

# 2023 TRI-STATE RUSSET POTATO VARIETY TRIAL REPORT

State Experiment Stations and  
USDA-ARS Cooperating

Washington

Oregon

Idaho



## 2023 TRI-STATE POTATO VARIETY TRIAL REPORT

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Compiled by Chelsey Lowder

TABLE 1: 2023 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-165P-100K-40S-5Zn <b>305N-140P-130K-60S-5Zn</b> Seed spacing: in row 10.0" rows 36"	4-May	14-Aug	29-Aug	102	117	TriCor 4F	Admire Pro	
	J. Whitworth R. Novy B. Schneider C. Lowder	Late			<b>3-May</b>	<b>7-Sep</b>	<b>23-Sep</b>	<b>127</b>	<b>143</b>	Matrix Eptam 7-E		
Ontario Oregon ( <b>HOR</b> )	S. Reitz E. Feibert B. Buhrig A. Rivera	Early	Solid Set	200 N  Seed spacing: in row 9.0" rows 36"	20-Apr	8-Aug	10-Aug	110	112	Prowl H2O Eptam Metrichor Matrix	Admire	Moncut Bravo Luna T
Hermiston Oregon ( <b>HOR</b> )	S. Sathuvalli I. Thompson	Late	Pivot	450N-220P-200K  Seed spacing: in row 9" rows 34"	12-Apr	29-Aug	7-Sep	139	148	Prowl Eptam Matrix Dual Magnum	Admire Bantacor Agrimek	Quadris Ridomil Omega
Klamath Falls ( <b>KF</b> ) Oregon	B. Charlton N. Baley	Late	Solid Set	150N-170S Seed spacing: in row 9.25" rows 36"	18-May	6-Sep	29-Sep	111	134	Prowl Glory Eptam	Alias Vydate	Vertisan
Othello ( <b>EWA</b> ) Washington	M Pavek J. Blauer N. Fuller Z. Holden	Early	Pivot	250N-150P-2.50K Seed spacing: in row 12" rows 32"	6-Apr	21-Jul	9-Aug	106	125	<b>PreEmerge:</b> Matrix Prowl H2O Eptam	Admire	Bravo Priaxor Zing Luna Tranquility
Othello ( <b>LWA</b> ) Washington		Late	Pivot	380N-250P-400K Seed spacing: in row 11" rows 32"	4-Apr	1-Sep	11-Sep	150	160			

TABLE 2: 2023 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	90	2.3	3.4	Oblong	3.2	Med Russet	3.0	Medium	2.9	Med Early
2	Ranger Russet	Butte A6595-3	Red-purple	Check	Dual	Check	OR	96	1.9	4.4	Long	3.2	Med Russet	2.1	Small	2.4	Early
3	Russet Burbank	Early Rose ?	White	Check	Dual	Check	OR	95	2.1	3.8	Obl-Lng	3.2	Med Russet	1.6	Small	1.7	Early
4	Russet Norkotah	ND9687-5 Rus ND9526-4 Rus	White	Check	Fresh	Check	OR	95	2.4	3.4	Oblong	4.2	Med Hvy Rus	1.0	Small	1.1	Early
5	Shepody	Bake-King F58050	White	Check	Proc	Check	OR	89	2.3	4.0	Obl-Lng	1.5	White	1.0	Small	2.2	Early
6	A10020-3sto	A03921-2 A02060-3TE		ID	Dual	1	ID	98	2.4	3.8	Obl-Lng	3.6	Med Russet	2.4	Small	3.0	Med Early
7	A10071-1	Targhee Russet AO02183-2	White	ID	Dual	2	OR	94	2.2	3.8	Obl-Lng	4.2	Med Hvy Rus	2.3	Small	2.6	Med Early
8	A12304-1sto	A96953-13sto Clearwater Russet	White	ID	Dual	2	OR	97	2.2	3.9	Obl-Lng	2.8	Light Russet	2.5	Small	2.0	Early
9	A12327-5VR	A06862-11VR LaBelle Russet		ID	Dual	1	ID	96	2.5	2.8	Oblong	4.3	Med Hvy Rus	2.5	Small	2.8	Med Early
10	A13036-1	A08014-9TE AO02183-2		ID	Dual	1	ID	95	1.9	3.4	Oblong	2.9	Light Russet	1.9	Small	2.4	Early
11	A13072-7	A07106-10 A05084-11	White	ID	Dual	2	OR	94	1.8	3.1	Oblong	3.0	Light Russet	2.0	Small	3.1	Medium
12	A13091-5	AO01114-4 AO02183-2	White	ID	Dual	2	OR	97	1.7	3.3	Oblong	3.3	Med Russet	1.1	Small	1.9	Early
13	AOR10071-8	Targhee Russet AO02183-2	White	OR	Dual	1	OR	97	1.8	2.7	Oblong	3.8	Med Russet	1.9	Small	2.9	Med Early
14	AOR15166-2	A07061-6 Trailblazer	Dakota White	OR	Dual	1	OR	96	1.8	3.3	Oblong	3.3	Med Russet	2.5	Small	4.3	Late
15	AOR15227-2	AFA4296-3 Trailblazer	Dakota White	OR	Dual	1	OR	94	1.4	3.7	Obl-Lng	3.1	Med Russet	2.4	Small	3.3	Medium
16	AOR15421-4	MN09152BW-01Russ A10040-3TE	White-Pink	OR	Dual	1	OR	91	2.1	3.4	Oblong	3.1	Med Russet	1.0	Small	1.6	Early
17	COA15494-8			ID	Dual	1	ID	95	2.1	3.2	Oblong	3.6	Med Russet	1.9	Small	3.3	Medium
18	A10635-2chc	A03974-1 Russet	Sage	ID	Dual	1	ID	96	2.3	3.3	Oblong	3.2	Med Russet	1.9	Small	2.8	Med Early
19	A11381-3	AO01114-4 4	A01025- White	ID	Dual	2	OR	95	2.5	2.3	Rnd-Obl	2.8	Light Russet	1.9	Small	2.6	Med Early
20	A12308-3adg	A02618-1 Russet	LaBelle	ID	Dual	1	ID	95	1.9	3.4	Oblong	2.9	Light Russet	1.5	Small	2.1	Early
21	A13072-5	A07106-10 11	A05084- White	ID	Dual	1	ID	95	1.9	3.5	Oblong	3.0	Light Russet	2.1	Small	2.5	Early
22	A14026-16adg	AFA3317-15 A02618-1adg		ID	Dual	1	ID	96	2.7	3.3	Oblong	2.6	Light Russet	2.4	Small	2.6	Med Early
<b>Means</b>								<b>94.7</b>	<b>2.1</b>	<b>3.4</b>		<b>3.2</b>		<b>1.9</b>		<b>2.5</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: 2023 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	OR Herm KF	Entry Mean	Rank	
1	Clearwater Russet						467	835	757	406	616	9
2	Ranger Russet	259	597	498	451	13	401	929	658	395	596	14
3	Russet Burbank	273	625	540	479	9	324	832	622	406	546	17
4	Russet Norkotah	180	619	445	415	17	181	945	487	355	492	20
5	Shepody	213	538	404	385	20						
6	A10020-3sto	292	623	568	494	6	405	905	694	427	608	11
7	A10071-1	318	606	507	477	10	535	1008	683	463	672	3
8	A12304-1sto						506	1075	813	534	732	2
9	A12327-5VR	359	765	594	573	1	595	1043	946	553	784	1
10	A13036-1	279	550	413	414	18	418	743	524	431	529	18
11	A13072-7	277	734	541	517	3	443	887	632	537	624	7
12	A13091-5	312	584	435	444	15	395	662	453	428	485	21
13	AOR10071-8	175	606	454	412	19	314	916	721	376	581	16
14	AOR15166-2	279	559	459	433	16	514	942	539	475	618	8
15	AOR15227-2	259	675	512	482	8	425	877	711	-	671	4
16	AOR15421-4	170	632	571	458	12	249	1048	661	468	606	12
17	COA15494-8	263	728	399	463	11	391	790	478	424	521	19
18	A10635-2chc	329	683	434	482	7	513	879	701	371	616	10
19	A11381-3	288	592	453	444	14	451	913	640	383	597	13
20	A12308-3adg	207	682	658	516	4	281	1017	767	506	643	5
21	A13072-5	357	647	515	507	5	503	833	593	449	594	15
22	A14026-16adg	369	741	517	542	2	475	869	702	496	635	6
<b>Location Means</b>		<b>273</b>	<b>639</b>	<b>496</b>	<b>469</b>		<b>418</b>	<b>902</b>	<b>656</b>	<b>444</b>	<b>608</b>	
<b>LSD (.05)</b>											<b>92</b>	

TABLE 4: 2023. 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		Entry Mean	Rank
		Herm	KF									
1	Clearwater Russet						355	804	644	258	515	8
							76	96	85	64	80	6
2	Ranger Russet	201	506	416	374	13	257	769	513	241	445	16
		78	85	83	82	9	64	83	78	61	72	15
3	Russet Burbank	153	443	450	349	15	169	663	495	256	396	18
		56	71	83	70	18	52	80	80	63	69	21
4	Russet Norkotah	101	568	364	345	17	77	854	378	237	387	19
		56	92	82	77	14	43	90	78	67	69	18
5	Shepody	95	326	317	246	20						
		45	61	78	61	20						
6	A10020-3sto	188	584	490	420	7	304	861	636	262	516	7
		64	94	86	81	11	75	95	92	61	81	4
7	A10071-1	269	586	447	434	4	417	875	577	310	545	4
		85	97	88	90	2	78	87	84	67	79	9
8	A12304-1sto						394	984	712	348	610	2
							78	92	88	65	81	5
9	A12327-5VR	323	755	554	544	1	521	973	819	271	646	1
		90	99	93	94	1	88	93	87	49	79	8
10	A13036-1	187	492	348	342	18	298	631	433	281	411	17
		67	90	84	80	12	71	85	83	65	76	13
11	A13072-7	226	568	482	425	6	354	756	488	209	452	15
		81	77	89	83	8	80	85	77	39	70	16
12	A13091-5	271	555	379	402	9	323	633	364	224	386	20
		87	95	87	90	3	82	96	80	52	77	11
13	AOR10071-8	83	596	332	337	19	219	895	622	240	494	11
		47	98	73	73	16	70	98	86	64	79	7
14	AOR15166-2	227	541	373	380	12	415	899	484	291	522	6
		81	97	81	86	7	81	95	90	61	82	3
15	AOR15227-2	209	638	447	431	5	315	842	582	-	580	3
		81	95	87	88	5	74	96	82	-	84	1
16	AOR15421-4	112	541	533	395	10	168	878	590	177	453	14
		66	86	93	82	10	67	84	89	38	70	17
17	COA15494-8	182	690	295	389	11	181	747	364	243	384	21
		69	95	74	79	13	46	95	76	57	69	20
18	A10635-2chc	182	668	187	346	16	342	826	478	178	456	13
		55	98	43	65	19	67	94	68	48	69	19
19	A11381-3	192	583	281	352	14	361	884	516	290	513	9
		67	99	62	76	15	80	97	81	76	83	2
20	A12308-3adg	159	661	572	464	2	207	954	640	318	530	5
		77	97	87	87	6	74	94	83	63	78	10
21	A13072-5	306	609	455	457	3	394	740	494	251	469	12
		86	94	88	89	4	78	89	83	56	77	12
22	A14026-16adg	211	688	320	407	8	263	827	594	314	499	10
		57	93	62	71	17	55	95	85	63	75	14
Location Means		194	580	402	392		302	824	544	260	486	
LSD (.05)		70	90	80	80		70	91	83	59	76	
					71						91	



TABLE 6: 2023 Tri-State Potato Variety Trial - YIELD &lt; 4 OZ (CWT/A &amp; %) - EARLY AND LATE HARVEST

No.	Clone	Yield < 4 OZ - Early Harvest (CWT/A)/%				Yield < 4 OZ - Late Harvest (CWT/A)/%						
		ID	WA	Ont	Entry Mean	Rank	ID	WA	OR		Entry Mean	Rank
								Herm	KF			
1	Clearwater Russet						55	80	70	64	68	6
							12	10	9	16	10	10
2	Ranger Russet	28	69	66	54	14	28	58	64	62	50	14
		11	12	13	12	13	7	6	10	16	8	14
3	Russet Burbank	80	82	82	81	10	57	60	47	72	55	11
		29	13	15	19	10	18	7	8	18	11	8
4	Russet Norkotah	74	92	79	81	9	93	49	88	52	76	5
		41	15	18	25	5	51	5	18	15	25	1
5	Shepody	78	96	78	84	8						
		37	18	19	25	4						
6	A10020-3sto	96	97	69	87	7	73	69	36	69	59	9
		33	16	12	20	9	18	8	5	16	10	9
7	A10071-1	37	71	57	55	13	38	51	62	49	50	13
		12	12	11	12	15	7	5	9	11	7	16
8	A12304-1sto						67	61	45	72	58	10
							13	6	6	13	8	13
9	A12327-5VR	21	68	37	42	18	24	59	41	28	42	16
		6	9	6	7	20	4	6	4	5	5	21
10	A13036-1	65	67	60	64	11	48	48	20	46	39	17
		23	12	15	17	11	12	7	4	11	7	15
11	A13072-7	47	29	46	41	19	53	25	28	17	35	19
		17	4	8	10	18	12	3	4	3	6	18
12	A13091-5	33	51	55	47	17	53	75	76	36	68	7
		11	9	13	11	17	13	11	17	9	14	6
13	AOR10071-8	90	73	122	95	6	81	50	64	116	65	8
		51	12	27	30	2	26	5	9	31	13	7
14	AOR15166-2	42	54	85	60	12	25	27	42	51	31	21
		15	10	19	14	12	5	3	8	11	5	20
15	AOR15227-2	41	44	65	50	16	39	44	33	NA	38	18
		16	6	13	12	14	9	5	5	NA	6	19
16	AOR15421-4	42	25	30	32	20	34	33	26	21	31	20
		25	4	5	11	16	14	3	4	5	7	17
17	COA15494-8	65	119	102	95	5	86	104	89	66	86	4
		25	16	26	22	7	22	13	19	16	17	4
18	A10635-2chc	143	209	244	198	1	129	157	200	158	162	1
		43	31	56	43	1	25	18	29	43	24	2
19	A11381-3	87	121	83	97	4	76	91	103	104	90	3
		30	20	18	23	6	17	10	16	27	14	5
20	A12308-3adg	37	222	83	114	3	41	53	35	35	43	15
		18	33	13	21	8	15	5	5	7	8	12
21	A13072-5	20	79	55	52	15	37	67	58	66	54	12
		6	12	11	10	19	7	8	10	15	8	11
22	A14026-16adg	149	46	196	131	2	135	172	87	48	131	2
		40	6	38	28	3	28	20	12	10	20	3
Location Means		64	86	85	78		61	68	63	62	63	
LSD (.05)		24	13	18	19		16	8	10	15	11	40



TABLE 7: 2023 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	KF	Entry Mean	Rank
1	Clearwater Russet						1.085	1.084	1.090	1.092	<b>1.088</b>	<b>3</b>
2	Ranger Russet	1.082	1.073	1.083	<b>1.079</b>	<b>9</b>	1.086	1.078	1.083	1.090	<b>1.084</b>	<b>10</b>
3	Russet Burbank	1.074	1.070	1.077	<b>1.074</b>	<b>16</b>	1.070	1.075	1.084	1.082	<b>1.078</b>	<b>17</b>
4	Russet Norkotah	1.075	1.068	1.077	<b>1.073</b>	<b>17</b>	1.070	1.067	1.078	1.075	<b>1.073</b>	<b>20</b>
5	Shepody	1.078	1.066	1.085	<b>1.076</b>	<b>15</b>						
6	A10020-3sto	1.081	1.072	1.085	<b>1.079</b>	<b>8</b>	1.079	1.075	1.078	1.090	<b>1.080</b>	<b>15</b>
7	A10071-1	1.076	1.066	1.073	<b>1.072</b>	<b>19</b>	1.072	1.065	1.079	1.086	<b>1.075</b>	<b>19</b>
8	A12304-1sto						1.082	1.076	1.084	1.089	<b>1.083</b>	<b>13</b>
9	A12327-5VR	1.075	1.069	1.073	<b>1.072</b>	<b>18</b>	1.077	1.069	1.085	1.080	<b>1.078</b>	<b>18</b>
10	A13036-1	1.083	1.077	1.085	<b>1.081</b>	<b>7</b>	1.085	1.080	1.085	1.090	<b>1.085</b>	<b>8</b>
11	A13072-7	1.087	1.068	1.076	<b>1.077</b>	<b>14</b>	1.092	1.074	1.084	1.088	<b>1.085</b>	<b>9</b>
12	A13091-5	1.093	1.078	1.084	<b>1.085</b>	<b>2</b>	1.086	1.073	1.078	1.089	<b>1.082</b>	<b>14</b>
13	AOR10071-8	1.081	1.073	1.081	<b>1.078</b>	<b>11</b>	1.084	1.087	1.079	1.097	<b>1.087</b>	<b>4</b>
14	AOR15166-2	1.088	1.080	1.087	<b>1.085</b>	<b>1</b>	1.090	1.090	1.090	1.104	<b>1.094</b>	<b>1</b>
15	AOR15227-2	1.087	1.079	1.088	<b>1.085</b>	<b>3</b>	1.091	1.088	1.093	-	<b>1.091</b>	<b>2</b>
16	AOR15421-4	1.069	1.060	1.082	<b>1.070</b>	<b>20</b>	1.068	1.062	1.083	1.073	<b>1.071</b>	<b>21</b>
17	COA15494-8	1.081	1.067	1.083	<b>1.077</b>	<b>13</b>	1.079	1.071	1.079	1.087	<b>1.079</b>	<b>16</b>
18	A10635-2chc	1.083	1.075	1.093	<b>1.084</b>	<b>5</b>	1.086	1.084	1.077	1.095	<b>1.085</b>	<b>7</b>
19	A11381-3	1.081	1.071	1.079	<b>1.077</b>	<b>12</b>	1.085	1.081	1.077	1.094	<b>1.084</b>	<b>11</b>
20	A12308-3adg	1.081	1.075	1.081	<b>1.079</b>	<b>10</b>	1.078	1.077	1.087	1.092	<b>1.084</b>	<b>12</b>
21	A13072-5	1.081	1.079	1.092	<b>1.084</b>	<b>6</b>	1.075	1.088	1.081	1.100	<b>1.086</b>	<b>6</b>
22	A14026-16adg	1.088	1.072	1.092	<b>1.084</b>	<b>4</b>	1.087	1.084	1.081	1.094	<b>1.086</b>	<b>5</b>
<b>Location Means</b>		<b>1.081</b>	<b>1.072</b>	<b>1.083</b>	<b>1.079</b>		<b>1.081</b>	<b>1.078</b>	<b>1.083</b>	<b>1.089</b>	<b>1.083</b>	
<b>LSD (0.5)</b>					<b>0.005</b>						<b>0.007</b>	

TABLE 8: 2023 Tri-State Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No.	Clone	Average Tuber Size (oz)								Tuber Shape (Length/Width Ratio)																
		Early			Entry Means	Late				Entry Means	Early			Late				Entry Means								
		ID	WA	Ont		ID	WA	Herm	KF		ID	WA	Ont	ID	WA	Herm	KF									
1	Clearwater Russet					6.6	7.4	7.0	5.1	<b>6.5</b>												1.86	1.59	1.58	1.61	<b>1.66</b>
2	Ranger Russet	6.4	6.5	6.2	<b>6.3</b>	8.0	8.9	6.7	5.4	<b>7.3</b>	2.61	1.95	1.76	2.36	1.84	2.06	2.00	<b>2.08</b>								
3	Russet Burbank	4.7	6.4	5.7	<b>5.6</b>	5.6	8.3	6.7	4.7	<b>6.3</b>	1.97	1.70	1.70	2.09	1.71	1.98	1.74	<b>1.84</b>								
4	Russet Norkota	4.0	6.3	5.2	<b>5.2</b>	3.5	9.8	4.9	5.1	<b>5.8</b>	1.86	1.84	1.78	1.94	1.67	1.94	1.66	<b>1.81</b>								
5	Shepody	4.0	5.7	5.2	<b>5.0</b>						2.30	2.07	1.85					<b>2.07</b>								
6	A10020-3sto	4.3	5.8	5.8	<b>5.3</b>	5.4	7.3	7.5	5.2	<b>6.3</b>	2.05	1.72	1.68	1.92	1.59	1.77	1.62	<b>1.76</b>								
7	A10071-1	5.9	6.5	6.3	<b>6.2</b>	7.7	9.1	6.5	5.7	<b>7.2</b>	2.04	1.76	1.77	2.03	1.69	1.79	1.83	<b>1.84</b>								
8	A12304-1sto					5.9	9.2	7.1	5.4	<b>6.9</b>				1.88	1.81	1.74	1.54	<b>1.74</b>								
9	A12327-5VR	7.6	6.6	7.1	<b>7.1</b>	9.4	8.7	8.5	7.8	<b>8.6</b>	1.74	1.27	1.54	1.75	1.30	1.60	1.42	<b>1.52</b>								
10	A13036-1	4.9	6.0	5.7	<b>5.5</b>	6.4	8.1	9.1	6.0	<b>7.4</b>	1.82	1.73	1.57	1.80	1.64	1.76	1.57	<b>1.70</b>								
11	A13072-7	5.6	10.2	7.0	<b>7.6</b>	6.6	12.1	8.0	9.5	<b>9.0</b>	1.76	1.58	1.54	1.77	1.44	1.71	1.56	<b>1.62</b>								
12	A13091-5	6.9	6.8	6.3	<b>6.6</b>	6.3	6.8	5.0	6.1	<b>6.0</b>	1.76	1.69	1.72	1.76	1.67	1.82	1.59	<b>1.72</b>								
13	AOR10071-8	3.4	6.3	4.4	<b>4.7</b>	5.0	8.2	6.8	6.2	<b>6.5</b>	1.74	1.44	1.39	1.72	1.31	1.50	1.53	<b>1.52</b>								
14	AOR15166-2	5.5	6.3	4.7	<b>5.5</b>	8.3	9.8	6.1	6.1	<b>7.6</b>	2.13	1.77	1.54	2.01	1.59	1.67	1.56	<b>1.75</b>								
15	AOR15227-2	5.3	8.1	6.1	<b>6.5</b>	7.6	9.8	8.8	-	<b>8.7</b>	2.00	1.60	1.63	1.94	1.53	1.78	-	<b>1.74</b>								
16	AOR15421-4	5.0	10.6	9.7	<b>8.4</b>	6.5	13.1	8.5	8.6	<b>9.2</b>	1.66	1.55	1.69	1.76	1.50	1.76	1.63	<b>1.65</b>								
17	COA15494-8	4.6	5.8	3.8	<b>4.7</b>	4.9	6.5	5.1	5.0	<b>5.4</b>	2.21	1.51	1.49	2.13	1.57	1.51	1.49	<b>1.70</b>								
18	A10635-2chc	3.9	4.4	2.6	<b>3.6</b>	4.7	5.7	4.2	3.7	<b>4.6</b>	1.98	1.69	1.62	1.78	1.70	1.73	1.60	<b>1.73</b>								
19	A11381-3	4.4	5.4	3.6	<b>4.5</b>	5.7	7.5	5.2	4.6	<b>5.7</b>	1.60	1.40	1.39	1.57	1.40	1.31	1.41	<b>1.44</b>								
20	A12308-3adg	5.3	4.3	5.9	<b>5.2</b>	5.8	8.6	7.9	6.5	<b>7.2</b>	1.98	1.80	1.66	1.97	1.78	2.07	1.74	<b>1.86</b>								
21	A13072-5	8.3	6.6	6.2	<b>7.0</b>	8.4	8.4	6.7	6.0	<b>7.4</b>	1.82	1.80	1.67	1.86	1.78	1.82	1.79	<b>1.79</b>								
22	A14026-16adg	4.0	7.1	3.6	<b>4.9</b>	4.7	5.4	5.2	5.7	<b>5.3</b>	1.93	1.65	1.77	1.92	1.59	1.79	1.72	<b>1.77</b>								
<b>Location Mean</b>		<b>5.2</b>	<b>6.6</b>	<b>5.5</b>	<b>5.8</b>	<b>6.3</b>	<b>8.5</b>	<b>6.7</b>	<b>5.9</b>	<b>6.9</b>	<b>1.95</b>	<b>1.68</b>	<b>1.64</b>	<b>1.89</b>	<b>1.61</b>	<b>1.75</b>	<b>1.63</b>	<b>1.74</b>								
<b>LSD (0.5)</b>					<b>1.3</b>					<b>1.6</b>																

TABLE 9: 2023 Tri-State Potato Variety Trial - TUBERS PER PLANT AND EYE DEPTH

No.	Clone	Average Tuber per Plant							Eye Depth (1-5, 5=shallow)								
		Early			Late				Means Late only	Early			Late				Entry Means
		ID	WA	Ont	ID	WA	Herm	KF		ID	WA	Ont	ID	WA	Herm	KF	
1	Clearwater Russet				6.7	10.1	11.6	7.0	<b>8.8</b>				3.8	4.0	4.0	3.3	<b>3.8</b>
2	Ranger Russet	3.7	9.0	6.7	4.7	9.3	9.6	6.3	<b>7.5</b>	2.3	3.0	3.3	2.0	3.0	3.0	3.5	<b>2.9</b>
3	Russet Burbank	5.5	9.6	8.0	5.6	9.0	8.0	7.4	<b>7.5</b>	3.3	3.0	2.9	2.9	3.0	3.0	3.5	<b>3.1</b>
4	Russet Norkotah	4.2	9.6	7.1	4.8	8.7	9.1	6.0	<b>7.1</b>	3.8	2.7	3.3	3.6	1.8	3.0	3.3	<b>3.0</b>
5	Shepody	5.1	9.3	6.4						3.2	3.3	3.3					<b>3.3</b>
6	A10020-3sto	6.2	10.6	8.2	7.0	11.2	8.5	7.0	<b>8.4</b>	3.8	3.0	2.9	3.8	3.3	3.4	3.5	<b>3.4</b>
7	A10071-1	5.0	9.2	6.7	6.8	10.0	10.0	7.6	<b>8.6</b>	3.9	4.0	3.0	3.9	4.0	3.5	4.0	<b>3.8</b>
8	A12304-1sto				7.8	10.6	9.7	8.8	<b>9.2</b>				3.8	4.0	3.5	3.5	<b>3.7</b>
9	A12327-5VR	4.6	11.3	7.0	6.0	10.9	10.3	6.0	<b>8.3</b>	3.1	4.0	2.6	3.3	2.8	3.3	3.5	<b>3.2</b>
10	A13036-1	5.3	8.9	6.0	6.2	8.2	5.4	6.2	<b>6.5</b>	3.5	3.7	2.9	3.9	4.0	3.5	3.4	<b>3.5</b>
11	A13072-7	4.8	7.0	6.4	6.2	6.6	7.3	4.9	<b>6.2</b>	3.9	3.0	2.6	3.8	2.8	2.8	2.4	<b>3.0</b>
12	A13091-5	4.2	8.4	5.8	6.1	8.7	8.0	5.4	<b>7.0</b>	3.4	3.7	2.5	3.6	3.0	3.0	3.0	<b>3.2</b>
13	AOR10071-8	4.6	9.4	8.5	5.8	10.1	9.1	6.8	<b>7.9</b>	3.8	3.0	3.3	3.3	3.3	3.0	3.4	<b>3.3</b>
14	AOR15166-2	4.8	8.7	8.2	5.7	8.7	7.8	6.3	<b>7.1</b>	3.8	3.7	3.3	3.0	3.3	3.5	3.1	<b>3.4</b>
15	AOR15227-2	4.5	8.2	6.9	5.2	8.0	7.5	-	<b>6.9</b>	2.9	3.0	2.3	3.0	3.5	2.9	-	<b>2.9</b>
16	AOR15421-4	3.2	5.9	4.9	3.6	7.2	6.9	5.3	<b>5.7</b>	3.8	3.7	2.8	3.8	3.0	2.8	3.0	<b>3.2</b>
17	COA15494-8	5.4	12.2	8.8	8.0	10.9	7.8	6.4	<b>8.3</b>	3.6	3.7	3.1	2.8	4.0	3.3	3.9	<b>3.5</b>
18	A10635-2chc	7.8	15.2	14.0	10.5	13.9	14.6	9.6	<b>12.2</b>	4.0	4.0	3.2	4.0	4.0	3.5	4.1	<b>3.8</b>
19	A11381-3	6.0	10.7	10.5	7.3	10.9	10.9	8.6	<b>9.4</b>	3.4	4.0	3.3	3.5	4.0	3.4	3.6	<b>3.6</b>
20	A12308-3adg	3.8	15.5	9.2	4.5	10.5	9.1	6.7	<b>7.7</b>	3.8	3.0	2.8	3.9	4.0	3.5	3.8	<b>3.5</b>
21	A13072-5	3.9	9.6	6.9	5.6	8.9	8.2	6.3	<b>7.3</b>	3.3	4.0	3.3	2.9	4.0	3.4	3.5	<b>3.5</b>
22	A14026-16adg	8.6	10.3	11.8	9.6	14.5	12.2	8.2	<b>11.1</b>	3.6	4.0	3.8	4.0	4.0	3.5	3.8	<b>3.8</b>
<b>Location Means</b>		<b>5.1</b>	<b>9.9</b>	<b>7.9</b>	<b>6.4</b>	<b>9.9</b>	<b>9.1</b>	<b>6.8</b>	<b>8.0</b>	<b>3.5</b>	<b>3.5</b>	<b>3.0</b>	<b>3.4</b>	<b>3.5</b>	<b>3.3</b>	<b>3.4</b>	<b>3.4</b>

TABLE 10: 2023 Tri-State Potato Variety Trial - TUBER DESCRIPTORS

No. Clone	Tuber Uniformity <sup>1</sup>								Visual Appearance <sup>1</sup>						Tuber Skinning <sup>1</sup>						
	Early			Late				Entry	Early		Late			Entry	Early		Late			Entry	
	ID	WA	Ont	ID	WA	Herm	KF	Means	ID	WA	ID	WA	KF	Means	ID	WA	ID	WA	Herm	KF	Means
1 Clearwater Russet				3.1	4.0	3.5	3.9	<b>3.6</b>			3.0	3.8	4.5	<b>3.8</b>			4.9	4.0	3.7	4.1	<b>4.2</b>
2 Ranger Russet	2.5	4.0	2.0	2.3	2.5	2.6	3.6	<b>2.8</b>	3.3	3.0	3.1	2.0	3.8	<b>3.0</b>	4.4	4.0	5.0	4.0	4.0	4.5	<b>4.3</b>
3 Russet Burbank	2.3	1.3	1.9	1.8	1.5	2.9	3.1	<b>2.1</b>	3.4	2.3	3.5	2.0	3.1	<b>2.9</b>	4.1	3.0	5.0	4.0	4.0	4.3	<b>4.1</b>
4 Russet Norkotah	3.5	3.3	3.5	3.8	3.0	3.4	3.4	<b>3.4</b>	4.0	4.0	3.6	2.0	4.1	<b>3.6</b>	4.5	4.0	5.0	4.0	4.1	3.9	<b>4.2</b>
5 Shepody	2.0	1.0	2.1					<b>1.7</b>	2.0	1.0				<b>1.5</b>	5.0	3.7					<b>4.3</b>
6 A10020-3sto	3.5	4.0	3.8	3.0	3.0	3.4	3.4	<b>3.4</b>	3.9	3.7	3.6	3.0	3.5	<b>3.5</b>	3.6	4.0	4.9	4.0	3.7	4.6	<b>4.1</b>
7 A10071-1	3.0	3.0	3.8	3.1	2.3	3.3	3.5	<b>3.1</b>	3.9	2.7	4.1	2.3	4.0	<b>3.4</b>	4.9	5.0	4.6	4.0	3.9	5.0	<b>4.6</b>
8 A12304-1sto				3.6	4.0	3.5	3.6	<b>3.7</b>			3.3	3.5	3.3	<b>3.3</b>			5.0	3.0	3.5	3.9	<b>3.8</b>
9 A12327-5VR	3.5	4.0	3.9	3.8	2.8	3.3	3.6	<b>3.5</b>	3.6	3.0	3.1	2.8	3.8	<b>3.3</b>	4.6	4.7	5.0	4.0	3.9	5.0	<b>4.5</b>
10 A13036-1	3.3	3.7	3.6	2.9	2.3	3.3	3.4	<b>3.2</b>	3.3	3.0	3.5	2.8	3.4	<b>3.2</b>	4.5	3.0	5.0	4.0	3.8	5.0	<b>4.2</b>
11 A13072-7	3.6	3.0	1.6	3.8	2.3	2.4	3.1	<b>2.8</b>	2.1	3.0	2.6	2.5	3.5	<b>2.8</b>	4.6	3.3	5.0	4.0	4.0	4.6	<b>4.3</b>
12 A13091-5	3.4	3.7	3.0	3.4	3.5	3.4	3.6	<b>3.4</b>	3.8	4.0	3.5	3.0	3.3	<b>3.5</b>	4.3	3.3	5.0	4.0	4.0	3.9	<b>4.1</b>
13 AOR10071-8	3.6	3.7	3.5	3.1	2.8	3.1	4.1	<b>3.4</b>	3.3	2.7	3.1	2.0	4.0	<b>3.0</b>	4.4	4.0	4.6	4.0	3.8	3.9	<b>4.1</b>
14 AOR15166-2	3.6	4.0	3.6	3.1	3.3	3.5	3.9	<b>3.6</b>	3.8	3.0	3.3	3.0	4.1	<b>3.4</b>	4.4	4.0	4.9	4.0	3.6	4.0	<b>4.1</b>
15 AOR15227-2	3.0	4.0	2.7	2.9	3.0	3.5	-	<b>3.2</b>	3.0	3.0	3.5	2.3	-	<b>2.9</b>	4.5	3.0	5.0	4.0	3.8	-	<b>4.1</b>
16 AOR15421-4	3.0	1.7	3.6	2.5	3.0	3.4	3.5	<b>3.0</b>	2.6	2.0	2.6	3.0	2.6	<b>2.6</b>	4.3	2.7	5.0	3.0	3.8	4.5	<b>3.9</b>
17 COA15494-8	3.6	2.0	3.0	2.8	2.0	2.5	3.9	<b>2.8</b>	3.6	2.7	3.9	2.0	3.9	<b>3.2</b>	4.0	4.7	4.9	5.0	4.0	5.0	<b>4.6</b>
18 A10635-2chc	3.6	4.0	2.2	3.4	3.3	2.8	3.5	<b>3.2</b>	4.0	3.3	4.0	2.8	4.0	<b>3.6</b>	4.5	4.0	4.9	4.0	3.9	4.5	<b>4.3</b>
19 A11381-3	3.5	3.0	3.1	3.1	2.5	2.9	3.3	<b>3.1</b>	3.1	2.7	3.5	2.0	3.1	<b>2.9</b>	4.3	3.0	4.8	4.0	4.0	4.4	<b>4.1</b>
20 A12308-3adg	3.6	2.3	3.5	3.5	3.0	3.5	3.9	<b>3.3</b>	3.0	2.0	2.8	2.5	3.8	<b>2.8</b>	4.0	3.0	5.0	3.3	4.0	4.5	<b>4.0</b>
21 A13072-5	3.5	3.7	3.5	3.5	3.3	3.4	3.8	<b>3.5</b>	3.7	2.0	3.8	2.0	3.0	<b>2.9</b>	4.0	3.3	5.0	4.0	4.0	4.5	<b>4.1</b>
22 A14026-16adg	3.5	4.0	2.4	2.6	3.0	3.3	3.0	<b>3.1</b>	2.3	3.0	2.4	2.0	1.1	<b>2.2</b>	3.3	2.7	4.8	4.0	3.8	4.8	<b>3.9</b>
<b>Location Means</b>	<b>3.3</b>	<b>3.2</b>	<b>3.0</b>	<b>3.1</b>	<b>2.9</b>	<b>3.2</b>	<b>3.6</b>	<b>3.1</b>	<b>3.3</b>	<b>2.8</b>	<b>3.3</b>	<b>2.5</b>	<b>3.5</b>	<b>3.1</b>	<b>4.3</b>	<b>3.6</b>	<b>4.9</b>	<b>3.9</b>	<b>3.9</b>	<b>4.4</b>	<b>4.2</b>

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

TABLE 11: 2023 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 AB Percentage	Late
	ID	WA	Ont	ID	WA	Herm	KF		ID	WA	Ont	ID	WA	Herm	KF			
1 Clearwater Russet				5.0	2.0	4.6	5.0	<b>4.2</b>				3.2	4.0	4.5	4.8	<b>3.9</b>		4.9
2 Ranger Russet	5.0	5.0	5.0	5.0	5.0	4.9	5.0	<b>5.0</b>	4.0	4.3	5.0	3.9	4.0	4.0	4.8	<b>4.2</b>	1.4	1.5
3 Russet Burbank	5.0	5.0	5.0	5.0	2.0	5.0	5.0	<b>4.6</b>	4.0	4.3	5.0	3.0	4.0	4.3	4.9	<b>4.1</b>	1.3	7.2
4 Russet Norkotah	5.0	5.0	5.0	5.0	3.0	5.0	4.8	<b>4.7</b>	5.0	4.0	4.8	4.3	4.0	4.5	4.9	<b>4.4</b>	0.0	0.9
5 Shepody	5.0	5.0	5.0					<b>5.0</b>	3.0	4.0	5.0					<b>4.0</b>	7.3	
6 A10020-3sto	5.0	4.0	5.0	5.0	3.0	4.5	4.3	<b>4.4</b>	4.9	5.0	5.0	4.0	4.0	4.3	5.0	<b>4.5</b>	0.1	1.2
7 A10071-1	5.0	3.0	5.0	5.0	1.0	4.4	5.0	<b>4.1</b>	4.4	5.0	5.0	3.9	3.3	4.8	4.5	<b>4.4</b>	0.7	2.7
8 A12304-1sto				5.0	1.0	4.1	4.4	<b>3.6</b>				3.2	4.0	4.3	3.5	<b>3.8</b>		5.2
9 A12327-5VR	5.0	3.0	4.5	5.0	1.0	4.0	5.0	<b>3.9</b>	4.5	5.0	5.0	4.6	4.0	4.4	4.8	<b>4.6</b>	0.6	0.5
10 A13036-1	5.0	2.0	5.0	5.0	1.0	4.3	4.5	<b>3.8</b>	3.9	5.0	5.0	3.5	4.0	4.5	4.6	<b>4.3</b>	1.5	3.7
11 A13072-7	5.0	2.0	5.0	5.0	1.0	3.8	4.1	<b>3.7</b>	4.4	3.3	5.0	3.2	4.0	4.6	5.0	<b>4.1</b>	0.7	5.0
12 A13091-5	5.0	3.0	5.0	4.9	1.0	4.5	4.3	<b>3.9</b>	4.8	4.7	5.0	4.6	4.0	4.5	5.0	<b>4.6</b>	0.1	0.4
13 AOR10071-8	5.0	5.0	5.0	5.0	2.0	4.5	5.0	<b>4.5</b>	5.0	4.3	5.0	4.2	4.0	4.8	5.0	<b>4.6</b>	0.0	0.9
14 AOR15166-2	5.0	5.0	5.0	4.9	2.0	4.4	4.5	<b>4.4</b>	4.5	4.3	5.0	3.5	4.0	4.6	5.0	<b>4.3</b>	0.6	3.6
15 AOR15227-2	5.0	5.0	5.0	5.0	2.0	4.5	-	<b>4.4</b>	4.6	4.0	5.0	2.9	4.0	4.6	-	<b>4.2</b>	0.4	7.5
16 AOR15421-4	5.0	5.0	5.0	5.0	4.0	4.5	4.6	<b>4.7</b>	4.8	4.3	4.8	2.4	3.3	4.4	2.3	<b>4.0</b>	0.2	<b>12.5</b>
17 COA15494-8	5.0	4.0	5.0	5.0	3.0	4.5	5.0	<b>4.5</b>	4.4	4.7	5.0	3.0	4.0	4.1	5.0	<b>4.2</b>	0.7	7.2
18 A10635-2chc	5.0	5.0	5.0	5.0	3.0	4.8	5.0	<b>4.7</b>	4.8	4.0	5.0	3.3	4.0	4.6	5.0	<b>4.3</b>	0.2	4.5
19 A11381-3	5.0	4.0	5.0	4.8	2.0	4.5	4.3	<b>4.2</b>	4.9	4.3	5.0	4.6	4.0	4.8	5.0	<b>4.6</b>	0.1	0.5
20 A12308-3adg	5.0	5.0	5.0	5.0	2.0	4.5	4.8	<b>4.5</b>	4.5	4.0	5.0	3.0	4.0	4.5	4.9	<b>4.2</b>	0.7	7.4
21 A13072-5	5.0	5.0	5.0	4.9	1.0	4.4	3.4	<b>4.1</b>	5.0	4.3	4.8	3.9	3.0	4.5	3.0	<b>4.2</b>	0.0	2.5
22 A14026-16adg	5.0	4.0	5.0	5.0	2.0	4.6	3.6	<b>4.2</b>	4.9	4.7	5.0	3.3	4.0	4.4	4.4	<b>4.4</b>	0.1	4.3
<b>Location Means</b>	<b>5.0</b>	<b>4.2</b>	<b>5.0</b>	<b>5.0</b>	<b>2.1</b>	<b>4.5</b>	<b>4.6</b>	<b>4.3</b>	<b>4.5</b>	<b>4.4</b>	<b>5.0</b>	<b>3.6</b>	<b>3.9</b>	<b>4.5</b>	<b>4.6</b>	<b>4.3</b>	<b>0.8</b>	<b>4.0</b>

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

TABLE 12: 2023 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		5.0		4.8		3.3	2.8		4.7
2	Ranger Russet	4.2	4.5	4.9	4.8	5.0	5.0	3.4	4.3	4.6
3	Russet Burbank	4.8	4.6	3.7	4.0	5.0	3.5	2.4	5.0	5.0
4	Russet Norkotah	5.0	4.9	5.0	4.9	5.0	4.0	3.3	5.0	4.6
5	Shepody	4.7		3.4		5.0			4.2	
6	A10020-3sto	4.8	4.8	5.0	5.0	4.7	3.8	2.6	5.0	4.9
7	A10071-1	5.0	4.9	5.0	4.9	4.3	2.7	2.9	5.0	3.8
8	A12304-1sto		5.0		5.0		2.6	2.0		4.8
9	A12327-5VR	4.8	4.5	5.0	4.9	4.0	2.5	3.2	5.0	4.8
10	A13036-1	4.3	4.3	5.0	4.8	4.0	2.7	3.3	4.8	4.7
11	A13072-7	4.8	4.5	5.0	4.6	4.0	2.4	2.6	4.7	4.9
12	A13091-5	5.0	4.8	5.0	5.0	4.3	2.8	2.3	4.8	4.8
13	AOR10071-8	5.0	4.9	5.0	5.0	5.0	3.3	3.1	4.8	4.3
14	AOR15166-2	4.8	4.8	5.0	5.0	5.0	3.2	2.2	4.8	4.8
15	AOR15227-2	4.8	4.7	5.0	4.9	5.0	3.3	3.3	4.9	4.8
16	AOR15421-4	4.7	4.7	4.7	4.9	5.0	4.3	2.2	4.9	4.9
17	COA15494-8	4.7	4.7	4.7	4.4	4.7	3.8	3.3	5.0	4.8
18	A10635-2chc	5.0	4.9	4.7	4.8	5.0	3.9	2.6	4.6	4.5
19	A11381-3	4.8	4.9	5.0	4.9	4.7	3.3	2.7	4.8	4.7
20	A12308-3adg	4.9	4.8	4.8	4.9	5.0	3.3	2.3	4.9	4.5
21	A13072-5	4.5	4.8	4.8	5.0	5.0	2.7	2.1	5.0	4.7
22	A14026-16adg	4.7	4.8	5.0	4.9	4.7	3.3	1.8	4.8	4.9
<b>Means</b>		<b>4.8</b>	<b>4.8</b>	<b>4.8</b>	<b>4.8</b>	<b>4.7</b>	<b>3.3</b>	<b>2.7</b>	<b>4.8</b>	<b>4.7</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: 2023 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>		AB <sup>3</sup>		
								Early	Late	Herm		
1	Clearwater Russet		0.0		1.3		10.0 (Herm 40)		5.0	3.5	3.6	4.0
2	Ranger Russet	0.0	1.9	0.0	1.4	0.0	8.8	5.0	5.0	3.0	1.7	3.2
3	Russet Burbank	8.9	3.9	0.0	1.9	0.0	12.0 (Herm 28)	5.0	5.0	3.0	2.9	3.6
4	Russet Norkotah	1.7	1.9	0.0	1.9	0.0	8.1	5.0	5.0	4.0	2.3	3.8
5	Shepody	0.0		0.0		3.3		5.0				
6	A10020-3sto	0.0	0.8	0.0	4.0	3.3	8.1	5.0	5.0	3.0	3.9	4.0
7	A10071-1	0.8	0.1	0.0	0.0	0.0	7.0	5.0	5.0	4.0	3.5	4.2
8	A12304-1sto		0.6		7.0		5.1		5.0	2.0	1.8	2.9
9	A12327-5VR	0.0	0.8	0.0	3.1	0.0	3.1	5.0	5.0	3.5	3.4	4.0
10	A13036-1	0.0	0.6	0.0	5.6	0.0	6.6	5.0	5.0	3.0	3.2	3.7
11	A13072-7	0.0	0.8	0.0	6.9	0.0	17.6 (Herm 53 /WA 18)	5.0	5.0	4.0	1.2	3.4
12	A13091-5	1.7	1.3	0.0	1.4	0.0	7.6	5.0	5.0	4.0	3.0	4.0
13	AOR10071-8	0.0	4.4	0.0	0.6	5.0	16.3 (Herm 55)	5.0	5.0	4.0	4.2	4.4
14	AOR15166-2	0.0	0.0	0.0	0.6	3.3	3.3	5.0	5.0	4.0	4.1	4.4
15	AOR15227-2	0.0	0.8	0.0	4.3	5.0	15.2 (Herm 43)	5.0	5.0	3.5	4.0	4.2
16	AOR15421-4	0.8	1.3	0.0	0.6	0.0	12.3 (Herm 38 /WA 13)	5.0	5.0	4.0	3.8	4.3
17	COA15494-8	0.0	0.6	0.0	5.1	1.7	4.5	5.0	5.0	3.5	4.1	4.2
18	A10635-2chc	0.0	1.3	0.0	2.0	5.0	12.6 (Herm 38)	5.0	5.0	3.0	2.9	3.6
19	A11381-3	0.0	0.6	0.0	2.6	0.0	15.3 (Herm 33 /WA26)	5.0	5.0	4.0	2.8	3.9
20	A12308-3adg	0.0	0.0	0.0	1.3	3.3	8.3	5.0	5.0	4.0	2.9	4.0
21	A13072-5	11.1	0.6	0.0	10.3 (Herm 28)	0.0	8.8	5.0	5.0	3.0	4.1	4.0
22	A14026-16adg	0.0	6.3	0.0	15.6 (Herm 48)	3.3	2.6	5.0	5.0	3.5	3.8	4.1
<b>Means</b>		<b>1.3</b>	<b>1.3</b>	<b>0.0</b>	<b>2.7</b>	<b>1.7</b>	<b>6.3</b>	<b>5.0</b>	<b>5.0</b>	<b>3.5</b>	<b>3.2</b>	<b>3.9</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: 2023 Tri-State Potato Variety Trial - FRENCH FRY COLOR (00-4.0(darkest)), AND PERCENT SUGAR ENDS

No.	Clone	Fry 44°						All Entries		Postharvest	Fry 40°						All Entries		Postharvest	Sugar Ends		Entry
		Field	Fry 44°			Fry 47°	Mean	Rank	3 state mean <sup>3</sup>	Fry 40°			Mean	Rank	3 state mean <sup>3</sup>	Ont	Herm <sup>2</sup>	Mean				
		Ont	WA <sup>1</sup>	ID <sup>1</sup>	OR <sup>1</sup>	Herm <sup>2</sup>				WA <sup>1</sup>	ID <sup>1</sup>	OR <sup>1</sup>										
1	Clearwater Russet	2.8	0.0	1.0	0.0	0.0	0.3	12	0.3	2.0	2.0	0.0	1.3	3	1.3	0.0	0.0	0.0				
2	Ranger Russet	2.3	1.0	0.0	0.0	1.0	0.5	15	0.3	2.0	3.0	2.0	2.3	11	2.3	0.0	0.0	0.0				
3	Russet Burbank	2.7	1.0	2.0	1.0	1.0	1.3	19	1.3	4.0	4.0	3.0	3.7	15	3.7	0.0	0.0	0.0				
4	Russet Norkotah	2.8	-	-	-	2.0	2.0	21	1.3							0.0	0.0	0.0				
5	Shepody																					
6	A10020-3sto	2.4	0.0	0.0	0.0	0.0	0.0	1	0.0	2.0	1.0	1.0	1.3	3	1.3	0.0	0.0	0.0				
7	A10071-1	3.0	1.0	0.0	0.0	0.0	0.3	12	0.3	3.0	0.0	1.0	1.3	3	1.3	0.0	0.0	0.0				
8	A12304-1sto	2.7	1.0	1.0	0.0	1.0	0.8	17	0.7	3.0	3.0	1.0	2.3	11	2.3	0.0	4.2	2.1				
9	A12327-5VR	2.6	1.0	0.0	0.0	0.0	0.3	12	0.3	2.0	1.0	1.0	1.3	3	1.3	0.0	4.2	2.1				
10	A13036-1	3.2	1.0	2.0	0.0	0.0	0.8	17	1.0	4.0	3.0	2.0	3.0	14	3.0	0.0	4.2	2.1				
11	A13072-7	2.7	0.0	2.0	0.0	0.0	0.5	15	0.7	2.0	3.0	0.0	1.7	9	1.7	0.0	0.0	0.0				
12	A13091-5	2.7	0.0	0.0	0.0	0.0	0.0	1	0.0	1.0	2.0	0.0	1.0	1	1.0	0.0	0.0	0.0				
13	AOR10071-8	2.0	0.0	0.0	0.0	0.0	0.0	1	0.0	2.0	2.0	0.0	1.3	3	1.3	0.0	0.0	0.0				
14	AOR15166-2	2.0	0.0	0.0	0.0	0.0	0.0	1	0.0	1.0	2.0	0.0	1.0	1	1.0	0.0	0.0	0.0				
15	AOR15227-2	2.1	0.0	0.0	0.0	0.0	0.0	1	0.0	2.0	2.0	0.0	1.3	3	1.3	0.0	0.0	0.0				
16	AOR15421-4	2.4	2.0	4.0	0.0	0.0	1.5	20	2.0	4.0	4.0	0.0	2.7	13	2.7	0.0	0.0	0.0				
17	COA15494-8	2.7	0.0	0.0	0.0	0.0	0.0	1	0.0	3.0	2.0	1.0	2.0	10	2.0	0.0	0.0	0.0				
18	A10635-2chc	1.8	-	-	-	0.0	0.0	1	0.0	-	-	-				-	4.2	4.2				
19	A11381-3	2.4	-	-	-	0.0	0.0	1	0.0	-	-	-				-	0.0	0.0				
20	A12308-3adg	2.8	-	-	-	0.0	0.0	1	0.0	-	-	-				-	0.0	0.0				
21	A13072-5	3.1	-	-	-	0.0	0.0	1	0.0	-	-	-				-	0.0	0.0				
22	A14026-16adg	2.7	-	-	-	0.0	0.0	1	0.0	-	-	-				-	0.0	0.0				
<b>Location Means</b>		<b>2.6</b>	<b>0.5</b>	<b>0.8</b>	<b>0.1</b>	<b>0.2</b>	<b>0.4</b>			<b>2.5</b>	<b>2.3</b>	<b>0.8</b>	<b>1.8</b>			<b>0.0</b>	<b>0.8</b>	<b>0.5</b>				

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

<sup>2</sup> Samples held for 2 week cool down period - 8 weeks at 47° storage temperature.

<sup>3</sup> Three state average processed at Washington - For complete postharvest results see <http://www.potatoes.wsu.edu/>



TABLE 15: 2023 Tri-State Potato Variety Trial - Additional Washington State Fry Color Data

No.	Clone	PRIOR TO STORAGE				Fry 48°				RECONDITIONED				BLANCHED			
		WA	ID	OR	Mean	WA <sup>1</sup>	ID <sup>1</sup>	OR <sup>1</sup>	Mean	WA <sup>2</sup>	ID <sup>2</sup>	OR <sup>2</sup>	Mean	WA	ID	OR	Mean
1	Clearwater Russet	1.0	1.0	0.0	<b>0.7</b>	0.0	0.0	0.0	<b>0.0</b>	2.0	1.0	0.0	<b>1.0</b>	0.0	0.0	0.0	<b>0.0</b>
2	Ranger Russet	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	1.0	2.0	<b>1.3</b>	1.0	1.0	1.0	<b>1.0</b>
3	Russet Burbank	1.0	2.0	0.0	<b>1.0</b>	1.0	1.0	0.0	<b>0.7</b>	3.0	2.0	2.0	<b>2.3</b>	3.0	2.0	1.0	<b>2.0</b>
4	Russet Norkotah	-	-	-		-	-	-		-	-	-		-	-	-	
5	Shepody	-	-	-		-	-	-		-	-	-		-	-	-	
6	A10020-3sto	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	1.0	0.0	<b>0.7</b>	1.0	0.0	0.0	<b>0.3</b>
7	A10071-1	0.0	0.0	0.0	<b>0.0</b>	1.0	0.0	0.0	<b>0.3</b>	1.0	0.0	0.0	<b>0.3</b>	1.0	0.0	0.0	<b>0.3</b>
8	A12304-1sto	1.0	1.0	0.0	<b>0.7</b>	1.0	1.0	0.0	<b>0.7</b>	2.0	2.0	1.0	<b>1.7</b>	1.0	1.0	0.0	<b>0.7</b>
9	A12327-5VR	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	0.0	0.0	<b>0.3</b>
10	A13036-1	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	3.0	2.0	1.0	<b>2.0</b>	2.0	2.0	1.0	<b>1.7</b>
11	A13072-7	0.0	1.0	0.0	<b>0.3</b>	0.0	1.0	0.0	<b>0.3</b>	1.0	2.0	0.0	<b>1.0</b>	1.0	2.0	0.0	<b>1.0</b>
12	A13091-5	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	0.0	1.0	0.0	<b>0.3</b>	0.0	0.0	0.0	<b>0.0</b>
13	AOR10071-8	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	1.0	1.0	<b>1.0</b>	1.0	1.0	0.0	<b>0.7</b>
14	AOR15166-2	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	0.0	1.0	0.0	<b>0.3</b>
15	AOR15227-2	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	1.0	0.0	<b>0.7</b>	1.0	1.0	0.0	<b>0.7</b>
16	AOR15421-4	2.0	3.0	0.0	<b>1.7</b>	2.0	3.0	0.0	<b>1.7</b>	3.0	4.0	0.0	<b>2.3</b>	3.0	3.0	0.0	<b>2.0</b>
17	COA15494-8	0.0	0.0	0.0	<b>0.0</b>	0.0	0.0	0.0	<b>0.0</b>	1.0	1.0	0.0	<b>0.7</b>	1.0	1.0	0.0	<b>0.7</b>
<b>Location Means</b>		<b>0.3</b>	<b>0.5</b>	<b>0.0</b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>0.0</b>	<b>0.2</b>	<b>1.3</b>	<b>1.3</b>	<b>0.5</b>	<b>1.0</b>	<b>1.1</b>	<b>1.0</b>	<b>0.2</b>	<b>0.8</b>

<sup>1</sup> Samples held at 48° for 60 days.<sup>2</sup> Samples held at 40° for 60 days and reconditioned at 60° for 21 days.

TABLE 16: 2023 Tri-State Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/Early Dying		Early Blight		Common Scab		Corky Ringspot		Soft Rot	Dry rot	PVY %	Metr. React.	C. Root <sup>6</sup> Knot			
	AB <sup>1</sup>		AB <sup>1</sup>		AB <sup>1</sup>		PROS <sup>3</sup>		Pecto-	Fusarium						
	HERM		Foliar		Serious		Incidence		AB <sup>1</sup>	AB <sup>1</sup>						
	(0-9)	AUDPC	(0-9)	AUDPC	(0-9)	AUDPC	(%)	(%)	(%)	(%)				(0-5) <sup>2</sup>	(0-5) <sup>2</sup>	HERM <sup>4</sup>
1 Clearwater Russet	4.0	72	2.7	98	4.0	78	0.0	0.0	65.0	53.5	S	2.0	5.0	95	R	S
2 Ranger Russet	5.7	297	4.7	212	5.7	242	12.3	9.5	53.6	41.5	S	1.7	2.9	95	R	S
3 Russet Burbank	6.7	363	5.0	254	5.7	230	0.0	0.0	60.4	43.5	S	1.1	2.7	75	R	S
4 Russet Norkotah	9.0	1103	--	--	9.0	722	11.1	4.2	43.3	31.7	S	1.7	3.1	--	MR	S
5 Shepody	6.7	525	--	--	6.3	408	19.5	7.3	--	--	--	2.1	4.1	--	VS	--
6 A10020-3sto	4.3	87	5.3	266	4.3	87	11.1	6.7	67.1	56.9	S	2.5	4.8	0	MS	S
7 A10071-1	5.3	248	4.3	156	5.0	223	14.0	9.7	19.2	6.8	MS	2.2	3.0	35	MR	S
8 A12304-1sto	3.7	73	2.5	95	4.7	125	19.6	13.2	65.8	46.1	S	2.7	4.0	10	MS	MS
9 A12327-5VR	6.3	420	3.2	84	5.3	283	0.0	0.0	73.3	59.0	S	2.1	3.6	75	MR	S
10 A13036-1	5.0	187	4.0	203	5.0	122	7.2	13.0	69.2	53.0	S	1.3	4.6	0	MR	S
11 A13072-7	4.3	145	5.3	335	5.0	165	16.6	1.5	75.7	63.7	S	1.2	4.3	30	S	S
12 A13091-5	6.0	297	6.5	396	5.3	227	11.4	4.3	71.7	55.6	S	2.3	2.9	40	MR	S
13 AOR10071-8	6.3	245	5.8	411	4.7	168	26.5	17.4	48.3	31.4	S	0.9	4.3	15	MR	S
14 AOR15166-2	4.0	69	5.0	490	4.3	98	14.3	7.1	70.4	61.4	S	1.5	3.5	35	R	S
15 AOR15227-2	5.0	112	4.2	292	4.3	116	8.6	0.0	75.2	63.4	S	0.9	2.9	25	R	S
16 AOR15421-4	7.3	463	4.5	546	7.0	504	0.0	0.0	69.2	58.0	S	2.3	3.8	45	MS	S
17 COA15494-8	6.7	405	4.5	197	7.0	472	1.7	0.0	74.3	63.0	S	1.9	3.3	0	MS	S
18 A10635-2chc	5.3	205	4.7	215	5.3	193	27.5	17.1	66.7	50.1	S	2.1	3.9	15	MR	S
19 A11381-3	4.0	85	4.3	209	4.0	82	13.3	6.7	79.2	65.6	S	1.1	4.1	90	R	S
20 A12308-3adg	5.7	217	4.7	306	5.3	227	41.0	14.3	68.3	42.6	S	2.2	4.4	0	MR	S
21 A13072-5	5.0	112	4.2	335	5.3	245	25.4	11.3	60.8	47.0	S	1.9	4.4	70	MR	S
22 A14026-16adg	4.7	92	4.2	235	5.7	213	40.7	9.4	75.0	63.0	S	1.7	4.6	15	R	MS
<b>MEANS</b>	<b>5.5</b>	<b>264.5</b>	<b>4.5</b>	<b>267</b>	<b>5.4</b>	<b>238</b>	<b>14.6</b>	<b>6.9</b>	<b>64.4</b>	<b>50.3</b>		<b>1.8</b>	<b>3.8</b>	<b>38.3</b>		
<b>LSD @ .05</b>	<b>1.2</b>				<b>1.4</b>		<b>29.0</b>					<b>1.2</b>	<b>1.1</b>			

**Castle Russet**

**0.0 0.0 R**

- 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.
- For 0 to 5: 0=none, 5=severe as a combination of tuber area and degree impacted by *Pectobacterium* or *Fusarium sambucinum* inoculations done at Aberdeen
- Corky ringspot readings Prosser, WA by Rich Quick and Launa Cimrhakl
- PVY readings Hermiston, OR from tuber sprouts by Sagar Suthavalli
- Metribuzin Reaction at Aberdeen, ID by Chelsey Lowder. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible
- Columbia root knot nematode ratings from Hermiston, OR provided by Sagar Suthavalli; S= over 50 dots; MS less than 20 and 40 dots; MR 5 and 20

TABLE 17: 2023 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	21.48	0.056	0.097	7.29	31.21	2.62
2	Ranger Russet	21.02	0.101	0.125	5.98	33.95	2.56
3	Russet Burbank	17.75	0.085	0.094	5.35	20.14	1.33
4	Russet Norkotah	19.21	0.100	0.080	5.24	20.47	2.39
6	A10020-3sto	20.21	0.037	0.114	8.32	26.10	3.81
7	A10071-1	18.31	0.027	0.098	6.81	21.94	2.19
8	A12304-1sto	20.66	0.056	0.096	5.97	38.13	2.38
9	A12327-5VR	19.54	0.052	0.091	7.31	24.07	4.26
10	A13036-1	20.20	0.070	0.130	7.80	31.51	1.46
11	A13072-7	22.35	0.066	0.133	7.00	27.83	6.52
12	A13091-5	22.44	0.013	0.100	7.27	23.66	1.81
13	AOR10071-8	21.47	0.028	0.105	8.14	30.86	2.99
14	AOR15166-2	21.13	0.044	0.121	8.83	25.32	1.70
15	AOR15227-2	20.62	0.080	0.126	8.39	20.18	5.09
16	AOR15421-4	17.70	0.089	0.087	7.08	24.10	0.58
17	COA15494-8	20.68	0.065	0.135	8.65	27.02	3.32
18	A10635-2chc	20.97	0.026	0.099	7.93	28.28	0.58
19	A11381-3	20.58	0.064	0.133	7.85	24.41	0.75
20	A12308-3adg	19.27	0.076	0.109	6.16	26.40	6.16
21	A13072-5	19.28	0.049	0.140	7.90	20.81	3.27
22	A14026-16adg	22.19	0.040	0.063	7.08	31.29	6.08
<b>Means</b>		<b>20.34</b>	<b>0.058</b>	<b>0.108</b>	<b>7.25</b>	<b>26.56</b>	<b>2.95</b>

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2023 Lenape check from Aberdeen was 57.6 mg/100g

TABLE 18: 2023 Tri-State Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Field Performance Fresh Merit									Field Performance Process Merit				Post-Harvest Process* 3 State Mean
		ID	Early		ID	Late		KF	LATE		WA	LATE			
			WA	Ont		WA	Herm		MEANS	RANK		Herm	MEANS	RANK	
1	Clearwater Russet				3.1	2.6	2.5	4.1	3.1	4	3.4	3.0	3.2	4	3.6
2	Ranger Russet	1.8	2.6	3.0	2.3	1.4	2.5	3.0	2.3	12	3.4	3.0	3.2	4	3.7
3	Russet Burbank	2.0	0.9	2.0	1.8	0.9	2.0	2.9	1.9	19	2.4	2.5	2.5	18	2.4
4	Russet Norkotah	3.3	3.4	1.0	2.8	1.4	3.5	3.4	2.8	8		2.0	2.0	19	-
5	Shepody	1.7		2.0											
6	A10020-3sto	3.3	2.2	2.0	2.6	2.9	3.5	2.6	2.9	5	3.0	2.5	2.8	10	3.7
7	A10071-1	2.9	1.4	4.0	2.6	1.8	3.5	3.5	2.9	7	2.4	3.0	2.7	11	3.1
8	A12304-1sto				3.5	3.1	3.5	2.6	3.2	2	2.4	4.0	3.2	4	2.9
9	A12327-5VR	3.3	2.9	3.0	3.8	1.9	2.5	3.4	2.9	6	2.9	2.5	2.7	11	3.2
10	A13036-1	3.1	1.4	1.0	3.0	0.6	2.0	2.5	2.0	17	2.7	2.5	2.6	13	3.4
11	A13072-7	3.5	2.6	2.0	3.8	0.3	2.0	3.5	2.4	11	3.2	2.0	2.6	13	3.1
12	A13091-5	3.1	2.9	4.0	3.4	0.9	3.0	2.9	2.5	9	3.9	2.0	3.0	8	4.2
13	AOR10071-8	2.9	1.6	1.0	2.9	1.1	2.0	1.0	1.7	20	3.9	2.0	3.0	8	3.8
14	AOR15166-2	3.5	2.6	1.0	3.1	3.3	3.0	3.9	3.3	1	4.3	3.5	3.9	1	4.2
15	AOR15227-2	2.8	3.8	4.5	2.6	1.9	3.0	-	2.5	10	3.7	3.5	3.6	2	3.7
16	AOR15421-4	2.4	1.8	4.5	2.5	1.0	3.5	1.3	2.1	16	1.7	3.5	2.6	13	2.2
17	COA15494-8	3.1	1.8	1.0	2.5	1.0	2.0	3.0	2.1	15	3.0	2.0	2.5	16	3.4
18	A10635-2chc	3.6	2.1	1.0	3.1	0.9	2.5	2.1	2.2	14	-	2.0	2.0	19	-
19	A11381-3	2.9	1.4	1.0	2.9	0.9	2.0	2.0	2.0	18	-	2.0	2.0	19	-
20	A12308-3adg	3.0	0.6	4.5	3.5	2.3	3.0	3.6	3.1	3	-	3.5	3.5	3	-
21	A13072-5	3.5	2.1	3.0	3.1	0.9	3.0	1.9	2.2	13	-	3.0	3.0	7	-
22	A14026-16adg	2.5	3.5	2.0	2.4	0.7	2.5	1.0	1.6	21	-	2.5	2.5	16	-
<b>Location Means</b>		<b>2.9</b>	<b>2.2</b>	<b>2.4</b>	<b>2.9</b>	<b>1.5</b>	<b>2.7</b>	<b>2.7</b>	<b>2.5</b>		<b>3.1</b>	<b>2.7</b>	<b>2.8</b>		

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

TABLE 19: 2023 Tri-State Potato Variety Trial - SUMMARY

Clone	Year in Trial	Use	Late Yield			Tuber Size		Tuber L/W	Fry Color		Fresh	Merit		Specific Gravity	Comments	
			Total	US#1's (CWT/%)		Early	Late		44°	40°		Process	WA PH			
1	Clearwater Russet	Check	Dual	616	515	80	-	6.5	1.66	0.3	1.3	3.1	3.2	3.6	1.088	VD-10.0
2	Ranger Russet	Check	Dual	596	445	72	6.3	7.3	2.08	0.5	2.3	2.3	3.2	3.7	1.084	ED-2.9
3	Russet Burbank	Check	Dual	546	396	69	5.6	6.3	1.84	1.3	3.7	1.9	2.5	2.4	1.078	SB-2.4 VD-12.0
4	Russet Norkotah	Check	Fresh	492	387	69	5.2	5.8	1.81	2.0	-	2.8	2.0	-	1.073	
5	Shepody*	Check	Proc	385	246	61	5.0	-	2.07	-	-	-	-	-	1.076	Uniform-1.7 VA 1.5
6	A10020-3sto	1	Dual	608	516	81	5.3	6.3	1.76	0.0	1.3	2.9	2.8	3.7	1.080	
7	A10071-1	2	Dual	672	545	79	6.2	7.2	1.84	0.3	1.3	2.9	2.7	3.1	1.075	
8	A12304-1sto	2	Dual	732	610	81	-	6.9	1.74	0.8	2.3	3.2	3.2	2.9	1.083	SB-2.0 BS-2.9
9	A12327-5VR	1	ID	784	646	79	7.1	8.6	1.52	0.3	1.3	2.9	2.7	3.2	1.078	SB-2.5
10	A13036-1	1	ID	529	411	76	5.5	7.4	1.70	0.8	3.0	2.0	2.6	3.4	1.085	
11	A13072-7	2	OR	624	452	70	7.6	9.0	1.62	0.5	1.7	2.4	2.6	3.1	1.085	Uniform-2.8 SB-2.4 VD-12.6
12	A13091-5	2	OR	485	386	77	6.6	6.0	1.72	0.0	1.0	2.5	3.0	4.2	1.082	SB-2.3
13	AOR10071-8	1	OR	581	494	79	4.7	6.5	1.52	0.0	1.3	1.7	3.0	3.8	1.087	VD-16.3
14	COA15494-8	1	OR	618	522	82	5.5	7.6	1.75	0.0	1.0	3.3	3.9	4.2	1.094	SB-2.2
15	AOR15227-2	1	OR	671	580	84	6.5	8.7	1.74	0.0	1.3	2.5	3.6	3.7	1.091	ED-2.9 SB-2.2 VD-15.3
16	AOR15421-4	1	OR	606	453	70	8.4	9.2	1.65	1.5	2.7	2.1	2.6	2.2	1.071	VD-12.3 Green-12.5
17	COA15494-8	1	ID	521	384	69	4.7	5.4	1.70	0.0	2.0	2.1	2.5	3.4	1.079	Uniform-2.8 SB-2.4 VD-12.6
18	A10635-2chc	1	ID	616	456	69	3.6	4.6	1.73	0.0	-	2.2	2.0	-	1.085	VD-12.6
19	A11381-3	2	OR	597	513	83	4.5	5.7	1.44	0.0	-	2.0	2.0	-	1.084	VD-15.3
20	A12308-3adg	1	ID	643	530	78	5.2	7.2	1.86	0.0	-	3.1	3.5	-	1.084	SB-2.3
21	A13072-5	1	ID	594	469	77	7.0	7.4	1.79	0.0	-	2.2	3.0	-	1.086	SB-2.1 IBS-10.3
22	A14026-16adg	1	ID	635	499	75	4.9	5.3	1.77	0.0	-	1.6	2.5	-	1.086	VA-2.2 SB-1.8 IBS-15.6
<b>Late Means</b>			<b>608</b>	<b>486</b>	<b>76</b>	<b>5.8</b>	<b>6.9</b>	<b>1.73</b>	<b>0.4</b>	<b>1.8</b>	<b>2.5</b>	<b>2.8</b>	<b>3.4</b>	<b>1.083</b>		

\* Early only

VD-Vascular Discoloration

SB-Shatter Bruise

VA-Visual Appearance

IBS-Internal Brown Spot

BS-Blackspot Bruise

ED-Eye Depth

TABLE 20: 2023 Early Tri-State Potato Variety Trial - COMMENTS BY STATE

Entry	Clone	Early Idaho	Early Washington	Early Ontario
1	Clearwater Russet			Small, poor fit for early check
2	Ranger Russet	Points, curves (4); deeper eyes (3); long (2)	Long, dark russet, some curves.	Small but tippy, little misshapen
3	Russet Burbank	Misshapen (4); lumpy (3); knobs, small (2)	Long, medium russet. Non uniform shapes.	Knobby, typical for RB, wide distribution
4	Russet Norkotah	Nice russet (4); tippy (3); small, uniform (2)	Uniform size and shape, many tippy.	
5	Shepody	Misshapen (3); patchy skin, knobs, curves, ugly (2)	Irregular shapes, light skin, pointy, ugly.	Typical, small, would be thrown out today
6	A10020-3sto	Nice russet, uniform (2)	Looks like Russet Norkotah with a larger size range.	Small with a high set, pointy
7	A10071-1	Nice heavier russet, points (4); some curves (2)	Good length, a bit pointy, lenticels.	High set, small, nice russet and yield
8	A12304-1sto			Misshapen, ugly, small, pointy
9	A12327-5VR	Deeper eyes, slight curves, blocky (3); tippy, nice skin, uniform (2)	Short, round, heavy russet skin. Too round!	Huge set, nice shape, little pointy
10	A13036-1	Few misshapen, flat, curves, points, variable size and shape (2)	Uniform shape and size, tippy, spotty skin.	Small, poor yield, round
11	A13072-7	Patchy skin, tippy (4); nice shape, uniform (2)	Deep eyes, bumpy, larger, ok length. Bad greening.	Irregular, pointy, pears
12	A13091-5	Blocky, nice skin (3); uniform size and shape, few pear (2)	Plump, deeper eyes. Tippy, ok length, good skin.	Nice russet, size, blocky
13	AOR10071-8	Smaller (3) some round, low yield (2)	Shape a bit irregular, range of sizes, tippy, plump. Spotty skin.	Small, round, poor shape
14	AOR15166-2	Nice russet (3); uniform size and shape, few curves (2)	Tippy, a bit small. Good length, even in the small ones.	Too small, not an early
15	AOR15227-2	Tippy, few points, patchy skin, good length, uniform (2)	Tippy, but flat. Nice uniform size and shape.	Decent size with a high set
16	AOR15421-4	Patchy skin, misshapen (3) low yield (2)	Plump, shape is irregular, some short, some long, flat.	Blocky, big, need to tighten up spacing
17	COA15494-8	Points (4) nice russet, good length (3); curves (2)	Some points, pears, river rocks.	Irregular, small, pointy
18	A10635-2chc	Nice russet, good shape, points (3); uniform, better late? (2)	Small, tippy, not early.	Huge set but too small, not an early
19	A11381-3	Short with some round (3); small (2)	Medium russet, many round, short.	Small, round, ugly, hearts
20	A12308-3adg	Tippy, uniform size and shape, patchy skin, few bumps (2)	Light russet, feathery skin, spotty russeting, small.	Good size, decent shape
21	A13072-5	Nice russet (3); blocky, big uniform shape (2)	Good length, tippy, spotty skin, feathery skin. Lenticels.	Decent size but wants to get pointy
22	A14026-16adg	Patchy skin, points (3); flat, nice shape (2)	Uniform shape, short, spotty skin.	Not an early, too small

TABLE 21: 2023 Late Tri-State Potato Variety Trial - COMMENTS BY STATE

Entry	Clone	Late Idaho	Late Washington	Late Hermiston	Klamath Falls
1	Clearwater Russet	Few points (3); tpy, few bulging eyes, few bumps (2)	Small to medium, a bit flat, tpy, nice russetting.	dotty-pixel x4, tpy x4, pty x4, flakey x2, bottle x2, lenticels x2, roty, skinning, short	Typy, looks nice x2 small x2
2	Ranger Russet	Points (4); curves (3); misshapen (2)	Long, shape variable, medium russet.	curvy x4, bottle x4, rot x4, pty x4, stripey, irregular	one rep really small
3	Russet Burbank	Points (4); misshapen (3); knobs (2)	Long, shape a bit lumpy, medium russet. Many #2's.	bottle X4, pty x4, irregular x3, db x2, sticky, curvy, nice, rhizoc, knobs, rot	erratic size, some folding.
4	Russet Norkotah	Nice type, small (4); nice russet (2)	Large, deep eyes, very heavy russet. Some scab issues.	pty x4, tpy x4, FM x3, tuberworm x2 Pr.eyes, pixel, curvy	typy, looks nice
5	Shepody				
6	A10020-3sto	Points (3); misshapen, little flat, tpy, smaller (2)	Mostly tpy, but variable, nice russet skin. Eye bulge.	typy x4, pty x3, dotty x3,bottle x2 ,rot x2, skinning x2, Pr. Eyes, triangle,, sticky, FM	short, small, flat
7	A10071-1	Bad points, nice russet (4); good eye (3)	Dark russet skin, pears, scabby, lenticels, tpy.	pty x4, FM x3bottle x2, curvy x2, heavy-pixel x2, sticky, nipple, typyx2, SB, , tpy, rhizoc, short, SB, skinning	long, nice skin appearance
8	A12304-1sto	Typy (3); patchy skin, few bumps, few points (2)	Feathery skin, tpy, nice length. Skin may be issue.	flakey x4, stripey x3, tpy x3, skinning x2, rot, SB x2, bruised,, rot, rhizoc, nice, stripey	blotchy russetting, big set
9	A12327-5VR	Blocky (4); uniform, bright eyes (2)	Round, dark russet, chipper in the Columbia Basin?	blocky x4, short x3, SB x2,sticky x2, heavy-pixel x2, bottle, nipple, ac, Pr. Eyes, stripey, tipac, lenticels, rot, R,	plump, dark heavy russetting
10	A13036-1	Flat (3); misshapen, good eye, nice russet, curves (2)	Mostly tpy, lots of US #2's, medium russet.	cracky skin x4, folded x3, SB x2, skinning x2, stripeyx2, tpy x2, C-shaped, curvy, bottle, , roty, pty, FM, ac	smaller round, one rep turning pink
11	A13072-7	Patchy skin (4); tpy (3); smooth eyes	Lumpy, variable shapes, some pears.	bottle x4, pty x4, curvyX3, deep eyes x2, rhizoc x2, C-shaped x2 nipple x2, SB x2, blocky, ,pear, short,	Big, plump, deep eyes
12	A13091-5	Typy, nice russet (3)	Nice shape, ok length. Eyes a bit deep, lenticels.	Pr.eyes x3, tpy x3, FM x3, lowest, short x3, curvy x2, rot, thin?, SB, deep, tuberworm, pty	rot, uneven russetting patches
13	AOR10071-8	Typy (3); patchy skin, round (2)	Round, scab, consider making this a chipper.	short x4,deep eyes x3, blocky x3, sticky x2, rhizoc, tpy, pixel,FBE, FM, R	small round x3
14	AOR15166-2	Typy, curves, points, little flat (2)	Nice russet skin, tpy, a bit flat.	pty x4, short x4, tpy x4, skinning x3, FM x3, pixel, triangle, nice	fresh potential, nice, tpy,
15	AOR15227-2	Misshapen, few bumps, points (2)	Plump, mostly tpy. Ugly skin, lenticels.	blocky x3, deep eyes x3, sticky x2, stripey x2, rhizoc, nipple, bottle, short, pty, cracky, tpy, Pr.eyes, flakey, rot, nice	NA
16	AOR15421-4	Blocky (3); misshapen, patchy skin (2)	Large, plump, a bit lumpy. Medium russet. Greening.	blocky x4, deep eyes x3, flakey, sticky x4, short, pty, skinning, stripey, FM, nice, rhizoc	big, plump, lenticel scaring
17	COA15494-8	Few curves, tpy, nice skin (3); misshapen (2)	Flat, oval river rocks, some pears and points.	pear, pty X4, triangle x3, bottle X4, nipple x4, ugly X2, rhizoc, rot x2, deep eyes, short x2, R	smaller, round
18	A10635-2chc	Typy (4); nice russet (3); scab (2)	Small, flat, tpy, some curves, nice russet skin.	oval, short, pty, triangle, dotty, bottle pixel, bottle, short, pty, sticky short, sticky, bottle,triangle, R, skinning sticky, bottle, short, pear, triangle, thin	small round drop, nice skin appearance
19	A11381-3	Shorter with some round (3); nice russet (2)	Half of tubers are round, ugly, feathery skin. Discard.	R x4, shortx4, pty x3, triangle x2, nipple x2 rhizoc, flat-disc, bottle,	Round, small
20	A12308-3adg	Typy (3); points, uniform (2)	Ugly skin, plump uniform shape and size.	pty x4, curvy x3, rot x3, sticky x2 tpy, nipple, pixel, bottle, nice, rhizoc	not bad, process only
21	A13072-5	Deeper eyes, curves, nice russet (2)	Feathery light russet, spotty, ugly. Process only.	pty x3,rhizoc x3,sticky x2, short x2, tpy x2 ,curvy, rot, dogger, tip ac, bottle, blocky, lenticels, nice, FM, folded	process only, uneven russetting patches
22	A14026-16adg	Points, patchy skin (4); variable shape and size, misshapen (2)	Small, light russet, some points. Discard.	flakey, pty x4, pear-bottle x3, rot x2,triangle x2, skinning, r, tpy, FM, SB, short,	Rot, lent scaring, pointy, shatter bruise

TABLE 22: 2023 Tri-State Harvest Potato Variety Trials  
STATE PACKOUT 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)		JS 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			62.3	26.0	75.3	31.4
2	Ranger Russet	52.0	15.5	50.1	23.2	83.0	38.7
3	Russet Burbank	34.5	10.8	50.3	20.9	77.0	32.0
4	Russet Norkotah	52.4	16.2	53.8	25.4	84.7	40.1
5	Shepody	24.8	6.7				
6	A10020-3sto	38.2	11.9	61.9	28.0	77.2	34.8
7	A10071-1	55.4	16.8	58.1	29.3	84.4	42.5
8	A12304-1sto			53.6	28.8	81.0	43.6
9	A12327-5VR	63.1	24.1	61.1	31.9	84.6	44.2
10	A13036-1	44.6	12.3	56.9	21.1	78.3	29.1
11	A13072-7	53.7	19.7	43.3	19.2	91.2	40.4
12	A13091-5	57.5	16.8	60.9	20.2	71.4	23.8
13	AOR10071-8	49.8	15.1	68.0	31.1	83.8	38.3
14	AOR15166-2	53.8	15.1	74.8	35.3	90.3	42.7
15	AOR15227-2	72.3	24.4	65.3	28.7	87.8	38.6
16	AOR15421-4	52.3	16.5	34.3	18.0	86.4	45.2
17	COA15494-8	47.3	17.2	53.2	21.0	71.3	28.1
18	A10635-2chc	27.9	9.5	41.2	18.1	59.0	25.9
19	A11381-3	44.8	13.3	58.3	26.6	76.8	35.1
20	A12308-3adg	17.0	5.8	68.2	34.7	85.8	43.7
21	A13072-5	57.8	18.7	58.2	24.2	79.0	32.8
22	A14026-16adg	62.8	23.3	39.1	17.0	53.1	23.1
		<b>48.1</b>	<b>15.5</b>	<b>55.9</b>	<b>25.2</b>	<b>79.1</b>	<b>35.9</b>