

# 2021 TRI-STATE RUSSET POTATO VARIETY TRIAL REPORT



State Experiment Stations and  
USDA-ARS Cooperating

Washington

Oregon

Idaho

## 2021 TRI-STATE POTATO VARIETY TRIAL REPORT

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Compiled by Chelsey Lowder

TABLE 1: 2021 Tri-State Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

Locations	Cooperators	Trial	Irrigation	Fertilizer (lb/A)	Planting Date	Vine Kill Date	Harvest Date	Days to Vine Kill	Days to Harvest	Herbicides	Insecticides	Fungicides
Aberdeen Idaho ( <b>ID</b> )	R. Spear	Early	Solid Set	270N-80P-5Zn-5Mn	26-Apr	11-Aug	25-Aug	107	121	TriCor 4F	Admire Pro	
	J. Whitworth R. Novy B. Schneider C. Lowder	Late		<b>5Zn-5Mn</b> Seed spacing: in row 10.0" rows 36"	<b>28-Apr</b>	<b>7-Sep</b>	<b>23-Sep</b>	<b>132</b>	<b>148</b>	Matrix Eptam 7-E		
Ontario Oregon ( <b>HOR</b> )	C. Shock E. Feibert	Early	Solid Set	152 N  Seed spacing: in row 9.0" rows 36"	8-Apr	19-Aug	26-Aug	133	140	Dual Magnum Prowl H2O Eptam Matrix Poast	Admire	Bravo WS Luna Tranquility
Hermiston Oregon ( <b>HOR</b> )	S. Sathuvalli M. Aguilar	Late	Pivot	390N-140P-200K-130S-2 Cu-7.5Zn-3B Seed spacing: in row 9.25" rows 34"	30-Mar	31-Aug	7-Sep	154	161	Vapam Eptam matrix	Admire Coregen Agrimek Blackhawk	Quadris Ridimil Omega
Othello ( <b>EWA</b> ) Washington	M Pavak J. Blauer N. Fuller Z. Holden	Early	Pivot	250N-200P-250K Seed spacing: in row 12" rows 32"	31-Mar	26-Jul	9-Aug	117	131	<b>PreEmerge:</b> Outlook Prowl H2O Eptam	Platinum	Priaxor Equus Bravo Zing
Othello ( <b>LWA</b> ) Washington		Late	Pivot	218N-261P-300K Seed spacing: in row 11" rows 32"	4-Apr	30-Aug	13-Sep	148	162			

TABLE 2: 2021 Tri-State Potato Variety Trial - CLONE, PARENTS, FLOWER COLOR, ENTERED BY, SEED SOURCE, STAND, TUBER AND VINE CHARACTERISTICS, STEMS PER PLANT

No	Clone	Parents	Flower Color	Entered by	Use	Trial Year	Seed Source	Mean Stand %	Stems/Plant	Tuber				Vine			
										Means	Shape	Means	Skin	Means	Size	Means	Maturity
1	Clearwater Russet	Bannock Russet A89152-4	M. Purple	Check	Dual	Check	OR	96	2.0	3.3	Oblong	3.8	Med Russet	3.2	Med-large	3.3	Medium
2	Ranger Russet	Butte A6595-3	Red-purple	Check	Dual	Check	OR	100	2.3	4.5	Long	3.2	Med Russet	3.2	Med-large	3.3	Medium
3	Russet Burbank	Early Rose ?	White	Check	Dual	Check	OR	99	1.8	4.0	Obl-Lng	3.2	Med Russet	2.8	Medium	2.8	Med Early
4	Russet Norkotah	ND9687-5 Rus ND9526-4 Rus	White	Check	Fresh	Check	OR	97	2.1	3.6	Obl-Lng	3.9	Med Russet	2.4	Small	1.9	Early
5	Shepody	Bake-King F58050	White	Check	Proc	Check	OR	98	1.9	4.4	Long	1.5	White	2.4	Small	4.3	Late
6	A09086-1LB	AC96052- 1RU	Red-purple	ID	Dual	1	ID	99	2.7	3.5	Oblong	2.9	Light Russet	3.0	Medium	3.4	Medium
7	A09136-9LB	A02424-83LB A98345-1	Red-purple	ID	Dual	1	ID	99	2.7	2.9	Oblong	2.9	Light Russet	3.0	Medium	3.1	Medium
8	A10130-1	A05084-1 A01025-4	White	ID	Dual	1	ID	98	1.9	3.4	Oblong	3.0	Light Russet	3.1	Med-large	2.8	Med Early
9	A10594-4sto	A96953-13 A98345-1	Bud Abort	ID	Dual	2	OR	98	1.5	3.4	Oblong	3.1	Med Russet	2.7	Medium	2.6	Med Early
10	A11175-12TE	Blazer Russet COA05149-2	White	ID	Dual	1	ID	99	2.6	2.8	Oblong	3.3	Med Russet	2.5	Small	2.3	Early
11	A11259-1	A05013-29 A01025-4	White	ID	Dual	1	ID	100	3.2	3.8	Obl-Lng	3.2	Med Russet	3.3	Med-large	3.5	Medium
12	A11326-1	A06030-8T AO96365-2	White	ID	Dual	1	ID	99	2.7	3.3	Oblong	3.0	Light Russet	3.4	Med-large	3.2	Medium
13	A12114-7	A06665-102LB A01025-4	White	ID	Dual	1	ID	98	2.7	2.9	Oblong	3.6	Med Russet	2.3	Small	2.8	Med Early
14	A12305-2adg	A96953-13 A02618-1	White	ID	Dual	2	OR	97	1.8	3.5	Oblong	3.6	Med Russet	3.0	Medium	2.8	Med Early
15	AFA5661-8	Blazer Russet AF4342-3	White	ID	Dual	2	OR	96	1.7	3.6	Obl-Lng	3.0	Light Russet	2.5	Small	3.1	Medium
16	AOR11217-3	A01010-3 NDA070929B-3	Pink-Purple	OR	Dual	2	OR	97	2.0	4.0	Obl-Lng	3.9	Med Russet	2.6	Medium	2.8	Med Early
17	AOR13064-2	A06029-4T AO02183-2	White	OR	Dual	1	OR	99	2.3	3.8	Obl-Lng	3.7	Med Russet	2.8	Medium	2.6	Med Early
<b>Means</b>								<b>98.1</b>	<b>2.2</b>	<b>3.6</b>		<b>3.2</b>		<b>2.8</b>		<b>3.0</b>	

Numerical values are means of all trial locations.

1.0-2.0=Round, 2.1-2.5=Round-Oblong, 2.6-3.5=Blocky, 3.6-4.0=Oblong, 4.1-5.0=Long

1.0-2.0=White, 2.1-3.0=Light Russet, 3.1-4.0=Medium Russet, 4.1-4.5=Medium Heavy Russet, 4.6-5.0 Heavy Russet

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

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 3: 2021 Tri-State Potato Variety Trial - TOTAL YIELD (CWT/A) - EARLY AND LATE HARVEST

No.	Clone	Total Yield - Early Harvest (CWT/A)				Total Yield - Late Harvest (CWT/A)					
		ID	WA	Ont	Entry Mean	Rank	ID	WA	Herm	Entry Mean	Rank
1	Clearwater Russet	220	527	537	<b>428</b>	<b>15</b>	367	966	773	<b>702</b>	<b>8</b>
2	Ranger Russet	292	640	607	<b>513</b>	<b>3</b>	369	1047	695	<b>704</b>	<b>7</b>
3	Russet Burbank	180	582	578	<b>447</b>	<b>9</b>	222	1049	650	<b>641</b>	<b>13</b>
4	Russet Norkotah	214	574	429	<b>406</b>	<b>16</b>	201	814	563	<b>526</b>	<b>16</b>
5	Shepody	215	506	480	<b>400</b>	<b>17</b>					
6	A09086-1LB	290	606	690	<b>529</b>	<b>2</b>	414	1164	970	<b>850</b>	<b>1</b>
7	A09136-9LB	223	606	512	<b>447</b>	<b>8</b>	310	980	776	<b>689</b>	<b>9</b>
8	A10130-1	211	538	589	<b>446</b>	<b>10</b>	292	1048	786	<b>708</b>	<b>6</b>
9	A10594-4sto	291	564	611	<b>489</b>	<b>5</b>	275	916	766	<b>652</b>	<b>12</b>
10	A11175-12TE	265	607	550	<b>474</b>	<b>6</b>	347	905	604	<b>619</b>	<b>15</b>
11	A11259-1	246	665	566	<b>492</b>	<b>4</b>	410	1005	714	<b>710</b>	<b>5</b>
12	A11326-1	205	477	627	<b>436</b>	<b>12</b>	384	1054	835	<b>758</b>	<b>3</b>
13	A12114-7	234	544	525	<b>434</b>	<b>13</b>	260	976	622	<b>619</b>	<b>14</b>
14	A12305-2adg	269	648	800	<b>572</b>	<b>1</b>	435	1108	901	<b>815</b>	<b>2</b>
15	AFA5661-8	235	540	555	<b>443</b>	<b>11</b>	381	1055	805	<b>747</b>	<b>4</b>
16	AOR11217-3	203	607	570	<b>460</b>	<b>7</b>	299	965	731	<b>665</b>	<b>10</b>
17	AOR13064-2	233	573	479	<b>428</b>	<b>14</b>	347	962	675	<b>661</b>	<b>11</b>
<b>Location Means</b>		<b>237</b>	<b>577</b>	<b>571</b>	<b>462</b>		<b>332</b>	<b>1001</b>	<b>742</b>	<b>692</b>	
<b>LSD (.05)</b>										<b>102</b>	

TABLE 4: 2021. Tri-State Potato Variety Trial - YIELD OF U.S. #1'S (CWT/A &amp; %) - EARLY AND LATE HARVEST

No.	Clone	U.S. No. 1's - Early Harvest (CWT/A)/%					U.S. No. 1's - Late Harvest (CWT/A)/%				
		ID	WA	Ont	Entry Mean	Rank	ID	WA	OR Herm	Entry Mean	Rank
1	Clearwater Russet	100	502	431	<b>344</b>	<b>13</b>	282	870	627	<b>593</b>	<b>3</b>
		46	95	80	<b>74</b>	<b>11</b>	77	90	81	<b>83</b>	<b>1</b>
2	Ranger Russet	146	557	380	<b>361</b>	<b>7</b>	212	540	497	<b>416</b>	<b>13</b>
		50	87	63	<b>67</b>	<b>14</b>	57	52	72	<b>60</b>	<b>14</b>
3	Russet Burbank	44	347	299	<b>230</b>	<b>16</b>	78	403	510	<b>330</b>	<b>16</b>
		24	60	52	<b>45</b>	<b>17</b>	35	38	78	<b>51</b>	<b>16</b>
4	Russet Norkotah	117	547	318	<b>328</b>	<b>15</b>	129	758	435	<b>441</b>	<b>12</b>
		55	95	74	<b>75</b>	<b>10</b>	64	93	77	<b>78</b>	<b>6</b>
5	Shepody	61	344	199	<b>201</b>	<b>17</b>					
		28	68	41	<b>46</b>	<b>16</b>					
6	A09086-1LB	186	604	542	<b>444</b>	<b>2</b>	280	993	815	<b>696</b>	<b>1</b>
		64	100	79	<b>81</b>	<b>2</b>	68	85	84	<b>79</b>	<b>4</b>
7	A09136-9LB	92	563	407	<b>354</b>	<b>9</b>	222	832	648	<b>567</b>	<b>5</b>
		41	93	80	<b>71</b>	<b>13</b>	72	85	84	<b>80</b>	<b>2</b>
8	A10130-1	89	508	522	<b>373</b>	<b>6</b>	197	550	662	<b>470</b>	<b>11</b>
		42	95	89	<b>75</b>	<b>9</b>	68	53	84	<b>68</b>	<b>12</b>
9	A10594-4sto	186	549	499	<b>411</b>	<b>3</b>	160	812	687	<b>553</b>	<b>6</b>
		64	97	82	<b>81</b>	<b>1</b>	58	89	90	<b>79</b>	<b>5</b>
10	A11175-12TE	164	594	375	<b>378</b>	<b>5</b>	217	845	493	<b>518</b>	<b>8</b>
		62	98	68	<b>76</b>	<b>8</b>	63	93	82	<b>79</b>	<b>3</b>
11	A11259-1	86	560	356	<b>334</b>	<b>14</b>	286	396	510	<b>397</b>	<b>14</b>
		35	84	63	<b>61</b>	<b>15</b>	70	39	71	<b>60</b>	<b>13</b>
12	A11326-1	120	457	470	<b>349</b>	<b>11</b>	230	857	709	<b>599</b>	<b>2</b>
		58	96	75	<b>76</b>	<b>7</b>	60	81	85	<b>75</b>	<b>9</b>
13	A12114-7	141	524	386	<b>350</b>	<b>10</b>	166	901	473	<b>513</b>	<b>9</b>
		60	96	74	<b>77</b>	<b>6</b>	64	92	76	<b>77</b>	<b>8</b>
14	A12305-2adg	202	574	611	<b>462</b>	<b>1</b>	341	654	744	<b>580</b>	<b>4</b>
		75	89	76	<b>80</b>	<b>3</b>	78	59	83	<b>73</b>	<b>10</b>
15	AFA5661-8	175	491	403	<b>357</b>	<b>8</b>	290	578	635	<b>501</b>	<b>10</b>
		74	91	73	<b>79</b>	<b>4</b>	76	55	79	<b>70</b>	<b>11</b>
16	AOR11217-3	117	584	452	<b>384</b>	<b>4</b>	184	846	615	<b>548</b>	<b>7</b>
		58	96	79	<b>78</b>	<b>5</b>	62	88	84	<b>78</b>	<b>7</b>
17	AOR13064-2	106	542	386	<b>345</b>	<b>12</b>	217	807	558	<b>396</b>	<b>15</b>
		45	95	80	<b>73</b>	<b>12</b>	63	84	83	<b>57</b>	<b>15</b>
<b>Location Means</b>		<b>125</b>	<b>520</b>	<b>414</b>	<b>353</b>	<b>218</b>	<b>728</b>	<b>601</b>	<b>507</b>		
<b>LSD (.05)</b>		<b>52</b>	<b>90</b>	<b>72</b>	<b>71</b>	<b>65</b>	<b>74</b>	<b>81</b>	<b>72</b>	<b>98</b>	

TABLE 5: 2021 Tri-State Potato Variety Trial - YIELD &gt; 10 OZ (CWT/A &amp; %) - EARLY AND LATE HARVEST

No.	Clone	U.S. No. 1's > 10 OZ - Early Harvest (CWT/A)/%					U.S. No. 1's >10 OZ - Late Harvest (CWT/A)/%				
		ID	WA	Ont	Entry Mean	Rank	ID	WA	OR Herm	Entry Mean	Rank
1	Clearwater Russet	5	44	131	<b>60</b>	<b>13</b>	100	395	115	<b>203</b>	<b>13</b>
		2	8	24	<b>12</b>	<b>13</b>	27	41	15	<b>28</b>	<b>13</b>
2	Ranger Russet	28	128	92	<b>83</b>	<b>9</b>	131	589	180	<b>300</b>	<b>8</b>
		10	20	15	<b>15</b>	<b>9</b>	35	56	26	<b>39</b>	<b>6</b>
3	Russet Burbank	0	171	88	<b>86</b>	<b>8</b>	16	606	230	<b>284</b>	<b>9</b>
		0	29	15	<b>15</b>	<b>10</b>	7	58	35	<b>33</b>	<b>10</b>
4	Russet Norkotah	25	101	82	<b>69</b>	<b>11</b>	22	281	44	<b>116</b>	<b>16</b>
		12	18	19	<b>16</b>	<b>8</b>	11	35	8	<b>18</b>	<b>16</b>
5	Shepody	11	54	44	<b>37</b>	<b>17</b>					
		5	11	9	<b>8</b>	<b>16</b>					
6	A09086-1LB	43	45	88	<b>59</b>	<b>14</b>	138	562	339	<b>347</b>	<b>6</b>
		15	7	13	<b>12</b>	<b>14</b>	33	48	35	<b>39</b>	<b>7</b>
7	A09136-9LB	15	163	213	<b>130</b>	<b>6</b>	110	651	300	<b>354</b>	<b>4</b>
		7	27	42	<b>25</b>	<b>6</b>	35	66	39	<b>47</b>	<b>4</b>
8	A10130-1	30	190	366	<b>195</b>	<b>1</b>	60	778	464	<b>434</b>	<b>3</b>
		14	35	62	<b>37</b>	<b>1</b>	21	74	59	<b>51</b>	<b>3</b>
9	A10594-4sto	91	121	239	<b>150</b>	<b>3</b>	68	620	363	<b>350</b>	<b>5</b>
		31	21	39	<b>31</b>	<b>2</b>	25	68	47	<b>47</b>	<b>5</b>
10	A11175-12TE	22	15	79	<b>38</b>	<b>16</b>	65	258	74	<b>132</b>	<b>15</b>
		8	2	14	<b>8</b>	<b>17</b>	19	29	12	<b>20</b>	<b>15</b>
11	A11259-1	16	115	155	<b>95</b>	<b>7</b>	134	494	167	<b>265</b>	<b>10</b>
		7	17	27	<b>17</b>	<b>7</b>	33	49	23	<b>35</b>	<b>9</b>
12	A11326-1	14	32	193	<b>80</b>	<b>10</b>	99	593	259	<b>317</b>	<b>7</b>
		7	7	31	<b>15</b>	<b>11</b>	26	56	31	<b>38</b>	<b>8</b>
13	A12114-7	16	31	83	<b>43</b>	<b>15</b>	57	323	48	<b>143</b>	<b>14</b>
		7	6	16	<b>9</b>	<b>15</b>	22	33	8	<b>21</b>	<b>14</b>
14	A12305-2adg	69	89	373	<b>177</b>	<b>2</b>	210	804	348	<b>454</b>	<b>2</b>
		26	14	47	<b>29</b>	<b>4</b>	48	73	39	<b>53</b>	<b>2</b>
15	AFA5661-8	42	153	225	<b>140</b>	<b>4</b>	180	856	400	<b>479</b>	<b>1</b>
		18	28	41	<b>29</b>	<b>3</b>	47	81	50	<b>59</b>	<b>1</b>
16	AOR11217-3	29	71	99	<b>66</b>	<b>12</b>	51	497	178	<b>242</b>	<b>11</b>
		14	12	17	<b>14</b>	<b>12</b>	17	51	24	<b>31</b>	<b>11</b>
17	AOR13064-2	40	210	150	<b>133</b>	<b>5</b>	86	599	214	<b>225</b>	<b>12</b>
		17	37	31	<b>28</b>	<b>5</b>	25	62	32	<b>30</b>	<b>12</b>
<b>Location Means</b>		<b>29</b>	<b>102</b>	<b>159</b>	<b>97</b>		<b>96</b>	<b>557</b>	<b>233</b>	<b>290</b>	
<b>LSD (.05)</b>		<b>12</b>	<b>18</b>	<b>27</b>	<b>19</b>		<b>27</b>	<b>55</b>	<b>30</b>	<b>37</b>	<b>103</b>





TABLE 7: 2021 Tri-State Potato Variety Trial - SPECIFIC GRAVITY - EARLY AND LATE HARVEST

No.	Clone	Specific Gravity - Early Harvest				Specific Gravity - Late Harvest					
		ID	WA	Ont	Entry Mean	Rank	ID	WA	Herm	Entry Mean	Rank
1	Clearwater Russet	1.078	1.075	1.077	<b>1.077</b>	<b>11</b>	1.092	1.078	1.075	<b>1.082</b>	<b>7</b>
2	Ranger Russet	1.079	1.078	1.074	<b>1.077</b>	<b>10</b>	1.095	1.078	1.074	<b>1.082</b>	<b>6</b>
3	Russet Burbank	1.069	1.075	1.065	<b>1.070</b>	<b>15</b>	1.070	1.071	1.070	<b>1.070</b>	<b>14</b>
4	Russet Norkotah	1.067	1.073	1.069	<b>1.070</b>	<b>16</b>	1.070	1.067	1.064	<b>1.067</b>	<b>16</b>
5	Shepody	1.076	1.071	1.068	<b>1.072</b>	<b>14</b>					
6	A09086-1LB	1.084	1.082	1.087	<b>1.084</b>	<b>3</b>	1.092	1.086	1.080	<b>1.086</b>	<b>3</b>
7	A09136-9LB	1.086	1.114	1.082	<b>1.094</b>	<b>1</b>	1.094	1.080	1.081	<b>1.085</b>	<b>4</b>
8	A10130-1	1.075	1.071	1.062	<b>1.069</b>	<b>17</b>	1.082	1.061	1.066	<b>1.070</b>	<b>15</b>
9	A10594-4sto	1.084	1.102	1.079	<b>1.088</b>	<b>2</b>	1.084	1.080	1.075	<b>1.080</b>	<b>9</b>
10	A11175-12TE	1.077	1.077	1.074	<b>1.076</b>	<b>12</b>	1.080	1.068	1.070	<b>1.073</b>	<b>13</b>
11	A11259-1	1.073	1.075	1.069	<b>1.072</b>	<b>13</b>	1.088	1.070	1.069	<b>1.075</b>	<b>11</b>
12	A11326-1	1.082	1.084	1.085	<b>1.084</b>	<b>4</b>	1.096	1.084	1.082	<b>1.087</b>	<b>1</b>
13	A12114-7	1.074	1.081	1.077	<b>1.077</b>	<b>9</b>	1.078	1.076	1.068	<b>1.074</b>	<b>12</b>
14	A12305-2adg	1.080	1.081	1.074	<b>1.078</b>	<b>8</b>	1.090	1.076	1.073	<b>1.080</b>	<b>8</b>
15	AFA5661-8	1.083	1.074	1.088	<b>1.082</b>	<b>5</b>	1.099	1.080	1.082	<b>1.087</b>	<b>2</b>
16	AOR11217-3	1.082	1.082	1.081	<b>1.081</b>	<b>6</b>	1.090	1.080	1.081	<b>1.083</b>	<b>5</b>
17	AOR13064-2	1.086	1.080	1.077	<b>1.081</b>	<b>7</b>	1.084	1.079	1.075	<b>1.079</b>	<b>10</b>
<b>Location Means</b>		<b>1.078</b>	<b>1.081</b>	<b>1.076</b>	<b>1.078</b>		<b>1.086</b>	<b>1.076</b>	<b>1.074</b>	<b>1.079</b>	
<b>LSD (0.5)</b>										<b>0.003</b>	





TABLE 10: 2021 Tri-State Potato Variety Trial - TUBER DISCRIPTORS

No. Clone		Tuber Uniformity <sup>1</sup>							Visual Apperance <sup>1</sup>				
		Early			Late			Entry Means	Early		Late		Entry Means
		ID	WA	Ont	ID	WA	Herm		ID	WA	ID	WA	
1	Clearwater Russet	3.6	4.0	4.0	3.9	3.8	3.8	<b>3.8</b>	3.3	4.0	3.9	4.0	<b>3.8</b>
2	Ranger Russet	2.9	3.0	3.0	2.8	1.3	2.3	<b>2.5</b>	3.3	3.0	3.3	1.0	<b>2.6</b>
3	Russet Burbank	1.6	1.7	2.0	1.3	1.0	2.5	<b>1.7</b>	3.6	1.7	3.4	1.0	<b>2.4</b>
4	Russet Norkotah	3.3	4.0	4.0	3.5	4.0	3.5	<b>3.7</b>	3.3	4.0	3.8	4.0	<b>3.8</b>
5	Shepody	2.1	1.0	2.0				<b>1.7</b>	2.4	1.0			
6	A09086-1LB	3.4	2.0	3.0	2.6	3.0	3.5	<b>2.9</b>	2.3	1.7	2.3	2.5	<b>2.2</b>
7	A09136-9LB	2.3	1.7	2.0	2.8	2.5	3.0	<b>2.4</b>	3.3	2.3	3.0	1.3	<b>2.5</b>
8	A10130-1	2.8	3.0	4.0	3.0	1.0	4.0	<b>3.0</b>	1.8	1.3	2.5	1.0	<b>1.6</b>
9	A10594-4sto	2.9	4.0	3.0	2.3	3.5	3.5	<b>3.2</b>	3.3	3.3	2.5	3.0	<b>3.0</b>
10	A11175-12TE	3.6	3.7	3.0	3.1	3.0	3.8	<b>3.4</b>	3.9	3.3	3.3	2.5	<b>3.2</b>
11	A11259-1	2.8	2.3	3.0	3.1	1.0	3.0	<b>2.5</b>	3.3	2.3	3.1	1.0	<b>2.4</b>
12	A11326-1	3.0	3.0	3.0	2.1	2.5	3.9	<b>2.9</b>	3.5	2.3	2.9	2.0	<b>2.7</b>
13	A12114-7	3.5	4.0	3.0	3.9	3.0	3.5	<b>3.5</b>	2.8	3.0	3.6	2.5	<b>3.0</b>
14	A12305-2adg	3.9	3.0	2.0	3.6	1.5	2.9	<b>2.8</b>	3.9	3.0	3.9	1.8	<b>3.1</b>
15	AFA5661-8	3.6	3.0	2.0	3.4	3.0	3.4	<b>3.1</b>	3.5	3.0	3.1	1.5	<b>2.8</b>
16	AOR11217-3	3.3	4.0	4.0	3.5	3.5	3.5	<b>3.6</b>	3.9	4.0	3.4	3.0	<b>3.6</b>
17	AOR13064-2	2.9	3.7	3.0	2.8	3.3	3.5	<b>3.2</b>	3.9	3.3	3.6	2.3	<b>3.3</b>
<b>Location Means</b>		<b>3.0</b>	<b>3.0</b>	<b>2.9</b>	<b>3.0</b>	<b>2.5</b>	<b>3.3</b>	<b>2.9</b>	<b>3.2</b>	<b>2.7</b>	<b>3.2</b>	<b>2.1</b>	<b>2.9</b>

<sup>1</sup> Score 1-5, with 5=Best.

TABLE 11: 2021 Tri-State Potato Variety Trial - TUBER DISCRIPTORS CONTINUED

No. Clone		Shatter <sup>1</sup>						Greening <sup>1</sup>								
		Early			Late		Entry Means	Early			Late		Entry Means	Early CWT	Late Green AB	
		ID	WA	Ont	ID	WA		ID	WA	Ont	ID	WA				Herm
1	Clearwater Russet	5.0	5.0	5.0	5.0	3.0	<b>4.6</b>	4.6	5.0	5.0	3.8	4.0	4.5	<b>4.5</b>	1.0	21.1
2	Ranger Russet	5.0	5.0	5.0	4.8	4.0	<b>4.8</b>	4.9	5.0	5.0	3.4	4.8	4.1	<b>4.5</b>	2.5	28.5
3	Russet Burbank	5.0	5.0	5.0	4.6	4.0	<b>4.7</b>	4.4	5.0	5.0	4.1	4.0	4.5	<b>4.5</b>	4.1	9.5
4	Russet Norkotah	5.0	5.0	5.0	5.0	5.0	<b>5.0</b>	4.8	5.0	5.0	4.5	3.8	4.5	<b>4.6</b>	3.6	6.0
5	Shepody	5.0	5.0	5.0			<b>5.0</b>	4.6	5.0	5.0				<b>4.9</b>	4.7	0.0
6	A09086-1LB	5.0	4.0	5.0	4.9	2.0	<b>4.2</b>	4.6	5.0	5.0	2.5	4.0	4.5	<b>4.3</b>	1.8	49.9
7	A09136-9LB	5.0	4.0	5.0	4.1	1.0	<b>3.8</b>	4.8	5.0	5.0	4.4	4.0	4.4	<b>4.6</b>	0.7	7.6
8	A10130-1	5.0	5.0	5.0	4.4	2.0	<b>4.3</b>	4.6	5.0	5.0	3.9	3.8	4.5	<b>4.5</b>	3.8	13.7
9	A10594-4sto	5.0	5.0	5.0	4.6	4.0	<b>4.7</b>	4.3	5.0	5.0	3.8	4.3	4.6	<b>4.5</b>	11.9	18.4
10	A11175-12TE	5.0	5.0	5.0	4.6	4.0	<b>4.7</b>	3.6	5.0	5.0	2.8	4.3	4.8	<b>4.2</b>	14.9	40.2
11	A11259-1	5.0	5.0	5.0	4.9	3.0	<b>4.6</b>	4.5	5.0	5.0	3.0	3.8	4.6	<b>4.3</b>	2.2	20.8
12	A11326-1	5.0	5.0	5.0	5.0	3.0	<b>4.6</b>	4.6	5.0	5.0	4.0	4.0	4.5	<b>4.5</b>	1.8	21.0
13	A12114-7	5.0	5.0	5.0	4.5	1.0	<b>4.1</b>	4.5	5.0	5.0	4.4	4.0	4.8	<b>4.6</b>	4.9	8.0
14	A12305-2adg	4.9	5.0	5.0	4.9	4.0	<b>4.8</b>	4.9	4.3	5.0	3.1	3.8	4.6	<b>4.3</b>	0.5	23.7
15	AFA5661-8	5.0	5.0	5.0	4.1	2.0	<b>4.2</b>	4.5	4.7	5.0	2.4	4.0	4.5	<b>4.2</b>	2.3	41.8
16	AOR11217-3	5.0	5.0	5.0	4.9	2.0	<b>4.4</b>	4.9	4.7	5.0	4.5	4.0	4.4	<b>4.6</b>	0.2	9.2
17	AOR13064-2	5.0	4.0	5.0	5.0	3.0	<b>4.4</b>	4.5	5.0	5.0	4.5	4.0	4.4	<b>4.6</b>	3.2	4.4
<b>Location Means</b>		<b>5.0</b>	<b>4.8</b>	<b>5.0</b>	<b>4.7</b>	<b>2.9</b>	<b>4.5</b>	<b>4.6</b>	<b>4.9</b>	<b>5.0</b>	<b>3.7</b>	<b>4.0</b>	<b>4.5</b>	<b>4.5</b>	<b>3.8</b>	<b>19.0</b>

<sup>1</sup> Score 1-5, with 5=Best.

TABLE 12: 2021 Tri-State Potato Variety Trial - EXTERNAL DEFECTS - GROWTH CRACKS, SECOND GROWTH, SHATTER BRUISE, SCAB - MEANS OF LOCATIONS

No.	Clone	Growth Cracks <sup>1</sup>		Second Growth <sup>1</sup>		Shatter Bruise <sup>1</sup>			Scab <sup>1</sup>		
		Early	Late	Early	Late	Early	Late	AB <sup>2</sup>	Early	Late	
1	Clearwater Russet	4.6	4.9	5.0	4.8	4.5	3.8	2.7	5.0	5.0	
2	Ranger Russet	4.3	4.0	4.9	4.0	4.0	4.4	2.2	4.7	4.9	
3	Russet Burbank	4.6	4.4	2.4	2.8	4.0	4.4	1.7	5.0	5.0	
4	Russet Norkotah	5.0	5.0	4.9	5.0	4.5	5.0	2.6	5.0	4.7	
5	Shepody	4.7		4.8		4.5			4.5		
6	A09086-1LB	4.9	4.9	4.8	4.7	3.5	6.9	1.6	4.7	4.5	
7	A09136-9LB	4.6	4.8	4.9	4.9	3.5	2.4	2.1	4.7	5.0	
8	A10130-1	4.6	4.7	4.6	4.5	4.0	3.3	2.2	5.0	5.0	
9	A10594-4sto	4.2	4.8	4.4	4.5	4.0	4.3	2.3	4.9	5.0	
10	A11175-12TE	5.0	4.9	4.9	5.0	4.0	4.4	2.2	4.8	5.0	
11	A11259-1	3.8	3.0	5.0	4.8	4.0	3.7	2.7	5.0	5.0	
12	A11326-1	4.3	4.6	4.9	4.5	4.5	3.8	2.4	4.7	5.0	
13	A12114-7	4.2	4.8	4.9	5.0	4.0	2.8	2.1	5.0	5.0	
14	A12305-2adg	4.7	4.7	4.6	4.7	3.5	4.1	2.4	4.9	5.0	
15	AFA5661-8	3.7	3.6	4.9	4.3	4.0	3.3	3.3	4.8	5.0	
16	AOR11217-3	4.7	4.9	4.9	4.5	4.0	3.3	1.9	5.0	5.0	
17	AOR13064-2	5.0	4.9	4.8	4.6	3.5	3.9	2.3	5.0	5.0	
<b>Means</b>		<b>4.5</b>	<b>4.6</b>	<b>##</b>	<b>4.7</b>	<b>4.5</b>	<b>4.0</b>	<b>4.0</b>	<b>2.3</b>	<b>4.9</b>	<b>4.9</b>

<sup>1</sup> Score 1-5, with 1=severe, 5=none.

<sup>2</sup> Aberdeen shatter scores obtained from bruise evaluation conducted using a shatter chamber [1-5(none)].

TABLE 13: 2021 Tri-State Potato Variety Trial - INTERNAL DEFECTS - HOLLOW HEART PLUS BROWN CENTER, INTERNAL BROWN SPOT, VASCULAR DISCOLORATION/NET NECROSIS, BLACKSPOT - MEANS OF LOCATIONS

No.	Clone	Percent Hollow Heart plus Brown Center		Percent Internal Brown Spot		Percent Vascular Discoloration		Blackspot Bruise				Means Late only
		Early	Late	Early	Late	Early	Late	Washington <sup>2</sup>		Herm	AB <sup>3</sup>	
								Early	Late			
1	Clearwater Russet	0.0	1.7	0.0	2.5	0.0	5.1	5.0	5.0	3.0	3.2	3.7
2	Ranger Russet	5.0 (15 AB)	1.7	4.2	3.8	3.3	3.8	5.0	5.0	2.0	2.2	3.1
3	Russet Burbank	3.3	9.2	0.0	1.7	3.3	5.0 (15.0 Herm)	5.0	5.0	3.0	2.5	3.5
4	Russet Norkotah	3.3	10.0 (30 AB)	0.0	0.8	3.3	1.7	5.0	5.0	4.0	2.2	3.7
5	Shepody	0.0		0.0		0.0		5.0				
6	A09086-1LB	2.5	0.0	0.0	0.0	0.0	1.7	5.0	5.0	1.0	1.5	2.5
7	A09136-9LB	0.0	7.2	5.8 (17.5 Ont)	8.6	0.0	0.0	5.0	5.0	2.0	2.3	3.1
8	A10130-1	0.8	2.5	1.1	0.0	6.7	0.0	5.0	5.0	2.5	1.8	3.1
9	A10594-4sto	0.8	15.0 (17.5 AB 25 Herm)	1.1	5.0	1.7	0.0	5.0	5.0	1.5	1.6	2.7
10	A11175-12TE	0.0	3.3	2.5	3.3	0.0	0.8	5.0	5.0	3.0	2.7	3.6
11	A11259-1	12.5 (35 AB)	7.5 (23 AB)	3.3	0.0	5.0	8.1 (14.3 WA 10 Herm)	5.0	5.0	4.5	1.6	3.7
12	A11326-1	2.8	19.2 (38 AB 15 WA)	0.0	5.0	0.0	4.2	5.0	5.0	3.5	1.5	3.3
13	A12114-7	10.8 (33 AB)	8.3 (20 AB)	0.0	0.8	0.0	0.0	5.0	5.0	1.5	2.1	2.9
14	A12305-2adg	0.0	3.3	0.0	0.0	0.0	0.0	5.0	5.0	3.0	2.5	3.5
15	AFA5661-8	8.3 (25 AB)	0.0	0.0	0.0	3.8	18.6 (52.5 Herm)	5.0	5.0	2.5	2.4	3.3
16	AOR11217-3	0.8	8.3 (23 AB)	0.8	0.0	5.0	7.5	5.0	5.0	3.0	3.7	3.9
17	AOR13064-2	0.0	1.7	0.0	0.0	3.3	3.3	5.0	5.0	3.0	2.6	3.5
<b>Means</b>		<b>1.1</b>	<b>3.1</b>	<b>0.8</b>	<b>2.0</b>	<b>2.1</b>	<b>2.2</b>	<b>5.0</b>	<b>5.0</b>	<b>2.7</b>	<b>2.3</b>	<b>3.3</b>

<sup>1</sup> Rating of Stem-end Browning + VD

<sup>2</sup> Score 1-5, with 1=severe, 5=none.

<sup>3</sup> Aberdeen blackspot scores from an abrasive peel test [1-5(none)].

TABLE 14: 2021 Tri-State Potato Variety Trial - FRENCH FRY COLOR (00-4.0(darkest)), AND PERCENT SUGAR ENDS

No.	Clone	Fry 44 or 45°								Fry 40°					Sugar Ends		
		WA <sup>1</sup>	ID <sup>1</sup>	OR <sup>1</sup>	Ont <sup>2</sup>	Herm <sup>3</sup>	All Entries		3 state mean. <sup>4</sup>	WA <sup>1</sup>	ID <sup>1</sup>	All Entries		3 state mean. <sup>4</sup>	Ont <sup>2</sup>	Herm <sup>3</sup>	Entry Mean
							Mean	Rank				Mean	Rank				
1	Clearwater Russet	1.0	0.0	0.0	1.9	2.1	1.0	5	0.3	3.0	0.0	1.5	3	1.3	5.0	12.5	8.8
2	Ranger Russet	1.0	0.0	1.0	2.5	2.3	1.4	8	0.7	3.0	2.0	2.5	11	2.7	20.0	12.5	16.3
3	Russet Burbank	3.0	2.0	2.0	3.5	2.9	2.7	14	2.3	4.0	3.0	3.5	13	3.7	42.5	12.5	27.5
4	Russet Norkotah	-	-	-	3.1	3.1	3.1	15	-	-	-	-	-	-	40.0	4.2	22.1
5	Shepody	-	-	-	2.3	-	-	-	-	-	-	-	-	-	25.0	-	25.0
6	A09086-1LB	3.0	0.0	2.0	2.1	2.5	-	-	1.7	4.0	3.0	3.5	13	3.7	2.5	8.3	5.4
7	A09136-9LB	0.0	0.0	0.0	2.3	2.6	1.0	4	0.0	1.0	0.0	0.5	2	0.7	5.0	4.2	4.6
8	A10130-1	3.0	0.0	1.0	2.6	3.8	2.1	13	1.3	3.0	1.0	2.0	7	2.0	27.5	4.2	15.8
9	A10594-4sto	1.0	0.0	0.0	2.0	2.6	1.1	6	0.3	2.0	1.0	1.5	3	1.7	2.5	4.2	3.3
10	A11175-12TE	0.0	0.0	0.0	1.0	2.6	0.7	1	0.0	2.0	1.0	1.5	3	1.3	0.0	0.0	0.0
11	A11259-1	2.0	0.0	0.0	1.9	1.9	1.2	7	0.7	3.0	0.0	1.5	3	1.7	5.0	4.2	4.6
12	A11326-1	2.0	0.0	2.0	2.6	3.1	1.9	12	1.3	4.0	0.0	2.0	7	2.7	20.0	37.5	28.8
13	A12114-7	2.0	0.0	1.0	2.3	3.0	1.7	10	1.0	4.0	3.0	3.5	13	3.3	0.0	0.0	0.0
14	A12305-2adg	4.0	0.0	1.0	1.8	2.0	1.8	11	1.7	4.0	2.0	3.0	12	3.0	35.0	12.5	23.8
15	AFA5661-8	3.0	0.0	0.0	1.6	2.4	1.4	9	1.0	3.0	1.0	2.0	7	1.7	7.5	12.5	10.0
16	AOR11217-3	1.0	0.0	0.0	1.7	1.8	0.9	3	0.3	3.0	1.0	2.0	7	1.7	5.0	0.0	2.5
17	AOR13064-2	0.0	0.0	0.0	1.6	2.0	0.7	2	0.0	0.0	0.0	0.0	1	0.0	5.0	16.7	10.8
<b>Location Means</b>		<b>1.7</b>	<b>0.1</b>	<b>0.7</b>	<b>2.2</b>	<b>2.6</b>	<b>1.5</b>		<b>0.8</b>	<b>2.9</b>	<b>1.2</b>	<b>2.0</b>		<b>2.1</b>	<b>14.6</b>	<b>9.1</b>	<b>12.3</b>

<sup>1</sup> Samples held for 60 days at either 44° or 40° at WSU.

<sup>2</sup> Samples held for 5 week cool down period - 4 weeks at 45° storage temperature.

<sup>3</sup> Samples held for 2 week cool down period - 12 weeks at 47° storage temperature.

<sup>4</sup> Three state average processed at Washington - For complete postharvest results see <http://www.potatoes.wsu.edu/>



TABLE 15: 2021 Tri-State Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/Early Dying				Early Blight		Common Scab		Corky Ringspot			Fusarium	Pecto-	PVY %	Metr. Reaction
	AB <sup>1</sup>		HERM		AB <sup>1</sup>		AB <sup>1</sup>		PROS <sup>3</sup>			Dry Rot <sup>1</sup> (0-5)	Soft Rot		
	(0-9)	AUDPC	(0-9)	AUDPC	(0-9)	AUDPC	Incidence (%)	% Serious Defects	Incidence (%)	% Serious Defects	reaction	F(sam)	(0-5) <sup>2</sup>	HERM <sup>4</sup>	AB <sup>5</sup>
1 Clearwater Russet	6.0	290	5	602	3.7	88	1.6	1.6	0.0	0.0	R	4.3	3.2	95	R
2 Ranger Russet	7.0	666	6	848	3.7	90	73.8	57.2	13.4	10.4	S	3.3	3.3	95	R
3 Russet Burbank	8.7	1055.0	9	1841	3.0	68	3.4	1.6	13.4	4.8	MR	4.0	3.9	--	MR
4 Russet Norkotah	9.0	1315	8	1731	3.0	102	11.0	3.7	7.9	1.6	MR	2.1	2.8	40	R
5 Shepody	7.7	733	--	--	4.3	168	41.6	23.2	10.0	5.0	MR	3.5	2.6	--	VS
6 A09086-1LB	5.7	357	5	433	3.0	48	81.8	71.2	6.8	3.8	MR	3.5	4.3	85	MR
7 A09136-9LB	6.7	430	6	764	4.0	105	15.0	13.8	8.0	8.0	MS	3.5	2.5	85	MR
8 A10130-1	8.0	873	7	1036	3.0	60	46.5	19.1	3.1	1.9	MR	4.5	2.9	25	MR
9 A10594-4sto	9.0	1243	7	1397	4.0	103	47.3	24.8	25.7	17.0	S	4.0	2.7	0	VR
10 A11175-12TE	8.7	1005	6	1135	4.7	210	36.5	11.5	3.1	1.2	MR	4.6	2.3	100	R
11 A11259-1	7.0	520	4	375	3.3	106	56.3	19.3	0.0	0.0	R	4.5	2.1	80	MR
12 A11326-1	3.7	72	4	578	3.3	52	31.4	9.5	5.6	3.0	MR	3.7	2.8	55	MR
13 A12114-7	8.7	1130	5	688	4.3	200	10.2	4.3	17.9	12.9	S	4.7	4.1	60	MR
14 A12305-2adg	7.0	628	3	472	3.0	55	32.5	14.3	0.0	0.0	R	3.8	3.4	0	R
15 AFA5661-8	7.7	803	5	593	3.0	61	30.3	17.1	0.0	0.0	R	3.6	1.8	85	VR
16 AOR11217-3	9.0	1133	6	1161	8.0	477	30.8	18.6	--	--	--	--	--	100	MS
17 AOR13064-2	8.7	1028	7	1267	3.0	46	8.7	1.6	11.3	8.4	MS	3.8	2.1	100	R
<b>MEANS</b>	<b>7.6</b>	<b>811.9</b>	<b>5.8</b>	<b>932.6</b>	<b>3.6</b>	<b>109.3</b>	<b>37.9</b>	<b>21.6</b>	<b>8.8</b>	<b>5.3</b>		<b>3.8</b>	<b>3.0</b>	<b>67</b>	
<b>LSD @ .05</b>	<b>0.8</b>				<b>1.6</b>		<b>24.0</b>	<b>17.0</b>				<b>1.7</b>	<b>1.3</b>		
<b>Castle Russet</b>									<b>0.0</b>	<b>0.0</b>	<b>R</b>				

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

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

3 Corky ringspot readings Prosser, WA by Rich Quick and Launa Cimrhakl

4 PVY readings Hermiston, OR from tuber sprouts by Sagar Suthavalli

5 Metribuzin Reaction measured at Aberdeen, ID by Chelsey Lowder. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

TABLE 16: 2021 Solids, Dextrose and Sucrose, Protein, Vitamin C and Glycoalkaloids  
- Tubers Grown at Aberdeen, Idaho

No.	Clone	Solids Oven Dry (%)	Sugars		Protein (%DWB)	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100gFWB)
			Dextrose (%FWB)	Sucrose (%FWB)			
1	Clearwater Russet	21.21	0.024	0.102	6.21	20.70	1.40
2	Ranger Russet	23.18	0.065	0.154	5.94	26.58	3.80
3	Russet Burbank	20.54	0.044	0.092	6.02	16.69	1.12
4	Russet Norkotah	20.36	0.064	0.158	5.65	23.48	1.41
6	A09086-1LB	21.00	0.015	0.131	5.92	18.73	1.86
7	A09136-9LB	19.52	0.025	0.072	5.82	19.16	4.24
8	A10130-1	22.35	0.023	0.132	6.76	23.41	5.23
9	A10594-4sto	21.65	0.038	0.072	6.04	16.85	2.22
10	A11175-12TE	19.68	0.006	0.094	6.95	17.38	4.30
11	A11259-1	21.30	0.018	0.160	6.82	20.98	1.84
12	A11326-1	21.37	0.043	0.126	6.88	27.51	3.94
13	A12114-7	19.65	0.015	0.143	7.31	20.61	1.77
14	A12305-2adg	22.35	0.067	0.294	6.42	26.28	2.74
15	AFA5661-8	23.25	0.063	0.204	7.10	20.88	3.79
16	AOR11217-3	22.57	0.018	0.125	6.77	20.18	1.55
17	AOR13064-2	22.14	0.010	0.102	6.48	19.08	3.61
<b>Means</b>		<b>21.38</b>	<b>0.034</b>	<b>0.135</b>	<b>6.44</b>	<b>21.16</b>	<b>2.80</b>

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2021 Lenape check from Aberdeen was 58.2 mg/100g

TABLE 17: 2021 Tri-State Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Field Performance Fresh Merit					Field Performance Process Merrit					Post-Harvest Process* 3 State Mean					
		Early ID	WA	Herm	Early MEANS	RANK	Late ID	WA	Herm	LATE MEANS	RANK						
1	Clearwater Russet	3.0	1.8	4.0	<b>2.9</b>	<b>5</b>	4.0	2.5	2.5	<b>3.0</b>	<b>1</b>	1.4	3.5	2.5	<b>3.0</b>	<b>4</b>	<b>26.6</b>
2	Ranger Russet	1.8	1.3	1.0	<b>1.3</b>	<b>16</b>	2.0	1.2	2.0	<b>1.7</b>	<b>14</b>	4.0	3.2	2.0	<b>2.6</b>	<b>8</b>	<b>24.0</b>
3	Russet Burbank	1.5	1.7	1.0	<b>1.4</b>	<b>15</b>	1.3	0.6	1.5	<b>1.1</b>	<b>16</b>	1.2	1.9	2.0	<b>1.9</b>	<b>13</b>	<b>14.3</b>
4	Russet Norkotah	2.8	2.0	1.0	<b>1.9</b>	<b>11</b>	3.0	3.5	2.5	<b>3.0</b>	<b>1</b>	2.8	-	1.5	<b>1.5</b>	<b>16</b>	
5	Shepody	1.6		1.0	<b>1.3</b>							1.5	-				
6	A09086-1LB	3.1	0.8	4.0	<b>2.6</b>	<b>10</b>	2.4	2.3	2.5	<b>2.4</b>	<b>6</b>	3.0	2.8	2.5	<b>2.6</b>	<b>7</b>	<b>21.0</b>
7	A09136-9LB	2.3	1.3	2.0	<b>1.9</b>	<b>12</b>	2.4	1.0	2.0	<b>1.8</b>	<b>13</b>	3.2	3.6	2.0	<b>2.8</b>	<b>5</b>	<b>27.3</b>
8	A10130-1	2.4	1.6	1.0	<b>1.7</b>	<b>14</b>	3.0	1.0	3.0	<b>2.3</b>	<b>7</b>	2.7	2.3	1.5	<b>1.9</b>	<b>14</b>	<b>17.6</b>
9	A10594-4sto	2.8	1.2	4.0	<b>2.6</b>	<b>9</b>	2.3	2.7	2.5	<b>2.5</b>	<b>4</b>	3.9	3.8	2.5	<b>3.1</b>	<b>3</b>	<b>28.6</b>
10	A11175-12TE	3.5	3.0	4.0	<b>3.5</b>	<b>4</b>	3.0	1.7	1.0	<b>1.9</b>	<b>11</b>	1.9	3.7	1.0	<b>2.3</b>	<b>10</b>	<b>28.0</b>
11	A11259-1	2.4	0.9	2.0	<b>1.8</b>	<b>13</b>	2.6	0.9	1.5	<b>1.7</b>	<b>15</b>	3.0	3.2	1.5	<b>2.4</b>	<b>9</b>	<b>24.7</b>
12	A11326-1	3.0	4.3	1.0	<b>2.8</b>	<b>8</b>	2.1	2.0	1.5	<b>1.9</b>	<b>12</b>	2.2	2.4	1.0	<b>1.7</b>	<b>15</b>	<b>17.9</b>
13	A12114-7	3.4	2.4	3.0	<b>2.9</b>	<b>5</b>	3.3	1.4	1.5	<b>2.0</b>	<b>9</b>	2.6	2.4	1.5	<b>1.9</b>	<b>12</b>	<b>18.2</b>
14	A12305-2adg	3.1	3.4	2.0	<b>2.8</b>	<b>7</b>	3.6	2.1	1.5	<b>2.4</b>	<b>5</b>	4.5	2.6	1.5	<b>2.0</b>	<b>11</b>	<b>19.6</b>
15	AFA5661-8	3.3	4.4	4.0	<b>3.9</b>	<b>3</b>	3.0	1.6	1.5	<b>2.0</b>	<b>9</b>	2.8	3.3	2.0	<b>2.7</b>	<b>6</b>	<b>25.4</b>
16	AOR11217-3	2.5	5.4	4.0	<b>4.0</b>	<b>2</b>	3.4	2.8	2.5	<b>2.9</b>	<b>3</b>	4.7	3.8	3.0	<b>3.4</b>	<b>2</b>	<b>28.5</b>
17	AOR13064-2	2.6	6.4	4.0	<b>4.3</b>	<b>1</b>	2.5	1.6	2.5	<b>2.2</b>	<b>8</b>	4.2	4.3	2.5	<b>3.4</b>	<b>1</b>	<b>32.5</b>
<b>Location Means</b>		<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.6</b>		<b>2.7</b>	<b>1.8</b>	<b>2.0</b>	<b>2.2</b>		<b>2.9</b>	<b>3.1</b>	<b>1.9</b>	<b>2.5</b>		<b>22.6</b>

\* For Complete information and procedures see Washington at [www.potatoes.wsu.edu/](http://www.potatoes.wsu.edu/)

TABLE 18: 2021 Tri-State Potato Variety Trial - SUMMARY

Clone	Year in Trial	Use	Yield Late		% US#1's	Tuber Size	Specific Gravity		45 Fry Color	P F	Merit Score	Comments
1 Clearwater Russet	Check	Dual	702		593	6.2	1.082		1.0	3.0		
					83					3.0	High	
2 Ranger Russet	Check	Dual	704		416	7.7	1.082		1.4	2.6		
					60					1.7		
3 Russet Burbank	Check	Dual	641		330	6.6	1.070		2.7	1.9		
					51	Low				1.1	Low	
4 Russet Norkotah	Check	Fresh	526	Low	441	5.4	1.067	Low	3.1	High	1.5	
					78					3.0	High	
5 Shepody	Check	Proc	400	*	201	4.1	1.072	*		1.5	*	
					46	*				1.6		
6 A09086-1LB	1	Dual	850	High	696	7.0	1.086		-	2.6		
					79					2.4		
7 A09136-9LB	1	Dual	689		567	7.6	1.085		1.0	2.8		
					80					1.8		
8 A10130-1	1	Dual	708		470	8.3	1.070		2.1	1.9		1.6 Vis App
					68					2.3		
9 A10594-4sto	2	Dual	652		553	8.2	1.080		1.1	3.1		15 HH/BC
					79					2.5		
10 A11175-12TE	1	Dual	619	High	518	5.7	1.073		0.7	Low	2.3	
					79					1.9		
11 A11259-1	1	Dual	710		397	6.6	1.075		1.2	2.4		
					60					1.7		
12 A11326-1	1	Dual	758		599	6.6	1.087		1.9	1.7	Low	19.2 HH/BC
					75					1.9		
13 A12114-7	1	Dual	619		513	5.5	1.074		1.7	1.9		
					77					2.0		
14 A12305-2adg	2	Dual	815		580	8.6	1.080		1.8	2.0		
					73					2.4		
15 AFA5661-8	2	Dual	747		501	9.8	1.087		1.4	2.7		18.6 VD
					70					2.0		
16 AOR11217-3	2	Dual	665		548	6.7	1.083		0.9	3.4	High	3.6 Uniform & Vis App
					78					2.9		
17 AOR13064-2	1	Dual	661		396	7.4	1.079		0.7	Low	3.4	High
					57					2.2		
	<b>Late Means</b>		<b>692</b>		<b>507</b>	<b>7.1</b>	<b>1.079</b>		<b>1.5</b>	<b>2.5</b>		
* Early only					<b>71</b>					<b>2.1</b>		

TABLE 19: 2021 Early Tri-State Potato Variety Trial - COMMENTS BY STATE

Entry	Clone	Early Idaho	Early Washington	Early Ontario
1	Clearwater Russet	Few points, round, flat/short (2)	Typy, smooth shape, some lenticils.	3 curved, 3 pointed, bottleneck, small, 2 heart
2	Ranger Russet	Deep eyes, points (4); curves (2)	Long, mix of shapes.	4 Curved, 4 Irregular, 2 knobs, 2 growth cracks, 2 Pointed, pointed, heart, 2 zero usable
3	Russet Burbank	Misshapen, bad knobs, not uniform (2)	Medium russet, good length, some typy, some pointy.	4 Irregular, 3 Curved, curved, Knobs, knobs, 4 Pointed, growth cracks, bottleneck, 2 zero usable
4	Russet Norkotah	Small, few points (2); few misshapen, not uniform	Dark russet, typy, good length.	
5	Shepody	Misshapen (4); flat (3); not uniform (2)	Light skin, pointy, non uniform shape.	4 Curved, 3 Knobs, knobs, Irregular, growth cracks, 3 Pointed, heart, 3 zero usable
6	A09086-1LB	Splotchy, little flat (2); few points, few curves	Larger, feathery skin, shape variable.	3 irregular, 3 small, 3 pointed
7	A09136-9LB	Misshapen (3); not uniform, bumps (2)	Variable shape, light skin, medium russet.	2 Pointed, pointed, growth cracks, sprouts, 2 Irregular, 2 Small
8	A10130-1	Patchy skin (3); few bumps (2); slight checking	Plump, with ugly skin.	growth cracks, 2 pointed, 2 heart, curved, bottleneck, knobs, Big
9	A10594-4sto	Little flat, bulging eyes (3);	Typy, but a bit short.	folded bud end, 3 curved, heart, 2 growth cracks, 3 knobs, irregular
10	A11175-12TE	Uniform (4); blocky, few deeper eyes (2)	Small, typy, but short. Not Early.	2 Small, small, 3 irregular, folded bud end, 2 curved, 2 round, rough
11	A11259-1	Deeper eyes, folded/bent ends, few points, misshapen (2)	Deep eyes, shape a bit irregular, rhizoc.	3 Irregular, 3 Pointed, pointed, 3 growth cracks, Growth cracks, heart, 2 curved
12	A11326-1	Few points (3); smaller, blocky (2)	Medium russet, not early, somewhat typy, smaller.	Small, 2 small, Irregular, 3 irregular, 2 growth cracks, bottleneck, pointed

TABLE 20: 2021 Late Tri-State Potato Variety Trial - COMMENTS BY STATE

Entry	Clone	Late Idaho	Late Washington	Late Hermiston
1	Clearwater Russet	Good shape (4); flat (3); uniform, good eye (2)	Medium-dark russet, nice skin. Uniform shape.	dotty x3, typy x3, flat x4, pty x3, nipple x3
2	Ranger Russet	Points, curves (3); deep eyes, flat (2)	Very poor shape, non uniform.	curvy x4, GC x3, bottle x3, pty x3, rot x3
3	Russet Burbank	Knobs, misshapen (4); small (2)	Long, skinny, mishapen.	pty x3, db x3, bottle x4, rot x3
4	Russet Norkotah	Low yield (4); small, few points, uniform, good russet/type (2)	Nice dark russet skin. Uniform shape.	typy x4, pty x3, short x2, flat x2
6	A09086-1LB	Ugly patchy skin (4); little flat, blocky with some round (2)	Light russet, feathery skin, mostly typy, a bit short.	flakey x4, blocky x2, nipple x2, chain x2, typy x2
7	A09136-9LB	Little flat (3); some round (2); few bulging eyes, few curves	River rocks, oval, bumpy.	spr x4, pear x4, bottle x2, short x2, flakey x3, pty x2
8	A10130-1	Patchy skin, nice blocky shape (3); rot (2)	Plump, ugly, spotty skin, lots of points.	flakey x3, blocky x3, nice x2, typy x3
9	A10594-4sto	Knobs (4); bulging eyes (3); few misshapen (2)	Shape fairly uniform, eyes a bit deep, good length.	flakey x4, pty x4, bottle x3, typy x3
10	A11175-12TE	Nice blocky shape/russet (3); few bumps (2)	Smaller, short, shape mostly uniform.	short x2, round x4, FBE x3, flakey x2, chip x4, spr x2
11	A11259-1	Deeper eyes, typy with some misshapen (3); curves, pears (2)	Skinny, long, cracks, and malformed. Discard	curvy x2, pty x2, bottle x4, db x4, tip GC x3
12	A11326-1	Misshapen, some long/some short (3); curves, some flat (2)	Larger, exposed lenticils, ugly skin.	short x2, skinning x2, typy x4, blocky x2
13	A12114-7	Nice shape with some round (3); few curves little flat uniform	Small, short, round.	Round x4, short x4, pixel x2, sticky x2, pear x2
14	A12305-2adg	Nice blocky shape (4); uniform, few short, rot (2)	Good length, pointy, poor skin set.	flakey x2, pty 4, bottle x4, rot x2
15	AFA5661-8	Typy, uniform (3); few points, little flat, few bulging eyes/slight brow (2)	Many #2's with end cracks.	bottle x3, knobs x4, blocky x4, pty x2, nipple x2
16	AOR11217-3	Typy, nice russet (4); Few misshapen, uniform, slight curve (2)	Nice, dark skin, shape mostly uniform. Deep eyes.	nice x2, skinning x3, thin x2, typy x3
17	AOR13064-2	Some misshapen (4); few curves, few bumps (2)	Larger, shape mostly uniform. Exposed lenticils.	typy x3, pty x3, nice x3, skinning x2

TABLE 21: 2021 Tri-State Harvest Potato Variety Trials  
STATE POSTHARVEST EVALUATIONS

WASHINGTON

Entry	Clone	Early		Late			
		Carton Yield		Carton Yield		PROCESS YIELD	
		100-50 count (US 1's 7-18 oz)		100-50 count (US 1's 7-18 oz)		S 1's and 2's > 6 oz	
		% of Total Yield	Tons/A	% of Total Yield	Tons/A	of Total Yie	Tons/A
1	Clearwater Russet	7.8	4.0	52.5	25.4	74.8	36.3
2	Ranger Russet	12.5	3.0	27.8	14.5	74.1	39.2
3	Russet Burbank	7.3	1.7	21.9	11.5	70.4	36.9
4	Russet Norkotah	12.9	4.0	59.0	24.0	76.1	30.9
5	Shepody	4.4	1.0				
6	A09086-1LB	8.2	1.7	57.6	33.5	78.9	45.9
7	A09136-9LB	15.4	2.3	46.9	23.0	82.1	40.3
8	A10130-1	15.7	1.3	28.9	15.1	75.7	39.7
9	A10594-4sto	15.7	3.3	60.6	27.7	84.4	38.7
10	A11175-12TE	6.9	3.3	58.5	26.5	72.8	32.9
11	A11259-1	11.3	2.3	15.6	7.8	45.7	23.5
12	A11326-1	6.6	2.3	56.2	29.6	81.3	42.8
13	A12114-7	8.1	3.0	56.7	27.6	72.7	35.4
14	A12305-2adg	14.3	3.0	38.2	21.1	85.0	47.1
15	AFA5661-8	14.2	3.0	36.9	19.5	80.1	42.5
16	AOR11217-3	11.7	4.0	52.9	25.5	80.4	39.0
17	AOR13064-2	16.0	3.3	47.8	23.0	83.7	40.3
		<b>11.1</b>	<b>2.7</b>	<b>44.9</b>	<b>22.2</b>	<b>76.1</b>	<b>38.2</b>