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

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 Reglone/Mechanical	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 Reglone	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 Mechanical	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 Mechanical	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 Chemical	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 Reglone/Mechanical	133 143	140 156	**Dual Magnum Matrix. Outlook Prowl**	**Admire Coragen Agr-Mek, Echo**	**Quadris, Ridomil 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 Reglone	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 Tranquitity Penncozeb 75DF
8	Othello **(OTH)** Othello **(OTH)** Washington	M. Pavek, R. Knowles	Early Late	Pivot Pivot	200-100-300-40-2B 365-250-300-40-2B	5-Apr 3-Apr	31-Jul 10-Sep Mechanical/Chemical	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

										Tuber and Vine Descriptions from Trial Observations[2]								
No.	Clone	Parents	Flower Color[1]	Entered by	Use	Trial	Year in Trial	Seed Source	Stand[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	AO0487-22LB 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

		Total Yield - Early Harvest (CWT/A)							Total Yield - Late Harvest[1] (CWT/A)									
		ID	OR	TX	WA	Entry			CA	CO	ID			OR	WA	Entry		
No.	Clone	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

		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		
No.	Clone	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**	**defg**
		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

		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		
No.	Clone	PAR	HRM	DAL	OTH	Mean/Rank			TUL	SLV	AB	KIM	PAR	HRM	OTH	Mean/Rank		
1	Ranger Russet	153	376	83	180	**198**	**10**	cdefg	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**	cdefgh	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**	defgh	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**	fghi	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**	defg
		19	36	8	4	**17**	**19**		13	27	13	25	39	21	37	**25**	**17**	
20	CO09076-3RU	124	182	113	247	**167**	**14**	efghi	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**	fgh
		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 Mean/Rank			CA	CO	ID			OR	WA	Entry Mean/Rank		
		PAR	HRM	DAL	OTH				TUL	SLV	AB	KIM	PAR	HRM	OTH			
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**	**efgh**	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**	**efghi**	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

		Specific Gravity - Early Harvest							Specific Gravity - Late Harvest									
		ID	OR	TX	WA	Entry			CA	CO	ID			OR	WA	Entry		
No.	Clone	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

		Average Tuber Size (oz)												Tuber Shape(1-5 length/width ratio:1=round,5=long)												Length/Width Ratio							
		Early Trial					Late Trial							Early Trial				Late Trial							Location Means[1]							
		ID	OR	TX	WA		CA	ID			OR	WA		OR	TX	WA		CA	CO	ID		OR	WA		CA		TX	ID			OR	WA
No.	Clone	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

[1]Parma 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 SCAB[1]

		Growth Cracks		Second Growth		Shatter Bruise			Scab	
No.	Clone	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

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

[2]Aberdeen 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 BLACKSPOT[1]

		Percent Hollow Heart Plus Brown Center		Percent Internal Brown Spot		Percent Net Necrosis/ Vascular Discoloration		Blackspot Bruise [(1-5(NONE)]		
No.	Clone	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	Early Trial	Late Trial	ID[2]
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

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

[2]Aberdeen 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

		Field Fry				Fry 45						Fry 40				% Sugar Ends				
		CO	OR	WA		CO	ID		OR	WA		ID		WA		ID		OR		
No.	Clone	SLV L	HRM E	OTH L	Entry Mean	SLV L	AB L	KIM L	HRM L	OTH L	Entry Mean	AB L	KIM L	OTH L	Entry Mean	AB L	KIM L	HRM E	HRM L	Entry Mean
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 @ 458.

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 @ 45.

* Comprehensive post harvest evalutations of entries can be found in the 2018 Potato Cultivar Yield & Post Harvest Quality Evalutions - 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 AB[1] (0-9)	AUDPC	Vert. Wilt/ Early Dying HRM[2] (0-10)	AUDPC	Vert. Wilt/ Early Dying TUL[3] (0-9)	AUDPC	Early Blight AB[1] Foliar (0-9)	AUDPC	Late Blight Corvallis[4] Foliar (1-9)	AUDPC	Tuber %	Common Scab AB[1] % Serious Incid.	Defect	% Virus Infection PVY HRM[2]	Prosser Corky Ringspot %Incid.	DSI[5]		Prosser Nem. Spots/ Tuber	React.	Pectobacterium Fusarium Dry Rot[1] (0-5) F(sam)	F(sol)	Soft Rot[1] (0-5)	Metribuz. React.[6] 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 typcial 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 innoculations.

[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 = (∑ S)/(T*8)*100 where (S) = score, (T) = tuber (8) = worst possible score.
MR = Moderate Reistance (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 Dextrose (%FWB)[1]	Sugars Sucrose (%FWB)[1]	Protein (%DWB)[1]	Vitamin C (mg/100g FWB)[1]	Texas[2] µg Trolox equivalents/gfw[3]	Glycoalkaloids[4] (mg/100g 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	Field Performance Process Merit: CO SLV L	ID AB L	ID KIM L	OR HRM E	OR HRM L	WA OTH E	WA OTH L	Early Trial Mean(Rnk)	Late Trial Mean(Rnk)	Post-Harvest Process WA[1] 3 State Mean	Fresh Merit: CA TUL L	CO SLV L	ID AB L	ID KIM L	OR HRM E	OR HRM L	TX DAL E	WA OTH E	WA OTH L	Early Trial Mean(Rnk)	Late Trial Mean(Rnk)
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

[1] 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 Trial	Use	Total Yield[2]	US #1's Yield[2]	% US #1's[2]	Tuber Size (oz) Early	Tuber Size (oz) Late	Specific Gravity[2]	Fry45 Color	Combine(E&L) Merit Score[3] Process	Merit Score[3] Fresh	Observations	Disp. 2019
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

	2016						2017						2018					
	Total Yield[1]	US #1 Yield[1]		Fry	Merit Score		Total Yield[1]	US #1 Yield[1]		Fry	Merit Score		Total Yield[1]	US #1 Yield[1]		Fry	Merit Score	
Clone	&(rank)	& %	SG	45	Proc	Fresh	&(rank)	& %	SG	45	Proc	Fresh	&(rank)	& %	SG	45	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)

	Total Yield[1] &(%ile)[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		
R. NORKOTAH	461 (.04)	379	81	1.073	1.5	2.6	2.5		
R. BURBANK	560 (43)	415	72	1.081	1.4	2.0	2.3		
Trial Mean[3]	564	466	82	1.085	1.0	2.9	2.9		

[1] (CWT/A)

[2] Percent of entries with lower yields; e.g. 26% of all late trial entries over three years yielded lower than AO06191-1

3 Late Trial means of all trial entries 2016-2018

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

No.	Clone	ID PAR	TX DAL	OR[1] HRM	WA OTH
		Entry Comments - Early Harvest			
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 russeting, smaller.
4	Shepody	curved, non uniform, sprounting 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 russeting, 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 russeting.
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						
		CA	CO	ID[1]			OR[1]	WA
No.	Clone	TUL	SLV	AB	KIM	PAR	HRM	OTH
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 unifrom (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: bocky (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	obling, 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); unifrom (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, dotty 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 rusest		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/shattter, 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.