

2015 Western Regional



Red/Specialty Trial

2015 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	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	Antioxidant Equivalent, Springlake, TX	Page 17
Table 18	Eye Depth and External Defects	Page 18
Table 19	Internal Defects	Page 19
Table 20	Disease Evaluations	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 Summary	Page 24
Table 25	2 Year Summary of Graduating Entries	Page 25
Table 26	Summary Means 2014	Page 26

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
Ontario Oregon (ON)	C. Shock E. Feibert M.Saunders		Sprinkler, solid set	120-0-0	4/9/2016	9/10/2016	Mechanical	9/17/2016	Dual Magnum Prowl H2O Matrix	Beleaf	Badge
Tulelake California (TUL)*	R. Wilson D. Culp K. Nicholson S. Peterson	Late	Sprinkler	205-104-100-36S	5/14/2015	9/2/2015	Roll/Reglone	9/30/2015	Roundup PM Prowl H2O Outlook Matrix	Admire Pro Vydate	Quadris, Tanos Endura, Curzate Omega 500, Manzate Bravo WS
San Luis Valley Colorado (SLV)	D. Holm, C. Gray K. Zavislan	Late	Pivot	120-60-40-25-2.5	5/15/2015	9/2/2015	Sulfuric Acid	9/28/2015	Dual Magnum Boundary	Leverage 360 Belay	Quadris Opti Luna Tranquility
Aberdeen Idaho (AB)	J. Stark, R. Novy, J. Whitworth, P. Bain, C Lowder J Hatch	Early	Sprinkler	215-110-305	5/5/2015	8/18/2015	Reglone- Mechanical	9/8/2015	TriCor 4F Matrix Eptam 7-E TriCor 4F Reglone	Admire Pro	Gavel Bravo Gavel
Springlake Texas (SPL)**	J. C. Miller Jr., J. Koym, D. Scheuring	Early	Pivot	155-34-34	4/8/2015	7/16/2015	Mechanical	7/22/2015	Sencor, Roundup Dual Matrix Stealth	Movento, Blackhawk Agrimek, Transform Cruiser Maxx	Scala Copper Tanos
Dalhart Texas (DAL)***	J. C. Miller Jr., J. Koym, D. Scheuring	Early	Pivot	115-50-0	5/18/2015	8/20/2015	Mechanical	10/5/2015	Select Max, Tricor Chateau Brawl Acumen Marix SG	Beleaf Fulfill Movento Reaper, Torac Transform WG	Quadris, Scala SC Penncozeb, Luna Tranquility Bravo, Echo Revus Top, Curzate 60DF Gavel 75DF

*

**These trials were subjected to above average precipitation for May, June, July and August.

***These trials were subjected to above average precipitation for the entire growing season.

Table 2. Description of Clones - 2014 Western Regional Red/Specialty Trial

Clone/Variety	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Flesh Color	Entered			DISPO
	Female	Male							By	Seed	Year	
Red/White Flesh												
1 Chieftan							Dark Red	White	Check	OR	***	
2 Red LaSoda	Triumph	Katahdin	Red-purple	Med	Med	Oval	Lt. Red	White	Check	OR	***	
3 NDA050237B-1R	ND028678-1RY	ND028770B-4R	Dk Red-purple	Large	Med-late	Oval	Red	White	ID	ID	2	
Red-Purple/Yellow Flesh												
4 A05180-3PY	Pinto (ATND9331-2)	VC1075-1R	Dk Red-purple	Medium	Medium	Round	Purple	yellow	ID	OR	2	
5 AC05175-3P/Y	A99331-2R/Y	COA99261-1RY	Dark Purple	Small	Very Early	Oval	Purple	Yellow	CO	CO	2	
6 ATTX98514-1R/Y	T51YF	A93456-6R	Lavender	Large	Medium-Late	Oblong	Red	Yellow	TX	TX	1	
7 CO04021-2R/Y	ATC98509-1R/Y	US147-96R/Y	Light Purple	Med-Large	Medium	Oblong	Red	Yellow	CO	CO	2	
8 CO05035-1PW/Y	Masquerade	US147-96	Red-purple	Med-Large	Medium	Oblong	Purple/White	Yellow	CO	CO	1	
9 CO05037-2R/Y	AC99330-1P/Y	CO97227-2P/PW	Red-Purple	Medium	Medium	Oblong	Red	Yellow	CO	CO	2	
10 COA07365-4RY	US147-96	CO99256-2R	Med Red-purple	Medium	Med-early	Oval	Red	yellow	ID	OR	1	
Yellow Flesh												
11 Yukon Gold	Norgleam	W5279-4	Pink	Med	Early	Oval	White	Yellow	Check	OR	***	
12 A05182-7Y	ATND93331-2	A99433-5Y	White	Medium	Med-late	Round	Yellow/Pink Eye	Yellow	ID	OR	2	
13 ATX05202S-3W/Y	A00286-3Y	A99433-5Y	Lavender	Large	Late	Round	White	Yellow	TX	CO	2	
14 CO05037-3W/Y	AC99330-1P/Y	CO97227-2P/PW	Light Purple	Med-Large	Early	Round	White	Yellow	CO	CO	2	
15 COTX03134-1W	Laratte	PA97B36-3	Lavender	Small	Late	Oblong	White	White	TX	TX	1	
16 NDA081451CB-1CY	Dakota Diamond	ND 039173CAB-22	White	Medium	Med-early	Round	Yellow	Yellow	ID	ID	2	
17 TXWL-1	Triumph	Katahdin	Red-purple	Large	Late	Oblong	White	White	TX	TX	1	

Table 3. Percent Stand

Entry	Clone/Variety	Percent Stand					Mean
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	
Red/White Flesh							
1	Chieftan	93	96	98	95	100	96
2	Red LaSoda	98	96	99	82	100	95
3	NDA050237B-1R	99	91	99	99	100	98
Red-Purple/Yellow Flesh							
4	A05180-3PY	99	100	99	100	100	100
5	AC05175-3P/Y	95	95	98	63	100	90
6	ATTX98514-1R/Y	93	93	94		100	95
7	CO04021-2R/Y	93	93	100	38	83	82
8	CO05035-1PW/Y	86	98	100	98	100	96
9	CO05037-2R/Y	99	98	90	100	100	97
10	COA07365-4RY	97	96	99	98	100	98
Yellow Flesh							
11	Yukon Gold	91	90	98	96	100	95
12	A05182-7Y	96	99	99	100	100	99
13	ATX05202S-3W/Y	91	95	96	100	100	96
14	CO05037-3W/Y	86	93	96	99	100	95
15	COTX03134-1W	98		93	100	100	98
16	NDA081451CB-1CY	97	95	100	100	100	98
17	TXWL-1	98		99	99	100	99
Mean		95	95	97	92	99	96

Table 4. Vine Size and Vine Maturity

Entry Clone/Variety	Vine Size (1-5 large)					Vine Maturity (1-5 late)					
	CO	ID	TX	TX	Mean	CO	ID	TX	TX	Mean	
	SLV	AB	SPL	DAL		SLV	AB	SPL	DAL		
Red/White Flesh											
1	Chieftan	4.0	3.0	3.0	3.9	3.5	2.8	3.5	3.4	4.3	3.5
2	Red LaSoda	3.0	3.8	4.3	4.7	3.9	1.5	4.0	4.4	4.8	3.7
3	NDA050237B-1R	4.0	3.8	5.0	4.5	4.3	3.0	4.0	5.0	4.5	4.1
Red-Purple/Yellow Flesh											
4	A05180-3PY	4.5	3.3	4.1	4.1	4.0	3.0	3.0	4.3	4.1	3.6
5	AC05175-3P/Y	2.3	2.0	3.2	4.5	3.0	1.0	1.0	3.9	4.5	2.6
6	ATTX98514-1R/Y	3.0	3.0		3.5	3.2	1.8	2.5		3.5	2.6
7	CO04021-2R/Y	4.5	3.0	3.3	4.0	3.7	3.0	3.3	4.1	4.5	3.7
8	CO05035-1PW/Y	4.3	3.3	3.9	4.5	4.0	3.0	3.3	4.3	4.5	3.8
9	CO05037-2R/Y	3.0	2.8	3.2	3.7	3.2	2.3	2.5	3.1	3.5	2.8
10	COA07365-4RY	2.8	3.0	3.8	4.5	3.5	2.0	3.3	3.6	4.5	3.3
Yellow Flesh											
11	Yukon Gold	3.3	2.5	3.4	3.9	3.3	1.0	2.0	3.4	3.9	2.6
12	A05182-7Y	4.5	3.5	4.1	4.1	4.1	3.5	4.0	4.4	4.0	4.0
13	ATX05202S-3W/Y	4.3	3.5	4.2	4.5	4.1	3.0	4.0	4.4	4.5	4.0
14	CO05037-3W/Y	3.0	2.3	3.6	3.8	3.1	1.3	1.3	3.4	3.9	2.4
15	COTX03134-1W		3.0	3.6	2.8	3.1		3.5	4.0	4.5	4.0
16	NDA081451CB-1CY	4.5	3.8	4.3	4.6	4.3	3.0	4.0	4.4	4.9	4.1
17	TXWL-1		3.3	3.8	5.0	4.0		4.0	4.1	4.5	4.2
Mean											
		3.7	3.1	3.8	4.2	3.7	2.3	3.1	4.0	4.3	3.5

Table 5. Total Yield

Entry Clone/Variety	Total Yield (cwt/A)						Mean	Rank
	OR ON	CA TUL	CO SLV	ID AB	TX SPL	TX DAL		
Red/White Flesh								
1 Chieftan	607	611	425	455	175	304	430	2
2 Red LaSoda	767	603	360	499	243	350	470	1
3 NDA050237B-1R	536	506	487	331	105	215	363	3
Red-Purple/Yellow Flesh								
4 A05180-3PY	665	573	446	460	219	276	440	2
5 AC05175-3P/Y	386	424	286	290	175	413	329	4
6 ATTX98514-1R/Y	437	413	315	202		218	317	5
7 CO04021-2R/Y	648	524	500	365	52	198	381	3
8 CO05035-1PW/Y	724	503	446	416	299	333	453	1
9 CO05037-2R/Y	275	283	234	217	157	267	239	7
10 COA07365-4RY	403	343	323	338	138	248	299	6
Yellow Flesh								
11 Yukon Gold	388	435	312	372	207	349	344	6
12 A05182-7Y	558	464	440	374	266	289	399	4
13 ATX05202S-3W/Y	814	569	521	451	103	270	455	3
14 CO05037-3W/Y	450	433	349	361	328	387	384	5
15 COTX03134-1W	448	327		322	197	257	310	7
16 NDA081451CB-1CY	737	624	480	448	172	387	474	2
17 TXWL-1	690	578		459	314	422	493	1
Mean	561	483	395	374	197	305	387	

Indicates high or strength

Indicates low or weakness

Table 6. Yield and Percent < 4 oz

Entry	Clone/Variety	Yield < 4 oz (Cwt)								Percent < 4 oz							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftan	178	81	42	40	80	38	76	2	29	13	10	9	46	12	20	2
2	Red LaSoda	130	63	47	95	58	51	74	3	17	10	13	19	24	15	16	3
3	NDA050237B-1R	210	90	147	147	62	60	119	1	39	18	30	44	59	28	36	1
Red-Purple/Yellow Flesh																	
4	A05180-3PY	278	87	124	144	170	81	147	3	42	15	28	31	78	29	37	4
5	AC05175-3P/Y	222	133	79	109	122	116	130	4	57	31	28	37	70	28	42	3
6	ATTX98514-1R/Y	157	40	63	77		40	75	7	36	10	20	38		18	24	6
7	CO04021-2R/Y	263	94	47	66	41	47	93	6	41	18	9	18	80	24	32	5
8	CO05035-1PW/Y	209	55	45	43	171	43	94	5	29	11	10	10	57	13	22	7
9	CO05037-2R/Y	191	177	179	178	153	229	184	1	70	63	76	82	97	86	79	1
10	COA07365-4RY	212	150	132	248	128	82	159	2	53	44	41	73	93	33	56	2
Yellow Flesh																	
11	Yukon Gold	113	38	30	45	86	37	58	7	29	9	10	12	42	11	19	6
12	A05182-7Y	281	177	261	218	199	182	220	2	50	38	59	58	75	63	57	2
13	ATX05202S-3W/Y	414	88	151	243	93	169	193	5	51	15	29	54	90	63	50	5
14	CO05037-3W/Y	313	184	163	172	236	175	207	4	70	43	47	48	72	45	54	3
15	COTX03134-1W	357	246		231	185	121	228	1	80	75		72	94	47	74	1
16	NDA081451CB-1CY	396	110	202	148	158	283	216	3	54	18	42	33	92	73	52	4
17	TXWL-1	116	45		59	98	37	71	6	17	8		13	31	9	16	7
Mean		238	109	114	133	127	105	138		45	26	30	38	69	35	40	

Table 7. Yield and Percent 4-6 oz.

Entry	Clone/Variety	Yield 4-6 oz (Cwt/A)							Percent 4-6 oz (%)						
		OR	CA	ID	TX	TX	Mean	Rank	OR	CA	ID	TX	TX	Mean	Rank
		ON	TUL	AB	SPL	DAL			ON	TUL	AB	SPL	DAL		
Red/White Flesh															
1	Chieftan	178	95	42	50	77	88	2	29	15	9	29	25	22	2
2	Red LaSoda	91	69	86	50	91	77	3	12	11	17	20	26	17	3
3	NDA050237B-1R	135	140	110	28	71	97	1	25	28	33	27	33	29	1
Red-Purple/Yellow Flesh															
4	A05180-3PY	270	102	121	36	120	130	1	41	18	26	17	43	29	2
5	AC05175-3P/Y	172	143	94	38	167	123	2	45	34	32	22	40	35	1
6	ATTX98514-1R/Y	154	61	33		79	82	6	35	15	16		36	26	4
7	CO04021-2R/Y	218	135	85	4	61	100	3	34	26	23	8	31	24	5
8	CO05035-1PW/Y	164	85	42	76	111	96	4	23	17	10	25	33	22	6
9	CO05037-2R/Y	106	85	35	5	35	53	7	39	30	16	3	13	20	7
10	COA07365-4RY	161	107	67	10	107	90	5	40	31	20	7	43	28	3
Yellow Flesh															
11	Yukon Gold	92	65	49	50	98	71	6	24	15	13	24	28	21	5
12	A05182-7Y	224	153	87	52	69	117	4	40	33	23	19	24	28	2
13	ATX05202S-3W/Y	323	133	131	7	69	133	1	40	23	29	7	26	25	3
14	CO05037-3W/Y	204	128	99	59	119	122	3	45	30	28	18	31	30	1
15	COTX03134-1W	94	56	42	11	57	52	7	21	17	13	6	22	16	7
16	NDA081451CB-1CY	333	134	116	14	62	132	2	45	22	26	8	16	23	4
17	TXWL-1	80	61	86	84	114	85	5	12	11	19	27	27	19	6
Mean		176	103	78	36	89	97		32	22	21	17	29	24	

Table 8. Yield and Percent 6-10 oz.

Entry	Clone/Variety	Yield 6-10 oz (Cwt/A)							Percent 6-10 oz (%)						
		OR	CA	ID	TX	TX	Mean	Rank	OR	CA	ID	TX	TX	Mean	Rank
		ON	TUL	AB	SPL	DAL			ON	TUL	AB	SPL	DAL		
Red/White Flesh															
1	Chieftan	178	149	109	3	122	112	2	29	24	24	2	40	24	2
2	Red LaSoda	91	174	166	28	112	114	1	12	29	33	11	32	23	3
3	NDA050237B-1R	135	193	64	5	74	94	3	25	38	19	5	34	24	1
Red-Purple/Yellow Flesh															
4	A05180-3PY	270	184	122	12	66	131	1	41	32	27	5	24	26	4
5	AC05175-3P/Y	172	130	75	15	116	102	4	45	31	26	9	28	28	2
6	ATTX98514-1R/Y	154	132	37		61	96	5	35	32	18		28	28	1
7	CO04021-2R/Y	218	204	107	7	20	111	3	34	39	29	13	10	25	5
8	CO05035-1PW/Y	164	177	129	52	80	120	2	23	35	31	17	24	26	3
9	CO05037-2R/Y	106	16	2	0	0	25	7	39	6	1	0	0	9	7
10	COA07365-4RY	161	60	20	0	47	58	6	40	17	6	0	19	17	6
Yellow Flesh															
11	Yukon Gold	92	142	125	63	106	106	4	24	33	33	30	30	30	1
12	A05182-7Y	224	113	52	15	29	87	6	40	24	14	6	10	19	6
13	ATX05202S-3W/Y	323	217	62	3	25	126	2	40	38	14	3	9	21	5
14	CO05037-3W/Y	204	98	61	32	45	88	5	45	23	17	10	12	21	4
15	COTX03134-1W	94	11	18	0	0	25	7	21	3	5	0	0	6	7
16	NDA081451CB-1CY	333	227	129	0	21	142	1	45	36	29	0	5	23	3
17	TXWL-1	80	164	137	101	120	120	3	12	28	30	32	28	26	2
Mean		176	141	83	21	61	97		32	28	21	9	20	22	

Table 9. Yield and Percent >10 oz.

Entry	Clone/Variety	Yield >10 oz (Cwt/A)								Percent >10 oz (%)							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftan	80	217	94	224	3	47	111	2	13	35	22	49	2	15	23	1
2	Red LaSoda	323	132	55	84	28	72	115	1	42	22	15	17	11	20	21	2
3	NDA050237B-1R	102	73	26	6	5	0	35	3	19	15	5	2	5	0	8	3
Red-Purple/Yellow Flesh																	
4	A05180-3PY	42	107	32	45	0	0	38	4	6	19	7	10	0	0	7	4
5	AC05175-3P/Y	7	11	18	11	0	3	8	5	2	3	6	4	0	1	3	5
6	ATTX98514-1R/Y	45	115	40	25		18	49	3	10	28	13	13		8	14	2
7	CO04021-2R/Y	19	56	151	91	0	5	54	2	3	11	30	25	0	2	12	3
8	CO05035-1PW/Y	140	173	139	173	0	62	115	1	19	34	31	42	0	19	24	1
9	CO05037-2R/Y	0	0	0	1	0	0	0	7	0	0	0	1	0	0	0	7
10	COA07365-4RY	5	4	3	0	0	0	2	6	1	1	1	0	0	0	1	6
Yellow Flesh																	
11	Yukon Gold	93	170	81	143	8	90	98	2	24	39	26	38	4	26	26	2
12	A05182-7Y	8	12	3	7	0	0	5	6	1	3	1	2	0	0	1	6
13	ATX05202S-3W/Y	27	84	44	1	0	0	26	3	3	15	8	0	0	0	4	3
14	CO05037-3W/Y	2	13	6	12	0	0	5	5	0	3	2	3	0	0	1	5
15	COTX03134-1W	0	0		0	0	0	0	7	0	0		0	0	0	0	7
16	NDA081451CB-1CY	5	90	4	11	0	0	18	4	1	14	1	2	0	0	3	4
17	TXWL-1	264	191		151	25	135	153	1	38	33		33	8	32	29	1
Mean		68	85	46	58	4	25	49		11	16	11	14	2	7	10	

Table 10. Yield and Percent 4 -10 oz.

Entry	Clone/Variety	Yield 4-10 oz (Cwt/A)								Percent 4-10 oz (%)							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftan	406	244	275	151	91	198	228	1	67	40	65	33	52	43	50	2
2	Red LaSoda	272	243	249	252	143	203	227	2	35	40	69	50	59	43	48	3
3	NDA050237B-1R	280	333	308	173	38	145	213	3	52	66	63	52	37	46	56	1
Red-Purple/Yellow Flesh																	
4	A05180-3PY	398	286	288	243	48	186	241	1	60	50	64	53	22	42	54	2
5	AC05175-3P/Y	229	273	187	169	53	283	199	4	59	64	66	58	30	47	59	1
6	ATTX98514-1R/Y	246	193	154	70		141	161	5	56	47	49	35		38	45	5
7	CO04021-2R/Y	355	339	248	191	11	81	204	3	55	65	50	52	20	41	52	3
8	CO05035-1PW/Y	396	262	254	172	128	191	234	2	55	52	57	41	43	42	49	4
9	CO05037-2R/Y	108	101	55	37	5	35	57	7	39	36	23	17	3	21	27	7
10	COA07365-4RY	230	167	177	88	10	154	138	6	57	49	55	26	7	33	44	6
Yellow Flesh																	
11	Yukon Gold	208	206	183	174	113	204	181	4	54	47	59	47	54	44	50	3
12	A05182-7Y	321	267	174	139	67	98	178	5	58	57	39	37	25	37	46	5
13	ATX05202S-3W/Y	471	350	317	193	10	94	239	1	58	62	61	43	10	39	52	2
14	CO05037-3W/Y	234	226	176	160	92	165	176	6	52	52	51	44	28	39	48	4
15	COTX03134-1W	98	67		60	11	57	59	7	22	21		19	6	15	19	7
16	NDA081451CB-1CY	410	362	266	245	14	83	230	2	56	58	56	55	8	39	56	1
17	TXWL-1	257	225		223	185	234	225	3	37	39		48	59	37	41	6
Mean		289	244	221	161	64	150	188		51	50	55	42	29	38	47	

Table 11. Yield and Percent Culls

Entry	Clone/Variety	Yield Culls (Cwt/A)								Percent Culls (%)							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftan	4	70	15	40	0	21	25	2	1	11	3	9	0	7	5	2
2	Red LaSoda	13	165	10	69	15	25	49	1	2	27	3	14	6	7	10	1
3	NDA050237B-1R	4	9	6	4	0	11	6	3	1	2	1	1	0	5	2	3
Red-Purple/Yellow Flesh																	
4	A05180-3PY	8	93	3	27	0	9	24	3	1	16	1	6	0	3	5	3
5	AC05175-3P/Y	4	7	1	1	0	11	4	6	1	2	0	0	0	3	1	7
6	ATX98514-1R/Y	13	65	58	29		19	37	1	3	16	19	15		9	12	1
7	CO04021-2R/Y	17	34	21	17	0	65	26	2	3	7	4	5	0	33	8	2
8	CO05035-1PW/Y	8	13	9	29	0	37	16	4	1	3	2	7	0	11	4	4
9	CO05037-2R/Y	8	5	0	1	0	3	3	7	3	2	0	1	0	1	1	6
10	COA07365-4RY	7	23	9	3	0	12	9	5	2	7	3	1	0	5	3	5
Yellow Flesh																	
11	Yukon Gold	6	20	17	10	0	18	12	6	2	5	6	3	0	5	3	5
12	A05182-7Y	8	8	2	11	0	8	6	7	1	2	0	3	0	3	2	7
13	ATX05202S-3W/Y	7	47	10	14	0	6	14	4	1	8	2	3	0	2	3	6
14	CO05037-3W/Y	1	10	4	16	0	47	13	5	0	2	1	5	0	12	3	4
15	COTX03134-1W	9	14		31	0	79	26	2	2	4		10	0	31	9	1
16	NDA081451CB-1CY	9	62	6	44	0	21	24	3	1	10	1	10	0	5	5	3
17	TXWL-1	15	116		27	6	17	36	1	2	20		6	2	4	7	2
Mean		8	45	11	22	1	24	19		2	8	3	6	0	9	5	

Table 12. Specific Gravity

Entry	Clone/Variety	Specific Gravity						Mean	Rank
		OR ON	CA TUL	CO SLV	ID AB	TX SPL	TX DAL		
Red/White Flesh									
1	Chieftan	1.080	1.068	1.078	1.071	1.068	1.055	1.070	1
2	Red LaSoda	1.084	1.073	1.076	1.062	1.062	1.052	1.068	2
3	NDA050237B-1R	1.070	1.064	1.069	1.059	1.053	1.042	1.059	3
Red-Purple/Yellow Flesh									
4	A05180-3PY	1.086	1.073	1.081	1.067	1.060	1.052	1.070	5
5	AC05175-3P/Y	1.080	1.059	1.068	1.062	1.062	1.055	1.064	7
6	ATTX98514-1R/Y	1.075	1.064	1.071	1.062		1.051	1.065	6
7	CO04021-2R/Y	1.084	1.072	1.091	1.072		1.053	1.074	2
8	CO05035-1PW/Y	1.088	1.073	1.085	1.071	1.060	1.056	1.072	4
9	CO05037-2R/Y	1.114	1.083	1.089	1.085		1.066	1.087	1
10	COA07365-4RY	1.090	1.065	1.081	1.067		1.061	1.073	3
Yellow Flesh									
11	Yukon Gold	1.083	1.076	1.093	1.084	1.073	1.069	1.080	2
12	A05182-7Y	1.090	1.079	1.084	1.067	1.063	1.058	1.074	4
13	ATX05202S-3W/Y	1.099	1.076	1.085	1.066	1.059	1.058	1.074	5
14	CO05037-3W/Y	1.081	1.068	1.077	1.072	1.071	1.062	1.072	6
15	COTX03134-1W	1.081	1.078		1.077	1.079	1.072	1.077	3
16	NDA081451CB-1CY	1.108	1.086	1.097	1.072	1.076	1.070	1.085	1
17	TXWL-1	1.080	1.074		1.064	1.056	1.055	1.066	7
Mean		1.087	1.072	1.082	1.069	1.065	1.058	1.072	

Table 13. Average Tuber Size and Tubers Per Plant

Entry	Clone/Variety	Average Tuber Size (oz)						Tubers/plant				
		OR ON	CA TUL	ID AB	TX SPL	TX DAL	Mean	CA TUL	ID AB	TX SPL	TX DAL	Mean
Red/White Flesh												
1	Chieftan	5.0	7.0	7.4	2.8	4.5	5.3	8.7	5.7	5.6	5.0	6.3
2	Red LaSoda	6.5	7.1	4.7	4.2	4.5	5.4	7.9	9.5	6.2	5.7	7.3
3	NDA050237B-1R	3.8	5.3	3.4	2.0	3.0	3.5	8.8	9.5	4.3	5.3	7.0
Red-Purple/Yellow Flesh												
4	A05180-3PY	3.4	6.1	3.8	2.1	2.6	3.6	8.8	11.2	8.7	7.6	9.1
5	AC05175-3P/Y	3.2	4.2	3.7	2.0	2.8	3.2	9.7	7.9	13.0	10.8	10.3
6	ATTX98514-1R/Y	4.3	6.9	3.0	ND	3.8	4.5	5.9	6.0	ND	4.1	5.4
7	CO04021-2R/Y	3.2	5.2	5.4	1.2	2.6	3.5	9.9	6.4	9.6	6.6	8.1
8	CO05035-1PW/Y	4.2	6.5	6.5	2.7	4.5	4.9	8.3	5.8	9.4	5.4	7.2
9	CO05037-2R/Y	1.7	3.1	2.3	0.9	1.8	2.0	8.4	10.4	14.4	10.6	10.9
10	COA07365-4RY	3.1	3.8	2.5	1.0	2.6	2.6	8.7	13.3	11.7	6.8	10.1
Yellow Flesh												
11	Yukon Gold	5.1	7.3	6.6	3.2	5.0	5.4	6.0	5.7	5.6	5.1	5.6
12	A05182-7Y	2.9	3.9	2.6	1.7	2.0	2.6	11.2	14.0	13.0	11.0	12.3
13	ATX05202S-3W/Y	3.0	5.6	2.8	1.3	2.1	2.9	10.4	15.5	6.8	9.4	10.5
14	CO05037-3W/Y	2.4	3.8	3.0	1.9	2.5	2.7	12.1	12.0	14.7	11.3	12.5
15	COTX03134-1W	1.2	2.7	2.0	1.2	1.8	1.8	11.3	15.9	13.8	10.7	12.9
16	NDA081451CB-1CY	2.8	5.5	3.4	1.1	2.2	3.0	10.7	11.5	12.5	13.5	12.1
17	TXWL-1	6.1	7.5	5.6	3.4	5.3	5.6	7.2	7.7	7.7	5.9	7.1
Mean		3.6	5.4	4.0	2.0	3.1	3.7	9.1	9.9	9.8	7.9	9.1

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	Process CO/SLV	
		CA	ID	Mean	CA	CO	ID	TX	TX	Mean	Rank	score (1-5 best)	fry color (4=darkest)	
		TUL	AB		TUL	SLV	AB	SPL	DAL			CO/SLV	Harvest	45°F
Red/White Flesh														
1	Chieftan	3.4	3.0	3.2	3.3	4.0	2.5	3.7	3.3	3.3	2	3.0	2.0	2.0
2	Red LaSoda	3.9	3.1	3.5	2.8	1.0	2.2	3.5	3.5	2.6	3	1.0	3.0	3.0
3	NDA050237B-1R	3.9	4.1	4.0	3.4	5.0	4.0	3.6	2.8	3.8	1	1.0	4.0	4.0
Red-Purple/Yellow Flesh														
4	A05180-3PY	4.0	3.3	3.6	3.0	5.0	3.3	3.8	3.1	3.6	1	1.0	3.0	3.0
5	AC05175-3P/Y	3.9	3.8	3.8	3.1	1.0	3.6	3.7	3.3	2.9	5	3.0	1.0	1.0
6	ATTX98514-1R/Y	3.4	2.8	3.1	2.5	1.0	2.6		3.7	2.5	7	1.0	4.0	4.0
7	CO04021-2R/Y	2.8	3.3	3.0	2.8	5.0	3.0	2.5	2.0	3.0	4	2.0	2.0	3.0
8	CO05035-1PW/Y	3.6	3.0	3.3	3.0	4.0	3.2	3.6	2.0	3.2	3	1.0	3.0	3.0
9	CO05037-2R/Y	4.3	4.0	4.1	2.6	1.0	3.8	3.7	3.1	2.8	6	3.0	1.0	1.0
10	COA07365-4RY	3.9	4.4	4.1	3.3	3.0	4.1	3.8	3.7	3.6	2	4.0	2.0	2.0
Yellow Flesh														
11	Yukon Gold	3.6	3.4	3.5	3.1	1.0	3.2	3.8	3.7	3.0	5	1.0	3.0	3.0
12	A05182-7Y	3.9	4.0	3.9	3.6	4.0	3.6	3.6	3.7	3.7	3	1.0	3.0	4.0
13	ATX05202S-3W/Y	3.6	3.5	3.5	3.4	5.0	2.7	3.8	4.0	3.8	2	5.0	1.0	2.0
14	CO05037-3W/Y	3.6	3.8	3.7	3.0	3.0	3.4	4.0	3.0	3.3	4	3.0	2.0	3.0
15	COTX03134-1W	3.9	2.0	2.9	2.0		2.1	3.6	2.9	2.6	6			
16	NDA081451CB-1C	4.0	3.8	3.9	3.5	5.0	3.0	3.8	3.7	3.8	1	5.0	2.0	2.0
17	TXWL-1	3.8	2.5	3.1	2.3		1.2	3.6	3.0	2.5	7			
Mean		3.7	3.4	3.5	3.0	3.2	3.0	3.6	3.2	3.2		2.3	2.4	2.7

Table 15. Tuber Shape and Length Width Ratio

Entry	Clone/Variety	Tuber Shape						L/W				W/T ¹		
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	Mean	CA TUL	CO SLV	ID AB	Mean	CO SLV	ID AB	Mean
Red/White Flesh														
1	Chieftan	3.1	2.0	3.1	3.0	3.0	2.8	1.2	1.3	1.1	2.1	1.3	1.4	1.4
2	Red LaSoda	3.0	1.0	2.9	3.0	3.0	2.6	1.1	1.1	1.1	2.0	1.2	1.3	1.3
3	NDA050237B-1R	2.4	2.0	1.8	3.0	2.0	2.2	1.0	1.2	1.1	1.8	1.2	1.3	1.3
Red-Purple/Yellow Flesh														
4	A05180-3PY	2.8	1.0	2.5	2.0	2.0	2.1	1.0	1.0	1.0	1.5	1.2	1.2	1.2
5	AC05175-3P/Y	2.8	1.0	1.9	2.0	2.0	1.9	1.1	1.1	1.1	1.5	1.2	1.3	1.2
6	ATTX98514-1R/Y	3.3	2.0	3.1		3.0	2.8	1.2	1.4	1.2	1.9	1.3	1.5	1.4
7	CO04021-2R/Y	3.3	2.0	3.5	3.5	3.0	3.0	1.3	1.5	1.4	2.3	1.3	1.8	1.6
8	CO05035-1PW/Y	3.5	2.0	3.2	3.0	3.3	3.0	1.3	1.3	1.3	2.2	1.2	1.6	1.5
9	CO05037-2R/Y	4.8	3.0	3.9	3.0	4.0	3.7	2.0	1.8	1.9	2.7	1.2	2.3	2.0
10	COA07365-4RY	2.6	1.0	1.6	2.0	2.0	1.9	1.0	1.1	1.1	1.5	1.1	1.2	1.2
Yellow Flesh														
11	Yukon Gold	3.0	2.0	2.5	3.0	3.0	2.7	1.1	1.3	1.0	2.0	1.2	1.3	1.3
12	A05182-7Y	2.8	1.0	2.0	3.0	2.5	2.3	1.1	1.1	1.1	1.8	1.2	1.4	1.3
13	ATX05202S-3W/Y	2.8	2.0	2.2	1.0	2.0	2.0	1.1	1.3	1.2	1.4	1.2	1.4	1.3
14	CO05037-3W/Y	3.0	2.0	2.4	3.0	1.8	2.4	1.1	1.2	1.2	1.8	1.3	1.5	1.3
15	COTX03134-1W	4.4		3.6	3.0	3.5	3.6	1.7		1.8	2.7		2.2	2.1
16	NDA081451CB-1CY	2.5	2.0	2.3	2.0	2.0	2.2	1.1	1.2	1.0	1.6	1.1	1.2	1.2
17	TXWL-1	3.0		3.0	3.0	3.0	3.0	1.1		1.1	2.2		1.4	1.5
Mean		3.1	1.7	2.7	2.7	2.6	2.6	1.2	1.3	1.2	2.0	1.2	1.5	1.4

¹Width/thickness ratio or width/depth ratio. This info might be good to tell us how round or flat a potato is looking at it from the end.

Table 16. Skin and Flesh Color

Entry	Clone/Variety	Skin Color (1 - 5 dark)						Flesh Color (1 - 5 dark)					
		CA	CO	ID	TX	TX		CA	CO	ID	TX	TX	
		TUL	SLV	AB	SPL	DAL	Mean	TUL	SLV	AB	SPL	DAL	Mean
Red/White Flesh													
1	Chieftan	2.3	1.0	3.0	3.0	3.0	2.5	1.0	1.0	1.0	1.0	1.0	1.0
2	Red LaSoda	2.0	1.0	3.1	3.5	3.5	2.6	1.5	1.0	1.0	1.0	1.0	1.1
3	NDA050237B-1R	2.5	3.0	3.9	4.0	4.5	3.6	1.0	1.0	1.0	1.0	1.0	1.0
Red-Purple/Yellow Flesh													
4	A05180-3PY	4.1	3.0	3.9	5.0	5.0	4.2	3.3	3.0	2.3	2.5	2.5	2.7
5	AC05175-3P/Y	4.6	4.0	3.3	5.0	5.0	4.4	3.4	3.0	3.0	2.5	3.5	3.1
6	ATTX98514-1R/Y	2.1	1.0	3.0		3.6	2.4	2.5	2.0	2.8		3.5	2.7
7	CO04021-2R/Y	3.1	4.0	3.3	3.0	3.6	3.4	3.5	3.0	3.0	2.5	3.5	3.1
8	CO05035-1PW/Y	3.0	2.0	2.5	1.0	3.0	2.3	3.0	2.0	2.6	2.5	3.5	2.7
9	CO05037-2R/Y	2.6	2.0	3.4	3.7	3.0	2.9	3.8	4.0	3.5	3.5	3.5	3.7
10	COA07365-4RY	3.3	3.0	4.0	3.7	4.0	3.6	2.6	3.0	1.8	3.0	3.5	2.8
Yellow Flesh													
11	Yukon Gold	1.3	2.0	2.0	1.0	1.0	1.5	3.0	2.0	3.0	2.5	2.5	2.6
12	A05182-7Y	1.4	2.0	2.0	1.0	1.0	1.5	2.9	2.0	2.5	2.5	3.0	2.6
13	ATX05202S-3W/Y	1.0	3.0	2.0	1.0	1.0	1.6	2.6	3.0	2.0	3.0	3.0	2.7
14	CO05037-3W/Y	1.5	2.0	2.0	1.0	1.0	1.5	3.8	4.0	3.3	3.0	3.5	3.5
15	COTX03134-1W	1.0		2.0	1.0	1.0	1.3	1.3		1.0	1.0	1.0	1.1
16	NDA081451CB-1CY	1.0	3.0	1.9	1.0	1.0	1.6	3.3	3.0	3.0	3.0	3.0	3.1
17	TXWL-1	1.4		2.0	1.0	1.0	1.3	2.0		1.0	1.0	1.0	1.3
Mean		2.2	2.4	2.8	2.4	2.7	2.5	2.6	2.5	2.2	2.2	2.6	2.4

Table 17. Antioxidant Equivalents, Springlake, TX

Entry	Clone/Variety	Antioxidant Equivalents ¹	
		μg Ascorbic Acid equivalents/gfw ²	μg Trolox equivalents/gfw ³
Red/White Flesh			
1	Chieftan	382.4	332.5
2	Red LaSoda	380.5	330.9
3	NDA050237B-1R	114.2	96.2
Red-Purple/Yellow Flesh			
4	A05180-3PY	317.1	275.0
5	AC05175-3P/Y	433.3	377.4
6	ATTX98514-1R/Y	454.2	395.8
7	CO04021-2R/Y	195.4	167.7
8	CO05035-1PW/Y	217.9	187.5
9	CO05037-2R/Y	334.6	290.4
10	COA07365-4RY	445.6	388.2
Yellow Flesh			
11	Yukon Gold	457.9	399.0
12	A05182-7Y	398.0	346.3
13	ATX05202S-3W/Y	404.8	352.3
14	CO05037-3W/Y	172.2	147.3
15	COTX03134-1W	311.1	269.7
16	NDA081451CB-1CY	325.4	282.2
17	TXWL-1	476.8	415.7
Mean		342.4	297.3

Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methanol were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

² μg Ascorbic acid equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y=860.86x-8.803$

³ μg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y=758.56x-12.274$

Table 18. Eye Depth and External Defects

Entry	Clone/Variety	CA	ID	TX	TX	Eye Depth	CA	CO	ID	TX	TX	Growth Cracks	CA	CO	TX	TX	Knobs	TX	TX	Shatter Bruise	ID	TX	TX	Scab
		TUL	AB	SPL	DAL		TUL ¹	SLV	AB	SPL	DAL		TUL ¹	SLV	SPL	DAL		SPL	DAL		AB	SPL	DAL	
Red/White Flesh																								
1	Chieftan	3.0	3.0	4.0	3.5	3.4	3.4	4.0	4.0	5.0	5.0	4.5	0.9	4.0	5.0	5.0	4.7	5.0	5.0	5.0	4.5	5.0	5.0	4.8
2	Red LaSoda	2.4	2.2	2.0	2.0	2.1	11.0	4.0	3.3	5.0	5.0	4.3	2.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.8	5.0	5.0	4.6
3	NDA050237B-1R	3.1	3.6	4.0	4.0	3.7	0.8	4.0	4.4	5.0	5.0	4.6	0.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.8	5.0	5.0	4.9
Red-Purple/Yellow Flesh																								
4	A05180-3PY	3.1	3.9	3.7	4.0	3.7	7.6	5.0	3.0	5.0	5.0	4.5	0.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
5	AC05175-3P/Y	2.8	3.5	4.0	4.0	3.6	0.0	5.0	5.0	5.0	5.0	5.0	0.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.4	5.0	5.0	4.8
6	ATTX98514-1R/Y	3.8	4.0		4.0	3.9	7.3	1.0	1.7		5.0	2.6	0.6	4.0		5.0	4.5		5.0	5.0	5.0		5.0	5.0
7	CO04021-2R/Y	3.6	3.8	4.0	4.0	3.8	0.3	5.0	4.5	5.0	5.0	4.9	0.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.3	5.0	5.0	4.8
8	CO05035-1PW/Y	3.9	3.4	4.0	2.0	3.3	0.2	4.0	4.6	5.0	5.0	4.7	0.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.8	5.0	5.0	4.3
9	CO05037-2R/Y	3.4	4.3	4.0	4.0	3.9	0.0	5.0	5.0	5.0	5.0	5.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.7
10	COA07365-4RY	3.5	4.1	4.0	4.0	3.9	1.0	4.0	4.6	5.0	5.0	4.7	0.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.9
Yellow Flesh																								
11	Yukon Gold	3.6	3.6	4.0	4.0	3.8	0.8	4.0	4.6	5.0	5.0	4.7	0.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	4.0
12	A05182-7Y	3.4	3.8	4.0	3.0	3.5	0.1	5.0	4.8	5.0	5.0	4.9	0.2	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.5	5.0	5.0	4.8
13	ATX05202S-3W/Y	3.9	4.0	4.0	4.0	4.0	2.7	4.0	4.0	5.0	5.0	4.5	0.9	4.0	5.0	5.0	4.7	5.0	5.0	5.0	3.9	5.0	5.0	4.6
14	CO05037-3W/Y	3.8	4.1	4.0	4.0	4.0	0.0	4.0	4.5	5.0	5.0	4.6	0.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.6	5.0	5.0	4.5
15	COTX03134-1W	3.0	2.9	4.0	4.0	3.5	0.7		4.1	5.0	5.0	4.7	0.3		5.0	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.7
16	NDA081451CB-1CY	3.9	3.1	4.0	4.0	3.8	2.1	4.0	4.1	5.0	5.0	4.5	0.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	5.0	5.0	5.0
17	TXWL-1	1.6	2.0	2.0	2.0	1.9	7.2		3.3	5.0	5.0	4.4	0.6		5.0	5.0	5.0	5.0	5.0	5.0	2.8	5.0	5.0	4.3
Mean		3.3	3.5	3.7	3.6	3.5	2.7		4.1	5.0	5.0	4.5	0.5		5.0	5.0	4.9	5.0	5.0	5.0	4.0	5.0	5.0	4.7

¹% total tubers

Table 19. Internal Defects

Entry	Clone/Variety	Percent Incidence (%) ¹											Blackspot Bruise												
		OR	CA	CO	ID	TX	TX		OR	ID	TX	TX		OR	CA	ID	TX	TX	OR	CA	CO ²	TX	TX		
		ON	TUL	SLV	AB	SPL	DAL	HH	ON	AB	SPL	DAL	IBS	ON	TUL	AB	SPL	DAL	VD	ON%	TUL%	SLV	SPL%	DAL%	BB
Red/White Flesh																									
1	Chieftan	0	0	1	20	0	0	4	13	0	0	43	14	0	28	0	0	0	6	0	0	4	1	0	0
2	Red LaSoda	3	5	3	3	0	0	2	0	0	18	0	5	0	23	0	0	0	5	0	0	4	1	0	2
3	NDA050237B-1R	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	6	0	0	5	1	0	2
Red-Purple/Yellow Flesh																									
4	A05180-3PY	0	3	0	8	0	0	2	0	0	0	0	0	0	38	0	0	0	8	0	0	4	0	0	0
5	AC05175-3P/Y	0	3	0	3	0	0	1	0	0	0	0	0	0	13	0	0	0	3	0	3	5	0	0	1
6	ATX98514-1R/Y	0	0	0	0		0	0	3	0		0	1	0	15	0		0	4	0	3	5		0	1
7	CO04021-2R/Y	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	6	0	0	5	0	0	0
8	CO05035-1PW/Y	0	3	0	0		3	1	0	0	0	0	0	0	25	0	0	0	5	0	0	5	0	0	0
9	CO05037-2R/Y	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	10	0	0	5	0	0	0
10	COA07365-4RY	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	4	0	3	5	0	0	1
Yellow Flesh																									
11	Yukon Gold	0	8	0	20	0	0	5	23	0	0	0	6	0	68	0	0	0	14	0	0	5	0	0	0
12	A05182-7Y	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	2	0	0	4	0	0	0
13	ATX05202S-3W/Y	0	0	0	0	0	0	0	15	0	0	0	4	0	10	0	0	0	2	0	0	5	0	0	0
14	CO05037-3W/Y	0	0	0	0	0	0	0	3	0	0	0	1	0	10	0	0	0	2	0	0	5	0	0	0
15	COTX03134-1W	0	3		0	0	0	1	5	0	0	0	1	0	38	0	0	0	8	0	0		0	0	0
16	NDA081451CB-1CY	0	3	0	5	0	0	1	0	0	0	0	0	0	13	0	0	0	3	0	0	5	0	0	0
17	TXWL-1	0	0		3	0	0	1	0	0	0	0	0	0	18	0	0	0	4	0	0		0	0	0
Mean		0	1	0	4	0	0	1		0	1	3	2		25	0	0	0	5	0	0	5	0	0	0

¹ Percent based on 10 cut tubers averaged from 7 sites.

² 1 to 5=none

Table 20. Disease Evaluations, Metribuzin Reaction

Entry Clone/Variety	Aberdeen			Tulelake
	Vert. Wilt/ Early Dying ¹ Foliar	Early Blight ¹ Foliar	Metribuzin Reaction ²	Vert. AUDPC ³
Red/White Flesh				
1 Chieftan	3.8	3.5	R	210
2 Red LaSoda	3.8	3.8	MR	146
3 NDA050237B-1R	3.8	4.0	MR	65
Red-Purple/Yellow Flesh				
4 A05180-3PY	3.8	3.5	R	298
5 AC05175-3P/Y	2.5	2.5	MR	991
6 ATTX98514-1R/Y	3.5	3.3	MR	339
7 CO04021-2R/Y	3.8	3.8	MR	65
8 CO05035-1PW/Y	3.8	3.3	R	120
9 CO05037-2R/Y	2.8	2.5	MS	472
10 COA07365-4RY	3.8	3.5	R	143
Yellow Flesh				
11 Yukon Gold	3.0	2.0	R	505
12 A05182-7Y	3.8	4.0	R	68
13 ATX05202S-3W/Y	3.5	4.0	R	86
14 CO05037-3W/Y	2.5	2.3	MS	671
15 COTX03134-1W	3.5	3.8	MR	168
16 NDA081451CB-1CY	3.8	4.0	R	106
17 TXWL-1	3.5	4.0	R	182
Mean	3.4	3.4		273

¹ Evaluations made at Aberdeen, ID by Potato Variety Team; scale as indicated with lowest number being most severe. For 1 to 5 5=no symptoms; 1=90-100% dead or dying with typical disease symptoms.

² Metribuzin reaction measured at Aberdeen, ID. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very

³ Area Under Disease Product Curve Based on reading taken 80, 92, 99 days from planting

Table 21. Tuber Composition

Entry	Clone/Variety	Aberdeen, Idaho					
		Solids	Protein ¹	Dextrose ²	Sucrose ²	Vitamin C ³	TGA ⁴
Red/White Flesh							
1	Chieftan	17.78	5.94	0.054	0.239	18.36	3.97
2	Red LaSoda	16.51	6.29	0.159	0.128	18.48	2.72
3	NDA050237B-1R	14.54	5.91	0.296	0.200	12.45	3.18
Red-Purple/Yellow Flesh							
4	A05180-3PY	19.00	6.07	0.125	0.214	18.60	1.43
5	AC05175-3P/Y	16.41	5.01	0.021	0.177	19.66	1.79
6	ATTX98514-1R/Y	15.33	6.35	0.113	0.265	14.70	4.40
7	CO04021-2R/Y	17.98	6.44	0.079	0.134	14.82	1.53
8	CO05035-1PW/Y	17.98	7.02	0.054	0.188	17.56	2.10
9	CO05037-2R/Y	21.65	7.00	0.021	0.173	27.44	3.88
10	COA07365-4RY	17.02	8.49	0.030	0.137	19.51	4.17
Yellow Flesh							
11	Yukon Gold	20.46	6.93	0.029	0.182	28.30	3.56
12	A05182-7Y	17.53	6.04	0.051	0.237	16.70	2.56
13	ATX05202S-3W/Y	16.94	7.55	0.144	0.169	17.64	8.66
14	CO05037-3W/Y	18.94	6.44	0.019	0.232	17.82	3.79
15	COTX03134-1W	18.84	6.08	0.039	0.187	19.67	5.83
16	NDA081451CB-1CY	19.22	6.39	0.063	0.195	17.85	2.88
17	TXWL-1	17.18	7.11	0.137	0.157	18.12	2.89
Mean		17.84	6.53	0.084	0.189	18.69	3.49

^{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	Tulelake, CA	Center, CO
Red/White Flesh				
1	Chieftan	big, ugly, deep eyes, attached stolons, skinned, bumps	dull, attached stolons	
2	Red LaSoda	lumpy, big, green GC, deep eyes	powdery scab	
3	NDA050237B-1R	many, small round, uniform, skinned	pretty, smooth, best of reds, attached stolons	high yield
Red-Purple/Yellow Flesh				
4	A05180-3PY	round, skinned, deep eyes, attached stolons, growth cracks	intense shatter, sticky attached stolons	powdery scab, good yellow
5	AC05175-3P/Y	round, slt russet, some bumps, few attached stolons	dark	good yellow
6	ATTX98514-1R/Y	lots growth cracks, few skinning	pear shape, flat	fair yellow
7	CO04021-2R/Y	shattered, few, skin, few attached stolons, points	russeting, few eyes, elephant hide	good yellow
8	CO05035-1PW/Y	big, scab, green, some attached stolons	ATS, color based on purple	good yellow
9	CO05037-2R/Y	elongated, skinned, some attached stolons	torpedo, fingerling	good yellow
10	COA07365-4RY	small, round, skinning, uniform	terrible shatter, dark red	light yellow
Yellow Flesh				
11	Yukon Gold	big, scab, green, some attached stolons	Yukon Gold	fair yellow
12	A05182-7Y	small, round, many	shiny, more pink eyes than Yukon, attached stolons, scab	fair yellow, powdery scab
13	ATX05202S-3W/Y	many, small round, green, skinned	scab, Rhizoctonia	fair yellow, high yield
14	CO05037-3W/Y	smooth, some green	flat, black dot	good yellow
15	COTX03134-1W	misshapened, ugly, deep eyes	pear shape, lumpy, hour glass, lots of eyes	
16	NDA081451CB-1CY	deep eyes, many, green	attached stolons shiny, scab	fair yellow
17	TXWL-1	ugly, lumps, poor skin, deep eyes	lumpy, spreading pink eyes	

Table 23. Entry Location Comments Continued

Entry	Clone/Variety	Springlake, TX	Dalhart, TX	Ontario, OR
Red/White Flesh				
1	Chieftan	lots of B's, nice shape, light skin color	poor internals++, light skin, IBS++	
2	Red LaSoda	deep eyes, some vascular discoloration	light skin, deep eyes	
3	NDA050237B-1R	small, very dark skin color, very white flesh, sticky stolon, excellent color,	dark skin color, heat sprouts++, nice skin, low yield	
Red-Purple/Yellow Flesh				
4	A05180-3PY	very nice purple skin color, nice shape and flesh, light flesh	silver scurf, light flesh, drop, faded skin color	
5	AC05175-3P/Y	nice, scurf, sticky stolons, nice skin	deep eyes, silver scurf,	
6	ATTX98514-1R/Y	ND	nice flesh and skin, smooth, light skin	
7	CO04021-2R/Y	nice yellow flesh, light skin color, poor shape, low yield, small	rough, drop+, poor shape	
8	CO05035-1PW/Y	purple pinto, rough chain tubers, nice yield, faded purple color	greenhead, deep eyes, rough, very light purple skin, oversized, poor shape	
9	CO05037-2R/Y	small parent, very small, BOT for small potato, nice skin and flesh	nice flesh, fingerling, long skinny, no curve	
10	COA07365-4RY	small potato, good skin color	nice shape, smooth	
Yellow Flesh				
11	Yukon Gold	low yield, uniform, nice	oversized, nice shape	
12	A05182-7Y	rough, sticky stolon, variable, shape, drop, heavy set, small potato, light flesh	high set, deep eyes, smooth, small, light set, some rough	
13	ATX05202S-3W/Y	low yield, BOT for small potato	smooth, uniform size, small, BOT	
14	CO05037-3W/Y	flesh parent, BOT, smooth skin, nice shape, light flesh	greenhead, pointed, drop, rough, poor shape, pear shaped, nice flesh	
15	COTX03134-1W	white flesh, road map, drop, poor skin, small, uniform shape, buff skin,	high set, variable shape, small, white flesh	
16	NDA081451CB-1CY	heat sprouts, small, uniform, smooth, nice	high set, greenhead, smooth, nice shape, small, uniform, nice	
17	TXWL-1	deep eyes, specialty, yield +, deep eyes, rough	yield++, rough, red eyes, deep eyes, oversized	

Table 24. Postharvest Evaluation Summary

Clone	Boiled (25 max)	Baked (25 max)	Microwaved (25 max)	Total (75 max)
1 Chieftain	18	18	19	55
2 NDA050237B-1R	18	19	17	54
3 NDTX5438-11R	18	17	18	52
4 A05180-3PY	18	18	17	53
10 COA07365-4RY	17	19	17	53
11 Yukon Gold	18	20	18	55
12 A05182-7Y	16	19	18	54
16 NDA081451CB-1CY	19	20	19	58
French Fried: Aug. 17				
Chipped: Aug. 17				
Baked: Aug. 14				
Boiled: Aug. 12				
Microwaved: Aug. 13				
Cooking Time: Aug. 18				

Table 25. Summary Means

Entry	Clone/Variety	Year	Yield Summary ¹							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit ²
Red/White Flesh												
1	Chieftan	***	76	88	112	228	111	25	430	5.3	1.070	3.3
2	Red LaSoda	***	74	77	114	227	115	49	470	5.4	1.068	2.6
3	NDA050237B-1R	2	119	97	94	213	35	6	363	3.5	1.059	3.8
Red-Purple/Yellow Flesh												
4	A05180-3PY	2	147	130	131	241	38	24	440	3.6	1.070	3.6
5	AC05175-3P/Y	2	130	123	102	199	8	4	329	3.2	1.064	2.9
6	ATTX98514-1R/Y	1	75	82	96	161	49	37	317	4.5	1.065	2.5
7	CO04021-2R/Y	2	93	100	111	204	54	26	381	3.5	1.074	3.0
8	CO05035-1PW/Y	1	94	96	120	234	115	16	453	4.9	1.072	3.2
9	CO05037-2R/Y	2	184	53	25	57	0	3	239	2.0	1.087	2.8
10	COA07365-4RY	1	159	90	58	138	2	9	299	2.6	1.073	3.6
Yellow Flesh												
11	Yukon Gold	***	58	71	106	181	98	12	344	5.4	1.080	3.0
12	A05182-7Y	2	220	117	87	178	5	6	399	2.6	1.074	3.7
13	ATX05202S-3W/Y	2	193	133	126	239	26	14	455	2.9	1.074	3.8
14	CO05037-3W/Y	2	207	122	88	176	5	13	384	2.7	1.072	3.3
15	COTX03134-1W	1	228	52	25	59	0	26	310	1.8	1.077	2.6
16	NDA081451CB-1CY	2	216	132	142	230	18	24	474	3.0	1.085	3.8
17	TXWL-1	1	71	85	120	225	153	36	493	5.6	1.066	2.5
Mean			171	95	86	165	34	16	377	3.2	1.076	3.2

¹Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.² Scale = 1-5 best

Table 26. 2-Year Summary of Graduating Entries

Entry	Clone/Variety	Year	Yield Summary ¹							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit ²
Red/White Flesh												
1	Chieftan	***	66	80	159	266	166	28	520	6.0	1.071	3.5
2	Red LaSoda	***	65	65	130	226	162	48	503	6	1.069	3
3	NDA050237B-1R	2	126	97	115	239	63	7	430	4.0	1.061	3.7
Red-Purple/Yellow Flesh												
4	A05180-3PY	2	137	131	149	276	60	22	490	3.9	1.069	3.6
5	AC05175-3P/Y	2	214	104	64	175	7	5	394	3	1.073	3
7	CO04021-2R/Y	2	134	65	62	137	31	13	319	2.8	1.077	3.0
9	CO05037-2R/Y	2	157	67	51	118	22	4	299	3	1.077	3
Yellow Flesh												
11	Yukon Gold	***	78	85	132	226	107	12	411	6	1.078	3
12	A05182-7Y	2	212	102	81	177	11	6	409	2.8	1.071	3.7
13	ATX05202S-3W/Y	2	196	137	133	265	37	14	512	3	1.073	4
14	CO05037-3W/Y	2	204	120	95	203	9	9	423	3.2	1.073	3.0
16	NDA081451CB-1CY	2	239	156	146	269	18	16	544	3	1.083	4
Mean			180	105	96	177	25	12	383	3	1.078	3

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

^{2/}Scale = 1-5 best

Table 27. Summary Means 4236

Entry	Clone/Variety	Year	Yield Summary ¹						Tuber Size oz./tuber	Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls		Total	Spec. grav.	Fresh Merit ²
Red/White Flesh												
1	Chieftan	***	55	73	206	303	221	31	611	6.6	1.072	3.6
2	Red LaSoda	***	55	52	147	225	209	47	536	7.1	1.070	2.4
4	NDA050237B-1R	1	134	98	136	266	90	8	498	4.4	1.062	3.7
Red-Purple/Yellow Flesh												
6	A05180-3PY	1	127	133	168	310	81	21	539	4.1	1.068	3.5
7	ATTX98444S-16R/Y	1	298	86	27	151	5	6	460	2.6	1.082	3.9
9	CO05037-2R/Y	1	176	29	12	71	8	1	256	2.1	1.079	2.9
10	AC05175-3P/Y	1	130	81	77	179	44	4	358	4.0	1.067	3.0
Yellow Flesh												
11	Yukon Gold	***	99	99	158	272	116	13	478	5.6	1.077	2.7
13	A05182-7RY	1	204	87	76	176	18	6	419	3.0	1.069	3.7
14	ATX05202S-3W/Y	1	199	141	140	290	48	15	569	3.5	1.072	3.9
16	CO05037-3W/Y	1	201	119	102	229	13	5	461	3.8	1.074	2.8
17	NDA081451CB-1CY	1	262	180	150	309	17	9	613	3.5	1.081	3.5
Mean			187	111	103	223	34	9	463	3.6	1.074	3.2

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

²Scale = 1-5 best

Compiled by Jeff Koym*, Douglas Scheuring, and Creighton Miller
Department of Horticultural Sciences
Texas A&M University
College Station and Lubbock*
Cover by Angel Chappell

Data provided by cooperators in California, Colorado, Idaho, Oregon, Texas, and Washington