

2021 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

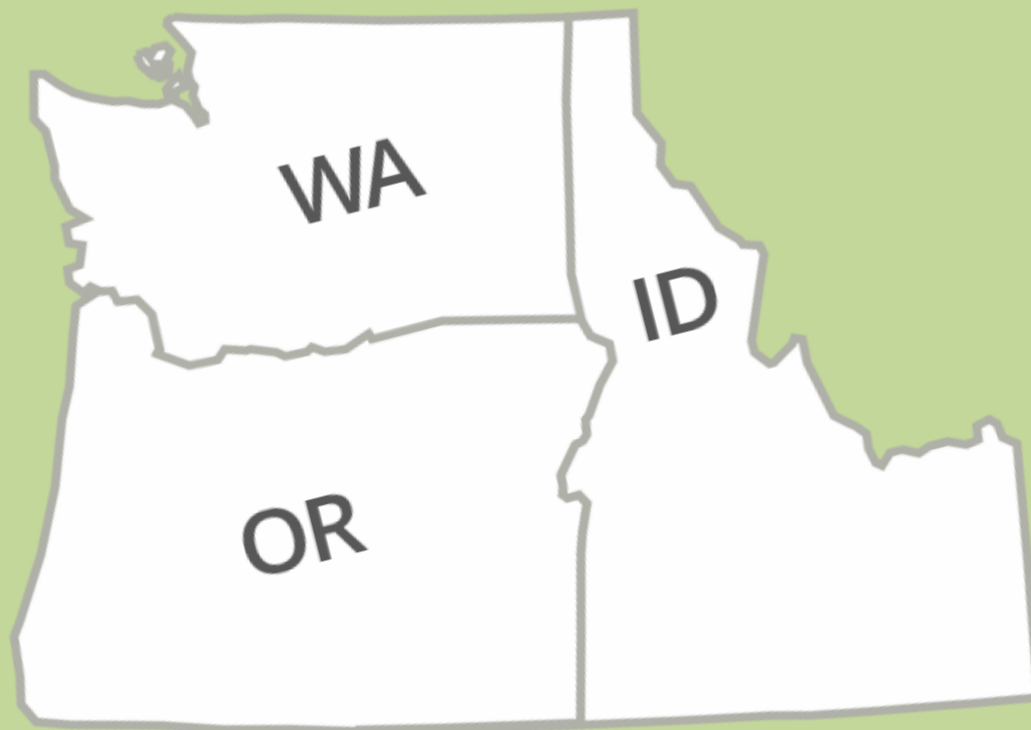
State Experiment Stations and USDA-ARS Cooperating

Aberdeen, Idaho

Parma, Idaho

Othello, Washington

Klamath Falls, Oregon



2021 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

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Compiled by: Oksana Morgan

TABLE 1: 2021 Tri-State Specialty Potato Variety Trial - LOCATIONS, COOPERATORS, AND CULTURAL INFORMATION

Locations	Cooperators	Irrigation	Fertilizer N-P-K-S(lb/A)	In-row	Spacing Between Row	Planting Date	Vine Kill Date	Harvest Date	Days to Vine Kill	Days to Harvest	Herbicides	Insecticides	Fungicides
Aberdeen Idaho (AB)	R. Spear R. Novy J. Whitworth C. Lowder	Sprinkler	270-80-0-5Zn-5Mn	9	36	26-Apr	11-Aug	25-Aug	107	121	TriCor 4F Matrix Eptam 7-E	Admire Pro	
Parma Idaho (PA)	M. Thornton R. Portenier O. Morgan	Sprinkler	217-211-200	10	36	14-Apr	27-Jul	11-Aug	104	119	Sonalan Boundry Eptam 7E	Admire Pro	Bravo Endura Luna T Revus Top
Othello Washington (WA)	M. Pavek J. Blauer Z. Holden	Sprinkler	250-200-250-0	8	32	6-Apr	26-Jul	9-Aug	111	125	Outlook Prowl H2O Eptam	Platinum	Priaxor Equus Bravo Zing
Klamath Falls Oregon (OR)	B. Charlton N. Baley					Due to shortage of water the trial was performed as a deficit irrigation trial							

TABLE 2: 2021 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.			Stems/Plant
	Female	Male					AB	PA	WA		AB	PA	WA	
1 Chieftain	LA1354	LA1027-18	Purple	Check	***	OR	100	93	86	93	2.2	2.6	2.2	2.3
2 Modoc	ND1196-2R	ND2225-1R	Purple	Check	***	OR	100	95	86	94	3.4	4.7	3.1	3.7
3 A08122-9RY	A02267-5PY	COA01406-1R	Dk Red-Purple	ID	3	OR	100	97	94	97	3.8	5.1	2.9	3.9
4 A11573-5RYsto	A02267-5PY	NDA050204-1R	Dk Red-Purple	ID	2	OR	100	97	98	98	2.6	6.9	3.4	4.3
5 Yukon Gold	Norgleam	W5279-4	Pink	Check	***	OR	99	95	93	95	2.8	1.4	1.7	2.0
6 Bintje	Munstersen	Fransen	White	Check	***	OR	100	99	95	98	2.5	3.4	2.7	2.8
7 A11576-1Ysto	A02267-5PY	A05201-1Y	Dk Red-Purple	ID	1	ID	100	99	99	99	2.8	4.9	2.7	3.5
8 POR16PG34-1	POR11PG62-6	Bulk	Pink	OR	1	OR	98	94	99	97	2.7	3.0	2.3	2.7
9 Purple Majesty	All Blue	ND2008-2	Dark Purple	Check	***	OR	100	99	94	98	2.7	3.8	3.4	3.3
10 OR11157-1	OR04306-5	OR05070-1	White-Purple	OR	1	OR	98	97	85	93	2.4	4.2	3.5	3.4
11 POR16PG25-2*	POR11PG48-1	Bulk 2x2015	White	OR	1	OR	*	99	95	97	*	5.7	3.2	4.4

* Abredeen location didn't grow POR16PG25-2 due to the amount of powdery scab on the seed.

TABLE 3: 2021 Tri-State Specialty Potato Variety Trial - VINE CHARACTERISTICS

No	Clone	Vine Size ¹				Vine Maturity ²			
		AB	PA	Means	Size	AB	PA	Means	Maturity
1	Chieftain	3.0	3.3	3.1	Med-large	4.0	4.3	4.1	Late
2	Modoc	1.8	2.9	2.3	Small	2.5	2.6	2.6	Med Early
3	A08122-9RY	2.5	3.3	2.9	Medium	3.3	3.3	3.3	Medium
4	A11573-5RYsto	2.4	3.1	2.8	Medium	3.5	4.0	3.8	Med-late
5	Yukon Gold	2.3	3.3	2.8	Medium	2.6	2.3	2.4	Early
6	Bintje	3.3	4.0	3.6	Med-large	3.5	4.5	4.0	Med-late
7	A11576-1Ysto	2.8	3.3	3.0	Medium	4.1	3.0	3.6	Med-late
8	POR16PG34-1	2.0	3.0	2.5	Small	3.1	2.0	2.6	Med Early
9	Purple Majesty	2.0	3.0	2.5	Small	2.5	2.8	2.6	Med Early
10	OR11157-1	2.0	3.0	2.5	Small	3.4	3.3	3.3	Medium
11	POR16PG25-2	*	3.1	3.1	Med-large	*	4.1	4.1	Late

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: 2021 Tri-State Specialty Potato Variety Trial - TOTAL YIELD AND SPECIFIC GRAVITY

No. Clone	TOTAL YIELD (CWT/A)				SPECIFIC GRAVITY			
	AB	PA	WA	Entry Mean	AB	PA	WA	Entry Mean
1 Chieftain	436	615	688	580	1.071	1.057	1.065	1.064
2 Modoc	276	580	682	513	1.068	1.056	1.064	1.063
3 A08122-9RY	335	604	674	537	1.072	1.068	1.069	1.069
4 A11573-5RYsto	311	574	648	511	1.072	1.063	1.066	1.067
5 Yukon Gold	292	510	604	469	1.083	1.079	1.080	1.081
6 Bintje	428	651	787	622	1.071	1.056	1.074	1.067
7 A11576-1Ysto	356	661	682	566	1.075	1.067	1.070	1.071
8 POR16PG34-1	235	382	647	421	1.072	1.064	1.069	1.068
9 Purple Majesty	402	585	617	534	1.078	1.058	1.070	1.068
10 OR11157-1	27	141	123	97	1.068	1.055	1.061	1.061
11 POR16PG25-2	*	393	551	472	*	1.058	1.074	1.066
Location Means	310	518	609		1.073	1.062	1.069	

TABLE 5: 2021 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)/%				
	Entry					Entry				
	AB	PA	WA	Mean	Rank	AB	PA	WA	Mean	Rank
1 Chieftain	8	36	22	22	10	55	104	118	92	9
	2	6	3	4	10	13	17	17	16	10
2 Modoc	39	41	32	37	9	152	133	176	154	8
	14	7	5	9	9	55	23	26	35	8
3 A08122-9RY	66	68	102	79	4	176	196	354	242	3
	20	11	15	15	5	53	32	53	46	4
4 A11573-5RYsto	59	145	143	116	1	156	272	361	263	1
	19	25	22	22	2	50	47	56	51	1
5 Yukon Gold	6	7	20	11	11	17	31	67	38	11
	2	1	3	2	11	6	6	11	8	11
6 Bintje	25	98	52	58	6	97	212	258	189	6
	6	15	7	9	8	23	32	33	29	9
7 A11576-1Ysto	45	63	79	62	5	165	204	346	238	4
	13	10	12	12	6	46	31	51	43	5
8 POR16PG34-1	50	100	108	86	3	116	170	340	209	5
	21	27	17	22	3	49	45	53	49	2
9 Purple Majesty	82	93	110	95	2	195	244	307	249	2
	20	16	18	18	4	49	41	50	47	3
10 OR11157-1	16	68	64	49	7	5	66	56	42	10
	56	49	51	52	1	17	46	46	36	7
11 POR16PG25-2	*	31	63	47	8	*	107	253	180	7
	*	8	11	10	7	*	27	46	37	6
Location Means	42	68	73			125	167	258		
	13	13	11			38	30	40		

TABLE 6: 2021 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	WA	Entry Mean	Rank	AB	PA	WA	Entry Mean	Rank
1 Chieftain	66	170	199	145	5	163	206	286	218	1
	15	28	29	24	5	37	34	42	38	1
2 Modoc	57	164	232	151	2	21	183	216	140	3
	21	28	34	28	3	8	32	32	24	3
3 A08122-9RY	65	205	166	145	4	19	118	47	61	7
	19	34	25	26	4	6	19	7	11	7
4 A11573-5RYsto	66	118	116	100	8	27	34	28	30	9
	21	21	18	20	8	9	6	4	6	9
5 Yukon Gold	35	79	100	71	10	107	159	255	174	2
	12	16	17	15	10	37	31	42	37	2
6 Bintje	59	111	278	149	3	39	38	175	84	5
	14	17	35	22	7	9	6	22	12	6
7 A11576-1Ysto	101	214	197	171	1	33	133	58	75	6
	28	32	29	30	1	9	21	8	13	5
8 POR16PG34-1	38	64	158	87	9	8	14	41	21	10
	16	16	24	19	9	3	3	6	4	10
9 Purple Majesty	81	133	146	120	7	20	51	54	42	8
	20	23	24	22	6	5	8	9	7	8
10 OR11157-1	0	6	2	3	11	0	0	2	1	11
	0	4	2	2	11	0	0	1	0	11
11 POR16PG25-2	*	118	151	135	6	*	94	78	86	4
	*	30	27	29	2	*	24	14	19	4
Location Means	63	138	174			49	103	124		
	18	25	26			14	18	19		

TABLE 7: 2021 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	WA	Entry		AB	PA	WA	Entry	
				Mean	Rank				Mean	Rank
1 Chieftain	122	71	62	85	2	22	30	22	25	2
	28	11	9	16	2	5	5	3	4	5
2 Modoc	3	54	27	28	3	3	5	5	4	10
	1	9	4	5	3	1	1	1	1	9
3 A08122-9RY	7	14	4	8	7	2	4	4	3	11
	2	2	1	2	7	1	1	1	1	9
4 A11573-5RYsto	0	0	0	0	11	4	6	3	4	9
	0	0	0	0	11	1	1	1	1	8
5 Yukon Gold	110	232	162	168	1	16	2	11	10	8
	38	46	27	37	1	5	0	2	2	7
6 Bintje	8	3	24	12	5	200	189	71	153	1
	2	1	3	2	6	47	29	9	28	1
7 A11576-1Ysto	3	24	3	10	6	8	24	6	13	6
	1	3	0	1	8	2	4	1	2	7
8 POR16PG34-1	3	1	0	1	9	20	34	14	23	4
	1	0	0	0	10	9	9	2	7	3
9 Purple Majesty	6	11	0	6	8	17	53	3	24	3
	2	2	0	1	9	4	10	0	5	4
10 OR11157-1	3	0	0	1	10	5	2	32	13	5
	10	0	0	3	5	17	1	26	15	2
11 POR16PG25-2	*	27	6	17	4	*	16	8	12	7
	*	7	1	4	4	*	4	1	3	6
Location Means	18	41	25			34	37	14		
	6	8	4			9	7	2		

TABLE 8: 2021 Tri-State Specialty Potato Variety Trial - TUBER SHAPE AND LENGTH/WIDTH RATIO

No. Clone	Tuber Shape ¹				Length/Width Ratio			
	AB	WA	Entry Means		AB	PA	WA	Entry Means
1 Chieftain	2.1	1.0	1.6	Round	1.02	1.14	1.21	1.12
2 Modoc	1.4	3.0	2.2	Oval	1.06	1.13	1.36	1.18
3 A08122-9RY	1.5	1.0	1.3	Round	1.12	1.15	1.10	1.12
4 A11573-5RYsto	1.5	1.0	1.3	Round	0.92	0.92	1.04	0.96
5 Yukon Gold	2.5	2.0	2.3	Oval	1.05	1.06	1.11	1.08
6 Bintje	3.8	2.8	3.3	Blocky	1.35	1.43	1.40	1.39
7 A11576-1Ysto	1.5	2.0	1.8	Round	1.00	1.11	1.19	1.10
8 POR16PG34-1	1.6	1.0	1.3	Round	1.12	1.17	1.12	1.14
9 Purple Majesty	2.6	2.0	2.3	Oval	1.43	1.59	1.41	1.48
10 OR11157-1	5.0	5.0	5.0	Long	2.63	3.27	2.65	2.85
11 POR16PG25-2	*	2.8	2.8	Blocky	*	1.90	1.50	1.70
Location Means	2.3	2.1			1.27	1.44	1.37	

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: 2021 Tri-State Specialty Potato Variety Trial - TUBER SIZE and TUBERS PER PLANT

No. Clone	Average Tuber Size (oz)				Tubers per Plant			
	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means
1 Chieftain	6.3	4.9	5.4	5.5	5.8	12.6	8.9	9.1
2 Modoc	3.0	4.4	4.6	4.0	7.7	12.8	10.3	10.3
3 A08122-9RY	2.7	3.6	3.1	3.1	10.0	16.3	15.3	13.8
4 A11573-5RYsto	2.8	2.2	2.7	2.6	9.2	24.8	16.6	16.9
5 Yukon Gold	7.3	7.3	6.4	7.0	3.4	6.8	6.6	5.6
6 Bintje	4.3	2.7	4.1	3.7	8.5	22.8	13.4	14.9
7 A11576-1Ysto	3.1	3.3	3.3	3.3	9.5	18.4	14.2	14.0
8 POR16PG34-1	2.6	2.2	3.0	2.6	7.4	16.9	15.1	13.2
9 Purple Majesty	2.8	2.8	3.0	2.8	12.0	19.8	14.5	15.4
10 OR11157-1	1.9	1.5	1.9	1.8	1.2	9.0	4.5	4.9
11 POR16PG25-2	*	3.7	3.4	3.5	*	9.9	11.3	10.6
Location Means	3.7	3.5	3.7		7.5	15.5	11.9	

TABLE 10: 2021 Tri-State Specialty Potato Variety Trial - EYE DEPTH, TUBER SKIN AND FLESH COLOR

No. Clone	Eye Depth ¹			Skin Color ²					Flesh Color	
	AB	WA	Entry Means	AB	PA	WA	Entry Means		AB	PA
1 Chieftain	2.3	3.0	2.6	3.0	2.5	3.3	2.9	Red	Yellow	White
2 Modoc	3.9	4.0	3.9	3.3	2.8	3.8	3.3	Red	Yellow	White
3 A08122-9RY	3.1	2.0	2.6	2.8	2.3	3.0	2.7	Red	Yellow	Yellow
4 A11573-5RYsto	2.9	3.0	2.9	3.8	3.4	4.0	3.7	Red	Yellow	Yellow
5 Yukon Gold	3.3	3.0	3.1	2.8	1.0	2.3	2.0	Yellow	Yellow	Yellow
6 Bintje	2.9	3.0	2.9	2.0	1.0	2.0	1.7	Yellow	Yellow	Yellow
7 A11576-1Ysto	3.5	4.0	3.8	2.8	1.0	2.0	1.9	Yellow	Yellow	Yellow
8 POR16PG34-1	3.5	3.3	3.4	3.5	2.0	2.0	2.5	Yellow	Yellow	Yellow
9 Purple Majesty	4.3	5.0	4.6	5.0	5.0	5.0	5.0	Purple	Purple	Purple
10 OR11157-1	4.4	3.0	3.7	5.0	5.0	5.0	5.0	Purple	Purple	Purple/White
11 POR16PG25-2	*	4.0	4.0	*	5.0	5.0	5.0	Purple	*	Purple
Location Means	3.4	3.4		2.9	2.1	3.1				

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

TABLE 11: 2021 Tri-State Specialty Potato Variety Trial - TUBER APPEARANCE, UNIFORMITY, MERIT

No. Clone	Appearance ¹				Uniformity ¹			Merit Score ¹		
	AB	PA	WA	Entry Means	AB	WA	Entry Means	AB	PA	Entry Means
1 Chieftain	3.3	2.0	3.3	2.8	2.9	3.0	2.9	2.5	2.9	2.7
2 Modoc	3.8	2.5	4.0	3.4	4.0	3.3	3.6	3.6	3.4	3.5
3 A08122-9RY	3.0	2.0	3.0	2.7	3.9	4.0	3.9	3.6	3.5	3.6
4 A11573-5RYsto	4.0	4.0	4.0	4.0	3.9	4.0	3.9	3.6	3.3	3.4
5 Yukon Gold	3.4	4.0	2.3	3.2	3.0	3.0	3.0	2.8	3.0	2.9
6 Bintje	3.3	1.3	1.8	2.1	1.3	1.0	1.1	1.0	1.6	1.3
7 A11576-1Ysto	4.0	3.0	2.8	3.3	4.1	3.0	3.6	3.8	3.6	3.7
8 POR16PG34-1	3.6	2.0	2.3	2.6	3.6	3.5	3.6	2.9	1.8	2.3
9 Purple Majesty	2.9	3.3	2.0	2.7	3.3	4.8	4.0	2.8	2.6	2.7
10 OR11157-1	2.3	1.8	1.0	1.7	2.3	1.3	1.8	1.5	1.5	1.5
11 POR16PG25-2	*	3.8	3.0	3.4	*	4.0	4.0	*	2.9	2.9
Location Means	3.3	2.7	2.7		3.2	3.2		2.8	2.7	

¹ Scale of 1-5; 5=best

TABLE 12: 2021 Tri-State Specialty Potato Variety Trial - EXTERNAL DEFECTS

No.	Clone	Skinning ¹				Shatter ¹			Greening ¹				Scab ¹			
		AB	PA	WA	Entry Means	PA	WA	Means	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means
1	Chieftain	3.1	3.8	3.3	3.4	5.0	3.0	4.0	4.9	5.0	4.8	4.9	4.3	4.8	5.0	4.7
2	Modoc	4.3	4.3	2.8	3.8	4.8	2.0	3.4	5.0	5.0	5.0	5.0	3.9	3.8	5.0	4.2
3	A08122-9RY	4.6	5.0	3.0	4.2	5.0	2.0	3.5	4.9	5.0	4.8	4.9	4.4	4.8	5.0	4.7
4	A11573-5RYsto	3.8	3.3	3.0	3.3	4.8	4.0	4.4	4.9	4.8	5.0	4.9	4.5	5.0	5.0	4.8
5	Yukon Gold	4.4	4.8	3.3	4.2	5.0	3.0	4.0	4.5	4.8	5.0	4.8	3.1	2.5	5.0	3.5
6	Bintje	4.8	2.3	3.3	3.4	5.0	4.0	4.5	3.5	5.0	4.8	4.4	3.9	4.0	5.0	5.0
7	A11576-1Ysto	4.9	3.8	4.0	4.2	4.8	3.0	3.9	4.3	4.5	4.3	4.3	4.0	3.8	5.0	4.3
8	POR16PG34-1	4.8	3.5	4.0	4.1	5.0	4.0	4.5	4.6	5.0	4.5	4.7	4.6	4.5	5.0	4.7
9	Purple Majesty	4.9	4.0	5.0	4.6	5.0	1.0	3.0	4.8	5.0	5.0	4.9	3.9	3.8	5.0	4.2
10	OR11157-1	3.6	3.8	5.0	4.1	5.0	4.0	4.5	4.9	5.0	5.0	5.0	4.6	5.0	5.0	4.9
11	POR16PG25-2	*	3.8	5.0	4.4	5.0	3.0	4.0	*	5.0	5.0	5.0	*	4.8	5.0	4.9
Location Means		4.3	3.8	3.8		4.9	3.0		4.6	4.9	4.8		4.1	4.2	5.0	

¹ Scale of 1-5; 5=none

TABLE 13: 2021 Tri-State Specialty Potato Variety Trial - INTERNAL DEFECTS

No. Clone	Hollow Heart plus Brown Center (%)				Internal Brown Spot (%)				Net Necrosis/ Vascular Discoloration (%)		
	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means	AB	WA	Entry Means
1 Chieftain	25.0	2.5	0.0	9.2	0.0	10.0	0.0	3.3	0.0	5.1	2.6
2 Modoc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	4.0
3 A08122-9RY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 A11573-5RYsto	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.6
5 Yukon Gold	0.0	2.5	0.0	0.8	0.0	20.0	7.5	9.2	0.0	0.0	0.0
6 Bintje	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 A11576-1Ysto	0.0	0.0	0.0	0.0	0.0	12.5	0.0	4.2	0.0	0.0	0.0
8 POR16PG34-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9 Purple Majesty	5.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 OR11157-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11 POR16PG25-2	*	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	0.0
Location Means	3.0	0.5	0.0		0.0	3.9	0.7		0.0		

**TABLE 14: 2021 Tri-State Specialty Potato Variety Trial - SOLIDS, ANTIOXIDANTS, VITAMIN C,
AND GLYCOALKALOIDS - ABERDEEN**

No.	Clone	Solids Oven Dry (%)	Antioxidants (ug/g FWB)	Vitamin C (mg/100g FWB)	Glycoalkaloids (mg/100g FWB)
1	Chieftain	17.72	399.60	22.07	5.55
2	Modoc	17.89	339.75	29.68	3.98
3	A08122-9RY	18.66	263.41	21.02	2.95
4	A11573-5RYsto	18.62	336.79	30.29	2.77
5	Yukon Gold	21.37	344.29	32.00	3.25
6	Bintje	19.76	313.60	22.99	3.75
7	A11576-1Ysto	19.51	339.19	22.13	4.83
8	POR16PG34-1	18.70	593.06	29.41	3.22
9	Purple Majesty	19.68	1207.94	21.99	6.90
10	OR11157-1	17.41	1186.61	20.02	3.67
11	POR16PG25-2	*	*	*	*
Means		18.93	532.42	25.16	4.09

TABLE 15: 2021 Tri-State Specialty Potato Variety Trial - OTHER

No.	Clone	Early Blight	Verticillium Wilt	Metribuzin Reaction	Size Uniformity	Days until sprouts
		AB	AB	AB	WA	PA
1	Chieftain	4.8	4.9	MR	3.0	146
2	Modoc	2.3	5.0	MR	3.0	146
3	A08122-9RY	3.5	5.0	MR	3.0	133
4	A11573-5RYsto	4.0	5.0	R	4.0	104
5	Yukon Gold	3.6	4.1	VR	1.0	119
6	Bintje	3.0	5.0	VR	2.5	65
7	A11576-1Ysto	4.1	5.0	R	3.0	104
8	POR16PG34-1	4.2	4.5	R	4.0	119
9	Purple Majesty	3.9	5.0	MR	3.3	104
10	OR11157-1	4.9	5.0	MR	4.0	> 146
11	POR16PG25-2	*	*	*	4.0	104
		3.8	4.9		3.2	

Scale of 1-5; 5=none

Scale of 1-5; 5 = none

TABLE 16: 2021 Tri-State Specialty Potato Variety Trial - SUMMARY

Clone	Total Yield	Yield 2-6 oz (premium)	Fresh Merit	Appearance
1 Chieftain	580	237	2.7	2.8
2 Modoc	513	305	3.5	3.4
3 A08122-9RY	537	387	3.6	2.7
4 A11573-5RYsto	511	363	3.4	4.0
5 Yukon Gold	469	110	2.9	3.2
6 Bintje	622	338	1.3	2.1
7 A11576-1Ysto	566	409	3.7	3.3
8 POR16PG34-1	421	295	2.3	2.6
9 Purple Majesty	534	368	2.7	2.7
10 OR11157-1	97	45	1.5	1.7
11 POR16PG25-2	472	314	2.9	3.4

TABLE 17: 2021 Tri-State Specialty Potato Variety Trial - COMMENTS

Clone	ABERDEEN	PARMA	KLAMATH FALLS	OTHELLO
1 Chieftain	Big (4); flat, deep ends/eyes (3); not real uniform	ATS, skinning, new growth, chain tubers	Avg yield, avg size	Medium size, good skin set.
2 Modoc	Uniform (4); nice shape/color, good eyes (3); few ATS (2)	Nice color, skinning, ATS	Avg yield, high set, small, good color	Oblong, red, nice color, skin set not great.
3 A08122-9RY	Bad ATS (4); uniform, deeper eyes/ends (3); few oblong (2)	Russeted, uniform	Good yield, high set, small, pale	Color is a bit variable, nice shape.
4 A11573-5RYsto	ATS (4), nice color, some compressed (3); uniform, deep ends (2)	ATS, skinning, dark red color	Good yield, high set, black dot	Bright red, small, skin set not great.
5 Yukon Gold	Flat (4); big, low yield, few ATS, few bumps (2)	Irregular, elephant hide	Good yield, good size	Extreme size range, yellow/white with russetting.
6 Bintje	Not uniform, bumps/misshapen (4); bottlenecks/dumbbells, awful (2)	Ugly, sprouted, not uniform, round, discard	Good yield, pale, MS, ugly	Oblong, bumpy, ugly skin, yellow.
7 A11576-1Ysto	Deeper eyes (3); uniform, little flat (2)	Irregular, IHN	Avg yield, high set, russetting, MS, rough skin	Rhizoc, yellow, variable sizes, with some russetting.
8 POR16PG34-1	Uniform, small, oval (2)	Irregular, ugly, ATS, bulging eyes	Avg yield, small, smooth, MS	Nice shape, bad skin.
9 Purple Majesty	ATS, oblong (4); few bumps (2)	Deep scab	Low yield, small, rough, MS	Purple river rocks, smooth shape, with bronzing.
10 OR11157-1	Very low yield (3); not uniform, spotchy skin (2)	Curved, skinning, discard	Low yield, small - drop	Low yield, ugly, 2nd growth, non uniform shape
11 POR16PG25-2	*	Irregular, pointed, ATS	*	Oblong, dark purple, some bronzing.

ATS = Attached stolons

TABLE 18: 2021 Tri-State Specialty Potato Variety Trial - Multi-Year Summary *

Cultivar/Breeding line	2019			2020			2021			Average		
	Total Yield	Premium Yield (2-6oz)	Merit	Total Yield	Premium Yield (2-6oz)	Merit	Total Yield	Premium Yield (2-6oz)	Merit	Total Yield	Premium Yield (2-6oz)	Merit
Chieftain	583	168	2.9	574	190	2.6	580	237	2.7	579	199	2.7
A08122-9RY	482	324	3.7	529	355	2.8	537	387	3.6	516	356	3.3

Noted Weaknesses

Noted Strengths

Chieftain	Lower premium yield and merit (3/3 years), deep eyes	Higher total yield (3/3 years)
A08122-9RY	Lower total yield (3/3 years)	Higher premium yield and merit (3/3), uniform, nice shape

* Average for all reporting locations in that year

2021 Tri-State Specialty Potato Variety Photos

Taken at Parma, Idaho



Chieftain



Modoc



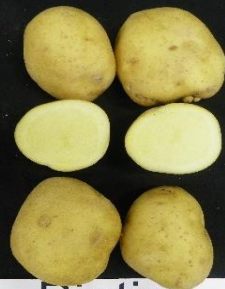
A08122-9RY



A11573-5RYsto



Yukon Gold



Bintje



A11576-1Ysto



POR16PG34-1



Purple Majesty



OR11157-1



POR16PG25-2