

2022 TRI-STATE SPECIALTY POTATO VARIETY TRIAL REPORT

State Experiment Stations and USDA-ARS Cooperating

Aberdeen, Idaho

Parma, Idaho

Othello, Washington

Klamath Falls, Oregon



2022 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 and Specific Gravity
- 5 Yield of Tubers Under 4 oz.
- 6 Yield of U.S. No. 1's - 4-6 oz. and 6-10 oz.
- 7 Yield of U.S. No. 1's Over 10 oz. and Culls
- 8 Tuber Shape and Length/Width Ratio
- 9 Average Tuber Size and Tubers per Plant
- 10 Tuber Characteristics - Eye Depth, Skin Color, Flesh Color
- 11 Tuber Appearance - Appearance, Uniformity, Merit
- 12 External Defects - Skinning, Shatter Bruise, Greening, and Scab
- 13 Internal Defects - Hollow Heart/Brown Center, Internal Brown Spot, Vascular Discoloration
- 14 Solids, Antioxidants, Vitamin C, and Glycoalkaloids
- 15 Other Data
- 16 Comments by Location
- 17 Multi-Year Summary

Compiled by: Oksana Morgan

TABLE 1: 2022 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	250-80-0-25	9	36	21-Apr	11-Aug	23-Aug	112	124	TriCor 4F Matrix Eptam 7-E	Admire Pro		
Parma Idaho (PA)	M. Thornton R. Portenier D.Beck O. Morgan	Sprinkler	177-211-200-0	10	36	6-Apr	26-Jul	9-Aug	111	125	Sonalan Boundry Eptam 7E Matrix	Admire Pro Movento	Bravo Endura Luna T Revus Top	
Othello Washington (WA)	M. Pavek J. Blauer Z. Holden	Sprinkler	200-300-300-0	8	32	30-Mar	5-Aug	16-Aug	128	139	Outlook Prowl H20 Eptam	Platinum	Priaxor Equus Bravo Zing	
Klamath Falls Oregon (OR)	B. Charlton N. Baley					Due to shortage of water the trial was not performed in 2022								

TABLE 2: 2022 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	95	84	93	2.2	2.9	2.4	2.5
2 Modoc	ND1196-2R	ND2225-1R	Purple	Check	***	OR	99	93	83	91	3.4	3.1	3.1	3.2
3 A11582-1R	A05173-2RY	NDA8512C-1R	Dk Red-Purple	ID	1	ID	100	93	84	92	2.9	3.5	3.0	3.1
4 A11596-6R	A05182-7RY	NDA052037B-1R	Dk Red-Purple	ID	1	ID	91	92	80	88	3.7	3.3	3.0	3.3
5 A11573-5RYsto	A02267-5PY	NDA050204-1R	Dk Red-Purple	ID	3	OR	*	91	76	84	*	3.4	3.7	3.5
6 Yukon Gold	Norgleam	W5279-4	Pink	Check	***	OR	97	96	84	92	3.0	3.9	1.7	2.9
7 Bintje	Munstersen	Fransen	White	Check	***	OR	99	95	94	96	2.5	3.1	2.5	2.7
8 A11576-1Ysto	A02267-5PY	A05201-1Y	Dk Red-Purple	ID	2	ID	95	94	84	91	3.0	3.1	3.2	3.1
9 A11661-2Y	A05201-1Y	A05197-1Y	Red Purple	ID	1	ID	99	90	84	91	3.4	3.1	2.6	3.1
10 TXA18020-1DY	Atlantic	Gala	White	ID	1	ID	99	95	*	97	3.2	3.1	*	3.2
11 Purple Majesty	All Blue	ND2008-2	Dark Purple	Check	***	OR	100	95	88	94	2.8	3.1	3.0	3.0
12 POR16PG25-2	POR11PG48-1	Bulk 2x2015	White	OR	2	OR	100	96	86	94	3.3	3.1	3.7	3.4
13 Austrian Crescent	N/A	N/A	N/A	Check	***	ID	100	98	78	92	2.9	3.1	3.5	3.1
14 OR11157-1	OR04306-5	OR05070-1	White-Purple	OR	2	OR	97	95	83	92	2.5	3.4	2.9	2.9

* varieties were not planted due to the seed shortage

TABLE 3: 2022 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	1.3	2.9	2.1	Small	2.5	3.0	2.8	Med Early
2	Modoc	1.0	3.4	2.2	Small	1.6	3.1	2.4	Early
3	A11582-1R	1.0	3.9	2.4	Small	2.9	3.5	3.2	Medium
4	A11596-6R	2.0	3.4	2.7	Medium	4.2	3.1	3.6	Med-late
5	A11573-5RYsto	*	3.3	3.3	Med-large	*	3.3	3.3	Medium
6	Yukon Gold	2.8	3.8	3.3	Med-large	4.8	3.0	3.9	Med-late
7	Bintje	2.0	3.9	2.9	Medium	3.4	3.5	3.4	Medium
8	A11576-1Ysto	2.0	3.0	2.5	Small	3.2	3.3	3.2	Medium
9	A11661-2Y	1.5	3.3	2.4	Small	2.9	3.5	3.2	Medium
10	TXA18020-1DY	2.0	3.9	2.9	Medium	3.3	3.5	3.4	Medium
11	Purple Majesty	1.0	3.1	2.1	Small	1.9	2.8	2.3	Early
12	POR16PG25-2	2.0	3.1	2.6	Medium	3.6	3.0	3.3	Medium
13	Austrian Crescent	1.5	3.9	2.7	Medium	2.4	3.5	2.9	Med Early
14	OR11157-1	1.3	3.3	2.3	Small	2.6	3.1	2.9	Med 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: 2022 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	228	481	876	528	1.069	1.070	1.064	1.068
2 Modoc	195	452	609	419	1.063	1.069	1.063	1.065
3 A11582-1R	183	500	509	397	1.059	1.057	1.059	1.058
4 A11596-6R	81	182	268	177	1.062	1.061	1.056	1.060
5 A11573-5RYsto	*	419	393	406	*	1.071	1.075	1.073
6 Yukon Gold	239	398	542	393	1.068	1.085	1.081	1.078
7 Bintje	318	473	697	496	1.074	1.074	1.075	1.074
8 A11576-1Ysto	229	423	534	395	1.074	1.076	1.075	1.075
9 A11661-2Y	218	380	613	404	1.073	1.069	1.076	1.073
10 TXA18020-1DY	232	318	*	275	1.085	1.088	*	1.086
11 Purple Majesty	139	360	577	358	1.073	1.075	1.072	1.073
12 POR16PG25-2	219	378	581	393	1.071	1.072	1.073	1.072
13 Austrian Crescent	44	276	275	198	1.077	1.079	1.082	1.079
14 OR11157-1	5	130	134	89	1.064	1.068	1.072	1.068
Location Means	179	369	508		1.070	1.072	1.071	

TABLE 5: 2022 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	WA	Entry Mean	Rank	AB	PA	WA	Entry Mean	Rank
	1 Chieftain	5 2	5 1	20 2	10 2	13 14	64 28	26 5	119 14	70 16
2 Modoc	44 19	23 5	54 9	40 11	10 11	112 49	75 17	185 30	124 32	8 10
3 A11582-1R	59 26	85 17	78 15	74 19	5 6	98 43	187 38	201 40	162 40	4 5
4 A11596-6R	51 22	118 65	132 50	100 46	2 1	26 11	64 34	118 44	69 30	12 11
5 A11573-5RYsto	* *	101 24	124 32	113 28	1 2	* *	207 50	186 47	197 49	1 1
6 Yukon Gold	6 3	6 1	10 2	7 2	14 13	46 20	24 6	43 8	38 11	14 14
7 Bintje	81 35	27 6	37 5	48 15	9 8	185 81	68 14	143 21	132 39	7 6
8 A11576-1Ysto	82 36	52 12	107 20	80 23	3 3	119 52	161 38	255 48	178 46	3 3
9 A11661-2Y	79 35	77 20	68 11	75 22	4 5	123 54	167 44	272 44	187 47	2 2
10 TXA18020-1DY	26 12	30 9	* *	28 11	11 12	126 56	109 34	* *	118 45	9 4
11 Purple Majesty	54 24	43 12	59 10	52 15	7 8	69 30	123 34	235 41	142 35	6 9
12 POR16PG25-2	31 13	48 12	70 12	50 12	8 10	117 51	108 28	216 37	147 39	5 6
13 Austrian Crescent	22 10	95 35	60 22	59 22	6 4	16 7	111 40	91 33	73 27	10 12
14 OR11157-1	4 2	43 33	26 19	24 18	12 7	2 1	70 54	76 57	49 37	13 8
Location Means	42 18	54 18	65 16			85 37	107 31	165 36		

TABLE 6: 2022 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	102 45	65 14	197 23	121 27	1 2	43 19	204 42	309 35	185 32
2 Modoc	30 13	127 28	175 29	111 23	2 4	3 1	158 35	138 23	100 20	4 4
3 A11582-1R	17 8	164 32	139 27	107 22	3 5	0 0	31 6	70 14	34 7	9 9
4 A11596-6R	2 1	0 0	15 6	6 2	14 14	1 1	0 0	0 0	0 0	14 14
5 A11573-5RYsto	* *	45 18	51 13	48 16	11 11	* *	16 4	15 4	16 4	11 10
6 Yukon Gold	76 33	37 9	58 11	57 18	10 10	75 33	127 32	141 26	114 30	3 2
7 Bintje	25 11	122 26	152 22	100 20	5 8	2 1	134 28	234 34	123 21	2 3
8 A11576-1Ysto	20 9	134 31	123 23	92 21	7 7	3 1	58 14	43 8	35 8	7 8
9 A11661-2Y	8 4	85 22	184 30	92 19	7 9	1 0	12 3	49 8	21 4	10 11
10 TXA18020-1DY	62 27	105 34	* *	84 31	9 1	11 5	58 18	* *	35 12	8 6
11 Purple Majesty	12 5	110 31	167 29	96 22	6 5	1 0	51 14	98 17	50 10	6 6
12 POR16PG25-2	52 23	107 28	157 27	105 26	4 3	12 5	81 22	108 19	67 15	5 5
13 Austrian Crescent	1 0	35 13	35 13	24 9	12 12	1 0	8 3	17 6	9 3	12 12
14 OR11157-1	0 0	14 11	20 15	11 9	13 12	0 0	2 2	0 0	1 1	13 13
Location Means	31 14	82 21	126 21			12 5	67 16	94 15		

TABLE 7: 2022 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 Mean	Rank	AB	PA	WA	Entry Mean	Rank
	1 Chieftain	5	170	217	131	2	9	11	14	11
	2	35	25	21	2	4	2	2	3	9
2 Modoc	0	42	38	27	4	6	27	19	17	5
	0	9	6	5	3	3	6	3	4	5
3 A11582-1R	0	4	13	6	7	8	29	9	15	7
	0	1	3	1	8	4	6	2	4	5
4 A11596-6R	0	0	0	0	12	1	1	2	1	14
	0	0	0	0	12	0	0	1	0	14
5 A11573-5RYsto	*	4	0	2	11	*	16	16	16	6
	*	1	0	1	11	*	4	4	4	5
6 Yukon Gold	22	191	263	159	1	15	15	28	19	4
	9	48	48	35	1	7	4	5	5	4
7 Bintje	0	43	44	29	3	25	79	85	63	1
	0	9	6	5	3	11	16	12	13	1
8 A11576-1Ysto	5	7	2	5	8	0	1	5	2	12
	2	2	0	1	8	0	3	1	1	12
9 A11661-2Y	0	0	0	0	12	6	39	39	28	3
	0	0	0	0	12	3	11	6	7	3
10 TXA18020-1DY	0	8	*	4	9	6	8	*	7	11
	0	2	*	1	10	3	2	*	3	10
11 Purple Majesty	0	17	12	10	6	3	17	6	9	10
	0	5	2	2	5	1	5	1	2	9
12 POR16PG25-2	0	16	24	13	5	7	19	14	13	8
	0	4	4	3	5	3	5	2	3	8
13 Austrian Crescent	0	0	0	0	12	4	28	65	32	2
	0	0	0	0	12	2	10	24	12	2
14 OR11157-1	0	0	10	3	10	2	1	2	2	13
	0	0	7	2	6	1	1	1	1	13
Location Means	2	36	48			7	21	23		
	1	8	8			3	5	5		

TABLE 8: 2022 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	1.5	1.0	1.3	Round	1.39	1.19	1.13	1.24
2 Modoc	1.4	1.0	1.2	Round	1.33	1.22	1.16	1.24
3 A11582-1R	1.6	1.0	1.3	Round	1.44	1.22	1.29	1.32
4 A11596-6R	1.0	1.0	1.0	Round	1.13	1.06	1.04	1.08
5 A11573-5RYsto	*	1.0	1.0	Round	*	0.95	1.10	1.02
6 Yukon Gold	3.1	1.0	2.1	Oval	1.65	1.13	1.06	1.28
7 Bintje	1.6	3.0	2.3	Oval	1.53	1.65	1.43	1.54
8 A11576-1Ysto	1.0	1.0	1.0	Round	1.20	1.20	1.15	1.18
9 A11661-2Y	1.5	3.0	2.3	Oval	1.40	1.53	1.42	1.45
10 TXA18020-1DY	1.5	*	1.5	Round	1.27	1.19	*	1.23
11 Purple Majesty	2.0	1.0	1.5	Round	1.44	1.39	1.29	1.38
12 POR16PG25-2	2.9	3.0	2.9	Blocky	1.85	1.53	1.42	1.60
13 Austrian Crescent	5.0	5.0	5.0	Long	3.04	3.21	2.72	2.99
14 OR11157-1	5.0	5.0	5.0	Long	2.00	2.82	2.32	2.38
Location Means	2.2	2.1			1.6	1.5	1.4	

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 8: 2022 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

TABLE 9: 2022 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	4.3	7.0	5.7	5.7	4.3	6.8	9.9	7.0
2 Modoc	2.6	4.9	3.7	3.7	6.4	9.3	10.7	8.8
3 A11582-1R	2.2	2.7	3.0	2.7	6.7	18.2	11.0	12.0
4 A11596-6R	1.8	1.2	1.8	1.6	4.1	15.9	9.6	9.9
5 A11573-5RYsto	*	2.4	2.2	2.3	*	18.7	11.2	14.9
6 Yukon Gold	4.9	8.0	7.6	6.8	4.2	4.8	4.6	4.5
7 Bintje	2.4	4.7	4.6	3.9	11.1	9.8	10.0	10.3
8 A11576-1Ysto	2.3	3.2	2.7	2.7	8.6	13.0	12.7	11.4
9 A11661-2Y	2.1	2.3	3.2	2.5	8.5	16.9	12.7	12.7
10 TXA18020-1DY	3.0	3.5	*	3.3	6.5	8.7	*	7.6
11 Purple Majesty	2.2	3.3	3.4	2.9	5.2	10.6	11.2	9.0
12 POR16PG25-2	2.9	3.4	3.4	3.2	6.2	10.7	11.2	9.4
13 Austrian Crescent	1.9	1.8	2.6	2.1	1.9	14.2	6.9	7.6

TABLE 9: 2022 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
14 OR11157-1	1.8	2.0	2.6	2.2	0.5	6.3	3.4	3.4
Location Means	2.7	3.6	3.6		5.7	11.7	9.6	

TABLE 10: 2022 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		PA
1 Chieftain	2.8	3.0	2.9	3.0	4.0	3.0	3.3	Red	White
2 Modoc	3.9	3.0	3.4	3.5	4.0	4.0	3.8	Red	White
3 A11582-1R	3.8	3.7	3.7	4.0	4.0	4.0	4.0	Red	White
4 A11596-6R	3.7	3.0	3.3	4.0	4.0	4.0	4.0	Red	Yellow
5 A11573-5RYsto	*	2.7	2.7	*	4.0	4.0	4.0	Red	Yellow
6 Yukon Gold	3.3	3.0	3.1	3.0	4.0	2.0	3.0	Yellow	Yellow
7 Bintje	3.5	3.0	3.3	2.3	3.0	2.0	2.4	Yellow	Yellow
8 A11576-1Ysto	3.3	3.7	3.5	2.8	4.0	2.0	2.9	Yellow	Yellow
9 A11661-2Y	4.0	4.0	4.0	2.0	4.0	2.0	2.7	Yellow	Yellow
10 TXA18020-1DY	3.5	*	3.5	2.5	4.0	*	3.3	Yellow	Yellow
11 Purple Majesty	4.0	3.0	3.5	5.0	NA	5.0	5.0	Purple	Purple
12 POR16PG25-2	3.0	3.7	3.3	5.0	5.0	5.0	5.0	Purple	Purple
13 Austrian Crescent	3.6	4.0	3.8	3.0	3.0	2.0	2.7	Yellow	Yellow
14 OR11157-1	4.0	4.0	4.0	5.0	NA	5.0	5.0	Purple	Purple
Location Means	3.6	3.4		3.5	3.9	3.4			

¹ Scale of 1-5; 1=deep, 5=shallow

² Scale of 1-5 with higher number more intense color.

TABLE 12: 2022 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	WA	Entry Means
1 Chieftain	3.0	2.8	3.0	2.9	3.1	3.0	3.1	2.6	2.5	3.0	2.7
2 Modoc	4.0	3.5	3.7	3.7	3.6	2.7	3.2	3.5	3.8	3.7	3.7
3 A11582-1R	4.1	4.0	4.0	4.0	3.3	3.0	3.1	3.1	3.8	4.0	3.6
4 A11596-6R	4.0	5.0	4.0	4.3	4.0	4.0	4.0	3.5	3.0	3.5	3.3
5 A11573-5RYsto	*	5.0	4.0	4.5	*	4.0	4.0	*	3.5	4.0	3.8
6 Yukon Gold	3.5	4.0	3.0	3.5	2.7	2.0	2.4	2.8	3.0	3.0	2.9
7 Bintje	3.6	2.7	1.0	2.4	3.1	2.0	2.6	3.0	2.0	1.0	2.0
8 A11576-1Ysto	3.7	3.8	3.3	3.6	4.0	3.0	3.5	3.7	3.5	3.3	3.5
9 A11661-2Y	3.6	4.8	2.0	3.5	3.5	3.0	3.3	3.4	3.8	2.0	3.1
10 TXA18020-1DY	3.5	4.5	*	4.0	3.3	*	3.3	3.3	3.0	-	3.1
11 Purple Majesty	1.5	NA	2.7	2.1	2.8	3.0	2.9	2.1	3.0	2.7	2.6
12 POR16PG25-2	1.8	4.0	3.3	3.0	3.3	2.3	2.8	2.5	3.5	3.3	3.1
13 Austrian Crescent	3.3	2.0	2.0	2.4	3.0	3.0	3.0	2.4	2.0	2.0	2.1
14 OR11157-1	1.0	NA	3.0	2.0	3.0	4.0	3.5	1.0	1.0	2.0	1.3
Location Means	3.1	3.8	3.0		3.3	3.0		2.8	3.0	2.9	

¹ Scale of 1-5; 5=best

TABLE 12: 2022 Tri-State Specialty Potato Variety Trial - EXTERNAL DEFECTS

No. Clone	Skinning ¹				Shatter ¹				Greening ¹				Scab ¹			
	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means	AB	PA	WA	Entry Means
1 Chieftain	2.8	4.3	3.0	3.3	4.5	4.8	2.0	3.8	5.0	4.8	4.0	4.6	4.3	4.0	5.0	4.4
2 Modoc	3.4	4.5	4.0	4.0	5.0	4.0	2.0	3.7	5.0	4.0	4.3	4.4	3.1	3.8	5.0	4.0
3 A11582-1R	3.4	4.5	4.0	4.0	5.0	5.0	3.0	4.3	5.0	4.5	4.0	4.5	4.5	4.3	5.0	4.6
4 A11596-6R	3.2	5.0	3.3	3.8	5.0	5.0	NA	5.0	5.0	5.0	5.0	5.0	4.3	5.0	5.0	4.8
5 A11573-5RYsto	*	4.8	4.0	4.4	*	5.0	4.0	4.5	*	5.0	4.0	4.5	*	4.3	4.0	4.1
6 Yukon Gold	5.0	4.8	4.0	4.6	5.0	5.0	4.0	4.7	4.8	4.5	5.0	4.8	3.5	3.0	5.0	5.0
7 Bintje	5.0	4.3	2.0	3.8	5.0	5.0	4.0	4.7	5.0	5.0	4.0	4.7	4.5	4.3	5.0	4.6
8 A11576-1Ysto	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.7	5.0	5.0	4.3	4.8	3.5	4.0	5.0	4.2
9 A11661-2Y	4.6	4.3	4.0	4.3	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.3	3.3	4.0	5.0	4.1
10 TXA18020-1DY	5.0	5.0	*	5.0	5.0	4.8	*	4.9	4.9	4.8	*	4.8	3.5	4.3	*	3.9
11 Purple Majesty	4.9	NA	3.0	3.9	5.0	4.8	3.0	4.3	5.0	5.0	5.0	5.0	3.6	3.8	5.0	4.1
12 POR16PG25-2	4.9	5.0	3.7	4.5	5.0	4.8	3.0	4.3	5.0	5.0	5.0	5.0	3.9	4.5	5.0	4.5
13 Austrian Crescer	5.0	4.5	4.0	4.5	5.0	5.0	5.0	5.0	5.0	3.3	4.0	4.1	3.6	3.8	5.0	4.1
14 OR11157-1	5.0	NA	3.3	4.2	5.0	5.0	NA	5.0	5.0	5.0	5.0	5.0	5.0	4.8	5.0	4.9
Location Means	4.4	4.7	3.6		5.0	4.9	3.5		5.0	4.6	4.4		3.9	4.1	4.9	

¹ Scale of 1-5; 5=none

TABLE 13: 2022 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	AB	PA	WA	Entry	AB	WA	Entry
				Means				Means			Means
1 Chieftain	0.0	0.0	0.0	0.0	0.0	7.5	0.0	2.5	0.0	0.0	0.0
2 Modoc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 A11582-1R	0.0	0.0	0.0	0.0	0.0	7.5	0.0	2.5	0.0	6.7	3.3
4 A11596-6R	0.0	0.0	NA	0.0	0.0	0.0	NA	0.0	0.0	NA	0.0
5 A11573-5RYsto	*	0.0	0.0	0.0	*	0.0	0.0	0.0	*	0.0	0.0
6 Yukon Gold	0.0	0.0	0.0	0.0	0.0	12.5	0.0	4.2	0.0	3.3	1.7
7 Bintje	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	1.7
8 A11576-1Ysto	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.8	0.0	0.0	0.0
9 A11661-2Y	0.1	0.0	0.0	0.0	0.0	0.0	3.3	1.1	0.0	3.3	1.7
10 TXA18020-1DY	0.0	0.0	*	0.0	0.0	0.0	*	0.0	0.0	*	0.0
11 Purple Majesty	0.0	2.5	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12 POR16PG25-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 Austrian Crescent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.2	9.1
14 OR11157-1	0.0	0.0	NA	0.0	0.0	0.0	NA	0.0	0.0	NA	0.0
Location Means	0.0	0.2	0.0		0.0	2.1	0.3		0.0	3.2	

**TABLE 14: 2022 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	18.8	478.9	27.3	7.9
2	Modoc	17.4	350.4	36.8	3.6
3	A11582-1R	15.6	430.6	33.7	4.3
4	A11596-6R	17.2	321.3	27.9	1.5
5	A11573-5RYsto	*	*	*	*
6	Yukon Gold	17.9	244.1	24.3	2.9
7	Bintje	19.2	296.7	29.3	3.5
8	A11576-1Ysto	18.5	280.9	31.1	5.9
9	A11661-2Y	20.0	425.8	35.3	6.6
10	TXA18020-1DY	21.5	261.7	30.9	4.1
11	Purple Majesty	20.1	1137.8	29.1	6.4
12	POR16PG25-2	17.6	1541.3	29.5	0.7
13	Austrian Crescent	21.3	526.1	26.7	13.4
14	OR11157-1	18.2	1534.0	21.0	3.0
Means		18.72	602.27	29.45	4.91

TABLE 15: 2022 Tri-State Specialty Potato Variety Trial - OTHER

No.	Clone	Early Blight	Verticillium Wilt	Metribuzin Reaction	Days until sprouts	
		AB	AB	AB	PA	
1	Chieftain	5.0	3.8	MR		116
2	Modoc	3.4	1.3	MS		130
3	A11582-1R	5.0	4.5	MR		102
4	A11596-6R	5.0	5.0	MS		130
5	A11573-5RYsto	*	*	*		102
6	Yukon Gold	5.0	5.0	VR		116
7	Bintje	5.0	4.8	R		72
8	A11576-1Ysto	5.0	4.7	R		102
9	A11661-2Y	5.0	4.5	MR		102
10	TXA18020-1DY	5.0	4.8	MS		88
11	Purple Majesty	5	2.0	R		88
12	POR16PG25-2	5.0	4.5	MR		88
13	Austrian Crescent	2.1	3.8	R		88
14	OR11157-1	5.0	3.5	MR		116
		4.7	4.0			

Scale of 1-5; 5=none

Scale of 1-5; 5 = none

TABLE 16: 2022 Tri-State Specialty Potato Variety Trial - COMMENTS

Clone	ABERDEEN	PARMA	OTHELLO
1 Chieftain	Few ats (2); rot, deeper ends some misshapen	Big	Shape a bit irregular, somewhat flat.
2 Modoc	Nice, oblong, uniform (2); rot	Pointed	Deep red, nice skin set, various sizes.
3 A11582-1R	Few points (3); nice skin but some varying color shades (2)	Pointed, non-uniform	Nice deep red color, smaller.
4 A11596-6R	Nice small round (3) ats (2); *some small may not have registered on grader	Uniform	Nice, round, uniform size, smaller.
5 A11573-5RYsto	*	Folded ends	Deep red, nice deep eyes, with some scab.
6 Yukon Gold	Blocky with some round (4); few points (2)	Non-uniform	Larger, variable size, nice skin.
7 Bintje	Longer (4); some misshapen (3); curves (2)	Sprouts, non-uniform	Heat sprouts, irregular shapes.
8 A11576-1Ysto	Good yield (3); round (2); few ats, few squarish	Pear shape	Mostly nice skin, smooth, pink eyes.
9 A11661-2Y	Pink eyes (4); some oblong, good yield (2)	Pointed	Pointy, with heat sprouts. Discard.
10 TXA18020-1DY	Round, few bumps, some deeper ends	Uniform	*
11 Purple Majesty	Not consistent shape, russeting/silvering (4)	Uniform	Deep purple, lumpy, flat river rocks.
12 POR16PG25-2	Russeting/silvering (3); few bumps (2)	Pointed, non-uniform	Dark purple, deep eyes, feathery skin.
13 Austrian Crescent	Low yield (3); bumps (2); legs, not great	Chain tubers, sprouts	Fingerling, curved, skinny, odd shapes.
14 OR11157-1	Horrible, knobs low yield, small (3)	Uniform, slightly curved	Deep purple fingerling, with some bronzing.

TABLE 17: 2022 Tri-State Specialty Potato Variety Trial - Multi-Year Summary *

Cultivar/Breeding line	2020			2021			2022			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	574	190	2.8	580	237	2.7	528	191	2.7	561	206	2.7
A11573-5RYsto	329	207	3.8	511	363	3.4	406	245	3.8	415	272	3.7
A11576-1Ysto				566	409	3.7	395	270	3.5	481	339	3.6
OR11157-1				97	45	1.5	89	60	1.3	93	52	1.4
POR16PG25-2				472	314	2.9	393	312	3.1	432	313	3.0

* Average for all reporting locations in that year

2022 Tri-State Specialty Potato Variety Photos

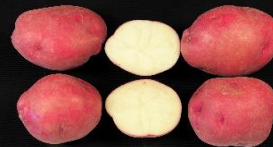
Taken at Parma, Idaho



Chieftain



Modoc



A11582-1R



A11596-6R



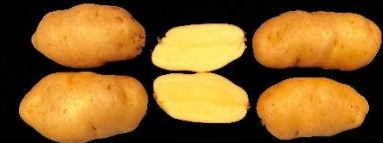
A11-5RYsto



Yukon Gold



A11576-1Ysto



Bintje



A11661-2Y



TXA18020-1DY



Purple Majesty



POR16PG25-2



Austrian Crescent



OR11157-1