

2018 WESTERN REGIONAL POTATO VARIETY TRIAL REPORT

State Experiment Stations and
USDA-ARS Cooperating

California
Colorado
Idaho
Oregon
Texas
Washington



2018 WESTERN REGIONAL POTATO VARIETY TRIAL REPORT

TABLE

- 1 Locations, Cooperators, and Cultural Information
- 2 Clone, Parentage, Flower Color, Seed and Trial Information, Stand, Tuber and Vine Characteristics
- 3 Total Yield (CWT/A) - Early & Late Harvest
- 4 Yield of U.S. No. 1's (CWT/A & %) - Early & Late Harvest
- 5 Yield of U.S. No. 1's over 10 oz. (CWT/A & %) - Early & Late Harvest
- 6 Yield of Tubers Under 4 oz. (CWT/A & %) - Early & Late Harvest
- 7 Specific Gravity - Early & Late Harvest
- 8 Average Tuber Size, and Tuber Shape
- 9 External Defects - Growth Cracks, 2nd Growth, Shatter Bruise, and Scab
- 10 Internal Defects - Hollow Heart/Brown Center, Internal Brown Spot, Vascular Discoloration, Blackspot
- 11 French Fry Color and Percent Sugar Ends
- 12 Disease Evaluations - Aberdeen, Klamath, Tulelake, Corvallis, and Prosser
- 13 Solids, Dextrose, Sucrose, Protein, Vitamin C, and Glycoalkaloids - Aberdeen
- 14 Merit Scores
- 15 Entry Summary
- 16 Three Year Summary of Graduating Entries
- 17 Entry Comments - Early Harvest
- 18 Entry Comments - Late Harvest

Western Regional Potato Variety Trial Reports (1998-2018) can be accessed at the following website.

www.ars.usda.gov/main/docs.htm?docid=21888

Compiled by Brian Schneider

TABLE 1: 2018 Western Regional Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

No. Locations	Cooperators	Trial Irrigation		Fertilizer N-P-K-S(lb/A)	Planting Date	Harvest Date	Days to Vine Kill	Days to Harvest	Pesticides Applied ¹		
									Herbicides	Insecticides	Fungicides
1	Tulelake California (TUL) R. Wilson, D. Culp K. Nicholson	Late	Sprink.	205-0-0	21-May	3-Oct	114	135	Prowl H2O Outlook Matrix SG	Admire Pro	Maxim 4FS Quadris Luna Tranquility
2	San Luis Valley Colorado (SLV) D. Holm, C. Gray K. Gaudreau	Late	Pivot	143-35-20-17-1	10-May	27-Sep	114	140	Eptam, Tuscany Dual Magnum Prowl H2O	Pure Spray Green Vibrance	Quadris, Endura Champ Ion ++, Agri Tin Cruiser Maxx Vibrance
3	Aberdeen Idaho (AB) J. Stark, R. Novy, J. Whitworth, C. Lowder, B. Schneider	Late	Sprink.	205-80-0-0-10Zn-5Mn	3-May	24-Sep	119	144	TriCor 4F Matrix Eptam 7-E	Admire	
4	Kimberly Idaho (KIM) J. Stark, R. Novy, J. Whitworth, C. Lowder, B. Schneider	Late	Sprink.	125-278-180-64-5Zn-5Mn	25-Apr	1-Oct	133	159	Dimetric Outlook Eptam-7E	Rimon Beleaf	Luna Tranquility Bravo Weatherstik Zing, Fulfill, Dithane
5	Parma Idaho (PAR) M. Thornton, R. Portenier O. Adams	Early Late	Sprink. Sprink.	281-100-100 331-100-100	11-Apr 18-Apr	6-Aug 21-Sep	100 140	117 156	Outlook, Prowl, Matrix, Metribuzin Eptam 7E, Adsorb Intensity, crop oil	Movento + MSO	Bravo Endura, Luna T Tevus Quadris
6	Hermiston Oregon (HRM) S. Sathuvalli	Early Late	Pivot Pivot	375-210-225-99-15Mg-4Mn-3.5Zn-4B 375-210-225-99-15Mg-4Mn-3.5Zn-4B	28-Mar 10-Apr	15-Aug 13-Sep	133 143	140 156	Dual Magnum Matrix, Outlook Prowl	Admire Coragen Agr-Mek, Echo	Quadris, Rldomil Omega, Dithane
7	Dalhart Texas (DAL) I. Vales, J. C. Miller Jr., J. Koym, D. Schuering	Early	Pivot	224-74-282	15-May	24-Sep	112	132	Matrix SG, Echo Zn Chateau, Acumen K-Tone, Select Max Reglone, Tricor 4F	Movento, Fulfill Beleaf, Revus Top Scala SC, Torac Sivanto prime	Curzate 60DF Aframe Luna Tranquility Penncozeb 75DF
8	Othello (OTH) Othello (OTH) Washington M. Pavcek, R. Knowles	Early Late	Pivot Pivot	200-100-300-40-2B 365-250-300-40-2B	5-Apr 3-Apr	31-Jul 10-Sep	106 154	117 160	Outlook Prowl H2O Eptam	Platinum	Luna Tranquility Chloronil Bravo, Zing

¹**Bold indicates use in both location's trials.**

TABLE 2: 2018 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 Color ¹	Entered by	Use	Trial	Year in Trial	Seed Source	Stand ²	Tuber and Vine Descriptions from Trial Observations ²								
										Tuber Shape (1-5) ³	Tuber Skin (1-5) ⁴	Vine Size (1-5) ⁵	Vine Maturity (1-5) ⁶	Stems/Hill				
1	Ranger Russet	Butte A6595-3	RP	Ck	Dual	E/L	***	OR	99	Long	4.4	Med Russet	3.4	Med-Large	3.9	Medium	3.1	2.2
2	Russet Burbank	Early Rose ?	W	Ck	Dual	E/L	***	OR	98	Long	3.9	Med Russet	3.3	Large	3.6	Med Early	2.5	2.4
3	Russet Norkotah	ND9687-5Rus ND9526-4Rus	W	Ck	Fresh	E/L	***	OR	97	Long	3.8	Med Russet	4.2	Medium	3.2	Early	1.6	2.6
4	Shepody	Bake-King F58050	RP	Ck	Proc	E	***	OR	98	Long	3.4	Light Russet	1.0	Med-Large	4.2	Medium	3.0	2.1
5	A06030-23	A99133-6 Premier Russet	W	ID	Dual	E	2	OR	99	Obl-Lng	2.8	Light Russet	4.0	Large	2.9	Med-Late	2.1	2.6
6	A07061-6	Targhee Russet Clearwater Russet	RP	ID	Dual	E/L	2	OR	98	Long	2.8	Med Russet	1.9	Med-Large	3.8	Early	3.3	2.8
7	A071012-4BF	A85331-7 A01054-4	W	ID	Dual	E/L	1	OR	98	Oblong	3.2	Light Russet	3.3	Large	4.1	Medium	3.6	2.6
8	A07769-4	PA01N32-1 Premier Russet	RP	ID	Dual	E/L	1	OR	97	Obl-Lng	3.3	Med Russet	2.8	Med-Large	3.5	Med Early	2.8	2.6
9	A08433-4sto	A01667-3 AOND95249-1Russ	W	ID	Dual	E/L	2	OR	97	Oblong	3.4	Med Russet	3.3	Large	4.5	Med-Late	3.9	1.5
10	A10021-5TE	A03921-2 Mountain Gem Russet	W	ID	Dual	E/L	1	OR	98	Obl-Lng	4.1	Med Russet	3.3	Med-Large	3.7	Medium	3.1	2.7
11	AO02183-2	A97236-3 Premier Russet	W	OR	Dual	E/L	1	OR	99	Obl-Lng	4.3	Med Hvy Rus	3.7	Med-Large	4.4	Med Early	3.7	2.4
12	AO06191-1	A991234-1 AC92009-4RU	W	OR	Dual	E/L	3	OR	95	Obl-Lng	3.8	Med Russet	4.3	Med-Large	3.9	Medium	2.7	1.4
13	AOR06576-1	A00487-22LB A93575-4	W	OR	Fresh	E/L	1	OR	97	Obl-Lng	3.8	Med Russet	2.9	Med-Large	4.0	Medium	2.8	2.3
14	AOR07781-5	PA92A08-17 PALB03035-6	W	OR	Dual	E/L	2	OR	98	Oblong	3.5	Med Hvy Rus	4.2	Med-Large	4.0	Medium	2.4	3.6
15	AOR07821-1	WHA4052-1 Clearwater Russet	LavP	OR	Proc	E/L	1	OR	95	Obl-Lng	3.5	Med Russet	3.8	Med-Large	4.0	Medium	3.7	2.9
16	AOTX05043-1Ru	A99032-2TE Summit Russet	W	TX	Dual	E/L	1	CO	95	Oblong	3.1	Med Hvy Rus	3.2	Med-Large	3.5	Medium	2.3	2.6
17	CO08155-2RU/Y	Fortress Russet Innovator	W	CO	Dual	E/L	2	CO	95	Obl-Lng	3.6	Med Russet	3.8	Med-Large	3.8	Medium	2.1	2.8
18	CO08231-1RU	Crestone Russet Sage Russet	W	CO	Fresh	E/L	2	CO	97	Oblong	2.8	Med Hvy Rus	3.2	Med-Large	3.9	Medium	3.3	2.9
19	CO09036-2RU	AO98282-5 CO03267-4RU	W	CO	Dual	E/L	1	CO	97	Obl-Lng	3.7	Med Russet	4.2	Med-Large	4.2	Early	3.6	3.4
20	CO09076-3RU	CO03380-2RU CO03202-1RU	W	CO	Fresh	E/L	1	CO	96	Oblong	4.1	Med Hvy Rus	3.4	Med-Large	3.0	Medium	2.0	3.4
21	CO09205-2RU	AOA95154-1 CO95086-8RU	LP	CO	Dual	E/L	1	CO	97	Obl-Lng	3.9	Med Russet	3.4	Med-Large	2.7	Early	1.7	3.4
22	COTX05095-2Ru/Y	CO99045-1W/Y AO96164-1	W	TX	Fresh	E/L	1	CO	95	Oblong	2.8	Med Russet	2.8	Med-Large	3.4	Medium	1.9	3.6

¹ P=Purple, R=Red, W=White

² Numerical values are means of all trial locations at 60 days.

³ 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

⁴ 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

⁵ 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

⁶ 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: 2018 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 ¹ (CWT/A)										
	ID	OR	TX	WA	Entry		CA	CO	ID			OR	WA	Entry			
	PAR	HRM	DAL	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 Ranger Russet	426	746	449	491	528	16	bcd	422	428	512	609	781	916	899	652	7	bc
2 Russet Burbank	471	795	300	633	550	10	bc	442	406	472	616	740	602	863	592	12	cd
3 Russet Norkotah	484	685	523	511	551	9	bc	361	428	273	385	577	548	785	480	20	f
4 Shepody	434	888	440	621	596	2	ab		436						.	.	
5 A06030-23	398	470	464	391	431	22	d		400						.	.	
6 A07061-6	452	880	509	517	589	4	ab	488	589	563	650	800	703	1001	685	2	ab
7 A071012-4BF	418	882	523	543	591	3	ab	519	622	655	615	579	779	1017	684	3	ab
8 A07769-4	470	709	442	554	544	11	bc	450	507	532	529	713	660	1001	627	10	bc
9 A08433-4sto	364	828	548	570	578	5	ab	421	608	684	620	678	855	923	684	3	ab
10 A10021-5TE	470	726	399	575	543	12	bc	476	527	538	511	735	777	899	638	9	bc
11 AO02183-2	408	856	454	537	563	7	abc	432	518	624	780	783	978	980	728	1	a
12 AO06191-1	404	673	265	494	459	21	cd	393	459	379	493	619	685	725	536	16	def
13 AOR06576-1	505	873	693	586	664	1	a	456	555	602	552	796	838	907	672	5	ab
14 AOR07781-5	451	777	384	529	535	14	bcd	390	462	438	507	569	720	773	551	13	de
15 AOR07821-1	380	728	623	521	563	7	abc	414	512	526	624	715	885	944	660	6	bc
16 AOTX05043-1Ru	388	702	297	482	467	19	cd	348	387	423	446	492	660	712	495	19	ef
17 CO08155-2RU/Y	461	743	408	543	539	13	bc	418	479	298	413	660	684	789	534	17	def
18 CO08231-1RU	416	779	428	498	530	15	bcd	361	501	470	598	672	832	924	622	11	bc
19 CO09036-2RU	424	785	224	434	467	19	cd	408	505	544	623	712	831	943	652	7	bc
20 CO09076-3RU	507	588	374	618	522	17	bcd	446	424	403	546	685	498	795	542	14	def
21 CO09205-2RU	488	611	444	521	516	18	bcd	388	416	434	512	655	585	805	542	14	def
22 COTX05095-2Ru/Y	506	739	428	581	564	6	abc	490	400	378	443	556	698	773	534	17	def
Location Means	442	748	437	534	540			426	480	487	554	676	737	873	606		

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

Indicates high or strength

Indicates low or weakness

TABLE 4: 2018 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 ¹ (CWT/A) and %									
	ID	OR	TX	WA	Entry		CA	CO	ID		OR	WA	Entry				
	PAR	HRM	DAL	OTH	Mean/Rank	TUL			SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank		
1 Ranger Russet	397	571	337	458	441	15	bcdef	324	372	419	480	725	765	805	556	7	b
	93	77	75	93	85	14		77	87	81	79	93	83	90	84	9	
2 Russet Burbank	415	625	198	572	453	13	bcdef	328	342	299	326	664	441	745	449	14	efg
	88	79	66	90	81	18		74	84	63	52	90	73	86	75	19	
3 Russet Norkotah	446	579	421	491	484	8	abcde	246	358	210	307	532	441	718	402	20	g
	92	85	80	96	88	6		68	84	77	80	92	80	91	82	13	
4 Shepody	388	698	300	551	484	8	abcde	.	365	.	.	.	.	.	.	.
	90	79	68	89	81	18		.	84	.	.	.	.	.	.	.
5 A06030-23	366	393	347	372	369	22	ef	.	326	.	.	.	.	.	.	.
	92	84	75	95	86	12		.	81	.	.	.	.	.	.	.
6 A07061-6	401	760	426	493	520	2	ab	346	510	480	495	743	520	943	577	4	ab
	89	86	84	95	89	3		71	87	85	75	93	74	94	83	12	
7 A071012-4BF	384	816	366	514	520	2	ab	448	505	590	517	497	700	884	591	2	ab
	92	92	70	95	87	8		86	81	90	84	86	90	87	86	4	
8 A07769-4	444	641	378	532	499	6	abc	384	424	475	436	651	547	914	547	9	bc
	94	90	85	96	92	1		85	84	89	82	91	83	91	87	3	
9 A08433-4sto	344	766	412	529	513	4	ab	333	499	598	495	631	671	858	584	3	ab
	94	93	75	93	89	3		79	82	88	80	93	79	93	85	6	
10 A10021-5TE	441	634	311	514	475	12	abcde	375	451	471	442	704	704	717	552	8	bc
	94	87	78	89	87	8		79	86	88	86	96	91	80	86	4	
11 AO02183-2	362	776	354	523	504	5	ab	355	437	568	651	707	882	931	647	1	a
	89	91	78	97	89	3		82	84	91	84	90	90	95	88	1	
12 AO06191-1	378	632	196	484	423	18	bcdef	332	400	331	404	606	603	671	478	12	cdef
	93	94	74	98	90	2		84	87	87	82	98	88	93	88	1	
13 AOR06576-1	463	784	491	567	576	1	a	377	491	501	391	727	715	779	569	5	b
	92	90	71	97	87	8		83	88	83	71	91	85	86	84	9	
14 AOR07781-5	428	715	276	494	478	11	abcde	299	408	386	336	529	654	684	471	13	detg
	95	92	72	93	88	6		77	88	88	66	93	91	89	85	6	
15 AOR07821-1	335	653	433	503	481	10	abcde	350	451	407	509	661	720	855	565	6	b
	88	90	69	97	86	12		84	88	78	80	93	81	91	85	6	
16 AOTX05043-1Ru	341	607	210	438	399	19	cdef	262	346	337	349	463	516	644	417	18	fg
	88	86	71	91	84	15		75	89	80	78	94	78	90	84	9	
17 CO08155-2RU/Y	394	584	315	493	447	14	bcdef	275	414	193	277	579	493	716	421	17	fg
	86	79	77	91	83	16		66	86	65	67	88	72	91	76	18	
18 CO08231-1RU	340	644	258	482	431	16	bcdef	213	445	402	493	582	634	863	519	11	bcde
	82	83	60	97	80	20		59	89	85	82	87	76	93	82	13	
19 CO09036-2RU	337	681	111	423	388	21	ef	284	424	412	450	625	650	886	533	10	bcd
	79	87	49	98	78	21		70	84	76	72	88	78	94	80	15	
20 CO09076-3RU	397	373	242	553	391	20	def	316	356	308	380	531	274	706	410	19	fg
	78	63	65	89	74	22		71	84	76	70	77	55	89	75	19	
21 CO09205-2RU	415	449	337	505	426	17	bcdef	289	361	348	386	530	311	741	424	16	fg
	85	74	76	97	83	16		74	87	80	76	81	53	92	78	17	
22 COTX05095-2Ru/Y	441	625	346	558	493	7	abcd	385	339	260	309	493	520	734	434	15	fg
	87	85	81	96	87	8		79	85	69	70	89	74	95	80	15	
Location Means	393	637	321	502	463			326	410	400	422	609	588	790	507		
	89	85	73	94	85			76	85	81	76	90	79	90	83		

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

TABLE 5: 2018 Western Regional Potato Variety Trial - YIELD > 10 OZ [CWT/A (upper) & % (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 ¹ (CWT/A) and %										
	ID	OR	TX	WA	Entry		CA	CO	ID	OR	WA	Entry					
	PAR	HRM	DAL	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 Ranger Russet	153	376	83	180	198	10	cderg	62	164	197	358	500	347	591	317	7	abc
	36	50	18	37	35	9		15	38	38	59	64	38	66	45	7	
2 Russet Burbank	187	304	45	224	190	11	cdergh	58	158	141	151	437	57	455	208	12	de
	40	38	15	35	32	12		13	39	30	24	59	9	53	32	14	
3 Russet Norkotah	227	195	156	149	182	12	detgh	63	178	55	137	338	115	472	194	14	de
	47	29	30	29	34	10		17	42	20	36	59	21	60	36	11	
4 Shepody	269	539	76	423	327	1	a	.	177	.	.	.	.	.	.	.
	62	61	17	68	52	2		.	41	.	.	.	.	.	.	.
5 A06030-23	109	91	158	34	98	19	ghi	.	46	.	.	.	.	.	.	.
	27	19	34	9	22	16		.	11	.	.	.	.	.	.	.
6 A07061-6	115	242	129	56	135	16	tghi	30	249	189	249	481	68	465	247	10	bcd
	25	28	25	11	22	16		6	42	34	37	60	10	46	34	12	
7 A071012-4BF	216	617	195	205	308	2	ab	170	347	351	339	363	359	730	380	1	a
	52	70	37	38	49	4		33	56	53	55	63	46	72	54	2	
8 A07769-4	252	408	191	230	270	5	abcde	116	225	231	236	528	164	762	323	6	ab
	54	57	43	41	49	4		26	44	43	45	74	25	76	48	5	
9 A08433-4sto	171	390	127	224	228	8	abcdef	61	325	368	254	494	365	638	358	2	a
	47	47	23	39	39	7		15	53	54	41	73	43	69	50	3	
10 A10021-5TE	213	494	178	231	279	4	abcd	59	246	208	229	587	447	543	331	5	a
	45	68	45	40	50	3		12	47	38	45	80	58	60	49	4	
11 AO02183-2	137	495	105	100	209	9	bcdef	95	136	250	348	512	505	588	348	3	a
	34	58	23	19	33	11		22	26	40	44	65	52	60	44	9	
12 AO06191-1	293	537	133	210	293	3	abc	179	216	240	323	520	424	508	344	4	a
	72	80	50	42	61	1		45	47	63	66	84	62	70	62	1	
13 AOR06576-1	202	512	231	114	265	6	abcde	112	277	268	226	538	232	547	314	9	abc
	40	59	33	19	38	8		25	50	44	40	68	28	60	45	7	
14 AOR07781-5	223	518	132	154	257	7	abcde	97	156	186	146	416	245	447	242	11	cd
	49	67	34	29	45	6		25	34	42	29	73	34	58	42	10	
15 AOR07821-1	130	314	132	110	172	13	efghi	112	277	171	277	471	331	579	317	7	abc
	34	43	21	21	30	14		27	54	32	43	66	37	61	46	6	
16 AOTX05043-1Ru	157	227	49	113	136	15	fghi	50	192	68	72	270	61	348	152	17	efgh
	40	32	16	24	28	15		14	50	16	16	55	9	49	30	16	
17 CO08155-2RU/Y	61	138	102	31	83	20	hi	7	145	18	42	198	46	207	95	20	h
	13	19	25	6	16	20		2	30	6	10	30	7	26	16	20	
18 CO08231-1RU	21	161	39	56	69	21	i	12	260	133	217	213	184	382	200	13	de
	5	21	9	11	12	21		3	52	28	36	32	22	41	31	15	
19 CO09036-2RU	82	283	18	18	100	18	ghi	54	139	69	159	275	171	346	173	16	detg
	19	36	8	4	17	19		13	27	13	25	39	21	37	25	17	
20 CO09076-3RU	124	182	113	247	167	14	etghi	106	170	141	141	304	63	370	185	15	def
	25	31	30	40	31	13		24	40	34	26	44	13	47	33	13	
21 CO09205-2RU	41	139	78	5	66	22	i	30	75	34	134	224	34	197	104	19	gh
	8	23	17	1	12	21		8	18	8	26	34	6	24	18	19	
22 COTX05095-2Ru/Y	115	186	79	106	122	17	fghi	78	55	18	90	243	98	225	115	18	tgh
	23	25	19	18	21	18		16	14	5	20	44	14	29	20	18	
Location Means	159	334	116	146	84			78	192	167	206	396	216	470	247		
	36	44	26	26	19			18	39	32	36	58	28	53	38		

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

TABLE 6: 2018 Western Regional Potato Variety Trial - YIELD < 4 OZ [CWT/A (upper) & % (lower)] - EARLY AND LATE HARVEST

No. Clone	Yield < 4 OZ - Early Harvest (CWT/A) and %						Yield < 4 OZ - Late Harvest ¹ (CWT/A) and %										
	ID	OR	TX	WA	Entry		CA	CO	ID	OR	WA	Entry					
	PAR	HRM	DAL	OTH	Mean/Rank		TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank			
1 Ranger Russet	20	45	75	30	43	14	efghi	70	28	30	18	28	47	23	35	16	def
	5	6	17	6	8	14		16	6	6	3	4	5	3	6	16	
2 Russet Burbank	32	61	30	38	40	16	fghi	80	27	41	41	19	118	27	50	9	cd
	7	8	10	6	8	14		18	7	9	7	3	20	3	9	10	
3 Russet Norkotah	39	73	43	39	49	11	etgh	87	28	51	34	27	91	24	49	10	cd
	8	11	8	8	9	11		24	7	19	9	5	17	3	12	8	
4 Shepody	16	35	64	22	34	17	ghi	.	28	.	.	.	.	.	.	.
	4	4	15	4	6	17		.	6	.	.	.	.	.	.	.
5 A06030-23	28	64	48	55	49	11	efgh	.	69	.	.	.	.	.	.	.
	7	14	10	14	11	10		.	17	.	.	.	.	.	.	.
6 A07061-6	45	98	57	71	68	7	cde	124	51	53	66	48	166	47	79	7	ab
	10	11	11	14	12	8		25	9	9	10	6	24	5	13	7	
7 A071012-4BF	18	12	48	36	29	19	ghi	48	29	21	31	22	37	9	28	19	ef
	4	1	9	7	5	20		9	5	3	5	4	5	1	5	19	
8 A07769-4	19	39	32	34	31	18	ghi	53	37	28	37	27	75	16	39	14	def
	4	6	7	6	6	17		12	7	5	7	4	11	2	7	11	
9 A08433-4sto	20	35	83	26	41	15	etghi	67	46	28	45	15	41	19	37	15	def
	6	4	15	4	7	16		16	8	4	7	2	5	2	6	16	
10 A10021-5TE	22	26	24	26	25	21	hi	88	42	30	26	14	28	19	35	16	def
	5	4	6	5	5	20		18	8	6	5	2	4	2	6	16	
11 AO02183-2	26	48	51	65	47	13	efghi	59	60	45	40	31	65	32	47	11	cde
	6	6	11	12	9	11		14	12	7	5	4	7	3	7	11	
12 AO06191-1	17	16	20	30	20	22	i	35	27	15	13	13	24	20	21	20	f
	4	2	7	6	5	20		9	6	5	3	2	3	3	4	20	
13 AOR06576-1	31	31	93	65	55	10	defg	52	31	46	37	29	67	32	42	12	cde
	6	4	13	11	9	11		11	6	8	7	4	8	4	7	11	
14 AOR07781-5	19	33	28	38	29	19	ghi	52	26	27	44	18	44	25	34	18	def
	4	4	7	7	6	17		13	6	6	9	3	6	3	7	11	
15 AOR07821-1	36	41	115	70	66	8	def	47	30	41	52	17	81	18	41	13	cdef
	10	6	18	13	12	8		11	6	8	9	2	9	2	7	11	
16 AOTX05043-1Ru	33	72	84	58	62	9	def	63	30	70	75	22	117	37	59	8	bc
	9	10	28	12	15	4		18	8	17	17	4	18	5	12	8	
17 CO08155-2RU/Y	52	127	67	76	80	5	abcd	121	43	88	94	62	143	63	88	3	a
	11	17	17	14	15	4		29	9	30	23	9	21	8	18	1	
18 CO08231-1RU	72	121	145	80	104	1	a	137	33	59	75	80	160	82	89	2	a
	17	16	34	16	21	2		38	7	13	13	12	19	9	16	2	
19 CO09036-2RU	73	91	95	119	95	3	abc	110	70	106	92	68	116	92	93	1	a
	17	12	42	27	25	1		27	14	20	15	10	14	10	15	6	
20 CO09076-3RU	81	115	52	55	76	6	bcd	73	45	57	91	78	162	63	81	6	ab
	16	20	14	9	15	4		16	11	14	17	11	33	8	16	2	
21 CO09205-2RU	65	97	87	135	96	2	ab	78	42	73	74	50	180	78	82	5	a
	13	16	20	26	19	3		20	10	17	15	8	31	10	16	2	
22 COTX05095-2Ru/Y	64	102	76	86	82	4	abcd	80	47	102	79	53	162	72	85	4	a
	13	14	18	15	15	4		16	12	27	18	10	23	9	16	2	
Location Means	38	63	64	57	55			76	39	50	53	36	96	40	56		
	8	9	15	11	11			18	8	12	10	5	14	5	10		

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

TABLE 7: 2018 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	OTH	Mean/Rank	TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank				
1 Ranger Russet	1.084	1.074	1.082	1.083	1.081	4	bcd	1.106	1.089	1.090	1.093	1.094	1.084	1.082	1.091	4	b
2 Russet Burbank	1.079	1.077	1.062	1.076	1.074	17	efgh	1.100	1.089	1.077	1.082	1.077	1.084	1.080	1.084	14	efg
3 Russet Norkotah	1.079	1.066	1.058	1.075	1.070	20	gh	1.089	1.083	1.071	1.073	1.073	1.075	1.071	1.076	19	ij
4 Shepody	1.081	1.073	1.076	1.072	1.076	13	defg	.	1.085	.	.	.	.	.	.	.	.
5 A06030-23	1.090	1.072	1.075	1.085	1.081	5	bcd	.	1.089	.	.	.	.	.	.	.	.
6 A07061-6	1.074	1.060	1.070	1.073	1.069	22	h	1.092	1.081	1.081	1.084	1.085	1.080	1.077	1.083	15	fgh
7 A071012-4BF	1.096	1.095	1.086	1.083	1.090	1	a	1.112	1.094	1.099	1.100	1.102	1.095	1.094	1.099	1	a
8 A07769-4	1.080	1.072	1.074	1.077	1.076	12	def	1.101	1.087	1.084	1.093	1.088	1.075	1.080	1.087	11	cde
9 A08433-4sto	1.075	1.080	1.071	1.072	1.074	16	efgh	1.091	1.083	1.083	1.090	1.093	1.084	1.082	1.086	12	cdef
10 A10021-5TE	1.084	1.072	1.073	1.075	1.076	10	def	1.107	1.091	1.091	1.087	1.085	1.084	1.083	1.090	8	bc
11 AO02183-2	1.080	1.080	1.066	1.077	1.076	11	def	1.103	1.091	1.087	1.092	1.088	1.090	1.087	1.091	5	b
12 AO06191-1	1.084	1.086	1.083	1.079	1.083	3	bc	1.093	1.096	1.090	1.100	1.088	1.088	1.088	1.092	2	b
13 AOR06576-1	1.078	1.072	1.064	1.073	1.072	19	fgh	1.092	1.085	1.076	1.079	1.078	1.075	1.075	1.080	18	hi
14 AOR07781-5	1.090	1.086	1.077	1.084	1.084	2	ab	1.105	1.093	1.092	1.088	1.087	1.092	1.084	1.091	3	b
15 AOR07821-1	1.078	1.078	1.070	1.085	1.078	8	cdef	1.098	1.091	1.088	1.089	1.089	1.085	1.085	1.089	9	bc
16 AOTX05043-1Ru	1.083	1.081	1.074	1.079	1.079	6	bcde	1.100	1.086	1.089	1.092	1.086	1.086	1.082	1.089	10	bcd
17 CO08155-2RU/Y	1.078	1.078	1.077	1.082	1.079	7	bcde	1.096	1.089	1.087	1.077	1.083	1.085	1.082	1.086	13	def
18 CO08231-1RU	1.078	1.076	1.074	1.073	1.075	15	defg	1.099	1.085	1.091	1.094	1.093	1.085	1.080	1.090	7	bc
19 CO09036-2RU	1.084	1.082	1.068	1.075	1.077	9	cdef	1.102	1.090	1.086	1.093	1.090	1.085	1.084	1.090	6	bc
20 CO09076-3RU	1.079	1.073	1.065	1.072	1.072	18	fgh	1.093	1.082	1.077	1.080	1.080	1.079	1.081	1.082	16	gh
21 CO09205-2RU	1.077	1.062	1.067	1.070	1.069	21	h	1.085	1.074	1.074	1.079	1.074	1.066	1.075	1.075	20	j
22 COTX05095-2Ru/Y	1.083	1.074	1.069	1.076	1.075	14	defg	1.088	1.082	1.081	1.084	1.075	1.080	1.077	1.081	17	gh
Mean	1.082	1.076	1.072	1.077	1.077			1.098	1.087	1.085	1.087	1.085	1.083	1.081	1.087		

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

TABLE 8: 2018 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 Location Means ¹								
	Early Trial						Late Trial						Early Trial						Late Trial						CA	CO	TX	ID				OR	WA
	ID	OR	TX	WA	Mean	CA	ID			OR	WA	Mean	OR	TX	WA	Mean	CA	CO	ID	OR	WA	Mean	TUL	SLV				DAL	AB	KIM	PAR			HRM	OTH
	PAR	HRM	DAL	OTH	Mean	TUL	AB	KIM	PAR	HRM	OTH	Mean	HRM	DAL	OTH	Mean	TUL	SLV	AB	KIM	HRM	OTH	Mean	TUL	SLV	DAL	AB	KIM	PAR	HRM	OTH		
1	Ranger Russet	7.7	8.5	5.9	8.1	7.6	5.5	8.4	11.0	9.8	7.2	11.8	8.9	5.0	3.6	3.3	4.0	5.0	4.0	4.8	4.8	5.0	4.0	4.6	2.29	1.87	2.13	2.17	1.93	2.23	2.25	1.61	
2	Russet Burbank	7.3	7.4	6.2	8.5	7.4	5.4	8.1	9.2	9.9	4.5	10.4	7.9	4.8	4.0	3.0	3.9	4.3	4.0	4.0	3.8	4.3	3.0	3.9	2.04	1.99	2.52	1.89	1.84	2.09	2.05	1.73	
3	Russet Norkotah	7.7	6.4	7.2	7.3	7.1	4.9	5.7	7.9	9.1	5.6	10.4	7.3	2.5	4.6	4.0	3.7	4.0	4.0	3.6	3.6	3.6	4.0	3.8	1.85	1.84	2.14	2.01	1.99	1.84	2.01	1.80	
4	Shepody	10.0	11.0	6.2	12.6	10.0	.	.	.	.	.	.	.	4.3	3.5	3.0	3.6	.	3.0	.	.	.	.	.	.	1.72	1.63	.	.	1.65	.	.
5	A06030-23	6.3	5.7	7.4	6.0	6.3	.	.	.	.	.	.	.	2.5	3.8	2.0	2.8	.	3.0	.	.	.	.	.	.	1.62	1.87	.	.	1.80	.	.
6	A07061-6	6.0	6.2	6.3	5.8	6.1	4.7	6.8	7.5	8.5	4.5	8.7	6.8	2.0	3.5	2.0	2.5	4.0	3.0	3.5	3.1	1.9	2.0	2.9	1.74	1.56	1.82	1.82	1.80	1.73	1.55	1.52	
7	A071012-4BF	9.0	11.4	7.8	8.2	9.1	7.5	9.6	9.6	10.9	8.4	14.1	10.0	3.0	4.3	2.5	3.3	3.8	2.0	3.3	3.3	3.6	3.0	3.1	1.80	1.55	1.95	1.73	1.73	1.78	1.79	1.49	
8	A07769-4	8.3	8.7	8.6	8.2	8.5	6.2	8.2	8.5	12.0	6.1	13.3	9.0	3.4	3.6	2.7	3.2	4.0	3.0	3.4	3.4	3.1	2.9	3.3	1.75	1.69	1.81	1.67	1.66	1.63	1.71	1.63	
9	A08433-4sto	8.0	8.1	6.2	8.3	7.7	5.5	9.4	8.2	12.4	8.2	12.0	9.3	3.3	3.6	2.7	3.2	4.0	3.0	3.3	3.4	4.0	3.5	3.5	1.63	1.70	1.80	1.60	1.65	1.62	1.82	1.62	
10	A10021-5TE	8.3	10.7	8.0	8.6	8.9	5.2	8.0	8.3	12.5	9.2	12.0	9.2	3.9	4.8	4.0	4.2	4.5	4.0	4.4	3.3	4.3	4.3	4.1	2.10	1.90	2.47	2.03	1.99	2.12	1.93	1.83	
11	AO02183-2	7.3	8.6	6.3	6.4	7.2	5.9	7.6	8.4	11.2	7.6	10.3	8.5	2.5	4.5	4.0	3.7	5.0	5.0	5.0	4.3	4.3	4.0	4.6	2.48	2.04	2.56	2.13	1.93	2.18	2.04	1.88	
12	AO06191-1	10.3	12.2	9.2	8.3	10.0	7.5	10.5	12.4	14.5	9.6	11.8	11.0	3.3	4.0	4.0	3.8	4.1	3.0	4.0	3.6	4.0	4.0	3.8	1.84	1.78	2.05	1.92	1.78	1.80	1.74	1.64	
13	AOR06576-1	7.3	9.3	7.2	6.6	7.6	6.3	8.2	8.4	10.4	6.4	10.9	8.4	2.9	4.4	3.0	3.4	4.8	3.0	4.6	3.4	4.0	4.0	4.0	2.09	1.80	2.17	1.95	1.82	1.98	1.99	1.66	
14	AOR07781-5	8.3	9.8	7.4	7.6	8.3	6.0	8.3	7.8	11.0	7.1	10.1	8.4	2.5	4.3	2.8	3.2	4.4	3.0	3.8	3.9	3.5	3.0	3.6	1.96	1.79	2.24	1.87	1.84	1.79	1.79	1.67	
15	AOR07821-1	6.7	7.9	7.4	6.1	7.0	6.3	7.5	7.8	11.7	7.0	11.3	8.6	3.5	3.6	2.7	3.3	4.0	3.0	4.0	3.9	3.6	3.0	3.6	1.85	1.78	1.82	1.86	1.75	1.73	1.67	1.60	
16	AOTX05043-1Ru	7.0	6.5	5.6	6.7	6.5	5.3	5.7	5.7	8.7	5.0	8.9	6.5	3.0	3.1	3.0	3.0	3.9	3.0	3.5	2.8	2.3	3.0	3.1	1.67	1.71	1.83	1.85	1.74	1.73	1.63	1.58	
17	CO08155-2RU/Y	5.3	5.3	6.3	5.8	5.7	4.3	4.6	5.0	6.6	4.9	7.1	5.4	2.3	3.3	4.0	3.2	4.0	4.0	3.8	4.0	4.4	3.0	3.9	1.90	1.86	1.91	1.97	1.93	1.80	1.94	1.79	
18	CO08231-1RU	4.7	5.6	4.3	5.7	5.1	4.0	6.3	7.0	6.3	5.1	7.8	6.1	1.9	3.3	2.5	2.5	3.3	3.0	3.5	3.4	1.8	2.3	2.9	1.57	1.66	2.05	1.88	1.78	1.82	1.47	1.55	
19	CO09036-2RU	5.0	6.3	6.7	4.9	5.7	4.7	5.4	6.3	6.8	5.6	7.5	6.0	3.5	4.1	4.0	3.9	4.3	4.0	3.9	3.6	3.9	2.3	3.6	1.87	1.83	2.37	2.01	1.90	2.05	1.94	1.70	
20	CO09076-3RU	5.3	5.6	6.7	7.7	6.3	5.8	6.5	6.2	6.8	4.7	8.4	6.4	5.0	4.0	3.3	4.1	4.3	4.0	4.0	4.0	4.4	4.0	4.1	1.98	1.86	2.16	2.06	2.00	2.11	2.20	1.73	
21	CO09205-2RU	5.3	5.6	5.9	4.9	5.4	4.9	5.4	6.3	7.0	4.3	6.8	5.8	4.8	3.8	3.0	3.8	4.6	4.0	3.6	4.4	4.0	3.0	3.9	2.05	1.84	1.91	2.04	1.93	1.95	2.20	1.74	
22	COTX05095-2Ru/	5.3	5.8	5.8	6.1	5.8	5.5	4.9	6.3	6.8	4.7	6.9	5.9	2.1	3.4	2.5	2.7	4.0	3.0	3.1	3.4	1.8	2.0	2.9	1.73	1.58	1.94	1.63	1.67	1.69	1.50	1.48	
	Mean	7.1	7.9	6.7	7.2	7.2	5.6	7.3	7.9	9.6	6.3	10.0	7.8	3.3	3.9	3.1	3.4	4.2	3.4	3.8	3.7	3.6	3.2	3.7	1.91	1.77	2.05	1.91	1.83	1.87	1.86	1.66	

¹Parma and Hermiston; combined means of Early Harvest and Later Harvest Trials.

TABLE 9: 2018 Western Regional Potato Variety Trial - EXTERNAL DEFECTS MEANS OF LOCATIONS - GROWTH CRACKS, SECOND GROWTH, SHATTER BRUISE, AND SCAB¹

No. Clone	Growth Cracks		Second Growth		Shatter Bruise			Scab	
	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	Ab ²	Early Trial	Late Trial
1 Ranger Russet	4.7 HRM 3.8	4.4 SLV 3.0	4.2	4.7	4.6	4.2	2.6	4.7	4.7
2 Russet Burbank	4.7	3.9 SLV 3.0	3.8	3.6 AB 2.2 KIM 2.5	4.2	3.6 OTH 2.0	2.4	4.9	5.0
3 Russet Norkotah	4.9	4.7 SLV 3.0	4.8	4.8	4.8	4.1	3.1	4.9	4.9
4 Shepody	4.5	.	4.0	.	4.9	.	.	4.6	.
5 A06030-23	4.3	.	4.8	.	4.6	.	.	4.9	.
6 A07061-6	4.7	4.8	4.8	4.8	4.8	3.2 OTH 2.0	2.5	4.5 PAR 3.0	4.3
7 A071012-4BF	5.0	4.7	4.3 DAL 3.0	4.3	4.1 OTH 2.0	3.3 OTH 2.0	3.0	4.8	4.9
8 A07769-4	4.9	4.5 SLV 3.0	4.8	4.7	3.8 OTH 2.0	2.5 OTH 1.0	2.7	4.8	4.8
9 A08433-4sto	4.8	3.9 SLV 2.0 HRM 3.0	5.0	4.5	4.7	4.1	3.2	4.8	4.9
10 A10021-5TE	4.3 HRM 3.9	4.1 SLV 3.0	4.8	4.6	4.6	3.5 OTH 2.0	3.1	4.8	4.7
11 AO02183-2	4.6	4.9	4.3	4.5	4.3	3.8	2.9	5.0	4.8
12 AO06191-1	4.8	4.7 SLV 3.0	4.9	4.8	4.4	3.3 OTH 2.0	3.2	5.0	5.0
13 AOR06576-1	4.6	4.4	4.6	4.3	4.6	3.5 OTH 2.0	2.7	5.0	4.9
14 AOR07781-5	4.7	4.3 SLV 2.0	4.5	4.9	4.2	3.0 OTH 2.0	2.4	5.0	4.9
15 AOR07821-1	4.8	4.6	4.5	4.6	4.1	3.0 OTH 2.0 PAR 2.7	2.4	4.9	4.8
16 AOTX05043-1Ru	4.8	4.7	4.8	5.0	4.7	3.6 OTH 2.0	2.7	5.0	5.0
17 CO08155-2RU/Y	5.0	4.7	4.9	4.5 SLV 2.0	4.2 OTH 2.0	4.3	3.3	4.8	4.9
18 CO08231-1RU	4.8	4.7	4.8	4.8	4.5	3.6 OTH 2.0	3.0	4.8	4.6
19 CO09036-2RU	4.9	5.0	5.0	4.6	4.7	4.4	3.0	5.0	5.0
20 CO09076-3RU	4.2 HRM 3.9	4.0	4.5	4.4	4.4	3.7 OTH 2.0	2.8	4.4	5.0
21 CO09205-2RU	4.5 HRM 3.8	4.2	4.9	4.7	4.6	4.0	2.9	5.0	4.8
22 COTX05095-2Ru/Y	4.7	4.8	5.0	5.0	4.1 OTH 2.0	3.3 OTH 2.0	2.8	4.8	4.6
Mean	4.7	4.5	4.6	4.6	4.4	3.6	2.8	4.8	4.8

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

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

TABLE 10: 2018 Western Regional Potato Variety Trial - INTERNAL DEFECTS MEANS OF LOCATIONS - HOLLOW HEART/BROWN CENTER, INTERNAL BROWN SPOT, VASCULAR DISCOLORATION/NET NECROSIS, AND BLACKSPOT¹

No. Clone	Percent Hollow Heart Plus Brown Center		Percent Internal Brown Spot		Percent Net Necrosis/Vascular Discoloration		Blackspot Bruise [(1-5(NONE))]		ID ²
	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	
1 Ranger Russet	1	0	0	1	8	7	3.4	HRM 2.1 2.3	HRM 1.8 OTH 1.0 1.4
2 Russet Burbank	1	3 TUL 18	3 HRM 13	5 HRM 18	11	4	4.1	3.1	HRM 2.5 OTH 2.0 2.1
3 Russet Norkotah	4 DAL 13	2	0	1	4	4	4.0	3.7	2.0
4 Shepody	1	.	2	.	26 DAL 45	.	4.2	.	.
5 A06030-23	10 PAR 17 DAL 25	.	1	.	10	.	4.0	.	.
6 A07061-6	0	0	2	1	16 DAL 30	4 TUL 20	4.0	3.7	HRM 2.4 1.8
7 A071012-4BF	5 DAL 15	1	1	0	4	3	4.0	3.2	HRM 2.4 OTH 2.0 2.2
8 A07769-4	0	0	1	1	19 DAL 33	2	4.2	4.0	2.3
9 A08433-4sto	2	2	1	1	14 DAL 28	7 TUL 35	4.0	4.0	2.5
10 A10021-5TE	3 HRM 13	1	5 HRM 20	1	33 DAL 63	5	4.0	3.7	1.9
11 AO02183-2	1	2	3	1	33 DAL 65	10 TUL 35	4.6	4.2	HRM 2.8 3.6
12 AO06191-1	3	2	1	0	11	3	4.0	3.5	HRM 1.9 1.4
13 AOR06576-1	1	0	2	0	14 DAL 28	6 TUL 28	4.0	3.4	HRM 2.3 OTH 2.0 1.8
14 AOR07781-5	2	6 AB 28	3 HRM 13	4 AB 20	5	10 AB 20 TUL 23	3.8 HRM 2.4	3.2	HRM 1.9 OTH 2.0 3.4
15 AOR07821-1	1	3 TUL 15	7 HRM 28	7 HRM 33	18 DAL 35	3	4.1 HRM2.3	3.1	HRM 2.6 3.1
16 AOTX05043-1Ru	0	0	0	0	5	0	4.0	3.5	HRM 2.5 2.2
17 CO08155-2RU/Y	1	4 AB 23	3	5 AB 23	13	5 AB 23	4.8	4.1	2.6
18 CO08231-1RU	1	2	2	1	13 DAL 25	3	4.1	3.8	HRM 2.8 1.2
19 CO09036-2RU	3	10 TUL 38	2	0	6	6 TUL 25	4.8	4.4	3.3
20 CO09076-3RU	0	0	3	0	11	3	4.1	4.2	2.4
21 CO09205-2RU	4 DAL 13	2	0	1	13	5	4.7	4.4	2.2
22 COTX05095-2Ru/Y	0	3 AB 20	1	6 AB 20	18 DAL 35	10 AB 20 TUL 25	4.4	3.6	HRM 2.3 1.5
Entry Means	2	2	2	2	14	5	4.1	3.6	2.2

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

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

TABLE 11: 2018 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				
	CO	OR	WA	Entry Mean	CO	ID		OR	WA	Entry Mean	ID		WA	Entry Mean	ID		OR		Entry Mean
	SLV	HRM	OTH		SLV	AB	KIM	HRM	OTH		AB	KIM	OTH		AB	KIM	HRM	E		L
L	E	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L		
1 Ranger Russet	1.0	0.2	0.0	0.4	2.0	0.6	0.8	1.0	0.0	0.9	1.7	1.7	3.0	2.1	17	17	0	21	14
2 Russet Burbank	1.0	0.6	0.0	0.5	1.0	1.1	1.5	1.0	2.0	1.3	2.8	3.0	4.0	3.3	17	25	0	38	20
3 Russet Norkotah	3.0	0.8	.	1.9	2.0	1.8	2.0	1.7	.	1.9	3.8	3.3	.	3.6	4	0	8	0	3
4 Shepody	2.0	0.1	.	1.0	2.0	.	.	.	.	.	.	.	.	.	.	.	0	.	0
5 A06030-23	0.0	0.1	.	0.0	0.0	.	.	.	.	.	.	.	.	.	.	.	0	.	0
6 A07061-6	1.0	0.1	0.0	0.4	2.0	1.0	0.7	0.9	1.0	1.1	2.5	1.5	4.0	2.7	0	0	4	0	1
7 A071012-4BF	0.0	0.2	0.0	0.1	2.0	1.0	1.1	1.3	1.0	1.3	2.4	1.8	4.0	2.8	8	8	4	4	6
8 A07769-4	1.0	0.2	0.0	0.4	0.0	0.4	0.5	1.0	0.0	0.4	0.5	0.6	1.0	0.7	0	0	8	13	5
9 A08433-4sto	3.0	0.2	0.0	1.1	2.0	1.6	1.1	1.8	2.0	1.7	3.2	2.1	3.0	2.8	0	3	4	17	6
10 A10021-5TE	1.0	0.0	0.0	0.3	0.0	0.6	0.7	0.2	0.0	0.3	0.9	1.3	1.0	1.1	0	8	8	0	4
11 AO02183-2	1.0	0.0	0.0	0.3	1.0	0.4	0.4	0.3	0.0	0.4	0.6	0.5	0.0	0.4	0	0	0	13	3
12 AO06191-1	2.0	0.4	0.0	0.8	1.0	0.8	0.6	1.0	0.0	0.7	1.7	1.4	2.0	1.7	0	0	17	21	9
13 AOR06576-1	3.0	1.0	.	2.0	2.0	2.7	2.6	2.0	.	2.3	3.6	3.5	.	3.5	88	67	33	21	52
14 AOR07781-5	2.0	0.0	0.0	0.7	0.0	0.3	0.4	0.1	0.0	0.2	0.7	1.0	2.0	1.2	0	0	0	0	0
15 AOR07821-1	3.0	0.6	1.0	1.5	2.0	1.0	1.0	0.7	2.0	1.3	2.8	2.0	4.0	2.9	0	8	0	0	2
16 AOTX05043-1Ru	1.0	0.4	0.0	0.5	2.0	0.5	0.6	1.3	1.0	1.1	2.8	1.9	4.0	2.9	13	8	0	13	8
17 CO08155-2RU/Y	1.0	0.0	0.0	0.3	2.0	0.6	0.7	0.5	1.0	1.0	1.0	1.3	1.0	1.1	0	0	4	0	1
18 CO08231-1RU	1.0	0.5	.	0.7	2.0	0.6	0.6	0.7	.	1.0	1.0	0.7	.	0.9	0	0	0	0	0
19 CO09036-2RU	1.0	0.0	0.0	0.3	1.0	0.5	0.5	0.0	0.0	0.4	0.6	1.0	1.0	0.9	0	0	0	0	0
20 CO09076-3RU	2.0	0.6	.	1.3	2.0	2.6	1.2	1.5	.	1.8	2.8	2.3	.	2.6	4	0	0	0	1
21 CO09205-2RU	1.0	0.4	.	0.7	1.0	0.5	0.5	0.9	.	0.7	0.9	1.2	.	1.1	0	6	13	4	6
22 COTX05095-2Ru/Y	2.0	0.3	0.0	0.8	2.0	0.5	0.9	1.1	0.0	0.9	1.4	1.5	1.0	1.3	0	0	0	0	0
Mean	1.5	0.3	0.1	0.7	1.4	1.0	0.9	1.0	0.7	1.0	1.9	1.7	2.3	2.0	8	8	5	8	6

Storage protocol prior to frying

Aberdeen - 1 week from 50F to 45F; 2 weeks from 50F to 40F; and 5 weeks @ 45F and 6 weeks @ 40F.

Hermiston - 2 weeks from 55F to 48 F, and 4 weeks @ 45F.

Kimberly - 1 week from 50F to 45F; 2 weeks from 50F to 40F; and 5 weeks @ 45F and 7 weeks @ 40F.

Othello - 6 weeks from 55F to 45F, 7 weeks from 55F to 40F, and 8 weeks @ 45F and 40F.

San Luis Valley - 3 weeks from 55F to 45F, and 11 weeks @ 45F.

* Comprehensive post harvest evaluations of entries can be found in the 2018 Potato Cultivar Yield & Post Harvest Quality Evaluations - Washington State University. Contact: Rick Knowles. www.potatoes.wsu.edu

TABLE 12: 2018 Western Regional Potato Variety Trial - DISEASE EVALUATION AND METRIBUZIN REACTION

No.	Clone	Vert. Wilt/ Early Dying						Early Blight AB ¹		Late Blight Corvallis ⁴			Common Scab AB ¹		% Virus Infection		Prosser			Prosser		Fusarium		Soft	Metribuz.
		AB ¹		HRM ²		TUL ³		Foliar		Foliar		Tuber	% Serious	%		PVY	Corky Ringspot		Nem. Spots/ Tuber React.	Dry Rot ¹ (0-5)		Rot ¹	React. ⁶		
		(0-9) AUDPC	(0-10) AUDPC	(0-9) AUDPC	(0-9) AUDPC	(0-9) AUDPC	(1-9) AUDPC	%	Incid.	Defect	HRM ^z	%Incid.	DSI ⁵						F(sam)	F(sol)	(0-5)	AB			
1	Ranger Russet	5.0	235	8.2	1656	6.3	533	3.7	72	7.3	1007	8	95	71	100	56	44	S	55.5	S	3.9	2.4	2.3	MR	
2	Russet Burbank	7.0	525	8.3	1515	5.3	322	3.0	40	9.0	1173	3	50	5	60	55	29	S	55.2	S	4.9	2.8	3.3	MR	
3	Russet Norkotah	9.0	1055	9.3	2400	7.5	872	2.7	27	9.0	1275	13	54	18	70	53	3	MR			2.9	3.4	2.4	MR	
4	Shepody	5.3	289	.	.	.	.	5.3	165	9.0	1214	5	87	58	.	.	9	MS	53.0	S	3.1	1.5	2.9	.
5	A06030-23	7.3	583	.	.	.	.	5.3	145	9.0	1224	5	5	1	.	.	9	MS			4.9	1.5	2.2	.
6	A07061-6	3.3	61	6.7	1026	4.8	304	2.3	28	8.8	1110	0	67	22	20	59	27	S	59.1	S	4.9	2.1	1.9	MR	
7	A071012-4BF	3.3	52	5.5	634	4.3	118	2.7	31	5.0	523	25	72	29	75	78	17	S	77.9	S	4.7	2.9	2.8	MR	
8	A07769-4	3.7	98	6.0	888	7.3	754	4.3	135	8.8	1135	5	54	32	30	66	14	S	66.5	S	4.6	2.5	3.2	MR	
9	A08433-4sto	3.3	51	5.3	563	3.8	128	2.7	30	5.8	609	3	64	25	0	76	21	S	76.1	S	4.5	2.5	1.5	R	
10	A10021-5TE	5.0	178	7.7	1451	5.5	298	3.3	43	8.3	1089	3	9	4	0	40	22	S	40.4	S	4.3	2.7	2.2	MR	
11	AO02183-2	2.7	36	4.7	513	4.3	115	2.7	28	6.0	648	0	66	16	40	88	11	S	88.3	S	4.5	1.1	0.9	MS	
12	AO06191-1	7.7	471	7.0	1338	6.3	627	4.3	93	9.0	1208	18	14	2	75	55	18	S	54.8	S	3.2	1.2	3.5	MR	
13	AOR06576-1	3.7	72	6.7	1219	6.0	505	3.7	58	9.0	1157	0	32	6	0	58	30	S	58.0	S	4.8	3.7	2.3	R	
14	AOR07781-5	6.7	421	6.5	1063	5.8	299	4.0	67	9.0	1264	0	2	0	0	62	22	S	62.3	S	3.9	1.1	3.3	MR	
15	AOR07821-1	2.7	27	6.3	988	4.8	189	2.3	21	8.0	1077	0	6	0	30	79	23	S	78.8	S	4.0	1.4	3.5	MS	
16	AOTX05043-1Ru	7.0	538	8.3	1813	7.3	645	5.0	215	.	.	.	24	6	80	45	18	S	45.5	S	3.5	1.3	1.9	MS	
17	CO08155-2RU/Y	6.3	331	7.0	1300	6.8	638	5.7	298	6.8	738	8	15	7	20	50	12	S	50.1	S	4.6	1.5	3.6	MR	
18	CO08231-1RU	5.7	225	6.7	1015	6.8	529	2.7	25	6.8	738	8	79	48	95	56	34	S	56.0	S	4.7	3.4	4.1	MR	
19	CO09036-2RU	2.3	19	5.5	634	3.8	124	3.7	83	7.8	985	5	18	5	75	75	8	MS	74.9	S	5.0	2.0	2.5	MS	
20	CO09076-3RU	7.7	600	7.8	1681	7.3	717	2.7	40	8.8	1252	3	37	7	100	48	13	S	47.9	S	4.9	1.6	3.1	MS	
21	CO09205-2RU	4.3	92	7.0	1300	8.5	995	4.7	138	8.8	1131	0	38	16	70	40	9	MS	40.2	S	3.5	1.3	4.1	MR	
22	COTX05095-2Ru/Y	9	928	9.2	2019	8.0	1038	3.7	66	.	.	.	18	2	75	38	11	S	38.1	S	4.6	3.2	3.9	MR	
Entry Means		5.4	313	7.0	1251	6.0	488	3.7	84	8.0	1028	5	41	17	51	59	18		58.9		4.3	2.1	2.8		
LSD (.05)								0.9	173	20	31	18								0.8	1.1	1.5			

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

AUDPC: Area Under the Disease Progress curve based on foliar readings taken 103, 110, and 117 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.

² Evaluations made at Hermiston, Oregon; scale as indicated with highest number being most severe. Readings 110 days after planting. AUDPC based on foliar readings take 80,95, 110 after planting.

³ Evaluations made at Tulelake, California; AUDPC based on foliar readings.

⁴ Evaluations made at Corvallis, Oregon by Solomon Yilma; 1=no foliar injury; 3=5-10%; 5=25-40%; 7=60-75%; 8=75-90%; 9=90-100%.

Tuber % based on examination at harvest and showing any tuber late blight symptoms. AUDPC = Area Under the Disease Progress Curve.

⁵ Evaluations made at Prosser, Washington: DSI = $(\sum S)/(T*8)*100$ where (S) = score, (T) = tuber (8) = worst possible score.

MR = Moderate Resistance (1-1.5%), MS = Moderately Susceptible (5.1-10%), S = Susceptible (10.1+%)

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

TABLE 13: 2018 Western Regional Potato Variety Trial - SOLIDS, DEXTROSE, SUCROSE, PROTEIN, VITAMIN C,
AND GLYCOALKALOIDS - ABERDEEN

No. Clone	Solids Oven Dry %	Sugars		Protein (%DWB) ¹	Vitamin C (mg/100g FWB) ¹	Texas ² µg Trolox equivalents/gfw ³	Glycoalkaloids ⁴ (mg/100g FWB) ¹
		Dextrose (%FWB) ¹	Sucrose (%FWB) ¹				
1 Ranger Russet	22.4	0.07	0.18	5.6	33.5	362.9	4.4
2 Russet Burbank	19.9	0.06	0.14	5.7	24.8	218.2	2.6
3 Russet Norkotah	19.7	0.09	0.10	5.2	22.9	299.8	2.1
4 Shepody	.	.	.	.	.	387.2	.
5 A06030-23	.	.	.	.	.	256.7	.
6 A07061-6	22.1	0.07	0.14	5.5	31.1	308.3	5.3
7 A071012-4BF	24.4	0.05	0.21	6.4	18.6	175.8	5.6
8 A07769-4	20.0	0.03	0.15	6.0	17.7	181.6	3.0
9 A08433-4sto	22.1	0.10	0.18	5.4	19.5	308.1	1.9
10 A10021-5TE	23.2	0.04	0.18	7.1	30.7	346.5	3.2
11 AO02183-2	23.2	0.05	0.19	6.4	18.8	262.1	21.6
12 AO06191-1	24.7	0.05	0.20	5.8	22.4	416.7	10.4
13 AOR06576-1	19.9	0.11	0.16	7.0	17.6	254.7	3.4
14 AOR07781-5	22.9	0.03	0.13	5.8	16.8	291.4	6.4
15 AOR07821-1	22.7	0.10	0.16	5.5	22.2	187.0	5.6
16 AOTX05043-1Ru	22.7	0.04	0.17	6.2	23.0	226.1	13.4
17 CO08155-2RU/Y	22.8	0.02	0.16	6.1	23.1	197.8	1.3
18 CO08231-1RU	22.9	0.05	0.12	5.9	28.6	231.2	1.6
19 CO09036-2RU	23.4	0.03	0.19	6.1	18.5	226.4	0.4
20 CO09076-3RU	19.7	0.14	0.13	6.0	23.3	174.9	8.3
21 CO09205-2RU	19.9	0.04	0.09	6.4	22.6	228.9	3.9
22 COTX05095-2Ru/Y	21.2	0.08	0.12	6.1	28.0	226.0	3.4
Mean	22.4	0.14	0.17	5.6	22.4	157.4	4.6

¹ DWB = Dry Weight Basis; FWB = Fresh Weight Basis

² 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.

³ µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y=284.86x - 4.9907$

⁴ Glycoalkaloids: The 2018 Lenape check grown at Aberdeen was 38.13 mg/100g

TABLE 14: 2018 Western Regional Potato Variety Trial - MERIT SCORES [1-5(best)]

No. Clone	Post-Harvest																								
	Field Performance										Process Merit			Fresh Merit											
	CO		ID			OR		WA		Early	Late	WA [†]	CA	CO	ID		OR		TX	WA		Early	Late		
	SLV	AB	KIM	HRM	OTH	E	L	E	L	Mean(Rnk)	Mean(Rnk)	3 State	TUL	SLV	AB	KIM	HRM	DAL	E	E	L	Mean(Rnk)	Mean(Rnk)		
L	L	L	E	L	E	L	E	L			Mean	L	L	L	L	E	L	E	E	L					
1 Ranger Russet	3.0	3.0	2.5	2.8	3.0	3.7	3.6	3.2	8	3.0	11	3.9	3.3	2.0	2.1	3.0	2.5	3.0	4.4	2.6	0.9	3.2	5	2.4	16
2 Russet Burbank	3.0	2.5	2.0	3.1	1.7	3.9	2.2	3.5	3	2.3	19	2.5	3.8	1.0	1.7	1.6	2.5	2.6	4.3	2.4	1.3	3.1	9	2.0	20
3 Russet Norkotah	1.0	2.0	1.5	1.7	1.7	2.5	1.5	2.1	19	1.5	22	na	3.9	2.0	3.1	2.9	4.0	3.6	4.7	2.8	.	3.8	2	3.1	3
4 Shepody	3.0	.	.	2.8	.	3.9	.	3.4	4	3.0	11	.	.	2.0	.	.	2.5	.	4.4	.	.	3.4	3	2.0	20
5 A06030-23	3.0	.	.	2.2	.	1.7	.	1.9	20	3.0	11	.	.	1.0	.	.	3.5	.	4.6	0.7	2.0	2.9	12	1.5	22
6 A07061-6	5.0	2.5	3.5	1.7	2.7	1.6	2.8	1.6	21	3.3	10	3.0	2.0	5.0	3.1	3.1	3.0	3.2	3.8	1.0	1.9	2.6	21	3.1	3
7 A071012-4BF	5.0	2.5	2.5	3.5	2.8	4.3	4.5	3.9	2	3.5	7	2.8	3.1	5.0	2.5	2.4	3.0	3.0	4.5	2.0	1.2	3.2	5	2.9	8
8 A07769-4	5.0	5.0	5.0	2.7	2.5	3.5	3.8	3.1	9	4.3	2	3.7	3.8	3.0	3.3	3.8	3.5	3.0	4.3	2.0	1.3	3.3	4	3.0	6
9 A08433-4sto	1.0	2.0	2.5	3.0	3.3	3.6	4.1	3.3	5	2.6	16	2.8	3.6	3.0	2.9	2.4	3.0	3.0	4.0	2.3	1.7	3.1	9	2.8	11
10 A10021-5TE	5.0	4.5	3.5	2.2	3.5	3.3	3.2	2.7	15	3.9	4	4.0	3.6	4.0	3.5	3.8	2.0	3.0	4.3	2.4	0.7	2.9	12	3.1	3
11 AO02183-2	5.0	5.0	5.0	3.2	3.5	3.0	4.9	3.1	9	4.7	1	4.5	3.4	3.0	3.8	3.4	3.0	3.3	4.2	2.5	2.4	3.2	5	3.2	1
12 AO06191-1	4.0	3.5	3.5	3.0	3.2	3.6	3.0	3.3	5	3.4	8	3.5	3.9	3.0	2.9	3.1	3.7	3.7	4.2	4.9	1.6	4.2	1	3.0	6
13 AOR06576-1	2.0	1.0	1.0	2.5	3.0	3.3	2.0	2.9	12	1.8	21	na	3.3	4.0	2.6	2.4	3.0	3.0	4.1	2.1	1.2	3.1	9	2.7	14
14 AOR07781-5	3.0	4.5	4.5	3.5	3.5	4.6	2.9	4.1	1	3.7	6	4.1	3.0	2.0	2.8	2.8	3.0	2.8	3.8	1.9	1.7	2.9	12	2.5	15
15 AOR07821-1	1.0	2.5	2.5	3.1	3.5	3.4	4.7	3.3	5	2.8	15	3.0	3.1	3.0	2.4	3.8	3.0	2.8	4.1	1.5	1.9	2.9	12	2.8	11
16 AOTX05043-1Ru	2.0	3.0	3.0	3.0	2.2	3.2	2.2	3.1	9	2.5	17	3.2	2.1	1.0	3.3	3.6	3.2	2.9	3.8	2.5	0.9	3.2	5	2.3	17
17 CO08155-2RU/Y	4.0	4.0	3.5	2.8	3.0	3.0	2.3	2.9	12	3.4	8	3.5	3.0	2.0	3.9	3.9	3.0	3.0	3.9	1.4	1.4	2.8	18	2.9	8
18 CO08231-1RU	4.0	4.0	5.0	3.0	3.5	1.3	2.4	2.2	18	3.8	5	na	3.4	3.0	4.0	3.9	3.0	3.0	4.1	0.7	1.9	2.6	21	3.2	1
19 CO09036-2RU	4.0	5.0	4.5	3.0	3.5	1.6	3.5	2.3	17	4.1	3	3.9	3.8	2.0	3.5	3.4	3.5	3.0	3.7	1.5	1.5	2.9	12	2.9	8
20 CO09076-3RU	3.0	1.5	2.5	2.3	2.7	3.2	2.0	2.8	14	2.3	19	na	2.1	2.0	2.6	2.9	3.0	2.5	3.9	1.9	1.3	2.9	12	2.2	19
21 CO09205-2RU	3.0	4.5	4.0	1.5	1.5	1.6	1.4	1.6	21	2.9	14	3.0	4.1	1.0	3.9	4.0	3.0	2.5	3.6	1.5	1.2	2.7	19	2.8	11
22 COTX05095-2Ru/Y	2.0	3.5	3.0	2.5	3.0	2.8	1.1	2.7	15	2.5	17	na	3.8	1.0	2.6	3.1	3.0	3.0	3.5	1.7	0.5	2.7	19	2.3	17
Mean	3.2	3.3	3.3	2.7	2.9	3.0	2.9	2.9		3.1		3.4	2.5	2.5	3.0	3.2	3.0	3.0	4.1	2.0	1.4	3.1	10.3	2.7	

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

TABLE 15: 2018 Western Regional Potato Variety Trial - ENTRY SUMMARY¹

Entry No.Clone	Year In Use Trial	US Total Yield ²	US % Yield ²	US % #1's ²	Tuber		Combine(E&L)					Observations	Disp. 2019
					Size (oz) Early	Late	Specific Gravity ²	Fry45 Color	Merit Score ³ Process	Fresh			
1 Ranger Russet	* Dual	652	556	84	7.6	8.9	1.091	0.9	3.1	2.8		Check	
2 Russet Burbank	* Dual	592	449	75	7.4	7.9	1.084	1.3	2.9	2.5		Check	
3 Russet Norkotah	* Fresh	480	402	82	7.1	7.3	1.076	1.9	1.8	3.5		Check	
4 Shepody	* Proc	596	484	81	10.0	.	1.076	.	3.2	2.7		Check	
5 A06030-23	2 Dual	431	81	86	6.3	.	1.081	.	2.5	2.2	Hollow Heart (Early); Resistance to C. Scab	Disc.	
6 A07061-6	2 Dual	685	577	83	6.1	6.8	1.083	1.1	2.4	2.8	Rounded Tuber shape; Low Specific Gravity (Early); Moderate Resistance to PVY; Higher Vitamin C	Return	
7 A071012-4BF	1 Dual	684	591	86	9.1	10.0	1.099	1.3	3.7	3.0	High Yields (Total & U.S.) Both Early & Late; High Specific Gravity (E & L); Larger Tuber Size; Resistance to Vert/E. Die, and Late Blight; C. Scab Susceptible; High Process Merit (Early & Late)	Return	
8 A07769-4	1 Dual	627	547	87	8.5	9.0	1.087	0.4	3.7	3.1	Cold-Sweetening Resistance; Moderate Resistance to PVY; High Process Merit (Late)	Return	
9 A08433-4sto	2 Dual	684	584	85	7.7	9.3	1.086	1.7	2.9	2.9	High Late Yields (Total & US); Growth Cracks (Late-CO & Hermiston); Resistance to Vert/E. Die and late blight; Extreme Resistance to PVY	Return	
10 A10021-5TE	1 Dual	638	552	86	8.9	9.2	1.090	0.3	3.3	3.0	Longer tuber shape; Net Necrosis/VD-Early; Cold-sweetening Resistance; Resistance to C. Scab; Extreme Resistance to PVY; High Vitamin C & Protein; High Process Merit (Late)	Return	
11 AO02183-2	1 Dual	728	647	88	7.2	8.5	1.091	0.4	3.9	3.2	High Yield (Total & U.S.)-Late; Net Necrosis/VD-Early; Cold-Sweetening Resistance; Resistance to Vert/E. Die, Late Blight, and Soft Rot; High glycoalkaloids; High Process Merit (Late)	Return	
12 AO06191-1	3 Dual	536	478	88	10.0	11.0	1.092	0.7	3.4	3.6	Larger Tuber Size;High Specific Gravity (E & L); Cold-Sweetening Resistance; Resistance to C. Scab and Fusarium (sam); Vert/E. Die Susceptible; High Fresh Merit (Early); Higher Antioxidant Activity	Grad	
13 AOR06576-1	1 Fresh	672	569	84	7.6	8.4	1.080	2.3	2.4	2.9	High Early Yield (Total & U.S.); Dark Fry Color & Sugar Ends; Extreme Resistance to PVY; Susceptible to Fusarium (sol); High Protein	Disc.	
14 AOR07781-5	2 Dual	551	471	85	8.3	8.4	1.091	0.2	3.9	2.7	Cold-Sweetening Resistance; High Specific Gravity (E & L); Resistance to C. Scab; Extreme Resistance to PVY; High Process Merit (Early & Late)	Return	
15 AOR07821-1	1 Proc	660	565	85	7.0	8.6	1.089	1.3	3.0	2.9	Resistance to C. Scab & Moderate Resistance to PVY	Disc.	
16 AOTX05043-1Ru	1 Dual	495	417	84	6.5	6.5	1.089	1.1	2.8	2.7	Lower yields (Total & U.S.)-Early & Late; Vert/E. Die Susceptible; Resistant to Fusarium (sam); Moderate glycoalkaloids	Dis.	
17 CO08155-2RU/Y	2 Dual	534	421	76	5.7	5.4	1.086	1.0	3.1	2.8	Cold-Sweetening Resistance; Moderate Resistance to PVY	Disc.	
18 CO08231-1RU	2 Fresh	622	519	82	5.1	6.1	1.090	1.0	3.0	2.9	Rounded Tuber Shape; Cold-Sweetening Resistance; C. Scab & Soft Rot Susceptible	Dis.	
19 CO09036-2RU	1 Dual	652	533	80	5.7	6.0	1.090	0.4	3.2	2.9	Hollow Heart (Late); Cold-Sweetening Resistance; Resistance to Vert/E. Die; High Process Merit-Early	Disc.	
20 CO09076-3RU	1 Fresh	542	410	75	6.3	6.4	1.082	1.8	2.5	2.6	Low U.S. Yield (Early & Late); Longer Tuber Shape; Vert/E. Die Susceptible	Return	
21 CO09205-2RU	1 Dual	542	424	78	5.4	5.8	1.075	0.7	2.2	2.7	Smaller Tuber Size; Low Specific Gravity (E & L); Cold-Sweetening Resistance; Resistant to Fusarium (sam); Soft Rot Susceptible	Return	
22 COTX05095-2Ru/Y	1 Fresh	534	434	80	5.8	5.9	1.081	0.9	2.6	2.5	Cold-Sweetening Resistance; Susceptible to Vert/E. Die and Soft Rot	Return	
Mean		597	487	83	7.2	7.8	1.086	1.0	3.0	2.9			

¹ Numeric values represent means across all trial locations.

² Data shown from late trial results unless early trial entry only. (Entries 4&5)

³ Data shown from combined early & late trial results.

TABLE 16: 2018 Western Regional Potato Variety Trial - 3 YEAR SUMMARY OF GRADUATING ENTRIES - LATE TRIAL LOCATION MEANS

Clone	2016						2017						2018					
	Total Yield ¹ &(rank)	US #1 Yield ¹ & %	SG	Fry 45	Merit Score Proc Fresh		Total Yield ¹ &(rank)	US #1 Yield ¹ & %	SG	Fry 45	Merit Score Proc Fresh		Total Yield ¹ &(rank)	US #1 Yield ¹ & %	SG	Fry 45	Merit Score Proc Fresh	
AO06191-1	569 (10/16)	501 87	1.088	1.1	3.6	3.6	471 (13/17)	418 89	1.092	0.8	3.0	3.3	536 (16/20)	478 88	1.092	0.7	3.4	3.0
RANGER R.	592 (6/16)	479 80	1.083	1.0	2.7	3.1	544 (6/17)	441 81	1.088	0.7	2.2	2.7	652 (7/20)	556 84	1.091	0.9	3.0	2.4
R. NORKOTAH	488 (15/16)	397 80	1.072	1.3	2.9	2.3	413 (16/17)	338 79	1.071	1.4	3.3	2.0	480 (20/20)	402 82	1.076	1.9	1.5	3.1
R. BURBANK	579 (9/16)	427 73	1.080	1.2	2.2	2.7	510 (9/17)	369 71	1.080	1.8	1.7	2.3	592 (12/20)	449 72	1.084	1.3	2.3	2.0
Trial Mean	572	470 82	1.083	1.0	2.9	3.1	513	422 82	1.086	1.0	2.7	2.8	606	507 83	1.087	1.0	3.1	2.7

3 Year Average (2016-2018)

Clone	Total Yield ¹ &(rank) ³	US #1 Yld ¹ %	SG	FRY 45	Merit Score Proc Fresh		Noted Weaknesses	Noted Strengths
AO06191-1	525 (26)	466 88	1.091	0.9	3.3	3.3	Susceptible to Verticillium Wilt/Early Die (2/3)	Larger Tuber Size-E & L (3/3); High Specific Gravity- E & L (3/3); Resistance to Common Scab (2/3) & Fusarium-sam (3/3); High Fresh Merit -Early (3/3) & Late (2/3); Higher antioxidant activity (2/2)
RANGER R.	596 (64)	492 82	1.087	0.9	2.6	2.7		¹ (CWT/A)
R. NORKOTAH	461 (.04)	379 81	1.073	1.5	2.6	2.5		² Percent of entries with lower yields: e.g. 26% of all late trial entries over three years yielded lower than AO06191-1
R. BURBANK	560 (43)	415 72	1.081	1.4	2.0	2.3		
Trial Mean³	564	466 82	1.085	1.0	2.9	2.9		³ Late Trial means of all trial entries 2016-2018

TABLE 17: 2018 Western Regional Potato Variety Trial - ENTRY COMMENTS - EARLY HARVEST

Entry Comments - Early Harvest					
No. Clone	ID PAR	TX DAL	OR' HRM	WA OTH	
1	Ranger Russet	curved	Knobs, High tuber number++, small, Noticeable eyes, not uniform size, SE, nice, medium, small	Curvy x 4, allegator, GC x 2, knobs, cracky skin, Pear	Irregular shapes. Medium russet.
2	Russet Burbank	dumbbells	Knobs+++ , pointy++ , medium russet skin, skinny, Growth cracks, deformed tubers, skinny, curved	bottle x 4, curvy x2, knobs x 4, pty x 4	Good length, irregular shapes.
3	Russet Norkotah	uniform, blocky	Some moon shapes, nice size and shape, Nice russet skin, BOT, Several with damaged skin, enlarged lenticels, high tuber number	Typy x 4, pty x 1, allegator x 1, pr. Eyes x 2, nice x 2	Mostly typy, spotty russetting, smaller.
4	Shepody	curved, non uniform, sprouting over 20mm	large, Smooth light skin+++ , Knobs, white, not uniform shaped	rhizoc, irregular x 4, XXL, bottle x 2, lenticels x1, pty x 2	Large, pre-scab, spotty and ugly.
5	A06030-23	blocky	blocky, knobs+ , growth cracks, light eyes, Medium size, good russet skin+ , large, many eyes, nice shape, high tuber number	Pr. Eyes x 2. typy x 4, nice x 3, short x1	Plump, small, too short, typy.
6	A07061-6	patchy skin, folded ends	Light skin (too light) Long white, smooth skin+ , nice shape, oblong, some buff skins, uniform shape	lenticels x 3, sprouting x 1, flakey x 2, skinning x 2, folded tubers	Not early, round and short with ugly skin. Discard.
7	A071012-4BF	black scurf	Knobs++ , Long, not uniform size, not good russet skin, large tuber number, greens	flakey x 4, deep eyes x 4, XXL, skinning x 2, shriveled tubers	Short, long, irregular shapes, feathery russet. Discard.
8	A07769-4	curved	Smaller, nice skin, Very light russet or not good skin set, nice shape+ , Uniform size, golden russet, Few tubers, deformed tubers, It does not look russet, enlarged lenticels	blocky x 3, cracky skin, SB x 3, Round x1, knobs x1	Most are too short, light russet, bad skin, not dual purpose.
9	A08433-4sto	patchy skin, folded ends	High tuber number+ , not uniform size or shape, nice skin, Small uniform size, Not good skin set, uniform size, a little flat	flat x 3, cracky skin x 2, sticky x 2, curvy, lenticels	Flat, ugly skin, not dual. Irregular shapes and spotty.
10	A10021-5TE	ponited	Thin, pointy+ , Very long+++ , nice, skinny, high tuber number	XXL, Sprouting x 2, ugly, patchy russet x 2, scab x 2	Good length, uniform shape and size, bad skin though.
11	AO02183-2	pointed, VD	Knobs+ , skinny+ , Very small, Nice skin, nice shape, Long, high tuber number+ , nice type, few tubers, pointy+ , enlarged lenticels	Skinning x 3, deep eyes x 2, typy x 2, sprout x 1, pty x1	Uniform shape and size, eyes are a bit deep, typy.
12	AO06191-1	non uniform	Low tuber number++ , nice russet skin++ , Some nice blocky shapes, nice shape, a little angular,	typy x 4, nice x 2, heavy russet, XL	Typy, dark russet, a bit flat.
13	AOR06576-1	patchy skin, folded ends	Light russet, not uniform size, Very high tuber number+ , uniform size and shape, golden russet skin+ , medium size, BOT+ , Knobs+	skinning x 4, bottle x 2, pty x 4, nice x 2	Bad skin, spotty, ok length, shape a bit variable. Ugly.
14	AOR07781-5	pointed	Intense russet skin, Good russet skin, knobs++ , Pointy++ , high yield, eyes, little tubers on eyes, greens, noticeable lighter eyes, rough, soft ends (stolon side)	Sprouting , bottle x 1, blocky x 2, curvy x 1, irregular x 1	Nice skin, mostly typy, a bit flat. Some irregular shapes.
15	AOR07821-1	pointed	Very Hight tuber number+ , medium size, good russet skin, Blocky, A little angular+ , Knobs+ ,	allegator x 2, irregular x 2, patchy russet x 1, skinning x 1	Irregular shapes, ok length, flat.
16	AOTX05043-1Ru	average	Low yield+ , few tubers, Not uniform size, Small-medium++ , nice shape+	bottle x 1, roundx 2, rot x 1, short x 1, FBE, allegator x 2	Smooth russetting, mostly typy. Some irregular, some short.
17	CO08155-2RU/Y	pointed ends, alligator hyde	Not uniform russet skin++ , nice shape++ , Nice russet skin, not uniform size+ , enlarged lenticels+ , nice shape, medium size, uniformed size, skin blemishes	typy x 4, short, pear, folded, flakey x 2	Typy dark russet, good length, but small, not early.
18	CO08231-1RU	small, curved, non uniform	Small+ , light russet skin, Good russet, skinny++ , pointy+medium-small+ , not uniform size, round to oblong, long, pointy+	short x 4, roud x 3, triangular tubers, flakey tubers	Light russet, many round/short. Small, not early.
19	CO09036-2RU	folded ends	Very small tubers+++ , Good skin, long, pointy++++ , small	skinning x 4, lenticels x 2, typy x 1, pty x4	Small, typy, dark russet, not early
20	CO09076-3RU	sprouting	Knobs+ , pointy, Very high tuber number++ , small-medium size+ , nice skin+ , skin blemishes, high tuber number, moons, 20% SE	Patchy russet, bottle x 4, pty x 3, pear x 2, folded tips, thin	Large, non uniform russetting.
21	CO09205-2RU	small	Golden russet skin, nice, some nice shapes++ , most are small, knobs, nice skin, uniform shape, medium, SE, a little pointy+ , few tubers, nice flesh	short, thin x 4, pty x 3, pear, curvy x 3	Small typy russet, not early though.
22	COTX05095-2Ru/Y	average	Road map, light skin, Not good russet skin, Medium size, Small tubers, high tuber number, nice shape, light skin, yellow flesh, low tuber set,	cracky skin x 4, triangular , Round x 3, short x 2	Short and small.

TABLE 18: 2018 Western Regional Potato Variety Trial - ENTRY COMMENTS - LATE HARVEST

Entry Comments - Late Harvest

No.	Clone	CA TUL	CO SLV	ID ¹			OR ¹ HRM	WA OTH
				AB	KIM	PAR		
1	Ranger Russet	typical ranger, appearance and shape		MR: misshapen (4); curves (3); green, flat (2)	MHR: misshapen (2); not uniform, few points	curved	curvy x3, sticky x2, XL x2	Large, long with deeper eyes, skinny.
2	Russet Burbank	better looking than normal, still more lumpy than desired		MR: misshapen, not uniform (3)	MR: not uniform (3); misshapen, bumps	good for RB	pty x4, bottle x3, curvy x2	Shape a bit irregular, good length.
3	Russet Norkotah	heavy russet		HR: uniform, small (2); slight shatter, few misshapen	HR: uniform (3); low yield, small (2)	sprouting, blocky	prominent eyes x3, pointy x4, typy x2	Mostly typy, good skin, good length.
4	Shepody	.		.	.	.	.	.
5	A06030-23	.		.	.	.	.	.
6	A07061-6	minimal russet, lumpy, non uniform shape		LR: slight shatter (3); uniform, few bumps, patchy skin (2)	MLR: patch skin, few bumps/curves/points	patchy skin	flaky x4, cracky x2, short x2, pty x2, lenticels x2, Round x3	Bad skin, spotty russeting, round and short.
7	A071012-4BF	med. russeting, mild skinning problem, nice block shape		MR: not uniform, some round/long, green, slight brow (2)	MR: short (3); blocky, few points, some deep eyes	variable shape, alligator hyde	blocky x3, deep eyes x4, flakey x4, typy x2	Variable shape, deep eyes, plump.
8	A07769-4	nice shape, shatter bruise, indented stem end		MLR: some shatter (4); blocky (2) uniform, few bulging eyes	MR: blocky (3); slight brow, some green, bumps	variable skin	typy x2, SB x3, skinning x3, rot, Squeashy	Plump, typy, good length.
9	A08433-4sto	ruptured lentecil, lumpy, non-uniform	Pink Inside	MR: flat (4); some misshapen (2); green not uniform	MR: not uniform (3); brow, misshapen (2) breakdown/rot issue	variable shape	pty x2, bottle x3, tip GC x2, flat x2, sticky	Good length, but flat with bad skin.
10	A10021-5TE	light russet, uniform, oblong		MR: uniform (3); big (2); some misshapen/shatter/green	MHR: uniform, checking (3); flaky skin (2)	blocky, pointed, alligator hyde	flakey x3, patchy x2, typy x4, cracky x2, scab x2	Good length and shape, bad skin, a bit flat.
11	AO02183-2	long/pointy, ruptured lentecils, lots of eyes		MHR: uniform (4); few bulging eyes (2)	MR: slight shatter, few ats (2)	pointed	deep eyes x2, typy x3, prominent eyes x3, sticky	Long, typy, large.
12	AO06191-1	pointy end, non-uniform, inconsistent russeting		HR: some checking (3); some shatter/misshapen (2)	HR: checking (4); shatter, uniform, green (2)	blocky	typy x4, skinning x3, pr. Eyes x2, nice, twins	Nice and typy, uniform size.
13	AOR06576-1	oblong, light russeting, lumpy, prone to skinning		MR: shatter (4); misshapen (3); points (2)	MR: green, not real uniform (2) few points	variable sizes, sprouted	pixel x2, pty x3, bottle x2, skinning, chain, thin, triangular	Bad skin, good length, non uniform shape.
14	AOR07781-5	pointy end, skinning		HR: few misshapen, some shatter (3); flat, slight brow	HR: checking (3); few green, some misshapen (2);	pointed, variable shapes	pr. Eyes x4, SB x3, pty x4, typy	Prominent eye brows with irregular shapes.
15	AOR07821-1	flat tuber shape, ruptured lentecils		MR: not uniform, misshapen (3); slight shatter/checking, flat, few bulging eyes (2)	MR: slight checking (2); few points/curves, flat	alligator hyde	pixel x2, flat x3, irregular x4, pty x3, triangular tubers	Short, nonuniform shape, somewhat typy.
16	AOTX05043-1Ru	signif. elephant hide on all tubers, pink eye, somewhat round		MR: fairly uniform (3); few bumps, nice shape (2)	MR: small (3); uniform (2); few points, slight shatter	blocky	pixel x2, triangular x2, pty x3, short x2, twins	Smaller, a bit short, shape irregular.
17	CO08155-2RU/Y	light russet		HR: low yield, small (4); uniform (3); nice shape (2)	MHR: few green/bumps, small, uniform	blocky, pointed	typy x2, short x3, pty x2, flaky x2, dotted x2, curvy	Too small, puffed wheat skin, typy.
18	CO08231-1RU	somewhat round shape, light russet, uniform		MR: uniform (4); nice shape, some shatter (2)	MR: good shape, uniform (2); few points/green	variable shape	round x4, skinning x2, pixel x2	A chipper? Small and round.
19	CO09036-2RU	pointy, heavy russet		HR: uniform (2); few points/curves, slight shatter	HR: few bumps (2); few ats/green, some flat	variable shape, pointed	pty x4, lenticels, skinny, db, bottle	Short and small, ok appearance.
20	CO09076-3RU	elephant hid, skinning		MHR: misshapen (4); some shatter (3); slight checking, flat	MR: some green (2); some checkning/shatter, flat	sprouted	bottle x4, pty x2, db x3, knobs x 2, twins, thin	Good length, some sprouting, nonuniform shape.
21	CO09205-2RU	ruptured lentecils, oblong		MR: uniform (4); slight shatter, few green/points (2)	MHR: uniform, green (3); some shatter, nice shape (2)	sprouted, curved	sprouting x4, curvy x3, tip GC x2, pixel x2, thin x2	Too small overall, otherwise typy
22	COTX05095-2Ru/Y	nice shape + russeting, uniform, shatter bruise		MR: some shatter, small (2); some blocky/round, few green/points	MR: small, blocky (3); somewhat deep eyes (2)	average	flakey x2, pty x4, triangular x2, Round x3, short x2	Short, small, and round.