

2008
TRI-STATE
POTATO VARIETY TRIAL REPORT

State Experiment Stations and
USDA-ARS Cooperating

Washington

Oregon

Idaho

2008 TRI-STATE POTATO VARIETY TRIAL REPORT

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TABLE 1: 2008 Tri-State Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

Locations	Cooperators	Trial	Irrigation	Fertilizer N-P-K-S(lb/A)	Planting Date	Vine Kill Date	Harvest Date	Days to Vine Kill	Days to Harvest	Herbicides	Insecticides	Fungicides
Aberdeen Idaho (ID)	J. Stark J. Whitworth R. Novy P. Bain M. Chappell	Late	Sprink.	185-100-80	2-May	2-Sep	18-Sep	123	139	Sencor DF Matrix Eptam	Admire Pro	Dithane F-45 Equus
Hermiston Oregon (OR)	D. Hane, L. Leroux I. Vales	Late	Pivot	285-80-0-40	4-Apr	26-Aug Beat/enq	8-Sep	144	157	Eptam Matrix	Mocap Admire Monitor Asana Onager Comite	Vapam Ridomil Gold Bravo Dithane Quadris Omega
Othello (EWA) Washington	M Pavek R. Knowles N. Fuller Z. Holden	Early	Liner	192-268-350	4-Apr	29-Jul mechanical	31-Jul	116	118		Success Acramite Assail	Penncozeb Omega
Othello (LWA) Washington	M Pavek R. Knowles N. Fuller Z. Holden	Late	Liner	192-268-350	8-Apr	12-Sep Mechanical	22-Sep	157	167		Success Acramite Assail	Penncozeb Omega

TABLE 2: 2008 Tri-State Potato Variety Trial - CLONE, PARENTS, FLOWER COLOR, ENTERED BY, SEED SOURCE, STAND, TUBER AND VINE CHARACTERISTICS, STEMS PER PLANT

No	Clone	Parents	Flower Color	Entered by	Use	Trial Year	Seed Source	Mean Stand %	Tuber			Vine			Stems/Plant		
									Means	Shape	Means	Skin	Means	Size		Means	Maturity
1	Ranger Russet	Butte A6595-3	Med Red-purple	Check	Dual	Ck	OR	95	4.5	Long	3.9	Med Russet	2.5	Small	2.0	Early	1.6
2	Russet Burbank	Early Rose ?	White	Check	Dual	Ck	OR	96	3.8	Obl-Lng	3.3	Med Russet	2.0	Small	2.3	Early	2.1
5	A96814-65LB	AWN86514-2 A91194-3	White	ID	Dual	2	OR	91	3.2	Oblong	3.0	Light Russet	1.3	Small	3.0	Med Early	1.7
6	A98345-1	Ranger R A93157-6LS	White	ID	Dual	2	ID	97	3.2	Oblong	2.2	Light Russet	2.0	Small	2.0	Early	2.0
7	A00324-1	A95038-1 GemStar Russ	Red-purple	ID	Dual	1	ID	88	3.9	Obl-Lng	3.2	Med Russet	2.0	Small	1.5	Early	2.3
8	A00646-4	A93570-13 A95154-1	White	ID	Dual	1	ID	91	3.1	Oblong	2.8	Light Russet	1.8	Small	1.0	Early	1.9
9	AO96305-3	A91018-6 A89152-4	Med Red-purple	OR	Dual	2	OR	94	4.3	Long	3.0	Light Russet	1.3	Small	1.8	Early	2.3
10	AO96365-2	A91141-1 Ranger	Med Red-purple	OR	Dual	2	OR	97	3.5	Oblong	3.8	Med Russet	2.5	Small	2.3	Early	1.7
11	AO98282-5	A9367-3BSR Premier Russ	White	OR	Dual	1	OR	98	4.1	Long	3.9	Med Russet	2.8	Medium	2.3	Early	2.6
12	AO00057-2	A91048-3 A93116-3BSR	White	OR	Dual	1	OR	94	3.6	Obl-Lng	4.0	Med Russet	2.5	Small	1.8	Early	1.6
13	PA98NM25-5	PA92A08-17 Summit Russ	White	ID/WA	Dual	1	ID	93	3.7	Obl-Lng	2.0	White	1.5	Small	2.0	Early	2.3
14	PA00N14-2	PA95A14-22 Rus bulk	White	WA	Dual	2	OR	95	4.7	Long	2.6	Light Russet	2.0	Small	1.8	Early	1.8
15	PA00N32-4	PA95B2-66 Summit R	White	WA	Dual	1	OR	90	3.6	Obl-Lng	1.5	White	1.8	Small	1.3	Early	1.9

TABLE 3: 2008 Tri-State Potato Variety Trial - TOTAL YIELD (CWT/A) - EARLY AND LATE HARVEST

No.	Clone	Total Yield - Early Harvest (CWT/A)			Total Yield - Late Harvest (CWT/A)				
		(EWA)	Entry Mean	Rank	(ID)	(OR)	(LWA)	Entry Mean	Rank
1	Ranger Russet	258	258	12	392	722	626	580	10
2	Russet Burbank	302	302	9	439	868	696	668	7
5	A96814-65LB	313	313	6	440	913	820	724	4
6	A98345-1	332	332	4	440	1125	996	854	1
7	A00324-1	251	251	13	438	930	662	677	5
8	A00646-4	262	262	11	341	718	522	527	12
9	AO96305-3	312	312	8	391	751	545	562	11
10	AO96365-2	332	332	3	547	1033	759	780	3
11	AO98282-5	361	361	1	510	1060	940	837	2
12	AO00057-2	295	295	10	446	665	635	582	9
13	PA98NM25-5	312	312	7	448	846	724	673	6
14	PA00N14-2	332	332	5	475	749	552	592	8
15	PA00N32-4	334	334	2	391	631	495	506	13
Location Means		285	285		407	787	641	611	
LSD (.05)								137	

TABLE 4: 2008. Tri-State Potato Variety Trial - YIELD OF U.S. #1'S (CWT/A & %) - EARLY AND LATE HARVEST

No.	Clone	U.S. No. 1's - Early Harvest (CWT/A)/%			U.S. No. 1's - Late Harvest (CWT/A)/%			Entry Mean	Rank
		(EWA)	Entry Mean	Rank	(ID)	(OR)	(LWA)		
1	Ranger Russet	219	219	11	304	601	561	489	9
		85	85	4	78	83	90	84	10
2	Russet Burbank	221	221	10	249	514	540	434	12
		73	73	13	57	59	78	65	13
5	A96814-65LB	260	260	6	373	839	756	656	4
		83	83	7	85	92	92	90	3
6	A98345-1	291	291	1	396	1039	912	782	1
		88	88	1	90	92	92	91	1
7	A00324-1	204	204	13	351	824	584	586	5
		81	81	8	80	89	88	86	8
8	A00646-4	208	208	12	302	633	454	463	11
		79	79	9	89	88	87	88	4
9	AO96305-3	264	264	5	344	661	457	487	10
		85	85	5	88	88	84	87	7
10	AO96365-2	254	254	7	491	868	673	677	3
		77	77	10	90	84	89	88	5
11	AO98282-5	272	272	4	426	884	819	710	2
		75	75	11	84	83	87	85	9
12	AO00057-2	254	254	8	400	589	590	526	6
		86	86	3	90	89	93	90	2
13	PA98NM25-5	234	234	9	384	491	639	505	8
		75	75	12	86	58	88	77	12
14	PA00N14-2	289	289	2	409	649	492	517	7
		87	87	2	86	87	89	87	6
15	PA00N32-4	282	282	3	318	435	422	392	13
		84	84	6	81	69	85	78	11
Location Means		250	250		365	694	608	556	
LSD (.05)		81	81		83	82	88	84	157

TABLE 5: 2008 Tri-State Potato Variety Trial - YIELD > 12 OZ (CWT/A & %) - EARLY AND LATE HARVEST

No.	Clone	U.S. No. 1's > 12 OZ - Early Harvest (CWT/A)/%			U.S. No. 1's >12 OZ - Late Harvest (CWT/A)/%			Entry Mean	Rank
		(EWA)	Entry Mean	Rank	(ID)	(OR)	(LWA)		
1	Ranger Russet	19	19	6	144	202	342	229	7
		8	8	6	37	28	55	40	5
2	Russet Burbank	17	17	7	68	49	158	92	11
		6	6	7	15	6	23	14	12
5	A96814-65LB	62	62	1	119	435	457	337	2
		20	20	1	27	48	56	43	3
6	A98345-1	39	39	3	162	532	601	432	1
		12	12	4	37	47	60	48	1
7	A00324-1	35	35	4	224	432	289	315	3
		14	14	2	51	46	44	47	2
8	A00646-4	22	22	5	90	111	141	114	9
		8	8	5	26	15	27	23	8
9	AO96305-3	17	17	8	90	170	111	124	8
		6	6	8	23	23	20	22	9
10	AO96365-2	12	12	10	139	288	264	230	6
		4	4	10	25	28	35	29	7
11	AO98282-5	13	13	9	195	246	333	258	4
		4	4	9	38	23	35	32	6
12	AO00057-2	41	41	2	228	133	347	236	5
		14	14	3	51	20	55	42	4
13	PA98NM25-5	2	2	13	82	4	239	108	10
		1	1	13	18	0	33	17	11
14	PA00N14-2	11	11	11	40	19	85	48	13
		3	3	11	8	3	15	9	13
15	PA00N32-4	10	10	12	109	34	96	80	12
		3	3	12	28	5	19	18	10
Location Means		23	23		130	204	267	200	
LSD (.05)		8	8		30	23	37	30	152

TABLE 6: 2008 Tri-State Potato Variety Trial - YIELD < 4 OZ (CWT/A & %) - EARLY AND LATE HARVEST

No.	Clone	Yield < 4 OZ - Early Harvest (CWT/A)/%			U.S. No. 1's < 4 OZ - Late Harvest (CWT/A)/%			Entry Mean	Rank
		(EWA)	Entry Mean	Rank	(ID)	(OR)	(LWA)		
1	Ranger Russet	32	32	12	14	70	47	44	8
		12	12	11	4	10	7	7	9
2	Russet Burbank	50	50	5	37	113	67	72	3
		17	17	5	8	13	10	10	2
5	A96814-65LB	48	48	6	29	40	30	33	12
		15	15	7	7	4	4	5	11
6	A98345-1	32	32	11	13	41	33	29	13
		10	10	13	3	4	3	3	13
7	A00324-1	41	41	9	8	47	48	34	11
		16	16	6	2	5	7	5	12
8	A00646-4	53	53	4	28	72	59	53	6
		20	20	4	8	10	11	10	3
9	AO96305-3	30	30	13	21	46	59	42	9
		10	10	12	5	6	11	7	8
10	AO96365-2	77	77	2	25	104	74	68	4
		23	23	3	5	10	10	8	6
11	AO98282-5	85	85	1	37	109	89	78	1
		24	24	2	7	10	9	9	5
12	AO00057-2	40	40	10	13	67	36	39	10
		13	13	9	3	10	6	6	10
13	PA98NM25-5	76	76	3	27	143	59	76	2
		24	24	1	6	17	8	10	1
14	PA00N14-2	42	42	8	39	94	49	61	5
		13	13	10	8	13	9	10	4
15	PA00N32-4	46	46	7	16	71	44	44	7
		14	14	8	4	11	9	8	7
Location Means		50	50		24	78	53	52	
		16	16		5	9	8	8	
LSD (.05)								27	

TABLE 7: 2008 Tri-State Potato Variety Trial - SPECIFIC GRAVITY - EARLY AND LATE HARVEST

No. Clone	Specific Gravity - Early Harvest		Specific Gravity - Late Harvest			Entry Mean	Rank
	EWA	Rank	ID	OR	LWA		
1 Ranger Russet	1.086	7	1.087	1.085	1.083	1.085	8
2 Russet Burbank	1.082	11	1.078	1.086	1.079	1.081	12
5 A96814-65LB	1.098	2	1.103	1.100	1.104	1.102	2
6 A98345-1	1.086	6	1.090	1.090	1.085	1.088	4
7 A00324-1	1.082	10	1.087	1.082	1.085	1.085	9
8 A00646-4	1.086	5	1.082	1.071	1.073	1.075	13
9 AO96305-3	1.089	4	1.090	1.086	1.084	1.087	6
10 AO96365-2	1.079	13	1.084	1.081	1.082	1.082	11
11 AO98282-5	1.093	3	1.093	1.091	1.094	1.093	3
12 AO00057-2	1.082	12	1.089	1.086	1.089	1.088	5
13 PA98NM25-5	1.105	1	1.106	1.106	1.106	1.106	1
14 PA00N14-2	1.085	8	1.093	1.084	1.082	1.086	7
15 PA00N32-4	1.083	9	1.086	1.085	1.079	1.083	10
Location Means	1.087		1.090	1.087	1.087	1.088	
LSD (0.5)						0.005	

TABLE 8: 2008 Tri-State Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No. Clone	Average Tuber Size (oz)					Tuber Shape (Length/Width Ratio)				
	WA E	ID L	OR L	WA L	Entry Late only	WA E	ID L	OR L	WA L	Entry Means
1 Ranger Russet	6.1	10.2	7.5	9.5	9.1	2.02	1.83	1.83	1.80	1.87
2 Russet Burbank	5.9	8.1	6.3	7.4	7.3	2.06	1.78	1.78	1.76	1.84
5 A96814-65LB	6.3	7.9	9.8	10.8	9.5	1.66	1.50	1.50	1.40	1.52
6 A98345-1	6.8	9.7	9.9	11.4	10.3	1.63	1.33	1.33	1.61	1.47
7 A00324-1	6.0	12.4	9.6	8.5	10.2	1.83	1.72	1.72	1.68	1.74
8 A00646-4	5.2	7.2	7.0	7.1	7.1	1.68	1.48	1.48	1.58	1.56
9 AO96305-3	6.2	8.0	7.8	6.8	7.5	2.16	1.93	1.93	1.66	1.92
10 AO96365-2	4.9	8.1	6.9	7.4	7.5	1.69	1.59	1.59	1.37	1.56
11 AO98282-5	4.9	8.2	7.3	7.6	7.7	1.75	1.87	1.87	1.60	1.77
12 AO00057-2	6.1	10.1	7.2	9.7	9.0	1.66	1.62	1.62	1.36	1.56
13 PA98NM25-5	4.7	7.6	5.6	8.2	7.1	1.85	1.81	1.81	1.71	1.79
14 PA00N14-2	5.8	6.4	5.9	6.6	6.3	2.15	1.96	1.96	1.47	1.89
15 PA00N32-4	5.6	8.7	6.3	7.1	7.4	1.87	1.82	1.82	1.69	1.80
Location Means	5.7	8.7	7.5	8.3	8.1	1.85	1.71	1.71	1.59	1.71
LSD (0.5)					1.7					NS

TABLE 9: 2008 Tri-State Potato Variety Trial - EXTERNAL DEFECTS - GROWTH CRACKS, SECOND GROWTH, SHATTER BRUISE, SCAB - MEANS OF LOCATIONS

No. Clone	Growth Cracks ¹		Second Growth ¹		Shatter Bruise ¹			Scab ¹	
	Early	Late	Early	Late	Early	Late	AB ²	Early	Late
1 Ranger Russet	4.5	4.8	4.8	4.8	5.0	5.0	3.3	5.0	4.7
2 Russet Burbank	4.0	3.5	3.3	2.5	5.0	5.0	2.9	5.0	5.0
5 A96814-65LB	5.0	4.8	5.0	4.5	5.0	4.5	3.5	5.0	4.9
6 A98345-1	4.8	4.5	4.8	4.2	5.0	4.3	3.0	5.0	4.6
7 A00324-1	5.0	4.6	5.0	4.5	5.0	5.0	3.5	5.0	5.0
8 A00646-4	5.0	4.6	5.0	5.0	4.0	2.0	3.0	5.0	4.9
9 AO96305-3	3.3	4.0	4.8	4.9	5.0	5.0	3.3	5.0	4.4
10 AO96365-2	5.0	4.9	5.0	4.8	5.0	5.0	3.4	5.0	4.8
11 AO98282-5	5.0	4.3	4.8	2.9	5.0	4.0	3.5	5.0	4.8
12 AO00057-2	5.0	4.8	4.8	4.8	5.0	4.0	3.2	5.0	5.0
13 PA98NM25-5	4.7	4.9	5.0	4.4	5.0	4.8	3.0	5.0	4.8
14 PA00N14-2	5.0	5.0	5.0	4.5	5.0	5.0	3.3	5.0	4.9
15 PA00N32-4	5.0	4.2	5.0	4.7	4.0	3.0	3.7	5.0	4.5

LSD (.05)

NS

NS

NS

¹ Score 1-5, with 1=severe, 5=none.

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

TABLE 10: 2008 Tri-State Potato Variety Trial - INTERNAL DEFECTS - HOLLOW HEART PLUS BROWN CENTER,
INTERNAL BROWN SPOT, VASCULAR DISCOLORATION/NET NECROSIS, BLACKSPOT - MEANS OF LOCATIONS

No.	Clone	Percent Hollow Heart plus Brown Center		Percent Internal Brown Spot		Percent Net Necrosis/ Vascular Discoloration		Blackspot Bruise			
		Early	Late	Early	Late	Early	Late	Washington ¹		OR ²	AB ³
								Early	Late		
1	Ranger Russet	0.0	0.7	0.0	0.8	n/a	17.3	5.0	3.0	18.0	2.4
2	Russet Burbank	2.5	14.7	5.0	2.8	n/a	5.0	5.0	5.0	10.0	2.4
5	A96814-65LB	0.0	3.3	2.6	1.7	n/a	4.0	5.0	5.0	11.0	2.5
6	A98345-1	0.0	1.3	5.0	7.0	n/a	7.3	5.0	4.0	10.0	2.1
7	A00324-1	0.0	8.0	2.5	0.7	n/a	3.0	5.0	3.0	49.0	2.6
8	A00646-4	3.3	1.7	0.0	0.3	n/a	1.0	5.0	4.0	20.0	2.9
9	AO96305-3	0.0	0.0	0.0	0.0	n/a	2.0	5.0	4.0	6.0	2.6
10	AO96365-2	0.0	0.8	0.0	0.7	n/a	8.0	5.0	4.0	8.0	2.8
11	AO98282-5	0.0	6.0	0.0	0.0	n/a	27.0	5.0	4.0	0.0	3.1
12	AO00057-2	0.0	2.7	0.0	0.0	n/a	2.7	5.0	5.0	11.0	4.1
13	PA98NM25-5	0.0	15.0	0.0	0.3	n/a	2.7	5.0	5.0	1.0	2.8
14	PA00N14-2	0.0	0.0	0.0	0.8	n/a	3.0	5.0	5.0	4.0	2.7
15	PA00N32-4	2.5	27.7	0.0	1.8	n/a	5.7	5.0	4.0	3.0	3.1
Means		0.6	6.3	1.2	1.3		6.8	5.0	4.2	11.6	2.8
LSD (.05)			NS		NS		NS				

¹ Score 1-5, with 1=severe, 5=none.

² Hermiston Oregon is percentage of tuber showing blackspot bruising.

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

TABLE 11: 2008 Tri-State Potato Variety Trial - FRENCH FRY COLOR (00-4.0(darkest)), AND PERCENT SUGAR ENDS

No. Clone	Fry 45°						Fry 40°			% Sugar Ends		
	ID ¹	HRM ²	LWA ³	3 state avg.	Mean	Rank	ID ¹	LWA ³	Mean	ID	HRM	Entry Mean
1 Ranger Russet	1.0	1.5	0.0	0.3	0.7	10	3.9	2.0	3.0	4	30	17
2 Russet Burbank	0.8	1.9	0.0	1.3	1.0	12	4.0	3.0	3.5	21	68	45
5 A96814-65LB	0.5	0.9	0.0	0.0	0.4	4	2.2	1.0	1.6	4	3	4
6 A98345-1	0.3	1.1	0.0	0.0	0.4	5	2.6	0.0	1.3	0	8	4
7 A00324-1	0.5	1.3	0.0	0.3	0.5	8	3.5	2.0	2.8	17	15	16
8 A00646-4	0.8	1.9	0.0	0.7	0.8	11	4.0	3.0	3.5	17	30	24
9 AO96305-3	0.4	0.7	0.0	0.0	0.3	1	3.3	0.0	1.7	0	10	5
10 AO96365-2	0.5	1.5	0.0	0.3	0.6	9	4.0	2.0	3.0	9	0	5
11 AO98282-5	0.6	1.3	0.0	0.0	0.5	7	2.8	1.0	1.9	4	40	22
12 AO00057-2	0.6	0.7	0.0	0.0	0.3	3	3.8	2.0	2.9	8	5	7
13 PA98NM25-5	0.4	0.7	0.0	0.0	0.3	1	3.1	0.0	1.6	0	23	12
14 PA00N14-2	0.7	1.0	0.0	0.0	0.4	6	4.0	2.0	3.0	9	30	20
15 PA00N32-4	0.7	1.9	1.0	1.0	1.2	13	4.0	3.0	3.5	29	68	49
Location Means	0.6	1.3	0.1	0.3	0.6		3.5	1.6	2.5	9	25	17

¹ Samples held for 1 week cool down period - 7 weeks at storage temperature.

² Samples held for 1 week cool down period - 7 weeks at storage temperature.

³ Samples held for 54 days at 44 or 40°F - For complete postharvest results see <http://www.potatoes.wsu.edu/>

TABLE 12: 2008 Tri-State Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/ Early Dying		Early Blight	Late Blight			Common Scab AB	% Net Necrosis/ vascular discoloration		% Virus Infection ⁵		Corky Ringspot	Root- knot	Corky Ringspot	Root- knot	Erwinia Soft Rot	Metri- Reaction	
	AB	HERM		Foliar	Tuber	% Serious Defect ⁴		Serious defect ⁴	PVY	PLRV	PROSSER ⁶							KLAMATH
	0-9 ¹	0-9 ¹	CORV	CORV	Incidence		AB					HRM	(%)	(%)	(%)	0-5 ⁷		
			AB	CORV	CORV	CORV	(0-5)	Defect ⁴	AB	AB	HRM	(%)	(%)	(%)	AB	AB ⁸		
1 Ranger Russet	5.0	6.3	4.7	6.8	721	0.0	2.0	5.0	73.7	13.0	95	95	65.0	S	12.9	20	1.1	--
2 Russet Burbank	6.7	6.8	4.0	7.5	895	2.5	2.3	12.7	71.8	19.7	85	100	42.7	S	14.3	55.0	4.1	MR
3 Russet Norkotah	8.8	9.0	--	9.0	1378	0.0	2.3	1.3	89.6	27.0	60	100	37.2	S	--	--	0.5	--
4 Shepody	5.5	--	5.0	--	--	--	3.3	26.2	89.4	27.3	--	--	--	--	--	--	3.1	S
5 A96814-65LB	2.5	5.7	3.3	6.5	605	0.0	3.0	9.8	87.8	17.3	0	100	66.3	S	27.1	2.5	0.7	MR
6 A98345-1	2.5	2.8	3.7	7.0	711	0.0	3.3	19.9	81.4	6.5	45	100	50.7	S	34.3	17.5	1.3	MR
7 A00324-1	6.0	7.8	4.3	8.0	1092	0.0	2.0	2.0	63.0	3.7	5	100	11.3	S	2.9	20.0	0.0	MR
8 A00646-4	5.7	8.8	5.3	9.0	1283	0.0	3.0	7.1	45.3	0.0	0	100	67.6	S	2.9	2.5	0.9	MR
9 AO96305-3	5.5	8.2	4.6	7.5	897	0.0	3.3	22.0	58.8	8.1	30	100	83.3	S	34.3	10.0	1.9	MR
10 AO96365-2	3.3	5.0	3.7	6.5	614	0.0	3.0	21.9	61.8	3.2	100	100	66.7	S	10.0	7.5	0.5	MR
11 AO98282-5	4.7	7.5	3.7	8.0	986	2.5	2.7	4.6	80.2	9.2	70	100	40.0	S	0.0	7.5	1.0	MR
12 AO00057-2	2.8	6.0	4.3	6.3	607	0.0	2.0	0.0	81.9	22.9	40	100	55.0	S	22.9	0.0	2.8	MR
13 PA98NM25-5	3.0	4.3	3.3	7.8	944	0.0	2.0	0.0	59.4	0.0	0	95	30.0	S	17.1	0.0	1.5	MR
14 PA00N14-2	6.5	8.0	6.3	9.0	1155	0.0	3.0	14.1	63.9	0.0	90	15	0.0	S	0.0	7.5	0.2	MR
15 PA00N32-4	5.8	8.5	4.0	8.3	1090	0.0	3.0	13.0	41.5	3.0	65	85	0.0	S	0.0	2.5	1.3	MR
MEANS	5.0	6.8	4.3	7.7	927	0.4	2.7	11	70.0	10.7	48.9	92.1	44.0		13.7	11.7	1.4	--
LSD (.05)	1.7	1.9	1.8	0.7	271	5.1	1.4	15	24.3	17.6	--	--	--	--	--	--	1.5	--

1 Evaluations made by Whitworth, Hane, and Yilma; 0 to 9, Where 0 or 1=No symptoms to a 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

2 Evaluations made at Corvallis, Oregon by Solomon Yilma; AUDPC=area under the disease progress curve. Higher number indicates more disease over time.

3 Evaluations made at Corvallis, Oregon by Solomon Yilma; % of tubers examined with any late blight symptoms. Normal readings: six yr. tuber average for Ranger Russet = 61%; foliar = 8.6.

4 Evaluations made at Aberdeen, Idaho by Jonathan Whitworth; Percent serious defect = number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined.

5 Evaluations made at Aberdeen, Idaho by Whitworth; Percent serious defect = number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined.

Data from PLRV infected plots.

% Virus are from ELISA test of sprouts from tubers grown under high virus pressure

6 Evaluations made at Prosser, Washington by Chuck Brown: S=susceptible, R= resistant

7 Evaluations made at Aberdeen, Idaho by Jonathan Whitworth; scale as indicated with highest number being most severe.

8 Metribuzin Reaction measured at Aberdeen, ID

VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible.

TABLE 13: 2008 Tri-State Potato Variety Trial - SOLIDS, DEXTROSE, SUCROSE, PROTEIN,
VITAMIN C, AND GLYCOALKALOIDS - ABERDEEN

Clone	Solids Oven Dry (%)	Sugars		Protein (%DWB)	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100gFWB)
		Dextrose (%FWB)	Sucrose (%FWB)			
1 Ranger Russet	21.7	0.08	0.17	5.9	30.3	5.1
2 Russet Burbank	20.2	0.04	0.14	5.5	25.1	3.5
5 A96814-65LB	26.1	0.01	0.21	7.3	16.0	8.6
6 A98345-1	22.8	0.03	0.14	6.0	24.6	2.1
7 A00324-1	21.8	0.03	0.17	5.1	29.5	2.8
8 A00646-4	21.0	0.04	0.14	5.8	27.1	5.9
9 AO96305-3	23.1	0.03	0.13	6.3	31.2	2.9
10 AO96365-2	22.6	0.03	0.13	5.9	30.9	1.5
11 AO98282-5	24.6	0.04	0.26	6.2	24.7	1.3
12 AO00057-2	22.3	0.02	0.20	6.4	29.3	2.4
13 PA98NM25-5	26.5	0.00	0.21	7.2	19.8	4.9
14 PA00N14-2	23.7	0.05	0.19	6.7	23.3	5.5
15 PA00N32-4	23.0	0.06	0.02	5.6	23.5	3.4
Means	20.0	0.03	0.14	5.3	22.3	3.3

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2008 Lenape greenhouse grown check from Aberdeen was 9.0 mg/100g

TABLE 14: 2008 Tri-State Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Early WA	Process					Postharvest Merit * 3 State Avg.	Early WA	Fresh				
			ID	OR	WA	MEANS	RANK			ID	OR	WA	MEANS	RANK
1	Ranger Russet	3.5	3.0	3.5	3.5	3.3	5	3.8	2.6	3.3	2.5	2.4	2.7	5
2	Russet Burbank	2.8	2.7	1.0	2.2	2.0	11	3.0	2.0	2.0	1.0	1.4	1.5	12
5	A96814-65LB	3.1	3.5	2.5	3.2	3.1	7	4.0	2.8	3.0	1.0	2.4	2.1	9
6	A98345-1	3.7	3.7	1.0	4.2	3.0	8	4.4	2.7	3.8	1.0	2.8	2.5	6
7	A00324-1	2.4	3.5	1.0	3.6	2.7	9	3.9	1.4	3.8	1.0	2.0	2.3	7
8	A00646-4	2.6	3.2	1.0	1.0	1.7	13	2.6	1.0	3.1	1.0	1.0	1.7	11
9	AO96305-3	3.6	3.7	4.5	3.7	4.0	1	4.3	2.9	4.3	4.0	2.8	3.7	1
10	AO96365-2	3.3	4.0	3.5	3.9	3.8	3	3.9	3.1	4.8	2.0	3.7	3.5	2
11	AO98282-5	4.8	4.5	3.0	4.0	3.8	2	4.1	2.3	3.3	3.0	2.3	2.9	4
12	AO00057-2	3.4	4.0	3.5	3.8	3.8	4	4.3	3.8	3.8	3.0	2.3	3.0	3
13	PA98NM25-5	2.1	3.0	1.5	3.1	2.5	10	4.0	1.4	2.8	1.0	2.2	2.0	10
14	PA00N14-2	4.9	2.7	3.5	3.3	3.2	6	3.9	3.0	3.3	1.0	2.4	2.2	8
15	PA00N32-4	4.0	2.5	1.0	1.9	1.8	12	2.9	1.9	2.3	1.0	0.6	1.3	13
Location Means		3.4	3.4	2.3	3.2	3.0		3.8	2.4	3.4	1.7	2.2	2.4	

* For Complete information and procedures see Washington at www.potatoes.wsu.edu/

TABLE 15: 2008 Tri-State Potato Variety Trial - SUMMARY

Clone	Year in		Yield Late	% US#1's		Tuber Size		Specific Gravity		Fry Color		P F	Merit Score	Comments	Dis
	Trial	Use													
1 Ranger	CK	Dual	580 medium	489 84	medium	9.1	large	85	good	0.7	good	3.0 2.7			
2 R. Burbank	Ck	Dual	668 med-high	434 65	low	7.3	medium	81	medium	1.0	good	2.0 1.5			
5 A96814-65LB	2	Dual	724 high	656 90	high	9.5	large	102	v high	0.4	v. good	3.1 2.1		PVY res., Net suc.	adv WR
6 A98345-1	2	Dual	854 v high	782 91	high	10.3	large	88	good	0.4	v. good	3.0 2.5		BS suc.	adv WR
7 A00324-1	1	Dual	677 med-high	586 86	med-high	10.2	large	85	good	0.5	good	2.7 2.3		BS suc., course russet	return
8 A00646-4	1	Dual	527 medium	463 88	med-high	7.1	medium	75	low	0.8	good	1.7 1.7	poor	LB suc.	discard
9 AO96305-3	2	Dual	562 medium	487 87	med-high	7.5	medium	87	good	0.3	excellent	4.0 3.7	best	High Vit C, GC, long thin	adv WR
10 AO96365-2	2	Dual	780 high	677 88	med-high	7.5	medium	82	medium	0.6	good	3.8 3.5	good	PVY, scab, net nuc. suc.	adv WR
11 AO98282-5	1	Dual	837 v high	710 85	medium	7.7	medium	93	high	0.5	good	3.8 2.9	good	knobs, stolons attached	discard
12 AO00057-2	1	Dual	582 medium	526 90	high	9.0	large	88	good	0.3	excellent	3.8 3.0		vert. & scab Res., Net suc.	return
13 PA98NM25-5	1	Dual	673 med-high	505 77	med-low	7.1	medium	106	v high	0.3	excellent	2.5 2.0		Hheart, PVY res, not attractive	discard
14 PA00N14-2	2	Dual	592 medium	517 87	med-high	6.3	small	86	good	0.4	v. good	3.2 2.2		blight suc., long thin, good int	adv WR
15 PA00N32-4	1	Dual	506 med-low	392 78	med-low	7.4	medium	83	good	1.2	poor	1.8 1.3	poor	Hollow heart, poor	discard

TABLE 16: 2008 Tri-State Potato Variety Trial - LATE HARVEST TRIAL COMMENTS AND INFORMATION BY STATE

Entry	Clone	Comments from Hermiston	Tubers/ plant	Comments from Idaho
1	Ranger Russet	crooks,	7.9	JE, folded, twins
2	Russet Burbank	lots ugly/malformed,	11	pointy, jelly ends, bottle necks
5	A96814-65LB	too big/rnd,	7.6	alg hide, points
6	A98345-1	lrg/rnd,flatish,discard,	9.2	lt russ, deeper eyes, blocky
7	A00324-1	coarse russet,large,nice shape,	7.8	nice, big, long med russ,twins
8	A00646-4	rnd,some blk,	8.4	rot ++
9	AO96305-3	ok,little thin(not as bad as 141-3),v. nice shape,	7.8	long lt patchy russ, nice
10	AO96365-2	some short/some rnd,	12	nice, few lumps
11	AO98282-5	coarse russet, lots attached stems,nice shape,good,ok,	11.6	ad stolons, points, hvy russ, points
12	AO00057-2	coarse russet,blk/rnd,nice shape,	7.6	hvy russ, blocky, nice, few blg eyes
13	PA98NM25-5	lots of pear, very poor,small, discard-discard-discard,	12.4	non-uniform, points, small, shattered
14	PA00N14-2	very unif shape/size,nice, good shape,little thin,	10.2	thin, curved
15	PA00N32-4	lots of pear,poor,discard,	8.3	rot, GC, HH

Entry	Clone	Comments from Washington Late Trial	Tubers/ plant	Carton Yield			Shape
				CWT/A 100 to 50 Count	Process Value \$/A	Fresh Mkt Value \$/A	Uniformity
1	Ranger Russet	Large, long, mostly typy.	5.7	301	4267	4602	3
2	Russet Burbank	Mix of shapes, some typy, some rough, knobs.	8.2	348	4188	5028	2
5	A96814-65LB	Large, maybe too large, blocky, a bit round, puffed wheat skin.	6.6	433	5030	6200	4
6	A98345-1	Very large, looks similar to Shepody, a bit round, some rough.	7.7	490	6618	7069	1
7	A00324-1	Large, puffed wheat skin, mostly typy but skin is an issue.	6.8	347	4350	5079	3
8	A00646-4	Small, round, puffed wheat skin, mostly typy.	6.5	282	3088	4113	4
9	AO96305-3	Mostly typy, a few ugly and rough ones, some long and skinny.	7.0	307	3674	4397	3
10	AO96365-2	Mostly typy, round, small, some pointy ends.	8.9	455	5355	6486	4
11	AO98282-5	Lot of knobs, looks like a rough Russet Burbank.	10.8	523	6267	7659	2
12	AO00057-2	Very large - too large for fresh, mostly typy, a few folded ends.	5.7	318	4372	4790	3
13	PA98NM25-5	A bit ugly, some round, some pointy, light skin.	8.2	375	4629	5618	2
14	PA00N14-2	Ugly skin with orange tint, long, skinny, light russet, bit flat	7.2	325	3954	4612	3
15	PA00N32-4	Light skin, ugly, pear shaped, point, rough shape, poor yield.	6.1	277	3255	3997	1

TABLE 17: 2008 Tri-State Potato Variety Trial - WASHINGTON STATE POSTHARVEST EVALUATIONS

2008 Late Harvest - Tri-State Postharvest Evaluations

Entry	Clone	Tuber Shape (L to W ratio)				Yield of 3" or longer fries (% by number)				Accumulated Total Postharvest Ratings (max possible = 38)			
		WA	ID	OR	Avg.	WA	ID	OR	Avg.	WA	ID	OR	Total
1	Ranger Russet	1.76	2.59	1.86	2.07	71	70	72	71	36.0	31.2	20.4	29.2
2	Russet Burbank	1.71	2.17	1.83	1.90	71	78	73	74	29.3	23.1	16.3	22.9
5	A96814-65LB	1.45	1.56	1.48	1.50	61	66	63	64	32.5	32.5	25.8	30.3
6	A98345-1	1.42	1.69	1.43	1.51	59	70	60	63	32.7	36.4	31.2	33.4
7	A00324-1	1.60	1.94	1.76	1.77	67	75	72	72	33.3	33.3	21.5	29.4
8	A00646-4	1.49	1.78	1.46	1.58	63	73	62	66	25.8	23.5	10.3	19.9
9	AO96305-3	1.82	2.44	2.00	2.09	74	75	75	74	36.8	31.9	28.7	32.5
10	AO96365-2	1.47	1.94	1.61	1.68	62	75	67	68	33.3	35.4	21.3	30.0
11	AO98282-5	1.55	2.08	1.83	1.82	66	77	73	72	32.4	34.3	27.5	31.4
13	AO00057-2	1.37	1.67	1.48	1.51	57	70	63	63	34.4	32.2	30.3	32.3
14	PA98NM25-5	1.61	1.82	1.89	1.77	67	74	74	72	32.7	32.7	26.1	30.5
15	PA00N14-2	1.82	2.35	1.99	2.05	74	77	76	76	35.9	29.1	24.3	29.8
16	PA00N32-4	1.73	2.01	1.85	1.86	71	77	74	74	26.6	24.0	15.0	21.9
	Average	1.60	2.00	1.73		66	74	70		32.4	30.7	23.0	

§ maximum rating possible = 38

Complete postharvest evaluations and procedures are found at: www.potatoes.wsu.edu

TABLE 18: 2008 Tri-State Early Harvest Potato Variety Trial - WASHINGTON STATE POSTHARVEST EVALUATIONS

Entry	Clone	Comments from Washington Early Trial	Stem/ plant	Fresh - Visual Appearance	Tubers per plant	Carton Yield		Process Value \$/A	Fresh Mkt Value \$/A	Shape Uniformity
						CWT/A	100 to 50 Count			
1	Ranger Russet	Mostly tpy; some points, knobs, cracks; nice for Ranger.	1.7	3	5	126	1822	1947.4	2.8	
2	Russet Burbank	Shape mostly uniform; a few knobs, points, and dumbbells.	1.7	3	6	107	1895	1815.7	2.5	
5	A96814-65LB	Shape a bit irregular like Ranger, many typy ones.	1.6	3	6	158	2196	2400.1	4.0	
6	A98345-1	Shape a bit irregular like Ranger, many typy ones.	1.8	3	6	176	2390	2616.2	3.8	
7	A00324-1	Small, typy, light russetting, nice.	2.3	3	5	111	1735	1792.6	3.3	
8	A00646-4	Mostly tpy, some irregularly shaped, some minor growth cracks.	1.8	3	6	88	1803	1625.1	4.0	
9	AO96305-3	Typy, blocky, a bit small.	2.8	3	6	146	2172	2213.1	3.0	
10	AO96365-2	Folded ends, long and skinny, bad skin.	1.8	4	8	102	2240	1885.7	4.0	
11	AO98282-5	Small, shape mostly uniform but a bit pointy.	2.6	3	9	116	2402	2059.4	2.8	
12	AO00057-2	Large, blocky, typy, some pointy and some round.	2	4	6	151	2120	2299	4	
13	PA98NM25-5	Shape mostly uniform, but some with irreg shape, light russet skin.	3.3	3	8	73	2075	1598.6	3.3	
14	PA00N14-2	Long, skinny, pointy, a bit flat.	2.0	3	7	147	2410	2317.9	3.3	
15	PA00N32-4	Light russetting, mostly tpy, a few with irreg shape.	3.1	3	7	121	2365	2074.0	3.3	

Complete postharvest evaluations and procedures are found at: www.potatoes.wsu.edu