

**2014**  
**TRI-STATE SPECIALTY**  
**POTATO VARIETY TRIAL REPORT**

**State Experiment Stations and  
USDA-ARS Cooperating**

**Aberdeen, Idaho**

**Parma, Idaho**

**Klamath Falls, Oregon**

**Othello, Washington**



## 2014 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

### TABLE

- 1 Locations, Cooperators, and Cultural Information
- 2 Clone, Parents, Seed Source, Stand, Stems per plant
- 3 Vine Characteristics
- 4 Total Yield (CWT/A) - Specific Gravity
- 5 Yield of Tubers Under 4 oz. (CWT/A & %)
- 6 Yield of U.S. No. 1's (CWT/A & %) - 4-6 oz. and 6-10 oz.
- 7 Yield of U.S. No. 1's Over 10 oz. and Culls (CWT/A & %)
- 8 Average Tuber Size, and Tuber Shape
- 9 Tuber Characteristics - Eye Depth, Skin Color, Flesh Color
- 10 Tuber Appearance - Appearance, Uniformity, Merit
- 11 External Defects - Skinning, Shatter Bruise, Greening, and Scab
- 12 Internal Defects - Hollow Heart/Brown Center, Internal Brown Spot, Vascular Discoloration
- 13 Solids, Dextrose, Sucrose, Protein, Vitamin C, and Glycoalkaloids - Aberdeen
- 14 Culinary Results
- 15 After Storage Comments - Parma
- 16 Other Data
- 17 Summary of Entries' Performance
- 18 Trial Comments and Information by Location

Compiled by: Oksana Adams



**TABLE 2: 2014 Tri-State Specialty Potato Variety Trial - CLONE, PARENTS, FLOWER COLOR, ENTERED BY, SEED SOURCE, STAND, AND STEM NO.**

No	Clone	Parents		Flower Color	Entered by	Trial Year	Seed Source	STAND (%)				Mean Stand %	STEM NO.			Stems/Plant
		Female	Male					AB	PA	OR	WA		AB	PA	WA	
1	Chieftain	***	***	Red-purple	Check	***	OR	95	71	95	86	<b>87</b>	2.7	1.7	2.3	<b>2.2</b>
2	NDA050237B-1R	ND028678-1RY	ND028770B-4R	Dk Red-purple	ID	5	ID	98	64	99	65	<b>81</b>	2.9	2.2	2.3	<b>2.5</b>
3	A05180-3PY	Pinto(ATND9331-2)	VC1075-1R	Dk Red-purple	ID	2	ID	99	76	90	90	<b>89</b>	3.5	2.7	2.5	<b>2.9</b>
4	COA07365-4RY	US147-96	CO99256-2R	Med Red-purple	ID	2	ID	100	69	99	86	<b>88</b>	5.0	1.9	2.2	<b>3.1</b>
5	Yukon Gold	Norgleam	W5279-4	Pink	Check	***	OR	96	74	96	85	<b>88</b>	2.3	1.7	1.7	<b>1.9</b>
6	A02267-1Y	Inca Gold	ND5256-7R	Med Red-purple	ID	6	ID	96	77	94	85	<b>88</b>	2.8	1.9	2	<b>2.2</b>
7	A05182-7RY	ATND93331-2	A99433-5Y	White	ID	3	ID	100	77	100	94	<b>93</b>	3.1	2.2	1.8	<b>2.4</b>
8	POR07PG20-2	POR02PG60-1	POR03PG6-3	Purple	OR	3	OR	94	77	95	79	<b>86</b>	5.7	3.4	2.8	<b>4.0</b>
9	POR07PG3-1	POR01PG22-1	POR02PG37-2	Purple	OR	3	OR	94	67	97	97	<b>89</b>	5.0	2.8	2.5	<b>3.5</b>
10	NDA081451CB-1CY	Dakota Diamond	ND039173CAB-22	White	ID	3	ID	98	77	95	94	<b>91</b>	4.5	2.8	2.3	<b>3.2</b>
11	A06293-3Y	Pinto(ATND9331-2)	VCO967-2R/Y	Med Red-purple	ID	2	ID	***	74	***	***	<b>74</b>	***	2.6	***	<b>2.6</b>
12	A06336-5Y	***	***	***	ID	1	ID	96	75	***	***	<b>86</b>	4.8	3.1	***	<b>3.9</b>

**TABLE 3: 2014 Tri-State Specialty Potato Variety Trial - VINE CHARACTERISTICS**

No	Clone	Vine Size <sup>1</sup>				Vine Maturity <sup>2</sup>			
		AB	PA	Means	Size	AB	PA	Means	Maturity
1	Chieftain	2.5	3.8	3.1	Med-large	4.0	3.5	3.8	Med--late
2	NDA050237B-1R	2.5	3.0	2.8	Medium	3.5	3.0	3.3	Medium
3	A05180-3PY	3.0	3.5	3.3	Med-large	3.5	4.0	3.8	Med--late
4	COA07365-4RY	1.5	2.0	1.8	Small	2.0	2.0	2.0	Early
5	Yukon Gold	1.0	3.5	2.3	Small	1.0	3.0	2.0	Early
6	A02267-1Y	2.0	4.3	3.1	Med-large	3.0	4.0	3.5	Medium
7	A05182-7RY	3.0	3.3	3.1	Med-large	4.5	4.0	4.3	Late
8	POR07PG20-2	1.7	1.5	1.6	Small	2.0	2.0	2.0	Early
9	POR07PG3-1	1.7	2.0	1.8	Small	2.0	2.0	2.0	Early
10	NDA081451CB-1CY	3.0	4.0	3.5	Med-large	3.5	3.5	3.5	Medium
11	A06293-3Y	***	3.0	3.0	Medium	***	3.0	3.0	Med Early
12	A06336-5Y	1.5	2.0	1.8	Small	2.0	2.0	2.0	Early

<sup>1</sup> 1.0-2.5=Small, 2.6-3.0=Medium, 3.1-4.0=Medium-Large, 4.1-4.5=Large, 4.6-5.0=Very Large

<sup>2</sup> 1.0-2.5=Early, 2.6-3.0=Medium-Early, 3.1-3.5=Medium, 3.6-4.0= Medium-Late, 4.1-4.5=Late, 4.6-5.0=Very Late

**TABLE 4: 2014 Tri-State Specialty Potato Variety Trial - TOTAL YIELD AND SPECIFIC GRAVITY**

No. Clone	TOTAL YIELD (CWT/A)						SPECIFIC GRAVITY					
	AB	PA	OR	WA	Entry Mean	Rank	AB	PA	OR	WA	Entry Mean	Rank
1 Chieftain	463	414	683	721	<b>570</b>	<b>2</b>	1.072	1.067	1.070	1.072	<b>1.070</b>	<b>6</b>
2 NDA050237B-1R	472	328	570	499	<b>467</b>	<b>6</b>	1.057	1.058	1.070	1.062	<b>1.062</b>	<b>11</b>
3 A05180-3PY	492	466	609	701	<b>567</b>	<b>3</b>	1.070	1.067	1.077	1.066	<b>1.070</b>	<b>7</b>
4 COA07365-4RY	397	303	495	566	<b>440</b>	<b>8</b>	1.072	1.072	1.079	1.068	<b>1.073</b>	<b>4</b>
5 Yukon Gold	297	385	426	574	<b>420</b>	<b>9</b>	1.082	1.084	1.077	1.085	<b>1.082</b>	<b>2</b>
6 A02267-1Y	442	456	612	664	<b>543</b>	<b>4</b>	1.067	1.067	1.077	1.063	<b>1.068</b>	<b>8</b>
7 A05182-7RY	312	470	678	642	<b>526</b>	<b>5</b>	1.067	1.073	1.085	1.073	<b>1.075</b>	<b>3</b>
8 POR07PG20-2	226	286	428	418	<b>340</b>	<b>12</b>	1.055	1.062	1.068	1.062	<b>1.062</b>	<b>10</b>
9 POR07PG3-1	302	331	398	581	<b>403</b>	<b>10</b>	1.068	1.072	1.070	1.073	<b>1.071</b>	<b>5</b>
10 NDA081451CB-1CY	546	451	692	635	<b>581</b>	<b>1</b>	1.080	1.083	1.093	1.082	<b>1.084</b>	<b>1</b>
11 A06293-3Y	***	446	***	***	<b>446</b>	<b>7</b>	***	1.060	***	***	<b>1.060</b>	<b>12</b>
12 A06336-5Y	403	353	***	***	<b>378</b>	<b>11</b>	1.067	1.066	***	***	<b>1.066</b>	<b>9</b>
<b>Location Means</b>	<b>396</b>	<b>391</b>	<b>559</b>	<b>600</b>	<b>473</b>		<b>1.069</b>	<b>1.069</b>	<b>1.077</b>	<b>1.071</b>	<b>1.071</b>	

**TABLE 5: 2014 Tri-State Specialty Potato Variety Trial - YIELD < 4 OZ (CWT/A & %)**

No. Clone	0-2 OZ or C's <1.34" (CWT/A)/%						2-4 OZ or B's <2.25" (CWT/A)/%					
	AB	PA	OR	WA	Entry Mean	Rank	AB	PA	OR	WA	Entry Mean	Rank
	1 Chieftain	3 1	13 3	9 1	28 4	<b>13</b> <b>2</b>	<b>11</b> <b>12</b>	30 6	44 11	46 7	133 18	<b>63</b> <b>10</b>
2 NDA050237B-1R	18 4	23 7	34 6	29 6	<b>26</b> <b>6</b>	<b>10</b> <b>9</b>	59 13	68 21	152 27	100 20	<b>95</b> <b>20</b>	<b>10</b> <b>9</b>
3 A05180-3PY	33 7	28 6	22 4	31 4	<b>28</b> <b>5</b>	<b>8</b> <b>10</b>	81 17	86 19	111 18	172 25	<b>113</b> <b>20</b>	<b>9</b> <b>10</b>
4 COA07365-4RY	57 14	18 6	31 6	36 6	<b>35</b> <b>8</b>	<b>6</b> <b>6</b>	186 47	89 30	126 25	179 32	<b>145</b> <b>33</b>	<b>4</b> <b>4</b>
5 Yukon Gold	14 5	8 2	7 2	10 2	<b>10</b> <b>3</b>	<b>12</b> <b>11</b>	37 12	21 5	38 9	54 9	<b>37</b> <b>9</b>	<b>12</b> <b>12</b>
6 A02267-1Y	26 6	65 14	13 2	24 4	<b>32</b> <b>7</b>	<b>7</b> <b>7</b>	117 27	128 28	98 16	150 23	<b>123</b> <b>24</b>	<b>8</b> <b>8</b>
7 A05182-7RY	70 22	81 17	34 5	68 11	<b>63</b> <b>14</b>	<b>3</b> <b>3</b>	130 41	194 35	177 26	292 45	<b>198</b> <b>37</b>	<b>1</b> <b>3</b>
8 POR07PG20-2	115 51	72 25	74 17	73 17	<b>84</b> <b>28</b>	<b>1</b> <b>1</b>	85 38	101 36	156 36	195 47	<b>134</b> <b>39</b>	<b>6</b> <b>2</b>
9 POR07PG3-1	57 19	46 14	40 10	61 11	<b>51</b> <b>13</b>	<b>5</b> <b>4</b>	117 39	86 26	119 30	203 35	<b>131</b> <b>33</b>	<b>7</b> <b>5</b>
10 NDA081451CB-1CY	82 15	48 11	14 2	60 9	<b>51</b> <b>9</b>	<b>4</b> <b>5</b>	224 41	141 31	87 13	267 42	<b>180</b> <b>32</b>	<b>2</b> <b>6</b>
11 A06293-3Y	*** ***	27 6	*** ***	*** ***	<b>27</b> <b>6</b>	<b>9</b> <b>8</b>	*** ***	139 31	*** ***	*** ***	<b>139</b> <b>31</b>	<b>5</b> <b>7</b>
12 A06336-5Y	100 25	63 18	*** ***	*** ***	<b>82</b> <b>22</b>	<b>2</b> <b>2</b>	196 49	163 47	*** ***	*** ***	<b>180</b> <b>48</b>	<b>3</b> <b>1</b>
<b>Location Means</b>	<b>52</b> <b>15</b>	<b>41</b> <b>11</b>	<b>28</b> <b>6</b>	<b>42</b> <b>7</b>	<b>42</b> <b>10</b>		<b>115</b> <b>30</b>	<b>105</b> <b>27</b>	<b>111</b> <b>21</b>	<b>175</b> <b>30</b>	<b>128</b> <b>28</b>	

**TABLE 6: 2014 Tri-State Specialty Potato Variety Trial - YIELD US NO.1 4-6 OZ. AND 6-10 OZ. (CWT/A & %)**

No. Clone	4-6 OZ (CWT/A)/%						6-10 OZ (CWT/A)/%					
	AB	PA	OR	WA	Entry Mean	Rank	AB	PA	OR	WA	Entry Mean	Rank
1 Chieftain	66	63	97	193	<b>105</b>	<b>8</b>	193	150	208	296	<b>212</b>	<b>1</b>
	14	15	14	27	<b>18</b>	<b>11</b>	42	36	31	41	<b>38</b>	<b>1</b>
2 NDA050237B-1R	106	76	170	124	<b>119</b>	<b>7</b>	147	94	145	196	<b>146</b>	<b>4</b>
	22	23	30	25	<b>25</b>	<b>8</b>	31	29	25	39	<b>31</b>	<b>4</b>
3 A05180-3PY	130	112	129	226	<b>149</b>	<b>3</b>	168	165	200	206	<b>185</b>	<b>2</b>
	26	24	21	32	<b>26</b>	<b>6</b>	34	35	33	29	<b>33</b>	<b>3</b>
4 COA07365-4RY	124	96	129	177	<b>131</b>	<b>6</b>	23	88	109	135	<b>89</b>	<b>9</b>
	31	32	26	31	<b>30</b>	<b>2</b>	6	29	22	24	<b>20</b>	<b>9</b>
5 Yukon Gold	73	39	50	98	<b>65</b>	<b>12</b>	106	120	127	208	<b>140</b>	<b>5</b>
	25	10	12	17	<b>16</b>	<b>12</b>	36	31	30	36	<b>33</b>	<b>2</b>
6 A02267-1Y	145	156	116	167	<b>146</b>	<b>4</b>	103	101	169	264	<b>159</b>	<b>3</b>
	33	34	19	25	<b>28</b>	<b>3</b>	23	22	28	40	<b>28</b>	<b>5</b>
7 A05182-7RY	67	132	159	209	<b>141</b>	<b>5</b>	40	82	188	74	<b>96</b>	<b>8</b>
	21.0	28	24	32	<b>26</b>	<b>5</b>	13	18	28	11	<b>17</b>	<b>10</b>
8 POR07PG20-2	19	83	82	105	<b>72</b>	<b>11</b>	5	27	53	36	<b>30</b>	<b>11</b>
	8	29	19	25	<b>20</b>	<b>10</b>	2	9	12	9	<b>8</b>	<b>11</b>
9 POR07PG3-1	69	86	111	152	<b>105</b>	<b>9</b>	47	94	74	132	<b>87</b>	<b>10</b>
	23	26	28	26	<b>26</b>	<b>7</b>	16	28	19	23	<b>21</b>	<b>8</b>
10 NDA081451CB-1CY	155	127	144	199	<b>156</b>	<b>2</b>	68	119	263	102	<b>138</b>	<b>6</b>
	28	28	21	31	<b>27</b>	<b>4</b>	12	27	38	16	<b>23</b>	<b>7</b>
11 A06293-3Y	***	157	***	***	<b>157</b>	<b>1</b>	***	118	***	***	<b>118</b>	<b>7</b>
	***	35	***	***	<b>35</b>	<b>1</b>	***	27	***	***	<b>27</b>	<b>6</b>
12 A06336-5Y	88	94	***	***	<b>91</b>	<b>10</b>	14	32	***	***	<b>23</b>	<b>12</b>
	22	26	***	***	<b>24</b>	<b>9</b>	3	9	***	***	<b>6</b>	<b>12</b>
<b>Location Means</b>	<b>95</b>	<b>102</b>	<b>119</b>	<b>165</b>	<b>120</b>		<b>83</b>	<b>99</b>	<b>154</b>	<b>165</b>	<b>119</b>	
	<b>23</b>	<b>26</b>	<b>21</b>	<b>27</b>	<b>25</b>		<b>20</b>	<b>25</b>	<b>27</b>	<b>27</b>	<b>24</b>	



**TABLE 7: 2014 Tri-State Specialty Potato Variety Trial - YIELD US NO.1 >10 OZ. AND CULL (CWT/A & %)**

No. Clone	>10 OZ (CWT/A)/%						CULLS (CWT/A)/%					
	AB	PA	OR	WA	Entry Mean	Rank	AB	PA	OR	WA	Entry Mean	Rank
1 Chieftain	155	117	188	71	<b>133</b>	<b>2</b>	16	29	49	33	<b>32</b>	<b>3</b>
	33	28	27	10	<b>24</b>	<b>2</b>	4	7	7	5	<b>6</b>	<b>4</b>
2 NDA050237B-1R	126	49	23	50	<b>62</b>	<b>3</b>	17	18	15	13	<b>16</b>	<b>7</b>
	27	15	4	10	<b>14</b>	<b>3</b>	4	6	3	3	<b>4</b>	<b>5</b>
3 A05180-3PY	58	30	54	66	<b>52</b>	<b>4</b>	21	45	40	27	<b>33</b>	<b>2</b>
	12	6	9	9	<b>9</b>	<b>4</b>	4	9.6	7	4	<b>6</b>	<b>2</b>
4 COA07365-4RY	0	9	11	39	<b>15</b>	<b>9</b>	6	4	42	14	<b>17</b>	<b>6</b>
	0	3	2	7	<b>3</b>	<b>9</b>	2	1	8	2	<b>3</b>	<b>8</b>
5 Yukon Gold	49	170	111	203	<b>133</b>	<b>1</b>	18	27	27	26	<b>25</b>	<b>5</b>
	16	44	26	35	<b>30</b>	<b>1</b>	6	7.4	6	5	<b>6</b>	<b>3</b>
6 A02267-1Y	17	7	86	59	<b>42</b>	<b>5</b>	34	0	89	23	<b>36</b>	<b>1</b>
	4	2	14	9	<b>7</b>	<b>5</b>	8	0	14	3	<b>6</b>	<b>1</b>
7 A05182-7RY	1	10	72	0	<b>21</b>	<b>7</b>	5	1	23	28	<b>14</b>	<b>8</b>
	0.5	2	11	0	<b>3</b>	<b>8</b>	2	0	3	4.0	<b>2</b>	<b>9</b>
8 POR07PG20-2	0	2	14	9	<b>6</b>	<b>10</b>	3	2	41	9	<b>14</b>	<b>9</b>
	0	1	3	2	<b>1</b>	<b>10</b>	1	1	10	2	<b>3</b>	<b>7</b>
9 POR07PG3-1	4	18	22	33	<b>19</b>	<b>8</b>	9	2	21	3	<b>9</b>	<b>10</b>
	1	6	5	6	<b>4</b>	<b>6</b>	3	1	5	0	<b>2</b>	<b>10</b>
10 NDA081451CB-1CY	5	14	61	7	<b>22</b>	<b>6</b>	13	3	78	8	<b>25</b>	<b>4</b>
	1	3	9	1	<b>4</b>	<b>7</b>	2	0.6	11	1	<b>4</b>	<b>6</b>
11 A06293-3Y	***	3	***	***	<b>3</b>	<b>11</b>	***	2	***	***	<b>2</b>	<b>12</b>
	***	1	***	***	<b>1</b>	<b>11</b>	***	0.4	***	***	<b>0</b>	<b>12</b>
12 A06336-5Y	1	0	***	***	<b>1</b>	<b>12</b>	5	1	***	***	<b>3</b>	<b>11</b>
	0.2	0	***	***	<b>0</b>	<b>12</b>	1	0	***	***	<b>1</b>	<b>11</b>
<b>Location Means</b>	<b>38</b>	<b>36</b>	<b>64</b>	<b>54</b>	<b>42</b>		<b>13</b>	<b>11</b>	<b>43</b>	<b>18</b>	<b>19</b>	
	<b>9</b>	<b>9</b>	<b>11</b>	<b>9</b>	<b>8</b>		<b>3</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>4</b>	

**TABLE 8: 2014 Tri-State Specialty Potato Variety Trial - AVERAGE TUBER SIZE AND SHAPE**

No. Clone	Average Tuber Size (oz)					Tuber Shape <sup>1</sup>					(Length/Width Ratio)			
	AB	PA	OR	WA	Entry Means	AB	OR	WA	Entry Means		AB	PA	OR	Entry Means
1 Chieftain	7.9	5.7	6.4	5.3	<b>6.3</b>	2.3	3.1	2.0	<b>2.5</b>	Oval	1.45	1.39	1.32	<b>1.39</b>
2 NDA050237B-1R	5.1	4.3	3.7	4.9	<b>4.5</b>	2.8	1.6	1.3	<b>1.9</b>	Round	1.25	1.25	1.22	<b>1.24</b>
3 A05180-3PY	4.5	4.4	4.5	4.8	<b>4.5</b>	1.6	1.8	1.0	<b>1.5</b>	Round	1.09	1.18	1.21	<b>1.16</b>
4 COA07365-4RY	2.9	4.0	3.6	4.3	<b>3.7</b>	1.0	2.5	1.0	<b>1.5</b>	Round	1.21	1.17	1.18	<b>1.19</b>
5 Yukon Gold	5.2	7.4	6.3	7.2	<b>6.5</b>	2.3	2.0	1.7	<b>2.0</b>	Round	1.47	1.16	1.25	<b>1.29</b>
6 A02267-1Y	4.2	3.2	4.5	5.1	<b>4.2</b>	2.0	1.9	2.0	<b>2.0</b>	Round	1.27	1.15	1.28	<b>1.23</b>
7 A05182-7RY	2.5	2.9	3.9	3.4	<b>3.2</b>	1.5	1.9	1.0	<b>1.5</b>	Round	1.36	1.14	1.24	<b>1.25</b>
8 POR07PG20-2	1.6	2.3	2.4	3.1	<b>2.4</b>	1.0	1.3	1.0	<b>1.1</b>	Round	1.06	1.13	1.17	<b>1.12</b>
9 POR07PG3-1	2.7	3.2	3.1	3.8	<b>3.2</b>	1.1	1.9	1.0	<b>1.3</b>	Round	1.11	1.13	1.28	<b>1.17</b>
10 NDA081451CB-1CY	3.0	3.6	4.7	3.6	<b>3.7</b>	1.1	1.5	1.0	<b>1.2</b>	Round	1.24	1.12	1.20	<b>1.19</b>
11 A06293-3Y	***	3.9	***	***	<b>3.9</b>	***	***	***	<b>3.9</b>	Obl-Lng	***	1.07	***	<b>1.07</b>
12 A06336-5Y	2.4	2.7	***	***	<b>2.5</b>	1.0	***	***	<b>1.0</b>	Round	1.27	1.03	***	<b>1.15</b>
<b>Location Means</b>	<b>3.8</b>	<b>4.0</b>	<b>4.3</b>	<b>4.5</b>	<b>4.2</b>	<b>1.6</b>	<b>1.9</b>	<b>1.3</b>	<b>1.8</b>		<b>1.25</b>	<b>1.16</b>	<b>1.24</b>	<b>1.22</b>

<sup>1</sup> 1.0-2.0=Round, 2.1-2.5=Oval, 2.6-3.5=Blocky, 3.6-4.0=Oblong, 4.1-5.0=Long

**TABLE 9: 2014 Tri-State Specialty Potato Variety Trial - EYE DEPTH, TUBER SKIN AND FLESH COLOR**

No. Clone	Eye Depth <sup>1</sup>				Skin Color <sup>2</sup>					Flesh Color <sup>2</sup>					
	AB	OR	WA	Entry Means	AB	PA	OR	WA	Entry Means		AB	PA	OR	Entry Means	
1 Chieftain	3.0	3.8	3.0	<b>3.3</b>	3.0	2.0	3.8	2.0	<b>2.7</b>	Red	1.0	1.0	1.0	1.0	White
2 NDA050237B-1R	3.3	3.9	3.0	<b>3.4</b>	3.5	4.0	4.0	4.0	<b>3.9</b>	Red	1.0	1.0	1.3	1.1	White
3 A05180-3PY	2.8	3.6	1.3	<b>2.6</b>	5.5	5.0	4.8	4.3	<b>4.9</b>	Purple	2.0	2.5	1.5	2.0	Yellow
4 COA07365-4RY	4.3	4.1	4.0	<b>4.1</b>	3.0	3.5	4.0	4.0	<b>3.6</b>	Red	2.0	2.6	2.0	2.2	Yellow
5 Yukon Gold	3.3	4.1	3.0	<b>3.5</b>	1.0	3.0	1.5	2.0	<b>1.9</b>	Yellow	2.3	3.5	1.8	2.5	Yellow
6 A02267-1Y	3.0	3.8	3.0	<b>3.3</b>	1.0	3.0	3.3	2.0	<b>2.3</b>	Yellow	2.0	2.6	2.0	2.2	Yellow
7 A05182-7RY	3.3	3.9	4.0	<b>3.7</b>	1.0	1.0	2.4	3.0	<b>1.8</b>	Yellow/Pink	2.3	2.0	2.0	2.1	Yellow
8 POR07PG20-2	2.8	4.3	4.0	<b>3.7</b>	1.8	1.0	2.3	3.0	<b>2.0</b>	Yellow	3.8	4.5	3.9	4.0	Orange-Yellow
9 POR07PG3-1	3.5	4.3	3.0	<b>3.6</b>	1.0	3.0	1.5	1.0	<b>1.6</b>	Yellow	3.7	3.3	2.6	3.2	Yellow
10 NDA081451CB-1CY	4.0	4.4	4.0	<b>4.1</b>	1.0	2.0	1.5	1.0	<b>1.4</b>	Yellow	2.7	2.5	2.1	2.4	Yellow
11 A06293-3Y	***	***	***	***	***	3.0	***	***	<b>3.0</b>	Yellow	***	2.9	***	2.9	Yellow
12 A06336-5Y	3.8	***	***	<b>3.8</b>	3.5	4.0	***	***	<b>3.8</b>	Red/Yellow	2.7	4.0	***	3.4	Yellow
<b>Location Means</b>	<b>3.3</b>	<b>4.0</b>	<b>3.2</b>	<b>3.5</b>	<b>2.3</b>	<b>2.9</b>	<b>2.9</b>	<b>2.6</b>	<b>2.7</b>		<b>2.3</b>	<b>2.7</b>	<b>2.0</b>	<b>2.4</b>	

<sup>1</sup> Scale of 1-5; 1=deep, 5=shallow

<sup>2</sup> Scale of 1-5 with higher number more intense color.

**TABLE 10: 2014 Tri-State Specialty Potato Variety Trial - TUBER APPEARANCE, UNIFORMITY, MERIT**

No. Clone	Appearance <sup>1</sup>			Uniformity <sup>1</sup>				Merit Score <sup>1</sup>		
	AB	PA	Entry Means	AB	OR	WA	Entry Means	AB	PA	Entry Means
1 Chieftain	2.5	3.0	<b>2.8</b>	2.8	3.3	3.0	<b>3.0</b>	2.3	2.9	<b>2.6</b>
2 NDA050237B-1R	2.3	4.0	<b>3.1</b>	3.5	4.0	3.0	<b>3.5</b>	3.0	3.0	<b>3.0</b>
3 A05180-3PY	1.8	4.0	<b>2.9</b>	3.5	3.8	2.8	<b>3.4</b>	2.0	3.4	<b>2.7</b>
4 COA07365-4RY	2.0	2.0	<b>2.0</b>	4.5	3.9	4.0	<b>4.1</b>	2.8	2.7	<b>2.7</b>
5 Yukon Gold	2.0	2.0	<b>2.0</b>	2.8	3.4	3.0	<b>3.0</b>	1.8	2.9	<b>2.3</b>
6 A02267-1Y	3.3	4.0	<b>3.6</b>	2.5	3.6	2.3	<b>2.8</b>	2.0	3.8	<b>2.9</b>
7 A05182-7RY	3.5	3.0	<b>3.3</b>	4.5	4.1	4.0	<b>4.2</b>	3.8	3.9	<b>3.8</b>
8 POR07PG20-2	3.5	1.0	<b>2.3</b>	4.8	4.0	4.0	<b>4.3</b>	2.7	2.3	<b>2.5</b>
9 POR07PG3-1	2.3	1.0	<b>1.6</b>	3.5	4.0	2.0	<b>3.2</b>	2.7	2.5	<b>2.6</b>
10 NDA081451CB-1CY	3.0	2.0	<b>2.5</b>	4.5	4.3	4.3	<b>4.4</b>	3.3	4.1	<b>3.7</b>
11 A06293-3Y	***	3.0	<b>3.0</b>	***	***	***	***	***	4.0	<b>4.0</b>
12 A06336-5Y	3.0	2.0	<b>2.5</b>	4.8	***	***	<b>4.8</b>	3.4	3.0	<b>3.2</b>
<b>Location Means</b>	<b>2.6</b>	<b>2.6</b>	<b>2.6</b>	<b>3.8</b>	<b>3.8</b>	<b>3.3</b>	<b>3.7</b>	<b>2.7</b>	<b>3.2</b>	<b>3.0</b>

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

**TABLE 11: 2014 Tri-State Specialty Potato Variety Trial - EXTERNAL DEFECTS**

No.	Clone	Skinning <sup>1</sup>		Shatter <sup>1</sup>				Greening <sup>1</sup>				Scab <sup>1</sup>			
		AB	Entry Means	AB	PA	OR	Entry Means	AB	OR	WA	Entry Means	AB	PA	WA	Entry Means
1	Chieftain	3.3	<b>3.3</b>	4.0	5.0	3.6	<b>4.2</b>	4.5	3.8	4.3	<b>4.2</b>	5.0	5.0	4.7	<b>4.9</b>
2	NDA050237B-1R	2.8	<b>2.8</b>	4.5	5.0	3.9	<b>4.5</b>	4.3	4.1	4.0	<b>4.1</b>	4.8	5.0	4.7	<b>4.8</b>
3	A05180-3PY	2.8	<b>2.8</b>	3.8	5.0	2.9	<b>3.9</b>	5.0	4.5	5.0	<b>4.8</b>	3.8	5.0	4.7	<b>4.5</b>
4	COA07365-4RY	1.8	<b>1.8</b>	3.5	5.0	3.6	<b>4.0</b>	4.8	3.5	4.5	<b>4.3</b>	4.0	5.0	5.0	<b>4.7</b>
5	Yukon Gold	4.5	<b>4.5</b>	4.8	5.0	3.3	<b>4.3</b>	4.0	3.9	4.7	<b>4.2</b>	1.3	5.0	5.0	<b>3.8</b>
6	A02267-1Y	5.0	<b>5.0</b>	4.8	5.0	4.1	<b>4.6</b>	3.3	2.1	3.7	<b>3.0</b>	2.0	5.0	4.0	<b>3.7</b>
7	A05182-7RY	4.8	<b>4.8</b>	5.0	5.0	4.4	<b>4.8</b>	4.0	3.4	4.7	<b>4.0</b>	3.5	5.0	3.7	<b>4.1</b>
8	POR07PG20-2	4.5	<b>4.5</b>	5.0	5.0	4.8	<b>4.9</b>	5.0	3.6	4.3	<b>4.3</b>	4.0	2.6	5.0	<b>3.9</b>
9	POR07PG3-1	3.5	<b>3.5</b>	5.0	5.0	4.0	<b>4.7</b>	3.8	3.8	4.5	<b>4.0</b>	3.0	5.0	5.0	<b>4.3</b>
10	NDA081451CB-1CY	5.0	<b>5.0</b>	5.0	5.0	3.9	<b>4.6</b>	3.3	2.3	4.3	<b>3.3</b>	3.3	5.0	4.7	<b>4.3</b>
11	A06293-3Y	***	***	***	5.0	***	<b>5.0</b>	***	***	***	***	***	5.0	***	<b>5.0</b>
12	A06336-5Y	4.8	<b>4.8</b>	5.0	5.0	***	<b>5.0</b>	4.8	***	***	<b>4.8</b>	5.0	4.3	***	<b>4.6</b>
<b>Location Means</b>		<b>3.9</b>	<b>3.9</b>	<b>4.6</b>	<b>5.0</b>	<b>3.8</b>	<b>4.5</b>	<b>4.2</b>	<b>3.5</b>	<b>4.4</b>	<b>4.1</b>	<b>3.6</b>	<b>4.7</b>	<b>4.6</b>	<b>4.4</b>

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

**TABLE 12: 2014 Tri-State Specialty Potato Variety Trial - INTERNAL DEFECTS**

No. Clone	Percent Hollow Heart plus Brown Center					Percent Internal Brown Spot					Percent Net Necrosis/ Vascular Discoloration		
	AB	PA	OR	WA	Entry Means	AB	PA	OR	WA	Entry Means	AB	OR	Entry Means
1 Chieftain	0.0	0.0	0.0	0.0	<b>0.0</b>	0.0	22.5	2.5	0.0	<b>6.3</b>	0.0	0.0	<b>0.0</b>
2 NDA050237B-1R	2.5	0.0	0.0	0.0	<b>0.6</b>	0.0	0.0	7.5	0.0	<b>1.9</b>	0.0	0.0	<b>0.0</b>
3 A05180-3PY	0.0	2.5	0.0	0.0	<b>0.6</b>	2.5	2.5	10.0	0.0	<b>3.8</b>	0.0	0.0	<b>0.0</b>
4 COA07365-4RY	0.0	0.0	0.0	0.0	<b>0.0</b>	0.0	2.5	2.5	0.0	<b>1.3</b>	0.0	0.0	<b>0.0</b>
5 Yukon Gold	2.5	12.5	0.0	0.0	<b>3.8</b>	0.0	25.0	10.0	0.0	<b>8.8</b>	0.0	10.0	<b>5.0</b>
6 A02267-1Y	0.0	2.5	0.0	0.0	<b>0.6</b>	0.0	2.5	5.0	0.0	<b>1.9</b>	0.0	0.0	<b>0.0</b>
7 A05182-7RY	0.0	5.0	0.0	0.0	<b>1.3</b>	0.0	2.5	5.0	0.0	<b>1.9</b>	0.0	0.0	<b>0.0</b>
8 POR07PG20-2	0.0	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	2.5	0.0	<b>0.6</b>	0.0	20.0	<b>10.0</b>
9 POR07PG3-1	0.0	2.5	0.0	0.0	<b>0.6</b>	0.0	22.5	2.5	0.0	<b>6.3</b>	0.0	2.5	<b>1.3</b>
10 NDA081451CB-1CY	0.0	0.0	0.0	0.0	<b>0.0</b>	0.0	2.5	2.5	0.0	<b>1.3</b>	0.0	0.0	<b>0.0</b>
11 A06293-3Y	***	0.0	***	***	<b>0.0</b>	***	0.0	***	***	<b>0.0</b>	***	***	***
12 A06336-5Y	0.0	0.0	***	***	<b>0.0</b>	0.0	0.0	***	***	<b>0.0</b>	0.0	***	<b>0.0</b>
<b>Location Means</b>	<b>0.5</b>	<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.6</b>	<b>0.2</b>	<b>6.9</b>	<b>5.0</b>	<b>0.0</b>	<b>3.0</b>	<b>0.0</b>	<b>3.3</b>	<b>1.5</b>

**TABLE 14: 2014 Tri-State Specialty Potato Variety Trial - SOLIDS, ANTIOXIDANTS, VITAMIN C,  
AND GLYCOALKALOIDS - ABERDEEN**

No.	Clone	Solids Oven Dry (%)	AntiOxidants	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100gFWB)
			ug/g (%FWB)		
1	Chieftain	19.23	465.5	29.39	1.55
2	NDA050237B-1R	18.63	343.3	23.94	2.52
3	A05180-3PY	18.76	323.6	32.35	0.28
4	COA07365-4RY	17.47	276.3	34.09	1.71
5	Yukon Gold	18.36	371.4	46.80	2.87
6	A02267-1Y	17.64	360.4	30.73	1.57
7	A05182-7RY	18.52	341.2	28.32	1.85
8	POR07PG20-2	18.66	698.5	33.14	1.05
9	POR07PG3-1	17.14	294.9	31.34	1.60
10	NDA081451CB-1CY	17.98	296.0	36.65	2.16
11	*****				
12	A06336-5Y	23.40	246.5	32.61	0.83
<b>Means</b>		<b>18.71</b>	<b>365.23</b>	<b>32.67</b>	<b>1.63</b>

FWB = fresh weight basis DWB = dry weight basis

**TABLE 14: 2014 Tri-State Specialty Potato Variety Trial - CULINARY RESULTS**

No.	Clone	Othello, WA				Final Ranking <sup>1</sup>
		Boiled (25 max)	Baked (25 max)	Microwaved (25 max)	Total (75 max)	
1	Chieftain	17.3	17.7	20.0	55.0	1
2	NDA050237B-1R	18.9	16.7	14.6	50.2	10
3	A05180-3PY	17.4	16.6	17.1	51.0	8
4	COA07365-4RY	17.1	17.6	18.2	52.9	4
5	Yukon Gold	17.5	18.2	17.8	53.5	3
6	A02267-1Y	16.8	18.5	19.3	54.6	2
7	A05182-7RY	16.9	17.9	17.9	52.7	5
8	POR07PG20-2	18.5	16.9	17.1	52.5	6
9	POR07PG3-1	16.4	16.4	17.9	50.7	9
10	NDA081451CB-1CY	14	18.8	18.2	51.4	7

<sup>1</sup> Tests were conducted in August



**TABLE 15: 2014 Tri-State Specialty Potato Variety Trial - AFTER STORAGE COMMENTS - PARMA**

No.	Clone	1-5=none	1-5 (5=best)	1-5 (5=best)	Storage diseases	Dormancy length (DAH) @ 45F
		Sprouting	Appearance	Appearance Brushed		
1	Chieftain	4.5	3	4	none	93
2	NDA050237B-1R	4.0	4	4	none	79
3	A05180-3PY	4.0	4	5	none	79
4	COA07365-4RY	3.0	2	3	none	64
5	Yukon Gold	3.0	2	3	rhizoc	64
6	A02267-1Y	3.0	4	5	none	64
7	A05182-7RY	4.5	3	3	rhizoc	93
8	POR07PG20-2	1.0	1	1	none	0
9	POR07PG3-1	1.0	1	3	rhizoc	0
10	NDA081451CB-1CY	2.0	2	3	none	21
11	A06293-3Y	4.5	3	4	none	93
12	A06336-5Y	4.0	2	3	rhizoc	79

**TABLE 16: 2014 Tri-State Specialty Potato Variety Trial - OTHER**

No.	Clone	Early Blight	Verticillium Wilt	Visual
		AB	AB	WA
1	Chieftain	3.5	3.5	3.0
2	NDA050237B-1R	3.5	2.5	3.3
3	A05180-3PY	2.5	3.0	3.0
4	COA07365-4RY	2.0	2.0	4.0
5	Yukon Gold	1.5	1.0	2.7
6	A02267-1Y	3.0	2.0	2.3
7	A05182-7RY	3.0	3.5	4.0
8	POR07PG20-2	2.5	2.5	3.0
9	POR07PG3-1	3.0	3.0	2.5
10	NDA081451CB-1CY	2.5	3.0	4.0
11	A06293-3Y	***	***	***
12	A06336-5Y	2.0	2.0	***
<b>Location Means</b>		<b>2.6</b>	<b>2.5</b>	<b>3.2</b>

<sup>1</sup> Scale of 1-5; 5=none

## 2014 Tri-State Specialty Potato Variety Trial - DISEASE EVALUATIONS

No.	Clone	Vert. Wilt/ Early Dying AB <sup>1</sup>		Early Blight AB <sup>1</sup>		Late Blight CORV <sup>2</sup>			Common Scab AB <sup>1</sup>		bacterium Soft Rot <sup>1</sup>	Metr. Reaction
		(0-9)*	AUDPC	(0-9)*	AUDPC	Foliar	Tuber	%	Incidence	Defect	AB	AB <sup>3</sup>
1	Chieftain	7.3	522	7.3	410	9	1393	8	52.6	18.1	4.3	R
2	NDA050237B-1R	5.3	193	8.0	425	9	1343	15	5.3	3.2	1.3	R
3	A05180-3PY	6.7	411	8.0	382	9	1400	28	15.7	12.5	1.9	MS
4	COA07365-4RY	-	-	-	-	9	1381	35	-	-	-	R
5	Yukon Gold	9.0	1190	9.0	1021	9	1400	15	54.3	43.7	1.1	
6	A02267-1Y	8.0	653	7.3	420	9	1388	13	26.0	15.2	3.2	S
7	A05182-7RY	4.3	104	6.3	275	9	1344	5	4.4	3.8	2.5	VS
8	POR07PG20-2	-	-	-	-	9	1398	23	-	-	-	R
9	POR07PG3-1	-	-	-	-	9	1398	25	-	-	-	MS
10	NDA081451CB-1CY	5.3	193	8.0	607	9	1396	13	26.0	6.3	2.2	R
<b>MEANS</b>		<b>6.6</b>	<b>467</b>	<b>7.7</b>	<b>506</b>	<b>8.9</b>	<b>1384</b>	<b>17.8</b>	<b>26.3</b>	<b>14.7</b>	<b>2.4</b>	
<b>LSD @ .05</b>		<b>1.1</b>		<b>0.9</b>		<b>ns</b>	<b>53.9</b>		<b>17.0</b>	<b>9.0</b>	<b>2.5</b>	

<sup>1</sup> Evaluations made at Aberdeen, Idaho by Jonathan Whitworth; scale as indicated with highest number being most severe. For 0 to 9: 0=no symptoms; 1= trace; 2=1-5%; 3=5-10%; 4=10-20%; 5=25-40%; 6=40-60%; 7=60-70%; 8=75-90%; 9=90-100% dead or dying with typical disease symptoms.

Early Blight and Vert. Wilt AUDPC: Area Under the Disease Progress Curve based on foliar readings taken on 3 separate readings after planting.

Common Scab defects are the number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined.

For 0 to 5: 0=none, 5=severe as a combination of tuber area and degree impacted by Pectobacterium inoculations.

<sup>2</sup> Ratings are averages for 4 reps: 1 = no foliar injury; 2 = 1-5% injury; 3 = 5-10% injury; 4 = 10-20%; 5 = 25-40%; 6 = 40-60%; 7 = 60-75%; 8 = 75-90%; 9 = 90- 100% injury.

Percent of late blight infected tubers at harvest based on 10 randomly selected tubers per replication.

AUDPC= Area Under the Disease Progress Curve

<sup>3</sup> Metribuzin Reaction measured at Aberdeen, ID. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

**TABLE 17: 2014 Tri-State Specialty Potato Variety Trial - SUMMARY**

Clone	Total Yield	% 2-6 oz (premium)	Specific Gravity	Fresh Merit	After Storage Appearance	Dormancy length (DAH) @ 45F
1 Chieftain	570	28	1.070	2.6	3	93
2 NDA050237B-1R	467	45	1.062	3.0	4	79
3 A05180-3PY	567	45	1.070	2.7	4	79
4 COA07365-4RY	440	63	1.073	2.7	2	64
5 Yukon Gold	420	25	1.082	2.3	2	64
6 A02267-1Y	543	51	1.068	2.9	4	64
7 A05182-7RY	526	63	1.075	3.8	3	93
8 POR07PG20-2	340	59	1.062	2.5	1	<20
9 POR07PG3-1	403	58	1.071	2.6	1	<20
10 NDA081451CB-1CY	581	59	1.084	3.7	2	21
11 A06293-3Y	446	66	1.060	4.0	3	93
12 A06336-5Y	378	72	1.066	3.2	2	79

TABLE 18: 2014 Tri-State Specialty Potato Variety Trial - LOCATION COMMENTS

Clone	ABERDEEN	PARMA	KLAMATH FALLS	OTHELLO
1 Chieftain	attached stolons, big, not attractive	Big, Skinning,	sticky stolon, growth cracks, misshaped, bronzing, large, dull, skinning	Irregular shape, light red, PVY growth cracks
2 NDA050237B-1R	big, dark red, skinned, Attached stolons	Smooth, nice, shiny	not bad, tpy, some skinning, scab, shatter bruise	Nice, deep red, irregular shape, PVY growth cracks
3 A05180-3PY	too big, dk purple, not attractive	Round, nice purple, little bumpy	skinning, growth cracks, sticky stolon, folded bud ends, bronzing, bright, fair	Deep eyes, sticky stolons - DISCARD
4 COA07365-4RY	nice size and shape, skinned	skinning, smooth, good shape	not bad, black dot, limited russeting, smooth, green, bright color, fair	Nice red color, size and shape
5 Yukon Gold	scab	boldy eyes, little greening, uniform, nice size	lenticel scaring, not tpy for Yukon, flat, growth cracks	Large size range, somewhat flat, some Rhizoctonia
6 A02267-1Y	misshaped, pointed, not attractive	purple eyes, lumpy, ununiform, smooth	purple eyes, green, scab, low black dot, fair, sprouts	Highly variable shapes, nice skin, some powdery scab
7 A05182-7RY	small round, with pink eyes, attached stolons	nice shape, champagne color	really nice, tpy, keep, impact bruise, rhizoc, blush color	Nice color, size, and shape; powdery scab
8 POR07PG20-2	small champain, attached stolons	scab, sprouts, tan color	pointy stem end, rhizoc, apical sprouting, knobby stem end	Orangish color, some sprouts, short dormancy
9 POR07PG3-1	blush on some, deepends	skinning, average yellow, pink splashes, round	dull, bronzing, scab, sprouts, some have pink eyes others don't	Irregular shape, variable sizes
10 NDA081451CB-1CY	yellow, round, ats	yellow, round, oblong, greening	tpy, chipper like, green, growth cracks, lenticel scaring	Nice shape, size, and color
11 A06293-3Y	***	uniform, oblong	***	***
12 A06336-5Y	nice small round champain	tan color, sprouts, scab, smooth, shiny	***	***

ATS - attached stolons

# 2014 Tri-State Specialty Potato Variety Photos

Taken at Parma, Idaho 8/19/2014



# 2014 Tri-State Specialty Potato Variety Photos

Taken at Parma, Idaho 11/14/2014

