

# 2021 WESTERN REGIONAL POTATO VARIETY TRIAL REPORT

State Experiment Stations and  
USDA-ARS Cooperating

California

Colorado

Idaho

Oregon

Texas

Washington



## 2021 WESTERN REGIONAL POTATO VARIETY TRIAL REPORT

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**Western Regional Potato Variety Trial Reports (1998-2021) can be accessed at the following website.**

[www.ars.usda.gov/main/docs.htm?docid=21888](http://www.ars.usda.gov/main/docs.htm?docid=21888)

Compiled by Brian Schneider

**TABLE 1: 2021 Western Regional Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION**

No. Locations	Cooperators	Trial	Irrigation	Fertilizer	Planting Harvest Days to			Herbicides	Pesticides Applied <sup>1</sup>	
				N-P-K-S(lb/A)	Date	Date	Harvest		Insecticides	Fungicides
1 Tulelake California <b>(TUL)</b>	R. Wilson	Late	Sprink.	172-100-400	18-May	29-Sep	134	Prowl H2O Outlook Matrix SG	Admire Pro	Quadris Maxim 4FS (seed)
	D. Culp K. Nicholson			Seed Spacing: In-Row 10" Rows 36"			Reglone			
2 San Luis Valley Colorado <b>(SLV)</b>	D. Holm,	Late	Pivot	120-100-150	11-May	27-Sep	139	Prowl H2O Intensity Tuscany	Pure Spray Green Sefina Inscalis	Quadris Top Revus Top Bravo Weather Stik Agri Tin
	C. Gray E. Neibaum			Seed Spacing: In-Row 12" Rows 34"			Reglone			
3 Aberdeen	R. Spear	Late	Sprink.	270-115-5Zn-5Mn	28-Apr	23-Sep	148	TriCor 4F Matrix Eptam 7-E	Admire Pro	
	R. Novy J. Whitworth C. Lowder			Seed Spacing: In-Row 10" Rows 36"			Mechanical			
4 Kimberly Idaho <b>(KIM)</b>	R. Spear	Late	Sprink.	663-575-400-82.4S	21-Apr	4-Oct	166	Dimetric Outlook, Eptam Sonalan		Luna Tranquility Zing Bravo Weather Stik
	R. Novy J. Whitworth C. Lowder			Seed Spacing: In-Row 10" Rows 36"			Mechanical			
5 Parma Idaho <b>(PAR)</b>	M. Thornton	Early	Sprink.	217-211-200	14-Apr	11-Aug	119	<b>Sonalan</b> <b>Boundry</b> <b>Eptam+Adsorb</b>	<b>Admire Pro</b> Agri-Mek + NIS	<b>Quadris, Bravo</b> <b>Endura, Luna T</b> <b>Revus Top</b> Quadris Top Bravo
	O. Morgan R. Portenier K. Beck	Late	Sprink.	377-211-200	23-Apr	20-Sep	150			
6 Hermiston Oregon <b>(HRM)</b>	S. Sathuvalli	Early	Pivot	350-140-200-130-2Cu-7.5Zn-3B	16-Mar	12-Aug	149	<b>Vapam</b> <b>Eptam</b> <b>Matrix</b>	<b>Admire/Coregen</b> <b>Agrimek</b> <b>Blackhawk</b>	<b>Quadris/Ridmil</b> <b>Omega</b>
	M. Aguila	Late	Pivot	390-140-200-130-2Cu-7.5Zn-3B	30-Mar	6-Sep	160			
7 Dalhart <b>(DAL)</b>  Springlake <b>(SPR)</b> Texas	I. Vales	Early	Pivot	211-226-263	2-May	15-Sep	136	Eptam 7E Reglone, Treflan Tricor 4F, Brawl Chateau, Acumen	Movento Fulfill Reaper ClearForm	Minuet, MetaStar A-Frame, Provysol Scala SC
	J. Koym C. Miller Jr.	Early	Pivot	72.7-14-12.9	30-Mar	29-Jul	121			
				Seed Spacing: DAL / SPR In-Row 10.2" / 9.0" Rows 28" / 36"				Eptam 7E Makaze Medal EC, Stealth	Velum Prime SPE 120	
8 Othello <b>(OTH)</b> Othello <b>(OTH)</b> Washington	M. Pavek	Early	Linear	250-200-250-0	31-Mar	9-Aug	131	<b>Outlook</b> <b>Prowl H2O</b> <b>Eptam</b>	<b>Platinum</b>	<b>Priaxor</b> <b>Equus</b> <b>Bravo</b> <b>Zing</b>
	J. Blauer	Late	Pivot	218-261-300-0	4-Apr	13-Sep	162			

<sup>1</sup>**Bold indicates use in both location's trials.**

**TABLE 2: 2021 Western Regional Potato Variety Trial - CLONE, PARENTAGE, FLOWER COLOR, ENTRY SUBMISSION, USE, TRIAL, YEARS IN TRIAL, SEED SOURCE, STAND, TUBER AND VINE CHARACTERISTICS**

No.	Clone	Parents	Flower Entered			Year in Seed			Tuber and Vine Descriptions from Trial Observations <sup>2</sup>									
			Color <sup>1</sup>	by Use	Trial	Trial	Source	Stand <sup>2</sup>	Tuber Shape (1-5) <sup>3</sup>	Tuber Skin (1-5) <sup>4</sup>	Vine Size (1-5) <sup>5</sup>	Vine Maturity (1-5) <sup>6</sup>	Stems/Hill					
1	Clearwater Russet	Bannock Russet A89152-4	P	Ck	Dual	E/L	-	OR	98	Obl-Lng	3.6	Med Russet	3.8	Med-Large	3.9	Late	4.1	2.3
2	Ranger Russet	Butte A6595-3	RP	Ck	Dual	E/L	-	OR	98	Long	4.6	Med Russet	3.1	Med-Large	3.5	Med-Late	3.9	2.5
3	Russet Burbank	Early Rose ?	W	Ck	Dual	E/L	-	OR	98	Long	4.2	Med Russet	3.2	Med-Large	3.6	Med Early	3.0	2.2
4	Russet Norkotah	ND9687-5Rus ND9526-4Rus	W	Ck	Fresh	E/L	-	OR	88	Obl-Lng	3.8	Med Hvy Rus	4.2	Medium	2.8	Early	1.8	2.5
5	Shepody	Bake-King F58050	W	Ck	Proc	E	-	OR	93	Long	4.3	White	1.0	Large	4.1	Med-Late	3.7	2.1
6	AOR08540-1	A02782-2 PA01N22-5	W	OR	Dual	E/L	2	OR	97	Long	4.3	Med Russet	3.8	Med-Large	3.8	Med-Late	4.0	2.2
7	AOR10204-3	COA05110-3 A05066-9	P	OR	Fresh	E/L	1	OR	97	Obl-Lng	3.9	Med Russet	4.0	Med-Large	3.5	Medium	3.5	2.3
8	CO10085-1RU	CO03364-5RU Silverton Russet	P	CO	Proc	E/L	2	CO	98	Oblong	3.1	Med Russet	3.6	Med-Large	3.6	Med-Late	4.0	2.9
9	CO11009-3RU	Fortress Russet AC96052-1RU	P	CO	Proc	E/L	2	CO	98	Obl-Lng	3.8	Med Russet	4.0	Med-Large	3.8	Med-Late	3.8	2.9
10	CO12378-1RU	CO06035-3RU AO02183-2	W	CO	Proc	E/L	1	CO	98	Oblong	2.9	Med Hvy Rus	4.4	Med-Large	3.5	Med Early	3.0	2.7
11	COA11013-2	AC99375-1RU CO03308-3RU	W	CO	Dual	E/L	1	OR	98	Long	4.2	Med Russet	3.1	Med-Large	3.6	Med-Late	3.6	2.4
12	OR12133-10	A98345-10 Silverton Russet	W	OR	Dual	E/L	3	OR	97	Long	4.1	Light Russet	2.1	Large	4.1	Late	4.1	2.1
13	POR12NCK50-1	PA99N82-4 Western Russet	P	OR	Dual	E/L	3	OR	95	Long	4.1	Med Hvy Rus	4.2	Med-Large	3.9	Medium	3.1	1.7
14	TX13590-9Ru	ND9687-3Ru ND9852-1Ru	RP	TX	Fresh	E/L	2	TX	98	Oblong	3.0	Med Russet	3.5	Med-Large	3.9	Med-Late	3.6	3.8

<sup>1</sup> P=Purple, R=Red, W=White

<sup>2</sup> Numerical values are means of all trial locations at 60 days.

<sup>3</sup> 1.0-2.0=Round, 2.1-2.5=Round-Oblong, 2.6-3.5=Oblong, 3.6-4.0=Oblong-Long, 4.1-5.0=Long

<sup>4</sup> 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

<sup>5</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>6</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 3: 2021 Western Regional 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	OR	TX		WA	Entry	CA	CO	ID		OR	WA	Entry	
	PAR	HRM	DAL	SPR <sup>1</sup>	OTH	Mean/Rank	TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank
1 CLEARWATER R.	340	765	383	185	526	<b>504</b> 11 e	353	413	347	488	590	662	1010	<b>552</b> 9 bc
2 RANGER R.	448	667	488	176	587	<b>548</b> 7 bcde	440	423	382	514	725	707	1087	<b>611</b> 6 ab
3 R. BURBANK	516	639	449	171	529	<b>533</b> 8 cde	353	333	215	469	607	637	1026	<b>520</b> 10
4 R. NORKOTAH	524	498	525	191	563	<b>527</b> 9 cde	486	139	173	368	500	576	895	<b>448</b> 13 cd
5 SHEPODY	339	764	455	124	508	<b>517</b> 10 de	.	311	.	.	.	.	.	.
6 AOR08540-1	481	859	375	176	606	<b>580</b> 5 bcde	428	442	285	654	631	927	1137	<b>643</b> 5 a
7 AOR10204-3	535	768	581	167	671	<b>639</b> 3 abc	436	.	427	574	703	832	1073	<b>674</b> 1 a
8 CO10085-1RU	407	498	527	102	553	<b>496</b> 13 e	383	362	398	567	764	669	1027	<b>596</b> 8 ab
9 CO11009-3RU	473	749	533	178	555	<b>577</b> 6 bcde	419	354	280	633	651	864	1069	<b>610</b> 7 ab
10 CO12378-1RU	384	632	443	161	522	<b>495</b> 14 e	377	264	306	525	488	546	932	<b>491</b> 11 cd
11 COA11013-2	513	723	667	243	607	<b>628</b> 4 abcd	427	408	427	696	651	798	1166	<b>653</b> 4 a
12 OR12133-10	450	950	544	162	662	<b>652</b> 2 ab	402	413	358	709	704	890	1214	<b>670</b> 2 a
13 POR12NCK50-1	384	672	439	97	494	<b>497</b> 12 e	372	373	294	432	521	658	781	<b>490</b> 12 cd
14 TX13590-9Ru	502	743	827	325	729	<b>700</b> 1 a	455	421	301	659	648	945	1180	<b>658</b> 3 a
<b>Location Means</b>	450	709	517	175	579	<b>564</b>	410	362	322	561	629	747	1046	<b>586</b>

Means followed by the same letter are not significantly different at the 5% level using Student's t test.

<sup>1</sup>Springlake excluded from means.

Indicates high or strength

Indicates low or weakness

**TABLE 4: 2021 Western Regional Potato Variety Trial - YIELD OF U.S. #1'S [CWT/A (upper) and % (lower)] - EARLY AND LATE HARVEST**

No. Clone	U.S. No. 1's - Early Harvest (CWT/A) and %							U.S. No. 1's - Late Harvest (CWT/A) and %										
	ID	OR	TX		WA	Entry		CA	CO	ID		OR	WA	Entry				
	PAR	HRM	DAL	SPR <sup>1</sup>	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 CLEARWATER R.	243	671	281	43	513	<b>427</b>	<b>8</b>	<b>bcdef</b>	265	329	238	390	494	493	897	<b>444</b>	<b>7</b>	<b>bcd</b>
	72	88	73	23	97	<b>83</b>	<b>1</b>		75	80	69	80	84	74	89	<b>79</b>	<b>3</b>	
2 RANGER R.	285	501	320	66	496	<b>400</b>	<b>10</b>	<b>cdef</b>	295	346	237	315	510	493	396	<b>370</b>	<b>10</b>	<b>de</b>
	63	75	66	38	84	<b>72</b>	<b>10</b>		67	82	62	61	70	70	36	<b>64</b>	<b>12</b>	
3 R. BURBANK	413	518	215	37	350	<b>374</b>	<b>11</b>	<b>def</b>	260	195	69	284	479	488	365	<b>306</b>	<b>13</b>	<b>e</b>
	80	81	48	22	66	<b>69</b>	<b>11</b>		74	59	32	61	79	77	36	<b>59</b>	<b>13</b>	
4 R. NORKOTAH	440	400	384	82	530	<b>438</b>	<b>7</b>	<b>bcde</b>	329	61	111	272	442	455	773	<b>349</b>	<b>12</b>	<b>de</b>
	84	80	73	43	94	<b>83</b>	<b>1</b>		68	44	64	74	88	79	86	<b>72</b>	<b>8</b>	
5 SHEPODY	211	464	249	29	313	<b>310</b>	<b>14</b>	<b>f</b>	.	179	.	.	.	.	.	.	.	.
	62	61	55	23	62	<b>60</b>	<b>14</b>		.	58	.	.	.	.	.	.	.	.
6 AOR08540-1	398	724	261	87	508	<b>473</b>	<b>6</b>	<b>abcd</b>	359	391	149	489	542	696	522	<b>450</b>	<b>6</b>	<b>bcd</b>
	83	84	70	50	84	<b>80</b>	<b>8</b>		84	88	52	75	86	75	46	<b>72</b>	<b>8</b>	
7 AOR10204-3	458	640	383	85	607	<b>522</b>	<b>3</b>	<b>abc</b>	257	.	314	442	616	644	832	<b>518</b>	<b>3</b>	<b>abc</b>
	86	83	66	51	90	<b>81</b>	<b>7</b>		59	.	74	77	88	77	78	<b>75</b>	<b>7</b>	
8 CO10085-1RU	164	351	287	3	547	<b>337</b>	<b>13</b>		294	287	268	317	466	504	876	<b>430</b>	<b>8</b>	<b>bcd</b>
	40	70	54	3	99	<b>66</b>	<b>13</b>		77	79	68	56	61	75	85	<b>72</b>	<b>8</b>	
9 CO11009-3RU	326	643	408	85	528	<b>476</b>	<b>5</b>	<b>abcd</b>	332	293	185	464	557	718	816	<b>481</b>	<b>5</b>	<b>abc</b>
	69	86	77	48	95	<b>82</b>	<b>6</b>		79	83	66	73	86	83	76	<b>78</b>	<b>4</b>	
10 CO12378-1RU	185	351	311	17	513	<b>340</b>	<b>12</b>	<b>ef</b>	263	168	184	391	353	363	870	<b>370</b>	<b>10</b>	<b>de</b>
	48	56	70	10	98	<b>68</b>	<b>12</b>		70	64	60	74	72	67	93	<b>71</b>	<b>11</b>	
11 COA11013-2	374	532	440	75	568	<b>478</b>	<b>4</b>	<b>abcd</b>	336	342	327	568	530	576	859	<b>506</b>	<b>4</b>	<b>abc</b>
	73	74	66	31	94	<b>76</b>	<b>9</b>		79	84	77	82	81	72	74	<b>78</b>	<b>4</b>	
12 OR12133-10	370	823	412	75	586	<b>548</b>	<b>2</b>	<b>ab</b>	335	355	261	555	639	743	984	<b>553</b>	<b>1</b>	<b>a</b>
	82	87	76	46	89	<b>83</b>	<b>1</b>		83	86	73	78	91	83	81	<b>82</b>	<b>1</b>	
13 POR12NCK50-1	358	537	273	52	479	<b>412</b>	<b>9</b>	<b>cdef</b>	287	294	201	356	484	543	679	<b>406</b>	<b>9</b>	<b>cde</b>
	93	80	62	54	97	<b>83</b>	<b>1</b>		77	79	68	82	93	83	87	<b>81</b>	<b>2</b>	
14 TX13590-9Ru	436	584	599	192	673	<b>573</b>	<b>1</b>	<b>a</b>	352	323	164	530	554	790	1006	<b>531</b>	<b>2</b>	<b>ab</b>
	87	79	72	59	92	<b>83</b>	<b>1</b>		77	77	54	80	85	84	85	<b>78</b>	<b>4</b>	
<b>Location Means</b>	333	553	345	66	515	436			305	274	208	413	513	577	760	440		
	73	77	66	36	89	76			74	74	63	73	82	77	73	74		

Means followed by the same letter are not significantly different at the 5% level using Student's t test.

<sup>1</sup>Springlake excluded from means.

TABLE 5: 2021 Western Regional Potato Variety Trial - YIELD &gt; 10 OZ [CWT/A (upper) &amp; % (lower)] - EARLY AND LATE HARVEST

No. Clone	U.S. No. 1's > 10 OZ - Early Harvest (CWT/A) and %							U.S. No. 1's > 10 OZ - Late Harvest (CWT/A) and %										
	ID	OR	TX		WA	Entry		CA	CO	ID		OR	WA	Entry				
	PAR	HRM	DAL	SPR <sup>1</sup>	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 CLEARWATER R.	18	241	96	2	44	<b>100</b>	<b>11</b>	def	33	59	77	181	150	59	406	<b>138</b>	<b>11</b>	de
	5	31	25	1	8	<b>18</b>	<b>10</b>		9	14	22	37	25	9	40	<b>22</b>	<b>11</b>	
2 RANGER R.	9	192	118	0	93	<b>103</b>	<b>10</b>	cdef	133	159	128	138	189	167	567	<b>211</b>	<b>6</b>	abcd
	2	29	24	0	16	<b>18</b>	<b>10</b>		30	38	34	27	26	24	52	<b>33</b>	<b>5</b>	
3 R. BURBANK	98	172	42	4	130	<b>111</b>	<b>9</b>	cdef	62	23	11	105	226	155	553	<b>162</b>	<b>8</b>	bcd
	19	27	9	3	25	<b>20</b>	<b>9</b>		17	7	5	22	37	24	54	<b>24</b>	<b>9</b>	
4 R. NORKOTAH	129	92	198	5	82	<b>126</b>	<b>8</b>	bcdef	235	2	31	60	229	55	365	<b>140</b>	<b>10</b>	cde
	25	19	38	2	15	<b>24</b>	<b>6</b>		48	2	18	16	46	10	41	<b>26</b>	<b>8</b>	
5 SHEPODY	21	477	123	3	98	<b>180</b>	<b>5</b>	abcde	.	7	.	.	.	.	.	.	.	
	6	62	27	3	19	<b>29</b>	<b>4</b>		.	2	.	.	.	.	.	.	.	
6 AOR08540-1	75	347	106	5	70	<b>149</b>	<b>6</b>	bcdef	90	197	57	362	262	311	628	<b>272</b>	<b>2</b>	a
	16	40	28	3	12	<b>24</b>	<b>6</b>		21	45	20	55	41	34	55	<b>39</b>	<b>3</b>	
7 AOR10204-3	114	346	191	13	198	<b>212</b>	<b>3</b>	abc	98	.	177	263	316	279	660	<b>299</b>	<b>1</b>	a
	21	45	33	8	30	<b>32</b>	<b>2</b>		22	.	41	46	45	33	61	<b>42</b>	<b>1</b>	
8 CO10085-1RU	6	148	109	0	18	<b>70</b>	<b>13</b>	ef	57	115	94	88	170	97	332	<b>136</b>	<b>12</b>	de
	1	30	21	0	3	<b>14</b>	<b>12</b>		15	32	24	15	22	14	32	<b>22</b>	<b>11</b>	
9 CO11009-3RU	19	265	221	3	82	<b>147</b>	<b>7</b>	bcdef	115	89	70	210	219	321	473	<b>214</b>	<b>5</b>	ab
	4	35	42	2	15	<b>24</b>	<b>6</b>		27	25	25	33	34	37	44	<b>32</b>	<b>6</b>	
10 CO12378-1RU	6	44	105	0	7	<b>40</b>	<b>14</b>	f	66	16	44	101	79	32	259	<b>85</b>	<b>13</b>	e
	1	7	24	0	1	<b>8</b>	<b>14</b>		18	6	14	19	16	6	28	<b>15</b>	<b>13</b>	
11 COA11013-2	37	78	167	0	30	<b>78</b>	<b>12</b>	ef	46	102	107	247	174	60	359	<b>156</b>	<b>9</b>	bcde
	7	11	25	0	5	<b>12</b>	<b>13</b>		11	25	25	35	27	8	31	<b>23</b>	<b>10</b>	
12 OR12133-10	24	448	197	0	96	<b>191</b>	<b>4</b>	abcd	71	108	153	259	311	171	608	<b>240</b>	<b>3</b>	a
	5	47	36	0	14	<b>26</b>	<b>5</b>		18	26	43	36	44	19	50	<b>34</b>	<b>4</b>	
13 POR12NCK50-1	201	449	249	9	229	<b>282</b>	<b>1</b>	a	79	57	81	162	207	263	586	<b>205</b>	<b>7</b>	abcd
	52	67	57	9	46	<b>56</b>	<b>1</b>		21	15	28	37	71	40	75	<b>41</b>	<b>2</b>	
14 TX13590-9Ru	91	299	418	10	125	<b>233</b>	<b>2</b>	ab	94	88	28	178	372	265	637	<b>237</b>	<b>4</b>	a
	18	40	51	3	17	<b>32</b>	<b>2</b>		21	21	9	27	32	28	54	<b>27</b>	<b>7</b>	
Location Means	61	257	167	4	93	<b>144</b>			91	79	81	181	223	172	495	<b>192</b>		
	13	35	31	2	16	<b>24</b>			21	20	24	31	36	22	48	<b>29</b>		

Means followed by the same letter are not significantly different at the 5% level using Student's t test.

<sup>1</sup>Springlake excluded from means.

TABLE 6: 2021 Western Regional Potato Variety Trial - YIELD &lt; 4 OZ [CWT/A (upper) &amp; % (lower)] - EARLY AND LATE HARVEST

No. Clone	Yield < 4 OZ - Early Harvest (CWT/A) and %							Yield < 4 OZ - Late Harvest (CWT/A) and %										
	ID	OR	TX		WA	Entry		CA	CO	ID		OR	WA	Entry				
	PAR	HRM	DAL	SPR <sup>1</sup>	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 CLEARWATER R.	97	12	88	125	111	<b>77</b>	<b>8</b>	bc	81	73	66	45	89	147	79	<b>83</b>	<b>5</b>	bcd
	28	2	23	67	21	<b>19</b>	<b>4</b>		23	18	19	9	15	22	8	<b>16</b>	<b>4</b>	
2 RANGER R.	152	54	68	81	96	<b>92</b>	<b>4</b>	abc	40	30	34	36	93	76	86	<b>56</b>	<b>9</b>	de
	34	8	14	46	16	<b>18</b>	<b>5</b>		9	7	9	7	13	11	8	<b>9</b>	<b>10</b>	
3 R. BURBANK	61	32	62	53	102	<b>64</b>	<b>9</b>	cd	65	87	73	47	60	63	57	<b>65</b>	<b>6</b>	cde
	12	5	14	31	19	<b>12</b>	<b>9</b>		18	26	34	10	10	10	6	<b>16</b>	<b>4</b>	
4 R. NORKOTAH	77	8	69	103	79	<b>59</b>	<b>11</b>	cd	32	76	43	71	48	106	74	<b>64</b>	<b>7</b>	cde
	15	2	13	54	14	<b>11</b>	<b>10</b>		7	55	25	19	10	18	8	<b>20</b>	<b>2</b>	
5 SHEPODY	67	93	45	32	119	<b>81</b>	<b>5</b>	bc	.	114	.	.	.	.	.	.	.	
	20	12	10	26	23	<b>16</b>	<b>6</b>		.	37	.	.	.	.	.	.	.	
6 AOR08540-1	77	38	66	68	130	<b>78</b>	<b>6</b>	bc	48	27	49	21	58	71	82	<b>51</b>	<b>11</b>	e
	16	4	18	38	21	<b>15</b>	<b>7</b>		11	6	17	3	9	8	7	<b>9</b>	<b>10</b>	
7 AOR10204-3	43	29	74	58	53	<b>50</b>	<b>13</b>	cd	27	.	30	23	39	59	35	<b>35</b>	<b>13</b>	e
	8	4	13	35	8	<b>8</b>	<b>13</b>		6	.	7	4	6	7	3	<b>6</b>	<b>13</b>	
8 CO10085-1RU	234	13	114	62	196	<b>139</b>	<b>1</b>	a	61	62	70	145	236	152	124	<b>121</b>	<b>1</b>	a
	58	3	22	61	35	<b>29</b>	<b>1</b>		16	17	18	26	31	23	12	<b>20</b>	<b>2</b>	
9 CO11009-3RU	140	9	58	78	105	<b>78</b>	<b>6</b>	bc	50	56	58	60	70	71	62	<b>61</b>	<b>8</b>	de
	30	1	11	44	19	<b>15</b>	<b>7</b>		12	16	21	9	11	8	6	<b>12</b>	<b>8</b>	
10 CO12378-1RU	195	9	94	144	178	<b>119</b>	<b>3</b>	ab	58	93	83	107	121	172	130	<b>109</b>	<b>2</b>	ab
	51	1	21	90	34	<b>27</b>	<b>2</b>		15	35	27	20	25	31	14	<b>24</b>	<b>1</b>	
11 COA11013-2	128	24	128	131	200	<b>120</b>	<b>2</b>	ab	61	52	60	66	94	174	133	<b>92</b>	<b>3</b>	bc
	25	3	19	54	33	<b>20</b>	<b>3</b>		14	13	14	9	14	22	11	<b>14</b>	<b>7</b>	
12 OR12133-10	70	16	69	71	99	<b>63</b>	<b>10</b>	cd	50	48	31	36	54	113	62	<b>56</b>	<b>9</b>	de
	16	2	13	44	15	<b>11</b>	<b>10</b>		12	11	9	5	8	13	5	<b>9</b>	<b>10</b>	
13 POR12NCK50-1	20	26	30	43	21	<b>24</b>	<b>14</b>	d	54	73	61	38	13	46	19	<b>43</b>	<b>12</b>	e
	5	4	7	44	4	<b>5</b>	<b>14</b>		14	20	21	9	2	7	2	<b>11</b>	<b>9</b>	
14 TX13590-9Ru	55	14	81	119	85	<b>59</b>	<b>11</b>	cd	66	87	92	97	57	108	79	<b>84</b>	<b>4</b>	bcd
	11	2	10	37	12	<b>9</b>	<b>12</b>		14	21	30	15	9	11	7	<b>15</b>	<b>6</b>	
Location Means	101	27	75	83	112	<b>79</b>			53	68	58	61	79	104	79	<b>71</b>		
	23	4	15	48	20	<b>15</b>			13	22	19	11	12	15	8	<b>14</b>		

Means followed by the same letter are not significantly different at the 5% level using Student's t test.

<sup>1</sup>Springlake excluded from means.



TABLE 7: 2021 Western Regional Potato Variety Trial - SPECIFIC GRAVITY - EARLY AND LATE HARVEST

No. Clone	Specific Gravity - Early Harvest							Specific Gravity - Late Harvest								
	ID	OR	TX		WA	Entry		CA	CO	ID		OR	WA	Entry		
	PAR	HRM	DAL	SPR	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank	
1 CLEARWATER R.	1.077	1.077	1.076	1.065	1.082	<b>1.076</b>	<b>4 ab</b>	1.084	1.093	1.090	1.090	1.086	1.079	1.080	<b>1.086</b>	<b>4 bcd</b>
2 RANGER R.	1.077	1.073	1.077	1.067	1.075	<b>1.074</b>	<b>8 bc</b>	1.084	1.102	1.097	1.081	1.082	1.075	1.081	<b>1.086</b>	<b>4 bcd</b>
3 R. BURBANK	1.062	1.071	1.064	1.063	1.071	<b>1.066</b>	<b>12 d</b>	1.075	1.087	1.070	1.069	1.063	1.073	1.070	<b>1.072</b>	<b>12 g</b>
4 R. NORKOTAH	1.070	1.065	1.071	1.064	1.071	<b>1.068</b>	<b>10 d</b>	1.071	1.080	1.070	1.072	1.064	1.068	1.064	<b>1.070</b>	<b>13 g</b>
5 SHEPODY	1.070	1.073	1.060	1.067	1.068	<b>1.068</b>	<b>10 d</b>	.	1.093	.	.	.	.	.	.	.
6 AOR08540-1	1.077	1.075	1.079	1.075	1.080	<b>1.077</b>	<b>3 ab</b>	1.082	1.097	1.089	1.090	1.083	1.077	1.074	<b>1.085</b>	<b>6 cd</b>
7 AOR10204-3	1.071	1.065	1.059	1.066	1.071	<b>1.066</b>	<b>12 d</b>	1.070	.	1.084	1.076	1.072	1.073	1.070	<b>1.074</b>	<b>11 fg</b>
8 CO10085-1RU	1.084	1.076	1.070	1.078	1.081	<b>1.078</b>	<b>2 ab</b>	1.084	1.094	1.096	1.095	1.089	1.078	1.083	<b>1.088</b>	<b>3 abc</b>
9 CO11009-3RU	1.082	1.087	1.064	1.081	1.086	<b>1.080</b>	<b>1 a</b>	1.087	1.104	1.093	1.092	1.089	1.086	1.083	<b>1.091</b>	<b>1 a</b>
10 CO12378-1RU	1.080	1.083	1.068	1.070	1.080	<b>1.076</b>	<b>4 ab</b>	1.081	1.100	1.094	1.096	1.093	1.080	1.084	<b>1.090</b>	<b>2 ab</b>
11 COA11013-2	1.069	1.064	1.066	1.066	1.067	<b>1.066</b>	<b>12 d</b>	1.075	1.093	1.085	1.084	1.071	1.068	1.068	<b>1.078</b>	<b>10 f</b>
12 OR12133-10	1.068	1.070	1.072	1.064	1.075	<b>1.070</b>	<b>9 cd</b>	1.078	1.101	1.091	1.081	1.080	1.075	1.075	<b>1.083</b>	<b>8 de</b>
13 POR12NCK50-1	1.076	1.080	1.073	1.069	1.082	<b>1.076</b>	<b>4 ab</b>	1.085	1.098	1.089	1.087	1.076	1.076	1.080	<b>1.084</b>	<b>7 cde</b>
14 TX13590-9Ru	1.074	1.073	1.074	1.077	1.077	<b>1.075</b>	<b>7 ab</b>	1.077	1.099	1.089	1.081	1.074	1.074	1.071	<b>1.080</b>	<b>9 ef</b>
<b>Mean</b>	1.074	1.074	1.069	1.069	1.076	<b>1.073</b>		1.079	1.096	1.087	1.084	1.079	1.075	1.076	<b>1.082</b>	

Means followed by the same letter are not significantly different at the 5% level using Student's t test.

TABLE 8: 2021 Western Regional Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No. Clone	Average Tuber Size (oz)												Tuber Shape (1-5 length/width ratio:1=round,5=long)												Length/Width Ratio									
	Early Trial						Late Trial						Early Trial						Late Trial						Location Means <sup>1</sup>									
	ID	OR	TX	WA	CA	Mean	ID	OR	WA	CA	Mean	OR	TX	WA	CA	CO	Mean	ID	OR	WA	CA	CO	Mean	CA	CO	TX	ID	OR	WA					
	PAR	HRM	DAL	SP	ROTH	Mean	TUL	AB	KIM	PAR	HRM	OTH	Mean	HRM	DAL	SP	ROTH	Mean	TUL	SLV	AB	KIM	HRM	OTH	Mean	TUL	SLV	DAL	SPR	AB	KIM	PAR	HRM	OTH
1 CLEARWATER R.	4.3	6.7	5.3	2.1	5.0	<b>5.3</b>	4.9	5.5	7.2	5.9	4.4	7.4	<b>5.9</b>	3.5	4.3	3.5	3.0	<b>3.6</b>	4.5	4.0	3.5	3.9	3.0	3.3	<b>3.7</b>	1.75	1.90	1.76	1.79	1.75	1.74	1.76	1.73	1.68
2 RANGER R.	4.0	7.3	6.3	3.0	5.4	<b>5.7</b>	7.5	7.4	7.3	6.0	6.0	8.1	<b>7.0</b>	4.5	4.6	4.9	4.0	<b>4.5</b>	4.5	5.0	4.4	5.0	5.0	4.0	<b>4.7</b>	1.96	2.00	1.96	2.20	2.03	2.54	2.01	2.02	1.73
3 R. BURBANK	5.7	6.3	5.5	3.2	5.6	<b>5.7</b>	5.6	3.7	6.9	7.5	6.2	8.8	<b>6.5</b>	4.3	4.8	5.0	4.0	<b>4.5</b>	4.5	4.0	3.5	4.3	3.8	4.0	<b>4.0</b>	1.72	1.91	2.09	1.98	1.87	1.92	2.24	1.88	1.75
4 R. NORKOTAH	6.0	5.5	6.3	3.1	5.6	<b>5.8</b>	8.0	4.9	5.2	7.2	5.0	7.3	<b>6.3</b>	3.0	4.6	5.0	4.0	<b>4.2</b>	4.0	4.0	3.9	3.5	3.0	3.0	<b>3.6</b>	1.76	1.87	1.71	1.69	1.92	1.89	1.78	1.84	1.76
5 SHEPODY	4.3	11.3	6.6	3.6	5.1	<b>6.8</b>	.	.	.	.	.	.	.	4.0	4.6	5.0	4.0	<b>4.4</b>	.	4.0	.	.	.	.	.	.	1.95	1.83	1.70	.	0.00	2.57	1.71	1.92
6 AOR08540-1	5.7	7.2	6.3	3.3	5.1	<b>6.1</b>	6.3	5.4	10.0	7.4	6.5	8.3	<b>7.3</b>	4.3	4.6	5.0	4.0	<b>4.5</b>	4.5	4.0	3.8	3.9	5.0	4.0	<b>4.2</b>	1.87	1.85	1.93	2.03	1.86	1.78	2.00	1.99	1.93
7 AOR10204-3	6.7	7.8	6.8	3.5	7.0	<b>7.1</b>	7.7	8.2	9.2	8.5	6.5	9.3	<b>8.2</b>	3.8	4.3	4.5	3.0	<b>3.9</b>	4.0	.	4.0	3.6	5.0	3.0	<b>3.9</b>	1.74	.	1.66	1.92	1.85	1.66	1.79	1.98	1.74
8 CO10085-1RU	3.0	5.5	4.5	1.3	4.2	<b>4.3</b>	5.7	5.6	4.9	4.4	4.2	6.4	<b>5.2</b>	3.3	4.1	2.0	2.0	<b>2.8</b>	4.0	4.0	3.5	2.5	3.0	2.3	<b>3.2</b>	1.72	1.85	1.51	1.53	1.74	1.61	1.60	1.68	1.47
9 CO11009-3RU	4.7	6.7	6.9	3.2	5.3	<b>5.9</b>	6.3	5.2	7.0	6.9	6.6	8.1	<b>6.7</b>	2.8	4.6	5.0	3.0	<b>3.8</b>	4.0	4.0	4.0	4.1	4.0	3.0	<b>3.9</b>	1.76	1.91	2.04	2.04	1.78	1.90	1.93	1.68	1.69
10 CO12378-1RU	3.0	5.2	5.0	1.7	4.1	<b>4.3</b>	5.8	4.6	5.4	4.9	3.7	6.2	<b>5.1</b>	2.0	3.7	2.0	3.0	<b>2.7</b>	4.0	3.0	3.1	2.8	2.5	3.0	<b>3.1</b>	1.71	1.69	1.52	1.56	1.58	1.48	1.47	1.51	1.52
11 COA11013-2	4.7	4.7	5.7	2.5	4.3	<b>4.8</b>	5.8	6.1	6.9	5.4	4.4	6.5	<b>5.9</b>	4.3	4.4	4.0	4.0	<b>4.2</b>	4.0	5.0	3.9	3.3	5.0	4.0	<b>4.2</b>	1.80	2.09	1.81	1.79	1.70	1.67	1.89	2.11	2.09
12 OR12133-10	5.0	7.8	5.7	2.8	5.7	<b>6.0</b>	6.0	7.7	7.7	7.3	5.5	8.5	<b>7.1</b>	3.8	4.6	5.0	3.7	<b>4.3</b>	4.0	5.0	3.9	4.0	4.0	3.0	<b>4.0</b>	1.81	2.11	1.89	2.31	1.85	1.99	1.80	1.83	1.76
13 POR12NCK50-1	8.7	10.4	9.6	3.6	8.1	<b>9.2</b>	6.0	5.5	7.5	11.5	7.2	11.5	<b>8.2</b>	3.0	4.6	4.4	4.0	<b>4.0</b>	5.0	5.0	3.8	4.1	3.8	3.0	<b>4.1</b>	1.96	2.12	1.62	1.82	1.94	1.89	1.72	1.75	1.67
14 TX13590-9Ru	6.3	6.9	7.5	3.9	5.8	<b>6.6</b>	6.0	4.1	6.1	7.0	5.9	8.3	<b>6.2</b>	2.5	4.1	4.2	2.0	<b>3.2</b>	4.0	3.0	2.6	2.5	3.0	2.0	<b>2.9</b>	1.48	1.71	1.46	1.56	1.47	1.43	1.38	1.66	1.46
<b>Mean</b>	5.1	7.1	6.3	2.9	5.5	<b>6.0</b>	6.3	5.7	7.0	6.9	5.6	8.0	<b>6.6</b>	3.5	4.4	4.3	3.4	<b>3.9</b>	4.2	4.2	3.7	3.6	3.8	3.2	<b>3.8</b>	1.77	1.92	1.77	1.85	1.80	1.68	1.85	1.81	1.73

<sup>1</sup>Parma and Hermiston; combined means of Early Harvest and Later Harvest Trials.

<sup>2</sup>Washington reported means of 1.75 for Idaho samples and 1.61 for Oregon samples.

Springlake excluded from means.

**TABLE 9: 2021 Western Regional Potato Variety Trial - EXTERNAL DEFECTS MEANS OF LOCATIONS - GROWTH CRACKS, SECOND GROWTH, SHATTER BRUISE, SCAB AND GREENING<sup>1</sup>**

No. Clone	Growth Cracks		Second Growth		Shatter Bruise			Scab		Greening	
	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	Ab <sup>2</sup>	Early Trial	Late Trial	Early Trial	Late Trial
1 CLEARWATER R.	4.8	4.9	4.7	4.9	4.9	4.2	3.1	5.0	4.9	4.8	4.3
2 RANGER R.	4.6	4.0 PAR 2.7 OTH 2.8	4.1	3.7 SLV 2.0	4.9	4.5	2.6	4.8	4.6	4.8	4.3
3 R. BURBANK	4.2	3.8 OTH 1.0	2.7 SPR 2.5 DAL 1.7 OTH 1.0	2.9 SLV 1.0 AB 2.3 OTH 1.0	5.0	4.4	1.7	5.0	4.9	4.7	4.4
4 R. NORKOTAH	5.0	5.0	4.9	4.9	5.0	4.5	2.7	4.8	4.9	4.7	4.7
5 SHEPODY	4.2 PAR 3.3	.	2.9 SPR 2.6 DAL 1.9 PAR 2.7	.	4.9	.	.	4.7 PAR 3.7	.	3.1 PAR 3.0 OTH 2.5	.
6 AOR08540-1	4.9	4.8	4.6	4.5	4.9	4.0	1.8	5.0	4.7	4.0	3.2 AB 2.3 OTH 1.0
7 AOR10204-3	4.6	4.2	3.8	4.0	4.9	4.6	3.5	5.0	4.8	4.6	4.2
8 CO10085-1RU	4.9	4.2	4.0 DAL.2.2	4.9	5.0	4.1	3.5	4.8	4.8	4.8	4.5
9 CO11009-3RU	4.9	4.7	4.7	4.6	4.9	4.3	2.3	5.0	4.8	4.8	4.1
10 CO12378-1RU	4.9	4.8	4.8	4.9	4.3	2.8 OTH 1.0	2.4	5.0	4.9	4.9	4.7
11 COA11013-2	4.3 PAR 3.3	4.5	4.3	4.9	4.9	4.4	2.8	5.0	4.8	4.4	4.0 OTH 2.3
12 OR12133-10	4.9	5.0	4.7	4.7	4.7	3.7	2.8	4.8	4.6	4.1	3.8 AB 2.8
13 POR12NCK50-1	4.6 HRM 3.3	4.6	4.9	4.7	4.7	3.5 OTH 1.0	2.1	4.9	4.9	4.8	4.5
14 TX13590-9Ru	4.5	4.7	4.8	4.8	5.0	3.9	1.9	4.7 PAR 3.7	4.4 PAR 3.3	4.6	4.0 AB 2.9
<b>Mean</b>	4.7	4.6	4.3	4.5	4.8	4.1	2.5	4.9	4.8		

<sup>1</sup>All scores [1-5(none)]. Individual trial sites with relatively extreme values are listed to the right of the entry means.

<sup>2</sup>Aberdeen shatter scores reflect dropping from shatter chamber [1-5(none)].

**TABLE 10: 2021 Western Regional Potato Variety Trial - INTERNAL DEFECTS MEANS OF LOCATIONS - HOLLOW HEART/BROWN CENTER, INTERNAL BROWN SPOT, VASCULAR DISCOLORATION/NET NECROSIS, AND BLACKSPOT<sup>1</sup>**

No. Clone	Percent Hollow Heart Plus Brown Center		Percent Internal Brown Spot		Percent Net Necrosis/Vascular Discoloration		Blackspot Bruise [(1-5(NONE))]			ID <sup>2</sup>
	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial		
1 CLEARWATER R.	1	1	2	1	2	8 OTH 30	4.5	4.5		3.1
2 RANGER R.	0	0	2	3	7 HRM 13	11 TUL 20 OTH 18 HRM 28	4.3 HRM 2.0	3.9		2.5
3 R. BURBANK	11 HRM 40	3 HRM 13	2	4 HRM 15	2	10 TUL 40 OTH 14	4.3 HRM 2.0	3.9	HRM 1.5	2.3
4 R. NORKOTAH	1	1	1	1	3	5 OTH 26	4.6	4.9		2.3
5 SHEPODY	2	0	3	.	17 HRM 28 SPR 37	.	4.5	4.9	.	.
6 AOR08540-1	28 PAR 33 DAL 70 SPR 27	8 AB 15 PAR 20	1	0	0	2	4.5	4.2 HRM 2.5	2.0	
7 AOR10204-3	5	1	4 HRM 15	1	4	1	4.9	4.3		3.7
8 CO10085-1RU	0	1	1	0	3	6 TUL 20 OTH 13	4.4	4.3		3.1
9 CO11009-3RU	8 DAL 20	11 AB 23 PAR 27 OTH 14	6 HRM 23	8 HRM 35	2	3	4.3 HRM 2.0	3.9	HRM 2.0	3.0
10 CO12378-1RU	3	8 TUL 30 PAR 17	0	2	3	0	4.8	4.4		2.6
11 COA11013-2	1	1	15 HRM 50 PAR 17	11 OTH 33	22 HRM40 OTH&SPR 17	20 TUL 30 PAR 27 OTH 22 HRM 40	4.5	4.3 HRM 2.5	2.6	
12 OR12133-10	0	1	5 HRM 18	4 PAR 13	11 DAL 27	9 TUL 30 OTH 13	4.8	4.2 HRM 2.5	2.3	
13 POR12NCK50-1	3	1	2	0	2	3	4.4 HRM 2.5	4.3		2.5
14 TX13590-9Ru	27 PAR 53 DAL 50 SPR 33	5 PAR 30	1	1	7 HRM 15	3 HRM 15	4.4 HRM 2.5	3.8	HRM 1.5	2.0
<b>Entry Means</b>	6	3	3	3	6	6	4.5	4.3		2.6

<sup>1</sup>All scores [1-5(none)]. Individual trial sites with relatively extreme values are listed to the right of the entry means.

<sup>2</sup>Aberdeen and Kimberly Idaho; blackspot scores reflect abrasive peel test [1-5(none)].

**TABLE 11: 2021 Western Regional Potato Variety Trial - FRENCH FRY COLOR (00-4.0(darkest)) AND PERCENT SUGAR ENDS**

No. Clone	Field Fry				Fry 45				Fry 40		% Sugar Ends <sup>1</sup>		
	CO	OR	WA	Entry Mean	CO	OR	WA	Entry Mean	OTH L	Entry Mean	OR		Entry Mean
	SLV L	HRM E	OTH L		SLV L	HRM L	OTH L				HRM E	L	
1 CLEARWATER R.	1	0	0	<b>0.3</b>	0	0	1	<b>0.3</b>	4.0	<b>4.0</b>	4	0	<b>2</b>
2 RANGER R.	2	0	2	<b>1.3</b>	2	0	3	<b>1.3</b>	4.0	<b>4.0</b>	0	4	<b>2</b>
3 R. BURBANK	2	0	.	<b>1.0</b>	1	0	.	<b>0.3</b>	.	.	8	0	<b>4</b>
4 R. NORKOTAH	2	0	0	<b>0.7</b>	2	1	1	<b>1.0</b>	3.0	<b>3.0</b>	0	8	<b>4</b>
5 SHEPODY	1	0	.	<b>0.5</b>	2	.	.	<b>1.0</b>	.	.	8	.	<b>8</b>
6 AOR08540-1	1	0	0	<b>0.3</b>	1	1	2	<b>1.0</b>	4.0	<b>4.0</b>	8	<b>21</b>	<b>15</b>
7 AOR10204-3	.	0	0	<b>0.0</b>	.	0	1	<b>0.3</b>	3.0	<b>3.0</b>	8	8	<b>8</b>
8 CO10085-1RU	2	0	0	<b>0.7</b>	1	0	1	<b>0.5</b>	4.0	<b>4.0</b>	0	8	<b>4</b>
9 CO11009-3RU	1	0	0	<b>0.3</b>	0	0	1	<b>0.3</b>	4.0	<b>4.0</b>	0	0	<b>0</b>
10 CO12378-1RU	0	0	.	<b>0.0</b>	0	0	.	<b>0.0</b>	.	.	0	4	<b>2</b>
11 COA11013-2	0	0	0	<b>0.0</b>	1	0	3	<b>1.0</b>	4.0	<b>4.0</b>	4	0	<b>2</b>
12 OR12133-10	1	0	1	<b>0.7</b>	1	0	1	<b>0.5</b>	3.0	<b>3.0</b>	0	8	<b>4</b>
13 POR12NCK50-1	1	0	0	<b>0.3</b>	1	0	1	<b>0.5</b>	4.0	<b>4.0</b>	0	0	<b>0</b>
14 TX13590-9Ru	2	0	0	<b>0.7</b>	1	0	0	<b>0.2</b>	3.0	<b>3.0</b>	0	4	<b>1</b>
<b>Mean</b>	1.2	0.0	0.3	<b>0.5</b>	1.0	0.2	1.4	<b>0.6</b>	3.6	<b>3.6</b>	3	5	<b>4</b>

<sup>1</sup> Evaluations from 45F.

Storage protocol prior to frying

**Aberdeen** - 1 week from 50F to 45F; 2 weeks from 50F to 40F; and 8 weeks @ 45F and 10 weeks @ 40F.

**Hermiston** - 2 weeks from 55F to 47 F, and 8 weeks @ 47F.

**Kimberly** - 1 week from 50F to 45F; 2 weeks from 50F to 40F; and 6 weeks @ 45F and 8 weeks @ 40F.

**Othello** - 3 weeks from 55F to 44F and 60 days @ 44F and 40F.

**San Luis Valley** - 4 weeks from 55F to 45F, and 9 weeks @ 45.

\* Comprehensive post harvest evaluations of entries can be found in the 2021 Potato Cultivar Yield & Post Harvest Quality Evaluations - Washington State University. Contact: Jake Blauer [www.potatoes.wsu.edu](http://www.potatoes.wsu.edu)

TABLE 12: 2021 Western Regional Potato Variety Trial - Washington State University Postharvest Storage Trials - FRENCH FRY COLOR

No.	Clone	PRIOR TO STORAGE*				48°F, 60 days*				44°F, 60 days*				40°F, 60 days*				RECONDITIONED*				BLANCHED			
		WA	ID	OR	Mean	WA	ID	OR	Mean	WA	ID	OR	Mean	WA	ID	OR	Mean	WA	ID	OR	Mean	WA	ID	OR	Mean
1	CLEARWATER R.	0	0	0	0.0	0	0	0	0.0	1	0	0	0.3	3	0	1	1.3	1	0	1	0.7	1	0	0	0.3
2	RANGER R.	1	0	0	0.3	1	0	0	0.3	2	0	1	1.0	4	2	3	3.0	2	0	3	1.7	2	1	2	1.7
3	R. BURBANK	1	2	1	1.3	2	1	1	1.3	3	2	2	2.3	4	3	4	3.7	3	2	3	2.7	3	2	3	2.7
4	R. NORKOTAH	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	SHEPODY	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	AOR08540-1	1	2	0	1.0	2	2	1	1.7	4	2	3	3.0	4	4	4	4.0	3	4	3	3.3	3	3	2	2.7
7	AOR10204-3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
8	CO10085-1RU	1	1	0	0.7	1	0	0	0.3	2	0	1	1.0	0	2	2	1.3	2	0	3	1.7	3	1	1	1.7
9	CO11009-3RU	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
10	CO12378-1RU	0	.	0	0.0	0	.	0	0.0	0	.	0	0.0	0	.	0	0.0	0	.	0	0.0	0	.	0	0.0
11	COA11013-2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12	OR12133-10	1	0	0	0.3	1	0	0	0.3	3	0	1	1.3	4	1	3	2.7	3	0	2	1.7	3	0	1	1.3
13	POR12NCK50-1	0	0	0	0.0	0	0	0	0.0	1	0	0	0.3	4	2	3	3.0	2	1	2	1.7	2	1	1	1.3
14	TX13590-9Ru	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
<b>Mean</b>		0.6	0.6	0.1	0.4	0.8	0.4	0.2	0.4	1.8	0.5	0.9	1.0	2.6	1.8	2.2	2.1	1.8	0.9	1.9	1.5	1.9	1.0	1.1	1.3

\*Reconditioned - 21 days at 60 F following 60 days at 40 F; Samples from all states stored together at WSU

\*USDA values - 0 (light) to 4 (dark); 12 tubers per sample

TABLE 13: 2021 Western Regional Potato Variety Trial - DISEASE EVALUATION AND METRIBUZIN REACTION

No.	Clone	Vert. Wilt/ Early Dying		Early Blight AB <sup>1</sup>		Late Blight Corvallis <sup>4</sup>			Common Scab AB <sup>1</sup>			Prosser		Fusarium		Soft	Metribuz.		
		AB <sup>1</sup>		HRM <sup>2</sup>		Foliar		Tuber	HRM	% Serious	Corky Ringspot		Dry Rot <sup>1</sup> (0-5)	Rot <sup>1</sup>	React. <sup>6</sup>				
		(0-9)	AUDPC	(0-9)	AUDPC	(0-9)	AUDPC	(1-9)	AUDPC	%	%PVY	Incid.	Defect	% Incid.		DSI <sup>5</sup>	F(sam)	(0-5)	AB
1	CLEARWATER R.	6.0	290	4.6	602	3.7	88	7.5	983	4	95	2	2	0	0	R	4.3	3.2	R
2	RANGER R.	7.0	666	5.8	848	3.7	90	8.5	1206	8	95	74	57	13	10	S	3.3	3.3	R
3	R. BURBANK	8.7	1055	8.6	1841	3.0	68	9.0	1247	18	.	3	2	13	5	MR	4.0	3.9	MR
4	R. NORKOTAH	9.0	1315	7.8	1731	3.0	102	9.0	1301	6	40	11	4	8	2	MR	2.1	2.8	R
5	SHEPODY	7.7	733	.	.	4.3	168	9.0	1283	5	.	42	23	10	5	MR	3.5	2.6	.
6	AOR08540-1	6.7	639	4.7	697	3.0	51	5.5	629	1	65	11	2	.	.	.	4.2	3.3	R
7	AOR10204-3	6.0	308	4.7	664	4.3	98	5.8	553	5	65	0	0	0	0	R	4.3	4.0	MR
8	CO10085-1RU	4.3	178	5.2	613	3.3	103	6.5	860	5	0	49	17	0	0	R	4.1	2.2	VS
9	CO11009-3RU	7.0	532	5.3	690	3.7	145	7.8	1008	3	50	36	13	4	3	MR	3.1	2.9	S
10	CO12378-1RU	6.7	486	5.2	917	4.7	235	8.0	1117	3	10	3	2	0	0	R	3.9	2.5	MS
11	COA11013-2	6.0	340	4.3	554	5.3	243	8.0	1175	4	55	22	0	5	2	MR	3.9	2.5	R
12	OR12133-10	6.0	338	4.3	485	2.7	35	5.8	556	3	90	42	17	5	4	MR	3.7	3.3	MR
13	POR12NCK50-1	8.0	703	7.4	1216	3.0	54	7.5	993	4	45	17	5	4	4	MR	4.3	4.7	S
14	TX13590-9Ru	8.3	1055	6.2	803	5.3	272	.	.	.	65	39	26	2	0	R	3.3	4.0	MR
<b>Entry Means</b>		7.0	617	5.7	897	3.8	125	7.5	993	5	56	25	12	5	3		3.7	3.2	
<b>LSD (.05)</b>								<b>1.0</b>	<b>260</b>	<b>9</b>		<b>24</b>	<b>17</b>				<b>0.8</b>	<b>1.3</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.

AUDPC: Area Under the Disease Progress curve based on foliar readings taken 103, 110, and 118 days after planting.

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

For 0 to 5: 0=0%/none; 5=100%/severe as a combination of tuber area and degree impacted by Fusarium and Pectobacterium inoculations.

<sup>2</sup> Evaluations made at Hermiston, Oregon; scale as indicated with highest number being most severe. Readings 120 days after planting. AUDPC based on foliar readings taken 91, 106, and 121 days after planting.

<sup>4</sup> Evaluations made at Corvallis, Oregon by Solomon Yilma;

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.

<sup>5</sup> Visual readings made at Prosser, Washington by Rich Quick and Launa Cimrhakl: tubers cut lengthwise, quartered and scored (0-8) based on the number of wedge sides affected. Disease Severity Index (DSI) was calculated for each replication by summing the scores (S) of each tuber evaluated (T) and dividing that number by the number of tubers evaluated multiplied by 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+%)

<sup>6</sup> Evaluations made at Aberdeen, Idaho; R=Resistant, MR=Moderately Resistant, S=Susceptible, MS=Moderately Susceptible, VS=Very Susceptible

**TABLE 14: 2021 Western Regional Potato Variety Trial - SOLIDS, DEXTROSE, SUCROSE, PROTEIN, VITAMIN C,  
AND GLYCOALKALOIDS - ABERDEEN**

No. Clone	Solids Oven Dry %	Sugars		Protein (%DWB) <sup>1</sup>	Vitamin C (mg/100g FWB) <sup>1</sup>	Texas <sup>2</sup>		Glycoalkaloids <sup>5</sup> (mg/100g FWB) <sup>1</sup>
		Dextrose (%FWB) <sup>1</sup>	Sucrose (%FWB) <sup>1</sup>			µg Trolox equivalents/gfw <sup>3</sup>	AOA Levels <sup>4</sup>	
1 CLEARWATER R.	23.3	0.02	0.12	6.6	26.8	137.5	L	2.1
2 RANGER R.	23.8	0.03	0.18	6.2	28.3	187.3	M	3.7
3 R. BURBANK	12.9	0.03	0.10	4.5	13.3	155.4	M	0.9
4 R. NORKOTAH	18.3	0.07	0.10	5.3	21.1	170.9	M	1.2
5 SHEPODY	.	.	.	.	.	107.4	L	.
6 AOR08540-1	21.5	0.05	0.16	5.6	20.1	115.5	L	1.3
7 AOR10204-3	19.4	0.08	0.18	6.6	18.0	112.4	L	1.4
8 CO10085-1RU	24.3	0.04	0.13	5.8	24.7	146.7	M	8.8
9 CO11009-3RU	23.1	0.02	0.08	6.9	22.1	130.0	L	1.0
10 CO12378-1RU	23.8	0.01	0.12	6.1	22.3	126.9	L	1.3
11 COA11013-2	20.8	0.06	0.13	5.6	29.3	350.2	H	6.0
12 OR12133-10	21.5	0.06	0.18	5.5	26.7	351.2	H	4.2
13 POR12NCK50-1	21.1	0.01	0.11	6.5	21.9	327.9	H	1.9
14 TX13590-9Ru	23.5	0.01	0.09	6.1	20.3	199.0	M	2.3
<b>Mean</b>	<b>21.3</b>	<b>0.04</b>	<b>0.13</b>	<b>5.9</b>	<b>22.7</b>	<b>187.0</b>		<b>2.8</b>

<sup>1</sup> DWB = Dry Weight Basis; FWB = Fresh Weight Basis

<sup>2</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 methonal 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>3</sup> µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation:  $y = -0.2253x + 242.6$

<sup>4</sup> VH=very high (>424), H=high (271-389), M=medium (141-242), L=low (86-137), VL=very low (<64) n=64 including nine check varieties

<sup>5</sup> Glycoalkaloids: The 2021 Lenape check grown at Aberdeen was 53.7 mg/100g



TABLE 15: 2021 Western Regional Potato Variety Trial - MERIT SCORES [1-5(best)]

No. Clone	Post-Harvest																							
	Process										Fresh Merit													
	CO		OR		WA		Early Trial		Late Trial		WA <sup>1</sup>	CA	CO		ID		OR		TX		WA		Early Trial	Late Trial
	SLV	HRM	OTH	OTH	E	L	Mean(Rnk)	Mean(Rnk)	3 State	Mean	TUL	SLV	AB	KIM	HRM	DAL	SPR	OTH	E	L	Mean(Rnk)	Mean(Rnk)		
L	E	L	E	L						L	L	L	L	E	L	E	E	E	L					
1 CLEARWATER R.	5.0	3.0	3.0	3.0	4.2	3.0	6	3.1	1	3.7	4.0	4.0	2.9	2.8	2.5	2.0	4.3	3.5	2.8	2.5	3.2	5	3.0	3
2 RANGER R.	5.0	2.5	2.0	2.4	2.8	2.5	8	2.4	6	3.0	3.0	5.0	1.8	1.8	2.0	1.5	3.9	3.6	1.4	0.6	2.5	11	2.3	11
3 R. BURBANK	4.0	2.0	2.0	1.2	1.1	1.6	13	1.8	12	1.9	4.0	3.0	1.1	1.4	1.5	2.0	3.5	2.9	0.7	0.6	1.9	14	2.0	14
4 R. NORKOTAH	1.0	2.0	1.0	2.7	2.0	2.4	9	1.0	14	na	4.0	1.0	2.8	3.0	2.5	2.5	4.6	4.2	3.4	3.1	3.5	4	2.7	6
5 SHEPODY	3.0	2.5	.	1.4	.	1.9	12	3.0	2	.	.	2.0	.	2.4	1.5	.	4.0	3.3	na	.	2.8	7	2.2	12
6 AOR08540-1	5.0	3.0	2.0	3.2	2.4	3.1	4	2.4	6	2.4	3.5	4.0	2.8	2.5	2.5	2.0	4.0	3.5	1.3	1.1	2.6	10	2.6	8
7 AOR10204-3	.	2.5	2.0	3.9	3.4	3.2	3	1.8	12	na	3.5	.	2.4	1.6	3.0	2.5	4.0	3.6	4.9	2.5	3.9	1	2.5	10
8 CO10085-1RU	5.0	2.5	2.0	2.0	1.6	2.3	10	2.1	8	2.9	3.0	4.0	2.6	2.9	2.5	2.0	3.5	2.0	0.7	1.3	2.2	12	2.6	8
9 CO11009-3RU	5.0	3.0	2.0	3.7	4.4	3.4	2	2.9	3	4.6	4.0	4.0	3.3	2.4	2.5	2.5	4.6	3.7	2.5	2.4	3.2	5	3.1	1
10 CO12378-1RU	4.0	1.5	1.5	1.7	2.9	1.6	13	2.1	8	4.2	4.0	2.0	2.6	3.8	1.5	2.0	3.7	3.3	1.3	2.0	2.1	13	2.7	6
11 COA11013-2	5.0	2.0	1.5	2.1	1.7	2.0	11	2.1	8	na	2.5	5.0	3.6	2.8	2.5	1.5	4.3	3.9	1.3	1.3	2.7	9	2.8	5
12 OR12133-10	5.0	3.0	2.5	3.0	3.6	3.0	6	2.8	4	2.9	2.5	5.0	2.9	2.8	2.5	2.5	4.1	4.3	1.8	2.1	2.8	7	3.0	3
13 POR12NCK50-1	5.0	3.0	2.5	3.9	3.0	3.5	1	2.6	5	3.4	3.5	4.0	2.8	2.5	3.0	3.0	3.8	3.9	4.6	3.0	3.8	2	3.1	1
14 TX13590-9Ru	5.0	2.5	2.5	3.8	3.1	3.1	4	2.1	8	na	2.0	4.0	2.6	0.0	2.5	2.5	4.7	4.5	3.5	1.9	3.6	3	2.2	12
<b>Mean</b>	4.4	2.5	2.0	2.7	2.8	2.6	7	2.3	6.9	3.2	3.3	3.6	2.6	2.3	2.3	2.2	4.1	3.6	2.3	1.9	2.9	7.4	2.6	

<sup>1</sup> Score based upon Idaho, Oregon, and Washington Late Trial samples evaluated postharvest at Washington State University. ([www.potatoes.wsu.edu](http://www.potatoes.wsu.edu)) Scale [1-5(best)]

TABLE 16: 2021 Western Regional Potato Variety Trial - ENTRY SUMMARY1

Entry No.Clone	Year In Use Trial	Total Yield <sup>2</sup>	US #1's Yield <sup>2</sup>	US #1's <sup>2</sup>	Tuber Size (oz)		Specific Gravity <sup>2</sup>	Fry45 Color	Combine(E&L) Merit Score <sup>3</sup>		Observations	Disp. 2022
					Early	Late			Process	Fresh		
1 CLEARWATER R.	- Dual	552	444	79	5.3	5.9	1.086	0.3	3.0	3.0		Check
2 RANGER R.	- Dual	611	370	64	5.7	7.0	1.086	1.3	2.5	2.4		Check
3 R. BURBANK	- Fresh	520	306	59	5.7	6.5	1.072	0.3	1.7	1.9		Check
4 R. NORKOTAH	- Dual	448	349	72	5.8	6.3	1.070	1.0	1.5	3.0		Check
5 SHEPODY	- Proc	517	310	60	6.8	.	1.068	1.0	2.3	2.6		Check
6 AOR08540-1	2 Dual	643	450	72	6.1	7.3	1.085	1.0	2.6	2.6	Longer tuber shape (E&L); Tuber Greening (L); Hollow heart (E&L); Higher Sugar Ends @ OR (L); MR to Late Blight	Return
7 AOR10204-3	1 Dual	674	518	75	7.1	8.2	1.074	0.3	2.4	3.1	High Total & US Yield (E&L); Larger tuber size with high % and yield of oversize (E & L); Lower Specific Gravity (E&L); MR to Late Blight; Resistant to common scab; Resistant to Corky Ringspot; High Process&Fresh Merit (E)	Return
8 CO10085-1RU	2 Dual	596	430	72	4.3	5.2	1.088	0.5	2.2	2.4	Low Total & US Yield (E); Smaller tuber size with high % and yield of undersize (E & L); Higher Specific Gravity (E&L); Rounded tuber shape (E&L); Cold-sweetening resistant; Resistant to Vert/Early Die; Susceptible to common scab; Resistant to Corky Ringspot; Very susceptible to metribuzin	Return
9 CO11009-3RU	2 Dual	610	481	78	5.9	6.7	1.091	0.3	3.0	3.1	Higher Specific Gravity (E&L); Hollow heart (L); Cold-sweetening resistant; Susceptible to common scab; Higher merit for processing (E&L) and fresh (L); Highest 3-State Post-Harvest Processing Merit; Susceptible to metribuzin	Return
10 CO12378-1RU	1 Fresh	491	370	71	4.3	5.1	1.090	0.0	1.9	2.5	Low Total & US Yield (E&L); Smaller tuber size with high % and yield of undersize (E & L); Rounded tuber shape (E&L); Shatter bruise (E & L); Hollow heart (L); Cold-sweetening resistant; Resistant to common scab; Resistant to Corky Ringspot;	Discard
11 COA11013-2	1 Proc	653	506	78	4.8	5.9	1.078	1.0	2.0	2.9	Smaller tuber size with high yield of undersize (E & L); Internal Brown Spot ((E&L); Net Necrosis/Vascular Discoloration (E&L); Higher Vitamin C and antioxidant levels	Discard
12 OR12133-10	3 Dual	670	553	82	6.0	7.1	1.083	0.5	2.8	3.1	High Total & US Yield (E&L); Net Necrosis/Vascular Discoloration (E&L); Shatter Bruise (L); MR to Late Blight; Susceptible to common scab; Higher Vitamin C and antioxidant levels; Higher Fresh Merit (L)	GRAD
13 POR12NCK50-1	3 Dual	490	406	81	9.2	8.2	1.084	0.5	2.9	3.4	Low Total Yield (E&L); Larger tuber size with high % of oversize (E & L); Shatter Bruise (L)-Othello being primary contributing site; High Process and Fresh Merit (E) and Fresh merit (L); Susceptible to metribuzin	GRAD
14 TX13590-9Ru	2 Proc	658	531	78	6.6	6.2	1.080	0.2	2.4	2.9	High Total & US Yield (E&L); Rounded tuber shape (E&L); Susceptible to Vert/Early Die; Susceptible to common scab; Resistant to Corky Ringspot; High Fresh Merit (E)	GRAD
<b>Mean</b>		<b>581</b>	<b>430</b>	<b>73</b>	<b>6.0</b>	<b>6.6</b>	<b>1.081</b>	<b>0.6</b>	<b>2.4</b>	<b>2.8</b>		

<sup>1</sup> Numeric values represent means across all trial locations.

<sup>2</sup> Data shown from late trial results unless early trial entry only. (Entry 5)

<sup>3</sup> Data shown from combined early & late trial results.

TABLE 17: 2021 Western Regional Potato Variety Trial - 3 YEAR SUMMARY OF GRADUATING ENTRIES - LATE TRIAL LOCATION MEANS

Clone	2019						2020						2021					
	Total Yield <sup>1</sup> &(rank)	US #1 Yield <sup>1</sup> & %	SG	Fry 45	Merit Score Fresh	Proc	Total Yield <sup>1</sup> &(rank)	US #1 Yield <sup>1</sup> & %	SG	Fry 45	Merit Score Fresh	Proc	Total Yield <sup>1</sup> &(rank)	US #1 Yield <sup>1</sup> & %	SG	Fry 45	Merit Score Fresh	Proc
OR12133-10	806 (1/18)	673 83	1.087	1.4	2.8	2.9	737 (2/16)	655 88	1.084	0.6	3.3	3.5	670 (2/13)	553 75	1.083	0.5	3.1	2.8
POR12NCK50-1	576 (7/18)	501 85	1.089	0.5	3.0	3.5	554 (12/16)	480 86	1.087	0.5	3.5	3.9	490 (12/13)	406 81	1.088	0.5	2.4	2.2
CLEARWATER R.	.	.	.	.	.	.	608 (7/16)	512 83	1.090	0.4	2.9	3.3	552 (8/13)	444 64	1.086	0.3	3.0	3.1
R. BURBANK	554 (10/18)	403 71	1.081	1.9	1.8	2.4	576 (11/16)	397 68	1.078	1.3	2.1	2.3	520 (10/13)	306 72	1.072	0.3	2.0	1.8
RANGER R.	575 (8/18)	449 77	1.087	0.8	2.3	2.8	606 (8/16)	465 76	1.084	0.5	2.2	2.8	611 (6/13)	370 59	1.086	1.3	2.3	2.4
<b>Trial Mean</b>	559	451 79	1.085	1.2	2.6	2.8	589	470 79	1.085	0.6	2.7	3.0	586	440 74	1.082	0.6	2.6	2.3

## 3 Year Average (2019-2021)

Clone	Total Yield <sup>1</sup> &(rank) <sup>2</sup>	US #1 Yld <sup>1</sup> %	SG	FRY 45	Merit Score Fresh	Proc	Noted Weaknesses	Noted Strengths
	OR12133-10	738 (89)	627 82	1.085	0.8	3.1	3.1	Shatter Bruise (L)-3/3 years; Net Necrosis/Vascular Discoloration (L)-2/3 years; Susceptible to Metribuzin-2/3 years
POR12NCK50-1	540 (31)	462 84	1.088	0.5	3.0	3.2		High Early Fresh Merit (3/3 years) and Late Fresh Merit (2/3 years); High Early Process Merit (2/3 years)
CLEARWATER R.	580 (32)	478 74	1.088	0.3	3.0	3.2		<sup>1</sup> (CWT/A)
R. BURBANK	550 (33)	369 70	1.077	1.2	2.0	2.2		<sup>2</sup> Percent of entries with lower yields; e.g. 89% of all late trial entries over three years yielded lower than OR12133-10
RANGER R.	597 (53)	428 71	1.086	0.9	2.3	2.7		
<b>Trial Mean<sup>3</sup></b>	578	454 77	1.084	0.8	2.6	2.7		<sup>3</sup> Late Trial means of all trial entries 2019 - 2021.

TABLE 18: 2021 Western Regional Potato Variety Trial - ENTRY COMMENTS - EARLY HARVEST

		Entry Comments - Early Harvest				
No Clone	ID PAR	TX DAL	TX SPR	OR' HRM	WA OTH	
1	Clearwater Russet	blocky	impressive yield, high tuber number, BOT+, good size and shape, bulging eyes, a little skinny	heat sprouts, knobs, many small tubers+, not uniform skin russeting, pointed, many short tubers, nice shape. high tuber number. it likely needs more	dotty-pixel x4, skinning x3, typy x3, flakey x2, flat x2	Smooth shape, medium russet, typy.
2	Ranger Russet	curved	knobs, rugged, high tuber number, good yield, nice size and shape, deep eyes+	large, long, light skin, deep eyes, rough	curvy x3, bottle x2, GC x2, irregular x2, deep eyes x2	Variable shape and size, good length, some points.
3	Russet Burbank	skinning,pointed, ugly	knobs++ growth cracks, high tuber number, quite good plot for Russet Burbank in Texas	many knobs++, growth cracks, long, pointed,ugly, misshapen	curvy x3, knobs x2, nipple x2, irregular x2, bottle x2, db x2, rot x2	Lots of knobs, rough shapes.
4	Russet Norkotah	blocky	BOT+, Impressive, high tuber number+, high yield+, intense russet skin, very nice, good russet skin, good size and shape+	heavy russet skin+, long, nice, BOT+, very high tuber number, good size and shape, nice, soft stem ends	tuberworm x3, pty x3, typy x4	Typy, dark russet, good length.
5	Shepody	skinning, ugly	impressive high yield, high tuber number, knobs++, rotten tubers, smooth skin+	very large, many knobs+, heat sprouts+, cracks, smooth skin, growth cracks, bad shape	irregular x4, curvy x2, rot x3, ugly x2, spr x2, greening x2, nipple x3, db x2	Ugly shape, light skin, skinny.
6	AOR08540-1	blocky	good shape, good skin, pointed+, HH, long	nice russet skin, pointed+, heals dark, long, large, light sprouts	pty x3, curvy x4, knobs x2, flakey x2, spr x2	Irregular shapes, good length, smaller.
7	AOR10204-3	blocky	very high tuber number+, high yield, knobs++, heavy russet+, wide eyes	nice russet skin, big eyes, pointed++, large, nice, knobs, many rotten	pixel x2, typy x2, pty x2, nipple x4	Larger, mostly typy, dark russeting.
8	CO10085-1RU	non-uniform, irregular shape	very high yield, knobs++, heat sprouts+, pointed++, peeping, drop, many issues, linked tubers	very small, roundish, extreme sprouting, chained tubers+, very small	pixel x2, rot x3, short x2, flat x3	Small, short, medium russet, swollen lenticils
9	CO11009-3RU	blocky, curved	amazing, high tuber number+, high yield+, good shape+, good russet skin+, nice, skinny	good shape, bulky, very nice shape	blocky x2, short x4, FSE x2, skinning x2	Mostly typy, medium to dark russet.
10	CO12378-1RU	non-uniform, irregular shape	high proportion of smalls,	small+, oval+, intense russet skin++, few eyes, tough to cut, high tuber number	short x4, R x3, pixel x2, sticky x2	Heavy russet, good skin set, small, typy.
11	COA11013-2	stem end,patchy russet,alligator hyde	very high yield+, nice skin, good shape, high tuber number+, blocky, knobs++, growth cracks	knobs+, growth cracks, nice size and shape+, bulky, many tubers,	flakey x3, pty x3, curvy x2, thin x3, bottle x2	Variable shape and size, some curves.
12	OR12133-10	pointed	smooth skin+, high tuber number++, high yield++, good shape, long, excellent yield, high percent of large, BOT, smooth skin	large, good shape, size, nice, smooth skin+, enlarged lenticils+ (very wet field), nice, long, skinnv. high tuber number. BOT	typy x4, nice x4	Good length, light feathery skin.
13	POR12NCK50-1	blocky	deep eyes, pointed, very high yield, rough, heavy russet skin+, very large tubers	nice, intense russet skin+, bulky, good size and shape	pixel x2, blocky x4, nice x3, pty x4, pr. Eyes x2, GC x3	Looks like Russet Norkotah, typy, dark russet.
14	TX13590-9Ru	non-uniform, irregular shape	extraordinary yield+, very high tuber number+, very high yield, good shape+, scab	BOT+, bulky, hollow heart (minor), many tubers, very nice shape and size+, high tuber number	blocky x3, pty x4, skinning x2, rot x2, short x2	Short, some round, uniform shape.

TABLE 19: 2021 Western Regional Potato Variety Trial - ENTRY COMMENTS - LATE HARVEST

No. Clone	Entry Comments - Late Harvest						
	CA TUL	CO SLV	AB	ID <sup>1</sup> KIM	PAR	OR <sup>1</sup> HRM	WA OTH
1 Clearwater Russet	.	.	Little flat (3); points (2); few bulging eyes, few legs	Type (3); uniform, good russet (2)	alligator hyde, blocky	dotty-pixel x4, flat x4, sticky x3, typy x3	Uniform shape and size, nice skin.
2 Ranger Russet	banana shaped	.	Misshapen (4); points (3); curves, knobs, deep eyes (2)	Not uniform, curves ugly (3); bumps (2)	curved	curvy x4, pty x3, db x4, bottle x3, rot x2	Long, skinny, mostly mishapen.
3 Russet Burbank	rup lenticels	.	Knobs (4); low yield, small (3)	Not uniform, misshapen, ugly (3); points (2)	pointed	rot x3, pty x3, db x3, bottle x3, curvy x3	Long, skinny, dumb bells, knobs, cracks, ugly.
4 Russet Norkotah	.	.	Small, low yield (3); nice shape (2)	Small, good russet (4); uniform, nice shape (2)	alligator hyde	typy x4, nice x3, pty x3	Eye appeal. Uniform shape, nice skin.
5 Shepody	.	.	.	.	.	.	.
6 AOR08540-1	dark russet	Pink inside	Points (3); type, curves (2) good eye	Good russet type (4); few bulging eyes, few points (2);	pear shape, pointed	curvy x3, db x3, bottle x3, flakey x2	Bad greening, shape extremely variable
7 AOR10204-3	pointy, rhizoc	.	Points (4); some shatter, misshapen, curves (2)	Type (4); bigger, alligator hide (2)	average	db x2, bottle x3, GC x3, typy x3, nipple x3, skinning x2, spr x2	Ugly skin, some elephant hide on bud end.
8 CO10085-1RU	lumpy	Deep eyes	Points (4); type (3); few split ends	Smaller, round with some long (4); not unifrom (2); dumbbells	dumbbell, ugly	short x3, pear x2, spr x3, dotty-pixel x2, sticky x2, lenticels x3	Many round or short, too round for WA.
9 CO11009-3RU	blocky	Nice	Uniform (3); slight shatter, small, short (2);	Bumps, curves (3); few legs, type (2)	pointed	pixel x4, blocky x3, typy x2, sticky x3, nice x3, twins x2	Nice dark skin, some tubers short and lumpy.
10 CO12378-1RU	.	Shatter bruise, v. nice type	Good eyes, nice shape, some shatter, flat	Small round, good russet (3); some shatter, flat (2)	alligator hyde	R x3, short 4, pty x2, pear x4, SB x3, skinning x2, triangular x2	Thick skin, too small. Discard
11 COA11013-2	yellowish, pointy	Alligator hide, sprouting, IBS	Uniform, nice shape, slight shatter, slight checking (2)	Uniform, type, slight checking, little flat (3)	patchy russet, alligator hyde	pty x3, thin x4, spr x4, bottle x3	good length, but a lot of #2's. Greening issue, discard.
12 OR12133-10	yellowish, skins	Light pink skin undertone, v. light russet	Fairly uniform (3); nice shape (2)	Curves (4); few points, throws a lighter skin (3); not uniform (2)	pointed	typy x4, spr x4, cracky x2, skinning x2, flakey x2	Good overall shape and length, good french fry.
13 POR12NCK50-1	pointy	Small, nice	Smaller, blocky, few bulging eyes	Uniform size, type, bumps (4); flat (2)	alligator hyde	GC x4, typy x4, blocky x3, pixel x2	Nice skin, dark, looks like Russet Norkotah.
14 TX13590-9Ru	purple spots	v. light russet	Small, round (4); slight shatter	Round (4); good russet, few ats (2)	pear shape	pty x3, bottle x4, blocky x4, rot x2, short x3	Oval, plump, many round, too short for WA.