Reaction	Page 19
Table 20	Culinary Tuber Quality, Composition and Antioxidant Equivalent	Page 20
Table 21	Entry Location Comments	Page 21
Table 22	Entry Location Comments Continued	Page 22
Table 23	Entry Location Comments Continued	Page 23
Table 24	Entry Summary	Page 24
Table 25	2 Year Summary of Graduating Entries	Page 25
Entry Pictures		Page 26-28
Compiled By		Back Cover

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

Locations	Cooperators	Trial	Irrigation	Fertilizer	Planting	Vine Kill	Vine Kill	Harvest	Pesticides Applied		
				N-P-K-S (lb/A)	Date	Date	Method	Date	Herbicides	Insecticides	Fungicides
Tulelake California (TUL)	H. Carlson, D. Kirby	Late	Sprinkler	175 N	5/9/2008	9/12/2008	Chemical	10/6/2008	Matrix, Sencor, Outlook	Monitor, Avaunt	Bravo, Dithane, Maxim, Quadris, Endura
San Luis Valley Colorado (SLV)	D. Holm, F. Goktepe	Late	Pivot	114-60-40-25	5/13/2008	9/2/2008	Reglone, Super Tin 80	9/23/2008	Dual Magnum	Endigo ZC, Fulfill	Bravo WS, Headline
Aberdeen Idaho (AB)	J. Stark, R. Novy, J. Witworth, P. Bain M. Chappell	Late	Sprinkler	185-100-80	5/2/2008	8/15/2008	Mechanical	9/2/2008	Sencor, Matrix, Eptam	Admire Pro	Dithane, Equus
Corvallis Oregon (COR)	I. Vales, S. Yilma	Late	Sprinkler	150-150-150	5/19/2008	9/10/2008	Chemical Rely	9/24/2008	Matrix, Prowl	Platinum	Bravo, Dithane, Quadris, Curzate
Hermiston Oregon (HRM)	D. Hane	Early	Pivot	215-80-0-40	3/25/2008	7/21/2008	Mechanical Enquik	8/6/2008	Eptam Matrix	Mocap, Admire, Monitor, Asana	Vapam, Bravo, Ridomil Gold, Dithane, Quadris Omega
Klamath Falls Oregon (KLM)	B. Charlton, D. Culp	Late	Sprinkler	165-80-100-205	5/21/2008	9/9/2008	Mechanical Reglone	10/9/2008	Dual Magnum, Prowl, Matrix	Admire Pro	Topps MZ, Quadris, Ridomil Gold
Malheur Oregon (MAL)	C. Shock, E. Feibert	Late	Sprinkler	150 N -120 P	4/17/2008	9/17/2008	Mechanical	9/23/2008	Prowl		Topps MZ, Gaucho, Quadris Opti
Springlake Texas (SPL)	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	101-11-6	3/31/2008	7/28/2008	Mechanical	7/30/2008	Treflan, Dual, Sencor, Roundup	Agri-Mek, Endigo, Avaunt, Oberon, Rimon, Dimthoate 4e	Super tin 80, Kocide, Quadris, Penncozeb, Topps MZ, Gaucho
Othello Washington (OTH)	M. Pavek, R. Knowles, Z. Holden	Early	Sprinkler	192-268-350	4/1/2008	7/25/2008	Mechanical	8/6/2008		Success, Acraimite, Assail	Penncozeb Omega

Table 2. Description of Clones - 2008 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	OR	***
2	Red LaSoda	Triumph	Katahdin	Red-purple	Med	Med	Oval	Lt. Red	White	Check	OR	***
3	CO98012-5R	A79543-4R	AC91844-2	Purple	Medium	Medium	Round	Red	White	CO	CO	2
4	NDA7985-1R	Minn 17922	ND2225-1R	Dk red-purple	Med-small	Early	Oval	Red	White	ID	OR	2
Red-Purple/Yellow Flesh												
5	A99331-2RY	Inca Gold	COA94019-5R	Dk red-purple	Medium	Medium	Round	Red/Spect. eyes	Yellow	ID	ID	1
6	AC99329-7PW/Y	Inca Gold	A91846-5R	Dk Purple	Large	Medium	Round	Purple/White	Yellow	CO	CO	1
7	AC99330-1P/Y	Inca Gold	A89655-5DY	Blue	Large	Medium	Round	Purple	Yellow	CO	CO	1
8	ATTX961014-1R/Y	A90601-2RDY	Mazama	Purple	Medium	Early	Oblong	Red	Yellow	TX	OR	2
9	ATTX98500-2P/Y	P94A2-4Y	Granola	Purple	Large	Late	Round	Purple	Yellow	TX	CO	2
10	POR01PG45-5	Serrana	Red flesh bulk pollen	Blue	Med-large	Med-late	Oblong	Pale purple	Yellow	WA/OR	OR	1
Red/Red Flesh												
11	CO97222-1R/R	CO94170-1	CO94183-1	Purple	Medium	Medium	Oblong	Red	Red	CO	CO	2
12	PA96RR1-193	Fontenot	3261-5R	Red-purple	Medium	Med-early	Oval	Red	Red	WA/OR	OR	1
13	POR03PG23-1	PA97B35-1	PA99P11-2	Red-purple	Medium	Medium	Oval	Red w/white swirl	Red/white	WA/OR	OR	1
Purple/Purple Flesh												
14	Purple Majesty	?	?	Blue	Med-large	Med-late	Long	Dk Blue	Purple	Check	CO	***
15	CO97215-2P/P	CO94163-1	CO94183-1	Purple	Large	Medium	Oval	Purple	Purple	CO	CO	2
16	CO97227-2P/PW	CO94183-1	CO94215-1	Purple	Large	Medium	Oblong	Purple	Purple/White	CO	CO	2
17	OR00068-11	All Blue	PA97B29-4	Red-purple	Med-large	Med-early	Oval	Purple	Purple	OR	OR	1
Yellow Flesh												
18	Yukon Gold	Norgleam	W5279-4	Pink	Med	Early	Oval	White	Yellow	Check	OR	***
19	A00293-2Y	Agria	TXA1655-1DY	White	Medium	Med-early	Round	Yellow	Yellow	ID	ID	1
20	CO99045-1W/Y	Rio Grande Russet	German Butterball	White	Large	Medium	Long	White	Yellow	CO	CO	1
21	POR02PG26-5	PA99P11-2	Pig420	Purple	Medium	Medium	Oval	Yellow w/ red eye	Yellow	OR	OR	2
22	POR02PG37-2	PA99P35-1	Rose Gold	Red-purple	Med-small	Med-early	Oval	Yellow w/ red eye	Yellow	OR	OR	1

Table 3. Percent Stand and Stems/Hill

Entry	Clone/Variety	Percent Stand							Stems/hill						
		CO	ID	OR			TX	WA	Mean	OR	CO	ID	TX	WA	Mean
		SLV	AB	COR	HRM	KLM	SPL	OTH		HRM	SLV	AB	SPL	OTH	
Red/White Flesh															
1	Dk Red Norland	99	91	100	97	100	100	77	95	2.0	5.5	2.5	1.8	2.9	2.9
2	Red LaSoda	99	90	100	98	99	100	70	94	1.8	3.3	1.6	2.6	2.3	2.3
3	CO98012-5R	100	96	100	100	99	100	74	96	1.4	3.3	3.1	2.1	3.6	2.7
4	NDA7985-1R	100	91	100	96	100	98	56	92	1.3	2.8	1.4	2.1	3.0	2.1
Red-Purple/Yellow Flesh															
5	A99331-2RY		98	100	100	100	100	71	95	2.8		2.7	2.1	3.2	2.7
6	AC99329-7PW/Y	99	99	100	100	100	100	84	97	2.4	3.7	3.0	2.5	3.3	3.0
7	AC99330-1P/Y	99	91	100	100	99	100	80	96	3.0	4.2	3.5	2.3	4.0	3.4
8	ATTX961014-1R/Y	100	99	100	97	100	100	78	96	2.3	3.5	2.2	7.1	2.4	3.5
9	ATTX98500-2P/Y	99	100	100	100	95	98	82	96	2.0	4.3	2.4	2.5	2.7	2.8
10	POR01PG45-5	---	96	100	99	97	96	75	94	1.9	---	1.8	2.4	2.4	2.1
Red/Red Flesh															
11	CO97222-1R/R	96	96	100	98	100	100	81	96	2.7	4.5	2.7	2.3	3.4	3.1
12	PA96RR1-193	100	94	100	99	98	98	77	95	2.6	4.0	2.2	2.2	3.2	2.8
13	POR03PG23-1	---	96	100	98	96	96	74	93	2.3	---	3.7	2.5	3.7	3.0
Purple/Purple Flesh															
14	Purple Majesty	98	93	100	99	98	100	84	96	3.3	5.0	3.2	2.6	3.7	3.5
15	CO97215-2P/P	99	94	100	98	96	81	72	91	2.2	4.0	2.2	2.0	2.9	2.7
16	CO97227-2P/PW	100	94	100	100	98	100	79	96	1.3	5.4	4.5	3.6	3.5	3.7
17	OR00068-11	---	96	100	99	100	99	88	97	2.5	---	3.9	2.4	3.1	3.0
Yellow Flesh															
18	Yukon Gold	100	94	100	98	99	92	77	94	2.3	2.6	1.7	1.6	2.0	2.0
19	A00293-2Y	---	94	100	98	100	92	77	93	2.0	---	2.2	1.6	2.0	2.0
20	CO99045-1W/Y	100	94	100	100	100	100	81	96	2.5	3.8	3.3	2.6	3.4	3.1
21	POR02PG26-5	95	90	100	99	100	94	75	93	2.7	4.0	2.4	2.2	3.0	2.9
22	POR02PG37-2	98	94	100	99	96	98	77	95	2.8	7.0	4.1	3.6	4.0	4.3
Mean		99	95	100	99	99	97	77	95	2.3	4.2	2.7	2.6	3.1	2.9

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		TX SPL	Mean	CO SLV	ID AB	OR		TX SPL	Mean
			COR	KLM					COR	SPL		
Red/White Flesh												
1 Dk Red Norland	2.3	1.3	2.8	4.0	3.8	2.8	1.0	3.0	2.3	3.6		2.5
2 Red LaSoda	4.0	1.3	3.2	3.0	4.0	3.1	2.8	3.0	3.0	3.6		3.1
3 CO98012-5R	3.8	1.5	3.0	3.5	3.9	3.1	3.0	3.3	3.0	3.4		3.2
4 NDA7985-1R	3.0	1.3	3.0	3.8	3.9	3.0	3.0	3.3	2.5	3.7		3.1
Red-Purple/Yellow Flesh												
5 A99331-2RY	---	2.0	3.0	4.0	3.2	3.1	---	4.0	3.0	3.9		3.6
6 AC99329-7PW/Y	4.3	2.3	4.0	5.0	4.5	4.0	3.0	3.5	3.0	3.4		3.2
7 AC99330-1P/Y	3.8	1.8	4.5	4.0	1.6	3.1	3.0	3.0	3.0	3.6		3.2
8 ATTX961014-1R/Y	2.5	1.5	3.0	4.0	2.6	2.7	1.8	2.8	2.5	3.5		2.6
9 ATTX98500-2P/Y	5.0	2.5	4.5	4.0	3.7	3.9	3.0	3.8	4.0	4.7		3.9
10 POR01PG45-5	---	1.8	4.0	3.5	3.2	3.1	---	4.0	4.0	4.6		4.2
Red/Red Flesh												
11 CO97222-1R/R	3.0	1.5	3.0	3.0	4.1	2.9	2.3	3.8	3.0	4.1		3.3
12 PA96RR1-193	3.5	1.3	2.0	3.3	4.1	2.8	2.0	3.0	2.5	4.2		2.9
13 POR03PG23-1	---	1.0	3.0	3.0	4.4	2.9	---	3.3	3.5	4.5		3.8
Purple/Purple Flesh												
14 Purple Majesty	3.0	1.5	4.0	4.0	4.2	3.3	2.3	2.5	3.5	4.1		3.1
15 CO97215-2P/P	3.5	2.3	4.5	2.8	4.7	3.6	3.0	3.3	3.0	4.7		3.5
16 CO97227-2P/PW	4.25	2.3	4.5	4.0	4.6	3.9	3.0	3.0	3.0	4.6		3.4
17 OR00068-11	---	2.0	4.0	4.0	4.6	3.7	---	3.0	3.0	4.4		3.5
Yellow Flesh												
18 Yukon Gold	3.0	2.0	2.5	4.0	3.4	3.0	2.0	3.0	2.5	3.0		2.6
19 A00293-2Y	---	2.0	4.0	3.8	4.0	3.4	---	3.3	3.5	4.1		3.6
20 CO99045-1W/Y	4.5	1.8	4.5	4.0	4.3	3.8	3.0	3.0	3.0	4.1		3.3
21 POR02PG26-5	3.3	1.3	2.5	3.8	3.7	2.9	2.3	3.5	3.5	3.8		3.3
22 POR02PG37-2	2.8	1.8	2.0	3.3	3.2	2.6	1.8	2.8	3.0	3.5		2.8
Mean	3.5	1.7	3.4	3.7	3.8	3.2	2.5	3.2	3.1	4.0		3.3

Table 5. Total Yield

Entry Clone/Variety	Total Yield (cwt/A)										Mean	Rank
	CA	CO	ID	OR				TX	WA			
	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH			
Red/White Flesh												
1 Dk Red Norland	536	486	446	566	586	521	649	418	486	522	2	
2 Red LaSoda	541	687	437	551	637	512	529	375	485	528	1	
3 CO98012-5R	502	546	405	573	566	461	523	241	455	475	4	
4 NDA7985-1R	440	493	379	534	491	436	626	322	438	462	3	
Red-Purple/Yellow Flesh												
5 A99331-2RY	391		414	619	612	404	651	203	360	457	5	
6 AC99329-7PW/Y	518	584	405	554	649	446	555	219	438	485	3	
7 AC99330-1P/Y	339	531	356	691	637	390	625	222	322	457	5	
8 ATTX961014-1R/Y	322	524	425	700	736	531	681	336	403	518	2	
9 ATTX98500-2P/Y	597	618	399	597	698	452	701	237	361	518	1	
10 POR01PG45-5	518		368	627	599	453	594	214	462	479	4	
Red/Red Flesh												
11 CO97222-1R/R	515	404	372	461	454	417	484	348	430	432	2	
12 PA96RR1-193	391	477	396	602	591	397	554	312	477	467	1	
13 POR03PG23-1	284		264	537	479	357	514	271	294	375	3	
Purple/Purple Flesh												
14 Purple Majesty	459	507	484	708	607	333	693	253	389	493	2	
15 CO97215-2P/P	433	496	280	444	543	331	557	160	319	396	4	
16 CO97227-2P/PW	495	561	414	514	610	312	565	191	299	440	3	
17 OR00068-11	425		490	602	680	419	679	243	432	496	1	
Yellow Flesh												
18 Yukon Gold	425	494	376	498	497	436	424	328	335	424	4	
19 A00293-2Y	494		345	622	487	399	425	149	336	407	5	
20 CO99045-1W/Y	497	634	523	712	693	494	657	268	426	545	1	
21 POR02PG26-5	386	455	410	636	615	477	707	353	384	492	2	
22 POR02PG37-2	441	441	447	597	634	452	533	268	436	472	3	
Mean	452	526	402	588	596	429	588	269	398	470		

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			CA	CO	ID	OR			TX	WA				
	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank
Red/White Flesh																						
1 Dk Red Norland	29	125	26	42	68	50	18	93	55	56	3	5	26	6	7	12	10	3	22	11	3	
2 Red LaSoda	28	102	14	28	53	41	17	101	46	48	4	5	15	3	5	8	8	3	27	10	9	4
3 CO98012-5R	107	170	153	125	158	128	109	206	241	155	1	21	31	38	22	28	28	21	86	53	36	1
4 NDA7985-1R	20	64	26	53	81	66	37	104	87	60	2	5	13	7	10	17	15	6	32	20	14	2
Red-Purple/Yellow Flesh																						
5 A99331-2RY	175	---	166	133	207	180	122	160	209	169	2	45	---	40	21	34	45	19	79	58	43	2
6 AC99329-7PW/Y	68	95	94	85	121	92	75	129	120	98	5	13	16	23	15	19	21	13	59	27	23	5
7 AC99330-1P/Y	207	239	185	94	305	195	174	158	245	200	1	61	45	52	14	48	50	28	71	76	49	1
8 ATTX961014-1R/Y	86	86	88	86	83	93	49	201	101	97	6	27	16	21	12	11	18	7	60	25	22	6
9 ATTX98500-2P/Y	77	124	88	82	186	104	70	151	142	114	4	13	20	22	14	27	23	10	64	39	26	4
10 POR01PG45-5	136	---	84	101	143	206	67	106	211	132	3	26	---	23	16	24	45	11	50	46	30	3
Red/Red Flesh																						
11 CO97222-1R/R	84	223	136	93	227	129	106	135	249	154	3	16	55	37	20	50	31	22	39	58	36	3
12 PA96RR1-193	149	201	165	97	219	185	93	193	218	169	1	38	42	42	16	37	47	17	62	46	38	2
13 POR03PG23-1	158	---	162	119	183	186	69	157	216	156	2	56	---	61	22	38	52	13	58	74	47	1
Purple/Purple Flesh																						
14 Purple Majesty	208	301	255	157	168	185	123	142	301	204	2	45	59	53	22	28	56	18	56	77	46	2
15 CO97215-2P/P	114	125	126	87	146	135	94	74	124	114	4	26	25	45	20	27	41	17	46	39	32	4
16 CO97227-2P/PW	213	444	247	270	437	202	270	140	269	277	1	43	79	60	53	72	65	48	73	90	65	1
17 OR00068-11	166	---	190	93	110	208	69	167	230	154	3	39	---	39	15	16	50	10	69	53	36	3
Yellow Flesh																						
18 Yukon Gold	42	44	30	26	29	24	17	76	50	38	5	10	9	8	5	6	6	4	23	15	9	5
19 A00293-2Y	61	---	68	109	151	155	34	58	125	95	4	12	---	20	18	31	39	8	39	37	26	3
20 CO99045-1W/Y	108	160	99	81	167	85	56	80	202	115	3	22	25	19	11	24	17	9	30	47	23	4
21 POR02PG26-5	129	192	97	98	97	121	55	130	175	122	2	33	42	24	15	16	25	8	37	46	27	2
22 POR02PG37-2	154	199	180	109	95	107	67	176	177	140	1	35	45	40	18	15	24	13	66	41	33	1
Mean	115	170	122	99	156	131	82	133	172	130		27	33	31	17	27	32	14	52	45	31	

Table 7. Yield and Percent 4-6 oz.

Entry Clone/Variety	Yield 4-6 oz (Cwt/A)									Percent 4-6 oz (%)														
	CA		ID			OR			TX	WA	Mean	Rank	CA		ID			OR			TX	WA	Mean	Rank
	TUL	AB	COR	HRM	KLM	MAL	SPL	OTH	TUL	AB			COR	HRM	KLM	MAL	SPL	OTH						
Red/White Flesh																								
1 Dk Red Norland	61	53	63	144	108	173	111	102	102	3	11	12	11	25	21	27	26	21	19	3				
2 Red LaSoda	48	28	55	108	75	137	86	75	76	4	9	6	10	17	15	26	23	15	15	4				
3 CO98012-5R	134	150	112	192	136	339	24	171	157	1	27	37	20	34	29	65	10	38	32	1				
4 NDA7985-1R	34	48	98	183	104	256	80	141	118	2	8	13	18	37	24	41	25	32	25	2				
Red-Purple/Yellow Flesh																								
5 A99331-2RY	120	139	106	143	125	351	40	101	141	3	31	34	17	23	31	54	20	28	30	2				
6 AC99329-7PW/Y	96	91	74	176	117	279	58	133	128	5	19	22	13	27	26	50	26	30	27	4				
7 AC99330-1P/Y	100	85	160	187	110	393	30	67	141	3	29	24	23	29	28	63	14	21	29	3				
8 ATTX961014-1R/Y	102	125	86	141	114	297	93	136	137	4	32	29	12	19	21	44	28	34	27	4				
9 ATTX98500-2P/Y	113	88	140	251	158	331	51	126	157	2	19	22	23	36	35	47	21	35	30	2				
10 POR01PG45-5	125	74	109	235	145	403	50	169	164	1	24	20	17	39	32	68	23	37	33	1				
Red/Red Flesh																								
11 CO97222-1R/R	97	91	95	167	112	322	113	129	141	2	19	24	21	37	27	67	32	30	32	3				
12 PA96RR1-193	143	151	152	193	131	368	89	194	178	1	37	38	25	33	33	66	29	41	38	1				
13 POR03PG23-1	79	71	116	203	87	354	98	67	134	3	28	27	22	42	24	69	36	23	34	2				
Purple/Purple Flesh																								
14 Purple Majesty	138	130	171	185	85	434	71	69	160	2	30	27	24	31	26	63	28	18	31	3				
15 CO97215-2P/P	125	55	133	184	90	373	45	116	140	3	29	20	30	34	27	67	28	36	34	2				
16 CO97227-2P/PW	178	115	73	115	69	243	27	29	106	4	36	28	14	19	22	43	14	10	23	4				
17 OR00068-11	150	162	146	218	122	447	64	133	180	1	35	33	24	32	29	66	26	31	35	1				
Yellow Flesh																								
18 Yukon Gold	67	55	54	68	70	103	95	62	72	5	16	15	11	14	16	24	29	18	18	4				
19 A00293-2Y	100	87	70	218	122	197	42	130	121	4	20	25	11	45	31	46	29	39	31	1				
20 CO99045-1W/Y	129	132	88	285	86	360	78	144	163	1	26	25	12	41	17	55	29	34	30	2				
21 POR02PG26-5	136	102	118	153	133	346	84	117	149	2	35	25	19	25	28	49	24	30	29	3				
22 POR02PG37-2	141	145	109	115	124	285	66	141	141	3	32	32	18	18	27	54	25	32	30	2				
Mean	110	99	106	176	110	309	68	116	137		25	24	18	30	26	52	25	29	29					

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	COR	HRM	KLM	MAL	SPL	OTH			TUL	AB	COR	HRM	KLM	MAL	SPL	OTH		
Red/White Flesh																				
1 Dk Red Norland	194	178	180	226	240	341	60	227	206	<i>1</i>	36	40	32	39	46	53	14	47	38	<i>1</i>
2 Red LaSoda	161	117	120	203	174	271	128	178	169	<i>2</i>	30	27	22	32	34	51	34	37	33	<i>2</i>
3 CO98012-5R	198	87	195	166	142	65	11	43	113	<i>4</i>	39	21	34	29	31	12	4	9	23	<i>4</i>
4 NDA7985-1R	110	157	212	182	160	271	83	149	165	<i>3</i>	25	41	40	37	37	43	26	34	35	<i>3</i>
Red-Purple/Yellow Flesh																				
5 A99331-2RY	81	85	218	104	65	145	0	42	93	<i>5</i>	21	21	35	17	16	22	0	12	18	<i>4</i>
6 AC99329-7PW/Y	211	175	164	259	162	148	32	149	162	<i>2</i>	41	43	30	40	36	27	15	34	33	<i>1</i>
7 AC99330-1P/Y	29	64	258	52	63	51	0	11	66	<i>6</i>	9	18	37	8	16	8	0	3	12	<i>5</i>
8 ATTX961014-1R/Y	107	166	241	285	187	275	32	135	179	<i>1</i>	33	39	34	39	35	40	10	34	33	<i>1</i>
9 ATTX98500-2P/Y	230	150	183	192	144	216	4	81	150	<i>3</i>	39	38	31	28	32	31	2	23	28	<i>2</i>
10 POR01PG45-5	181	137	210	156	69	118	0	75	118	<i>4</i>	35	37	33	26	15	20	0	16	23	<i>3</i>
Red/Red Flesh																				
11 CO97222-1R/R	171	94	150	42	96	50	64	46	89	<i>1</i>	33	25	33	9	23	10	18	11	20	<i>1</i>
12 PA96RR1-193	90	77	261	56	61	84	19	62	89	<i>1</i>	23	19	43	9	15	15	6	13	18	<i>2</i>
13 POR03PG23-1	36	22	184	79	68	76	15	7	61	<i>2</i>	13	8	34	17	19	15	5	3	14	<i>3</i>
Purple/Purple Flesh																				
14 Purple Majesty	87	64	246	107	36	109	6	14	84	<i>3</i>	19	13	35	18	11	16	2	4	15	<i>3</i>
15 CO97215-2P/P	150	79	134	153	59	88	21	71	94	<i>2</i>	35	28	30	28	18	16	13	22	24	<i>1</i>
16 CO97227-2P/PW	73	46	64	16	9	15	2	0	28	<i>4</i>	15	11	12	3	3	3	1	0	6	<i>4</i>
17 OR00068-11	91	101	282	204	64	145	12	55	119	<i>1</i>	21	21	47	30	15	21	5	13	22	<i>2</i>
Yellow Flesh																				
18 Yukon Gold	142	141	137	178	171	191	94	137	149	<i>2</i>	33	38	28	36	39	45	29	41	36	<i>1</i>
19 A00293-2Y	195	117	135	78	97	153	20	68	108	<i>5</i>	39	34	22	16	24	36	13	20	26	<i>3</i>
20 CO99045-1W/Y	161	186	211	182	163	202	30	69	151	<i>1</i>	32	36	30	26	33	31	11	16	27	<i>2</i>
21 POR02PG26-5	98	145	237	173	145	214	42	83	142	<i>3</i>	25	35	37	28	30	30	12	22	27	<i>2</i>
22 POR02PG37-2	118	102	206	136	153	155	22	93	123	<i>4</i>	27	23	35	21	34	29	8	21	25	<i>4</i>
Mean	132	113	192	147	115	154	32	82	121		28	28	32	24	26	26	10	20	24	

Table 9. Yield and Percent >10 oz.

Entry Clone/Variety	Yield >10 oz (Cwt/A)										Percent >10 oz (%)											
	CA	CO	ID	OR			TX	WA			CA	CO	ID	OR			TX	WA				
	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank
Red/White Flesh																						
1 Dk Red Norland	246	45	171	141	111	75	108	72	101	119	2	46	9	38	25	19	14	17	17	21	23	2
2 Red LaSoda	294	161	228	226	165	100	98	18	186	164	1	54	23	52	41	26	20	19	5	38	31	1
3 CO98012-5R	58	38	13	88	25	19	0	0	0	27	4	12	7	3	15	4	4	0	0	0	5	4
4 NDA7985-1R	265	91	134	98	42	78	49	49	49	95	3	60	19	35	18	9	18	8	15	11	21	3
Red-Purple/Yellow Flesh																						
5 A99331-2RY	7	---	12	78	8	8	24	0	4	18	6	2	---	3	13	1	2	4	0	1	3	4
6 AC99329-7PW/Y	130	141	32	61	54	43	20	0	25	56	3	25	24	8	11	8	10	4	0	6	11	2
7 AC99330-1P/Y	0	32	10	119	0	6	3	0	0	19	5	0	6	3	17	0	1	1	0	0	3	4
8 ATTX961014-1R/Y	19	97	24	246	88	90	37	0	17	69	2	6	18	6	35	12	17	5	0	4	12	1
9 ATTX98500-2P/Y	170	121	70	154	19	26	69	0	6	71	1	28	20	18	26	3	6	10	0	2	12	1
10 POR01PG45-5	66	---	47	125	1	11	0	0	2	32	4	13	---	13	20	0	2	0	0	0	6	3
Red/Red Flesh																						
11 CO97222-1R/R	133	7	15	83	1	17	1	13	5	31	1	26	2	4	18	0	4	0	4	1	7	1
12 PA96RR1-193	4	23	0	43	0	2	6	1	2	9	2	1	5	0	7	0	1	1	0	0	2	2
13 POR03PG23-1	2	---	1	55	0	5	1	0	0	8	3	1	---	0	10	0	1	0	0	0	2	2
Purple/Purple Flesh																						
14 Purple Majesty	3	20	6	72	25	2	6	2	2	15	3	1	4	1	10	4	1	1	1	0	3	3
15 CO97215-2P/P	41	62	11	38	37	10	1	2	7	23	1	9	13	4	9	7	3	0	1	2	5	1
16 CO97227-2P/PW	1	1	0	12	0	0	1	0	0	2	4	0	0	0	2	0	0	0	0	0	0	4
17 OR00068-11	13	---	17	57	52	2	9	0	13	20	2	3	---	3	9	8	1	1	0	3	4	2
Yellow Flesh																						
18 Yukon Gold	163	187	129	130	189	136	100	18	73	125	1	38	38	34	26	38	31	24	5	22	29	1
19 A00293-2Y	123	---	67	141	9	6	33	0	12	49	3	25	---	19	23	2	2	8	0	4	10	3
20 CO99045-1W/Y	89	98	54	181	32	96	31	7	10	66	2	18	15	10	25	5	19	5	3	2	11	2
21 POR02PG26-5	9	11	47	65	53	34	27	5	7	29	4	2	3	11	10	9	7	4	1	2	5	4
22 POR02PG37-2	22	10	8	30	32	27	18	0	18	18	5	5	2	2	5	5	6	3	0	4	4	5
Mean	84	67	50	102	43	36	29	9	24	48		17	12	12	17	7	8	5	2	6	9	

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	COR	HRM	KLM	MAL	SPL	OTH			TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH		
Red/White Flesh																						
1 Dk Red Norland	255	312	231	243	370	348	513	170	330	308	1	48	64	52	43	63	67	79	41	68	58	2
2 Red LaSoda	209	411	145	175	310	249	408	214	253	264	4	39	60	33	32	49	49	77	57	52	50	4
3 CO98012-5R	332	337	237	307	358	278	404	34	214	278	3	66	62	59	54	63	60	77	14	47	56	3
4 NDA7985-1R	144	337	205	310	364	264	527	162	290	289	2	33	68	54	58	74	61	84	50	66	61	1
Red-Purple/Yellow Flesh																						
5 A99331-2RY	201	---	224	324	247	190	496	40	143	233	4	51	---	54	52	40	47	76	20	40	48	5
6 AC99329-7PW/Y	307	326	266	238	436	279	426	90	282	294	3	59	56	66	43	67	62	77	41	64	60	2
7 AC99330-1P/Y	129	260	149	418	239	173	443	30	78	213	5	38	49	42	60	37	44	71	14	24	42	6
8 ATTX961014-1R/Y	209	340	291	327	426	301	573	125	271	318	1	65	65	68	47	58	57	84	37	67	61	1
9 ATTX98500-2P/Y	343	363	238	323	443	301	547	55	207	313	2	57	59	60	54	64	67	78	23	57	58	3
10 POR01PG45-5	306	---	211	319	391	214	521	50	244	282	4	59	---	57	51	65	47	88	23	53	55	4
Red/Red Flesh																						
11 CO97222-1R/R	268	174	185	245	208	207	372	177	174	223	2	52	43	50	53	46	50	77	51	41	51	2
12 PA96RR1-193	233	249	228	413	248	192	452	109	255	264	1	60	52	58	69	42	48	82	35	54	55	1
13 POR03PG23-1	115	---	93	300	282	155	430	113	75	195	3	40	---	35	56	59	43	84	42	25	48	3
Purple/Purple Flesh																						
14 Purple Majesty	225	183	194	417	292	122	543	77	83	237	3	49	36	40	59	48	37	78	30	21	44	3
15 CO97215-2P/P	275	306	134	267	337	149	461	66	187	242	2	64	62	48	60	62	45	83	41	59	58	1
16 CO97227-2P/PW	251	111	161	137	130	78	257	29	29	131	4	51	20	39	27	21	25	46	15	10	28	4
17 OR00068-11	241	---	263	428	422	186	593	76	188	300	1	57	---	54	71	62	44	87	31	44	56	2
Yellow Flesh																						
18 Yukon Gold	209	256	196	191	246	241	294	189	199	224	5	49	52	52	38	49	55	69	57	59	54	3
19 A00293-2Y	295	---	204	205	297	219	350	62	198	229	4	60	---	59	33	61	55	82	42	59	56	2
20 CO99045-1W/Y	290	367	318	299	467	249	562	107	213	319	1	58	58	61	42	67	50	85	40	50	57	1
21 POR02PG26-5	234	247	247	355	326	278	559	126	199	286	2	61	54	60	56	53	58	79	36	52	57	1
22 POR02PG37-2	259	225	247	315	251	277	440	88	233	259	3	59	51	55	53	40	61	83	33	54	54	3
Mean	242	283	212	298	322	225	462	99	198	259		53	54	53	50	54	52	78	35	48	53	

Table 11. Yield and Percent Culls

Entry Clone/Variety	Yield Culls (Cwt/A)										Percent Culls (%)											
	CA	CO	ID	OR			TX	WA			CA	CO	ID	OR			TX	WA				
	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank	TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH	Mean	Rank
Red/White Flesh																						
1 Dk Red Norland	6	4	18	140	36	48	8	83	0	38	2	1	1	4	25	6	9	1	20	0	7	2
2 Red LaSoda	10	13	50	122	110	122	3	42	0	52	1	2	2	11	22	17	24	1	11	0	10	1
3 CO98012-5R	5	2	2	54	25	36	10	0	0	15	4	1	0	0	9	4	8	2	0	0	3	4
4 NDA7985-1R	11	1	14	74	3	28	12	6	12	18	3	3	0	4	14	1	7	2	2	3	4	3
Red-Purple/Yellow Flesh																						
5 A99331-2RY	8	---	12	85	150	26	10	3	4	37	1	2	---	3	14	25	7	1	1	1	7	2
6 AC99329-7PW/Y	13	21	13	169	38	32	34	0	10	37	1	3	4	3	31	6	7	6	0	2	7	2
7 AC99330-1P/Y	3	0	12	59	93	16	5	34	0	25	3	1	0	3	9	15	4	1	15	0	5	4
8 ATTX961014-1R/Y	8	2	22	41	139	47	20	11	14	34	2	2	0	5	6	19	9	3	3	3	6	3
9 ATTX98500-2P/Y	7	10	3	38	49	21	14	30	5	20	4	1	2	1	6	7	5	2	13	1	4	5
10 POR01PG45-5	10	---	26	83	63	23	4	58	5	34	2	2	---	7	13	11	5	1	27	1	8	1
Red/Red Flesh																						
11 CO97222-1R/R	30	0	36	39	17	64	4	23	2	24	1	6	0	10	8	4	15	1	7	0	6	1
12 PA96RR1-193	5	5	3	49	124	18	2	9	3	24	1	1	1	1	8	21	5	0	3	1	5	2
13 POR03PG23-1	9	---	8	62	14	10	8	2	3	15	2	3	---	3	12	3	3	2	1	1	3	3
Purple/Purple Flesh																						
14 Purple Majesty	23	3	29	62	122	25	21	32	4	36	1	5	1	6	9	20	7	3	13	1	7	1
15 CO97215-2P/P	3	2	9	52	23	36	1	18	1	16	4	1	0	3	12	4	11	0	11	0	5	2
16 CO97227-2P/PW	30	5	6	94	43	32	37	23	1	30	2	6	1	1	18	7	10	7	12	0	7	1
17 OR00068-11	5	---	20	41	96	22	9	0	1	24	3	1	---	4	7	14	5	1	0	0	4	3
Yellow Flesh																						
18 Yukon Gold	11	6	21	151	33	35	12	46	13	37	4	3	1	6	30	7	8	3	14	4	8	3
19 A00293-2Y	15	---	6	167	31	18	7	28	1	34	5	3	---	2	27	6	5	2	19	0	8	3
20 CO99045-1W/Y	10	9	52	151	28	64	7	73	1	44	3	2	1	10	21	4	13	1	27	0	9	2
21 POR02PG26-5	14	5	19	117	140	43	59	93	2	55	1	4	1	5	18	23	9	8	26	1	11	1
22 POR02PG37-2	6	6	12	143	256	41	6	4	7	53	2	1	1	3	24	40	9	1	1	2	9	2
Mean	11	6	18	91	74	37	13	28	4	32		2	1	4	16	12	8	2	10	1	6	

Table 12. Specific Gravity

Entry	Clone/Variety	Specific Gravity									Mean	Rank
		CA	CO	ID	OR				TX	WA		
		TUL	SLV	AB	COR	HRM	KLM	MAL	SPL	OTH		
Red/White Flesh												
1	Dk Red Norland	1.070	1.072	1.075	1.076	1.067	1.074	1.077	1.058	1.072	1.071	3
2	Red LaSoda	1.076	1.083	1.078	1.077	1.070	1.078	1.079	1.064	1.072	1.075	2
3	CO98012-5R	1.072	1.079	1.081	1.080	1.073	1.083	1.084	1.068	1.080	1.078	1
4	NDA7985-1R	1.068	1.080	1.069	1.071	1.060	1.066	1.079	1.054	1.072	1.069	4
Red-Purple/Yellow Flesh												
5	A99331-2RY	1.081	---	1.076	1.084	1.080	1.083	1.090	1.063	1.077	1.079	3
6	AC99329-7PW/Y	1.089	1.091	1.086	1.093	1.073	1.090	1.096	1.067	1.084	1.086	2
7	AC99330-1P/Y	---	1.082	1.077	1.078	1.067	1.078	1.087	1.064	1.077	1.076	5
8	ATTX961014-1R/Y	1.083	1.083	1.082	1.072	1.073	1.082	1.080	1.066	1.079	1.078	4
9	ATTX98500-2P/Y	1.077	1.084	1.075	1.076	1.065	1.079	1.089	1.057	1.071	1.075	6
10	POR01PG45-5	1.093	---	1.087	1.093	1.076	1.093	1.097	1.072	1.085	1.087	1
Red/Red Flesh												
11	CO97222-1R/R	1.071	1.078	1.072	1.070	1.066	1.070	1.082	1.069	1.072	1.072	2
12	PA96RR1-193	1.084	1.087	1.089	1.105	1.083	1.086	1.088	1.075	1.091	1.088	1
13	POR03PG23-1	1.065	---	1.073	1.065	1.067	1.067	1.088	1.068	1.078	1.071	3
Purple/Purple Flesh												
14	Purple Majesty	1.077	1.088	1.083	1.095	1.077	1.085	1.086	1.066	1.090	1.083	4
15	CO97215-2P/P	1.080	1.093	1.088	1.087	1.077	1.073	1.095	1.073	1.087	1.084	3
16	CO97227-2P/PW	1.080	1.093	1.089	1.091	1.077	1.087	1.095	1.068	1.088	1.085	2
17	OR00068-11	1.091	---	1.098	1.101	1.086	1.092	1.104	1.080	1.099	1.094	1
Yellow Flesh												
18	Yukon Gold	1.087	1.087	1.089	1.088	1.082	1.090	1.090	1.076	1.091	1.087	2
19	A00293-2Y	1.088	---	1.084	1.090	1.071	1.093	1.087	1.068	1.079	1.082	4
20	CO99045-1W/Y	1.091	1.088	1.089	1.099	1.074	1.095	1.095	1.072	1.085	1.088	1
21	POR02PG26-5	1.078	1.083	1.085	1.077	1.073	1.079	1.089	1.068	1.087	1.080	5
22	POR02PG37-2	1.086	1.080	1.090	1.084	1.079	1.087	1.091	1.076	1.089	1.085	3
Mean		1.080	1.084	1.083	1.084	1.073	1.082	1.089	1.068	1.082	1.081	

Table 13. Average Tuber Size and Tubers Per Plant

Entry	Clone/Variety	Average Tuber Size (oz)							Tubers/plant							
		CA	ID	OR			TX	WA	Mean	ID	OR			TX	WA	Mean
		TUL	AB	COR	HRM	MAL	SPL	OTH		AB	HRM	COR	MAL	SPL	OTH	
Red/White Flesh																
	1 Dk Red Norland	8.3	7.7	7.2	5.5	6.2	5.2	6.2	6.6	5.7	9.0	6.2	8.6	6.1	5.4	6.8
	2 Red LaSoda	9.2	9.5	8.4	6.9	5.6	4.6	7.2	7.3	4.6	7.6	5.1	7.8	6.3	4.8	6.0
	3 CO98012-5R	5.2	3.7	4.0	4.3	3.0	2.3	3.4	3.7	10.9	10.6	11.5	14.3	8.8	9.4	10.9
	4 NDA7985-1R	9.5	7.4	5.9	4.6	4.5	4.3	5.0	5.9	5.1	9.0	7.2	11.6	6.4	6.0	7.5
Red-Purple/Yellow Flesh																
	5 A99331-2RY	3.8	3.6	4.7	3.4	3.3	2.1	3.1	3.4	11.5	14.5	10.5	16.5	8.0	8.1	11.5
	6 AC99329-7PW/Y	6.2	4.6	5.1	4.7	3.7	3.0	4.6	4.6	8.7	11.0	8.7	12.6	6.1	6.6	9.0
	7 AC99330-1P/Y	3.3	3.0	5.5	3.0	2.8	2.1	2.6	3.2	11.6	17.1	9.9	18.4	7.9	8.5	12.2
	8 ATTX961014-1R/Y	4.8	4.9	7.8	5.7	4.8	3.0	4.7	5.1	8.7	10.7	7.3	11.9	9.0	5.9	8.9
	9 ATTX98500-2P/Y	6.4	4.8	5.9	4.2	4.2	2.8	3.8	4.6	8.2	13.3	8.2	14.0	6.5	6.5	9.4
	10 POR01PG45-5	4.9	4.6	6.1	4.3	3.9	2.8	3.8	4.3	7.9	11.2	15.9	12.6	5.2	8.6	10.2
Red/Red Flesh																
	11 CO97222-1R/R	6.0	3.7	4.8	2.6	3.0	2.8	3.1	3.7	10.1	14.3	7.6	13.4	9.7	9.5	10.8
	12 PA96RR1-193	4.1	3.5	5.0	3.6	3.6	2.1	3.7	3.7	11.2	13.5	8.8	12.9	12.6	9.0	11.3
	13 POR03PG23-1	3.4	2.6	4.7	3.7	2.9	2.3	2.8	3.2	10.0	10.5	6.8	14.7	9.9	7.3	9.9
Purple/Purple Flesh																
	14 Purple Majesty	3.8	3.1	5.4	3.4	3.3	2.2	2.6	3.4	15.5	14.3	10.5	17.4	8.5	10.5	12.8
	15 CO97215-2P/P	4.9	3.0	4.7	4.3	3.2	2.4	3.8	3.8	9.2	10.3	7.5	14.5	6.1	5.8	8.9
	16 CO97227-2P/PW	3.8	2.8	3.3	2.3	2.3	1.7	2.2	2.6	14.4	21.3	12.2	20.6	8.8	9.5	14.5
	17 OR00068-11	4.0	3.7	5.4	5.0	3.7	1.8	3.5	3.9	13.0	11.0	9.0	15.1	10.9	8.7	11.3
Yellow Flesh																
	18 Yukon Gold	7.4	7.0	8.9	7.3	6.2	6.2	5.8	7.0	5.3	5.6	4.4	5.7	4.9	4.0	5.0
	19 A00293-2Y	6.1	5.2	6.3	4.3	4.7	3.2	4.1	4.9	6.6	9.6	7.8	7.5	3.6	5.7	6.8
	20 CO99045-1W/Y	5.4	5.2	7.3	4.3	4.0	3.4	3.7	4.7	10.0	12.9	7.7	13.6	5.6	8.1	9.7
	21 POR02PG26-5	4.6	4.8	5.3	4.5	5.0	3.7	3.6	4.5	8.4	11.2	9.0	12.0	7.1	7.3	9.2
	22 POR02PG37-2	4.3	3.5	5.2	4.3	4.1	2.6	3.9	4.0	12.7	11.9	9.1	10.8	8.7	7.8	10.2
Mean		5.4	4.6	5.8	4.4	4.0	3.0	4.0	4.5	9.5	11.8	8.7	13.0	7.6	7.4	9.7

Table 14. Tuber Uniformity and Fresh Merit Score

Entry	Clone/Variety	Tuber Uniformity (1-5 excellent)					Fresh Merit Score (1-5 best)						Mean	Rank
		CA	OR			WA	CO	ID	OR		TX			
		TUL	KLA	HRM	COR	OTH			COR	HRM	SPL			
Red/White Flesh														
1	Dk Red Norland	2.5	3.6	4.8	2.5	3.5	3.4	1.0	2.8	3.0	1.9	3.0	2.3	3
2	Red LaSoda	1.8	2.0	4.5	2.3	1.3	2.4	1.0	1.5	3.0	1.0	3.7	2.0	4
3	CO98012-5R	3.8	4.0	5.0	3.0	4.0	4.0	4.0	3.5	3.5	2.6	3.4	3.4	1
4	NDA7985-1R	3.5	3.8	5.0	3.0	3.3	3.7	1.0	3.0	3.5	2.6	2.8	2.6	2
Red-Purple/Yellow Flesh														
5	A99331-2RY	3.8	3.8	5.0	3.8	3.0	3.9	---	3.3	3.5	2.1	2.6	2.9	4
6	AC99329-7PW/Y	2.5	4.3	5.0	3.3	3.0	3.6	4.0	3.0	5.0	3.5	2.9	3.7	1
7	AC99330-1P/Y	3.0	4.3	5.0	3.8	4.0	4.0	4.0	2.5	4.5	2.2	2.0	3.0	3
8	ATTX961014-1R/Y	3.3	3.5	4.8	3.8	3.0	3.7	5.0	3.3	3.0	3.7	3.5	3.7	1
9	ATTX98500-2P/Y	2.5	4.1	5.0	3.3	3.5	3.7	5.0	2.0	3.5	3.4	3.2	3.4	2
10	POR01PG45-5	2.5	3.6	5.0	2.5	4.0	3.5	---	3.0	5.0	1.4	1.8	2.8	5
Red/Red Flesh														
11	CO97222-1R/R	1.8	2.4	5.0	3.3	4.0	3.3	3.0	3.5	2.0	1.9	2.9	2.7	2
12	PA96RR1-193	3.0	4.5	5.0	2.8	4.0	3.9	2.0	3.5	3.5	2.5	3.6	3.0	1
13	POR03PG23-1	3.3	3.5	5.0	2.5	3.3	3.5	---	2.0	3.0	3.7	3.4	3.0	1
Purple/Purple Flesh														
14	Purple Majesty	3.3	3.3	4.8	2.5	3.0	3.4	4.0	1.8	3.5	2.2	2.9	2.9	1
15	CO97215-2P/P	3.0	3.4	5.0	3.5	4.0	3.8	4.0	2.3	2.0	3.0	3.4	2.9	1
16	CO97227-2P/PW	2.7	3.0	5.0	2.3	3.0	3.2	4.0	2.3	2.0	2.3	2.5	2.6	3
17	OR00068-11	3.0	3.6	4.5	3.0	4.0	3.6	---	2.3	3.5	2.6	2.6	2.8	2
Yellow Flesh														
18	Yukon Gold	3.5	4.3	5.0	2.5	2.8	3.6	5.0	2.5	4.0	4.5	3.9	4.0	1
19	A00293-2Y	4.5	3.9	4.5	2.3	2.8	3.6	---	2.3	4.0	3.1	2.0	2.9	5
20	CO99045-1W/Y	3.8	3.3	5.0	2.3	4.0	3.7	5.0	2.8	4.0	3.4	2.6	3.6	2
21	POR02PG26-5	3.5	3.6	4.8	2.5	3.0	3.5	3.0	3.5	4.0	4.2	2.6	3.5	3
22	POR02PG37-2	3.5	4.0	4.5	3.0	4.0	3.8	3.0	3.0	4.5	2.9	2.7	3.2	4
Mean		3.1	3.6	4.9	2.9	3.4	3.6	3.4	2.7	3.5	2.8	2.9	3.0	

Table 15. Tuber Shape and Length Width Ratio

Entry Clone/Variety	Tuber Shape (1 - 5 long)								L/W				
	CA	CO	ID	OR			TX	WA	Mean	ID	OR	WA	Mean
	TUL	SLV	AB	COR	HRM	KLM	SPL	OTH		AB	HRM	OTH	
Red/White Flesh													
1 Dk Red Norland	1.0	2.0	2.5	2.8	2.3	2.3	3.7	2.0	2.3	1.23	1.22	1.31	1.25
2 Red LaSoda	1.0	2.0	3.0	2.5	1.2	2.5	2.8	1.5	2.1	1.13	1.14	1.17	1.15
3 CO98012-5R	1.0	1.0	1.3	2.0	1.0	1.5	1.2	1.0	1.3	1.04	0.92	1.04	1.00
4 NDA7985-1R	1.3	1.0	1.5	2.0	1.1	2.0	3.0	1.0	1.6	1.11	1.08	1.28	1.16
Red-Purple/Yellow Flesh													
5 A99331-2RY	1.0	---	1.5	2.3	1.0	1.6	1.5	1.0	1.4	1.10	0.95	1.11	1.05
6 AC99329-7PW/Y	1.0	2.0	2.0	2.0	1.0	1.6	1.5	1.0	1.5	1.01	0.99	1.09	1.03
7 AC99330-1P/Y	1.0	1.0	1.5	1.8	1.0	1.5	1.2	1.0	1.3	1.30	1.03	1.15	1.16
8 ATTX961014-1R/Y	1.8	2.0	2.8	2.8	3.1	2.5	3.7	2.0	2.6	1.53	1.43	1.19	1.38
9 ATTX98500-2P/Y	1.0	2.0	1.0	2.0	1.0	1.5	3.5	1.0	1.6	1.03	1.02	1.19	1.08
10 POR01PG45-5	2.8	---	3.8	2.5	2.8	3.0	3.2	1.0	2.7	2.03	1.34	1.34	1.57
Red/Red Flesh													
11 CO97222-1R/R	3.0	1.0	3.8	2.5	2.7	2.9	3.1	1.5	2.6	1.60	1.32	1.20	1.37
12 PA96RR1-193	1.0	1.0	1.0	4.3	1.0	1.1	1.2	1.0	1.5	1.06	0.99	1.05	1.03
13 POR03PG23-1	1.3	---	1.8	3.0	3.3	2.1	3.6	1.0	2.3	1.34	1.48	1.31	1.38
Purple/Purple Flesh													
14 Purple Majesty	3.5	2.0	3.0	3.0	3.2	3.0	2.9	1.0	2.7	1.91	1.45	1.21	1.52
15 CO97215-2P/P	1.8	---	2.4	1.3	1.2	2.3	2.8	1.0	1.8	1.25	1.10	1.05	1.13
16 CO97227-2P/PW	4.0	2.0	3.0	3.0	3.8	3.8	3.6	2.0	3.1	2.23	1.59	1.49	1.77
17 OR00068-11	1.3	---	2.5	1.5	2.1	2.0	2.8	1.0	1.9	1.21	1.18	1.24	1.21
Yellow Flesh													
18 Yukon Gold	2.3	2.0	2.3	2.5	2.1	2.0	2.3	2.0	2.2	1.21	1.18	1.18	1.19
19 A00293-2Y	3.0	---	3.5	2.8	3.0	3.1	3.7	2.0	3.0	1.34	1.39	1.19	1.31
20 CO99045-1W/Y	4.0	4.0	4.5	3.0	3.6	4.6	4.8	2.5	3.9	1.88	1.55	1.64	1.69
21 POR02PG26-5	1.0	2.0	2.5	2.8	2.4	2.3	3.8	1.0	2.2	1.30	1.25	1.28	1.27
22 POR02PG37-2	1.0	2.0	2.3	3.0	1.9	1.9	2.5	1.0	1.9	1.12	1.13	1.08	1.11
Mean	1.8	1.8	2.4	2.5	2.1	2.3	2.8	1.3	2.2	1.36	1.22	1.22	1.26

Table 16. Skin and Flesh Color

Entry Clone/Variety	Skin Color (1 - 5 dark)									Flesh Color (1 - 5 dark)							
	CA	CO	ID	OR			TX	WA	Mean	CA	CO	ID	OR			TX	Mean
	TUL	SLV ¹	AB	COR	HRM	KLM	SPL	OTH		TUL	SLV ¹	AB	COR	HRM	KLM	SPL	
Red/White Flesh																	
1 Dk Red Norland	1.5	1.0	2.5	4.0	1.0	1.8	3.4	2.0	2.1	1.0	1.0	1.0	1.0	---	1.6	1.2	1.1
2 Red LaSoda	2.3	1.0	2.3	3.0	1.5	1.9	3.5	3.0	2.3	1.0	1.0	1.0	1.0	---	1.5	1.2	1.1
3 CO98012-5R	3.3	4.0	3.8	3.0	3.8	3.5	4.7	3.5	3.7	1.0	1.0	1.0	1.0	---	1.5	1.0	1.1
4 NDA7985-1R	3.0	3.0	3.3	4.0	3.1	3.3	4.0	3.0	3.3	1.0	1.0	1.8	1.0	---	1.5	1.2	1.3
Red-Purple/Yellow Flesh																	
5 A99331-2RY	3.0	---	3.0	3.0	2.3	2.4	2.8	2.0	2.6	2.5	---	3.5	3.0	2.5	3.1	3.2	3.0
6 AC99329-7PW/Y	3.3	2.0/1.0	2.5	4.0	3.3	3.0	4.0	5.0	3.4	2.5	3.0	3.0	3.0	1.5	3.3	3.0	2.8
7 AC99330-1P/Y	5.0	4.0	4.5	4.0	3.5	3.9	4.8	4.0	4.2	2.3	4.0	3.5	3.0	2.5	4.1	3.0	3.2
8 ATTX961014-1R/Y	3.0	4.0	3.5	3.0	3.0	3.4	3.5	2.8	3.3	2.0	2.0	2.8	3.0	1.4	2.8	3.2	2.5
9 ATTX98500-2P/Y	5.0	5.0	5.0	4.0	4.3	4.1	5.0	5.0	4.7	2.8	4.0	2.5	3.0	1.6	3.9	2.9	3.0
10 POR01PG45-5	3.0	---	3.5	4.0	2.0	2.9	4.8	4.5	3.5	2.3	---	2.0	3.0	1.0	2.4	2.6	2.2
Red/Red Flesh																	
11 CO97222-1R/R	2.8	5.0	4.5	5.0	4.0	4.5	4.6	4.0	4.3	4.3	4.0	4.0	3.0	3.5	4.4	4.0	3.9
12 PA96RR1-193	3.7	5.0	4.3	3.0	3.8	4.4	4.5	4.0	4.1	2.0	3.0	2.8	2.0	1.8	2.5	2.0	2.3
13 POR03PG23-1	3.3	---	4.0	3.0	3.0	4.5	4.5	4.5	3.8	4.0	---	3.8	4.0	4.8	4.0	3.9	4.1
Purple/Purple Flesh																	
14 Purple Majesty	5.0	5.0	4.8	5.0	3.8	5.0	5.0	5.0	4.8	5.0	4.0	4.8	4.0	4.3	4.3	4.1	4.4
15 CO97215-2P/P	5.0	5.0	5.0	5.0	4.0	5.0	5.0	5.0	4.9	5.0	4.0	5.0	4.0	4.9	4.4	4.8	4.6
16 CO97227-2P/PW	5.0	5.0	5.0	5.0	3.0	5.0	5.0	5.0	4.8	5.0	5.0/1.0	5.0	5.0	5.0	5.0	5.0	5.0
17 OR00068-11	5.0	---	4.5	4.0	4.0	4.5	5.0	5.0	4.6	5.0	---	4.0	4.0	3.5	3.1	4.0	3.9
Yellow Flesh																	
18 Yukon Gold	1.5	1.0	1.8	2.0	1.0	3.0	1.0	2.0	1.7	2.3	2.0	3.0	2.0	2.0	3.1	3.0	2.5
19 A00293-2Y	1.3	---	2.0	2.0	1.0	3.8	1.0	2.0	1.9	3.0	---	4.0	5.0	2.6	3.9	3.5	3.7
20 CO99045-1W/Y	2.0	1.0	1.3	1.0	1.0	3.0	1.0	3.0	1.7	3.3	4.0	4.0	3.0	2.8	3.6	3.1	3.4
21 POR02PG26-5	1.0	1.0	1.3	2.0	2.5	3.1	1.0	2.0	1.7	2.5	3.0	2.8	3.0	2.0	3.4	2.4	2.7
22 POR02PG37-2	1.0	5.0	1.5	3.0	2.3	3.4	1.0	3.0	2.5	3.5	4.0	3.3	4.0	2.8	3.5	3.4	3.5
Mean	3.1	3.4	3.4	3.5	2.8	3.6	3.6	3.6	3.4	2.9	2.9	3.1	3.0	2.8	3.2	3.0	3.0

^{1/}Dual color evaluated in San Luis Valley, CO, where secondary skin or flesh color rating was 1 (scale 1-5 dark).

Table 17. Eye Depth and External Defects

Entry	Clone/Variety	Eye		Skinning ² ID	External Defects ³					
		Depth (mm) MAL	Eye Depth ¹		Greening	Growth Cracks	Knobs	Shatter Bruise	Scab	Rhizoc. KLM
Red/White Flesh										
1	Dk Red Norland	2.3	3.0	4.0	4.1	4.3	4.6	4.7	4.5	3.6
2	Red LaSoda	4.2	1.8	4.0	4.3	3.7	4.0	4.7	4.0	4.0
3	CO98012-5R	1.5	3.9	3.0	4.9	4.5	5.0	4.6	3.9	4.0
4	NDA7985-1R	1.8	4.0	1.8	4.4	5.0	4.5	4.5	4.9	3.6
Red-Purple/Yellow Flesh										
5	A99331-2RY	2.0	3.5	4.0	4.5	4.7	4.9	5.0	4.0	3.5
6	AC99329-7PW/Y	1.6	2.9	5.0	3.9	4.7	4.9	5.0	4.1	3.9
7	AC99330-1P/Y	2.3	3.3	5.0	4.5	4.8	4.8	4.8	4.0	3.9
8	ATTX961014-1R/Y	2.5	4.0	5.0	4.7	4.8	4.9	5.0	3.2	3.9
9	ATTX98500-2P/Y	1.8	3.4	2.3	4.8	4.8	4.9	5.0	4.5	4.5
10	POR01PG45-5	1.5	3.8	2.3	4.6	4.6	5.0	4.9	4.8	4.0
Red/Red Flesh										
11	CO97222-1R/R	2.0	3.1	3.7	4.9	4.6	4.8	3.7	4.1	4.3
12	PA96RR1-193	1.8	3.7	5.0	5.0	4.5	4.8	4.2	3.4	3.8
13	POR03PG23-1	2.4	3.8	3.5	5.0	4.8	4.3	4.7	4.4	3.8
Purple/Purple Flesh										
14	Purple Majesty	1.7	4.0	5.0	5.0	4.5	4.6	4.8	4.2	4.1
15	CO97215-2P/P	1.4	3.8	2.3	5.0	4.5	4.8	4.3	4.6	4.3
16	CO97227-2P/PW	1.9	3.7	3.7	5.0	4.4	4.8	5.0	3.7	4.3
17	OR00068-11	2.0	3.5	4.0	5.0	4.5	4.8	3.9	4.3	3.9
Yellow Flesh										
18	Yukon Gold	1.3	4.0	3.0	3.9	4.7	4.6	4.6	3.8	3.4
19	A00293-2Y	1.1	4.4	1.5	4.0	4.9	4.7	4.7	4.3	3.1
20	CO99045-1W/Y	1.0	4.0	5.0	3.9	4.7	4.8	4.6	4.1	3.8
21	POR02PG26-5	2.3	3.6	5.0	4.1	4.5	4.5	4.9	3.9	2.4
22	POR02PG37-2	1.4	3.8	5.0	4.0	4.3	4.9	4.8	3.5	3.6
Mean		1.9	3.6	3.8	4.5	4.6	4.7	4.6	4.1	3.8

^{1/} Average of 7 sites (1-5 shallow).^{2/} Skinning analysis conducted Aberdeen, ID, (1-5 best).^{3/} Average of up to 7 sites (1 severe-5 none), exception Klamath Falls rizoc.

Table 18. Internal Defects

Entry	Clone/Variety	Percent Incidence (%) ¹				Blackspot Bruise		Zebra Chip ²			
		HH	BC	IBS	VD	1-5=none		% Zebra Fresh cut	% Zebra Chipped	Fresh Chip Color	Chip Defects and Notes
Red/White Flesh											
1	Dk Red Norland	1.4	0.5	0.9	1.8	3.1	5.0	5	43	2+	43%Z, 14%Vas
2	Red LaSoda	3.1	2.5	1.4	1.8	3.2	5.0	0		0	
3	CO98012-5R	0.9	0.8	0.0	1.1	3.3	5.0	3	0	1+	18%Vas, 3%IBS, 18%Bru, 8%Dk, 3%Fus
4	NDA7985-1R	1.5	0.0	0.0	0.8	2.6	5.0	0	0	1+	68%Vas, 3%IBS, 23%Dk
Red-Purple/Yellow Flesh											
5	A99331-2RY	0.0	0.0	0.0	1.5	---	5.0	0	7	3	7%Z, 33%Vas, 30Bru
6	AC99329-7PW/Y	0.2	3.3	1.1	5.3	3.0	5.0	0	0	3	90%Vas, 10%Bru
7	AC99330-1P/Y	0.1	0.0	0.7	6.4	4.3	5.0	0	3	2+	3%Z, 6%Vas, 42%Bru
8	ATTX961014-1R/Y	0.4	0.0	0.0	9.1	3.8	5.0	0	0	2	10%Vas, 30%Bru, 3%BC
9	ATTX98500-2P/Y	0.0	0.0	0.0	1.8	4.3	5.0	0	7	1+	7%Z, 67%Vas, 7%Bru
10	POR01PG45-5	0.0	0.0	0.4	3.1	---	5.0	0	2	2	2%Z, 29%Vas, 10%Bru, 10%Dk
Red/Red Flesh											
11	CO97222-1R/R	0.0	1.3	0.0	2.8	---	5.0	0	0	3+	7%Bru
12	PA96RR1-193	0.1	0.7	2.1	4.2	---	5.0	0	3	3	3%Z, 8%Bru, nice
13	POR03PG23-1	0.3	0.0	2.9	13.8	---	5.0	0	0	3	5%Bru, BOT
Purple/Purple Flesh											
14	Purple Majesty	1.5	0.0	0.0	0.0	---	5.0	0	3	3+	3%Z, 26%Bru
15	CO97215-2P/P	0.0	0.0	0.0	9.3	---	5.0	0	0	3++	5%Vas
16	CO97227-2P/PW	0.0	0.0	0.0	0.4	---	5.0	0	15	3+++	15%Z
17	OR00068-11	0.0	0.0	0.0	0.8	---	5.0	0	7	3+	7%Z, 29%Bru
Yellow Flesh											
18	Yukon Gold	2.1	0.2	2.7	0.7	4.7	5.0	5	3	3++	3%Z, 100%Dk
19	A00293-2Y	0.6	0.5	0.0	5.7	---	5.0	0	10	3++	10%Z, 100%Dk
20	CO99045-1W/Y	3.4	0.8	5.7	3.1	4.6	5.0	0	5	3++	5%Z, 100%Dk
21	POR02PG26-5	0.1	0.0	1.8	1.9	3.7	5.0	8	11	3++	11%Z, 100%Dk
22	POR02PG37-2	2.6	0.0	1.4	4.8	4.8	5.0	0	0	3+	90%Vas, 90%BC, 10%Dk
Mean		0.8	0.5	1.0	3.6	3.8	5.0	1.0	5.7		

^{1/} Percent based on 10 cut tubers averaged from 7 sites.

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

Table 19. Disease Evaluation and Metribuzin Reaction

Entry Clone/Variety	Corvallis, Oregon			Hermiston, Oregon				Aberdeen, Idaho		
	L. Blight ¹		Tuber blight ²	% Infected w/ PVY/PLRV ³			Early die ⁴	Vert. ⁵	Early blight ⁵	Metribuzin Reaction ⁶
	AUDPC	Foliar		PVY	PLRV	# Tubers tested				
Red/White Flesh										
1 Dk Red Norland	1332.2	9.0	0.0	90	100	20	9.0	3.0	3.5	MR
2 Red LaSoda	1238.1	8.5	0.0	100	90	20	9.0	3.3	3.5	MR
3 CO98012-5R	1035.6	8.0	0.0	90	100	20	8.7	3.3	3.8	MR
4 NDA7985-1R	1192.2	8.5	0.0	90	100	20	8.3	3.0	3.8	MR
Red-Purple/Yellow Flesh										
5 A99331-2RY	789.8	7.8	0.0	80	80	20	7.8	4.0	4.0	MR
6 AC99329-7PW/Y	684.2	6.5	0.0	0	5	20	7.8	3.0	4.0	MR
7 AC99330-1P/Y	1097.3	8.3	0.0	0	50	10	8.0	3.0	3.8	MR
8 ATTX961014-1R/Y	1618.6	9.0	0.0	100	75	20	9.0	2.5	3.0	MR
9 ATTX98500-2P/Y	619.5	6.8	0.0	0	70	20	6.7	3.0	3.8	MR
10 POR01PG45-5	1059.1	8.3	0.0	5	85	20	8.0	4.0	4.0	MR
Red/Red Flesh										
11 CO97222-1R/R	1170.8	8.3	2.5	80	50	20	9.0	3.8	3.8	MR
12 PA96RR1-193	1345.2	8.8	0.0	65	20	20	9.0	3.0	2.8	MR
13 POR03PG23-1	1384.5	9.0	0.0	100	60	20	9.0	3.3	3.8	MR
Purple/Purple Flesh										
14 Purple Majesty	1324.4	9.0	0.0	75	90	20	9.0	2.0	3.3	MR
15 CO97215-2P/P	884.1	7.5	5.0	40	70	20	6.3	3.3	3.8	MR
16 CO97227-2P/PW	1220.3	8.3	2.5	100	40	20	6.7	3.0	4.0	MR
17 OR00068-11	1418.6	9.0	0.0	70	100	20	9.0	3.3	3.8	MR
Yellow Flesh										
18 Yukon Gold	1494.7	8.5	0.0	85	100	20	9.0	3.0	3.0	MR
19 A00293-2Y	814.7	7.3	0.0	20	53	15	6.0	3.0	3.5	MR
20 CO99045-1W/Y	1073.9	8.0	10.0	33	100	18	8.0	2.8	3.5	MR
21 POR02PG26-5	1258.0	8.3	0.0	0	100	14	8.2	3.3	4.0	MR
22 POR02PG37-2	1361.4	8.8	0.0	65	100	20	9.0	3.0	3.0	MR
Mean	1155.3	8.2	0.9	58.6	74.5	19.0	8.2	3.1	3.6	

^{1/} AUDPC = Area Under the Disease Progress Curve. Injury ratings: 1=0%; 2=1-5%; 3=5-10%; 4=10-20%; 5=20-40%; 6=40-60%; 7=60-75%; 8=75-90%; 9= \geq 90%

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

^{3/} Results are from ELISA evaluation of sprouts from daughter tubers of plants grown under high virus pressure - 20 randomly collected tubers from 30 hill plots evaluated.

^{4/} Early die rating 0-9 with 9=dead for all trials, assessed 8/20/2008.

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

^{6/} VS=Very Susceptible; S=Susceptible; MS=Moderately Susceptible; MR=Moderately Resistant; R=Resistant; VR=Very Resistant

Table 20. Culinary Tuber Quality, Composition and Antioxidant Equivalents

Entry	Clone/Variety	Washington Culinary Quality ¹				Aberdeen, Idaho						µg Trolox equivalents/gfw ^{6,7}	
		Boiling	Baking	Micro	Total	Rank	Solids	Protein ²	Dextrose ³	Sucrose ³	Vitamin C ⁴		TGA ⁵
Red/White Flesh													
1	Dk Red Norland	18.8	20.1	18.3	57.3	8	19.3	4.7	0.067	0.211	28.2	5.9	160.0
2	Red LaSoda	18.5	20.4	19.3	58.2	5	20.5	4.8	0.122	0.153	32.0	6.4	323.0
3	CO98012-5R	18.3	20.5	20.2	59.0	4	19.8	4.2	0.063	0.131	20.6	12.2	171.0
4	NDA7985-1R	17.0	19.8	19.2	55.9	14	18.5	5.9	0.102	0.223	24.4	7.1	181.0
Red-Purple/Yellow Flesh													
5	A99331-2RY	17.8	19.8	18.3	55.9	13	20.4	4.7	0.057	0.181	24.3	3.8	285.0
6	AC99329-7PW/Y	18.2	21.4	20.0	59.5	3	22.0	5.7	0.076	0.302	29.9	2.3	256.0
7	AC99330-1P/Y	16.3	18.8	19.0	54.1	17	20.3	5.5	0.065	0.227	37.0	3.4	318.0
8	ATTX961014-1R/Y	18.5	20.4	18.3	57.2	9	21.8	4.8	0.018	0.179	28.0	3.7	321.0
9	ATTX98500-2P/Y	16.8	17.5	18.3	52.7	22	19.3	4.6	0.057	0.229	22.6	3.8	316.0
10	POR01PG45-5	18.2	20.5	18.3	57.0	10	22.4	5.8	0.060	0.257	24.2	6.3	321.0
Red/Red Flesh													
11	CO97222-1R/R	16.7	20.8	18.7	56.2	12	19.8	4.6	0.021	0.167	19.8	5.8	600.0
12	PA96RR1-193	17.0	19.0	19.4	55.4	15	22.5	5.1	0.039	0.213	29.6	6.9	547.0
13	POR03PG23-1	16.8	18.7	17.9	53.4	20	18.8	5.2	0.101	0.241	28.3	8.2	666.0
Purple/Purple Flesh													
14	Purple Majesty	15.0	19.7	19.4	54.0	18	20.9	4.0	0.019	0.182	23.9	7.3	457.0
15	CO97215-2P/P	16.5	18.7	18.1	53.3	21	22.6	4.0	0.024	0.447	19.7	5.1	622.0
16	CO97227-2P/PW	17.5	18.7	19.1	55.3	16	22.7	4.4	0.050	0.414	18.3	2.9	817.0
17	OR00068-11	18.2	18.4	19.6	56.2	11	24.3	4.8	0.033	0.272	25.5	7.0	411.0
Yellow Flesh													
18	Yukon Gold	19.7	21.8	19.6	61.0	1	23.9	5.0	0.033	0.221	37.7	3.9	198.0
19	A00293-2Y	18.7	19.7	19.6	57.9	6	21.6	5.1	0.030	0.184	24.3	3.1	179.0
20	CO99045-1W/Y	20.2	19.7	19.9	59.7	2	22.3	5.2	0.132	0.176	36.1	2.5	166.0
21	POR02PG26-5	16.8	18.8	18.1	53.8	19	21.3	4.3	0.045	0.215	21.8	6.9	278.0
22	POR02PG37-2	17.8	20.2	19.4	57.4	7	22.1	5.8	0.021	0.264	28.8	1.6	231.0
Mean		17.7	19.7	19.0	56.4		21.2	4.9	0.056	0.231	26.6	5.3	355.6

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

^{2/} % Dry Weight Basis

^{3/} % Fresh Weight Basis

^{4/} % Fresh Weight Basis (mg/100g)

^{5/} % Fresh Weight Basis (mg/100g), using Lenepe as check with reading of 43.7

^{6/} Antioxidant Activity as Determined by the DPPH Assay, Jeffrey Koym, Texas A&M University.

^{7/} µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y=844.6x + 21.7$

Table 21. Entry Location Comments

Entry Clone/Variety	Tulelake, CA	Othello, WA
Red/White Flesh		
1 Dk Red Norland		Pink/red, large uniform size, color inconsistent among tubers.
2 Red LaSoda		Deep eyes, very large, irreg shape, ugly.
3 CO98012-5R		Nice bright red, sticky stolons**.
4 NDA7985-1R		Large, red, shallow eyes, shape a bit irreg, poor skin set.
Red-Purple/Yellow Flesh		
5 A99331-2RY	Each replication had problem with green tubers	Pink skin - poor color, nice shape and size. Discard - color!
6 AC99329-7PW/Y	Each replication had problem with green tubers	Attractive multi-color skin, shape a bit irreg, sticky stolons.
7 AC99330-1P/Y	Small tubers	Purple, nice, uniform size, deep eyes, sticky stolons.
8 ATTX961014-1R/Y	Tubers bell shapped	Pink, flat, longer, shape a bit irreg, nice overall appearance.
9 ATTX98500-2P/Y		Purple, uniform size, nice skin, deep eyes.
10 POR01PG45-5		Purple, some bronzing, poor skin set, shape a bit irreg.
Red/Red Flesh		
11 CO97222-1R/R	Tubers have bad appearance (ugly)	Dark red, nice shape and size, some bronzing.
12 PA96RR1-193		Purple/red skin, nice shape/size, bronzing, sticky stolons.
13 POR03PG23-1		Nice multi-color skin, attractive, shape a bit irreg.
Purple/Purple Flesh		
14 Purple Majesty		Dark purple, bronzing, small uniform size and shape.
15 CO97215-2P/P		Dark purple, bronzing, uniform size and shape.
16 CO97227-2P/PW		Dark purple, small, oblong or round, irreg shape, bronzing.
17 OR00068-11	Each replication had problem with green tubers	Dark purple, nice shape and size, bronzing, skin not smooth.
Yellow Flesh		
18 Yukon Gold		Yellow, large, nice shape and skin, some rhizoc.
19 A00293-2Y	Each replication had problem with green tubers	Yellow, nice shape & size, poor skin set, some oblong or irreg.
20 CO99045-1W/Y		Bright yellow, skin not smooth, nice shape and size, oblong.
21 POR02PG26-5		Looks like small Yukon G. with large red eyes, rhizoc.
22 POR02PG37-2		Small version of Yukon G. with more colorful eyes.

Table 22. Entry Location Comments Continued

Entry Clone/Variety	Hermiston, OR	Klamath Falls, OR	Aberdeen, ID
Red/White Flesh			
1 Dk Red Norland	variable colorX3	light red, smooth skin, fair	big size, good shape
2 Red LaSoda		growth cracks, FBE, lumpy, drop	deep ends
3 CO98012-5R	lots attached stemsX3, nice	round, smooth, uniform, keep	small dk red, skinned, scab, adhering stolons
4 NDA7985-1R	attached stems,	smooth, lots of size distribution, nice, keep	big round red, skinned
Red-Purple/Yellow Flesh			
5 A99331-2RY	attached stemsX3, some tubers w/o patternX3	more solid than bicolor, round, smooth skin	lt red, spec, ad stolons
6 AC99329-7PW/Y	niceX2, attached stemsX2, heat sprouts	smooth, sprouts, sticky stolons, nice bicolor, keep	irrig shape, deep eyes, ad stolons
7 AC99330-1P/Y	russetting, attached stems	nice, round, uniform, keep	misshaped, ad stolons
8 ATTX961014-1R/Y	russetting, OKX2	large, pnty, some sprouts, fair	oblong, bronzing, scab, points
9 ATTX98500-2P/Y	russetting, attached stems	chip?, round, smooth, keep	big, skinned, deep eyes
10 POR01PG45-5		russet shape, lighter purple, nice, keep	long, lt purple, skinned
Red/Red Flesh			
11 CO97222-1R/R	russettingX2	lumpy, ugly shape, eyebrow, drop	long red, some lumps, GC
12 PA96RR1-193	many attached stems	uniform, round, smooth, keep	small round, scab
13 POR03PG23-1	OK, Soft rotX2	dark bicolor, smooth, nice, keep	small red/ spec
Purple/Purple Flesh			
14 Purple Majesty	russettingX3, lots attached stemsX2	peeping eyes, smooth, pear	ad stolons, irrig shape, scab
15 CO97215-2P/P	attached stems	dry rot, better than 16, dark,	oval, skinned
16 CO97227-2P/PW	russettingX3, attached stemsX2	dry rot, irreg. shapes, fair	long, very small, smoother than p majesty
17 OR00068-11	attached stemsX3, some russetting, discard	small, smooth, uniform, keep	some elongated, ad stolons
Yellow Flesh			
18 Yukon Gold		uniform, large, keep	big, scab
19 A00293-2Y	pear/some pearX4	smooth, bright yellow, nice, keep	big, oblong, flat
20 CO99045-1W/Y	niceX2, very light russetX3, OK	yellow russet, road mapping, drop	smooth yellow, some russetting, curves
21 POR02PG26-5	OK, Soft rotX2	blotchy pink eyes, smooth, irreg. shapes, 22 nicer	pink splash, flat, oval
22 POR02PG37-2	Ok, discard	pink eyes, smooth, yukon look alike, keep	round, pink eyes, irrig shape

Table 23. Entry Location Comments Continued

Entry	Clone/Variety	Springlake, TX
Red/White Flesh		
1	Dk Red Norland	oversize, Drop, early, Rough, large, oversize, chain tubers, knobs, deep eyes
2	Red LaSoda	over mature, heat spots, Very early, Buff, Rough
3	CO98012-5R	small good for B's, nice skin, very small, good for B's
4	NDA7985-1R	drop good yield, Drop, sticky stem, rough, Drop, rough, stolen attachment
Red-Purple/Yellow Flesh		
5	A99331-2RY	B size, heat spouts, small, pinto
6	AC99329-7PW/Y	pointed, heat sprouts, sticky stolon
7	AC99330-1P/Y	drop+, very small, nice flesh, rough
8	ATTX961014-1R/Y	variable shape, very nice internals, small, heavy set, dumbbell culls, heat sprouts, lenticels
9	ATTX98500-2P/Y	rough, heat sprouts, dumbbell culls, sticky stolon
10	POR01PG45-5	drop, rough, very poor shape,
Red/Red Flesh		
11	CO97222-1R/R	Buff, rough, stolen attachment, ugly skin, rough,
12	PA96RR1-193	lots of B's, Buff
13	POR03PG23-1	Red Flesh
Purple/Purple Flesh		
14	Purple Majesty	small, some rough
15	CO97215-2P/P	very dark solid flesh
16	CO97227-2P/PW	very dark solid flesh, small, very late, rough, small
17	OR00068-11	very late, feathering, Drop, All Blue like, small, purple/white flesh, smooth, late, not as many, culls,
Yellow Flesh		
18	Yukon Gold	Smaller growth cracks, large tubers
19	A00293-2Y	low yield. Drop, Drop, Drop Drop
20	CO99045-1W/Y	Drop, Burbank like, Drop, Long, Long, Drop, Drop, Fingling oversize (more #4 to culls)
21	POR02PG26-5	Late, Drop Drop?, Drop
22	POR02PG37-2	Small, small boiler, Drop??

Table 24. Summary Means

Entry	Clone/Variety	Year	Yield Summary					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 ¹	Fresh Merit ²
Red/White Flesh													
1	Dk Red Norland	***	56	102	206	119	38	522	58	6.6	1.071	57.3	2.3
2	Red LaSoda	***	48	76	169	164	52	528	50	7.3	1.075	58.2	2.0
3	CO98012-5R	2	155	157	113	27	15	475	56	3.7	1.078	59.0	3.4
4	NDA7985-1R	2	60	118	165	95	18	462	61	5.9	1.069	55.9	2.6
Red-Purple/Yellow Flesh													
5	A99331-2RY	1	169	141	93	18	37	457	48	3.4	1.079	55.9	2.9
6	AC99329-7PW/Y	1	98	128	162	56	37	485	60	4.6	1.086	59.5	3.7
7	AC99330-1P/Y	1	200	141	66	19	25	457	42	3.2	1.076	54.1	3.0
8	ATTX961014-1R/Y	2	97	137	179	69	34	518	61	5.1	1.078	57.2	3.7
9	ATTX98500-2P/Y	2	114	157	150	71	20	518	58	4.6	1.075	52.7	3.4
10	POR01PG45-5	1	132	164	118	32	34	479	55	4.3	1.087	57.0	2.8
Red/Red Flesh													
11	CO97222-1R/R	2	154	141	89	31	24	432	51	3.7	1.072	56.2	2.7
12	PA96RR1-193	1	169	178	89	9	24	467	55	3.7	1.088	55.4	3.0
13	POR03PG23-1	1	156	134	61	8	15	375	48	3.2	1.071	53.4	3.0
Purple/Purple Flesh													
14	Purple Majesty	***	204	160	84	15	36	493	44	3.4	1.083	54.0	2.9
15	CO97215-2P/P	2	114	140	94	23	16	396	58	3.8	1.084	53.3	2.9
16	CO97227-2P/PW	2	277	106	28	2	30	440	28	2.6	1.085	55.3	2.6
17	OR00068-11	1	154	180	119	20	24	496	56	3.9	1.094	56.2	2.8
Yellow Flesh													
18	Yukon Gold	***	38	72	149	125	37	424	54	7.0	1.087	61.0	4.0
19	A00293-2Y	1	95	121	108	49	34	407	56	4.9	1.082	57.9	2.9
20	CO99045-1W/Y	1	115	163	151	66	44	545	57	4.7	1.088	59.7	3.6
21	POR02PG26-5	2	122	149	142	29	55	492	57	4.5	1.080	53.8	3.5
22	POR02PG37-2	1	140	141	123	18	53	472	54	4.0	1.085	57.4	3.2
Mean			130	137	121	48	32	470	53	4.5	1.081	56.4	3.0

^{1/} Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

^{2/} Scale = 1-5 best

Table 25. 2-Year Summary of Graduating Entries

Entry	Clone/Variety	Yield Summary					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 ¹	Fresh Merit ²
Red/White Flesh												
1	Dk Red Norland	51	100	207	142	35	530	59	6.9	1.071	57.5	2.6
2	Red LaSoda	43	72	175	178	54	534	49	7.5	1.076	56.9	3.0
3	CO98012-5R	148	152	99	21	17	449	58	3.8	1.077	55.6	3.6
4	NDA7985-1R	52	106	178	123	26	488	59	6.4	1.067	55.0	3.0
Red-Purple/Yellow Flesh												
8	ATTX961014-1R/Y	97	134	186	75	30	515	61	5.3	1.078	57.3	4.0
9	ATTX98500-2P/Y	97	137	167	74	28	503	60	5.0	1.073	52.7	3.4
Red/Red Flesh												
11	CO97222-1R/R	140	127	105	32	30	422	55	4.2	1.071	56.7	2.6
Purple/Purple Flesh												
15	CO97215-2P/P	124	127	90	21	21	380	57	3.8	1.083	54.2	3.0
16	CO97227-2P/PW	259	108	40	3	34	425	34	2.9	1.085	54.3	2.5
Yellow Flesh												
18	Yukon Gold	39	76	146	135	31	428	53	7.2	1.087	57.2	3.9
21	POR02PG26-5	116	144	149	45	47	492	58	4.8	1.079	55.4	3.5
Mean		106	117	140	77	32	470	55	5.3	1.077	55.7	3.2

^{1/} Higher score = better quality, maximum = 75 total for bake, boil and microwave. Knowles & Fuller, Pullman, WA.

^{2/} Scale = 1-5 best