

# 2021 Western Regional



## Red/Specialty Trial

Cover: Mixed specialty potatoes after boiling.

# 2021 Western Regional Red/Specialty Trial

## Table of Contents

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

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

Locations	Cooperators	Irrigation	Fertilizer N-P-K-S (lb./A)	Vine Kill Method	Planting Date	Vine Kill Date	Harvest Date	Pesticides Applied		
								Herbicides	Insecticides	Fungicides
Othello Washington (OTH)	M. Pavek R. Knowles	Overhead	250-200-250-0	Mechanical	4/6/2021	7/26/2021	8/9/2021	Outlook Prowl H2O Eptam	Platinum	Priaxor Equus Bravo Zing
Ontario Oregon (ON)	Clint Shock, E. Feibert	Sprinkler, solid set	152 N	Mechanical	44294	9/15/2021	9/30/2021	Dual Magnum (metolachlor), preemergence, Prowl H2O (pendimethalin), preemergence Eptam (ethyl dipropylthiocarbamate), preemergence Matrix (rimsulfuron) June 7, June 29 Poast (sethoxydim) June 7, June 29	Admire (imidacloprid), preplai	Bravo WS, June 7, June 29 Luna Tranquility, June 7, June 29
Tulelake California (TUL)*	R. Wilson D. Culp K. Nicholson	Solid-set sprinkler	172-100-400	Reglone / Roll	5/18/2021	9/1/2021	9/30/2021	Prowl H2O Outlook Matrix SG	Admire Pro	Quadris Maxim 4FS (seed)
San Luis Valley Colorado (SLV)	D. Holm C. Gray B. Niebaum	Pivot	120-100-150	Reglone	44327	9/3/2021	9/27/2021	Prowl H2O Intensity Tuscany	Pure Spray Green Sefina Inscalis	Quadris Top Revus Top Bravo Weather Stik Agri Tin
Aberdeen Idaho (AB)	R Spear R. Novy, J. Whitworth, C. Lowder	Sprinkler	270-80-0-5Zn-5Mn	Mechanical	4/26/2021	8/11/2021	8/25/2021	TriCor 4F Matrix Eptam	Admire Pro	
Springlake Texas (SPL)	I. Vales J. Koym, D. Scheuring	Pivot	72-14-13	Mechanical	44285	7/12/2021	7/19/2021	Eptam 7E Makaze Medal EC Stealth	Velum Rrime SPE 120	
Dalhart Texas (DAL)	I. Vales J. Koym, D. Scheuring	Pivot	211-226-263	Reglone	5/2/2021	8/23/2021	9/14/2021	Eptam 7E, Tricor 4F Acumen, Brawl, Treflan, Chateau Reglone	Movento Fulfill Reaper ClearForm	Minuet MetaStar A-Frame Provysol, Scala SC
Orcas Island WA	B. Brouwer	Drip - 0.25 inch per we	85-132-58	Mechanical	44336	8/25/2021	10/7/2021			

**Table 2. Description of Clones - 2020 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	
<b>Red/White Flesh</b>												
1 Chieftain	LA1354	LA1027-18	Purple	Medium	Medium	Round	Dark Red	White	Check	OR	***	CHECK
2 Red LaSoda	Triumph	Katahdin	Red-purple	Medium	Medium	Oval	Lt. Red	White	Check	OR	***	CHECK
3 Modoc	ND1196-2R	ND2225-1R	Purple	Medium	Medium	Round	Dark Red	White	Check	OR	***	CHECK
4 A08122-12Rsto	A02267-5PY	COA01406-1R	Dk Red-Purple	Medium	Medium	Round	Red	White	ID	OR	1	
5 NDA8512C-1R	ND6694C-1R	ND5256-7R	M. Red-Purple	Small	Early	Round	Red	White	ID	OR	1	
<b>Yellow Flesh</b>												
6 Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Yellow	Check	OR	***	CHECK
7 A08120-4Y	A02267-2PY	POR02PG26-5	Dk Red-Purple	Medium	Medium	Round	Yellow	Yellow	ID	OR	1	
8 AORTX09037-1W/Y	Fasan	Ivory Crisp	White	Large	Late	Round	White	Yellow	TX	CO	1	
9 CO11250-1W/Y	CO99045-1W/Y	POR02PG26-5	Purple	Large	Med-Late	Oval	White	Yellow	CO	CO	2	
10 CO11266-1W/Y	CO03060-2W/Y	A99433-5Y	Dark Purple	Medium	Late	Oval	White	Yellow	CO	CO	2	
11 COTX10118-4Wpe/Y	07S019	AC03534-2R/Y	Lt Red-purple	Medium	Late	Round	White Purple Eye	Yellow	TX	CO	1	

[Table of Contents](#)

**Table 3. Percent Stand**

Entry	Clone/Variety	Percent Stand							Mean
		CA	CO	ID	TX	TX	WA		
		TUL	SLV	AB	SPL	DAL	ORC	ISL	
<b>Red/White Flesh</b>									
1	Chieftain	93	95	99	90	100	73	86	91
2	Red LaSoda	98	99		89	100			96
3	Modoc	98	87	100	88	97	98	86	93
4	A08122-12Rsto	99	99	100	98	100	100	94	98
5	NDA8512C-1R		99	99	81	86		91	91
<b>Yellow Flesh</b>									
6	Yukon Gold	99	96	97	56	86		93	88
7	A08120-4Y	98		99	97	100	100	99	99
8	AORTX09037-1W/Y	100	94	100	99	100	100		99
9	CO11250-1W/Y	100	98	100	98	100	100		99
10	CO11266-1W/Y	96	98	100	100	100	100		99
11	COTX10118-4Wpe/Y	99	96	100	89	100	100		97
<b>Mean</b>		<b>98</b>	<b>96</b>	<b>99</b>	<b>89</b>	<b>97</b>	<b>96</b>	<b>91</b>	<b>96</b>

[Table of Contents](#)

**Table 4. Vine Size and Vine Maturity**

Entry Clone/Variety	Vine Size (1-5 large)						Vine Maturity (1-5 late)						
	CO	ID	TX	TX	WA	Mean	CO	ID	TX	TX	WA	Mean	
	SLV	AB	SPL	DAL	ORC ISL		SLV	AB	SPL	DAL	ORC ISL		
<b>Red/White Flesh</b>													
1	Chieftain	3.3	2.0	3.8	4.0	3.8	3.4	2.8	3.9	3.3	3.6	3.8	3.4
2	Red LaSoda	4.3		4.0	4.1		4.1	2.8		4.8	5.0		4.2
3	Modoc	3.0	2.3	3.6	4.0	1.5	2.9	1.0	2.0	2.8	3.2	2.0	2.2
4	A08122-12Rsto	3.8	2.3	3.8	4.1	3.3	3.4	2.0	3.5	3.4	3.6	2.0	2.9
5	NDA8512C-1R	3.0	2.0	3.3	3.7		3.0	1.0	2.0	2.9	1.8		1.9
<b>Yellow Flesh</b>													
6	Yukon Gold	3.8	2.0	2.5	3.9		3.0	1.8	2.8	3.7	3.7		3.0
7	A08120-4Y		2.5	3.6	4.1	4.0	3.5		3.9	4.7	5.0	4.3	4.4
8	AORTX09037-1W/Y	4.0	3.0	3.7	4.1	3.5	3.7	2.5	3.6	3.9	4.3	1.8	3.2
9	CO11250-1W/Y	4.3	2.2	3.5	4.2	3.5	3.5	3.3	3.8	4.2	5.0	3.0	3.8
10	CO11266-1W/Y	4.5	3.5	3.7	4.2	4.0	4.0	3.8	4.4	4.7	5.0	4.0	4.4
11	COTX10118-4Wpe/Y	4.5	3.8	2.9	4.0	4.5	3.9	3.5	3.9	4.3	5.0	3.8	4.1
<b>Mean</b>		3.8	2.5	3.5	4.0	3.5	3.5	2.4	3.4	3.9	4.1	3.1	3.4

[Table of Contents](#)

**Table 5. Total Yield**

Entry Clone/Variety	Total Yield (cwt/a)								Mean	Rank	
	OR	CA	CO	ID	TX	TX	WA				
	ON	TUL	SLV	AB	SPL	DAL	ORC	ISL			OTH
<b>Red/White Flesh</b>											
1	Chieftain	910	523	447	438	163	423	126	688	465	2
2	Red LaSoda	1079	522	520		222	559			580	1
3	Modoc	626	509	349	324	158	423	124	682	399	4
4	A08122-12Rsto	826	469	389	391	184	438	168	643	438	3
5	NDA8512C-1R	423		320	304	91	307		558	334	5
<b>Yellow Flesh</b>											
6	Yukon Gold	494	399	354	322	78	300		604	365	4
7	A08120-4Y	545	364		187	89	152	130	445	273	6
8	AORTX09037-1W/Y	885	437	411	390	159	457	184		418	2
9	CO11250-1W/Y	873	464	402	372	119	429	192		407	3
10	CO11266-1W/Y	667	410	403	289	155	360	118		343	5
11	COTX10118-4Wpe/	884	579	514	463	121	427	185		453	1
<b>Mean</b>		<b>746</b>	<b>468</b>	<b>411</b>	<b>348</b>	<b>140</b>	<b>389</b>	<b>153</b>	<b>603</b>	<b>407</b>	

[Table of Contents](#)



**Table 6. Yield and Percent < 4 oz**

Entry	Clone/Variety	Yield < 4 oz (cwt/a)										Percent < 4 oz											
		OR	CA	CO	ID	TX	TX	WA			Mean	Rank	OR	CA	CO	ID	TX	TX	WA			Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																							
1	Chieftain	187	32	46	56	77	89	90	140	96	4	21	6	10	13	47	21	71	20	27	4		
2	Red LaSoda	83	33	82		95	98			86	5	8	6	16		43	18			20	5		
3	Modoc	164	199	138	200	119	139	120	208	181	2	26	39	39	62	76	33	97	30	54	2		
4	A08122-12Rsto	293	273	188	246	165	259	158	440	262	1	35	58	48	63	89	59	94	68	67	1		
5	NDA8512C-1R	108		111	115	57	79		134	101	3	26		35	38	62	26		24	35	3		
<b>Yellow Flesh</b>																							
6	Yukon Gold	69	16	34	23	40	36		87	48	6	14	4	10	7	52	12		14	17	6		
7	A08120-4Y	488	277		163	85	143	121	435	239	1	89	76		87	95	94	94	98	89	1		
8	AORTX09037-1W/Y	453	161	134	231	101	189	156		218	3	51	37	33	59	63	41	85		51	4		
9	CO11250-1W/Y	435	276	101	204	96	239	161		224	2	50	59	25	55	81	56	84		56	2		
10	CO11266-1W/Y	344	191	182	147	134	80	113		183	5	52	47	45	51	86	22	96		54	3		
11	COTX10118-4Wpe/	354	158	176	157	104	202	172		204	4	40	27	34	34	87	47	93		48	5		
<b>Mean</b>		271	162	119	154	98	141	137	241	167		37	36	30	47	71	39	89	43	47			

[Table of Contents](#)

**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	WA			Mean	Rank	OR	CA	ID	TX	TX	WA			Mean	Rank
		ON	TUL	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																					
1	Chieftain	169	53	77	51	86	26	199	94	3	19	10	18	31	20	20	29	21	3		
2	Red LaSoda	96	41		27	115			70	5	9	8		12	21			12	5		
3	Modoc	148	184	85	21	105	0	232	111	1	24	36	26	14	25	0	34	23	2		
4	A08122-12Rsto	222	134	93	17	92	3	159	103	2	27	29	24	9	21	2	25	19	4		
5	NDA8512C-1R	100		109	19	91		150	94	4	24		36	21	29		27	27	1		
<b>Yellow Flesh</b>																					
6	Yukon Gold	94	33	33	24	57		100	57	5	19	8	10	30	19		17	17	4		
7	A08120-4Y	40	64	16	0	4	2	11	19	6	7	18	9	0	3	1	2	6	6		
8	AORTX09037-1W/Λ	228	137	101	40	103	19		105	1	26	31	26	25	23	10		24	1		
9	CO11250-1W/Y	239	121	101	9	78	20		95	3	27	26	27	8	18	11		20	2		
10	CO11266-1W/Y	134	125	77	3	25	0		61	4	20	30	27	2	7	0		14	5		
11	COTX10118-4Wpe/∧	204	130	134	9	131	5		102	2	23	22	29	8	31	3		19	3		
<b>Mean</b>		152	102	83	20	81	9	142	83		20	22	23	15	20	6	22	18			

[Table of Contents](#)

**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	WA			Mean	Rank	OR	CA	ID	TX	TX	WA			Mean	Rank
		ON	TUL	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																					
1	Chieftain	226	159	153	7	95	5	286	133	1	25	30	35	4	23	4	42	23	2		
2	Red LaSoda	170	105		29	151			114	2	16	20		13	27			19	3		
3	Modoc	180	108	27	9	86	0	216	89	4	29	21	8	6	20	0	32	17	4		
4	A08122-12Rsto	230	51	39	0	52	0	44	59	5	28	11	10	0	12	0	7	10	5		
5	NDA8512C-1R	136		62	8	55		232	99	3	32		20	9	18		42	24	1		
<b>Yellow Flesh</b>																					
6	Yukon Gold	163	89	91	8	72		255	113	1	33	22	28	10	24		42	27	1		
7	A08120-4Y	3	16	2	0	0	0	0	3	6	1	4	1	0	0	0	0	1	6		
8	AORTX09037-1W/Δ	136	110	37	9	90	0		64	3	15	25	10	5	20	0		13	3		
9	CO11250-1W/Y	127	57	46	2	75	3		52	4	15	12	12	2	18	2		10	4		
10	CO11266-1W/Y	83	71	49	0	7	0		35	5	13	17	17	0	2	0		8	5		
11	COTX10118-4Wpe/	178	179	107	1	47	2		86	2	20	31	23	1	11	1		14	2		
<b>Mean</b>		148	95	61	7	66	1	172	77		20	19	17	5	16	1	27	15			

[Table of Contents](#)

**Table 9. Yield and Percent >10 oz.**

		Yield >10 oz (cwt/a)										Percent >10 oz (%)											
Entry	Clone/Variety	OR	CA	CO	ID	TX	TX	WA			Mean	Rank	OR	CA	CO	ID	TX	TX	WA			Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																							
1	Chieftain	164	215	157	130	9	140	0	62	110	2	18	41	35	30	6	33	0	9	21	2		
2	Red LaSoda	347	148	131		4	171			160	1	32	28	25		2	31			24	1		
3	Modoc	109	16	19	2	0	53	0	27	28	4	17	3	6	0	0	12	0	4	5	4		
4	A08122-12Rsto	45	0	2	6	0	16	0	0	9	5	5	0	1	1	0	4	0	0	1	5		
5	NDA8512C-1R	68		6	4	2	62		41	31	3	16		2	1	3	20		7	8	3		
<b>Yellow Flesh</b>																							
6	Yukon Gold	141	238	139	130	6	117		162	133	1	28	60	39	40	7	39		27	34	1		
7	A08120-4Y	0	0		0	0	0	0	0	0	6	0	0		0	0	0	0	0	0	6		
8	AORTX09037-1W/Y	24	9	33	9	0	46	0		17	3	3	2	8	2	0	10	0		4	3		
9	CO11250-1W/Y	9	2	32	4	0	16	0		9	4	1	0	8	1	0	4	0		2	4		
10	CO11266-1W/Y	9	15	3	3	0	0	0		4	5	1	4	1	1	0	0	0		1	5		
11	COTX10118-4Wpe/	53	88	63	33	0	42	0		40	2	6	15	12	7	0	10	0		7	2		
<b>Mean</b>		<b>88</b>	<b>73</b>	<b>59</b>	<b>32</b>	<b>2</b>	<b>60</b>	<b>0</b>	<b>49</b>	<b>49</b>		<b>12</b>	<b>15</b>	<b>14</b>	<b>8</b>	<b>2</b>	<b>15</b>	<b>0</b>	<b>8</b>	<b>10</b>			

[Table of Contents](#)

**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	WA			Mean	Rank	OR	CA	CO	ID	TX	TX	WA			Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																							
1	Chieftain	394	212	239	230	58	182	31	485	229	1	43	41	54	52	35	43	24	71	45	2		
2	Red LaSoda	267	146	290		56	265			205	2	25	28	56		25	48			36	4		
3	Modoc	329	292	187	112	31	191	0	448	199	3	53	57	54	35	19	45	0	66	41	3		
4	A08122-12Rsto	451	185	191	132	17	143	3	203	166	5	55	39	49	34	9	33	2	32	32	5		
5	NDA8512C-1R	236		201	171	27	146		382	194	4	56		63	56	30	47		69	53	1		
<b>Yellow Flesh</b>																							
6	Yukon Gold	257	122	163	124	32	129		354	169	3	52	31	46	39	40	43		59	44	1		
7	A08120-4Y	43	80		18	0	4	2	11	23	6	8	22		10	0	3	1	2	7	6		
8	AORTX09037-1W/γ	364	247	205	139	49	194	19		174	2	41	57	50	36	31	42	10		38	2		
9	CO11250-1W/Y	366	178	255	147	11	153	24		162	4	42	38	63	39	10	36	12		34	4		
10	CO11266-1W/Y	218	196	216	126	3	32	0		113	5	33	48	53	43	2	9	0		27	5		
11	COTX10118-4Wpe/ˆ	382	309	262	242	10	178	6		198	1	43	53	51	52	8	42	4		36	3		
<b>Mean</b>		<b>301</b>	<b>197</b>	<b>221</b>	<b>144</b>	<b>27</b>	<b>147</b>	<b>11</b>	<b>314</b>	<b>166</b>		<b>41</b>	<b>41</b>	<b>54</b>	<b>40</b>	<b>19</b>	<b>35</b>	<b>7</b>	<b>50</b>	<b>36</b>			

[Table of Contents](#)

**Table 11. Yield and Percent Culls**

Entry	Clone/Variety	Yield Culls (cwt/a)										Percent Culls (%)											
		OR <sup>1</sup>	CA	CO	ID	TX	TX	WA			Mean	Rank	OR	CA	CO	ID	TX	TX	WA			Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH			ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		
<b>Red/White Flesh</b>																							
1	Chieftain	164	63	5	22	19	12	5	22	39	2	18	12	1	5	12	3	4	3	7	2		
2	Red LaSoda	382	195	17		67	24			137	1	35	37	3		30	4			22	1		
3	Modoc	23	3	5	11	8	40	4	5	12	5	4	1	1	3	5	9	3	1	3	4		
4	A08122-12Rsto	36	10	6	8	3	19	6	13	13	4	4	2	2	2	1	4	4	2	3	5		
5	NDA8512C-1R	11		2	13	5	21		54	18	3	3		1	4	5	7		10	5	3		
<b>Yellow Flesh</b>																							
6	Yukon Gold	27	23	18	45	1	18		11	20	4	6	6	5	14	1	6		2	6	2		
7	A08120-4Y	14	7		6	4	5	6	13	8	6	3	2		3	5	4	5	3	3	6		
8	AORTX09037-1W/γ	44	20	39	11	10	28	9		23	3	5	5	10	3	6	6	5		6	3		
9	CO11250-1W/Y	63	7	13	17	11	21	7		20	5	7	2	3	5	9	5	4		5	4		
10	CO11266-1W/Y	96	8	2	14	18	248	4		56	1	14	2	0	5	12	69	4		15	1		
11	COTX10118-4Wpe/	95	25	13	32	6	5	6		26	2	11	4	3	7	5	1	3		5	5		
<b>Mean</b>		87	36	12	18	14	40	6	20	34		10	7	3	5	8	11	4	3	7			

<sup>1</sup>sprouted tubers were graded as culls

**Table 12. Specific Gravity**

Entry	Clone/Variety	Specific Gravity							Mean	Rank
		OR ON	CA TUL	CO SLV	ID AB	TX SPL	TX DAL	WA OTH		
<b>Red/White Flesh</b>										
1	Chieftain	1.061	1.073	1.082	1.067	1.046	1.061	1.064	1.065	4
2	Red LaSoda	1.070	1.073	1.087		1.044	1.055		1.066	3
3	Modoc	1.069	1.062	1.081	1.065	1.051	1.055	1.064	1.064	5
4	A08122-12Rsto	1.076	1.071	1.086	1.068	1.055	1.060	1.068	1.069	1
5	NDA8512C-1R	1.065		1.082	1.075	1.054	1.064	1.069	1.068	2
<b>Yellow Flesh</b>										
6	Yukon Gold	1.074	1.079	1.095	1.081	1.053	1.068	1.080	1.076	3
7	A08120-4Y	1.066	1.070		1.070	1.044	1.053	1.056	1.060	6
8	AORTX09037-1W/Y	1.082	1.079	1.094	1.080	1.064	1.065		1.077	2
9	CO11250-1W/Y	1.090	1.086	1.099	1.084	1.064	1.073		1.083	1
10	CO11266-1W/Y	1.074	1.076	1.093	1.068	1.062	1.063		1.073	4
11	COTX10118-4Wpe/Y	1.065	1.064	1.075	1.059	1.045	1.059		1.061	5
<b>Mean</b>		1.072	1.073	1.087	1.072	1.053	1.061	1.067	1.069	

[Table of Contents](#)

**Table 13. Average Tuber Size and Tubers Per Plant**

Entry	Clone/Variety	Average Tuber Size oz.								Tubers/plant							
		OR	CA	ID	TX	TX	WA			Mean	OR	CA	ID	TX	TX	WA	Mean
		ON	TUL	AB	SPL	DAL	ORC	ISL	OTH		ON	TUL	AB	SPL	DAL	OTH	
<b>Red/White Flesh</b>																	
1	Chieftain	4.5	8.4	6.3	2.5	5.0	2.1	5.4	4.9	17	6	6	6	6	9	8	
2	Red LaSoda	7.5	8.9		2.8	5.3			6.1	12	6		8	8		8	
3	Modoc	4.3	4.0	3.0	1.9	4.0	1.2	4.6	3.3	12	12	9	8	8	10	10	
4	A08122-12Rsto	3.7	3.1	3.0	1.4	3.0	1.7	3.1	2.7	18	14	11	11	11	15	13	
5	NDA8512C-1R	4.5		3.9	2.7	4.4		5.0	4.1	8		7	4	6	8	6	
<b>Yellow Flesh</b>																	
6	Yukon Gold	5.7	10.2	7.7	2.7	6.9		6.4	6.6	7	4	4	4	4	7	5	
7	A08120-4Y	1.7	2.4	2.1	0.7	1.6	1.3	1.9	1.7	26	15	7	12	7	16	14	
8	AORTX09037-1W/Y	3.2	3.8	3.2	2.2	3.6	1.6		2.9	23	11	10	6	9		12	
9	CO11250-1W/Y	2.8	3.0	3.2	1.5	3.3	2.3		2.7	27	14	10	7	9		13	
10	CO11266-1W/Y	2.3	3.5	3.3	1.2	2.4	1.0		2.3	25	11	7	11	11		13	
11	COTX10118-4Wpe/	3.3	4.6	3.9	1.4	3.3	1.7		3.0	22	12	10	8	10		12	
<b>Mean</b>		<b>4.0</b>	<b>5.2</b>	<b>4.0</b>	<b>1.9</b>	<b>3.9</b>	<b>1.6</b>	<b>4.4</b>	<b>4</b>	<b>18</b>	<b>10</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>11</b>	<b>10</b>	

[Table of Contents](#)



**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		
		OR	CA	ID	WA		Mean	OR	CA	CO	ID	TX	TX	WA		Mean	Rank	score (1-5 best) CO/ SLV	fry color (4=darkest)	
		ON	TUL	AB	ORC	ISL		OTH	ON	TUL	SLV	AB	SPL	DAL	ORC				ISL	OTH
<b>Red/White Flesh</b>																				
1	Chieftain	4.0	3.0	2.4	3.0	3.0	3.1	1.5	3.5	4.0	2.1	3.8	3.7	1.8	3.3	3.0	4	1.0	2.0	3.0
2	Red LaSoda	3.0	2.5				2.8	1.0	2.5	4.0		3.5	3.7			2.9	5	1.0	3.0	3.0
3	Modoc	4.0	3.5	4.0	4.5	3.3	3.9	4.8	3.5	1.0	4.0	4.0	4.0	3.8	4.0	3.6	1	1.0	2.0	3.0
4	A08122-12Rsto	5.0	3.5	3.9	4.5	4.0	4.2	5.0	3.0	2.0	3.8	3.8	3.9	3.0	4.0	3.6	2	3.0	2.0	1.0
5	NDA8512C-1R	4.0		3.6		4.0	3.9	5.0		1.0	3.6	3.7	3.6		4.0	3.5	3	2.0	1.0	1.0
<b>Yellow Flesh</b>																				
6	Yukon Gold	4.0	2.5	2.3		3.0	2.9	3.0	3.0	1.0	2.4	3.5	3.7		2.3	2.7	5	2.0	2.0	2.0
7	A08120-4Y	5.0	3.5	4.0	4.3	4.0	4.2	1.5	1.0		3.5	3.9	3.4	2.0	3.7	2.7	4			
8	AORTX09037-1W/1	4.0	3.5	4.0	4.0		3.9	1.5	3.0	2.0	3.8	3.9	4.0	3.0		3.0	3	3.0	1.0	0.0
9	CO11250-1W/Y	3.0	3.5	3.2	2.8		3.1	1.8	2.5	4.0	3.1	3.6	3.7	3.3		3.1	2	5.0	1.0	1.0
10	CO11266-1W/Y	2.0	2.5	2.6	3.8		2.7	1.3	1.0	3.0	2.4	3.5	3.2	2.8		2.4	6	4.0	1.0	0.0
11	COTX10118-4Wpe/	4.0	4.0	2.5	3.3		3.4	2.5	2.0	5.0	2.3	3.7	4.2	4.0		3.4	1	1.0	3.0	3.0
<b>Mean</b>		3.8	3.2	3.2	3.8	3.5	3.5	2.6	2.5	2.7	3.1	3.7	3.7	2.9	3.5	3.1	3	2.3	1.8	1.7

[Table of Contents](#)

**Table 15. Tuber Shape and Length Width Ratio**

Entry	Clone/Variety	Tuber Shape									L/W									W/T <sup>1</sup>								
		OR	CA	CO	ID	TX	TX	WA			Mean	OR	CA	CO	ID	TX	TX	WA			Mean	OR	CA	CO	ID	TX	TX	Mean
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		ON	TUL	SLV	AB	SPL	DAL	
<b>Red/White Flesh</b>																												
1	Chieftain	2.0	3.0	2.0	2.3	1.8	2.4	1.8	1.0	2.0	1.20	1.17	1.36	1.03	1.02	1.10	1.25	1.21	1.17	1.46	1.28	1.27	1.29	1.15	1.23	1.28		
2	Red LaSoda	3.0	3.0	2.0		2.0	2.6			2.5	1.09	1.18	1.20		1.27	1.15			1.18	1.56	1.23	1.26		1.14	1.26	1.29		
3	Modoc	2.0	2.5	2.0	1.4	2.1	2.0	2.5	3.0	2.2	1.10	1.15	1.16	1.08	1.18	1.24	1.30	1.36	1.20	1.36	1.11	1.12	1.18	1.15	1.10	1.17		
4	A08122-12Rsto	1.0	2.0	1.0	1.3	1.0	1.0	2.5	1.0	1.3	1.10	1.06	1.08	0.91	1.03	1.04	1.16	1.08	1.06	1.38	1.17	1.15	1.21	1.14	1.18	1.20		
5	NDA8512C-1R	2.0		1.0	1.5	1.6	2.0		1.0	1.5	1.06		1.13	1.08	1.17	1.16		1.22	1.14	1.31		1.14	1.16	1.09	1.13	1.17		
<b>Yellow Flesh</b>																												
6	Yukon Gold	2.0	3.0	2.0	2.3	2.2	2.1		2.0	2.2	1.16	1.16	1.26	1.06	1.09	1.09		1.11	1.13	1.44	1.25	1.23	1.18	1.14	1.26	1.25		
7	A08120-4Y	1.0	1.5		1.3	1.0	1.0	1.2	1.0	1.1	1.16	1.05		1.15	1.23	1.24	1.23	1.13	1.17	1.45	1.27		1.22	1.07	1.23	1.25		
8	AORTX09037-1W/Y	2.0	2.0	2.0	1.5	1.0	1.5	1.0		1.6	1.16	1.11	1.29	1.10	1.12	1.12	1.12		1.15	1.36	1.19	1.19	1.12	1.12	1.13	1.19		
9	CO11250-1W/Y	3.0	3.0	2.0	2.1	1.9	2.2	2.5		2.4	1.32	1.22	1.46	1.23	1.18	1.30	1.31		1.29	1.51	1.23	1.26	1.17	1.15	1.23	1.26		
10	CO11266-1W/Y	3.0	3.0	2.0	2.3	1.0	2.0	1.5		2.1	1.34	1.30	1.36	1.18	1.22	1.24	1.27		1.27	1.38	1.18	1.21	1.22	1.10	1.14	1.21		
11	COTX10118-4Wpe/	2.0	2.5	2.0	2.1	2.2	2.0	3.0		2.3	1.14	1.11	1.27	1.11	1.19	1.15	1.43		1.20	1.53	1.38	1.32	1.35	1.20	1.25	1.34		
<b>Mean</b>		2.1	2.6	1.8	1.8	1.6	1.9	2.0	1.5	1.9	1.17	1.15	1.26	1.09	1.15	1.17	1.26	1.18	1.18	1.43	1.23	1.22	1.21	1.13	1.19	1.24		

<sup>1</sup>Width/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)							
		OR	CA	CO	ID	TX	TX	WA			Mean	CA	CO	ID	TX	TX	WA	Mean
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		TUL	SLV	AB	SPL	DAL	ORC	
<b>Red/White Flesh</b>																		
1	Chieftain	3.0	3.0	2.0	2.5	2.5	2.6	3.3	3.3	2.8	1.5	1.0	1.5	1.0	1.0			1.2
2	Red LaSoda	4.0	3.0	1.0		3.5	3.3			3.0	2.0	1.0		1.0	1.0			1.3
3	Modoc	3.0	3.5	3.0	4.0	4.0	3.9	4.0	3.8	3.6	1.0	1.0	1.0	1.3	1.3			1.1
4	A08122-12Rsto	4.0	2.5	2.0	3.5	3.6	2.9	4.8	3.5	3.3	3.0	1.0	1.0	1.0	1.0			1.4
5	NDA8512C-1R	4.0		3.0	3.8	3.7	3.6		4.0	3.7		1.0	1.0	1.2	1.7			1.2
<b>Yellow Flesh</b>																		
6	Yukon Gold	2.0	1.0		2.8	1.0	1.0		2.3	1.7	3.0	3.0	3.0	3.0	3.0			3.0
7	A08120-4Y	2.0	1.0		2.0	1.0	1.0	2.6	2.0	1.7	4.0		3.0	2.2	3.3			3.1
8	AORTX09037-1W/Δ	2.0	1.0		2.5	1.0	1.0	2.8		1.7	2.0	3.0	3.0	2.6	3.2			2.8
9	CO11250-1W/Y	3.0	1.0		2.5	1.6	1.3	2.0		1.9	4.0	3.0	3.0	2.9	3.2			3.2
10	CO11266-1W/Y	3.0	1.0		2.0	2.0	2.5	3.0		2.3	4.5	4.0	3.0	3.5	3.8			3.8
11	COTX10118-4Wpe/∇	2.0	1.5		4.0	1.0	1.5	2.0		2.0	4.0	3.0	3.0	2.5	3.5			3.2
<b>Mean</b>		2.9	1.9	2.2	3.0	2.3	2.2	3.0	3.1	2.5	2.9	2.1	2.3	2.0	2.4			2.3

[Table of Contents](#)

Table 17. Eye Depth and External Defects

Entry	Clone/Variety	Eye Depth								Growth Cracks								Knobs								Shatter Bruise								Scab															
		OR		CA		ID		TX		TX		WA		Mean	OR		CA		CO		ID		TX		TX		WA		Mean	OR		TX		TX		WA		Mean	OR		ID		TX		TX		WA		Mean
		ON	TUL	AB	SPL	DAL	ORC	ISL	OTH	ON <sup>1</sup>	TUL <sup>1</sup>	SLV	AB		SPL	DAL	ORC	ISL	OTH <sup>1</sup>	ON <sup>1</sup>	TUL <sup>1</sup>	SLV	AB	SPL	DAL	ORC	ISL	OTH <sup>1</sup>		ON	SPL	DAL	ORC	ISL	OTH	ON	AB		SPL	DAL	ORC	ISL	OTH						
<b>Red/White Flesh</b>																																																	
1	Chieftain	3.0	3.5	2.1	4.0	4.0	3.0	3.0	3.2	0	5.3	4.0	5.0	5.0	5.0	3.5	3.2	4.5	50	0.8	4.0	5.0	4.0	4.6	4.0	0.0	4.3	5.0	5.0	5.0	5.0	3.0	4.6	5.0	4.6	5.0	5.0	4.8	5.0	4.9									
2	Red LaSoda	2.0	2.5		3.5	3.5			2.9	30	21.0	4.0		4.8	4.9			4.6	50	2.0	4.0		3.0	4.6			3.9	5.0	5.0	5.0			5.0	5.0	5.0	5.0			5.0	5.0	5.0								
3	Modoc	4.0	4.0	2.9	4.7	5.0	3.3	4.0	4.0	30	0.0	4.0	5.0	4.9	4.7	4.8	0.6	4.7	30	0.3	5.0	5.0	4.8	4.9	5.0	0.0	4.9	5.0	5.0	5.0	5.0	5.0	2.0	4.4	5.0	3.9	5.0	5.0	5.0	5.0	5.0	5.0							
4	A08122-12Rsto	3.0	4.0	2.4	3.9	4.0	4.5	3.0	3.5	30	1.0	4.0	5.0	5.0	5.0	3.8	1.4	4.6	30	0.3	4.0	4.9	4.9	4.8	4.5	0.0	4.6	5.0	5.0	5.0	5.0	5.0	2.0	4.4	5.0	4.5	5.0	5.0	5.0	5.0	5.0	5.0							
5	NDA8512C-1R	3.0		3.3	4.0	4.4		3.0	3.5	30		5.0	5.0	4.8	4.8		9.0	4.9	0		4.0	4.9	4.9	4.8		0.0	4.6	5.0	5.0	5.0			2.0	4.3	5.0	4.8	4.7	5.0		5.0	4.9								
<b>Yellow Flesh</b>																																																	
6	Yukon Gold	4.0	4.0	2.9	4.0	4.5		3.0	3.7	0	1.8	5.0	5.0	4.9	4.9		0.9	5.0	30	1.5	5.0	5.0	4.9	4.9		0.7	5.0	5.0	5.0	5.0	5.0		3.0	4.5	5.0	3.3	5.0	5.0		5.0	4.7								
7	A08120-4Y	4.0	4.0	3.8	4.5	4.5	4.2	4.0	4.1	30	0.0		4.9	5.0	5.0	5.0	0.7	5.0	0	0.5		4.9	4.6	5.0	4.3	1.0	4.7	5.0	5.0	5.0	5.0	5.0	4.0	4.8	5.0	5.0	5.0	5.0	5.0	5.0	5.0								
8	AORTX09037-1W/1	4.0	3.5	3.4	4.5	4.5	4.5		4.1	50	0.8	3.0	4.6	5.0	5.0	4.8		4.5	30	2.0	5.0	5.0	4.6	4.7	5.0		4.9	5.0	5.0	5.0	5.0	5.0		5.0	5.0	4.0	5.0	5.0	4.8		4.8								
9	CO11250-1W/Y	4.0	4.0	3.3	4.1	4.0	4.0		3.9	30	0.3	5.0	4.9	5.0	5.0	4.8		4.9	30	0.5	5.0	5.0	4.7	4.6	5.0		4.8	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	4.2	5.0	5.0	4.8		4.8							
10	CO11266-1W/Y	4.0	3.5	3.5	4.0	4.5	5.0		4.1	0	0.3	5.0	5.0	5.0	5.0	5.0		5.0	30	1.0	5.0	5.0	4.0	5.0	5.0		4.8	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	4.6	5.0	5.0	5.0		4.9							
11	COTX10118-4Wpe/	4.0	4.0	3.4	4.0	4.2	4.0		3.9	30	1.3	4.0	4.9	5.0	5.0	5.0		4.8	30	0.5	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	3.9	5.0	5.0	5.0		4.8							
<b>Mean</b>		3.5	3.7	3.1	4.1	4.3	4.1	3.3	3.7	23.6	3.2	4.3	4.9	5.0	4.9	4.6	2.6	4.8	28.2	0.9	4.6	5.0	4.5	4.8	4.7	0.3	4.7	5.0	5.0	5.0	5.0	2.7	4.7	5.0	4.3	5.0	5.0	4.9	5.0	4.9									

<sup>1</sup>%

**Table 18. Internal Defects**

Entry	Clone/Variety	Hollow Heart									Internal Brownspot							Vacular Discoloration							Blackspot Bruise							18						
		OR	CA	CO	ID	TX	TX	WA			Mean	OR	ID	TX	TX	WA			Mean	OR	CA	ID	TX	TX	WA			Mean	OR	CA	CO <sup>2</sup>		TX	TX	WA <sup>2</sup>			Mean
		ON	TUL	SLV	AB	SPL	DAL	ORC	ISL	OTH		ON	AB	SPL	DAL	ORC	ISL	OTH		ON	TUL	AB	SPL	DAL	ORC	ISL	OTH		ON%	TUL%	SLV		SPL%	DAL%	ORC	ISL	OTH	
<b>Red/White Flesh</b>																																						
1	Chieftain	0	0	1	0	3	3	0	0	1	8	0	7	13	0	0	5	0	10	0	13	7	8	5	6	0	0	4.7	0	0	5.0	5.0	0					
2	Red LaSoda	0	0	4	0	0				1	3	0	0				1	0	0		67	30			24	0	0	4.7	0	0			0					
3	Modoc	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	27	3	0	8	5	3	0	4.7	0	0	5.0	5.0	1					
4	A08122-12Rsto	0	0	0	0	0	0	0	0	0	8	0	7	0	0	0	2	0	0	0	13	7	0	0	3	8	0	4.9	0	0	5.0	5.0	2					
5	NDA8512C-1R	0		0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3		4.7	0	0			5.0	1				
<b>Yellow Flesh</b>																																						
6	Yukon Gold	0	20	1	10	0	0			0	4	10	0	17	27		8	12	0	0	0	10	3		0	2	5	0	4.9	0	0			5.0	1			
7	A08120-4Y	0	0		0	0	0	0	0	0	0	0	3	0	0	0	1	0	40	0	10	17	0	11	11	0	0		0	0	5.0	5.0	0					
8	AORTX09037-1W/1	0	0	0	0	0	3	0		0	38	0	0	7	0		9	0	20	0	20	10	3		9	3	0	4.6	0	0	5.0		1					
9	CO11250-1W/Y	0	0	0	0	0	0	0		0	3	0	3	0	0		1	0	10	0	27	3	0		7	0	0	4.9	0	0	5.0		0					
10	CO11266-1W/Y	0	10	0	3	0	0	0		2	0	0	3	0	0		1	0	0	0	20	3	0		4	0	0	4.7	0	0	5.0		0					
11	COTX10118-4Wpe/	0	0	0	0	0	0	0		0	0	0	0	0	0		0	0	10	0	10	7	0		4	0	0	5.0	0	0	5.0		0					
Mean		0	3	1	1	0	1	0	0	1	6	0	4	4	0	1	3	0	9	0	20	8	1	4	7	2	0	5	0	0	5	5	0					

<sup>1</sup> Percent based on 10 cut tubers.

<sup>2</sup> 1 to 5=none

**Table 19. Disease Evaluations, Metribuzin Reaction**

Entry Clone/Variety	Aberdeen			Prosser <sup>5</sup>		
	Vert. Wilt/ Early Dying <sup>1</sup> Foliar	Early Blight <sup>1</sup> Foliar	Metr. Reaction <sup>2</sup>	Corky Ringspot Evaluations		
				Avg % w/int	Avg % DSI	Designation
<b>Red/White Flesh</b>						
1 Chieftain	4.9	4.6	MR	2.9	0.6	R
2 Red LaSoda				16.4	8.3	MS
3 Modoc	4.0	2.1	MR	0.8	0.2	R
4 A08122-12Rsto	5.0	3.6	MR	10.0	7.7	MS
5 NDA8512C-1R	4.4	2.9	R	0.0	0.0	R
<b>Yellow Flesh</b>						
6 Yukon Gold	4.8	3.1	VR	12.1	6.1	MS
7 A08120-4Y	5.0	4.3	VR	0.0	0.0	R
8 AORTX09037-1W/Y	5.0	3.9	R	12.0	3.4	MR
9 CO11250-1W/Y	5.0	4.6	R	2.0	1.5	MR
10 CO11266-1W/Y	5.0	4.5	MR	7.1	1.9	MR
11 COTX10118-4Wpe/Y	5.0	3.6	MR	21.0	12.7	S
<b>Mean</b>	<b>5</b>	<b>4</b>		<b>8</b>	<b>4</b>	

<sup>1</sup> 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.

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

<sup>5</sup> Avg % w/int= Visual readings taken for 'internals' - tubers cut lengthwise, quartered and scored (0-8) based on the number of sides of the wedges that were affected evaluated (T) and dividing that number by the number of tubers evaluated times the worst possible score (8) and multiplying by 100

$$DSI = (\sum S)/(T*8)*100$$

TRV Disease Rating Based on % DSI:

R = Extreme Resistance (0-1%); MR = Moderate Resistance (1.1-5%);

MS = Moderately Susceptible (5.1-10%); S = Susceptible (10.1+%)

[Table of Contents](#)

Table 20. Tuber Composition

Entry	Clone/Variety	Aberdeen						Texas <sup>5</sup>	
		Solids Oven Dry (%)	Sugars		Protein <sup>1</sup> (%DWB)	Vitamin C <sup>3</sup> (mg/100g FWB)	Glycoalkaloids <sup>4</sup> Trolox equivalents/g FWB	µg Trolox equivalents/gfw <sup>6</sup>	AOA Levels <sup>7</sup>
			Dextrose <sup>2</sup> (%FWB)	Sucrose <sup>2</sup> (%FWB)					
<b>Red/White Flesh</b>									
1	Chieftain	17.5	0.10	0.25	5.5	22.5	7.3	206.9	M
2	Red LaSoda	-	-	-	-	-	-	222.5	M
3	Modoc	17.9	0.03	0.14	6.4	27.0	3.5	145.1	M
4	A08122-12Rsto	17.7	0.02	0.11	5.9	24.1	2.3	151.5	M
5	NDA8512C-1R	18.0	0.01	0.15	6.8	22.3	1.8	174.7	M
<b>Yellow Flesh</b>									
6	Yukon Gold	21.3	0.03	0.22	6.8	30.6	1.6	131.6	L
7	A08120-4Y	17.3	0.02	0.18	5.6	22.8	3.0	217.8	M
8	AORTX09037-1W/Y	20.3	0.00	0.10	7.1	20.8	3.4	195.3	M
9	CO11250-1W/Y	20.5	0.01	0.15	6.1	24.1	1.5	132.3	L
10	CO11266-1W/Y	19.2	0.00	0.13	5.7	14.4	2.7	191.6	M
11	COTX10118-4Wpe/Y	17.3	0.05	0.29	4.7	22.1	1.1	159.3	M
<b>Mean</b>		<b>18.7</b>	<b>0.03</b>	<b>0.17</b>	<b>6.0</b>	<b>23.1</b>	<b>2.8</b>	<b>175.3</b>	

<sup>1</sup> % Dry Weight Basis

<sup>2</sup> % Fresh Weight Basis (FWB)

<sup>3</sup> % Fresh Weight Basis (mg/100g FWB)

<sup>4</sup> % Fresh Weight Basis (mg/100g), Lenape Check 59.0 µg Trolox equivalents/g FWB

<sup>5</sup> The assay used at Texas A&M University was based on "Use of a Free Radical 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.

<sup>6</sup> µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation:  $y = -225.36x + 242.65$

<sup>7</sup> VH=very high (>424), H=high (271-389), M=medium (141-242), L=low (86-137), VL=very low (<86). n=64 including nine check varieties

**Table 21. Entry Location Comments**

Entry	Clone/Variety	Ontario, OR	Tulalake, CA	Center, CO	Aberdeen, ID
<b>Red/White Flesh</b>					
1	Chieftain	Sprouts, sprouts, Chain tubers, chain tubers, knobs, dull, too big, lumpy	skinned	Flat	Big, deep ends/eyes, flat(4)
2	Red LaSoda	4 too big, chain tubers, dumbell, growth cracks, 3 lumpy, folded bud end, dull, irregular, knobs	lumpy	Rough, pink inside	
3	Modoc	2 growth cracks, irregular, pointy	nice color, shows skinning		Uniform, nice shape/color (3); few ats, few bumps
4	A08122-12Rsto	3 growth cracks, rodent damage	highly visible eyes	Rough	Bad ats, deeper ends (4); few compressed, uniform (2)
5	NDA8512C-1R	2 low yield		Rough	Ats (4); nice color (3); few oval
<b>Yellow Flesh</b>					
6	Yukon Gold	folded bud end, 2 irregular, 2 many small growth cracks		Light yellow	Big, flat (4); bumps (3); not uniform (2)
7	A08120-4Y	4 cracked skin	big splotches of color		Small round (4); uniform (3); low yeild, few bumps (2) Deeper ends, few ats (4); uniform (3); small round with few oval (2)
8	AORTX09037-1W/Y	4 flaky skin, 3 growth cracks, sticky stolon, pointy growth cracks, 2 pear, skin cracks, Cracked skin, 2 flaky skin, pointy	terrible lentils	Nice yellow, IBS	Not consistent color (3); few ats, few legs, some misshapen (2)
9	CO11250-1W/Y	pear, growth cracks, 4 flaky skin, dumbell, pointy, sprouts	russeting, pink blobs	Good yellow, red eye, blushing	
10	CO11266-1W/Y	2 pointy, 3 growth cracks, 2 flaky skin, 2 dumbell, irregular, greening, sprouts	russeting, pink blobs	Small size, good yellow	Not consistent color/shpae (4); few bulging eyes (2)
11	COTX10118-4Wpe/Y		pancake, ugly purple eye	Flat, good yellow	Few bulging eyes (3); not uniform, patchy skin (2)

[Table of Contents](#)



Entry	Clone/Variety	Springlake, TX	Dalhart, TX	Orcas Island WA	Othello WA
<b>Red/White Flesh</b>					
1	Chieftain	shallow eyes, good shape, BOT, parent	large, some skin netting, attached stolons, rough skin, nice, good size, oval	large tubers, variable size and shape, black scurf and russetting	Medium size, good skin set.
2	Red LaSoda	many knobs, deep eyes, feathering, enlarged lenticels, small tubers, high tuber number, medium- large tubers, ugly shapes	very large, deep eyes, more intense red skin than standard Red LaSoda, a little flat, very high tuber number		
3	Modoc	nice color, nice shape, shallow eyes, BOT, few eyes, smooth skin, nice size	smooth skin, few eyes, nice, high tuber number, herbicide damage? (several deformed tubers), BOT, very nice skin color, good size, shape, shallow eyes	nice red tubers with relatively little russetting	Oblong, red, nice color, skin set not great.
4	A08122-12Rsto	all smalls, nice, round, many tubers, high tuber number, uniform size, uniform shape	very round, high tuber number, uniform size and shape, heat sprouts, small, sprouting	heavy russetting, some growth cracks	Nice round smooth shape, some skinning.
5	NDA8512C-1R	scab?, nice bright skin, BOT, nice skin color, good shape and size	half with netted skin, bad skin, bruised, netted skin, large, knobs		Nice dark red, skinning, growth cracks.
<b>Yellow Flesh</b>					
6	Yukon Gold	nice size and shape, few tubers, some rotten,	very large tubers, smooth skin, few tubers, deep bud ends, a little flat		Extreme size range, yellow/white with russetting.
7	A08120-4Y	all small, uniform size and shape, nice small skin, BOT, nice	some splashed, pink eyes, small, uniform size and shape, low yield, bronzed skin patches	black scurf and russetting	Small, bright, white/yellow with pink eyes.
8	AORTX09037-1W/1	nice size and shape, nice	high tuber number, high yield, smaller profile than Yukon Gold, good shape	nice tuber shape, some russetting, appears susceptible to greening	
9	CO11250-1W/Y	small, red splashed skin, pink eyes	red splashed, half with netted skin, pink eyes, knobs, rough skin	nice shape, relatively little russetting	
10	CO11266-1W/Y	buff skin, minor pink splashed skin, high tuber number, chained tubers	most tubers have sprouts, russet skin, very pointed, DROP, red splashed skin, all culls	severe russetting/rough raised netting	
11	COTX10118-4Wpe <sup>7</sup>	purple eye shadow, smooth skin, nice skin pattern	very high tuber number, purple eye shadow, unique purple eye shadow pattern, BOT	relatively smooth skin, Attractive appearance for direct market	

[Table of Contents](#)

**Table 23. Summary Means**

Entry	Clone/Variety	Year	Yield Summary <sup>1</sup>							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit <sup>2</sup>
<b>Red/White Flesh</b>												
1	Chieftain	***	96	94	133	229	110	39	465	4.9	1.065	3.0
2	Red LaSoda	***	86	70	114	205	160	137	580	6.1	1.066	2.9
3	Modoc	***	181	111	89	199	28	12	399	3.3	1.064	3.6
4	A08122-12Rsto	1	262	103	59	166	9	13	438	2.7	1.069	3.6
5	NDA8512C-1R	1	101	94	99	194	31	18	334	4.1	1.068	3.5
<b>Yellow Flesh</b>												
6	Yukon Gold	***	48	57	113	169	133	20	365	6.6	1.076	2.7
7	A08120-4Y	1	239	19	3	23	0	8	273	1.7	1.060	2.7
8	AORTX09037-1W/Y	1	218	105	64	174	17	23	418	2.9	1.077	3.0
9	CO11250-1W/Y	2	224	95	52	162	9	20	407	2.7	1.083	3.1
10	CO11266-1W/Y	2	183	61	35	113	4	56	343	2.3	1.073	2.4
11	COTX10118-4W <sub>pe</sub> /Y	1	204	102	86	198	40	26	453	3.0	1.061	3.4
<b>Mean</b>			167	83	77	166	49	34	407	4	1	3

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

<sup>2/</sup> Scale = 1-5 best

**Table 24. Two Year Summary of Graduating Entries**

Entry	Clone/Variety	Year	Yield Summary							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit <sup>1</sup>
<b>Yellow Flesh</b>												
	Yukon Gold	***	49	59	115	169	132	19	366	7.0	1.079	3.0
	CO11250-1W/Y	2	210	112	87	206	20	17	452	3	1.085	3
	CO11266-1W/Y	2	216	85	46	138	6	31	388	2.6	1.076	2.9
<b>Mean</b>			<b>158</b>	<b>85</b>	<b>83</b>	<b>171</b>	<b>53</b>	<b>23</b>	<b>402</b>	<b>4.3</b>	<b>1.080</b>	<b>3.1</b>

<sup>1/</sup> Scale = 1-5 best

[Table of Contents](#)

**Table 25. Two Year Summary of Notes**

Entry	Clone/Variety	Strengths	Weakness
<b>Yellow Flesh</b>			
	Yukon Gold	<b>uniform, medium size, nice, smooth skin, high yield</b>	<b>growth cracks</b>
	CO11250-1W/Y	<b>Good yellow flesh</b>	<b>Pink eyes, heavy russeting, skin road mapping, netted skin</b>
	CO11266-1W/Y	<b>Good yellow flesh, high tuber number,</b>	<b>Pink color splotches, heavy russeting, dislike skin, heat sprouts</b>

[Table of Contents](#)

Compiled by Jeff Koym\*, Douglas Scheuring, and Isabel Vales  
Department of Horticultural Sciences Texas A&M University  
College Station and Lubbock\*

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

**Funding was provided by USDA-NIFA Special Research Grants Program, Potato Breeding Research**