

2010 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

State Experiment Stations and
USDA-ARS Cooperating

Aberdeen, Idaho

Parma, Idaho

Klamath Falls, Oregon



2010 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

TABLE

- 1 Locations, Cooperators, and Cultural Information
- 2 Clone, Parents, Seed Source, Stand, Stems per Plant
- 3 Vine Characteristics
- 4 Total Yield (CWT/A) - Specific Gravity
- 5 Yield of Tubers Under 4 oz. (CWT/A & %)
- 6 Yield of U.S. No. 1's (CWT/A & %) - 4-6 oz. and 6-10 oz.
- 7 Yield of U.S. No. 1's Over 12 oz. and Culls (CWT/A & %)
- 8 Average Tuber Size, and Tuber Shape
- 9 Tuber Characteristics - Eye Depth, Skin Color, Flesh Color
- 10 Tuber Appearance - Appearance, Uniformity, Merit
- 11 External Defects - Skinning, Shatter Bruise, Greening, and Scab
- 12 Internal Defects - Hollow Heart/Brown Center, Internal Brown Spot, Vascular Discoloration
- 13 Solids, Dextrose, Sucrose, Protein, Vitamin C, and Glycoalkaloids - Aberdeen
- 14 Disease Evaluations - Early Blight, Verticillium Wilt at Aberdeen
- 15 Summary of Entries' Performances
- 16 Trial Comments and Information by Location

Compiled by Bill Buhrig

Revision - 12/30/2014

TABLE 1: 2010 Tri-State Specialty Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

Locations	Cooperators	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 (AB)	J. Stark P. Bain R. Novy J. Whitworth M. Chappell	Sprink.	240-105-0-0	7-May	17-Aug mechanical	7-Sep	102	123	Sencor Matrix Eptam	Admire Pro	Echo
Parma Idaho (PA)	M. Thornton W. Buhrig	Sprink.	160-180-125-0	7-Apr	20-Jul mechanical	3-Aug	104	118	Prowl Outlook Eptam	Fumigation Vapam	Gavel
Klamath Falls Oregon (OR)	B. Charlton D. Culp	Sprink.	160-191-185-97S 6Zn-1B	15-May	2-Sep Rely (defoliant)	13-Oct	110	151	Matrix Metribuzin	Admire Pro	Tops MZ Quadris Ridomil Gold Br Headline Quadris Endura

TABLE 2: 2010 Tri-State Specialty Potato Variety Trial - CLONE, PARENTS, FLOWER COLOR, ENTERED BY, SEED SOURCE, STAND, AND STEM NO.

No	Clone	Parents		Flower Color	Entered by	Trial Year	Seed Source	STAND (%)			Mean Stand %	STEM NO.		
		Female	Male					AB	PA	OR		AB	PA	Stems/Plant
1	Dk Red Norland	RedKote	ND626	Red-purple	Check	Ck	OR	100	83	98	94	3.9	3.1	3.5
2	Purple Majesty	All Blue	ND2008-2	Blue	Check	Ck	CO	98	83	95	92	3.5	3.7	3.6
3	Yukon Gold	Norgleam	W5279-4	Pink	Check	Ck	ID	97	84	98	93	2.0	1.4	1.7
4	NDA050237B-1R	ND028678-1RY	ND028770B-4R	Dk Red-purple	ID	1	ID	85	85	98	89	2.8	3.0	2.9
5	NDA8512C-1R	ND6694C-1R	ND5256-7R	Md Red-purple	ID	2	ID	93	85	99	92	2.0	1.9	2.0
6	OR04131-2	Mazama	Modoc	Purple	OR	1	OR	93	86	99	93	3.1	3.2	3.2
7	A02267-5PY	Inca Gold	ND5256-7R	Dk Red-purple	ID	2	ID	100	84	97	94	3.8	3.9	3.8
8	A05173-2R	A99331-2RY	VC1075-1R	Md Red-purple	ID	1	ID	92	82	99	91	3.3	4.3	3.8
9	POR05PG56-1	POR01PG46-1	POR01PG22-1	Blue-purple	OR	2	OR	100	83	98	94	4.1	3.5	3.8
10	A02267-1Y	Inca Gold	ND5256-7R	Md Red-purple	ID	2	ID	100	91	96	96	3.2	3.1	3.1
11	A03576-5Y	Inca Gold	Provento	Lt Blue-purple	ID	2	ID	100	81	88	90	2.7	3.0	2.8
12	A05177-4RY	A99331-2RY	Provento	Md Red-purple	ID	1	ID	93	78	94	88	2.8	3.2	3.0
13	AFA3976TPS-1	AF2924-2	PI 599266	Blue-purple	ID	1	ID	100	90	97	96	2.9	2.5	2.7
14	OR04036-5	POR02PG26-5	AO93487-2R		OR	2	OR	100	84	100	95	3.8	2.9	3.4

TABLE 3: 2010 Tri-State Specialty Potato Variety Trial - VINE CHARACTERISTICS

No	Clone	Vine Size ¹				Vine Maturity ²					
		AB	PA	OR	Means	Size	AB	PA	OR	Means	Maturity
1	Dk Red Norland	2.8	2.2	4.0	3.0	Medium	3.8	2.2	3.1	3.0	Med Early
2	Purple Majesty	2.0	2.5	3.5	2.7	Medium	3.5	3.5	3.1	3.4	Medium
3	Yukon Gold	2.0	3.0	3.0	2.7	Medium	3.0	3.0	3.1	3.0	Med Early
4	NDA050237B-1R	3.3	4.5	3.0	3.6	Med-large	4.5	4.0	5.0	4.5	Late
5	NDA8512C-1R	1.5	3.0	3.0	2.5	Small	3.0	3.3	2.6	3.0	Med Early
6	OR04131-2	1.0	2.0	3.0	2.0	Small	3.8	2.0	2.4	2.7	Med Early
7	A02267-5PY	2.0	3.0	4.0	3.0	Medium	3.8	3.0	3.4	3.4	Medium
8	A05173-2R	2.8	3.0	3.4	3.1	Med-large	4.3	3.0	3.3	3.5	Medium
9	POR05PG56-1	1.0	3.0	3.1	2.4	Small	2.8	4.0	3.0	3.3	Medium
10	A02267-1Y	2.8	3.5	3.9	3.4	Med-large	3.5	4.3	3.9	3.9	Med--late
11	A03576-5Y	3.3	4.0	3.6	3.6	Med-large	4.0	4.3	4.6	4.3	Late
12	A05177-4RY	3.0	4.5	3.5	3.7	Med-large	4.3	5.0	3.8	4.4	Late
13	AFA3976TPS-1	3.0	5.0	3.0	3.7	Med-large	4.0	5.0	4.9	4.6	Very Late
14	OR04036-5	1.3	2.0	3.0	2.1	Small	3.0	2.0	2.5	2.5	Early

¹ 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

² 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 4: 2010 Tri-State Specialty Potato Variety Trial - TOTAL YIELD AND SPECIFIC GRAVITY

No.	Clone	TOTAL YIELD (CWT/A)				SPECIFIC GRAVITY					
		AB	PA	OR	Entry Mean	Rank	AB	PA	OR	Entry Mean	Rank
1	Dk Red Norland	435	565	603	534	1	1.064	1.065	1.066	1.065	11
2	Purple Majesty	367	569	596	511	4	1.075	1.076	1.076	1.076	4
3	Yukon Gold	330	518	500	449	12	1.082	1.084	1.083	1.083	1
4	NDA050237B-1R	250	445	728	474	7	1.053	1.061	1.064	1.059	13
5	NDA8512C-1R	331	536	501	456	11	1.072	1.073	1.067	1.071	8
6	OR04131-2	287	435	491	404	14	1.076	1.071	1.072	1.073	7
7	A02267-5PY	365	515	500	460	10	1.076	1.079	1.079	1.078	2
8	A05173-2R	330	677	595	534	2	1.054	1.062	1.059	1.058	14
9	POR05PG56-1	274	560	557	464	9	1.077	1.075	1.074	1.075	5
10	A02267-1Y	332	573	623	509	5	1.064	1.065	1.071	1.067	9
11	A03576-5Y	336	565	531	478	6	1.062	1.067	1.069	1.066	10
12	A05177-4RY	391	569	574	511	3	1.066	1.074	1.080	1.073	6
13	AFA3976TPS-1	228	495	513	412	13	1.073	1.077	1.082	1.077	3
14	OR04036-5	363	526	520	470	8	1.060	1.064	1.064	1.063	12
Location Means		330	539	559	476		1.068	1.071	1.072	1.070	

TABLE 5: 2010 Tri-State Specialty Potato Variety Trial - YIELD < 4 OZ (CWT/A & %)

No.	Clone	0-2 OZ or C's <1.34" (CWT/A)/%				2-4 OZ or B's <2.25" (CWT/A)/%					
		AB	PA	OR	Entry Mean	Rank	AB	PA	OR	Entry Mean	Rank
1	Dk Red Norland	8	10	10	9	13	34	28	75	45	13
		2	2	2	2	14	8	5	13	8	13
2	Purple Majesty	57	43	52	51	3	137	141	150	143	5
		16	8	9	11	4	37	25	25	29	7
3	Yukon Gold	7	7	11	8	14	27	32	27	29	14
		2	1	2	2	13	8	6	6	7	14
4	NDA050237B-1R	48	56	23	42	6	106	185	128	140	6
		19	13	3	12	3	43	42	18	34	4
5	NDA8512C-1R	25	31	30	29	10	123	133	146	134	7
		8	6	6	6	10	37	25	29	30	6
6	OR04131-2	59	93	64	72	2	141	216	198	185	3
		20	21	13	18	2	49	50	40	47	1
7	A02267-5PY	35	40	55	43	4	161	210	227	199	2
		10	8	11	9	7	44	41	46	43	3
8	A05173-2R	28	31	17	26	12	83	174	138	132	8
		9	5	3	5	12	25	26	23	25	9
9	POR05PG56-1	105	62	103	90	1	133	238	264	212	1
		38	11	19	23	1	49	43	47	46	2
10	A02267-1Y	38	39	34	37	8	128	152	179	153	4
		12	7	5	8	8	39	27	29	31	5
11	A03576-5Y	45	40	43	43	5	102	115	112	110	10
		13	7	8	10	6	30	20	21	24	10
12	A05177-4RY	39	36	40	38	7	108	113	134	119	9
		10	6	7	8	9	28	20	23	24	11
13	AFA3976TPS-1	38	31	30	33	9	90	116	85	97	11
		17	6	6	10	5	39	24	17	27	8
14	OR04036-5	27	33	22	27	11	63	40	84	62	12
		7	6	4	6	11	17	8	16	14	12
Location Means		40	39	38	39		103	135	139	126	
		13	8	7	9		32	26	25	28	

TABLE 6: 2010 Tri-State Specialty Potato Variety Trial - YIELD US NO.1 4-6 OZ. AND 6-10 OZ. (CWT/A & %)

No.	Clone	4-6 OZ (CWT/A)/%				6-10 OZ (CWT/A)/%					
		AB	PA	OR	Entry Mean	Rank	AB	PA	OR	Entry Mean	Rank
1	Dk Red Norland	59	90	133	94	13	168	224	194	195	1
		14	16	22	17	13	39	40	32	37	2
2	Purple Majesty	81	250	174	168	3	59	104	110	91	8
		22	44	29	32	4	16	18	18	18	10
3	Yukon Gold	63	61	65	63	14	123	188	112	141	3
		19	12	13	15	14	37	36	22	32	3
4	NDA050237B-1R	73	161	191	142	8	22	44	197	87	9
		29	36	26	31	7	9	10	27	15	11
5	NDA8512C-1R	119	221	144	162	4	47	110	104	87	10
		36	41	29	35	1	14	21	21	19	8
6	OR04131-2	66	109	151	109	12	16	14	58	29	14
		23	25	31	26	11	6	3	12	7	13
7	A02267-5PY	108	202	118	143	7	49	36	64	50	12
		30	39	24	31	6	13	7	13	11	12
8	A05173-2R	88	286	162	178	1	87	115	168	123	5
		27	42	27	32	3	26	17	28	24	5
9	POR05PG56-1	28	184	133	115	11	2	65	31	33	13
		10	33	24	22	12	1	12	6	6	14
10	A02267-1Y	87	228	200	172	2	55	135	134	108	6
		26	40	32	33	2	17	24	22	21	6
11	A03576-5Y	113	195	135	147	6	51	156	99	102	7
		34	34	25	31	5	15	28	19	20	7
12	A05177-4RY	119	184	156	153	5	88	174	128	130	4
		30	32	27	30	8	23	31	22	25	4
13	AFA3976TPS-1	56	161	148	122	10	20	95	130	82	11
		25	33	29	29	10	9	19	25	18	9
14	OR04036-5	103	147	168	139	9	144	235	153	177	2
		28	28	32	30	9	40	45	29	38	1
Location Means		83	177	148	136		67	121	120	103	
		25	33	26	28		19	22	21	21	

TABLE 7: 2010 Tri-State Specialty Potato Variety Trial - YIELD US NO.1 >10 OZ. AND CULL (CWT/A & %)

No. Clone	>10 OZ (CWT/A)/%					CULLS (CWT/A)/%				
	AB	PA	OR	Entry Mean	Rank	AB	PA	OR	Entry Mean	Rank
1 Dk Red Norland	138	188	127	151	2	28	4	64	32	3
	32	33	21	29	2	6	1	11	6	4
2 Purple Majesty	7	10	52	23	8	26	3	59	29	6
	2	2	9	4	8	7	1	10	6	5
3 Yukon Gold	93	152	238	161	1	17	11	47	25	9
	28	29	48	35	1	5	2	10	6	6
4 NDA050237B-1R	1	0	98	33	6	0	0	92	31	4
	0	0	13	5	7	0	0	13	4	10
5 NDA8512C-1R	8	0	26	11	10	9	6	52	22	10
	2	0	5	3	9	3	1	10	5	9
6 OR04131-2	1	0	5	2	14	4	0	15	6	14
	0	0	1	0	14	1	0	3	2	14
7 A02267-5PY	6	0	1	2	13	6	4	35	15	11
	2	0	0	1	12	2	1	7	3	11
8 A05173-2R	32	4	54	30	7	11	9	56	26	8
	10	1	9	6	6	3	1	10	5	8
9 POR05PG56-1	0	5	3	3	12	6	1	23	10	12
	0	1	1	0	13	2	0	4	2	12
10 A02267-1Y	5	6	11	7	11	19	2	64	28	7
	2	1	2	1	11	6	0	10	5	7
11 A03576-5Y	9	34	63	35	5	16	4	80	33	2
	3	6	12	7	5	5	1	15	7	2
12 A05177-4RY	15	57	47	40	4	22	1	69	30	5
	4	10	8	7	4	6	0	12	6	3
13 AFA3976TPS-1	0	5	32	13	9	24	12	88	41	1
	0	1	6	2	10	11	2	17	10	1
14 OR04036-5	17	69	75	54	3	9	1	18	9	13
	5	13	15	11	3	3	0	4	2	13
Location Means	24	38	59	40		14	4	54	24	
	6	7	11	8		4	1	10	5	

TABLE 8: 2010 Tri-State Specialty Potato Variety Trial - AVERAGE TUBER SIZE AND SHAPE

No. Clone	Average Tuber Size (oz)				Tuber Shape ¹				(Length/Width Ratio)		
	AB	PA	OR	Entry Means	AB	OR	Entry Means		AB	PA	Entry Means
1 Dk Red Norland	7.1	7.3	5.4	6.6	3.3	2.1	2.7	Blocky	1.23	1.15	1.19
2 Purple Majesty	3.0	4.0	3.7	3.6	3.3	3.3	3.3	Blocky	1.45	1.26	1.35
3 Yukon Gold	6.6	7.9	7.3	7.3	2.5	2.1	2.3	Oval	1.14	1.10	1.12
4 NDA050237B-1R	2.7	3.4	4.2	3.4	1.0	1.0	1.0	Round	1.10	1.04	1.07
5 NDA8512C-1R	3.5	4.5	3.5	3.8	1.3	1.1	1.2	Round	1.16	1.16	1.16
6 OR04131-2	2.6	3.1	2.7	2.8	1.0	1.0	1.0	Round	1.17	1.11	1.14
7 A02267-5PY	3.2	3.6	2.7	3.1	1.0	1.0	1.0	Round	1.19	0.97	1.08
8 A05173-2R	4.0	4.5	4.0	4.1	2.8	2.0	2.4	Oval	1.42	1.26	1.34
9 POR05PG56-1	1.9	3.6	2.3	2.6	1.5	2.1	1.8	Round	1.31	1.54	1.42
10 A02267-1Y	3.0	4.0	3.4	3.5	1.8	1.1	1.5	Round	1.19	1.12	1.15
11 A03576-5Y	3.1	4.3	3.9	3.8	2.0	2.6	2.3	Oval	1.23	1.31	1.27
12 AFA3976TPS-1	3.6	4.4	3.4	3.8	3.3	2.8	3.0	Blocky	1.44	1.18	1.31
13 AFA3976TPS-1	2.7	4.4	4.1	3.7	2.0	4.0	3.0	Blocky	1.28	1.41	1.34
14 OR04036-5	4.3	6.2	4.3	4.9	3.3	2.4	2.8	Blocky	1.40	1.38	1.39
Location Means	3.7	4.6	3.9	4.1	2.2	2.0	2.1		1.27	1.21	1.24

¹ 1.0-2.0=Round, 2.1-2.5=Oval, 2.6-3.5=Blocky, 3.6-4.0=Oblong, 4.1-5.0=Long

TABLE 9: 2010 Tri-State Specialty Potato Variety Trial - EYE DEPTH, TUBER SKIN AND FLESH COLOR

No. Clone	Eye Depth ¹				Skin Color ²					Flesh Color ²				
	AB	PA	OR	Entry Means	AB	PA	OR	Entry Means		AB	PA	OR	Entry Means	
1 Dk Red Norland	2.0	1.8	4.0	2.6	2.5	1.5	1.0	1.7	Red	1.0	1.0	1.5	1.2	White
2 Purple Majesty	3.8	3.5	4.3	3.9	5.0	4.9	4.9	4.9	Purple	4.8	5.0	5.0	4.9	Purple
3 Yukon Gold	4.0	3.4	4.9	4.1	1.8	2.1	1.4	1.8	Yellow	3.0	3.0	2.5	2.8	Yellow
4 NDA050237B-1R	3.8	3.3	4.8	4.0	4.5	3.6	4.0	4.0	Red	1.0	1.0	1.5	1.2	White
5 NDA8512C-1R	3.5	3.3	4.5	3.8	3.8	3.5	4.0	3.8	Red	1.0	1.0	1.5	1.2	White
6 OR04131-2	3.8	2.5	4.9	3.7	3.8	3.9	4.0	3.9	Red	1.0	1.0	1.5	1.2	White
7 A02267-5PY	3.0	2.6	4.5	3.4	3.5	3.5	3.4	3.5	Dk Purple	2.7	2.0	2.5	2.4	Yellow
8 A05173-2R	4.0	3.4	4.9	4.1	2.3	1.6	1.0	1.6	Pink/red eye	2.3	2.0	2.4	2.2	Yellow
9 POR05PG56-1	4.0	3.0	4.5	3.8	3.5	3.4	3.4	3.4	Purple	3.5	3.5	4.3	3.8	Purple
10 A02267-1Y	3.0	2.4	4.5	3.3	1.3	1.4	1.8	1.5	Yellow	2.5	2.0	2.4	2.3	Yellow
11 A03576-5Y	4.0	4.1	4.8	4.3	1.5	2.0	2.0	1.8	Yellow/purple	2.5	4.0	2.6	3.0	Yellow
12 A05177-4RY	4.8	3.8	4.6	4.4	2.0	2.4	1.9	2.1	Yellow/pink	2.8	3.5	2.8	3.0	Yellow
13 AFA3976TPS-1	3.8	3.0	5.0	3.9	1.3	1.3	1.0	1.2	White	2.0	3.0	2.4	2.5	Yellow
14 OR04036-5	4.3	3.9	4.8	4.3	2.3	2.0	1.0	1.8	Yellow	2.8	3.5	2.6	3.0	Yellow
Location Means	3.7	3.1	4.6	3.8	2.8	2.6	2.5	2.6		2.3	2.5	2.5	2.5	

¹ Scale of 1-5; 1=deep, 5=shallow² Scale of 1-5 with higher number more intense color.

TABLE 10: 2010 Tri-State Specialty Potato Variety Trial - TUBER APPEARANCE, UNIFORMITY, MERIT

No. Clone	Appearance ¹			Uniformity ¹			Merit Score ¹		
	AB	PA	Entry Means	AB	OR	Entry Means	AB	PA	Entry Means
1 Dk Red Norland	2.0	2.3	2.2	2.5	3.4	3.0	2.3	2.1	2.2
2 Purple Majesty	1.0	2.1	1.6	1.0	2.3	1.7	1.3	2.0	1.7
3 Yukon Gold	3.0	2.9	3.0	2.3	4.0	3.2	2.0	3.0	2.5
4 NDA050237B-1R	2.3	3.9	3.1	3.8	4.6	4.2	3.3	3.6	3.5
5 NDA8512C-1R	3.8	3.5	3.7	4.0	4.3	4.2	3.8	3.5	3.7
6 OR04131-2	3.0	3.4	3.2	4.5	4.5	4.5	4.0	3.0	3.5
7 A02267-5PY	2.8	4.3	3.6	4.5	4.4	4.5	3.8	4.2	4.0
8 A05173-2R	3.0	4.6	3.8	3.0	3.9	3.5	3.3	4.5	3.9
9 POR05PG56-1	2.8	3.6	3.2	3.0	4.5	3.8	3.0	3.4	3.2
10 A02267-1Y	4.0	3.5	3.8	3.3	3.9	3.6	3.5	3.6	3.6
11 A03576-5Y	3.8	3.6	3.7	2.0	2.0	2.0	3.3	3.5	3.4
12 A05177-4RY	3.3	3.4	3.4	2.0	2.6	2.3	2.0	3.3	2.7
13 AFA3976TPS-1	3.0	4.3	3.7	1.5	3.1	2.3	1.0	4.2	2.6
14 OR04036-5	3.0	3.0	3.0	3.0	4.0	3.5	2.5	3.1	2.8
Location Means	2.9	3.5	3.2	2.9	3.7	3.3	2.8	3.4	3.1

¹ Scale of 1-5; 5=best

TABLE 11: 2010 Tri-State Specialty Potato Variety Trial - EXTERNAL DEFECTS

No. Clone	Skinning ¹			Shatter ¹				Greening ¹				Scab ¹		
	AB	PA	Entry Means	AB	PA	OR	Entry Means	AB	PA	OR	Entry Means	AB	PA	Entry Means
1 Dk Red Norland	4.0	2.9	3.5	4.8	5.0	3.9	4.6	4.8	5.0	4.0	4.6	4.3	5.0	4.7
2 Purple Majesty	4.0	4.3	4.2	5.0	5.0	4.5	4.8	4.8	5.0	4.8	4.9	3.5	5.0	4.3
3 Yukon Gold	4.8	3.4	4.1	5.0	5.0	3.8	4.6	4.3	5.0	4.0	4.4	1.8	5.0	3.4
4 NDA050237B-1R	1.8	4.0	2.9	4.8	5.0	3.9	4.6	4.8	5.0	4.0	4.6	5.0	5.0	5.0
5 NDA8512C-1R	4.0	3.8	3.9	3.3	5.0	2.4	3.6	4.8	5.0	4.4	4.7	5.0	5.0	5.0
6 OR04131-2	3.3	4.1	3.7	4.3	5.0	3.8	4.4	4.5	5.0	4.3	4.6	4.8	5.0	4.9
7 A02267-5PY	4.8	4.1	4.5	5.0	5.0	4.3	4.8	5.0	5.0	4.4	4.8	5.0	5.0	5.0
8 A05173-2R	2.0	2.5	2.3	4.3	5.0	3.8	4.4	4.8	5.0	4.1	4.6	5.0	5.0	5.0
9 POR05PG56-1	3.3	3.4	3.4	5.0	5.0	4.3	4.8	4.5	5.0	3.8	4.4	4.3	5.0	4.7
10 A02267-1Y	5.0	4.5	4.8	5.0	5.0	4.4	4.8	3.5	5.0	4.0	4.2	4.3	5.0	4.7
11 A03576-5Y	4.8	3.4	4.1	5.0	5.0	4.0	4.7	4.0	5.0	3.6	4.2	3.8	5.0	4.4
12 A05177-4RY	4.5	3.8	4.2	4.8	5.0	4.4	4.7	3.5	5.0	3.4	4.0	3.5	5.0	4.3
13 AFA3976TPS-1	3.0	4.0	3.5	5.0	5.0	4.3	4.8	4.3	5.0	3.6	4.3	4.0	5.0	4.5
14 OR04036-5	5.0	4.3	4.7	5.0	5.0	4.0	4.7	4.5	5.0	4.1	4.5	4.0	5.0	4.5
Location Means	3.9	3.8	3.8	4.7	5.0	4.0	4.6	4.4	5.0	4.0	4.5	4.2	5.0	4.6

¹ Scale of 1-5; 5=best

TABLE 12: 2010 Tri-State Specialty Potato Variety Trial - INTERNAL DEFECTS

No. Clone	Percent Hollow Heart plus Brown Center				Percent Internal Brown Spot				Percent Net Necrosis/ Vascular Discoloration			
	AB	PA	OR	Entry Means	AB	PA	OR	Entry Means	AB	PA	OR	Entry Means
1 Dk Red Norland	0	40	3	14.2	0	0	0	0.0	0	0	0	0.0
2 Purple Majesty	3	0	0	1.0	0	0	0	0.0	0	0	0	0.0
3 Yukon Gold	3	0	0	1.0	0	0	0	0.0	3	0	3	1.8
4 NDA050237B-1R	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
5 NDA8512C-1R	0	0	0	0.0	0	0	0	0.0	3	0	0	1.0
6 OR04131-2	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
7 A02267-5PY	0	30	0	10.0	0	0	8	2.5	0	0	5	1.7
8 A05173-2R	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
9 POR05PG56-1	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
10 A02267-1Y	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
11 A03576-5Y	0	0	0	0.0	0	0	0	0.0	0	25	0	8.3
12 A05177-4RY	0	0	0	0.0	0	0	8	2.5	0	10	0	3.3
13 AFA3976TPS-1	0	0	3	0.8	0	0	0	0.0	0	10	0	3.3
14 OR04036-5	0	0	0	0.0	0	0	0	0.0	0	0	0	0.0
Location Means	0.4	5.0	0.4	1.9	0.0	0.0	1.1	0.4	0.4	3.2	0.5	1.4

TABLE 13: 2010 Tri-State Specialty Potato Variety Trial - SOLIDS, ANTIOXIDANTS, VITAMIN C,
AND GLYCOALKALOIDS - ABERDEEN

Clone	Solids Oven Dry (%)	Antioxidants	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100gFWB)
		ug/g (%FWB)		
1 DK RED NORLAND	17.71	359.10	24.84	5.75
2 PURPLE MAJESTY	20.49	974.11	23.27	6.72
3 YUKON GOLD	21.80	226.29	35.75	4.27
4 NDA050237B-1R	15.01	275.66	14.65	3.58
5 NDA8512C-1R	19.36	366.67	26.54	5.80
6 OR04131-2	20.11	341.11	34.70	3.44
7 A02267-5PY	20.52	255.79	27.06	6.33
8 A05173-2RY	16.97	312.68	25.68	3.45
9 POR05PG56-1	19.74	885.26	20.43	11.62
10 AO2267-1Y	17.54	250.18	18.07	3.85
11 A03576-5Y	16.63	248.60	25.41	3.87
12 A05177-4RY	19.53	385.25	25.13	7.40
13 AFA3976TPS-1	18.99	253.16	23.29	4.00
14 OR04036-5	16.77	331.96	24.49	6.55
Means	18.66	390.42	24.95	5.47

FWB = fresh weight basis DWB = dry weight basis

Glycoalkaloids: The 2009 Lenape check from Aberdeen was 42.5 mg/100g

TABLE 14: 2010 Tri-State Specialty Potato Variety Trial - DISEASE RATINGS FROM ABERDEEN

No. Clone	Early Blight ¹	Verticillium Wilt ¹
	AB	AB
1 Dk Red Norland	3.3	2.8
2 Purple Majesty	3.0	2.3
3 Yukon Gold	2.3	2.5
4 NDA050237B-1R	3.8	3.5
5 NDA8512C-1R	2.3	1.8
6 OR04131-2	2.8	2.3
7 A02267-5PY	3.0	2.3
8 A05173-2R	4.0	3.3
9 POR05PG56-1	2.0	1.5
10 A02267-1Y	2.5	2.8
11 A03576-5Y	3.8	3.3
12 A05177-4RY	4.0	3.3
13 AFA3976TPS-1	3.5	2.8
14 OR04036-5	2.8	2.0
Location Means	3.1	2.6

¹ Scale of 1-5; 5=best

TABLE 15: 2010 Tri-State Specialty Potato Variety Trial - SUMMARY

Clone	Total Yield		% 4-10 oz		% 2-6 oz (premium)		Tuber Size		Specific Gravity		F	Merit Score	Comments	Disposition
1 Dk Red Norland	534	Highest	54		26	Low	6.6	Large	1.065		2.2			
2 Purple Majesty	511	High	49		61		3.6	Small	1.076		1.7	Poor		
3 Yukon Gold	449	Medium	47		21	Low	7.3	Large	1.083	Highest	2.5			
4 NDA050237B-1R	474	Medium	46		64		3.4	Small	1.059		3.5		Small profile, round	
5 NDA8512C-1R	456	Medium	54		66		3.8	Small	1.071		3.7			
6 OR04131-2	404	Low	33	Low	73	High	2.8	Very Small	1.073		3.5		Bright red, high Vit C	
7 A02267-5PY	460	Medium	42		74	High	3.1	Small	1.078		4.0	Good	Nice color, internals	
8 A05173-2R	534	Highest	56		57		4.1	Medium	1.058	Lowest	3.9		Great yield, little defect	
9 POR05PG56-1	464	Medium	28	Low	69		2.6	Very Small	1.075		3.2		high antiox.,TGA	
10 A02267-1Y	509	High	53		64		3.5	Small	1.067		3.6			
11 A03576-5Y	478	Medium	52		55		3.8	Small	1.066		3.4			
12 A05177-4RY	511	High	55		54		3.8	Small	1.073		2.7			
13 AFA3976TPS-1	412	Low	46		55		3.7	Small	1.077		2.6		Looks like Bintje	
14 OR04036-5	470	Medium	67	Good	43		4.9	Medium	1.063		2.8		Ordinary	

TABLE 16: 2010 Tri-State Specialty Potato Variety Trial - LOCATION COMMENTS

Clone	ABERDEEN	PARMA	KLAMATH FALLS
	Comments	Comments	Comments
Dk Red Norland	Typical, big light red	Pale, some russeting	Pale, poor skin, junk
Purple Majesty	Attached stolons, oblong, ugly	Pear shape, rough	Skin checking, black dot, ugly
Yukon Gold	Typical, big	Big, glossy	Black dot, smooth, large, nice
NDA050237B-1R	Small, red, round, attached stolons	Round, pointed	Real nice. Keep?
NDA8512C-1R	Nice, red, round, some shatter, deep eyes	Bright color	Nice, shatter, black dot, fair
OR04131-2	Attached stolons, small, dirty look, round	Pretty, smooth	Nice, uniform, black dot. Keep?
A02267-5PY	Small, round, deep eyes, attached stolons	Nice, strong purple color	Nice, uniform, black dot
A05173-2R	Oval, yellow/pink splash, bulging eyes	Pointed,	Skin? Fair
POR05PG56-1	Small, uniform, med purple	Oblong	Black dot? Skinning. Keep?
A02267-1Y	Yellow/purple eyes, small, green	Little pointy	Skin checking, nice. Keep?
A03576-5Y	Flat, misshaped, buff, points	Flat	Mixed seed, irregular, flat. Drop?
A05177-4RY	Non-uniform, attached stolons, flat	Shiny	Mixed seed, irregular, poor skin. Drop?
AFA3976TPS-1	Attached stolons, misshaped, lumpy	Pointed, glossy	Irregular, smooth. Use?

2010 Tri-State Specialty Potato Variety Photos
Taken at Parma, Idaho



Yukon Gold



NDA050237B-1R



Dark Red Norland



Purple Majesty



NDA8512C-1R



OR04131-2



AO2267-5PY



A05173-2R



POR05PG56-1



AO2267-1Y



AO3576-5Y



A05177-4RY



AFA3976TPS-1



OR04036-5