

2006
TRI-STATE
POTATO VARIETY TRIAL REPORT

State Experiment Stations and
USDA-ARS Cooperating

Washington

Oregon

Idaho

2006 TRI-STATE POTATO VARIETY TRIAL REPORT

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Compiled by Peggy Bain

TABLE 1: 2006 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.	260-0-0	1-May	5-Sep	25-Sep	127	147	Sencor DF Matrix	Admire 2F	Quadris Dithane DF
Hermiston Oregon (OR)	D. Hane, L. Leroux I. Vales	Late	Pivot	265-80-200-40	6-Apr	5-Sep	18-Sep	152	165	Eptam Matrix	Mocap Admire Asana Monitor,	Ridomil Gold Quadris Dithane Bravo Omega
Pasco (EWA) Washington	M Pavek R. Knowles E. Driskill N. Fuller Greenridge Farms	Early	Sprink. Solid	400-180-461	3-Apr	31-Jul	7-Aug	119	126	Eptam Sencor Matrix	Telone C-17	Dithane Bravo Penncozeb
Othello (LWA) Washington	M Pavek R. Knowles E. Driskill N. Fuller Sunrise Farms	Late	Pivot	233-225-344	20-Apr	15-Sep	25-Sep	148	158	Triflurex HFF Eptam Sencor DF Rely	Telone II Thimet Vydate Fulfill Leverage Oberon Monitor Comite	Platinum Admire Amistar Ultra Flourish Quadris Opti Ridomil Gold MZ Bravo Omega Tanos Manzate

Extremely high population of hairy nightshade in Rep 1. Rep 1 was discarded from analyses.

TABLE 2: 2006 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
									Shape	Skin	Size	Maturity	
1	Ranger Russet	Butte A6595-3	Med Red-purple	Check	Dual	Ck	OR	97	Long	Med Russet	Med-large	Med Early	1.9
2	Russet Burbank	Early Rose ?	White	Check	Dual	Ck	OR	98	Long	Med Russet	Med-large	Early	2.2
3*	Russet Norkotah	ND9687-5 Ru ND9526-4 Ru	White	Check	Fresh	Ck	OR	-	Obl-Lng	Med Russet	Small	Early	1.9
4*	Shepody	Bake King F58050	Lt . Pink	Check	Proc	Ck	OR	-	Oblong	White	Medium	Med Early	1.7
5	A97066-42LB	AWN86514-2 A86102-6	Red-Purple	ID	Dual	1	ID	97	Oblong	Light Russet	Med-large	Late	1.4
6	A97287-6	A92030-4 GemStar	White	ID	Dual	2	OR	99	Obl-Lng	Med Russet	Medium	Early	1.8
7	A99006-2TE	A86070-7 A92030-5	White	ID	Dual	1	ID	99	Obl-Lng	Med Russet	Small	Early	2.2
8	A99040-1TE	Wallowa R A94046-7	White	ID	Dual	1	ID	98	Obl-Lng	Med Russet	Med-large	Medium	1.5
9	A0008-1TE	Blazer R A95109-1	White	ID	Dual	1	ID	97	Long	Med Russet	Small	Early	2.4
10	PA98NM2-3	273-4 Summit R	White	WA	Dual	1	OR	97	Oblong	Med Hvy Rus	Medium	Early	1.3
11	PA98NM30-11	PO94A10.3 A9289-2	White	WA	Dual	1	OR	96	Long	Light Russet	Small	Early	1.7
12	PA99N2-1	AO84275-3 G6582-3	White	WA	Dual	1	OR	95	Rnd-Obl	Med Russet	Med-large	Med Early	2.7
13	PA99N46-1	PA9514-17 Rus bulk	White	WA	Dual	1	OR	99	Oblong	Light Russet	Med-large	Med--late	1.9
14	PA99N82-4	PA95B4-149 Rus bulk	White	WA	Dual	1	OR	97	Rnd-Obl	Med Hvy Rus	Small	Med Early	2.1
15	PA00N10-5	PA9514-22 Rus bulk	White	WA	Dual	1	OR	96	Oblong	Med Russet	Med-large	Late	2.0

* Early trial

TABLE 3: 2006 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	469	469	10	465	943	578	662	5
2	Russet Burbank	530	530	9	480	722	461	554	9
3	Russet Norkotah	581	581	2	-	-	-	-	-
4	Shepody	539	539	7	-	-	-	-	-
5	A97066-42LB	364	364	14	413	908	599	640	7
6	A97287-6	532	532	8	601	964	581	715	3
7	A99006-2TE	541	541	6	524	645	434	534	10
8	A99040-1TE	411	411	13	443	805	448	565	8
9	A0008-1TE	584	584	1	378	620	500	499	11
10	PA98NM2-3	352	352	15	340	561	435	445	12
11	PA98NM30-11	458	458	11	286	634	411	444	13
12	PA99N2-1	579	579	3	495	894	592	660	6
13	PA99N46-1	573	573	4	546	1196	688	810	1
14	PA99N82-4	567	567	5	425	979	596	667	4
15	PA00N10-5	457	457	12	588	1151	640	793	2
Location Means		502	502		460	848	536	615	
LSD (.05)								148	

TABLE 4: 2006. 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	397	397	10	337	733	491	520	7
		85	85	9	72	78	85	78	8
2	Russet Burbank	396	396	11	246	492	309	349	12
		75	75	14	51	68	67	62	13
3	Russet Norkotah	500	500	3	-	-	-	-	-
		86	86	8	-	-	-	-	-
4	Shepody	481	481	7	-	-	-	-	-
		89	89	3	-	-	-	-	-
5	A97066-42LB	273	273	15	298	781	506	528	6
		75	75	13	72	86	85	81	4
6	A97287-6	467	467	8	520	784	502	602	3
		88	88	5	87	81	86	85	2
7	A99006-2TE	492	492	4	468	546	366	460	8
		91	91	1	89	85	84	86	1
8	A99040-1TE	338	338	12	302	557	349	403	9
		82	82	11	68	69	78	72	11
9	A0008-1TE	522	522	1	309	478	409	399	10
		89	89	2	82	77	82	80	5
10	PA98NM2-3	282	282	14	186	480	401	356	11
		80	80	12	55	86	92	78	9
11	PA98NM30-11	403	403	9	148	484	321	318	13
		88	88	4	52	76	78	69	12
12	PA99N2-1	504	504	2	409	781	498	563	4
		87	87	6	83	87	84	85	3
13	PA99N46-1	483	483	6	365	894	576	612	1
		84	84	10	67	75	84	75	10
14	PA99N82-4	491	491	5	340	761	485	529	5
		87	87	7	80	78	81	80	6
15	PA00N10-5	327	327	13	493	805	529	609	2
		72	72	15	84	70	83	79	7
Location Means		424	424		340	660	442	480	
LSD (.05)		84	84		72	78	82	78	121

TABLE 5: 2006 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	97	97	7	112	453	215	260	2
		21	21	7	24	48	37	36	2
2	Russet Burbank	43	43	11	71	94	59	75	13
		8	8	12	15	13	13	14	13
3	Russet Norkotah	127	127	4	-	-	-	-	-
		22	22	4	-	-	-	-	-
4	Shepody	274	274	1	-	-	-	-	-
		51	51	1	-	-	-	-	-
5	A97066-42LB	18	18	15	130	282	131	181	6
		5	5	14	31	31	22	28	5
6	A97287-6	83	83	9	198	207	130	178	7
		16	16	9	33	21	22	26	6
7	A99006-2TE	180	180	2	226	202	133	187	5
		33	33	2	43	31	31	35	3
8	A99040-1TE	28	28	13	114	104	14	77	12
		7	7	13	26	13	3	14	12
9	A0008-1TE	144	144	3	84	65	105	85	10
		25	25	3	22	10	21	18	10
10	PA98NM2-3	32	32	12	107	96	81	95	9
		9	9	11	31	17	19	22	9
11	PA98NM30-11	84	84	8	35	131	85	84	11
		18	18	8	12	21	21	18	11
12	PA99N2-1	126	126	5	148	232	116	165	8
		22	22	5	30	26	20	25	8
13	PA99N46-1	81	81	10	143	411	227	260	1
		14	14	10	26	34	33	31	4
14	PA99N82-4	121	121	6	199	350	201	250	3
		21	21	6	47	36	34	39	1
15	PA00N10-5	18	18	14	233	208	120	187	4
		4	4	15	40	18	19	26	7
Location Means		97	97		138	218	124	160	
LSD (.05)		18	18		29	25	23	25	107

TABLE 6: 2006 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	49	49	6	24	53	33	37	2
		10	10	10	5	6	6	5	1
2	Russet Burbank	61	61	11	37	124	73	78	13
		12	12	11	8	17	16	14	13
3	Russet Norkotah	54	54	9	-	-	-	-	-
		9	9	7	-	-	-	-	-
4	Shepody	14	14	1	-	-	-	-	-
		3	3	1	-	-	-	-	-
5	A97066-42LB	84	84	14	28	71	58	52	6
		23	23	15	7	8	10	8	5
6	A97287-6	53	53	8	33	120	69	74	11
		10	10	9	5	12	12	10	10
7	A99006-2TE	38	38	5	23	53	54	43	4
		7	7	3	4	8	13	8	6
8	A99040-1TE	63	63	12	31	118	68	72	10
		15	15	13	7	15	15	12	12
9	A0008-1TE	34	34	3	29	96	46	57	7
		6	6	2	8	15	9	11	11
10	PA98NM2-3	31	31	2	16	60	30	35	1
		9	9	6	5	11	7	8	3
11	PA98NM30-11	37	37	4	30	62	30	41	3
		8	8	4	10	10	7	9	9
12	PA99N2-1	49	49	7	34	85	54	58	8
		9	9	5	7	10	9	9	7
13	PA99N46-1	67	67	13	46	129	55	77	12
		12	12	12	8	11	8	9	8
14	PA99N82-4	55	55	10	20	68	61	50	5
		10	10	8	5	7	10	7	2
15	PA00N10-5	97	97	15	23	100	68	64	9
		21	21	14	4	9	11	8	4
Location Means		52	52		29	88	54	57	
LSD (.05)		11	11		6	11	10	9	24

TABLE 7: 2006 Tri-State Potato Variety Trial - SPECIFIC GRAVITY - EARLY AND LATE HARVEST

No. Clone	Specific Gravity - Early Harvest		Specific Gravity - Late Harvest				
	EWA	Rank	ID	OR	LWA	Entry Mean	Rank
1 Ranger Russet	1.078	5	1.092	1.079	1.090	1.087	3
2 Russet Burbank	1.078	7	1.080	1.075	1.071	1.075	10
3 Russet Norkotah	1.075	13	.	.	.	-	-
4 Shepody	1.077	9	.	.	.	-	-
5 A97066-42LB	1.088	1	1.093	1.091	1.103	1.096	1
6 A97287-6	1.080	3	1.085	1.076	1.085	1.082	6
7 A99006-2TE	1.080	4	1.085	1.073	1.075	1.078	8
8 A99040-1TE	1.081	2	1.087	1.084	1.093	1.088	2
9 A0008-1TE	1.076	11	1.079	1.067	1.073	1.073	12
10 PA98NM2-3	1.072	14	1.079	1.068	1.076	1.074	11
11 PA98NM30-11	1.067	15	1.071	1.065	1.064	1.067	13
12 PA99N2-1	1.078	6	1.085	1.077	1.085	1.082	5
13 PA99N46-1	1.076	10	1.074	1.074	1.083	1.077	9
14 PA99N82-4	1.077	8	1.082	1.074	1.081	1.079	7
15 PA00N10-5	1.076	12	1.089	1.078	1.094	1.087	4
Location Means	1.077		1.083	1.075	1.082	1.080	
LSD (0.5)						0.007	

TABLE 8: 2006 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	7.1	8.8	10.9	8.9	9.5	1.8	2.4	1.9	1.8	2.0
2 Russet Burbank	6.3	8.4	6.2	6.0	6.9	1.8	1.9	1.9	2.0	1.9
3 Russet Norkotah	7.0	.	.	.	7.0	1.6	-	.	.	1.6
4 Shepody	10.9	.	.	.	10.9	1.6	-	.	.	1.6
5 A97066-42LB	5.0	8.9	7.9	7.2	8.0	1.6	1.8	1.5	1.5	1.6
6 A97287-6	6.9	8.8	6.6	6.7	7.4	1.7	1.9	1.7	1.6	1.7
7 A99006-2TE	8.0	9.3	8.2	7.3	8.3	1.7	1.9	1.6	1.7	1.7
8 A99040-1TE	5.7	8.1	6.5	5.4	6.7	1.9	1.9	1.5	2.0	1.8
9 A0008-1TE	7.9	7.5	6.2	7.0	6.9	1.9	1.8	1.8	1.8	1.8
10 PA98NM2-3	6.6	10.7	7.3	7.2	8.4	1.5	1.6	1.6	1.5	1.5
11 PA98NM30-11	7.4	6.2	6.9	7.1	6.7	1.8	2.0	1.8	2.0	1.9
12 PA99N2-1	7.1	8.4	7.5	7.2	7.7	1.4	1.5	1.4	1.4	1.4
13 PA99N46-1	6.3	8.2	7.3	8.1	7.9	1.4	1.5	1.4	1.4	1.4
14 PA99N82-4	6.9	10.3	9.0	7.4	8.9	1.4	1.5	1.3	1.4	1.4
15 PA00N10-5	5.1	10.0	7.5	6.9	8.1	1.4	1.4	1.5	1.4	1.4
Location Means	6.9	8.7	7.5	7.1	7.8	1.6	1.8	1.6	1.7	1.7
LSD (0.5)					1.5					0.21

TABLE 9: 2006 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	4.8	4.2	4.8	4.7	5.0	4.5	2.5	4.8	4.6
2 Russet Burbank	2.5	3.6	4.3	3.5	5.0	5.0	2.3	5.0	4.8
3 Russet Norkotah	5.0	-	5.0	-	5.0	-	.	5.0	-
4 Shepody	5.0	-	4.8	-	5.0	-	.	4.3	-
5 A97066-42LB	5.0	4.4	5.0	4.3	5.0	4.0	2.6	3.3	4.6
6 A97287-6	5.0	4.7	4.8	5.0	5.0	4.9	2.4	2.8	3.5
7 A99006-2TE	5.0	4.4	5.0	4.7	5.0	4.4	2.8	4.5	4.0
8 A99040-1TE	4.8	4.4	5.0	3.7	5.0	4.5	2.6	5.0	4.3
9 A0008-1TE	4.5	4.0	5.0	4.9	5.0	2.4	2.5	5.0	4.7
10 PA98NM2-3	4.0	3.7	4.3	4.7	5.0	2.2	2.8	5.0	4.8
11 PA98NM30-11	5.0	4.4	4.8	4.6	5.0	5.0	3.7	5.0	4.5
12 PA99N2-1	4.8	4.5	5.0	4.5	5.0	3.3	2.3	5.0	4.6
13 PA99N46-1	5.0	4.2	3.8	4.4	5.0	4.5	2.7	5.0	4.6
14 PA99N82-4	3.5	3.3	5.0	4.9	3.0	3.2	2.6	5.0	4.7
15 PA00N10-5	5.0	4.5	4.5	4.8	4.0	3.5	2.4	5.0	4.4
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: 2006 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	
											%	
1	Ranger Russet	0.0	0.0	0.0	0.3	n/a	3.0	5.0	4.0	34.0	2.4	
2	Russet Burbank	10.0	11.5	2.5	4.0	n/a	1.0	4.0	3.0	6.0	3.1	
3	Russet Norkotah	2.5	-	0.0	-	n/a	-	5.0	.	.	.	
4	Shepody	0.0	-	0.0	-	n/a	-	5.0	.	.	.	
5	A97066-42LB	2.5	2.7	0.0	2.0	n/a	1.0	5.0	5.0	1.0	2.3	
6	A97287-6	2.5	12.6	0.0	0.3	n/a	5.0	4.0	5.0	1.0	3.7	
7	A99006-2TE	0.0	0.0	0.0	0.3	n/a	4.0	5.0	1.0	22.0	2.6	
8	A99040-1TE	0.0	14.7	2.5	0.0	n/a	5.0	5.0	5.0	2.0	3.1	
9	A0008-1TE	0.0	6.3	0.0	0.0	n/a	1.5	5.0	5.0	0.0	3.1	
10	PA98NM2-3	0.0	13.3	0.0	0.0	n/a	1.0	5.0	4.0	1.0	3.6	
11	PA98NM30-11	0.0	1.3	0.0	4.7	n/a	1.0	5.0	5.0	0.0	3.1	
12	PA99N2-1	2.5	12.7	0.0	2.0	n/a	0.0	5.0	5.0	1.0	2.9	
13	PA99N46-1	0.0	31.7	0.0	1.3	n/a	2.0	5.0	5.0	0.0	3.6	
14	PA99N82-4	5.0	27.7	0.0	1.3	n/a	0.0	5.0	5.0	3.0	3.3	
15	PA00N10-5	15.0	26.3	0.0	0.3	n/a	0.0	5.0	5.0	2.0	3.6	
Means		2.7	12.4	0.3	1.3		1.9	4.9	4.4	5.6	3.1	
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: 2006 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	0.8	1.2	1.0	1.0	1.0	5	1.9	2.0	2.0	10	10	10
2 Russet Burbank	1.2	1.5	2.0	2.0	1.6	11	3.1	4.0	3.6	13	25	19
3 Russet Norkotah	.	.	.	.	-	-	.	-	.	.	.	-
4 Shepody	.	.	.	.	-	-	.	-	.	.	.	-
5 A97066-42LB	0.8	1.1	1.0	0.3	1.0	3	1.9	2.0	2.0	0	5	3
6 A97287-6	0.6	0.4	0.0	0.0	0.3	1	1.6	1.0	1.3	0	8	4
7 A99006-2TE	1.1	0.8	1.0	0.7	1.0	3	2.4	2.0	2.2	2	13	8
8 A99040-1TE	1.3	1.2	1.0	0.7	1.2	7	2.3	2.0	2.2	0	10	5
9 A0008-1TE	0.9	1.3	1.0	1.0	1.1	6	3.6	3.0	3.3	6	8	7
10 PA98NM2-3	1.8	0.9	1.0	1.0	1.2	8	3.3	1.0	2.2	6	8	7
11 PA98NM30-11	1.7	2.1	3.0	3.0	2.3	12	3.8	4.0	3.9	29	25	27
12 PA99N2-1	0.6	1.2	2.0	1.0	1.3	9	3.4	2.0	2.7	0	0	0
13 PA99N46-1	1.9	2.3	3.0	3.0	2.4	13	3.8	4.0	3.9	2	60	31
14 PA99N82-4	1.1	0.3	1.0	0.7	0.8	2	2.3	2.0	2.2	6	3	5
15 PA00N10-5	0.7	1.2	2.0	1.3	1.3	10	2.9	3.0	3.0	2	5	4
Location Means	1.1	1.2	1.5	1.2	1.3		2.8	2.5	2.6	6	14	10

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: 2006 Tri-State Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/ Early Dying		Early Blight AB ¹	Late Blight			Common Scab AB ¹	Net Necrosis		Corky Ringspot PROSSER ⁵	Root- knot	Erwinia Soft Rot AB ¹	Metri- Reaction AB ⁶
	AB ¹	HERM ²		Foliar		Tuber		AB ^{1a}	HERM ²				
	0-9	0-9	0-9	CORV ³	CORV ³	CORV ³	(%) severity	(%)	(%)	(%)	0-5		
1 Ranger	4.0	--	2.7	8.5	1091	30.0	35	1.7	--	50.0	S	2.6	R
2 R. Burbank	6.0	9.0	3.3	8.0	988	15.0	4	1.4	15.0	55.0	S	4.2	R
3 R. Norkotah	8.2	--	1.0	9.0	1282	45.0	8	16.6	--	23.0	S	3.9	R
4 Shepody	5.2	--	5.2	8.8	1245	32.5	45	25.2	--	13.0	S	2.3	VS
5 A97066-42LB	1.0	5.0	3.0	4.8	207	15.0	29	1.8	2.5	23.0	S	2.1	R
6 A97287-6	3.9	8.3	3.2	8.0	926	22.5	27	7.0	12.5	25.0	S	2.6	R
7 A99006-2TE	5.8	8.8	4.7	--	--	--	84	10.5	5.0	10.0	S	2.7	R
8 A99040-1TE	4.3	7.8	3.5	--	--	--	45	4.5	62.5	20.0	S	3.5	R
9 A0008-1TE	7.2	9.0	4.8	--	--	--	0	--	2.5	10.0	S	3.7	R
10 PA98NM2-3	3.2	7.8	3.3	8.0	991	22.5	17	--	0.0	0.0	S	2.7	R
11 PA98NM30-11	7.7	8.5	4.8	9.0	1204	32.5	0	--	10.0	30.0	R	1.6	R
12 PA99N2-1	3.5	7.3	3.5	8.0	1075	35.0	10	--	15.0	5.0	S	3.3	R
13 PA99N46-1	1.8	6.0	3.2	6.3	770	22.5	16	--	2.5	8.0	S	2.0	R
14 PA99N82-4	5.0	7.0	3.7	8.3	1104	42.5	4	--	7.5	3.0	R	3.7	MS
15 PA00N10-5	1.2	4.7	2.7	6.8	817	17.8	36	--	17.5	0.0	S	1.5	R
MEANS	4.5	7.4	3.5	7.8	975	27.7	24.0	8.6	12.7	18		2.8	
LSD (.05)	2.2		2.3	0.7	174.5	26.2	23.0					1.6	

¹ Evaluations made at Aberdeen, Idaho by Jonathan Whitworth; scale as indicated with highest number being most severe.

^{1a} Scores are from 2005

² Evaluations made at Hermiston, Oregon by Dan Hane; scale as indicated with highest number being most severe.

³ Evaluations made at Corvallis, Oregon by Al Mosley; scale as indicated with highest number being most severe.

⁴ Mount Vernon, Washington by Debbie Inglis; AUDPC = area under disease progress curve. (No disease to report, due to drought)

⁵ Evaluations made at Prosser, Washington by Chuck Brown:

⁶ Metribuzin Reaction measured at Aberdeen, Idaho: VR=very resistant, R=resistant, MR=moderately resistant, MS=moderately susceptible, S=suceptible.

TABLE 13: 2006 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	23.7	0.09	0.20	5.1	23.1	2.0
2 Russet Burbank	20.5	0.10	0.14	4.3	18.3	3.4
3 Russet Norkotah	.	.	.	.	.	.
4 Shepody	.	.	.	.	.	.
5 A97066-42LB	23.4	0.06	0.22	5.3	17.0	3.5
6 A97287-6	21.9	0.11	0.17	6.6	28.3	2.6
7 A99006-2TE	21.8	0.14	0.15	5.7	30.1	1.5
8 A99040-1TE	23.5	0.07	0.20	5.8	23.0	5.3
9 A0008-1TE	20.0	0.07	0.12	6.9	24.7	0.5
10 PA98NM2-3	21.7	0.19	0.22	5.5	18.5	0.3
11 PA98NM30-11	17.2	0.26	0.17	4.9	18.5	7.8
12 PA99N2-1	21.3	0.06	0.15	5.0	19.0	1.2
13 PA99N46-1	19.8	0.15	0.20	4.7	16.1	0.9
14 PA99N82-4	20.4	0.09	0.19	6.3	21.2	1.0
15 PA00N10-5	22.0	0.06	0.21	5.2	18.0	0.4
Means	18.5	0.10	0.16	4.8	18.4	2.0

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2006 Lenape check from Aberdeen was 32.9 mg/100g

TABLE 14: 2006 Tri-State Potato Variety Trial - MERIT SCORES (1-5(best))

No.	Clone	Process						Postharvest Merit * 3 State Avg.	Fresh					
		Early WA	ID	OR	WA	MEANS	RANK		Early WA	ID	OR	WA	MEANS	RANK
1	Ranger Russet	3.2	3.5	3.5	3.3	3.0	3	3.3	3.1	3.3	2.0	2.7	2.7	5
2	Russet Burbank	3.2	2.5	2.5	1.0	2.0	9	2.1	2.5	1.5	2.0	0.8	1.4	12
3	Russet Norkotah	4.1	.	.	.	-	-	-	4.1	.	.	.	-	-
4	Shepody	4.1	.	.	.	-	-	-	2.5	.	.	.	-	-
5	A97066-42LB	3.1	3.2	4.0	3.5	3.6	2	3.6	1.4	2.5	1.5	2.2	2.1	7
6	A97287-6	3.7	3.5	4.0	4.3	3.9	1	4.3	3.4	3.8	3.0	2.3	3.0	1
7	A99006-2TE	4.5	3.2	3.5	1.2	2.6	4	3.6	4.9	3.8	3.0	2.0	2.9	2
8	A99040-1TE	2.9	2.0	2.5	2.2	2.2	7	3.4	2.1	2.3	2.0	1.1	1.8	9
9	A0008-1TE	4.1	2.5	1.0	2.1	1.9	10	2.9	4.9	3.0	1.0	2.9	2.3	6
10	PA98NM2-3	1.9	1.5	1.0	2.0	1.5	12	3.3	1.4	1.5	1.0	2.8	1.8	11
11	PA98NM30-11	2.5	1.5	1.5	1.4	1.5	13	1.2	3.2	1.3	1.5	1.1	1.3	13
12	PA99N2-1	4.0	2.2	2.0	3.7	2.6	4	3.7	3.5	3.0	2.0	3.3	2.8	4
13	PA99N46-1	4.2	1.0	1.0	3.3	1.8	11	1.8	3.2	2.3	1.0	2.3	1.9	8
14	PA99N82-4	3.8	1.5	1.0	4.1	2.2	8	3.8	3.5	3.0	1.0	1.4	1.8	9
15	PA00N10-5	2.4	2.2	1.5	3.7	2.5	6	3.3	0.9	3.0	1.0	4.4	2.8	3
Location Means		3.4	2.3	2.2	2.8	2.4		3.1	3.0	2.6	1.7	2.3	2.4	

* For Complete information and procedures see Washington

TABLE 16: 2006 Tri-State Potato Variety Trial - LATE HARVEST TRIAL COMMENTS AND INFORMATION BY STATE

Entry	Clone	Comments from Hermiston	Stem/ plant	width/depth ratio	photovolt	stem/bud ratio
1	Ranger Russet	NICE RANGER, LARGE	2	1.25	34.10	0.63
2	Russet Burbank	SOME MISSHAPEN, GROWTH CRACKS, SOME PEAR, POINTY, NICE RB	2.6	1.18	31.20	0.6
5	A97066-42LB	SOME RND, BLOCKY, SMOOTH, HEAT SPROUTS, FEW GREEN	1.5	1.24	35	0.83
6	A97287-6	NICE SHAPE, SOME ROUND, LITTLE OBLONG	2	1.19	41.7	0.73
7	A99006-2TE	SMALL=ROUND, GOOD SHAPE	2.4	1.13	37.8	0.8
8	A99040-1TE	LOTS SIZE VARIABILITY, PEARS, FEW GREEN	1.5	1.19	34.2	0.7
9	A0008-1TE	VERY NICE SHAPE	2.4	1.13	33.8	0.72
10	PA98NM2-3	BLOCKY, FLAT, SOME ROUND, GREEN	1.5	1.2	37.8	0.66
11	PA98NM30-11	NICE SHAPE, SOME KNOBS	1.8	1.15	26	0.66
12	PA99N2-1	TOO ROUND, SOME COARSE RUSSET, BLOCKY	2.7	1.18	34.7	0.9
13	PA99N46-1	FOLDED BUD ENDS, PEAR, TOO ROUND	1.9	1.26	24.3	0.59
14	PA99N82-4	COARSE RUSSET, TOO ROUND	2.1	1.2	42.1	0.87
15	PA00N10-5	ROUND TO LONG, BN W/GC, LOTS PEAR, DISCARD	2.2	1.25	34.6	0.7
Comments from Idaho						
5	A97066-42LB	big lt russet blocky green rough				
6	A97287-6	nice oblong med russ, rot				
7	A99006-2TE	scab long nice russ deeper eyes				
8	A99040-1TE	RB like rough scab				
9	A0008-1TE	med russ blocky nice				
10	PA98NM2-3	hvy russ blocky GC				
11	PA98NM30-11	jelly ends GC				
12	PA99N2-1	skinned rounder GC				
13	PA99N46-1	rough patchy				
14	PA99N82-4	GC blocky checking				
15	PA00N10-5	blocky deep eyes				
Comments from Washington (Late Trial)						
1	Ranger Russet	Long with some typy tubers	5.7		60	
2	Russet Burbank	Typy, dumbells, rough	6.7		98	
5	A97066-42LB	Round, Unifrom, Prescab, a lot of green	7.3		20	
6	A97287-6	Very bad scab, discard	7.6		95	
7	A99006-2TE	Typy, spotty skin, uniform shape and size	5.2		97	
8	A99040-1TE	Long and small, spotty skin	7.2		78	
9	A0008-1TE	Best of trial for typy, a lot of green	6.2		100	
10	PA98NM2-3	Round, mostly typy and uniform	5.3		93	
11	PA98NM30-11	Rough, bad skin, nonuniform, skin not consistant with wide netting	5.0		98	
12	PA99N2-1	Bumpy tubers, uniform shape and size, mostly round	7.1		67	
13	PA99N46-1	Rough, spotty skin, nonuniform shape and size, bad skin/spotty	7.4		30	
14	PA99N82-4	Round and blocky, alligator hide on some, shatter bruise	7.0		58	
15	PA00N10-5	Round, typy, decent skir	8.1		11	

TABLE 17: 2006 Tri-State Potato Variety Trial - WASHINGTON STATE POSTHARVEST EVALUATIONS

2006 Late Harvest - Tri-State Postharvest Evaluations

Entry	Clone	Tuber Shape (L to W ratio)				% BlackSpot Bruise Controlled Bruise Study				3 State Avg. 0-4(darkest) Harvest		
		WA	ID	OR	means	WA	ID	OR	Avg.	Fry	44	40
1	Ranger Russet	1.79	2.27	1.73	1.93	75.0	37.5	62.5	58.3	0.7	1.0	1.7
2	Russet Burbank	1.98	2.21	1.77	1.98	25.0	10.4	58.3	31.3	1.3	2.0	3.3
3	A97066-42LB	1.53	1.59	1.41	1.51	45.8	43.8	43.8	44.4	0.0	0.3	1.0
4	A97287-6	1.58	2.02	1.61	1.73	29.2	4.2	10.4	14.6	0.0	0.0	0.3
5	A99006-2TE	1.70	2.04	1.64	1.79	47.9	31.3	37.5	38.9	0.7	0.7	1.7
6	A99040-1TE	2.04	2.09	1.72	1.95	62.5	35.4	52.1	50.0	0.3	0.7	1.3
7	A0008-1TE	1.84	1.98	1.80	1.87	14.6	12.5	20.8	16.0	0.7	1.0	3.0
8	PA98NM2-3	1.48	1.56	1.55	1.53	20.8	6.3	22.9	16.7	0.3	1.0	1.7
9	PA98NM30-11	2.01	2.26	1.73	2.00	29.2	14.6	18.8	20.8	2.3	3.0	3.7
10	PA99N2-1	1.41	1.44	1.31	1.39	70.8	29.2	41.7	47.2	0.0	1.0	1.7
11	PA99N46-1	1.41	1.58	1.31	1.43	37.5	2.1	16.7	18.8	2.0	3.0	3.7
12	PA99N82-4	1.38	1.66	1.36	1.47	39.6	12.5	43.8	31.9	0.0	0.7	1.7
13	PA00N10-5	1.41	1.37	1.44	1.41	35.4	2.1	18.8	18.8	0.3	1.3	2.7

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

Entry	Clone	Comments from Washington Late Trial	Dead	100 to 60	Gross	Diff. From	Gross	Diff. From
			at harvest	Count*	Return	CORN-3	Return	RB (\$/A)
				CWT/A	\$/A	(\$/A)	\$/A	
1	Ranger Russet	Long with some typy tubers	60	242	4378	212	2777	2777
2	Russet Burbank	Typy, dumbbells, rough	98	158	2600	-1566	1303	1303
5	A97066-42LB	Round, Unifrom, Prescab, a lot of green	20	307	4713	547	2627	2627
6	A97287-6	Very bad scab, discard	95	274	4420	254	2966	2966
7	A99006-2TE	Typy, spotty skin, uniform shape and size	97	201	3252	-914	1470	1470
8	A99040-1TE	Long and small, spotty skin	78	140	2622	-1544	1913	1913
9	A0008-1TE	Best of trial for typy, a lot of green	100	239	3677	-489	1814	1814
10	PA98NM2-3	Round, mostly typy and uniform	93	241	3707	-459	1936	1936
11	PA98NM30-11	Rough, bad skin, nonuniform, skin not consistant with	98	180	2881	-1286	1499	1499
12	PA99N2-1	Bumpy tubers, uniform shape and size, mostly round	67	310	4731	565	3048	3048
13	PA99N46-1	Rough, spotty skin, nonuniform shape and size, bad s	30	290	5041	875	3485	3485
14	PA99N82-4	Round and blocky, alligator hide on some, shatter bru	58	255	3897	-269	2717	2717
15	PA00N10-5	Round, typy, decent skin	11	320	4997	831	3099	3099

TABLE 18: 2006 Tri-State Early Harvest Potato Variety Trial - WASHINGTON STATE POSTHARVEST EVALUATIONS 18

Entry	Clone	Comments from Washington Early Trial	Stem/ plant	Stand %	Tubers/ Plant
1	Ranger Russet	Nice Rangers, spotty skin, pointy	1.6	39	5.8
2	Russet Burbank	Many growth cracks, typy	1.6	61	7.3
3	Russet Norkotah	Typy, uniform size, good skin set	1.9	71	7.2
4	Shepody	Large, spotty skin, some scab	1.7	41	4.4
5	A97066-42LB	Typy, bad buff skin, lenticils, small	1.4	18	6.3
6	A97287-6	Typy, skin spotty, pear shaped, pointed ends	1.3	24	6.8
7	A99006-2TE	Blocky, typy nice shape, Standout	2.1	77	5.9
8	A99040-1TE	Typy, good process shape, poor skin set	1.4	33	6.3
9	A0008-1TE	Typy, blocky, protruding eyes, nice shape	1.9	32	6.5
10	PA98NM2-3	Dark bumpy skin, pear shape, shatter poor shape	1.2	10	4.7
11	PA98NM30-11	Small white skin, ugly skin	1.4	11	5.6
12	PA99N2-1	Blocky, typy yet somewhat round	1.9	17	7.1
13	PA99N46-1	Bottlenecks, buff skin, knobs, poor skin set	1.5	59	7.9
14	PA99N82-4	Dark skin, some pear shaped, some blocky	1.8	47	7.2
15	PA00N10-5	Small and round, light skin	1.8	31	7.9

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

Entry	Clone	Fresh Market (1-5=Best)	100 to 60 Count* CWT/A	Gross Return \$/A	Diff. From Norkotah (\$/A)	Gross Return \$/A	Diff. From Ranger (\$/A)
1	Ranger Russet	3.0	249	3806	-515	2208	0
2	Russet Burbank	3.3	225	3548	-773	2334	126
3	Russet Norkotah	3.3	283	4320	0	2772	564
4	Shepody	2.8	194	3671	-649	2678	470
5	A97066-42LB	2.5	128	2098	-2222	1571	-637
6	A97287-6	2.0	272	4263	-58	2533	325
7	A99006-2TE	4.0	279	4526	206	2613	405
8	A99040-1TE	3.3	172	2836	-1484	1879	-329
9	A0008-1TE	4.3	318	4942	622	2784	576
10	PA98NM2-3	2.0	164	2577	-1743	1661	-547
11	PA98NM30-11	2.0	261	3899	-422	2181	-27
12	PA99N2-1	3.8	282	4613	293	2766	558
13	PA99N46-1	2.0	287	4361	40	2678	470
14	PA99N82-4	3.0	258	4318	-2	2662	454
15	PA00N10-5	2.5	119	2299	-2021	1990	-218

* Entries that are bolded were rejected according to the Process Contract due to specific gravity values lower than 1.074