

2019 Western Regional



Red/Specialty Trial

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

Locations	Cooperators	Trial	Irrigation	Fertilizer	Vine Kill	Planting	Vine Kill	Harvest	Pesticides Applied		
				N-P-K-S (lb./A)	Method	Date	Date	Date	Herbicides	Insecticides	Fungicides
Ontario Oregon (ON)	C. Shock E. Feibert		Sprinkler, solid set	100 N, 25 Mg preplant 133 N, 54 K, 6 Mg, 05 Mn sprinkler applied	Mechanical	4/17/2019	9/16/2019	9/30/2019	Dual Magnum Prowl H2O Eptam, rimsulfuro	Imidacloprid preplant AgriMek Beleaf	Manzate Pro Stik
Tulelake California (TUL)*	R. Wilson D. Culp K. Nicholson	Late	Sprinkler	210-0-150	Reglone / Rol	5/17/2019	9/10/2019	10/1/2019	Prowl H2O Eptam 7E Matrix SG	Admire Pro	Quadris
San Luis Valley Colorado (SLV)	D. Holm C. Gray K. Gaudreau	Pivot		118-62-120-85	Reglone	5/15/2019	9/3/2019	9/26/2019	Tuscany Prowl H2O Dual Magnum	Platinum 75SG Movento HL Pure Spray Green	ChampION++ Quadris Top Luna Tranquility Agri Tin
Aberdeen Idaho (AB)	J. Stark, R. Novy, J. Whitworth, C. Lowder	Early	Sprinkler	230-100-0-5Zn-5Mn	Mechanical	5/2/2019	8/16/2019	9/4/2019	TriCor 4F Matrix Eptam	Admire Pro	
Springlake Texas (SPL)	I. Vales J. C. Miller Jr., J. Koym, D. Scheuring	Early	Pivot	72-33-42.5	Mechanical	3/21/2019	6/28/2019	7/10/2019	Bronc Triple, Dual Magnum Matrix, Makaze Eptaam 7E	Movento Minecto Pro Sivanto Wrangler	Scala Luna Tranquility NUCOP Miravis Prime Headline
Dalhart Texas (DAL)	I. Vales J. C. Miller Jr., J. Koym, D. Scheuring	Early	Pivot	119-122-258	Reglone	5/13/2019	8/29/2019	9/16/2019	Matrix SG Herbicide Tricor 4F, Reglone	Cruiser Maxx Vibrance Movento, Fulfill, Beleaf 50 SC Sivanto™ prime, Transform W Reaper ClearForm	Luna Tranquility Penncozeb 75DF Echo Zn, Revus Top, Scala SC

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Table 2. Description of Clones - 2019 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	La 1354	Ia 1027-18	Lavender	Med-Large	Medium	Oblong	Lt. Red	White	Check	OR	***	CHECK
2 Red LaSoda	Triumph	Katahdin	Red-purple	Medium	Medium	Oval	Lt. Red	White	Check	OR	***	CHECK
3 A08112-7R	A99331-2RY	COA01406-1R	Dk Red-Purple	Medium	Med-early	Round	Red	White	ID	ID	1	
Red-Purple/Yellow Flesh												
4 ATTX05175s-1R/Y	A99331-2RY □	COA99261-1RY	Purple	Large	Late	Round	Red	Yellow	TX	CO	2	
5 ATX06264s-4R/Y	A99331-2RY	Durango Red	Purple	Medium	Late	Round	Red	Yellow	TX	CO	1	
6 COTX04193s-2R/Y	ATC98515-1R/Y	ND3574-5R	Purple	Medium	Early	Round	Red	Yellow	TX	CO	2	
Yellow Flesh												
7 Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Yellow	Check	OR	***	CHECK
8 CO09128-5W/Y	A00293-2Y	CO03060-2W/Y	White	Medium	Early	Round	White	Yellow	CO	CO	2	
9 CO09218-4W/Y	ATC00293 -1W/Y	CO00412-5W/Y	White	Large	Late	Oval	White	Yellow	CO	CO	2	
10 CO10064-1W/Y	CO00412-5W/Y	CO04099-4W/Y	Purple	Large	Medium	Round	White	Yellow	CO	CO	1	
11 CO10097-2W/Y	CO04067-10W/Y	CO00412-5W/Y	White	Medium	Medium	Round	White	Yellow	CO	CO	1	
12 CO10098-5W/Y	CO04099-3W/Y	CO04099-4W/Y	Red-purple	Medium	Medium	Round	White	Yellow	CO	CO	1	
13 POR14PG22-3						Round	White			OR	1	

Table 3. Percent Stand

Entry	Clone/Variety	Percent Stand					Mean
		CA TUL	CO SLV	ID AB	TX SPL	TX DAL	
Red/White Flesh							
1	Chieftain	90	100	86	98	97	94
2	Red LaSoda	97	100	89	97	100	97
3	A08112-7R	96	100	83	100	98	95
Red-Purple/Yellow Flesh							
4	ATX05175s-1R/Y	99	98	84	93	98	94
5	ATX06264s-4R/Y	96	92	87	68	100	89
6	COTX04193s-2R/Y	91	95	85	61	98	86
Yellow Flesh							
7	Yukon Gold	91	96	83	80	89	88
8	CO09128-5W/Y	97	98	90	100	100	97
9	CO09218-4W/Y	61	81	77	37	25	56
10	CO10064-1W/Y	88	99	86	98	100	94
11	CO10097-2W/Y	93	98	90	91	96	94
12	CO10098-5W/Y	75	96	74	54	60	72
13	POR14PG22-3	98		90	100	100	97
Mean		90	96	85	83	89	89

Table 4. Vine Size and Vine Maturity

Entry Clone/Variety	Vine Size (1-5 large)					Vine Maturity (1-5 late)				
	CO	ID	TX	TX		CO	ID	TX	TX	
	SLV	AB	SPL	DAL	Mean	SLV	AB	SPL	DAL	Mean
Red/White Flesh										
1 Chieftain	3.5	1.8	3.5	3.9	3.2	3.0	3.8	3.2	3.6	3.4
2 Red LaSoda	3.0	2.8	3.7	4.0	3.4	3.0	4.3	4.4	5.0	4.2
3 A08112-7R	4.0	2.0	3.7	3.9	3.4	3.0	3.8	4.9	5.0	4.2
Red-Purple/Yellow Flesh										
4 ATTX05175s-1R/Y	3.8	1.8	3.7	4.0	3.3	3.3	3.8	4.9	5.0	4.2
5 ATX06264s-4R/Y	3.3	1.8	3.2	3.9	3.0	3.0	3.5	5.0	4.2	3.9
6 COTX04193s-2R/Y	2.5	1.5	3.0	3.8	2.7	1.5	2.9	3.8	3.1	2.8
Yellow Flesh										
7 Yukon Gold	2.8	2.0	3.3	3.6	2.9	2.5	3.4	3.6	3.7	3.3
8 CO09128-5W/Y	2.3	1.0	2.9	3.9	2.5	2.0	3.4	4.3	4.6	3.6
9 CO09218-4W/Y	3.0	2.5	2.0	1.0	2.1	4.5	4.4	4.8	5.0	4.7
10 CO10064-1W/Y	4.0	2.5	3.3	3.7	3.4	3.8	4.3	4.7	4.6	4.3
11 CO10097-2W/Y	3.3	2.0	3.2	3.9	3.1	3.0	3.8	4.5	4.7	4.0
12 CO10098-5W/Y	3.5	1.8	2.6	3.2	2.8	3.0	3.6	5.0	5.0	4.2
13 POR14PG22-3		2.0	3.8	3.7	3.2		4.3	4.8	4.9	4.6
Mean	3	2	3	4	3	3	4	4	4	4

Table 5. Total Yield

Entry Clone/Variety	Total Yield (cwt/a)						Mean	Rank
	OR ON	CA TUL	CO SLV	ID AB	TX SPL	TX DAL		
Red/White Flesh								
1 Chieftain	825	618	385	369	133	619	491	2
2 Red LaSoda	1099	626	297	386	155	604	528	1
3 A08112-7R	590	438	364	256	166	382	366	3
Red-Purple/Yellow Flesh								
4 ATTX05175s-1R/Y	846	489	340	275	132	338	403	2
5 ATX06264s-4R/Y	852	507	322	285	127	400	416	1
6 COTX04193s-2R/Y	769	435	256	237	52	429	363	3
Yellow Flesh								
7 Yukon Gold	587	441	226	240	90	489	346	3
8 CO09128-5W/Y	405	384	235	201	62	338	271	5
9 CO09218-4W/Y	225	289	214	199	29	90	174	7
10 CO10064-1W/Y	616	431	328	231	110	277	332	4
11 CO10097-2W/Y	596	431	278	302	63	499	361	2
12 CO10098-5W/Y	523	314	219	204	59	233	259	6
13 POR14PG22-3	1029	560		253	116	195	431	1
Mean	689	459	289	265	99	376	365	

Table 6. Yield and Percent < 4 oz

Entry	Clone/Variety	Yield < 4 oz (cwt/a)								Percent < 4 oz							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV ¹	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftain	95	102	61	43	71	302	112	2	12	17	16	12	54	49	26	2
2	Red LaSoda	78	49	52	22	54	206	77	3	7	8	17	6	35	34	18	3
3	A08112-7R	385	232	250	225	152	334	263	1	65	53	69	88	91	88	76	1
Red-Purple/Yellow Flesh																	
4	ATX05175s-1R/Y	609	299	278	215	127	282	301	1	72	61	82	78	96	83	79	1
5	ATX06264s-4R/Y	294	192	132	120	96	332	194	3	35	38	41	42	76	83	52	3
6	COTX04193s-2R/Y	359	227	109	150	43	303	199	2	47	52	42	63	83	71	60	2
Yellow Flesh																	
7	Yukon Gold	104	53	48	39	45	162	75	7	18	12	21	16	50	33	25	7
8	CO09128-5W/Y	562	314	220	178	61	297	272	2	139	82	94	88	99	88	98	1
9	CO09218-4W/Y	103	91	123	167	22	56	94	6	46	31	58	84	77	62	60	6
10	CO10064-1W/Y	364	130	129	189	99	244	193	4	59	30	39	82	90	88	65	4
11	CO10097-2W/Y	339	140	122	189	60	370	203	3	57	32	44	63	96	74	61	5
12	CO10098-5W/Y	364	140	184	155	46	104	165	5	70	44	84	76	78	45	66	3
13	POR14PG22-3	661	405		175	100	175	303	1	64	72		69	86	90	76	2
Mean		332	183	142	144	75	244	189		53	41	51	59	78	68	59	

¹ 4-6 inch for fingerling

Table 7. Yield and Percent 4-6 oz.

Entry	Clone/Variety	Yield 4-6 oz (cwt/a)							Percent 4-6 oz (%)						
		OR ON	CA TUL	ID AB	TX SPL	TX DAL	Mean	Rank	OR ON	CA TUL	ID AB	TX SPL	TX DAL	Mean	Rank
Red/White Flesh															
1	Chieftain	135	132	76	44	166	111	1	16	21	21	33	27	24	1
2	Red LaSoda	95	56	24	46	147	74	2	9	9	6	30	24	16	2
3	A08112-7R	110	115	28	6	28	58	3	19	26	11	4	7	13	3
Red-Purple/Yellow Flesh															
4	ATTX05175s-1R/Y	162	121	50	3	30	73	3	19	25	18	2	9	15	3
5	ATX06264s-4R/Y	231	134	101	18	38	104	1	27	26	35	14	9	23	2
6	COTX04193s-2R/Y	201	133	63	7	86	98	2	26	31	27	13	20	23	1
Yellow Flesh															
7	Yukon Gold	91	69	50	31	139	76	3	16	16	21	35	28	23	1
8	CO09128-5W/Y	6	56	15	0	41	24	7	1	15	7	0	12	7	7
9	CO09218-4W/Y	66	74	27	0	3	34	6	29	26	13	0	3	14	4
10	CO10064-1W/Y	137	120	37	4	8	61	4	22	28	16	3	3	14	3
11	CO10097-2W/Y	136	132	82	2	91	89	1	23	31	27	4	18	21	2
12	CO10098-5W/Y	90	85	36	0	7	43	5	17	27	18	0	3	13	6
13	POR14PG22-3	210	110	50	3	9	76	2	20	20	20	2	5	13	5
Mean		129	103	49	13	61	71		19	23	18	11	13	17	

Table 8. Yield and Percent 6-10 oz.

Entry	Clone/Variety	Yield 6-10 oz (cwt/a)							Percent 6-10 oz (%)						
		OR	CA	ID	TX	TX	Mean	Rank	OR	CA	ID	TX	TX	Mean	Rank
		ON	TUL	AB	SPL	DAL			ON	TUL	AB	SPL	DAL		
Red/White Flesh															
1	Chieftain	288	261	162	16	101	165	1	35	42	44	12	16	30	1
2	Red LaSoda	345	163	111	44	106	154	2	31	26	29	29	18	26	2
3	A08112-7R	121	68	2	0	3	39	3	21	16	1	0	1	8	3
Red-Purple/Yellow Flesh															
4	ATTX05175s-1R/Y	128	47	7	0	0	36	3	15	10	3	0	0	5	3
5	ATX06264s-4R/Y	259	131	59	3	8	92	1	30	26	21	2	2	16	1
6	COTX04193s-2R/Y	191	62	20	0	26	60	2	25	14	9	0	6	11	2
Yellow Flesh															
7	Yukon Gold	199	145	104	8	135	118	1	34	33	43	9	28	29	1
8	CO09128-5W/Y	1	11	5	0	0	3	7	0	3	3	0	0	1	7
9	CO09218-4W/Y	56	84	4	0	0	29	5	25	29	2	0	0	11	3
10	CO10064-1W/Y	128	124	4	0	0	51	3	21	29	2	0	0	10	4
11	CO10097-2W/Y	128	136	28	0	38	66	2	22	31	9	0	8	14	2
12	CO10098-5W/Y	62	65	7	0	0	27	6	12	21	4	0	0	7	5
13	POR14PG22-3	189	36	19	0	2	49	4	18	6	7	0	1	7	6
Mean		161	102	41	5	32	68		22	22	13	4	6	14	

Table 9. Yield and Percent >10 oz.

Entry	Clone/Variety	Yield >10 oz (cwt/a)								Percent >10 oz (%)							
		OR	CA	CO	ID	TX	TX			OR	CA	CO	ID	TX	TX		
		ON	TUL	SLV ¹	AB	SPL	DAL	Mean	Rank	ON	TUL	SLV	AB	SPL	DAL	Mean	Rank
Red/White Flesh																	
1	Chieftain	300	110	51	84	0	17	94	2	36	18	13	23	0	3	16	2
2	Red LaSoda	584	251	46	191	9	45	188	1	53	40	16	49	6	7	29	1
3	A08112-7R	7	7	0	0	0	0	2	3	1	2	0	0	0	0	0	3
Red-Purple/Yellow Flesh																	
4	ATTX05175s-1R/Y	9	3	0	0	0	0	2	3	1	1	0	0	0	0	0	3
5	ATX06264s-4R/Y	74	33	9	1	0	0	20	1	9	7	3	0	0	0	3	1
6	COTX04193s-2R/Y	26	4	1	1	0	0	5	2	3	1	0	1	0	0	1	2
Yellow Flesh																	
7	Yukon Gold	197	152	28	43	5	30	76	1	34	34	12	18	5	6	18	1
8	CO09128-5W/Y	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
9	CO09218-4W/Y	5	23	13	0	0	0	7	3	2	8	6	0	0	0	3	2
10	CO10064-1W/Y	8	32	10	0	0	0	8	2	1	7	3	0	0	0	2	3
11	CO10097-2W/Y	11	18	5	1	0	0	6	4	2	4	2	0	0	0	1	4
12	CO10098-5W/Y	13	4	0	0	0	0	3	6	3	1	0	0	0	0	1	6
13	POR14PG22-3	19	3		5	0	0	5	5	2	0		2	0	0	1	5
Mean		96	49	14	25	1	7	32		11	9	5	7	1	1	6	

¹> 6 inch for fingerling

Table 10. Yield and Percent 4 -10 oz.

Entry	Clone/Variety	Yield 4-10 oz (cwt/a)								Percent 4-10 oz (%)							
		OR	CA	CO	ID	TX	TX	Mean	Rank	OR	CA	CO	ID	TX	TX	Mean	Rank
		ON	TUL	SLV	AB	SPL	DAL			ON	TUL	SLV	AB	SPL	DAL		
Red/White Flesh																	
1	Chieftain	424	392	270	238	30	267	270	1	51	64	70	65	22	43	53	1
2	Red LaSoda	441	220	196	135	90	253	222	2	40	35	66	35	58	42	46	2
3	A08112-7R	231	184	114	31	6	31	99	3	39	42	31	12	4	8	23	3
Red-Purple/Yellow Flesh																	
4	ATTX05175s-1R/Y	290	168	62	57	3	30	102	3	34	34	18	21	2	9	20	3
5	ATX06264s-4R/Y	489	265	180	161	10	46	192	1	57	52	56	56	8	11	40	1
6	COTX04193s-2R/Y	393	195	146	83	7	113	156	2	51	45	57	35	13	26	38	2
Yellow Flesh																	
7	Yukon Gold	290	214	141	153	40	274	185	1	49	48	62	64	44	56	54	1
8	CO09128-5W/Y	7	67	14	20	0	41	25	7	2	17	6	10	0	12	8	7
9	CO09218-4W/Y	122	158	76	31	0	3	65	5	54	55	36	16	0	3	27	4
10	CO10064-1W/Y	265	243	186	41	4	8	124	4	43	56	57	18	3	3	30	3
11	CO10097-2W/Y	265	267	151	110	2	129	154	2	44	62	54	36	4	26	38	2
12	CO10098-5W/Y	152	149	34	43	0	7	64	6	29	48	16	21	0	3	19	6
13	POR14PG22-3	399	146		69	3	11	126	3	39	26		27	2	6	20	5
Mean		290	205	131	90	15	93	137		41	45	44	32	12	19	32	

¹ 4-6 inch for fingerling

Table 11. Yield and Percent Culls

Entry	Clone/Variety	Yield Culls (cwt/a)								Percent Culls (%)							
		OR ¹	CA	CO	ID	TX	TX			OR	CA	CO	ID	TX	TX		
		ON	TUL	SLV	AB	SPL	DAL	Mean	Rank	ON	TUL	SLV	AB	SPL	DAL	Mean	Rank
Red/White Flesh																	
1	Chieftain	12	13	2	3	2	33	11	2	1	2	0	1	2	5	2	3
2	Red LaSoda	6	107	3	39	2	100	43	1	1	17	1	10	1	17	8	1
3	A08112-7R	1	15	0	0	9	16	7	3	0	3	0	0	5	4	2	2
Red-Purple/Yellow Flesh																	
4	ATTX05175s-1R/Y	5	19	1	3	2	27	9	2	1	4	0	1	2	8	3	2
5	ATX06264s-4R/Y	14	16	1	4	10	22	11	1	2	3	0	1	8	6	3	1
6	COTX04193s-2R/Y	15	7	0	2	2	13	7	3	2	2	0	1	4	3	2	3
Yellow Flesh																	
7	Yukon Gold	4	23	10	5	0	23	11	2	1	5	4	2	0	5	3	5
8	CO09128-5W/Y	0	3	0	3	1	0	1	7	0	1	0	2	1	0	1	6
9	CO09218-4W/Y	4	17	2	1	7	31	10	5	2	6	1	0	23	34	11	2
10	CO10064-1W/Y	3	26	3	1	7	25	11	3	0	6	1	1	6	9	4	4
11	CO10097-2W/Y	6	6	0	1	0	0	2	6	1	1	0	0	0	0	0	7
12	CO10098-5W/Y	31	21	1	6	13	122	32	1	6	7	0	3	22	52	15	1
13	POR14PG22-3	18	6		4	14	9	10	4	2	1		2	12	5	4	3
Mean		9	22	2	6	5	32	13		1	5	1	2	7	11	4	

¹sprouted tubers were graded as culls

Table 12. Specific Gravity

Entry	Clone/Variety	Specific Gravity							Mean	Rank
		OR ON	CA TUL	CO SLV	ID AB	TX SPL	TX DAL			
Red/White Flesh										
1	Chieftain	1.072	1.081	1.078	1.073	1.064	1.060	1.071	2	
2	Red LaSoda	1.071	1.087	1.080	1.069	1.058	1.055	1.070	3	
3	A08112-7R	1.077	1.091	1.088	1.080	1.058	1.063	1.076	1	
Red-Purple/Yellow Flesh										
4	ATTX05175s-1R/Y	1.081	1.093	1.088	1.084	1.064	1.066	1.079	1	
5	ATX06264s-4R/Y	1.080	1.084	1.080	1.070	1.059	1.056	1.071	2	
6	COTX04193s-2R/Y	1.072	1.076	1.068	1.074	1.060	1.057	1.068	3	
Yellow Flesh										
7	Yukon Gold	1.080	1.087	1.089	1.087	1.074	1.066	1.080	3	
8	CO09128-5W/Y	1.081	1.085	1.083	1.085	1.068	1.068	1.078	4	
9	CO09218-4W/Y	1.063	1.067	1.070	1.060	1.044	1.051	1.059	7	
10	CO10064-1W/Y	1.104	1.099	1.095	1.085	1.079	1.077	1.090	2	
11	CO10097-2W/Y	1.073	1.085	1.081	1.076	1.061	1.064	1.073	5	
12	CO10098-5W/Y	1.102	1.106	1.105	1.098	1.080	1.082	1.095	1	
13	POR14PG22-3	1.078	1.089		1.069	1.064	1.065	1.073	6	
Mean		1.080	1.087	1.084	1.078	1.064	1.064	1.076		

Table 13. Average Tuber Size and Tubers Per Plant

Entry	Clone/Variety	Tuber size (oz)					Tubers/plant					
		CA	ID	TX	TX		OR	CA	ID	TX	TX	
		TUL	AB	SPL	DAL	Mean	ON	TUL	AB	SPL	DAL	Mean
Red/White Flesh												
1	Chieftain	5.6	6.0	2.9	5.4	5.0	11	11	6	4	12	9
2	Red LaSoda	7.9	8.6	3.9	4.6	6.2	12	8	4	4	10	8
3	A08112-7R	3.1	2.2	1.3	1.7	2.1	17	14	12	11	16	14
Red-Purple/Yellow Flesh												
4	ATTX05175s-1R/Y	2.7	2.4	1.2	1.7	2.0	27	17	12	11	15	16
5	ATX06264s-4R/Y	3.6	3.4	1.7	1.9	2.7	17	13	8	13	16	13
6	COTX04193s-2R/Y	3.2	2.8	1.6	2.6	2.6	19	14	8	5	12	12
Yellow Flesh												
7	Yukon Gold	6.4	5.6	3.1	4.3	4.8	8	7	5	3	9	6
8	CO09128-5W/Y	2.2	2.0	1.0	1.7	1.7	23	16	10	5	14	14
9	CO09218-4W/Y	4.0	2.4	0.9	1.0	2.1	6	11	9	8	25	12
10	CO10064-1W/Y	4.1	2.3	3.2	1.4	2.7	17	11	10	5	14	11
11	CO10097-2W/Y	4.2	3.1	1.3	2.3	2.7	16	10	9	4	16	11
12	CO10098-5W/Y	3.4	2.4	1.3	2.0	2.3	16	12	10	7	15	12
13	POR14PG22-3	2.4	2.6	1.0	1.0	1.8	30	22	9	9	14	17
Mean		4.1	3.5	1.9	2.4	3.0	17	13	9	7	14	12

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)							Process Merit	Process CO/SLV	
		OR	CA	ID	Mean	CA	CO	ID	TX	TX	Mean	Rank	score (1-5 best)	fry color (4=darkest)	
		ON	TUL	AB		TUL	SLV	AB	SPL	DAL			CO/ SLV	Harvest	45°F
Red/White Flesh															
1	Chieftain	5.0	3.5	3.5	4	3.5	4.0	3.1	3.9	4.3	3.8	1	3.0	1.0	2.0
2	Red LaSoda	5.0	3.0	1.9	3	2.6	1.0	1.8	3.8	3.7	2.6	3	1.0	2.0	3.0
3	A08112-7R	4.0	3.4	4.3	4	3.6	1.0	4.3	4.0	4.1	3.4	2	5.0	2.0	3.0
Red-Purple/Yellow Flesh															
4	ATTX05175s-1R/Y	5.0	3.4	4.0	4	3.6	5.0	3.6	4.1	3.8	4.0	1	5.0	1.0	2.0
5	ATX06264s-4R/Y	5.0	3.4	3.5	4	3.1	1.0	3.4	3.6	3.8	3.0	3	4.0	3.0	3.0
6	COTX04193s-2R/Y	5.0	3.5	4.0	4	3.6	2.0	4.0	3.4	4.1	3.4	2	2.0	2.0	2.0
Yellow Flesh															
7	Yukon Gold	5.0	3.5	3.4	4	3.4	2.0	3.1	3.7	4.3	3.3	4	1.0	1.0	2.0
8	CO09128-5W/Y	5.0	3.8	3.9	4	3.6	4.0	3.6	3.5	3.7	3.7	3	3.0	1.0	1.0
9	CO09218-4W/Y	5.0	3.6	4.1	4	3.1	1.0	4.1	2.7	1.9	2.6	7	2.0	2.0	3.0
10	CO10064-1W/Y	5.0	3.8	3.8	4	3.4	5.0	3.5	3.4	3.5	3.8	2	5.0	0.0	1.0
11	CO10097-2W/Y	5.0	4.0	4.1	4	2.9	5.0	4.4	3.3	3.6	3.8	1	4.0	2.0	1.0
12	CO10098-5W/Y	5.0	3.3	3.8	4	2.4	4.0	3.6	3.2	2.1	3.1	5	2.0	0.0	1.0
13	POR14PG22-3	5.0	2.9	3.0	4	2.5		2.5	3.4	3.3	2.9	6			
Mean															
		5	3	4	4	3	3	3	4	4	3		3.1	1.4	2.0

Table 15. Tuber Shape and Length Width Ratio

Entry	Clone/Variety	Tuber Shape							L/W							W/T ¹						
		OR	CA	CO	ID	TX	TX		OR	CA	CO	ID	TX	TX		OR	CA	CO	ID	TX	TX	
		ON	TUL	SLV	AB	SPL	DAL	Mean	ON	TUL	SLV	AB	SPL	DAL	Mean	ON	TUL	SLV	AB	SPL	DAL	Mean
Red/White Flesh																						
1	Chieftain	1.0	2.6	1.0	2.1	1.5	2.0	1.7	1.11	1.27	1.10	1.09	1.13	1.10	1.13	1.54	1.25	1.29	1.36	1.21	1.27	1.32
2	Red LaSoda	2.0	2.0	1.0	2.6	1.5	2.6	2.0	1.06	1.11	1.07	1.12	1.09	1.25	1.12	1.44	1.26	1.25	1.33	1.16	1.12	1.26
3	A08112-7R	1.0	1.8	2.0	1.6	1.0	1.0	1.4	1.08	1.17	1.21	1.19	1.15	1.18	1.16	1.41	1.20	1.13	1.34	1.12	1.12	1.22
Red-Purple/Yellow Flesh																						
4	ATX05175s-1R/Y	1.0	1.5	1.0	1.5	1.0	1.0	1.2	0.88	0.97	0.89	0.92	1.07	1.12	0.97	1.20	1.33	1.24	1.22	1.18	1.21	1.23
5	ATX06264s-4R/Y	2.0	1.6	1.0	1.5	1.6	1.0	1.5	1.01	1.11	0.91	1.03	1.12	1.09	1.05	1.45	1.31	1.34	1.35	1.20	1.20	1.31
6	COTX04193s-2R/Y	2.0	1.4	1.0	1.5	1.2	1.2	1.4	1.08	1.03	0.94	0.74	1.09	1.07	0.99	1.61	1.38	1.25	1.32	1.23	1.24	1.34
Yellow Flesh																						
7	Yukon Gold	2.0	2.6	1.0	2.1	1.1	1.5	1.7	1.09	1.26	1.10	1.11	1.09	1.15	1.13	1.51	1.23	1.21	1.38	1.18	1.18	1.28
8	CO09128-5W/Y	1.0	1.1	1.0	1.5	1.0	1.0	1.1	0.99	1.05	0.95	1.01	1.07	1.05	1.02	1.35	1.17	1.23	1.20	1.13	1.15	1.21
9	CO09218-4W/Y	2.0	2.3	2.0	1.5	1.0	1.9	1.8	1.13	1.19	1.16	1.11	1.15	1.31	1.18	1.58	1.32	1.32	1.38	1.21	1.17	1.33
10	CO10064-1W/Y	2.0	2.3	1.0	1.5	1.0	1.0	1.5	1.00	1.15	1.03	1.14	1.08	1.13	1.09	1.46	1.30	1.35	1.38	1.17	1.19	1.31
11	CO10097-2W/Y	1.0	1.6	1.0	1.5	1.0	1.3	1.2	1.01	1.13	1.10	1.07	1.11	1.19	1.10	1.26	1.12	1.15	1.18	1.13	1.06	1.15
12	CO10098-5W/Y	2.0	3.0	2.0	1.9	1.0	2.6	2.1	1.22	1.43	1.18	1.19	1.15	1.41	1.26	1.82	1.27	1.29	1.49	1.16	1.17	1.37
13	POR14PG22-3	2.0	2.5		2.0	1.0	1.0	1.7	1.08	1.22		1.14	1.09	1.14	1.13	1.47	1.21		1.38	1.16	1.16	1.28
Mean		1.6	2.0	1.3	1.8	1.1	1.5	1.5	1.06	1.16	1.05	1.07	1.11	1.17	1.10	1.47	1.26	1.25	1.33	1.17	1.17	1.28

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

		Skin Color (1 - 5 dark)						Flesh Color (1 - 5 dark)					
		CA	CO	ID	TX	TX		CA	CO	ID	TX	TX	
Entry	Clone/Variety	TUL	SLV	AB	SPL	DAL	Mean	TUL	SLV	AB	SPL	DAL	Mean
Red/White Flesh													
1	Chieftain	2.1	2.0	3.0	2.0	3.5	2.5	1.8	1.0	1.0	1.0	1.0	1.2
2	Red LaSoda	2.0	3.0	2.3	2.5	3.8	2.7	1.9	1.0	1.0	1.0	1.0	1.2
3	A08112-7R	2.9	2.0	3.8	3.7	4.0	3.3	1.8	1.0	1.5	1.1	1.0	1.3
Red-Purple/Yellow Flesh													
4	ATTX05175s-1R/Y	2.9	2.0	3.5	3.8	3.8	3.2	3.1	4.0	3.0	4.0	4.0	3.6
5	ATX06264s-4R/Y	3.6	3.0	4.0	3.6	4.0	3.6	3.3	3.0	2.8	2.9	3.6	3.1
6	COTX04193s-2R/Y	3.9	3.0	3.5	3.5	4.5	3.7	3.5	2.0	3.0	4.0	4.0	3.3
Yellow Flesh													
7	Yukon Gold	1.1	1.0	2.5	1.0	1.0	1.3	2.9	3.0	3.0	2.8	2.9	2.9
8	CO09128-5W/Y	1.0	1.0	2.5	1.0	1.0	1.3	4.3	4.0	3.3	4.3	3.8	3.9
9	CO09218-4W/Y	1.0	1.0	2.8	1.0	1.0	1.4	3.9	4.0	3.0	3.7	4.2	3.7
10	CO10064-1W/Y	1.0	1.0	3.0	1.0	1.0	1.4	3.8	4.0	3.0	3.4	2.7	3.4
11	CO10097-2W/Y	1.1	1.0	2.8	1.0	1.0	1.4	3.9	4.0	3.0	3.8	3.6	3.7
12	CO10098-5W/Y	1.6	1.0	3.0	1.0	1.0	1.5	5.0	5.0	4.0	4.4	4.7	4.6
13	POR14PG22-3	1.0		2.3	1.0	1.0	1.3	3.4		2.0	2.0	1.8	2.3
Mean		1.9	1.8	3.0	2.0	2.3	2.2	3.3	3.0	2.6	2.9	2.9	2.9

Table 17. Eye Depth and External Defects

Entry	Clone/Variety	OR	CA	ID	TX	TX	Eye	OR	CA	CO	ID	TX	TX	Growth	OR	CA	CO	ID	TX	TX	Knobs	OR	TX	TX	Shatter	OR	ID	TX	TX	Scab
		ON	TUL	AB	SPL	DAL	Depth	ON	TUL ¹	SLV	AB	SPL	DAL	Cracks	ON	TUL ¹	SLV	AB	SPL	DAL		ON	SPL	DAL	Bruise	ON	AB	SPL	DAL	
Red/White Flesh																														
1	Chieftain	2.0	3.6	2.8	3.5	3.8	3.1	4.0	0.4	5.0	5.0	5.0	5.0	4.0	5.0	0.9	5.0	5.0	5.0	4.4	4.9	5.0	5.0	5.0	5.0	5.0	4.8	5.0	5.0	4.9
2	Red LaSoda	1.0	2.6	2.3	2.5	3.5	2.4	4.0	4.2	4.0	3.9	5.0	5.0	3.6	5.0	1.2	5.0	5.0	5.0	4.0	4.8	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.9
3	A08112-7R	3.0	4.0	3.9	3.8	4.0	3.7	5.0	0.0	4.0	5.0	5.0	5.0	4.0	5.0	1.3	5.0	5.0	5.0	4.5	4.9	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.9
Red-Purple/Yellow Flesh																														
4	ATTX05175s-1R/Y	3.0	3.9	3.0	4.0	3.8	3.5	5.0	0.1	5.0	4.6	5.0	5.0	4.1	5.0	1.3	5.0	5.0	5.0	4.1	4.8	5.0	5.0	5.0	5.0	5.0	3.9	5.0	5.0	4.7
5	ATX06264s-4R/Y	4.0	3.9	3.4	4.0	4.0	3.8	4.0	0.2	5.0	5.0	5.0	5.0	4.0	5.0	1.4	5.0	5.0	5.0	4.5	4.9	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.8
6	COTX04193s-2R/Y	3.0	3.9	3.5	3.8	4.0	3.6	5.0	0.3	4.0	4.8	5.0	5.0	4.0	5.0	0.5	5.0	5.0	5.0	4.7	4.9	5.0	5.0	5.0	5.0	5.0	4.1	5.0	5.0	4.8
Yellow Flesh																														
7	Yukon Gold	3.0	4.0	4.0	3.8	4.0	3.8	4.0	0.3	3.0	5.0	4.8	4.8	3.6	4.0	1.2	5.0	5.0	5.0	4.9	4.8	5.0	5.0	5.0	5.0	5.0	3.3	5.0	5.0	4.6
8	CO09128-5W/Y	4.0	4.1	3.9	4.5	4.0	4.1	5.0	0.0	2.0	5.0	5.0	5.0	3.7	5.0	0.4	5.0	4.9	5.0	4.9	5.0	5.0	5.0	5.0	5.0	5.0	3.6	5.0	4.5	4.5
9	CO09218-4W/Y	4.0	4.1	4.0	4.5	4.0	4.1	5.0	0.1	5.0	4.8	5.0	5.0	4.1	5.0	1.1	5.0	5.0	5.0	2.8	4.6	5.0	5.0	5.0	5.0	5.0	3.4	5.0	5.0	4.6
10	CO10064-1W/Y	3.0	3.9	3.3	3.9	3.9	3.6	5.0	0.1	4.0	5.0	5.0	5.0	4.0	5.0	0.2	5.0	5.0	5.0	4.0	4.8	5.0	5.0	5.0	5.0	5.0	4.1	5.0	5.0	4.8
11	CO10097-2W/Y	4.0	4.0	4.0	4.0	4.0	4.0	5.0	0.0	5.0	5.0	5.0	5.0	4.2	5.0	0.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.6	5.0	5.0	4.9
12	CO10098-5W/Y	4.0	3.8	4.1	4.0	4.0	4.0	5.0	0.0	5.0	5.0	5.0	5.0	4.2	4.0	2.4	4.0	4.9	5.0	1.5	3.9	5.0	5.0	5.0	5.0	5.0	4.1	5.0	5.0	4.8
13	POR14PG22-3	3.0	3.6	2.6	4.0	3.7	3.4	5.0	0.0		5.0	5.0	5.0	4.0	4.0	0.5		5.0	5.0	4.8	4.7	5.0	5.0	5.0	5.0	5.0	4.5	5.0	5.0	4.9
Mean		3.2	3.8	3.4	3.9	3.9	3.6	4.7	0.4	4.3	4.8	5.0	5.0	4.0	4.8	1.0	4.9	5.0	5.0	4.1	4.8	5.0	5.0	5.0	5.0	5.0	4.1	5.0	5.0	4.8

¹%

Table 18. Internal Defects

Entry	Clone/Variety	Percent Incidence (%) ¹											Blackspot Bruise												
		OR	CA	CO	ID	TX	TX		OR	ID	TX	TX		OR	CA	ID	TX	TX	OR	CA	CO ²	TX	TX		
		ON	TUL	SLV	AB	SPL	DAL	HH	ON	AB	SPL	DAL	IBS	ON	TUL	AB	SPL	DAL	VD	ON%	TUL%	SLV	SPL%	DAL%	BB
Red/White Flesh																									
1	Chieftain	0.0	5.0	0.0	0.0	0.0	0.0	0.8	2.5	0.0	0.0	40.0	10.6	5.0	22.5	0.0	0.0	2.5	6.0	2.5	5.0	4.8	0.0	0.0	1.5
2	Red LaSoda	2.5	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	12.5	0.0	5.0	15.0	6.5	2.5	5.0	5.0	0.0	0.0	1.5
3	A08112-7R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	4.0	0.0	0.0	4.8	0.0	0.0	0.0
Red-Purple/Yellow Flesh																									
4	ATX05175s-1R/Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	5.0	6.0	3.3	5.0	4.5	0.0	0.0	1.7
5	ATX06264s-4R/Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	8.0	0.0	4.6	2.5	0.0	5.0	0.0	0.0	0.5
6	COTX04193s-2R/Y	0.0	5.0	0.0	0.0	0.0	0.0	0.8	10.0	0.0	0.0	0.0	2.5	0.0	47.5	0.0	0.0	2.5	10.0	17.5	22.5	4.7	0.0	0.0	8.0
Yellow Flesh																									
7	Yukon Gold	0.0	12.5	0.5	0.0	3.0	2.5	3.1	5.0	0.0	###	25.0	11.3	5.0	15.0	0.0	0.0	0.0	4.0	7.5	5.0	4.8	0.0	0.0	2.5
8	CO09128-5W/Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	25.0	6.9	0.0	20.0	0.0	0.0	2.5	4.5	0.0	5.0	4.5	0.0	0.0	1.0
9	CO09218-4W/Y	0.0	20.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	2.5	2.5	15.0	0.0	2.8	0.0	0.0	3.0
10	CO10064-1W/Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.5	1.3	0.0	7.5	0.0	0.0	0.0	1.5	5.0	7.5	4.8	0.0	0.0	2.5
11	CO10097-2W/Y	0.0	0.0	0.0	0.0	0.0	2.5	0.4	0.0	0.0	0.0	7.5	1.9	32.5	17.5	0.0	0.0	0.0	10.0	2.5	0.0	4.8	0.0	0.0	0.5
12	CO10098-5W/Y	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5	0.0	0.0	0.0	6.5	2.5	0.0	4.8	0.0	2.5	1.0
13	POR14PG22-3	0.0	0.0		0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	3.8	0.0	22.5	0.0	5.0	0.0	5.5	7.5	2.5		0.0	0.0	2.0
Mean		0.2	3.3	0.0	0.0	0.2	0.4	0.7	2.9	0.0	1.2	7.7	2.9	3.3	20.6	0.0	1.4	2.3	5.5	5.3	4.4	4.6	0.0	0.2	2.0

¹ Percent based on 10 cut tubers.

² 1 to 5=none

Table 19. Disease Evaluations, Metribuzin Reaction

Entry Clone/Variety	Aberdeen					Tulelake		Prosser ⁵		
	Vert. Wilt/ Early Dying ¹ Foliar	Early Blight ¹ Foliar	Metr. Reaction ²	% Scab	% Serious Defects	Vert. Rating ⁴	AUDPC ³	Corky Ringspot Evaluations		
							Avg % w/int	Avg % DSI	Designation	
Red/White Flesh										
1 Chieftain	5	4	MR	15	6	7	528	27.9	16.6	S
2 Red LaSoda	5	5	MS	15	7	6	439	43.3	26.9	S
3 A08112-7R	4	4	R	3	2	6	271	0.8	0.2	R
Red-Purple/Yellow Flesh										
4 ATTX05175s-1R/Y	4	4	MR			7	354	0.8	0.2	R
5 ATX06264s-4R/Y	5	4	MR			7	402	15.0	9.2	MS
6 COTX04193s-2R/Y	4	3	S			9	1461	0.0	0.0	R
Yellow Flesh										
7 Yukon Gold	4	4	S	43	42	7	678	33.2	20.3	S
8 CO09128-5W/Y	4	4	MS	3	2	9	1178	3.3	1.2	MS
9 CO09218-4W/Y	5	5	R	30	25	4	48	30.6	15.3	S
10 CO10064-1W/Y	5	5	VR	16	11	5	102	35.0	23.7	S
11 CO10097-2W/Y	5	4	MS	16	8	6	273	15.5	15.5	S
12 CO10098-5W/Y	4	4	VR	10	10	8	827	1.9	0.5	R
13 POR14PG22-3	5	5	VR	20	8	6	276	35.0	21.2	S

¹ Evaluations made at Aberdeen, ID by Potato Variety Team; scale as indicated with lowest number being most severe.

For 1 to 5 5=no symptoms; 1=90-100% dead or dying with

² resistant, R=Resistant, MR=Moderately resistant, MS=moderately susceptible, S=susceptible VS=very susceptible

³ Area Under Disease Product Curve Based on reading taken 77, 83, 89, 96, 104 and 110 days from planting

⁴ 0 to 9=dead

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
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
DSI = (Σ 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+%)

Table 20. Tuber Composition

Entry	Clone/Variety	Aberdeen					Texas ⁵		
		Solids	Sugars		Protein ¹	Vitamin C ³	Glycoalkaloids ⁴	µg Trolox equivalents/gfw ⁶	AOA Levels ⁷
			Dextrose ²	Sucrose ²					
Red/White Flesh									
1	Chieftain	21.61	0.097	0.22	4.675	29.46	3.70	102.798	M
2	Red LaSoda	17.87	0.326	0.16	6.240	32.27	2.77	88.458	M
3	A08112-7R	20.42	0.079	0.27	6.179	26.81	2.44	85.637	M
Red-Purple/Yellow Flesh									
4	ATTX05175s-1R/Y	20.84	0.230	4.82	4.820	32.33	3.34	103.962	M
5	ATX06264s-4R/Y	19.33	0.149	6.09	6.093	38.40	1.78	68.185	L
6	COTX04193s-2R/Y	18.70	0.206	5.69	5.694	29.68	0.47	84.677	M
Yellow Flesh									
7	Yukon Gold	23.07	0.048	0.19	5.701	41.28	3.60	33.019	L
8	CO09128-5W/Y	20.62	0.008	0.18	5.586	28.58	4.53	90.960	M
9	CO09218-4W/Y	16.78	0.076	0.15	5.078	18.92	3.89	58.674	L
10	CO10064-1W/Y	21.90	0.031	0.16	5.512	16.42	6.67	44.014	L
11	CO10097-2W/Y	20.16	0.018	0.15	6.921	32.04	2.19	51.257	L
12	CO10098-5W/Y	24.87	0.004	0.16	5.316	38.12	3.52	51.111	L
13	POR14PG22-3	17.90	0.065	0.18	6.283	30.04	7.37	39.913	L
Mean		20.31	0.10	1.42	5.70	30.34	3.56	69.436	

¹ % Dry Weight Basis

² % Fresh Weight Basis

³ % Fresh Weight Basis (mg/100g)

⁴ % Fresh Weight Basis (mg/100g), using Lenepe as check with reading of 20.59

⁵ 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. Sample extraction was performed at TAMU and the DPPH assay was performed in Dr. Anna Hale's lab - USDA Sugar Cane Breeding, Houma, LA by Dr. Himaya Mula-Michel.

⁶ µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on a standard curve using the following equation:
 $y = .00382x + .0341$

⁷ VH=very high (>310), H=high (174-309), M=medium (79-173), L=low (18-78), VL=very low (<17)

Table 21. Entry Location Comments

Entry	Clone/Variety	Ontario, OR	Tulelake, CA	Center, CO	Aberdeen, ID
Red/White Flesh					
1	Chieftain	too big, growth cracks, 3 oversize, heart, bottleneck	check	Rough	Few ats, flat (4); few bumps, big (2); deep ends, some brow
2	Red LaSoda	3 Folded bud end, folded bud end, irregular, 4 oversize, growth cracks, sprouts	check	Very rough, IBS	Big, bumps, not uniform (3); deep eyes, ugly, misshapen (2)
3	A08112-7R	4 sprouts, Greening	uniform shape	Nice, small tuber size, good skin finish	Small, round, uniform (4); few ats, oval (3)
Red-Purple/Yellow Flesh					
4	ATTX05175s-1R/Y	2 sprouts	pancake shaped, low avg tuber size	Compressed, ok yellow, small tuber size, good skin finish	Small (4); round, few ats, deep ends (3); compressed
5	ATX06264s-4R/Y	2 sprouts, growth cracks	lark red/purple skin color, high percentage of <4 oz	Compressed, good yellow, flat	Ats, flat (4); deep ends (3); dumbbell, block, few bumps
6	COTX04193s-2R/Y	pointy, 2 sprouts, chain	flattened shape, susceptible to black dot	Flat, good yellow, good skin finish	Deep ends, flat (3); uniform (2)
Yellow Flesh					
7	Yukon Gold	oversize, knobs, growth cracks, inconsistent size, greening	check	Light yellow, IBS	Flat (4); few bumps (2)
8	CO09128-5W/Y	2 sprouts, uniform size, sprouts	pink eyes	Small tuber size, dark yellow	Small, round (3); uniform, smooth eye (2)
9	CO09218-4W/Y	2 greening, pointy, 3 low yield, bottleneck, growth cracks, heart, chain, 2 sprouts, irregular	flat shape, ruptured lenticils, 20% hollow heart, 60% stand	Some small, flat, good yellow	Small, ats (4); round, uniform, some flat (3)
10	CO10064-1W/Y	sprouts, chain, 2 greening	pink eyes	Flat, rough, good yellow	Deep ends (3); squarish, pink eyes (2)
11	CO10097-2W/Y	greening	has some russeting	Shatter bruise	Round, uniform (4); few oval/bumps, smooth eyes
12	CO10098-5W/Y	pointy, Sprouts, 3 sprouts, knobs, nice color, pointy, knobs, bottleneck, knobs	very susceptible to black dot	Flat, dark yellow	Uniform, oval (2); smooth eye, few bumps/ats
13	POR14PG22-3	4 Sprouts, 2 knobs, irregular	high tubers per plant, high <4 oz yield		Bumps (4); deep eyes (3); squarish (2)

Table 22. Entry Location Comments Continued

Entry	Clone/Variety	Springlake, TX	Dalhart, TX
Red/White Flesh			
1	Chieftain	uniform shape and size, low yield, buff skin, attached stolons+, darker pink eyes	uniform size and shape, red eyes, some skin color variation, high tuber number+, parent for high yield and high tuber number
2	Red LaSoda	some large, rot, deep eyes, attached stolons, a little flat	deep eyes+++, nonuniform shape, many culls (knobs), large, very high tuber number, parent for tuber number and yield++
3	A08112-7R	very small++, intense red skin color+, late++, high tuber set++, sprouts, parent for tuber number, uniformly small, true small, many tubers, heat sprouts, rot, greenheads	small+, uniform shape and size++, attached stolons++, medium size, nice
Red-Purple/Yellow Flesh			
4	ATTX05175s-1R/Y	high tuber number+, small++, uniform, not uniform size and shape, late, mini RLS, a little compressed+	very small+++, uniform size and shape+++
5	ATX06264s-4R/Y	late+++, not uniform shape or size+, intense skin color+, high tuber number, not small, smooth skin, heat sprouts, rot	small+, uniform size and shape+++, high tuber number
6	COTX04193s-2R/Y	some green heads, rot, oval shape, some large tubers, medium, uniformly small, very few tubers, heat sprouts	uniform size and shape, nice+, all small, mixed white and yellow flesh, intense yellow flesh+, mango yellow flesh, BOT
Yellow Flesh			
7	Yukon Gold	good size, medium size+, nice	large tubers+, nice, high tuber number+
8	CO09128-5W/Y	low tuber numbers++, all smalls++, uniform size+ and shape, sprouts	scab, uniform size, uniform shape, small, nice
9	CO09218-4W/Y	very few tubers++, late, heat sprouts+++, low tuber number, pointy	heat sprouts+, knobs+, attached stolons, very small, very few tubers, pointed, pears, terrible chained tubers, DROP+
10	CO10064-1W/Y		nonuniform skin type, small+
11	CO10097-2W/Y	uniform size, very few tubers, all smalls some rotten+, extremely low tuber number++	angular tubers, it looks like a chipper, buff skin, small
12	CO10098-5W/Y	small, low tuber number, yellow flesh, late, heat sprouts++++, very intense flesh color	heat sprouts+++extreme knobs++, terrible, very intense yellow flesh, DROP+++
13	POR14PG22-3	heat sprouts+++, high tuber set, small, late, compressed shape, high tuber number+, non-uniform size+, heat sprouts+++, linked tubers++, black scurf	angular tubers, very small+, very smooth skin++, very light skin color+, very clean look, shiny

Table 23. Postharvest Evaluation Summary

		Boiled	Baked	Microwaved	Total
Clone		(25 max)	(25 max)	(25 max)	(75 max)
9	Yukon Gold				
10	A06336-2Y				
11	A06336-5Y				
Chipped:		Aug. 21			
Baked:		Aug. 17			
Boiled:		Aug. 15			
Microwaved:		Aug. 24			
Cooking Time:		Aug. 11			

Table 24. 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	***	112	111	165	270	94	11	491	5.0	1.071	3.8
2	Red LaSoda	***	77	74	154	222	188	43	528	6.2	1.070	2.6
3	A08112-7R	1	263	58	39	99	2	7	366	2.1	1.076	3.4
Red-Purple/Yellow Flesh												
4	ATTX05175s-1R/Y	2	301	73	36	102	2	9	403	2.0	1.079	4.0
5	ATX06264s-4R/Y	1	194	104	92	192	20	11	416	2.7	1.071	3.0
6	COTX04193s-2R/Y	2	199	98	60	156	5	7	363	2.6	1.068	3.4
Yellow Flesh												
7	Yukon Gold	***	75	76	118	185	76	11	346	4.8	1.080	3.3
8	CO09128-5W/Y	2	272	24	3	25	0	1	271	1.7	1.078	3.7
9	CO09218-4W/Y	2	94	34	29	65	7	10	174	2.1	1.059	2.6
10	CO10064-1W/Y	1	193	61	51	124	8	11	332	2.7	1.090	3.8
11	CO10097-2W/Y	1	203	89	66	154	6	2	361	2.7	1.073	3.8
12	CO10098-5W/Y	1	165	43	27	64	3	32	259	2.3	1.095	3.1
13	POR14PG22-3	1	303	76	49	126	5	10	431	1.8	1.073	2.9
Mean			190	52	37	92	5	6	285	2.3	1.075	3.4

^{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 25. Two Year Summary of Graduating Entries

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												
	Chieftain	***	88	114	154	279	113	10	493	5.2	1.072	3.6
	Red LaSoda	***	61	77	139	222	230	37	550	6.5	1.072	2.8
Red-Purple/Yellow Flesh												
	ATTX05175s-1R/Y	2	287	80	26	113	2	13	410	2.1	1.079	3.8
	COTX04193s-2R/Y	2	187	94	46	145	4	7	358	2.6	1.069	3.7
Yellow Flesh												
	Yukon Gold	***	59	73	106	187	95	15	355	5.5	1.081	3.4
	CO09128-5W/Y	2	265	34	4	40	1	12	304	1.8	1.080	3.5
	CO09218-4W/Y	2	123	51	25	101	8	13	244	2.2	1.065	3.2
Mean			153	75	71	155	65	15	388	3.7	1.074	3.4

^{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 26. Two Year Summary of Notes

Entry	Clone/Variety	Strengths	Weakness
Red-Purple/Yellow Flesh			
	ATTX05175s-1R/Y	nice skin color, uniform shape, high tuber number	compressed, deep eyes
	COTX04193s-2R/Y	uniform, nice skin color, nice flesh color	flat
Yellow Flesh			
	CO09128-5W/Y	small, uniform, round	pink eyes
	CO09218-4W/Y	nice flesh	buff skin, rough shape

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