

# 2013 Western Regional



**Red/Specialty Trial**

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**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 ( <b>TUL</b> )*	R. Wilson D. Culp K. Nicholson	Late	Sprinkler	139-39-100	5/15/2013	8/30/2013	Chemical- Reglone	9/27/2013	Prowl H2O Outlook Roundup Matrix	Admire Pro Movento	Quadris x2 Bravo Weatherstik
San Luis Valley Colorado ( <b>SLV</b> )	D. Holm, C. Gray	Late	Pivot	120-60-40	5/15/2013	8/30/2013	Chemical-sulfuric acid	9/24/2013	Dual Magnum Matrix Eptam 7E	Platinum 75 SG Fulfill	Omega 500F Quadris Bravo Weather Stik
Aberdeen Idaho ( <b>AB</b> )	J. Stark, R. Novy, J. Whitworth, P. Bain, M. Chappell	Early	Sprinkler	275-240-100	5/1/2013	8/17/2013	mechanical	9/12/2013	Establish (18 oz./A) Prowl IH2O (2.1 pints/A) TriCor 4F (1pt/A)	Admire Pro (8oz/A)	Equus 720 SST (1.5pt/A) Echo (1.5 pints/) Manzate flowable (1.5pt/A)
Springlake Texas ( <b>SPL</b> )**	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	155-34-34	3/29/2013	7/26/2013	mechanical	8/5/2013	Sencor Roundup Dual	Movento, Agrimek Beleaf Venom	Scala Bravo
Dalhart Texas ( <b>DAL</b> ***)	J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	266-139-184	5/14/2013	9/1/2013	mechanical	9/9/2013	Chateau Tricor Select Max Brawl, Acumen	Epimek, Fulfill, Movento, Beleaf,	Platinum, Quadris, Penncozeb Echo Scala, Luna, Revus Top Scala, Ultra Fourish

\*Slightly above average temperatures during early stages of plant growth. Otherwise normal growing conditions for the season.

\*\*The plots were subjected to a freeze on May 3rd and 4th.

\*\*\*These trials were subjected to above average precipitation for the June, July and August

**Table 2. Description of Clones - 2013 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 Chieftan	La 1354	Ia 1027-18	Lavender	Med-Large	Med	Oblong	Lt. Red	White	Check	OR	***	
2 Red LaSoda	Triumph	Katahdin	Red-purple	Med	Med	Oval	Lt. Red	White	Check	OR	***	
3 NDTX5438-11R	ND4339-10R	ND4269-9R	Lavender	Medium	Late	Round	Red	White	TX	CO	1	
4 CO04159-1R	AC97521-1R/Y	CO99076-6R	Purple	Medium	Med-Early	Round	Red	Yellow	CO	CO	1	
<b>Red-Purple/Yellow Flesh</b>												
5 CO04067-8R/Y	CO97232-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oval	Red	Yellow	CO	CO	1	
<b>Yellow Flesh</b>												
6 Yukon Gold	Norgleam	W5279-4	Pink	Med	Early	Oval	White	Yellow	Check	OR	***	
7 A02267-1Y	Inca Gold	ND5256-7R	Med Red-purple	M-large	Med-late	Round	Yellow	Yellow	ID	ID	1	
8 CO04099-3W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Med-Large	Early	Oval	White	Yellow	CO	CO	1	

**Table 3. Percent Stand**

Entry	Clone/Variety	Percent Stand					Mean
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	
<b>Red/White Flesh</b>							
1	Chieftan	97	98	98	98	100	<b>98</b>
2	Red LaSoda	95	97	100	99	100	<b>98</b>
3	NDTX5438-11R	88	95	94	64	93	<b>87</b>
4	CO04159-1R	65	91	81	60	22	<b>64</b>
<b>Red-Purple/Yellow Flesh</b>							
5	CO04067-8R/Y	91	92	100	48	100	<b>86</b>
<b>Yellow Flesh</b>							
6	Yukon Gold	90	97	100	87	100	<b>95</b>
7	A02267-1Y	100	92	96	100	100	<b>98</b>
8	CO04099-3W/Y	94	96	99	100	100	<b>98</b>
<b>Mean</b>		<b>90</b>	<b>95</b>	<b>96</b>	<b>82</b>	<b>89</b>	<b>90</b>

**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	
<b>Red/White Flesh</b>										
1 Chieftan	3.8	2.3	4.2	4.7	<b>3.7</b>	3.0	3.3	4.0	4.3	<b>3.6</b>
2 Red LaSoda	3.0	3.0	4.7	4.8	<b>3.9</b>	2.0	2.9	4.7	4.5	<b>3.5</b>
3 NDTX5438-11R	3.3	1.0	3.9	4.1	<b>3.1</b>	3.0	3.3	3.7	4.3	<b>3.6</b>
4 CO04159-1R	3.0	1.1	4.0	2.0	<b>2.5</b>	2.0	2.0	4.1	3.9	<b>3.0</b>
<b>Red-Purple/Yellow Flesh</b>										
5 CO04067-8R/Y	4.0	1.1	4.1	4.6	<b>3.5</b>	3.0	1.5	4.3	3.5	<b>3.1</b>
<b>Yellow Flesh</b>										
6 Yukon Gold	3.5	2.0	4.1	4.6	<b>3.6</b>	2.8	1.9	3.6	3.5	<b>2.9</b>
7 A02267-1Y	4.3	2.4	4.7	4.3	<b>3.9</b>	3.0	2.6	4.5	4.8	<b>3.7</b>
8 CO04099-3W/Y	4.0	2.0	4.7	4.7	<b>3.9</b>	3.0	2.9	4.6	4.4	<b>3.7</b>
<b>Mean</b>	<b>3.6</b>	<b>1.9</b>	<b>4.3</b>	<b>4.2</b>	<b>3.5</b>	<b>2.7</b>	<b>2.5</b>	<b>4.2</b>	<b>4.1</b>	<b>3.4</b>

**Table 5. Total Yield**

Entry Clone/Variety	Total Yield (cwt/A)					Mean	Rank
	CA TUL	CO SLV	ID AB	TX SPL	TX DAL		
<b>Red/White Flesh</b>							
1 Chieftan	523	547	403	337	795	<b>521</b>	<i>1</i>
2 Red LaSoda	436	426	418	248	784	<b>462</b>	<i>2</i>
3 NDTX5438-11R	394	404	213	159	593	<b>353</b>	<i>3</i>
4 CO04159-1R	229	224	88	18	159	<b>143</b>	<i>4</i>
<b>Red-Purple/Yellow Flesh</b>							
5 CO04067-8R/Y	384	369	240	215	420	<b>326</b>	
<b>Yellow Flesh</b>							
6 Yukon Gold	382	308	292	268	690	<b>388</b>	<i>1</i>
7 A02267-1Y	407	424	382	220	359	<b>358</b>	<i>3</i>
8 CO04099-3W/Y	407	368	327	227	486	<b>363</b>	<i>2</i>
<b>Mean</b>	<b>395</b>	<b>384</b>	<b>295</b>	<b>212</b>	<b>536</b>	<b>364</b>	

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

Entry	Clone/Variety	Yield < 4 oz (Cwt)					Percent < 4 oz					Mean	Rank		
		CA	CO	ID	TX	TX	CA	CO	ID	TX	TX				
		TUL	SLV	AB	SPL	DAL	TUL	SLV	AB	SPL	DAL				
<b>Red/White Flesh</b>															
1	Chieftan	80	54	13	39	104	<b>58</b>	<b>2</b>	15	10	3	12	13	<b>11</b>	<b>3</b>
2	Red LaSoda	44	49	6	22	123	<b>49</b>	<b>4</b>	10	11	1	9	16	<b>10</b>	<b>4</b>
3	NDTX5438-11R	74	78	27	159	111	<b>90</b>	<b>1</b>	19	19	13	23	19	<b>19</b>	<b>2</b>
4	CO04159-1R	80	62	63	9	47	<b>52</b>	<b>3</b>	35	28	72	64	29	<b>46</b>	<b>1</b>
<b>Red-Purple/Yellow Flesh</b>															
5	CO04067-8R/Y	171	143	61	130	206	<b>142</b>		45	39	25	61	49	<b>44</b>	
<b>Yellow Flesh</b>															
6	Yukon Gold	79	37	22	16	60	<b>43</b>	<b>3</b>	21	12	8	6	9	<b>11</b>	<b>3</b>
7	A02267-1Y	118	125	25	106	174	<b>110</b>	<b>2</b>	29	29	7	48	49	<b>32</b>	<b>2</b>
8	CO04099-3W/Y	157	187	63	133	200	<b>148</b>	<b>1</b>	39	51	19	58	41	<b>41</b>	<b>1</b>
<b>Mean</b>		<b>101</b>	<b>92</b>	<b>35</b>	<b>77</b>	<b>128</b>	<b>86</b>		<b>27</b>	<b>25</b>	<b>18</b>	<b>35</b>	<b>28</b>	<b>27</b>	



**Table 7. Yield and Percent 4-6 oz.**

Entry	Clone/Variety	Yield 4-6 oz (Cwt/A)						Percent 4-6 oz (%)					
		CA	ID	TX	TX	Mean	Rank	CA	ID	TX	TX	Mean	Rank
		TUL	AB	SPL	DAL			TUL	AB	SPL	DAL		
<b>Red/White Flesh</b>													
1	Chieftan	118	24	75	222	<b>110</b>	<b>1</b>	23	6	22	28	<b>20</b>	<b>3</b>
2	Red LaSoda	56	6	60	105	<b>57</b>	<b>3</b>	13	1	24	13	<b>13</b>	<b>4</b>
3	NDTX5438-11R	103	30	55	173	<b>90</b>	<b>2</b>	26	14	35	28	<b>26</b>	<b>2</b>
4	CO04159-1R	66	33	2	55	<b>39</b>	<b>4</b>	29	38	10	35	<b>28</b>	<b>1</b>
<b>Red-Purple/Yellow Flesh</b>													
5	CO04067-8R/Y	109	21	51	150	<b>83</b>		28	9	38	36	<b>28</b>	
<b>Yellow Flesh</b>													
6	Yukon Gold	80	29	25		<b>45</b>	<b>3</b>	21	10	10	11	<b>13</b>	<b>3</b>
7	A02267-1Y	124	28	76		<b>76</b>	<b>1</b>	30	7	35	41	<b>29</b>	<b>1</b>
8	CO04099-3W/Y	138	26	61		<b>75</b>	<b>2</b>	34	8	27	33	<b>25</b>	<b>2</b>
<b>Mean</b>		<b>99</b>	<b>25</b>	<b>51</b>	<b>141</b>	<b>72</b>		<b>25</b>	<b>12</b>	<b>25</b>	<b>28</b>	<b>23</b>	

**Table 8. Yield and Percent 6-10 oz.**

Entry	Clone/Variety	Yield 6-10 oz (Cwt/A)						Percent 6-10 oz (%)					
		CA	ID	TX	TX	Mean	Rank	CA	ID	TX	TX	Mean	Rank
		TUL	AB	SPL	DAL			TUL	AB	SPL	DAL		
<b>Red/White Flesh</b>													
1	Chieftan	194	43	145	297	<b>170</b>	<b>1</b>	37	11	43	38	<b>32</b>	<b>1</b>
2	Red LaSoda	117	24	97	209	<b>112</b>	<b>2</b>	27	6	39	27	<b>25</b>	<b>4</b>
3	NDTX5438-11R	159	38	51	180	<b>107</b>	<b>3</b>	40	18	32	31	<b>30</b>	<b>2</b>
4	CO04159-1R	67	12	7	56	<b>35</b>	<b>4</b>	29	14	26	36	<b>26</b>	<b>3</b>
<b>Red-Purple/Yellow Flesh</b>													
5	CO04067-8R/Y	42	11	29	32	<b>29</b>		11	4	14	8	<b>9</b>	
<b>Yellow Flesh</b>													
6	Yukon Gold	133	38	98	238	<b>127</b>	<b>1</b>	35	13	36	35	<b>30</b>	<b>1</b>
7	A02267-1Y	124	31	30	22	<b>52</b>	<b>2</b>	30	8	13	6	<b>15</b>	<b>2</b>
8	CO04099-3W/Y	87	8	21	89	<b>51</b>	<b>3</b>	21	2	10	18	<b>13</b>	<b>3</b>
<b>Mean</b>		<b>115</b>	<b>26</b>	<b>60</b>	<b>141</b>	<b>85</b>		<b>29</b>	<b>9</b>	<b>27</b>	<b>25</b>	<b>22</b>	

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

Entry	Clone/Variety	Yield >10 oz (Cwt/A)					Percent >10 oz (%)					Mean	Rank		
		CA	CO	ID	TX	TX	CA	CO	ID	TX	TX				
		TUL	SLV	AB	SPL	DAL	TUL	SLV	AB	SPL	DAL				
<b>Red/White Flesh</b>															
1	Chieftan	110	190	16	75	161	<b>110</b>	<b>2</b>	21	35	4	22	20	<b>20</b>	<b>2</b>
2	Red LaSoda	94	111	51	68	328	<b>130</b>	<b>1</b>	22	26	12	27	42	<b>26</b>	<b>1</b>
3	NDTX5438-11R	41	68	5	18	125	<b>51</b>	<b>3</b>	10	17	2	4	21	<b>11</b>	<b>3</b>
4	CO04159-1R	8	22	0	0	0	<b>6</b>	<b>4</b>	3	10	0	0	0	<b>3</b>	<b>4</b>
<b>Red-Purple/Yellow Flesh</b>															
5	CO04067-8R/Y	1	14	0	2	0	<b>4</b>		0	4	0	1	0	<b>1</b>	
<b>Yellow Flesh</b>															
6	Yukon Gold	69	55	7	112	285	<b>105</b>	<b>1</b>	18	18	2	42	41	<b>24</b>	<b>1</b>
7	A02267-1Y	12	34	4	0	0	<b>10</b>	<b>2</b>	3	8	1	0	0	<b>2</b>	<b>2</b>
8	CO04099-3W/Y	15	4	2	0	23	<b>9</b>	<b>3</b>	4	1	1	0	5	<b>2</b>	<b>3</b>
<b>Mean</b>		<b>44</b>	<b>62</b>	<b>11</b>	<b>34</b>	<b>115</b>	<b>53</b>		<b>10</b>	<b>15</b>	<b>3</b>	<b>12</b>	<b>16</b>	<b>11</b>	

**Table 10. Yield and Percent 4 -10 oz.**

Entry	Clone/Variety	Yield 4-10 oz (Cwt/A)					Percent 4-10 oz (%)					Mean	Rank		
		CA	CO	ID	TX	TX	CA	CO	ID	TX	TX				
		TUL	SLV	AB	SPL	DAL	TUL	SLV	AB	SPL	DAL				
<b>Red/White Flesh</b>															
1	Chieftan	313	299	68	220	519	<b>284</b>	<b>1</b>	60	55	17	65	65	<b>52</b>	<b>3</b>
2	Red LaSoda	173	252	30	156	314	<b>185</b>	<b>3</b>	40	59	7	63	40	<b>42</b>	<b>4</b>
3	NDTX5438-11R	261	251	68	105	353	<b>208</b>	<b>2</b>	66	62	32	67	59	<b>57</b>	<b>1</b>
4	CO04159-1R	133	136	45	9	111	<b>87</b>	<b>4</b>	58	61	51	36	71	<b>55</b>	<b>2</b>
<b>Red-Purple/Yellow Flesh</b>															
5	CO04067-8R/Y	151	206	32	81	182	<b>130</b>		39	56	13	52	43	<b>41</b>	
<b>Yellow Flesh</b>															
6	Yukon Gold	213	202	67	124	238	<b>169</b>	<b>1</b>	56	66	23	46	45	<b>47</b>	<b>1</b>
7	A02267-1Y	247	259	59	106	22	<b>139</b>	<b>2</b>	61	61	15	48	47	<b>47</b>	<b>2</b>
8	CO04099-3W/Y	224	173	34	82	89	<b>120</b>	<b>3</b>	55	47	10	37	51	<b>40</b>	<b>3</b>
<b>Mean</b>		<b>171</b>	<b>222</b>	<b>40</b>	<b>88</b>	<b>183</b>	<b>165</b>		<b>43</b>	<b>58</b>	<b>17</b>	<b>42</b>	<b>42</b>	<b>48</b>	

**Table 11. Yield and Percent Culls**

Entry	Clone/Variety	Yield Culls (Cwt/A)					Percent Culls (%)					Mean	Rank		
		CA	CO	ID	TX	TX	CA	CO	ID	TX	TX				
		TUL	SLV	AB	SPL	DAL	TUL	SLV	AB	SPL	DAL				
<b>Red/White Flesh</b>															
1	Chieftan	20	4	3	3	11	<b>8</b>	<b>2</b>	4	1	1	1	1	<b>2</b>	<b>3</b>
2	Red LaSoda	125	15	13	1	19	<b>35</b>	<b>1</b>	29	4	3	1	2	<b>8</b>	<b>1</b>
3	NDTX5438-11R	18	8	0	0	4	<b>6</b>	<b>3</b>	5	2	0	0	1	<b>1</b>	<b>4</b>
4	CO04159-1R	8	4	10	0	0	<b>4</b>	<b>4</b>	3	2	11	0	0	<b>3</b>	<b>2</b>
<b>Red-Purple/Yellow Flesh</b>															
5	CO04067-8R/Y	62	6	7	2	32	<b>22</b>		16	1	3	1	8	<b>6</b>	
<b>Yellow Flesh</b>															
6	Yukon Gold	21	15	4	16	31	<b>17</b>	<b>1</b>	5	5	1	6	5	<b>4</b>	<b>1</b>
7	A02267-1Y	29	6	12	7	11	<b>13</b>	<b>2</b>	7	1	3	4	3	<b>4</b>	<b>2</b>
8	CO04099-3W/Y	11	4	2	12	16	<b>9</b>	<b>3</b>	3	1	1	5	3	<b>3</b>	<b>3</b>
<b>Mean</b>		<b>37</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>16</b>	<b>14</b>		<b>9</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>4</b>	

**Table 12. Specific Gravity**

Entry	Clone/Variety	Specific Gravity					Mean	Rank
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL		
<b>Red/White Flesh</b>								
1	Chieftan	1.080	1.076	1.075	1.063	1.066	<b>1.072</b>	<i>1</i>
2	Red LaSoda	1.077	1.075	1.071	1.055	1.064	<b>1.068</b>	<i>2</i>
3	NDTX5438-11R	1.077	1.065	1.066	1.059	1.058	<b>1.065</b>	<i>4</i>
4	CO04159-1R	1.080	1.074	1.056	1.052	1.066	<b>1.066</b>	<i>3</i>
<b>Red-Purple/Yellow Flesh</b>								
5	CO04067-8R/Y	1.083	1.079	1.079	1.067	1.067	<b>1.075</b>	
<b>Yellow Flesh</b>								
6	Yukon Gold	1.076	1.087	1.088	1.072	1.074	<b>1.079</b>	<i>2</i>
7	A02267-1Y	1.073	1.071	1.073	1.056	1.062	<b>1.067</b>	<i>3</i>
8	CO04099-3W/Y	1.081	1.094	1.087	1.073	1.081	<b>1.083</b>	<i>1</i>
<b>Mean</b>		<b>1.078</b>	<b>1.078</b>	<b>1.074</b>	<b>1.062</b>	<b>1.067</b>	<b>1.072</b>	

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

Entry	Clone/Variety	Average Tuber Size (oz)				Mean	Tubers/plant				Mean
		CA TUL	ID AB	TX SPL	TX DAL		CA TUL	ID AB	TX SPL	TX DAL	
<b>Red/White Flesh</b>											
1	Chieftan	5.7	5.7	5.7	6.3	<b>5.8</b>	7.9	7.1	5.0	8.2	<b>7.0</b>
2	Red LaSoda	7.4	8.4	5.7	7.0	<b>7.1</b>	5.2	4.9	3.6	7.2	<b>5.2</b>
3	NDTX5438-11R	5.3	4.4	4.2	5.6	<b>4.9</b>	7.0	5.0	5.3	7.4	<b>6.2</b>
4	CO04159-1R	4.1	2.7	2.2	3.8	<b>3.2</b>	7.2	5.1	2.0	12.3	<b>6.6</b>
<b>Red-Purple/Yellow Flesh</b>											
5	CO04067-8R/Y	3.6	2.8	2.6	2.8	<b>3.0</b>	9.8	8.4	12.4	9.7	<b>10.1</b>
<b>Yellow Flesh</b>											
6	Yukon Gold	5.4	4.8	7.7	7.6	<b>6.4</b>	6.6	5.9	3.4	5.8	<b>5.4</b>
7	A02267-1Y	4.4	4.6	3.0	2.5	<b>3.6</b>	7.8	8.4	6.0	9.2	<b>7.8</b>
8	CO04099-3W/Y	4.0	2.9	3.4	3.5	<b>3.4</b>	9.1	11.2	5.6	9.0	<b>8.7</b>
<b>Mean</b>		<b>5.0</b>	<b>4.6</b>	<b>4.3</b>	<b>4.9</b>	<b>4.7</b>	<b>7.6</b>	<b>7.0</b>	<b>5.4</b>	<b>8.6</b>	<b>7.1</b>

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

Entry	Clone/Variety	Tuber Uniformity (1-5 excellent)			Fresh Merit Score (1-5 best)							Process Merit score (1-5 best) CO/ SLV	Process CO/SLV	
		CA TUL	ID AB	Mean	CA TUL	CO SLV	ID AB	TX SPL	TX DAL	Mean	Rank		fry color (4=darkest) Harvest	45°F
<b>Red/White Flesh</b>														
1	Chieftan	3.8	3.5	<b>3.7</b>	3.8	4.0	1.5	4.0	3.8	<b>3.4</b>	<b>2</b>	1.0	3.0	3.0
2	Red LaSoda	3.5	1.8	<b>2.6</b>	3.5	3.0	2.3	4.0	3.6	<b>3.3</b>	<b>3</b>	4.0	2.0	2.0
3	NDTX5438-11R	4.0	3.3	<b>3.6</b>	3.9	3.0	2.2	4.0	4.3	<b>3.5</b>	<b>1</b>	1.0	4.0	4.0
4	CO04159-1R	3.9	3.7	<b>3.8</b>	3.8	1.0	3.0	3.0	2.5	<b>2.7</b>	<b>4</b>	1.0	3.0	4.0
<b>Red-Purple/Yellow Flesh</b>														
5	CO04067-8R/Y	3.8	3.3	<b>3.5</b>	3.3	2.0	2.0	3.7	1.5	<b>2.5</b>		1.0	1.0	1.0
<b>Yellow Flesh</b>														
6	Yukon Gold	3.9	2.8	<b>3.3</b>	3.9	1.0	2.8	3.9	4.0	<b>3.1</b>	<b>3</b>	1.0	1.0	3.0
7	A02267-1Y	4.0	2.6	<b>3.3</b>	4.0	5.0	3.6	3.6	3.7	<b>4.0</b>	<b>1</b>	5.0	1.0	1.0
8	CO04099-3W/Y	3.6	3.6	<b>3.6</b>	4.0	2.0	3.3	3.5	3.8	<b>3.3</b>	<b>2</b>	4.0	0.0	1.0
<b>Mean</b>		<b>3.8</b>		<b>3.4</b>	<b>3.8</b>	<b>2.6</b>	<b>2.6</b>	<b>3.7</b>	<b>3.4</b>	<b>3.2</b>		<b>2.3</b>	<b>1.9</b>	<b>2.4</b>



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

Entry	Clone/Variety	Tuber Shape					Mean	L/W			Mean	W/T <sup>1</sup>		
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL		CA TUL	CO SLV	ID AB		CO SLV	ID AB	Mean
<b>Red/White Flesh</b>														
1	Chieftan	2.1	2.0	2.3	3.5	3.5	<b>2.7</b>	1.23	1.25	1.13	<b>1.2</b>	<b>1.3</b>	<b>1.4</b>	<b>1.3</b>
2	Red LaSoda	2.3	1.0	3.3	3.5	3.5	<b>2.7</b>	1.14	1.12	1.11	<b>1.1</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
3	NDTX5438-11R	1.5	1.0	1.1	3.5	3.0	<b>2.0</b>	1.02	1.13	1.09	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>
4	CO04159-1R	1.6	1.0	1.0	2.0	2.0	<b>1.5</b>	1.07	1.08	1.05	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.2</b>
<b>Red-Purple/Yellow Flesh</b>														
5	CO04067-8R/Y	1.8	1.0	1.3	2.0	2.0	<b>1.6</b>	1.07	1.18	1.07	<b>1.1</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>
<b>Yellow Flesh</b>														
6	Yukon Gold	1.9	2.0	2.4	3.5	3.5	<b>2.7</b>	1.13	1.29	1.12	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>
7	A02267-1Y	2.1	2.0	2.0	2.0	2.0	<b>2.0</b>	1.06	1.20	1.10	<b>1.1</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
8	CO04099-3W/Y	2.1	1.0	1.5	2.0	2.3	<b>1.8</b>	1.16	1.15	1.08	<b>1.1</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>
<b>Mean</b>				<b>1.9</b>	<b>2.8</b>	<b>2.7</b>	<b>2.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>

<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)					Mean	Flesh Color (1 - 5 dark)					Mean
		CA	CO	ID	TX	TX		CA	CO	ID	TX	TX	
		TUL	SLV	AB	SPL	DAL		TUL	SLV	AB	SPL	DAL	
<b>Red/White Flesh</b>													
1	Chieftan	3.3	1.0	2.3	3.5	3.2	<b>2.7</b>	1.0	1.0	1.0	1.0	1.0	<b>1.0</b>
2	Red LaSoda	3.3	1.0	2.3	3.6	3.5	<b>2.7</b>	1.3	1.0	1.0	1.0	1.0	<b>1.1</b>
3	NDTX5438-11R	4.0	2.0	2.3	4.0	4.5	<b>3.4</b>	1.1	1.0	1.0	1.0	1.0	<b>1.0</b>
4	CO04159-1R	4.0	3.0	4.0	4.0	3.5	<b>3.7</b>	1.4	1.0	2.0	1.0	1.0	<b>1.3</b>
<b>Red-Purple/Yellow Flesh</b>													
5	CO04067-8R/Y	3.8	3.0	2.8	4.0	3.5	<b>3.4</b>	2.9	4.0	3.7	3.5	4.0	<b>3.6</b>
<b>Yellow Flesh</b>													
6	Yukon Gold	3.1		1.3	1.0	1.0	<b>1.6</b>	2.8	3.0	3.0	3.5	2.0	<b>2.9</b>
7	A02267-1Y	3.5		1.3	1.0	1.0	<b>1.7</b>	3.0	3.0	2.7	3.0	2.0	<b>2.7</b>
8	CO04099-3W/Y	3.8		1.0	1.0	1.0	<b>1.7</b>	3.3	4.0	4.3	3.5	3.0	<b>3.6</b>
<b>Mean</b>		<b>3.6</b>	<b>2.0</b>	<b>2.8</b>	<b>2.7</b>	<b>2.1</b>	<b>2.6</b>	<b>2.1</b>	<b>2.3</b>	<b>2.3</b>	<b>2.2</b>	<b>1.9</b>	<b>2.1</b>

**Table 17. Eye Depth and External Defects**

Entry	Clone/Variety	External Defects																									
		CA TUL	ID AB	TX SPL	TX DAL	Eye Depth	CA TUL <sup>1</sup>	CO SLV	ID AB	TX SPL	TX DAL	Growth Cracks	CA TUL <sup>1</sup>	CO SLV	ID AB	TX SPL	TX DAL	Knobs	CA TUL	TX SPL	TX DAL	Shatter Bruise	ID AB	TX SPL	TX DAL	Scab	
<b>Red/White Flesh</b>																											
1	Chieftan	2.9	2.8	4.0	4.0	3.4	1.2	5.0	4.5	5.0	5.0	4.9	0.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.8	5.0	5.0	4.6	
2	Red LaSoda	2.8	1.0	2.0	2.0	2.0	5.5	4.0	4.3	5.0	5.0	4.6	6.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.3	5.0	5.0	4.4	
3	NDTX5438-11R	3.4	4.1	4.0	4.0	3.9	1.4	4.0	5.0	5.0	5.0	4.8	0.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.8	5.0	5.0	4.6	
4	CO04159-1R	3.8	4.0	4.0	4.0	4.0	1.1	4.0	3.3	5.0	5.0	4.3	1.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.7	5.0	5.0	4.6	
<b>Red-Purple/Yellow Flesh</b>																											
5	CO04067-8R/Y	3.6	3.8	4.0	4.0	3.8	8.2	4.0	3.5	4.0	2.0	3.4	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.3	5.0	5.0	4.8	
<b>Yellow Flesh</b>																											
6	Yukon Gold	3.6	3.5	4.0	4.0	3.8	1.0	3.0	5.0	5.0	5.0	4.5	2.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.0	5.0	5.0	4.0	
7	A02267-1Y	3.4	2.2	3.0	4.0	3.2	0.4	5.0	5.0	5.0	5.0	5.0	1.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.0	5.0	5.0	4.3	
8	CO04099-3W/Y	3.6	3.0	4.0	4.0	3.7	0.5	5.0	5.0	5.0	5.0	5.0	5.0	0.5	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	3.3	5.0	5.0	4.4	
<b>Mean</b>		<b>3.4</b>	<b>3.0</b>	<b>3.6</b>	<b>3.8</b>	<b>3.5</b>	<b>2.4</b>		<b>4.4</b>	<b>4.9</b>	<b>4.6</b>	<b>4.5</b>	<b>1.9</b>		<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>	<b>3.4</b>	<b>5.0</b>	<b>5.0</b>	<b>4.5</b>	

<sup>1</sup>% total tubers

**Table 18. Internal Defects**

Entry	Clone/Variety	Percent Incidence (%) <sup>1</sup>										Blackspot Bruise										
		CA	CO	ID	TX	TX	HH	CA	ID	TX	TX	IBS	CA	ID	TX	TX	VD	CA	CO	TX	TX	BB
		TUL	SLV	AB	SPL	DAL		TUL	AB	SPL	DAL		TUL%	SLV	SPL	DAL						
<b>Red/White Flesh</b>																						
1	Chieftan	0	4	0	13	8	5	0	0	10	0	3	15	0	0	0	4	0	5.0	0.0	0.0	1.7
2	Red LaSoda	0	6	5	5	0	3	0	0	3	0	1	10	0	0	0	3	8	5.0	0.0	0.0	1.7
3	NDTX5438-11R	3	0	0	3	0	1	0	0	0	0	0	5	0	0	0	1	5	4.9	0.0	0.0	1.6
	CO04159-1R	3	3	0	0	0	1	3	0	0	0	1	10	0	0	0	3	0	5.0	0.0	0.0	1.7
<b>Red-Purple/Yellow Flesh</b>																						
5	CO04067-8R/Y	0	0	3	0	0	1	5	0	0	0	1	18	0	0	0	5	10	4.4	0.0	0.0	1.5
<b>Yellow Flesh</b>																						
6	Yukon Gold	5	0	0	18	0	5	3	0	3	0	2	10	0	0	0	3	0	4.9	0.0	0.0	1.6
7	A02267-1Y	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	3	5	4.6	0.0	0.0	1.5
8	CO04099-3W/Y	0	1	0	5	0	1	3	0	0	0	1	8	0	0	0	2	3	4.5	0.0	0.0	1.5
<b>Mean</b>		<b>2</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>2</b>

<sup>1/</sup> Percent based on 10 cut tubers averaged from 7 sites.

**Table 19 Disease Evaluations, Metribuzin Reaction**

Entry Clone/Variety	Aberdeen			Tulelake	
	Vert. Wilt/ Early Dying <sup>1</sup>	Early Blight <sup>1</sup>	Metr. Reaction <sup>2</sup>	Vert. <sup>3</sup>	
	Foliar	Foliar		8/16/2013	8/26/2013
<b>Red/White Flesh</b>					
1 Chieftan	3	4	R	4	7
2 Red LaSoda	3	3		3	6
3 NDTX5438-11R	3	3	MR	5	7
4 CO04159-1R	2	3	VS	6	9
<b>Red-Purple/Yellow Flesh</b>					
5 CO04067-8R/Y	1	2	VS	5	8
<b>Yellow Flesh</b>					
6 Yukon Gold	2	2		5	8
7 A02267-1Y	2	3	S	4	6
8 CO04099-3W/Y	3	3	R	5	7
<b>MEANS (plot)</b>	<b>2.4</b>	<b>3.0</b>		<b>4.7</b>	<b>7.1</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>3</sup> Vert wilt rating 0-9 9=worst 90-100% plants show symptoms

**Table 20. Tuber Composition**

Entry	Clone/Variety	Aberdeen, Idaho					
		Solids	Protein <sup>1</sup>	Dextrose <sup>2</sup>	Sucrose <sup>2</sup>	Vitamin C <sup>3</sup>	TGA <sup>4</sup>
<b>Red/White Flesh</b>							
1	Chieftan	20.0	5.4	0.044	0.119	18.0	5.6
2	Red LaSoda	19.7	5.5	0.052	0.149	23.6	0.7
3	NDTX5438-11R	18.7	4.2	0.059	0.166	18.5	0.1
4	CO04159-1R	19.6	5.1	0.043	0.229	31.0	0.7
<b>Red-Purple/Yellow Flesh</b>							
5	CO04067-8R/Y	20.6	6.1	0.004	0.114	18.8	2.6
<b>Yellow Flesh</b>							
6	Yukon Gold	23.8	5.8	0.020	0.156	33.9	1.7
7	A02267-1Y	18.9	5.0	0.005	0.133	19.6	1.3
8	CO04099-3W/Y	23.3	5.2	0.005	0.161	20.8	1.8
<b>Mean</b>		<b>20.6</b>	<b>5.29</b>	<b>0.029</b>	<b>0.153</b>	<b>23.0</b>	<b>1.8</b>

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

<sup>2/</sup> % Fresh Weight Basis

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

<sup>4/</sup> % Fresh Weight Basis (mg/100g), using Lenepe as check with reading of 43.7

**Table 21. Entry Location Comments**

Entry Clone/Variety	Aberdeen, ID	Tulelake, CA	Center, CO
<b>Red/White Flesh</b>			
1	Chieftan point, green, misshaped, russeted, attached stolons	High tuber set, high merit score	
2	Red LaSoda ugly, rot	deep eyes, growth cracks, knobs	
3	NDTX5438-11R small, few, attached stolons	High merit score, dark skin color, very round	
4	CO04159-1R few, small, dirty look	Dark skin color, small tuber size	
<b>Red-Purple/Yellow Flesh</b>			
5	CO04067-8R/Y small, round red, GC, points	Growth cracks, low merit score, nice yellow flesh	
<b>Yellow Flesh</b>			
6	Yukon Gold typical, slightly flat, scab	Uniform, good fresh merit score	
7	A02267-1Y white, oval, deep purple eyes, pointy ends, misshapen	Smaller tuber size, high fresh merit score	light yellow, white in pith area
8	CO04099-3W/Y white/pink eyes, some tear drop, slightly flat shape	Dark yellow flesh, small tuber size	deep eyes

**Table 22. Entry Location Comments Continued**

Entry	Clone/Variety	Springlake, TX	Dalhart, TX
<b>Red/White Flesh</b>			
1	Chieftan	light skin color, heavy set, poor internals, feathering, nice lager tubers, light skin color	nice shape, some feathering+, light skin color
2	Red LaSoda	oversized, deep eyes, feathering	rough, deep eyes, oversized, yield++
3	NDTX5438-11R	good color and nice flesh, smooth, nice skin finish++	great shape and color BOT, very white flesh
4	CO04159-1R	very nice color, low yield	light set+, white flesh, low yield, nice shape
<b>Red-Purple/Yellow Flesh</b>			
5	CO04067-8R/Y	small potato, drop, heavy set, very yellow flesh, growth cracks, virus?, yellow center of flesh	growth cracks, virus?, ugly, nice flesh, small+
<b>Yellow Flesh</b>			
6	Yukon Gold	light set, nice shape, darker yellow flesh than normal, some brown center,	nice flesh, large, oversized, nice shape, no hollow heart
7	A02267-1Y	deep eyes, small+, poor shape	small tuber, light flesh, nice uniform size, small,
8	CO04099-3W/Y	nice dark flesh, small, heavy set, poor skin finish	nice uniform shape, light flesh, some feathering+, red eye



**Table 23. Summary Means**

Entry	Clone/Variety	Year	Yield Summary <sup>1</sup>							Tuber Characteristics	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	Chieftan	***	58	110	170	284	110	8	521	5.8	1.072	3.4	
2	Red LaSoda	***	49	57	112	185	130	35	462	7.1	1.068	3.3	
3	NDTX5438-11R	1	90	90	107	208	51	6	353	4.9	1.065	3.5	
4	CO04159-1R	1	52	39	35	87	6	4	143	3.2	1.066	2.7	
<b>Red-Purple/Yellow Flesh</b>													
5	CO04067-8R/Y	1	142	83	29	130	4	22	326	3.0	1.075	2.5	
<b>Yellow Flesh</b>													
6	Yukon Gold	***	43	45	127	169	105	17	388	6.4	1.079	3.1	
7	A02267-1Y	1	110	76	52	139	10	13	358	3.6	1.067	4.0	
8	CO04099-3W/Y	1	148	75	51	120	9	9	363	3.4	1.083	3.3	
<b>Mean</b>			<b>86</b>	<b>72</b>	<b>85</b>	<b>165</b>	<b>53</b>	<b>14</b>	<b>364</b>	<b>4.7</b>	<b>1.072</b>	<b>3.2</b>	

<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. 2-Year Summary of Graduating Entries**

Entry	Clone/Variety	Year	Yield Summary <sup>1</sup>					Tuber Characteristics	Quality	
			<4 oz.	4-6 oz.	6-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.
<b>Red/White Flesh</b>										
1	Chieftan	***								
2	Red LaSoda	***								
3	NDTX5438-11R									
4	CO04159-1R									
<b>Red-Purple/Yellow Flesh</b>										
5	CO04067-8R/Y									
<b>Yellow Flesh</b>										
6	Yukon Gold									
7	A02267-1Y									
8	CO04099-3W/Y									
<b>Mean</b>										

<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

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

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