

Western Regional

2023



Red/Specialty Trial

2023 Western Regional Red/Specialty Trial

Table of Contents

Table 1	Trial Locations and Cultural Management	Page 1
Table 2	Clone Descriptions	Page 2
Table 3	Percent Stand	Page 3
Table 4	Vine Size and Maturity	Page 4
Table 5	Total Yield	Page 5
Table 6	Yield and Percent <4 oz.	Page 6
Table 7	Yield and Percent 4-6 oz.	Page 7
Table 8	Yield and Percent 6-10 oz.	Page 8
Table 9	Yield and Percent >10 oz.	Page 9
Table 10	Yield and Percent 4-10 oz.	Page 10
Table 11	Yield and Percent Culls	Page 11
Table 12	Specific Gravity	Page 12
Table 13	Average Tuber Size and Tubers Per Plant	Page 13
Table 14	Tuber Uniformity, Fresh Merit Score, Process Merit Score and Process Color	Page 14
Table 15	Tuber Shape and Length Width Ratio	Page 15
Table 16	Skin and Flesh Color	Page 16
Table 17	Eye Depth and External Defects	Page 17
Table 18	Internal Defects	Page 18
Table 19	Disease Evaluations	Page 19
Table 20	Tuber Composition	Page 20
Table 21	Entry Location Comments	Page 21
Table 22	Entry Location Comments Continued	Page 22
Table 23	Entry Summary	Page 23
Table 24	2 Year Summary of Graduating Entries	Page 24
Table 25	2 Year Summary of Notes	Page 25

Table 1. Western Regional Red/Specialty Potato Variety Trial - Locations, Cooperators, and Cultural Information

Locations	Cooperators	Irrigation	Fertilizer N-P-K-S (lb./A)	Vine Kill Method	Planting Date	Vine Kill Date	Harvest Date	Pesticides Applied		
								Herbicides	Insecticides	Fungicides
Tulelake California (TUL)*	R. Wilson D. Culp K. Nicholson	Solid-set sprinkler	120-0-300	Reglone/Rolling	5/19/2023	8/28/2023	9/26/2023	Prowl h20 Outlook Matrix	Admire-Pro (in-furrow) Vydate (Chemigation)	Vellum Prime (in-furrow) Quadris (in furrow) Luna Tranquility (Chemigation) Manzate Max (Chemigation)
San Luis Valley Colorado (SLV)	J. Chitwood-Brown D. Holm C. Gray E. Niebaum	Pivot	180-80-60	Reglone	5/16/2023	9/6/2023	10/3/2023	Metribuzin 75 Tuscany Boundary 6.5 EC Dual II Magnum	Sefina Inscalis Movento HL	Amistar Top Revus Top
Aberdeen Idaho (AB)	R Spear R. Novy, J. Whitworth, C. Lowder	Sprinkler	305-140-130-60	Mechanical	5/4/2023	8/14/2023	8/28/2023	TriCor 4F Matrix Eptam 7-E	Admire Pro	
Othello Washington (OTH)	M. Pavek J. Blauer	Overhead Pivot	250-150-250	Mechanical	4/6/2023	7/21/2023	8/9/2023	PreEmerge: Matrix Prowl H20 Eptam	Admire	Bravo Priaxor Zing Luna Tranquility
Springlake Texas (SPL)	I. Vales J. Koym, D. Scheuring J. Pandey S. Toinga-Villafuerte	Pivot	159-64.5-93	Mechanical	3/24/2023	6/27/2023	7/10/2023	Boundary 6.5 EC Eptam 7E Makaze	Eptam 7E Movento Oberon@4 SC Sivanto 200 SL SPE 120 Velum Prime	Makaze Headline Luna Tranquility Miravis Prime NUCOP ProvysoI™
Dalhart Texas (DAL)	I. Vales J. Koym, D. Scheuring J. Pandey S. Toinga-Villafuerte	Pivot	211-226-263	Reglone	5/11/2023	8/14/2023	9/19/2023	Eptam 7E Gly Star 5 Extra he Matrix SG TriCor 4F Trifluralin Trifluralin 4 EC (Agri Star) Volunteer (42750-72-55467) Reglone	Fulfill Reaper ClearForm Silencer Transform WG	Aframe Endura Fungicide Manzate Max Minuet ProvysoI Revus Top Xyler FC

[Table of Contents](#)

Table 2. Description of Clones - 2022 Western Regional Red/Specialty Trial

Clone/Variety	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Flesh Color	Entered			DISPO
	Female	Male							By	Seed	Year	
Red/White Flesh												
1 Chieftain	LA1354	LA1027-18	Purple	Medium	Medium	Round	Dark Red	White	Check	OR	***	
2 Modoc	ND1196-2R	ND2225-1R	Purple	Medium	Medium	Round	Dark Red	White	Check	OR	***	
3 A08122-9RY	A02267-5PY	COA01406-1R	Dk Red-Purple	Small	Early	Round	Red	Yellow	ID	OR	2	
4 A11582-1R	A05173-2RY	NDA8512C-1R	Dk Red-Purple	Small	Medium	Round	Red	White	ID	ID/OR	1	
Yellow Flesh												
5 Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Yellow	Check	OR	***	
6 A11573-5RYsto	A02267-5PY	NDA050204-1R	Dk Red-Purple	Small	Early-Med	Round	Yellow	Yellow	ID	ID/OR	1	
7 AC10376-2012-1W/Y	Gala	Granola	White	Large	Medium	Oval	White	Yellow	CO	CO	2	
8 AORTX09037-5W/Y	Fasan	Ivory Crisp	White	Medium	Medium	Round	White	Yellow	TX	CO	1	
9 NDTX081451CB-1Y/Y	Dakota Diamond	Gala		Large	Late	Round	White	Yellow	TX	CO	1	
10 POR16PG34-1	POR11PG62-6	Bulk	Pink	Med-Large	Early-Med	Irregular/Oblong	Yellow	Yellow	OR	OR	2	
Purple/Purple Flesh												
11 Purple Majesty	All Blue	ND2008-2	Dark Purple	Medium	Early	Round	Purple	Purple	Check	OR	***	
12 COTX08365f-3P/P	POR01PG16-1	CO00405-1R	Lt Red-purple	Medium	Late	Long	Purple	Purple	TX	CO	1	
13 POR16PG25-2	POR11PG48-1	Bulk 2x2015	White	Med-Large	Early-Med	Irregular/Oblong	Purple	Purple	OR	OR	1	

[Table of Contents](#)

Table 3. Percent Stand

Entry	Clone/Variety	Percent Stand						Mean
		CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL	
Red/White Flesh								
1	Chieftain	80	83	100	84	85	100	88
2	Modoc	91	94	100	89	93	100	94
3	A08122-9RY	95	99	93	89	100	100	96
4	A11582-1R	100	97	99	96	90	75	93
Yellow Flesh								
5	Yukon Gold	88	100	100	91	100	100	96
6	A11573-5RYsto	95	97	95		100	100	98
7	AC10376-2012-1W/Y	100	100	99		100	100	100
8	AORTX09037-5W/Y	93	96	100		96	97	97
9	NDTX081451CB-1Y/	93	100	98		100	100	98
10	POR16PG34-1	98	100	98	85	100	100	97
Purple/Purple Flesh								
11	Purple Majesty	63	77		84	100	100	85
12	COTX08365f-3P/P	100	100	100		100	100	100
13	POR16PG25-2	97	76	100	91	99	83	91
Mean		92	94	98		97	97	95

Table 4. Vine Size and Vine Maturity

Entry Clone/Variety		Vine Size (1-5 large)				Vine Maturity (1-5 late)					
		CO SLV	ID AB	TX SPL	TX DAL	Mean	CO SLV	ID AB	TX SPL	TX DAL	Mean
Red/White Flesh											
1	Chieftain	3.0	1.0	3.6	4.4	3.0	3.0	4.0	3.7	3.5	3.5
2	Modoc	3.0	1.0	3.5	4.2	2.9	2.0	1.0	3.3	3.4	2.4
3	A08122-9RY	3.8	2.0	4.1	4.0	3.5	3.5	2.0	3.1	3.5	3.0
4	A11582-1R	3.0	1.8	3.5	3.6	3.0	3.5	2.3	3.3	3.6	3.2
Yellow Flesh											
5	Yukon Gold	3.0	2.0	3.6	4.3	3.2	1.8	2.0	3.8	3.6	2.8
6	A11573-5RYsto	3.5	1.8	3.7	4.3	3.3	4.0	2.9	2.8	3.9	3.4
7	AC10376-2012-1W/Y	3.3	1.3	3.7	4.1	3.1	3.0	2.4	3.5	3.5	3.1
8	AORTX09037-5W/Y	2.0	1.0	3.3	3.5	2.4	3.0	1.6	3.8	3.4	3.0
9	NDTX081451CB-1Y/	3.8	1.0	3.8	4.5	3.3	3.0	2.3	4.8	5.0	3.8
10	POR16PG34-1	3.5	1.0	3.5	4.1	3.0	2.8	2.0	3.9	3.3	3.0
Purple/Purple Flesh											
11	Purple Majesty	3.0		3.8	4.4	3.7	2.8		3.8	3.5	3.4
12	COTX08365f-3P/P	4.0	2.0	3.5	4.4	3.5	4.0	1.9	4.3	5.0	3.8
13	POR16PG25-2	3.8	2.3	4.0	3.7	3.4	3.3	2.6	3.9	5.0	3.7
Mean		3.3	1.5	3.7	4.1	3.2	3.1	2.2	3.7	3.9	3.2

Table 5. Total Yield

Entry Clone/Variety		Total Yield (cwt/a)						Mean	Rank
		CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL		
Red/White Flesh									
1	Chieftain	501	307	268	786	314	418	432	2
2	Modoc	404	180	302	661	259	467	379	4
3	A08122-9RY	467	418	370	688	317	407	444	1
4	A11582-1R	539	356	395	628	305	245	411	3
Yellow Flesh									
5	Yukon Gold	341	289	220	628	306	387	362	5
6	A11573-5RYsto	601	379	389		307	449	425	3
7	AC10376-2012-1W/Y	622	404	388		386	393	438	2
8	AORTX09037-5W/Y	432	271	286		276	410	335	6
9	NDTX081451CB-1Y/Y	588	420	485		388	637	504	1
10	POR16PG34-1	394	333	339	546	273	326	368	4
Purple/Purple Flesh									
11	Purple Majesty	438	275		721	356	271	412	2
12	COTX08365f-3P/P	510	396	251		247	185	318	3
13	POR16PG25-2	570	358	463	613	308	172	414	1
Mean		493	337	346	659	311	367	403	

Table 6. Yield and Percent < 4 oz

Entry	Clone/Variety	Yield < 4 oz (cwt/a)								Percent < 4 oz							
		CA	CO	ID	WA	TX	TX	Mean	Rank	CA	CO	ID	WA	TX	TX	Mean	Rank
		TUL	SLV	AB	OTH	SPL	DAL			TUL	SLV	AB	OTH	SPL	DAL		
Red/White Flesh																	
1	Chieftain	58	41	42	128	106	132	84	4	12	13	16	16	34	32	20	4
2	Modoc	120	91	184	199	176	164	156	3	30	51	61	30	68	35	46	3
3	A08122-9RY	222	191	335	387	274	301	285	1	48	46	91	56	86	74	67	1
4	A11582-1R	264	168	320	312	250	122	239	2	49	47	81	50	82	50	60	2
Yellow Flesh																	
5	Yukon Gold	52	31	42	75	51	47	50	6	15	11	19	12	17	12	14	6
6	A11573-5RYsto	349	234	230		296	377	297	3	58	62	59		96	84	72	2
7	AC10376-2012-1W/Y	403	218	337		333	273	313	2	65	54	87		86	69	72	1
8	AORTX09037-5W/Y	258	157	146		193	219	195	5	60	58	51		70	53	58	5
9	NDTX081451CB-1Y/1	461	162	401		316	243	317	1	78	39	83		81	38	64	4
10	POR16PG34-1	241	264	294	327	223	196	257	4	61	79	87	60	82	60	71	3
Purple/Purple Flesh																	
11	Purple Majesty	108	143		329	254	195	206	1	39	52		46	71	72	56	1
12	COTX08365f-3P/P	222	0	231		27	1	96	3	56	0	92		11	0	32	3
13	POR16PG25-2	152	112	274	269	171	110	181	2	42	31	59	44	56	64	49	2
Mean		224	139	236	253	205	183	206		47	42	65	39	65	50	52	

Table 7. Yield and Percent 4-6 oz.

Entry	Clone/Variety	Yield 4-6 oz (cwt/a)								Percent 4-6 oz (%)							
		CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL	Mean	Rank	CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL	Mean	Rank
Red/White Flesh																	
1	Chieftain	68	66	58	160	124	138	102	4	14	21	22	20	39	33	25	3
2	Modoc	114	48	98	183	41	158	107	1	28	27	33	28	16	34	27	1
3	A08122-9RY	143	129	26	187	37	102	104	3	31	31	7	27	12	25	22	4
4	A11582-1R	162	112	57	193	47	70	107	2	30	31	15	31	15	28	25	2
Yellow Flesh																	
5	Yukon Gold	56	59	60	79	101	83	73	5	16	20	27	13	33	21	22	3
6	A11573-5RYsto	164	107	104		6	70	90	4	27	28	27		2	16	20	5
7	AC10376-2012-1W/Y	156	125	39		44	91	91	3	25	31	10		11	23	20	4
8	AORTX09037-5W/Y	116	89	93		67	144	102	2	27	33	33		24	35	30	1
9	NDTX081451CB-1Y/1	93	127	67		55	261	121	1	16	30	14		14	41	23	2
10	POR16PG34-1	81	50	25	157	21	95	71	6	21	15	7	29	8	29	18	6
Purple/Purple Flesh																	
11	Purple Majesty	95	79		200	54	71	100	3	22	29		28	15	26	24	3
12	COTX08365f-3P/P	145	373	12		197	155	176	1	28	94	5		80	84	58	1
13	POR16PG25-2	150	118	118	207	85	18	116	2	26	33	25	34	27	10	26	2
Mean		119	114	63		67	112	105		24	33	19	26	23	31	26	

Table 8. Yield and Percent 6-10 oz.

		Yield 6-10 oz (cwt/a)								Percent 6-10 oz (%)							
		CA	CO	ID	WA	TX	TX			CA	CO	ID	WA	TX	TX		
Entry	Clone/Variety	TUL	SLV	AB	OTH	SPL	DAL	Mean	Rank	TUL	SLV	AB	OTH	SPL	DAL	Mean	Rank
Red/White Flesh																	
1	Chieftain	140	92	117	310	71	95	137	1	28	30	44	39	23	23	31	1
2	Modoc	123	34	19	201	7	81	78	2	30	19	6	30	3	17	18	2
3	A08122-9RY	88	79	5	112	4	0	48	4	19	19	1	16	1	0	9	4
4	A11582-1R	83	66	10	122	2	18	50	3	15	19	3	19	1	7	11	3
Yellow Flesh																	
5	Yukon Gold	114	103	85	157	103	117	113	1	33	36	38	25	34	30	33	1
6	A11573-5RYsto	77	38	42		0	0	31	3	13	10	11		0	0	7	4
7	AC10376-2012-1W/Y	52	40	9		1	5	21	5	8	10	2		0	1	4	5
8	AORTX09037-5W/Y	53	20	35		13	26	29	4	12	7	12		5	6	9	3
9	NDTX081451CB-1Y/	31	100	12		10	96	50	2	5	24	3		3	15	10	2
10	POR16PG34-1	45	4	3	55	0	5	19	6	11	1	1	10	0	2	4	6
Purple/Purple Flesh																	
11	Purple Majesty	127	32		139	36	0	67	2	29	12		19	10	0	14	2
12	COTX08365f-3P/P	121	0	3		17	0	28	3	24	0	1		7	0	6	3
13	POR16PG25-2	203	94	63	113	43	11	88	1	36	26	14	18	14	6	19	1
Mean		97	54	34		24	35	58		20	16	11	22	8	8	13	

Table 9. Yield and Percent >10 oz.

Entry Clone/Variety	Yield >10 oz (cwt/a)								Percent >10 oz (%)							
	CA	CO	ID	WA	TX	TX	Mean	Rank	CA	CO	ID	WA	TX	TX	Mean	Rank
	TUL	SLV	AB	OTH	SPL	DAL			TUL	SLV	AB	OTH	SPL	DAL		
Red/White Flesh																
1 Chieftain	217	104	44	188	3	49	101	1	43	34	16	24	1	12	22	1
2 Modoc	35	4	0	78	0	45	27	2	9	2	0	12	0	10	5	2
3 A08122-9RY	0	14	1	2	0	0	3	3	0	3	0	0	0	0	1	3
4 A11582-1R	7	7	0	2	0	0	3	4	1	2	0	0	0	0	1	4
Yellow Flesh																
5 Yukon Gold	111	94	28	318	40	127	120	1	32	33	13	51	13	33	29	1
6 A11573-5RYsto	3	0	8		0	0	2	4	0	0	2		0	0	1	4
7 AC10376-2012-1W/Y	0	3	0		0	0	1	6	0	1	0		0	0	0	6
8 AORTX09037-5W/Y	1	5	1		0	20	6	3	0	2	0		0	5	2	3
9 NDTX081451CB-1Y/Y	0	29	0		0	10	8	2	0	7	0		0	2	2	2
10 POR16PG34-1	0	0	0	7	0	0	1	5	0	0	0	1	0	0	0	5
Purple/Purple Flesh																
11 Purple Majesty	59	15		54	0	0	25	1	13	5		7	0	0	5	1
12 COTX08365f-3P/P	4	0	0		0	0	1	3	1	0	0		0	0	0	3
13 POR16PG25-2	53	34	6	23	0	11	21	2	9	9	1	4	0	7	5	2
Mean	38	24	7		3	20	24	3	8	8	3	12	1	5	6	

Table 10. Yield and Percent 4 -10 oz.

Entry Clone/Variety	Yield 4-10 oz (cwt/a)								Percent 4-10 oz (%)							
	CA	CO	ID	WA	TX	TX	Mean	Rank	CA	CO	ID	WA	TX	TX	Mean	Rank
	TUL	SLV	AB	OTH	SPL	DAL			TUL	SLV	AB	OTH	SPL	DAL		
Red/White Flesh																
1 Chieftain	208	158	175	470	194	233	240	1	42	51	65	60	62	56	56	1
2 Modoc	237	82	117	384	48	239	185	2	59	46	39	58	19	51	45	2
3 A08122-9RY	231	208	31	299	41	102	152	4	50	50	8	43	13	25	32	4
4 A11582-1R	245	178	68	315	49	88	157	3	45	50	17	50	16	36	36	3
Yellow Flesh																
5 Yukon Gold	169	162	144	236	204	200	186	1	50	56	66	38	67	52	55	1
6 A11573-5RYsto	242	145	146		6	70	122	4	40	38	37		2	16	27	4
7 AC10376-2012-1W/Y	208	165	47		45	96	112	5	33	41	12		12	24	25	5
8 AORTX09037-5W/Y	169	109	129		79	170	131	3	39	40	45		29	41	39	2
9 NDTX081451CB-1Y/	124	227	79		65	358	171	2	21	54	16		17	56	33	3
10 POR16PG34-1	126	54	28	212	21	100	90	6	32	16	8	39	8	31	22	6
Purple/Purple Flesh																
11 Purple Majesty	223	111		339	90	71	167	3	51	40		47	25	26	38	3
12 COTX08365f-3P/P	266	373	14		214	155	204	1	52	94	6		87	84	64	1
13 POR16PG25-2	354	212	181	320	128	28	204	2	62	59	39	52	42	17	45	2
Mean	215	168	97		91	147	163		44	49	30	48	31	40	40	

Table 11. Yield and Percent Culls

		Yield Culls (cwt/a)								Percent Culls (%)							
		CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL	Mean	Rank	CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL	Mean	Rank
Red/White Flesh																	
1	Chieftain	18	3	7	48	10	5	15	3	4	1	3	6	3	1	3	3
2	Modoc	12	3	1	50	34	20	20	1	3	2	0	8	13	4	5	1
3	A08122-9RY	13	6	3	18	2	4	8	4	3	1	1	3	1	1	2	4
4	A11582-1R	23	4	7	18	6	35	16	2	4	1	2	3	2	14	4	2
Yellow Flesh																	
5	Yukon Gold	9	2	5	28	10	13	11	3	3	1	2	4	3	3	3	3
6	A11573-5RYsto	8	1	5		6	2	4	5	1	0	1		2	0	1	6
7	AC10376-2012-1W/Y	11	18	3		8	24	13	2	2	4	1		2	6	3	2
8	AORTX09037-5W/Y	4	1	9		3	1	4	6	1	0	3		1	0	1	5
9	NDTX081451CB-1Y/Y	3	3	5		7	26	9	4	1	1	1		2	4	2	4
10	POR16PG34-1	27	16	17	71	29	30	32	1	7	5	5	13	11	9	8	1
Purple/Purple Flesh																	
11	Purple Majesty	48	6		49	12	5	24	1	11	2		7	3	2	5	2
12	COTX08365f-3P/P	18	23	6		6	29	16	2	4	6	3		2	16	6	1
13	POR16PG25-2	12	0	2	3	9	23	8	3	2	0	0	0	3	13	3	3
Mean		16	7	6		11	17	14		3	2	2	5	4	6	4	

Table 12. Specific Gravity

Entry	Clone/Variety	Specific Gravity						Mean	Rank
		CA TUL	CO SLV	ID AB	WA OTH	TX SPL	TX DAL		
Red/White Flesh									
1	Chieftain	1.071	1.072	1.075	1.060	1.062	1.059	1.066	3
2	Modoc	1.068	1.078	1.073	1.057	1.063	1.060	1.067	2
3	A08122-9RY	1.072	1.088	1.074	1.071	1.066	1.065	1.072	1
4	A11582-1R	1.070	1.071	1.064	1.054	1.058	1.055	1.062	4
Yellow Flesh									
5	Yukon Gold	1.076	1.088	1.084	1.073	1.076	1.073	1.078	2
6	A11573-5RYsto	1.084	1.088	1.080		1.067	1.064	1.077	4
7	AC10376-2012-1W/Y	1.072	1.080	1.074		1.064	1.057	1.070	5
8	AORTX09037-5W/Y	1.077	1.078	1.077		1.076	1.080	1.078	3
9	NDTX081451CB-1Y/Y	1.085	1.089	1.080		1.072	1.076	1.080	1
10	POR16PG34-1	1.075	1.077	1.076	1.066	1.060	1.062	1.069	6
Purple/Purple Flesh									
11	Purple Majesty	1.076	1.089		1.068	1.072	1.061	1.073	2
12	COTX08365f-3P/P	1.076	1.076	1.062		1.053	1.055	1.064	3
13	POR16PG25-2	1.080	1.076	1.079	1.068	1.068	1.071	1.074	1
Mean		1.076	1.081	1.075		1.066	1.064	1.072	

Table 13. Average Tuber Size and Tubers Per Plant

Entry	Clone/Variety	Average Tuber Size oz.							Tubers/plant						
		CA	CO	ID	WA	TX	TX	Mean	CA	CO	ID	WA	TX	TX	Mean
		TUL	SLV	AB	OTH	SPL	DAL		TUL	SLV	AB	OTH	SPL	DAL	
Red/White Flesh															
1	Chieftain	6.6	6.1	5.7	5.7	3.8	4.3	5.4	9	7	4	9	8	7	7
2	Modoc	4.3	3.2	3.2	4.4	2.7	3.9	3.6	10	6	8	10	9	8	8
3	A08122-9RY	3.4	3.4	2.3	3.2	2.1	2.6	2.8	14	13	14	14	13	11	13
4	A11582-1R	3.2	3.4	2.6	3.3	2.1	2.7	2.9	15	12	13	12	14	8	12
Yellow Flesh															
5	Yukon Gold	6.2	6.5	5.1	7.1	5.7	6.0	6.1	6	5	4	6	5	4	5
6	A11573-5RYsto	3.0	2.7	3.2		1.7	2.1	2.6	19	15	11		15	14	15
7	AC10376-2012-1W/Y	2.8	3.1	2.5		2.4	2.5	2.6	21	14	13		14	11	14
8	AORTX09037-5W/Y	3.0	3.1	3.5		2.9	3.4	3.2	14	10	7		8	8	9
9	NDTX081451CB-1Y/	2.4	4.1	2.6		2.1	3.9	3.0	24	11	16		15	11	15
10	POR16PG34-1	2.7	2.2	2.5	2.9	1.9	2.8	2.5	14	16	12	12	12	8	12
Purple/Purple Flesh															
11	Purple Majesty	4.9	2.7		3.6	2.5	2.4	3	14	13		13	12	7	12
12	COTX08365f-3P/P	3.7	2.8	2.2		1.8	2.7	2.6	13	15	9		11	5	11
13	POR16PG25-2	4.4	3.8	3.2	3.6	2.8	2.5	3	12	13	12	11	9	6	11
Mean		3.9	3.6	3.2	4.2	2.7	3.2	3	14	11	10	11	11	8	11

[Table of Contents](#)

Table 14. Tuber Uniformity, Fresh Merit Score, Process Merit Score and Process Color

Entry	Clone/Variety	Tuber Uniformity (1-5 excellent)				Fresh Merit Score (1-5 best)						Mean	Rank	
		CA	ID	WA	Mean	CA	CO	ID	WA	TX	TX			
		TUL	AB	OTH		TUL	SLV	AB	OTH	SPL	DAL			
Red/White Flesh														
1	Chieftain	3.0	2.8	3.0	2.9	3.0	2.0	2.3	3.0	4.0	3.9	3.0	4	
2	Modoc	3.5	3.8	3.0	3.4	3.0	3.0	3.5	3.3	3.6	4.1	3.4	2	
3	A08122-9RY	4.0	3.9	3.0	3.6	3.5	2.5	3.1	3.0	4.0	3.6	3.3	3	
4	A11582-1R	2.5	3.6	3.0	3.0	3.0		3.9	3.8	3.7	3.5	3.6	1	
Yellow Flesh														
							3.6							
5	Yukon Gold	2.5	3.0	2.0	2.5	3.0	3.0	2.8	2.0	4.4	4.3	3.2	4	
6	A11573-5RYsto	3.5	3.8			3.5	3.5	3.6		4.6	4.0	3.8	1	
7	AC10376-2012-1W/Y	3.0	3.8			1.0	2.6	3.8		3.9	3.6	3.0	5	
8	AORTX09037-5W/Y	3.5	3.4			3.0	3.5	2.8		3.8	4.2	3.5	3	
9	NDTX081451CB-1Y/	2.5	3.6			3.5	2.0	3.9		4.0	4.7	3.6	2	
10	POR16PG34-1	3.5	3.6	3.3	3.5	3.0		3.0	1.7	3.3	3.6	2.9	6	
Purple/Purple Flesh														
							3.1							
11	Purple Majesty	3.0		2.3	2.6	3.0	3.0		2.0	4.2	3.6	3.2		
12	COTX08365f-3P/P	4.0	3.3			3.0	2.0	3.1		4.3	3.7	3.2		
13	POR16PG25-2	2.5	3.1	3.0	2.9	3.0		2.8	3.0	3.6	3.6	3.2		
Mean		3.2	3.5	2.8	3.1	3.0	2.8	3.2	2.7	4.0	3.9	3.3		

Table 15. Tuber Shape and Length Width Ratio

Entry	Clone/Variety	Tuber Shape							L/W							WT ¹					
		CA	CO	ID	WA	TX	TX		CA	CO	ID	WA	TX	TX		CA	CO	ID	TX	TX	
		TUL	SLV	AB	OTH	SPL	DAL	Mean	TUL	SLV	AB	OTH	SPL	DAL	Mean	TUL	SLV	AB	SPL	DAL	Mean
Red/White Flesh																					
1	Chieftain	3.0	1.0	2.0	1.0	2.5	2.2	2.0	1.14	1.14	1.18	1.22	1.16	1.17	1.17	0.78	1.23	1.29	1.28	1.27	1.17
2	Modoc	3.0	2.0	1.8	2.0	2.0	1.9	2.1	1.13	1.24	1.23	1.30	1.20	1.15	1.21	0.81	1.10	1.17	1.15	1.11	1.07
3	A08122-9RY	1.5	2.0	1.5	1.0	1.0	1.0	1.3	1.01	1.24	1.11	1.28	1.16	1.21	1.17	0.87	1.21	1.14	1.10	1.11	1.08
4	A11582-1R	3.0	2.0	1.9	1.8	2.0	3.0	2.3	1.18	1.32	1.33	1.26	1.32	1.55	1.33	0.82	1.24	1.16	1.12	1.13	1.09
Yellow Flesh																					
5	Yukon Gold	2.5	1.0	1.9	1.0	2.5	2.0	1.8	1.04	1.11	1.12	1.23	1.04	1.08	1.10	0.82	1.20	1.29	1.17	1.24	1.14
6	A11573-5RYsto	2.5	1.0	1.8		1.0	1.0	1.5	0.90	1.09	1.04		1.09	1.09	1.04	0.82	1.16	1.18	1.13	1.12	1.08
7	AC10376-2012-1W/Y	3.0	1.0	1.5		1.8	2.0	1.9	1.13	1.03	1.13		1.18	1.32	1.16	0.85	1.17	1.17	1.16	1.14	1.10
8	AORTX09037-5W/Y	2.0	1.0	1.5		1.2	1.0	1.3	1.06	0.98	1.00		0.99	1.02	1.01	0.86	1.21	1.13	1.17	1.14	1.10
9	NDTX081451CB-1Y/	3.0	1.0	1.6		1.7	3.0	2.1	1.23	1.11	1.16		1.24	1.35	1.22	0.81	1.21	1.21	1.27	1.24	1.15
10	POR16PG34-1	1.5	2.0	1.4	1.0	1.0	1.0	1.3	1.07	1.25	1.11	1.14	1.14	1.23	1.16	0.90	1.09	1.12	1.13	1.06	1.06
Purple/Purple Flesh																					
11	Purple Majesty	4.0	3.0		2.3	2.6	2.0	2.8	1.79	1.57		1.59	1.48	1.38	1.56	0.84	1.10		1.22	1.17	1.08
12	COTX08365f-3P/P	5.0	5.0	5.0		4.1	5.0	4.8	2.55	2.78	3.25		2.24	3.44	2.85	0.98	1.17	1.06	1.11	1.04	1.07
13	POR16PG25-2	2.0	2.0	2.6	2.0	3.3	4.5	2.7	1.29	1.51	1.56	1.61	1.63	2.06	1.61	0.89	1.17	1.10	1.06	1.08	1.06
Mean		2.8	1.8	2.0	1.5	2.1	2.3	2.1	1.3	1.3	1.4	1.3	1.3	1.5	1.4	0.9	1.2		1.2	1.1	1.1

¹Width/thickness ratio or width/depth ratio. This info might be good to tell us how round or flat a potato is looking at it from the end.

Table 16. Skin and Flesh Color

Entry	Clone/Variety	Skin Color (1 - 5 dark)							Flesh Color (1 - 5 dark)					
		CA	CO	ID	WA	TX	TX		CA	CO	ID	TX	TX	
		TUL	SLV	AB	OTH	SPL	DAL	Mean	TUL	SLV	AB	SPL	DAL	Mean
Red/White Flesh														
1	Chieftain	2.0	1.0	2.7	3.0	3.0	2.5	2.4	2.0	1.0	1.0	1.0	1.0	1.2
2	Modoc	4.0	3.0	3.0	4.0	4.4	4.3	3.8	2.0	1.0	1.0	1.1	1.0	1.2
3	A08122-9RY	2.0	1.5	2.5	3.0	3.2	2.4	2.4	3.5	3.0	2.0	2.0	3.0	2.7
4	A11582-1R	4.0	3.0	3.5	4.0	4.2	4.3	3.8	2.0	1.0	2.0	1.2	1.0	1.4
Yellow Flesh														
5	Yukon Gold	1.5	1.0	3.0	3.0	1.0	1.0	1.8	3.5	3.0	3.0	3.0	3.0	3.1
6	A11573-5RYsto	3.0	3.0	3.3		4.5	4.5	3.6	3.0	3.0	3.0	3.0	2.0	2.8
7	AC10376-2012-1W/Y	1.5	1.0	2.8		1.0	2.0	1.7	4.0	4.0	3.0	3.3	3.3	3.5
8	AORTX09037-5W/Y	1.5	1.0	2.3		1.0	1.0	1.4	1.5	2.0	2.0	1.7	1.7	1.8
9	NDTX081451CB-1Y/	1.5	1.0	2.0		1.0	1.0	1.3	3.0	3.0	2.5	2.3	3.0	2.8
10	POR16PG34-1	1.5	1.0	3.0	3.0	1.0	1.6	1.9	3.5	3.0	3.0	3.7	3.3	3.3
Purple/Purple Flesh														
11	Purple Majesty	5.0	5.0		5.0	4.7	4.8	4.9	5.0	4.5		4.5	3.5	4.4
12	COTX08365f-3P/P	5.0	5.0	4.0		4.5	4.8	4.7	4.0	5.0	5.0	3.7	4.0	4.3
13	POR16PG25-2	5.0	5.0	4.8	5.0	4.6	4.8	4.9	5.0	5.0	5.0	4.9	4.5	4.9
Mean		2.9	2.4	3.1	3.8	2.9	3.0	2.9	3.2	3.0	2.7	2.7	2.6	2.9

Table 17. Eye Depth and External Defects

Entry Clone/Variety	Eye Depth							Growth Cracks							Knobs							Shatter Bruise					Scab								
	CA	ID	WA	TX	TX			CA	CO	ID	WA	TX	TX			CA	CO	ID	WA	TX	TX			CO	WA	TX	TX			ID	WA	TX	TX		
	TUL	AB	OTH	SPL	DAL	Mean		TUL ¹	SLV	AB	OTH	SPL	DAI	Mean		TUL ¹	SLV	AB	OTH	SPL	DAI	Mean		SLV	OTH	SPL	DAL	Mean		AB	OTH	SPL	DAI	Mean	
Red/White Flesh																																			
1	Chieftain	3.5	2.2	2.8	3.8	3.8	3.2	1	4.0	5.0	3.8	4.5	4.8	4.4	1	5.0	5.0	5.0	5.0	5.0	5.0	3.9	3.0	5.0	5.0	4.2	3.5	5.0	5.0	5.0	4.6				
2	Modoc	4.0	3.9	4.0	4.5	4.3	4.1	1	5.0	5.0	3.8	3.4	4.5	4.3	1	5.0	5.0	5.0	3.7	5.0	4.7	3.8	3.0	5.0	5.0	4.2	3.9	5.0	5.0	5.0	4.7				
3	A08122-9RY	3.0	3.0	2.3	4.0	3.8	3.2	1	5.0	5.0	5.0	5.0	5.0	5.0	1	5.0	5.0	5.0	4.9	5.0	5.0	4.3	5.0	5.0	5.0	4.8	4.0	5.0	5.0	5.0	4.8				
4	A11582-1R	3.0	3.9	3.3	4.3	3.9	3.7	0	5.0	5.0	4.5	5.0	5.0	4.9	3	4.0	5.0	5.0	4.9	3.3	4.5	3.5	5.0	5.0	5.0	4.6	4.1	5.0	5.0	5.0	4.8				
Yellow Flesh																																			
5	Yukon Gold	3.5	2.9	2.0	4.0	4.0	3.3	0	5.0	4.4	4.3	4.9	5.0	4.7	0	5.0	5.0	5.0	4.8	4.8	4.9	4.8	5.0	5.0	5.0	5.0	3.1	5.0	5.0	5.0	4.5				
6	A11573-5RYsto	3.0	3.1		4.0	3.8	3.5	0	5.0	5.0		5.0	5.0	5.0	0	5.0	5.0		4.9	5.0	5.0	4.4		5.0	5.0	4.8	4.3		5.0	5.0	4.8				
7	AC10376-2012-1W/Y	3.0	3.9		4.0	4.0	3.7	1	4.0	5.0		5.0	5.0	4.8	0	5.0	5.0		4.8	4.1	4.7	4.3		5.0	5.0	4.8	4.5		5.0	4.5	4.7				
8	AORTX09037-5W/Y	3.5	2.8		4.5	4.2	3.7	0	5.0	4.1		5.0	5.0	4.8	1	5.0	5.0		4.9	5.0	5.0	3.1		5.0	5.0	4.4	3.4		5.0	5.0	4.5				
9	NDTX081451CB-1Y/Y	4.0	3.9		4.0	4.5	4.1	0	5.0	5.0		5.0	5.0	5.0	0	5.0	5.0		4.8	4.8	4.9	4.0		5.0	5.0	4.7	4.3		5.0	5.0	4.8				
10	POR16PG34-1	3.0	2.4	3.0	4.0	3.9	3.3	0	4.0	4.0	1.7	5.0	5.0	3.9	3	5.0	5.0	5.0	3.0	4.0	4.4	4.8	5.0	5.0	5.0	5.0	4.8	5.0	5.0	5.0	4.9				
Purple/Purple Flesh																																			
11	Purple Majesty	3.0		4.0	4.0	4.0	3.8	0	5.0		5.0	5.0	5.0	3	5.0		5.0	4.6	5.0	4.9	4.8	5.0	5.0	5.0	5.0		5.0	4.9	5.0	5.0					
12	COTX08365f-3P/P	3.5	3.9		4.5	4.5	4.1	0	5.0	5.0		5.0	5.0	5.0	2	4.0	5.0		4.7	4.9	4.7	5.0		5.0	5.0	5.0	4.4		5.0	5.0	4.8				
13	POR16PG25-2	3.5	3.9	4.0	3.7	4.5	3.9	0	5.0	5.0	5.0	4.8	5.0	5.0	1	5.0	5.0	5.0	4.9	4.9	5.0	3.6	4.0	5.0	5.0	4.4	3.8	5.0	5.0	5.0	4.7				
Mean		3.3	3.3	3.2	4.1	4.1	3.7	0	4.8	4.8		4.8	4.9	4.8	1.1	4.8	5.0		4.6	4.7	4.8	4.2	4.4	5.0	5.0	4.7	4.0	5.0	5.0	5.0	4.7				

¹% of Total

Table 18. Internal Defects

Entry	Clone/Variety	%Hollow Heart						%Internal Brownspot						%Vascular Discoloration						Blackspot Bruise						
		CA	CO	ID	WA	TX	TX	CO	ID	WA	TX	TX	CA	CO	WA	TX	TX	CA	CO ¹	WA ¹	TX	TX				
		TUL	SLV	AB	OTH	SPL	DAL	SLV	AB	OTH	SPL	DAL	TUL	SLV	OTH	SPL	DAL	TUL%	SLV	OTH	SPL%	DAL%				
		Mean				Mean					Mean					Mean %						Mean %				
Red/White Flesh																										
1	Chieftain	0	0	0	0	20	0	3	8	0	0	0	23	6	0	0	0	0	0	0	3.3	4.2	5.0	0	0	1
2	Modoc	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0.0	4.4	5.0	0	0	0
3	A08122-9RY	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	7	0	3	5	0.0	4.6	5.0	0	0	0
4	A11582-1R	0	0	0	0	0	0	0	0	0	0	0	0	0	17	5	3	0	0	5	0.0	4.9	5.0	0	0	0
Yellow Flesh																										
5	Yukon Gold	0	0	0	0	13	0	2	0	0	3	43	7	11	3	0	10	0	0	3	0.0	4.3	5.0	10	0	3
6	A11573-5RYsto	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	3	0	4	0.0	4.6	0	0	0		
7	AC10376-2012-1W/Y	3	0	0	0	0	0	1	10	0	0	0	2	2	13	1	0	0	4	3.3	4.6	0	0	1		
8	AORTX09037-5W/Y	0	0	0	0	10	0	2	13	0	0	0	3	3	3	0	0	13	4	3.3	4.6	0	0	1		
9	NDTX081451CB-1Y/	0	0	0	0	10	0	2	0	0	0	0	0	0	13	0	0	0	3	0.0	4.9	0	0	0		
10	POR16PG34-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	4.9	5.0	0	0	0	
Purple/Purple Flesh																										
11	Purple Majesty	7	1	0	3	0	0	2	0	0	0	0	0	0	3	0	0	0	0	1	0.0	5.0	0	0	0	
12	COTX08365f-3P/P	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	2	0.0	0	0	0	0		
13	POR16PG25-2	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0.0	5.0	0	0	0		
Mean		1	0	0	0	4	1	1	2	0	3	2	2	2	7	0	3	0	1	2	1	5	1	0	1	

¹ 1 to 5=none

Table 19. Disease Evaluations, Metribuzin Reaction

Entry Clone/Variety	Aberdeen			Prosser ⁵			Evaluations made at Aberdeen, Idaho by Jonathan Whitworth						Tulelake	Colorado ¹⁰			
	Vert. Wilt/ Early Dying ¹ Foliar	Early Blight ¹ Foliar	Metribuzin Reaction ²	Corky Ringspot Evaluations		Designation	Vert. Wilt ⁶	AUDPC	Early Blight ⁷	AUDPC	Common Scab ⁸		Soft rot ⁹ Pecto-	Dry rot ⁹ Fusarium	Ealy Blight AUDPC	% PVY Observed	
				Avg % w/int	Avg % DSI					incidence(%)	% serious defects	bacterium	sambucinum				
Red/White Flesh																	
1	Chieftain	4.0	5.0	R	75.8	59.7	S	6.3	443	6.3	300	24	18.1	1.7	3.8	914	31
2	Modoc	1.0	1.0	MR	41.5	29.1	S	9.0	1035	9.0	783.0	8.3	6.4	3.2	2.6	1184	73
3	A08122-9RY	2.5	2.3	R				8.0	616	7.7	340	17.9	16.6	0.8	4.4	1034	0
4	A11582-1R	4	3.0	MS	34.2	22.0	S	5.7	195	5.7	195	15.5	11.9	1.5	4.6	785	0
Yellow Flesh																	
5	Yukon Gold	3.0	2.8	VR	64.9	51.2	S	7.7	618	7.7	402	75.8	17.3	1.9	2.7	1478	0
6	A11573-5RYsto	4	3.1	MR	50.8	43.9	S	6.0	335	5.7	243	38.0	28.9	1.6	4.7	485	0
7	AC10376-2012-1W/Y	3.8	2.8	MR	30.8	16.0	S	6.3	411	6.0	344	7.6	3.1	2.0	3.1	1410	0
8	AORTX09037-5W/Y	1.9	1.5	MS	1.7	0.5	R	9.0	962.5	9.0	713.0	61.0	45.1	2.9	3.4	1045	0
9	NDTX081451CB-1Y/	3.0	2.4	R	55.8	28.5	S	7.7	534	6.7	440	79.4	33.1	1.5	3.8	1128	0
10	POR16PG34-1	2.8	2.0	MR	43.8	32.6	S	8.7	873.3	8.3	417	17.3	9.7	2.0	1.8	1348	0
Purple/Purple Flesh																	
11	Purple Majesty						S	--	--	--	--	--	--	--	--	950	0
12	COTX08365f-3P/P	3.3	2.8	MR	42.5	39.8	MS	7.0	634	5.3	127	27.0	15.0	0.9	4.4	324	4
13	POR16PG25-2	3.5	3.0	R	9.3	7.1		7.3	682	6.7	543	29.0	21.0	2.8	3.5	413	12
Mean		3.1	2.6		41.0	30.0		7.4	612	7.0	404	33	19	1.9	3.6	961	9

¹ number being most severe. For 1 to 5 5=no symptoms; 1=90-100% dead or dying with typical

² Metribuzin reaction measured at Aberdeen, ID. VR=very resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

⁵ Avg % w/int= Visual readings taken for 'internals' - tubers cut lengthwise, quartered and scored (0-8) based on the number of sides of the wedges that were affected
Avg % DSI= Disease Severity Index (DSI) was calculated for each replication by summing the scores (S) of each tuber evaluated (T) and dividing that number by the number of tubers evaluated times the worst possible score (8) and multiplying by 100
 $S/(T*8)*100$

TRV Disease Rating Based on % DSI:

R = Extreme Resistance (0-1%); MR = Moderate Resistance (1.1-5%); MS = Moderately Susceptible (5.1-10%); S = Susceptible (10.1+%)

⁶ Evaluations made at Aberdeen, Idaho by Jonathan Whitworth, Hermiston, Oregon by Sagar Sathuvalli; scale as indicated with highest number being most severe. For 0 to 9: 0=no symptoms; 1= trace; 2=1-5%; 3=5-10%; 4=10-20%; 5=25-40%; 6=40-60%; 7=60-70%; 8=75-90%; 9=90-100% dead or dying with typical disease symptoms.

⁷ Early Blight and Vert. Wilt AUDPC: Area Under the Disease Progress Curve based on foliar readings taken 3 separate days after planting.

⁸ Common Scab serious defects are the number of tubers with a 3 rating (0-5 scale) or higher, divided by the total number of tubers examined.

⁹ For 0 to 5: 0=none, 5=severe as a combination of tuber area and degree impacted by Pectobacterium or Fusarium sambucinum inoculations done at Aberdeen

¹⁰ % visually observed in the field

Table 20. Tuber Composition

Entry	Clone/Variety	Aberdeen						Texas ⁴	
		Solids Oven Dry (%)	Sugars ¹		Protein ² (%DWB)	Vitamin C ³ (mg/100g FWB)	Glycoalkaloids ³ (mg/100g FWB)	µg Trolox equivalents/gfw ⁵	AOA Levels ⁶
			Dextrose (%FWB)	Sucrose (%FWB)					
Red/White Flesh									
1	Chieftain	18.9	0.04	0.31	4.97	30.0	4.5	164.4	M
2	Modoc	18.0	0.06	0.21	5.04	35.7	3.4	153.1	M
3	A08122-9RY	19.2	0.08	0.29	5.44	26.1	3.9	108.6	L
4	A11582-1R	17.1	0.07	0.23	4.88	31.0	2.4	133.9	M
Yellow Flesh									
5	Yukon Gold	20.9	0.08	0.23	5.26	40.4	3.4	95.2	L
6	A11573-5RYsto	19.6	0.07	0.25	5.45	35.8	2.5	141.7	M
7	AC10376-2012-1W/Y	18.7	0.08	0.35	4.26	36.6	2.5	162.0	M
8	AORTX09037-5W/Y	20.0	0.02	0.12	5.98	32.4	2.4	75.5	L
9	NDTX081451CB-1Y/	19.9	0.01	0.20	5.83	38.2	2.7	96.8	L
10	POR16PG34-1	19.1	0.03	0.21	4.65	32.8	3.3	202.0	M
Purple/Purple Flesh									
11	Purple Majesty	-	-	-	-	-	-	349.8	H
12	COTX08365f-3P/P	16.8	0.19	0.34	5.52	30.4	6.6	436.4	VH
13	POR16PG25-2	19.2	0.02	0.27	6.05	33.3	0.3	482.1	VH
Mean		19	0	0	5	34	3	200	

¹ % Fresh Weight Basis (FWB)

¹ % Dry Weight Basis

³ % Fresh Weight Basis (mg/100g FWB)

⁴ The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Levensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methanol were extracted and allowed to react with the stable radical, 2,2-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

⁵ µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation: $y = -282*(x) + 309.72$

⁶ VH=very high (>417), H=high (416-302), M=medium (301-127), L=low (126-67), VL=very low (<66). n=70 including 14 check v:

Entry	Clone/Variety	Tulelake, CA	Center, CO	Aberdeen, ID	Othello, WA
Red/White Flesh					
1	Chieftain		C. Scab	Big, deep eyes (3); flat (2)	Larger red, deep eyes.
2	Modoc		skin texture	Few pear (3); few russeting (2)	Nice oblong red, some pear shapes. Light red, russeting, small, shape a bit irregular.
3	A08122-9RY	Resistant to skinning, above avg russeting	Lt. red skin, C. scab, P. scab, soft rot	Russeting, ats (4); small (3); nice shape (2)	
4	A11582-1R	black dot susceptible, nice color	scurf	ice color/skin with some russeting, few oblong (Deep red, nice skin. A lot of small ones.
Yellow Flesh					
5	Yukon Gold	shows black dot	C. Scab	Bigger, scab (3); deeper eyes, flat (2)	Larger, shape a bit irregular. Russeting.
6	A11573-5RYsto	some skinning, scab smooth skin	deep eyes, P. scab	Nice color, ats (4); bigger, deeper eyes (2)	
7	AC10376-2012-1W/1	external color discoloration, splotchy, halo around lenticil, not suitable for our region		Small (4); round, uniform, ats, lumpy (2)	
8	AORTX09037-5W/Y	hvy russeting, shatters	pear shaped, soft rot*, 1T=v. bad IBS	Deeper eyes (3); squarish (2)	
9	NDTX081451CB-1Y	ruptured lenticils	flat	Uniform, flat, round, small (2)	
10	POR16PG34-1	very susceptible to black dot, irregular eye depth, pigment discoloration around eyes, nice	pointed, C. scab	Uniform size, lumpy (3); patchy skin, small, ats (2)	Cracks, malformed. Discard.
Purple/Purple Flesh					
11	Purple Majesty	check			Irregular shapes, big size range, russeting.
12	COTX08365f-3P/P	black dot, fish netting on skin	scurf, white on vas ring	Silvering, points (4); curves (3); dumbbells	
13	POR16PG25-2	fish netting	dk purple flesh, soft rot, dry rot	Silvering, ats (4); oblong with some round (2)	Oblong purple, typical for a purple, bronzing.

[Table of Contents](#)

Entry	Clone/Variety	Springlake, TX	Dalhart, TX
Red/White Flesh			
1	Chieftain	Nice+, good size and shape, a little flat, feathering, green head, cracks, herbicide damage?, BOT	high yield++, deep eyes, light skin medium size, high tuber number
2	Modoc	Herbicide damage?++, cracks++, knobs, intense red skin, translucent center, deformed	growth cracks+, herbicide damage?+, great size and shape+, excellent color
3	A08122-9RY	Very nice+, uniform size and shape, all smalls, some dry attached stolons, green head, bright red skin, no feathering,	very high tuber number++, high yield++, deep eyes++, huge
4	A11582-1R	Bright and intense skin color+, feathering, green head, high tuber number,	skin
Yellow Flesh			
5	Yukon Gold	Very large tubers++, nice, gemmation, green head, translucent center	large+, nice+, shiny skin, parent, several very deformed tubers
6	A11573-5RYsto	Very nice, large tuber number++, uniform size and shape, intense red skin color+, gemmations, green heads, uniform size and shape, all smalls, very round, some rotten	high tuber number++, all smalls, intense red skin, yellow flesh, round, deep eyes+, good skin color, parent+, shiny skin, good skin color
7	AC10376-2012-1W/Y	Small, attached dry stolons, some skin netting, green heads, high tuber number, uniform size and shape	intense yellow flesh, high tuber number++, many with gemmations+, knobs+, oval, linked tubers
8	AORTX09037-5W/Y	Some knobs, creamy color flesh, gemmations, Very nice+, very round tubers, high tuber number+, translucent center,	high tuber number+, very round, advance, scab
9	NDTX081451CB-1Y/	2 gemmations, 2 green heads, Very high tuber number, nice skin+, no feathering+, round to oval, 7 green heads, high tuber number, 7 green heads	BOT, impressive high yield+, oblong medium yellow
10	POR16PG34-1	All smalls, KNOBS++, gemmations+, bowling pins, translucent center	small, round, yellow skin+, yellow flesh, nice skin, shiny, knobs/gemmations
Purple/Purple Flesh			
11	Purple Majesty	Very nice+, 20% concentration of pigment+, High tuber number+, nice, good size	netted skin+, silver scurf, high yield, dislike skin
12	COTX08365f-3P/P	Long, not fingerling, intense purple flesh, marbled, concentrated pigment+, Very nice	long fingerlings, high percent of soft rot end++
13	POR16PG25-2	Very dark skin, non-uniform shape (round, oval, oblong), 20% concentrated pigment, Large, deep eyes+, bluish skin, very intense purple flesh++, Unique type, uniform purple flesh	long but not fingerling, intense flesh color, very dark skin, bluish skin, soft stolon ends+, nice skin

[Table of Contents](#)

Table 23. Summary Means

Entry	Clone/Variety	Year	Yield Summary ¹							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit ²
Red/White Flesh												
1	Chieftain	***	84	102	137	240	101	15	432	5.4	1.066	3.0
2	Modoc	***	156	107	78	185	27	20	379	4	1.067	3.4
3	A08122-9RY	2	285	104	48	152	3	8	444	2.8	1.072	3.3
4	A11582-1R	1	239	107	50	157	3	16	411	3	1.062	3.6
Yellow Flesh												
5	Yukon Gold	***	50	73	113	186	120	11	362	6	1.078	3.2
6	A11573-5RYsto	1	297	90	31	122	2	4	425	2.6	1.077	3.8
7	AC10376-2012-1W/Y	2	313	91	21	112	1	13	438	3	1.070	3.0
8	AORTX09037-5W/Y	1	195	102	29	131	6	4	335	3.2	1.078	3.5
9	NDTX081451CB-1Y/Y	1	317	121	50	171	8	9	504	3	1.080	3.6
10	POR16PG34-1	2	257	71	19	90	1	32	368	2.5	1.069	2.9
Purple/Purple Flesh												
11	Purple Majesty	***	206	100	67	167	25	24	412	3.2	1.073	3.2
12	COTX08365f-3P/P	1	96	176	28	204	1	16	318	3	1.064	3.2
13	POR16PG25-2	1	181	116	88	204	21	8	414	3.4	1.074	3.2
Mean			206	105	58	163	24	14	403	3.4	1.072	3.3

^{1/}Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

^{2/} Scale = 1-5 best

Table 24. 2 Year Summary Means

Entry	Clone/Variety	Year	Yield Summary ¹							Quality		
			<4 oz.	4-6 oz.	6-10 oz.	4-10 oz.	>10 oz.	Culls	Total	Tuber Size oz./tuber	Spec. grav.	Fresh Merit ²
Red/White Flesh												
1	Chieftain	***	94	99	111	219	93	17	419	4.8	1.067	3.2
2	Modoc	***	152	96	62	165	21	16	350	3.4	1.066	3.5
3	A08122-9RY	2	252	70	28	114	5	9	379	2.5	1.066	3.6
Yellow Flesh												
5	Yukon Gold	***	58	70	97	170	89	13	329	5.5	1.076	3.2
7	AC10376-2012-1W/Y	2	277	81	22	117	3	12	410	2.6	1.069	3.2
10	POR16PG34-1	2	218	46	12	73	1	19	305	2.2	1.069	3.1
Mean			175	77	55	143	35	15	365	3.5	1.069	3.3

¹/Mean weight fractions do not equal total average because some locations do not take measurements for all criteria.

²/ Scale = 1-5 best

Entry	Clone/Variety	Strengths	Weakness
Red/White Flesh			
1	Chieftain	high yield	deep eyes
2	Modoc	excellent color	some growth cracks
3	A08122-9RY	resistant to skinning, nice color, small profile, high tuber number, nice flesh	deep eyes, rough skin
Yellow Flesh			
5	Yukon Gold	smooth skin, nice size and shape	deep eyes, rough shape, red splotches under skin
7	AC10376-2012-1W/Y	high tuber number, shiny skin	rough shape
10	POR16PG34-1	uniform size, high yield	

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