

2005 TRI-STATE POTATO VARIETY TRIAL REPORT

State Experiment Stations and
USDA-ARS Cooperating

Washington

Oregon

Idaho

2005 TRI-STATE POTATO VARIETY TRIAL REPORT

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Compiled by Peggy Bain

TABLE 1: 2005 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.	210-100-100	27-Apr	6-Sep	23-Sep	132	149	Sencor DF Matrix Eptam	Admire 2F	Curzate Dithane DF
Hermiston Oregon (OR)	D. Hane, A. Mosley L. Leroux	Late	Pivot	330-80-175-40	6-Apr	6-Sep	19-Sep	153	166	Eptam Matrix Enquik	Mocap Admire Asana Monitor, (Agrimek- mites)	Vapam Maxim 4FS Ridomil Gold Quadris Bravo Dithane Omega
Pasco (EWA) Washington	M Pavek R. Knowles E. Driskill N. Fuller Greenridge Farms	Early	Pivot	400-180-461	24-Mar	29-Jul	2-Aug	127	131	Sencor DF Eptam Triflurex HFF	Monitor ASANA Leverage	Vapam HL Omega Echo Vydate C-LV Ridomil MZ Anustar Manzate Polyram
Othello (LWA) Washington	M Pavek R. Knowles E. Driskill N. Fuller	Late	Sprinkler	305-330-350	18-Apr	16-Sep	27-Sep	151	162	Eptam Prowl Matrix	Asana Oberon	Dithane Bravo

TABLE 2: 2005 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	96	Long	Med Russet	Med-large	Med Early	2.0
2	Russet Burbank	Early Rose ?	White	Check	Dual	Ck	OR	96	Obl-Lng	Med Russet	Medium	Early	2.3
3*	Russet Norkotah	ND9687-5 Ru ND9526-4 Ru	White	Check	Fresh	Ck	OR	-	Oblong	Med Russet	Small	Early	1.7
4*	Shepody	Bake King F58050	Lt . Pink	Check	Proc	Ck	OR	-	Oblong	Med Russet	Small	Med Early	1.6
5	A96023-6	A9045-7 A89512-3	Red-Purple	ID	Dual	2	ID	97	Long	Med Russet	Med-large	Medium	2.6
6	A96108-12	A8935-3 Summit Russ	White	ID	Dual	1	ID	99	Oblong	Light Russet	Med-large	Med Early	2.8
7	A97142-3	A7816-14 GemStar	White	ID	Dual	1	ID	99	Oblong	Med Russet	Med-large	Early	2.8
8	A97229-1	A90609-6 A92001-2	White	ID	Dual	1	ID	98	Oblong	Heavy Rus	Small	Early	2.8
9	A97287-6	A92030-4 GemStar	White	ID	Dual	1	ID	98	Obl-Lng	Med Russet	Medium	Early	1.8
10	A98104-4	A7816-14 A93137-1	White	ID	Dual	1	ID	97	Oblong	Med Russet	Small	Early	3.0
11	AO96141-3	A89222-3 COA90064-6	White	OR	Dual	1	OR	98	Long	Med Russet	Small	Early	3.1
12	AO98133-2	A8670-7 GemStar	White	OR	Dual	1	OR	96	Obl-Lng	Med Russet	Medium	Med Early	1.8

* Early trial

TABLE 3: 2005 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)			Entry Mean	Rank
		(EWA)	Entry Mean	Rank	(ID)	(OR)	(LWA)		
1	Ranger Russet	525	525	6	557	1114	704	792	2
2	Russet Burbank	548	548	2	449	982	707	713	4
3	Russet Norkotah	441	441	11				-	-
4	Shepody	540	540	5				-	-
5	A96023-6	549	549	1	411	912	692	672	5
6	A96108-12	475	475	10	466	914	798	726	3
7	A97142-3	540	540	4	.	576	560	568	10
8	A97229-1	311	311	12	392	798	745	645	7
9	A97287-6	517	517	7	454	641	776	624	8
10	A98104-4	516	516	8	307	810	699	605	9
11	AO96141-3	514	514	9	529	1169	791	830	1
12	AO98133-2	543	543	3	412	788	735	645	6
Location Means		502	502		442	870	721	682	
LSD (.05)								165	

TABLE 4: 2005. 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	460	460	3	430	855	551	612	2
		88	88	2	77	77	78	77	7
2	Russet Burbank	445	445	6	282	564	445	430	10
		81	81	9	63	57	63	61	10
3	Russet Norkotah	352	352	11	.	.	.	-	-
		80	80	10	.	.	.	-	-
4	Shepody	409	409	9	.	.	.	-	-
		76	76	11	.	.	.	-	-
5	A96023-6	466	466	1	341	781	604	575	5
		85	85	3	83	86	87	85	2
6	A96108-12	400	400	10	370	774	663	602	3
		84	84	4	79	85	83	82	4
7	A97142-3	454	454	5	.	426	442	434	9
		84	84	7	.	74	79	76	8
8	A97229-1	209	209	12	326	521	657	501	7
		67	67	12	83	65	88	79	6
9	A97287-6	434	434	7	378	534	678	530	6
		84	84	8	83	83	87	85	3
10	A98104-4	463	463	2	201	659	571	477	8
		90	90	1	65	81	82	76	9
11	AO96141-3	433	433	8	386	998	676	687	1
		84	84	6	73	85	86	81	5
12	AO98133-2	457	457	4	377	748	654	593	4
		84	84	5	92	95	89	92	1
Location Means		415	415		343	686	594	541	
LSD (.05)		82	82		78	79	82	80	164

TABLE 5: 2005 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	115	115	3	88	378	285	250	2
		22	22	3	16	34	40	30	2
2	Russet Burbank	62	62	8	27	74	92	64	10
		11	11	11	6	8	13	9	10
3	Russet Norkotah	51	51	11				-	-
		12	12	10				-	-
4	Shepody	252	252	1				-	-
		47	47	1				-	-
5	A96023-6	98	98	6	78	173	151	134	6
		18	18	6	19	19	22	20	6
6	A96108-12	58	58	9	79	178	270	176	5
		12	12	9	31	19	34	28	4
7	A97142-3	112	112	4		49	166	107	8
		21	21	4		9	30	19	7
8	A97229-1	40	40	12	44	68	246	119	7
		13	13	8	11	9	33	18	8
9	A97287-6	70	70	7	78	113	416	202	4
		14	14	7	17	18	54	29	3
10	A98104-4	200	200	2	0	107	159	89	9
		39	39	2	0	13	23	12	9
11	AO96141-3	53	53	10	49	368	233	217	3
		10	10	12	9	31	29	23	5
12	AO98133-2	101	101	5	234	486	503	408	1
		19	19	5	57	62	68	62	1
Location Means		101	101		75	199	252	176	
LSD (.05)		20	20		18	22	35	25	138

TABLE 6: 2005 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	29	29	3	68	89	43	67	4
		5	5	3	12	8	6	9	3
2	Russet Burbank	63	63	9	126	189	60	125	10
		12	12	8	28	19	9	19	8
3	Russet Norkotah	61	61	8				-	-
		14	14	11				-	-
4	Shepody	17	17	1				-	-
		3	3	1				-	-
5	A96023-6	51	51	6	34	92	51	59	2
		9	9	5	8	10	7	8	2
6	A96108-12	46	46	5	87	111	69	89	6
		10	10	6	19	12	9	13	6
7	A97142-3	59	59	7		137	79	108	9
		11	11	7		24	14	19	9
8	A97229-1	75	75	12	51	179	61	97	7
		24	24	12	13	22	8	15	7
9	A97287-6	68	68	11	51	96	41	63	3
		13	13	10	11	15	5	10	4
10	A98104-4	40	40	4	102	125	90	106	8
		8	8	4	33	15	13	20	10
11	AO96141-3	66	66	10	103	87	48	79	5
		13	13	9	19	7	6	11	5
12	AO98133-2	28	28	2	14	23	11	16	1
		5	5	2	3	3	1	2	1
Location Means		50	50		71	113	55	80	
LSD (.05)		11	11		16	14	8	13	
								44	

TABLE 7: 2005 Tri-State Potato Variety Trial - SPECIFIC GRAVITY - EARLY AND LATE HARVEST

No. Clone	Specific Gravity - Early Harvest		Specific Gravity - Late Harvest				Rank
	EWA	Rank	ID	OR	LWA	Entry Mean	
1 Ranger Russet	1.076	6	1.083	1.075	1.074	1.077	5
2 Russet Burbank	1.077	5	1.074	1.072	1.078	1.075	8
3 Russet Norkotah	1.068	11	.	-	-	-	-
4 Shepody	1.077	4	.	-	-	-	-
5 A96023-6	1.071	9	1.082	1.071	1.072	1.075	7
6 A96108-12	1.071	10	1.085	1.075	1.078	1.079	3
7 A97142-3	1.078	3	.	1.076	1.077	1.077	6
8 A97229-1	1.079	2	1.067	1.063	1.070	1.067	10
9 A97287-6	1.063	12	1.083	1.074	1.079	1.079	4
10 A98104-4	1.073	8	1.076	1.069	1.069	1.071	9
11 AO96141-3	1.075	7	1.087	1.076	1.090	1.084	1
12 AO98133-2	1.083	1	1.093	1.079	1.077	1.083	2
Location Means	1.074		1.081	1.073	1.076	1.077	
LSD (0.5)						0.006	

TABLE 8: 2005 Tri-State Potato Variety Trial - AVERAGE TUBER SIZE, AND TUBER SHAPE

No. Clone	Average Tuber Size (oz)					Tuber Shape (1-5, 1 = round, 5 = long)				
	WA E	ID L	OR L	WA L	Entry Late only	WA E	ID L	OR L	WA L	Entry Means
1 Ranger Russet	7.8	7.4	8.6	9.1	8.4	4.0	5.0	4.4	4.0	4.4
2 Russet Burbank	6.5	4.6	5.4	7.6	5.9	3.0	4.0	4.1	3.5	3.7
3 Russet Norkotah	6.0	.	-	-	6.0	3.0	.	-	-	3.0
4 Shepody	11.7	.	-	-	11.7	3.0	.	-	-	3.0
5 A96023-6	6.9	7.2	7.8	7.7	7.6	4.0	4.5	4.2	4.5	4.3
6 A96108-12	6.4	5.2	6.6	7.7	6.5	4.0	2.8	3.8	3.0	3.4
7 A97142-3	6.7	.	5.2	6.7	5.9	4.0	.	3.1	3.3	3.5
8 A97229-1	5.0	6.1	5.2	7.6	6.3	3.0	4.0	4.2	2.0	3.3
9 A97287-6	6.1	6.6	6.3	9.6	7.5	3.0	4.5	3.6	2.8	3.5
10 A98104-4	8.1	4.3	6.1	6.5	5.6	4.0	2.5	3.0	2.8	3.1
11 AO96141-3	6.0	5.5	8.5	8.1	7.4	3.0	4.8	5.0	4.3	4.3
12 AO98133-2	7.9	11.0	11.5	14.0	12.2	5.0	4.0	4.4	3.5	4.2
Location Means	7.1	6.4	7.1	8.5	7.3	3.6	4.0	4.0	3.4	3.7
LSD (0.5)					1.4					0.97

TABLE 9: 2005 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	4.0	4.5	5.0	4.8	3.0	4.5	3.0	5.0	4.7
2 Russet Burbank	4.0	3.0	4.0	2.8	4.0	5.0	3.0	4.5	5.0
3 Russet Norkotah	5.0	-	5.0	-	4.0	-	.	5.0	-
4 Shepody	4.5	-	3.5	-	4.0	-	.	2.5	-
5 A96023-6	5.0	4.9	5.0	4.8	4.0	2.7	2.5	5.0	4.8
6 A96108-12	3.0	4.8	5.0	4.7	4.0	5.0	3.1	4.5	4.7
7 A97142-3	4.5	4.7	5.0	4.8	4.0	5.0	.	5.0	4.9
8 A97229-1	4.5	4.5	4.8	4.9	5.0	4.5	2.8	5.0	4.8
9 A97287-6	5.0	4.8	5.0	5.0	5.0	4.9	3.0	5.0	4.4
10 A98104-4	5.0	4.8	5.0	4.7	4.0	5.0	3.0	4.3	4.7
11 AO96141-3	4.5	4.9	4.8	5.0	5.0	5.0	3.2	4.5	4.7
12 AO98133-2	5.0	5.0	5.0	5.0	3.0	3.5	3.2	5.0	4.9
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: 2005 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 ¹		
		Early	Late	Early	Late	Early	Late	Early	Late	AB ²
1	Ranger Russet	0.0	2.6	22.5	5.7	n/a	6.5	5.0	4.0	2.1
2	Russet Burbank	15.5	7.2	2.5	8.7	n/a	2.0	4.0	4.0	2.9
3	Russet Norkotah	0.0	-	5.0	-	n/a	-	5.0	-	.
4	Shepody	0.0	-	10.0	-	n/a	-	5.0	-	.
5	A96023-6	0.0	0.0	0.0	8.7	n/a	0.0	4.0	5.0	2.9
6	A96108-12	0.0	0.3	10.0	0.9	n/a	4.5	4.0	4.0	3.1
7	A97142-3	0.0	3.0	17.5	2.0	n/a	3.0	5.0	3.0	.
8	A97229-1	0.0	0.0	0.0	0.3	n/a	0.5	4.0	4.0	3.1
9	A97287-6	0.0	1.7	0.0	3.7	n/a	0.0	5.0	5.0	3.1
10	A98104-4	0.0	1.7	10.0	1.0	n/a	0.0	5.0	4.0	2.2
11	AO96141-3	0.0	6.0	5.0	0.0	n/a	4.5	5.0	4.0	3.3
12	AO98133-2	0.0	0.9	12.5	1.2	n/a	4.0	5.0	3.0	2.7
Means		1.3	2.3	7.9	3.2		2.5	4.7	4.0	2.8
LSD (.05)			NS		NS		NS			

¹ Score 1-5, with 1=severe, 5=none.

² Aberdeen blackspot scores from an abrasive peel test [1-5(none)].

TABLE 11: 2005 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	Mean	Rank	ID ¹	LWA ³	Mean	ID	HRM	Entry Mean
1 Ranger Russet	1.1	1.2	4.0	2.1	8	3.8	4.0	3.9	18	0	9
2 Russet Burbank	1.5	1.6	4.0	2.4	10	4.0	4.0	4.0	24	18	21
3 Russet Norkotah	.	-	-	-	-	.	-	.	.	-	-
4 Shepody	.	-	-	-	-	.	-	.	.	-	-
5 A96023-6	1.1	1.3	4.0	2.1	9	3.5	4.0	3.8	11	10	11
6 A96108-12	1.6	1.4	3.0	2.0	7	3.8	4.0	3.9	33	33	33
7 A97142-3	.	0.1	1.0	0.6	1	.	3.0	3.0	.	5	5
8 A97229-1	1.1	1.1	3.0	1.7	6	3.9	4.0	4.0	0	20	10
9 A97287-6	0.4	0.1	2.0	0.8	3	2.8	3.0	2.9	37	5	21
10 A98104-4	0.8	0.5	2.0	1.1	5	3.3	3.0	3.2	13	3	8
11 AO96141-3	1.0	0.0	2.0	1.0	4	3.3	2.0	2.7	29	0	15
12 AO98133-2	0.6	0.2	1.0	0.6	2	3.3	2.0	2.7	6	0	3
Location Means	1.0	0.8	2.6	1.4		3.5	3.3	3.4	19	9	14

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 63 days at 44 or 40°F - For complete postharvest results see <http://www.potatoes.wsu.edu>

TABLE 12: 2005 Tri-State Potato Variety Trial - DISEASE EVALUATIONS, METRIBUZIN REACTION

No. Clone	Vert. Wilt/ Early Dying		Early Blight AB ¹	Late Blight		Common Scab		Net Necrosis		Corky Ringspot PROSSER ⁵	Root- knot PROSSER ⁵	Erwinia Soft Rot AB ¹	Metr. Reaction AB ⁶
	AB ¹	HERM ²		Foliar CORV ³	Tuber CORV ³	AB ¹	SV ¹	AB ¹	HERM ²				
	0-9	0-9	0-9	0-9	(%)	(%) severity	(%) severity	(%)	(%)	(%)	0-5		
1 Ranger	3.5	5.8	2.8	8.0	82.5	44.3	13.0	3.3	5.0	46.4	S	2.5	R
2 R. Burbank	6.5	8.2	3.0	7.5	46.7	3.7	0.0	25.3	12.5	--	--	3.0	VR
3 R. Norkotah	8.4	9.0	4.7	8.5	80.0	12.0	27.0	6.7	5.0	20.0	S	4.0	R
4 Shepody	5.8	--	4.3	--	--	50.7	66.3	4.1	--	29.4	S	--	S
5 A96023-6	4.0	7.0	3.8	7.3	32.5	0.0	9.7	--	5.0	40.0	S	4.1	R
6 A96108-12	6.6	6.7	2.6	7.8	20.3	26.0	11.0	--	10.0	35.9	S	--	MS
7 A97142-3	--	8.3	--	8.8	15.0	--	--	0.0	5.0	38.9	S	--	VR
8 A97229-1	4.0	5.0	4.5	8.3	73.9	2.7	0.0	1.5	10.0	32.5	S	2.9	R
9 A97287-6	5.8	8.7	3.3	9.0	25.0	30.3	46.7	1.5	5.0	10.0	S	2.5	R
10 A98104-4	6.8	8.8	6.3	9.0	52.2	1.3	0.0	14.3	0.0	2.5	S	3.3	MR
11 AO96141-3	5.7	7.5	3.5	6.5	46.8	1.3	0.0	--	12.5	25.0	S	3.1	VR
12 AO98133-2	5.0	6.8	2.8	7.8	60.0	27.0	3.0	--	12.5	30.0	S	2.4	R
MEANS	5.6	7.4	3.8	8.0	48.6	18.1	16.1	7.1	7.5	28		3.1	
LSD (.05)	2.1	1.4	2.7			19.2	32.9	10.4	12.0			2.6	

¹ Evaluations made at Aberdeen (AB) or Swan Valley (SV), Idaho by Jonathan Whitworth; scale as indicated with highest number being most severe. Net necrosis % represents the number of tubers with a ≥ 3 rating (0-5 scale) divided by the total number of tubers examined.

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.

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=susceptible.

TABLE 13: 2005 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	21.9	0.03	0.21	5.6	36.6	2.8
2 Russet Burbank	19.6	0.04	0.14	4.9	24.2	2.6
3 Russet Norkotah	-	-	-	-	-	-
4 Shepody	-	-	-	-	-	-
5 A96023-6	22.1	0.02	0.17	5.7	23.6	1.2
6 A96108-12	21.6	0.03	0.20	6.2	22.1	2.5
7 A97142-3	-	-	-	-	-	-
8 A97229-1	18.9	0.02	0.16	7.4	26.1	1.1
9 A97287-6	21.7	0.03	0.20	6.7	35.0	3.4
10 A98104-4	20.2	0.04	0.15	5.5	25.0	10.0
11 AO96141-3	24.2	0.01	0.23	6.5	29.7	2.2
12 AO98133-2	23.8	0.01	0.19	6.2	33.4	2.9
Means	16.2	0.02	0.14	4.6	21.3	2.4

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2005 Lenape check from Aberdeen was 22.8 mg/100g

TABLE 14: 2005 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	3.7	3.5	3.5	1.9	3.0	3	3.0	3.1	3.8	1.0	2.6	2.5	6
2	Russet Burbank	3.6	3.0	1.0	1.0	1.7	9	2.3	3.0	2.8	1.0	1.3	1.7	9
3	Russet Norkotah	2.7	.	-	-	-	-	-	3.1	.	-	-	-	-
4	Shepody	4.1	.	-	-	-	-	-	1.3	.	-	-	-	-
5	A96023-6	3.4	3.3	2.0	1.0	2.1	6	2.3	3.2	4.0	2.0	4.0	3.3	2
6	A96108-12	3.1	2.8	3.0	2.5	2.8	4	2.3	3.9	3.0	3.0	2.9	3.0	4
7	A97142-3	4.2	-	-	1.1	1.1	10	4.0	4.4	.	-	1.1	1.1	10
8	A97229-1	2.4	2.0	1.0	2.3	1.8	7	2.7	1.4	3.8	1.0	3.5	2.8	5
9	A97287-6	3.3	4.0	-	3.2	3.6	2	4.0	4.1	4.5	-	2.6	3.6	1
10	A98104-4	4.0	2.0	2.0	1.2	1.7	8	3.3	3.5	2.0	1.0	3.5	2.2	7
11	AO96141-3	4.1	3.5	3.5	3.9	3.6	1	4.0	4.0	3.3	3.0	3.6	3.3	3
12	AO98133-2	4.6	4.0	2.0	1.2	2.4	5	4.7	2.1	4.0	1.0	1.3	2.1	8
Location Means		3.6	3.1	2.3	1.9	2.4		3.3	3.1	3.5	1.6	2.6	2.7	

* For Complete information and procedures see Washington

TABLE 16: 2005 Tri-State Potato Variety Trial - LATE HARVEST TRIAL COMMENTS AND INFORMATION BY STATE

Entry	Clone	Comments from Hermiston	tubers/	Translucent	width/depth	photovolt	stem/bud
			plant	end	ratio	fry color	fry color ratio
1	Ranger Russet	lots crooks	10.3	6	1.30	34.6	0.79
2	Russet Burbank	lots deformities	14.45	0	1.26	30.7	0.77
5	A96023-6	nice, little pear	9.6	1	1.16	33.2	0.87
6	A96108-12	some nice, coarse russet, ok	11.1	1	1.17	32.5	0.66
7	A97142-3	5/24/05- 95% PVY infection, short blocky	8.9	0	1.17	44.5	0.85
8	A97229-1	5/24/05- 40% PVY infection, sunken eyes, pear, discard	12.3	3	1.20	35.2	0.64
9	A97287-6	5/24/05- 90% PVY infection, large nice, blocky shape, small=round	8.2	14	1.23	44.6	0.75
10	A98104-4	too round	10.7	1	1.13	40.7	0.94
11	AO96141-3	nice, long, little green, little thin, nice shape	11.1	0	1.14	49.6	1.02
12	AO98133-2	5/24/05- 15% PVY infection, very nice, little pear, shatter?	5.6	0	1.11	43.1	0.95
Comments from Idaho							
1	Ranger Russet	nice but smaller than normal					
2	Russet Burbank	typical, some bottle necks					
5	A96023-6	med russet, long, nice, few curves					
6	A96108-12	too short, buldging eyes					
7	A97142-3	rogued					
8	A97229-1	heavy russet, deep eyes, lumps					
9	A97287-6	long, nice, lots of eyes					
10	A98104-4	too small, oval, some scab					
11	AO96141-3	long, points, lot of tubers					
12	AO98133-2	big, heavy russet, nice, but few					
Comments from Washington (Late Trial)							
1	Ranger Russet	Long, Skinny, Rough	6.9	58			
2	Russet Burbank	Rough, Malformed, Cracks, Knobs, Irregular shape and size	8.2	95			
5	A96023-6	Typy, Long, Skinny, Pointy ends	8.0	56			
6	A96108-12	Typy, Smaller, Blocky, Protruding lenticils	9.1	73			
7	A97142-3	Typy, Smaller, Irregular shape, Blocky	7.3	92			
8	A97229-1	Smaller, Typy, Round	8.5	61			
9	A97287-6	Lenticil protrusion, Round, Scab, Typy	7.1	78			
10	A98104-4	Irregular shape, Typy, many undersize tubers	9.3	90			
11	AO96141-3	Pointy ends, Rough, Long	8.5	58			
12	AO98133-2	Large, Many curved tubers, Typy, Blocky	4.6	56			

**% Vines
Dead
at harvest**

2005 Late Harvest - Tri-State Postharvest Evaluations

Entry	Clone	ADDITIONAL POSTHARVEST DATA											
		Tuber Shape (L to W ratio)				means	% BlackSpot Bruise Controlled Bruise Study				3 State Avg. 0-4(darkest) Harvest		
		WA	ID	OR	WA		ID	OR	Avg.	Fry	44	40	
1	Ranger R.	1.8	2.5	1.5	1.9	52.1	31.3	91.7	58.3	0.0	2.0	3.0	
2	R. Burbank	1.6	2.4	1.8	1.9	52.1	33.3	29.2	38.2	0.0	2.3	2.7	
5	A96023-6	1.9	2.1	1.7	1.9	50.0	22.9	52.1	41.7	0.0	2.3	3.0	
6	A96108-12	1.7	1.7	1.5	1.6	0.0	8.3	39.6	16.0	0.0	2.7	3.3	
7	A97142-3	1.6	1.9	1.5	1.7	43.8	No Sample	45.8	44.8	0.0	0.7	2.0	
8	A97229-1	1.5	2.0	1.6	1.7	54.2	6.3	47.9	36.1	0.0	1.7	3.0	
9	A97287-6	1.6	2.3	1.5	1.8	43.8	0.0	29.2	24.3	0.0	0.7	1.0	
10	A98104-4	1.5	2.0	1.5	1.7	20.8	6.3	31.3	19.4	0.0	1.0	2.3	
11	AO96141-3	1.8	2.5	1.8	2.1	22.9	0.0	12.5	11.8	0.0	1.0	1.0	
12	AO98133-2	1.7	1.8	1.7	1.8	43.8	41.7	58.3	47.9	0.0	0.3	0.7	

***Postharvest Blackspot is a controlled bruise study

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

Entry	Clone	Comments from Washington Early Trial
1	Ranger R.	Long, Skinny, non uniform shape, some regrowth-sprouts
2	R. Burbank	Non uniform Russetting, skin, and shape
3	R. Norkotah	Typy, Spotty Russetting, Not Blocky
4	Shepody	Many sprouts, Rough
5	A96023-6	Non uniform shape
6	A96108-12	Growth cracks, Typy, some pointy
7	A97142-3	Typy, Spotty Russetting, Protruding lenticils
8	A97229-1	Small, Round, Non uniform shape
9	A97287-6	Bumpy, nice shape, Blocky
10	A98104-4	Non uniform shape, Severe spotting
11	AO96141-3	Typy, Smaller
12	AO98133-2	Long, Skinny, uniform shape, some regrowth-sprouts

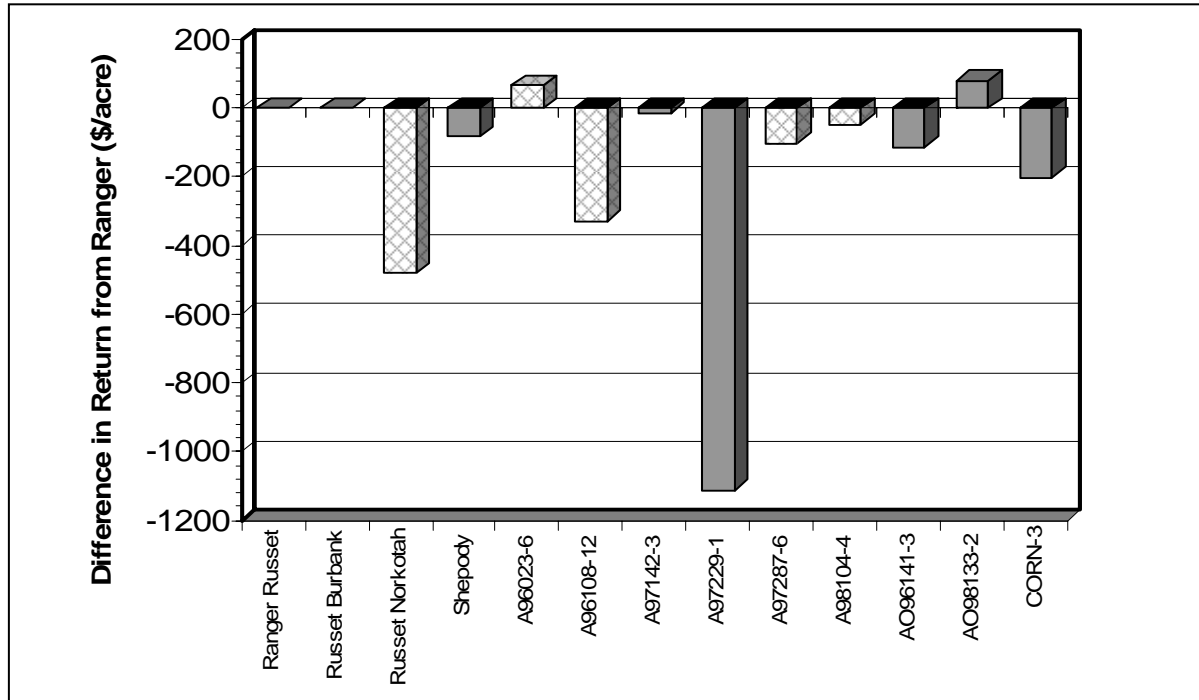


Figure 1. 2005 TRI-STATE TRIAL - EARLY PROCESS MARKET: Difference in gross return per acre from Ranger Russet calculated by subtracting the gross return of Ranger Russet (\$2323) from the gross return of the particular entry. Entries with the light x pattern were REJECTED due to specific gravity values of less than 1.074.

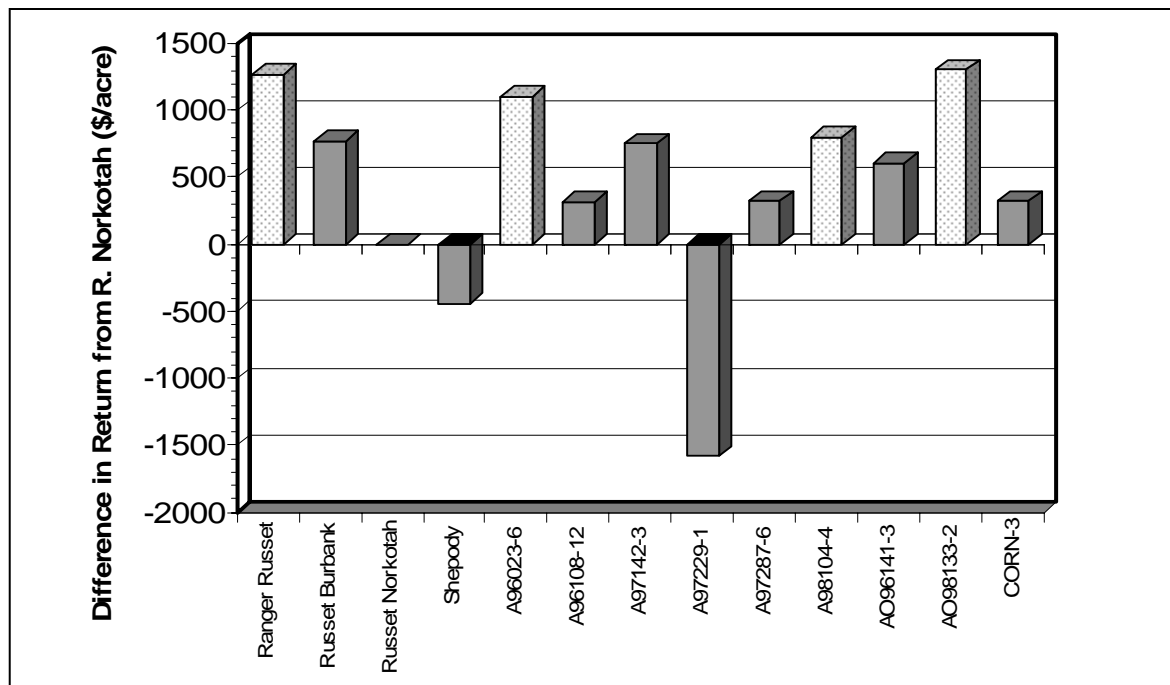


Figure 2. 2005 TRI-STATE TRIAL - EARLY FRESH MARKET: Difference in gross return per acre from Russet Norkotah calculated by subtracting the gross return of Russet Norkotah (\$3160) from the gross return of the particular entry. Entries with dotted pattern may not appeal to fresh market consumers due to undesirable shape or appearance.

www.potatoes.wsu.edu for complete report

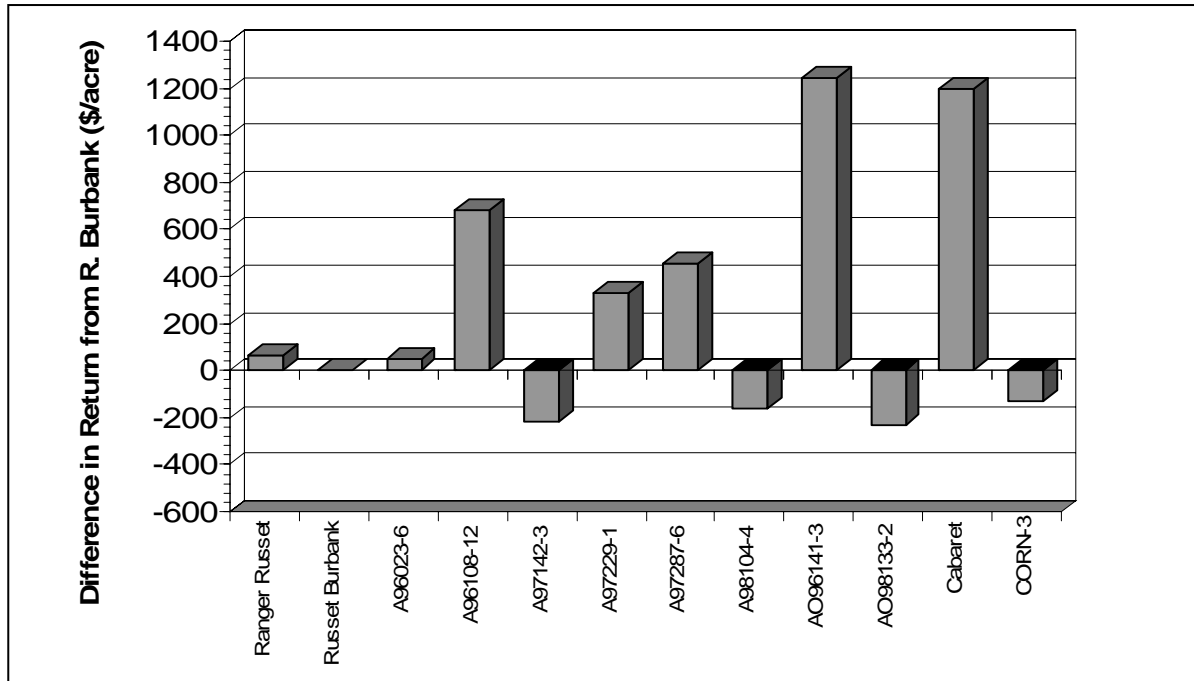


Figure 3. 2005 LATE TRI-STATE TRIAL - PROCESS MARKET: Difference in gross return per acre from Russet Burbank calculated by subtracting the gross return of Russet Burbank (\$2334) from the gross return of the particular entry.

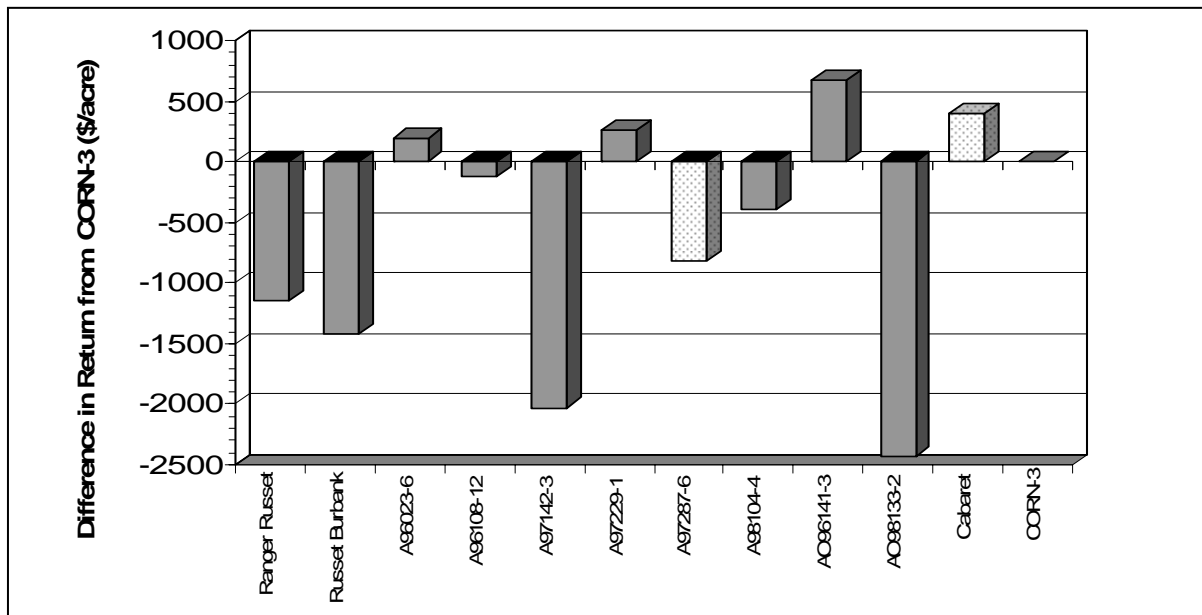


Figure 4. 2005 LATE TRI-STATE TRIAL - FRESH MARKET: Difference in gross return per acre from Russet Norkotah CORN-3 calculated by subtracting the gross return of Russet Norkotah CORN-3 (\$5552) from the gross return of the particular entry. Entries with dotted pattern may not appeal to fresh market consumers due to undesirable shape or appearance.