

# 2011 Southwestern Regional Potato Variety Trial Report



Cover – 2011 Field days held in (L-R) Tulalake and Bakersfield, CA., Springlake, TX, and Center, CO.

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## Description of Clones - 2011 Southwestern Regional Trial

Entry #	Clone/Cultivar	Parents Female	Male	Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Entered By	Use	Source	2011 Status
<b>Specialty Trial</b>												
<b>Red-Purple/Yellow Flesh</b>												
1	ATTX88654-2P/Y	PI34320	Gurney's Purple	Purple	Small	Early	Oblong	Purple	TX	Spec	CO	2
2	ATTX01180-1R/Y	ND5084-3R	A92657-1R	Lavender	Small	Medium	Oblong	Red	TX	Spec	CO	2
3	CO04021-2R/Y	ATC98509-1R/Y	US147-96R/Y	Light Purple	Large	Medium	Oblong	Red	CO	Spec	CO	1
<b>White/Yellow Flesh</b>												
4	Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Check	Spec	CO	***
5	CO04013-1W/Y	ATC98495-1W/Y	CO97237-5W/Y	Purple	Med-Large	Medium	Round	White	CO	Spec	CO	1
6	CO04117-5PW/Y	Inca Gold	US147-96R/Y		Small	V Early-Early	Oblong	Pur/Wh	CO	Spec	CO	1
7	TX1674-1W/Y	Russet Nugget	Delta Gold	Lavender	Medium	Medium	Oblong	White	TX	Spec	CO	2
<b>Purple/Purple Flesh</b>												
8	Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Check	Spec	CO	***
9	CO03027-2R/R	Mountain Rose	POR00PG2-16P/P	White	Medium	Medium	Round	Red	CO	Spec	CO	1
10	CO04045-4P/P	CO97215-2P/P	CO97216-1P/P	White	Small	Med-Early	Round	Purple	CO	Spec	CO	1
<b>Fingerling</b>												
11	Banana	Unknown	Unknown	Light Purple	Med-Small	Late	Long	White	Check	Fresh	CO	***
12	CO03094-5RF/RW	Austrian Crescent	Huckleberry	Red-Purple	Medium	Medium	Long	Red	CO	Spec	CO	1
<b>Russet Trial</b>												
13	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	Check	Fresh	CO	***
14	AC00395-2RU	A95523-12	A84118-3	Light Purple	Very Large	Late	Long	Russet	CO	Fresh	CO	1
15	AOTX96075-1RU	A84118-3	A89384-10	White	Med-Large	Medium	Long	Russet	TX	Fresh	CO	1
16	CO03187-1RU	Rio Grande Russet	A9304-3	Light Purple	Medium	V Early-Early	Long	Russet	CO	Fresh	CO	1
17	CO03202-1RU	AC96010-3RU	Canela Russet	White	Large-V Large	Late	Long	Russet	CO	Fresh	CO	1
18	CO03276-4RU	CO95086-8RU	Blazer Russet	White	Med-Large	Medium	Oblong	Russet	CO	Fry	CO	1
19	CO03276-5RU	CO95086-8RU	Blazer Russet	Purple	Med-Large	Med-Early	Long	Russet	CO	Fresh	CO	1
<b>Red Trial</b>												
20	Norland (Dark Red)	RedKote	ND626	Red-Purple	Small	Early	Oval	Red	Check	Fresh	CO	***
21	Red LaSoda	Triumph	Katahdin	Red-Purple	Medium	Medium	Oval	Red	Check	Fresh	CO	***
22	COTX02172-1R	CO94065-2R	ND3574-5R	Lavender	Medium	Early-Med	Oblong	Red	TX	Fresh	CO	1
23	NDTX5438-11R	ND4339-10R	ND4269-9R	Lavender	Medium	Late	Round	Red	TX	Fresh	CO	1
<b>Chip Trial</b>												
24	Atlantic	Wauseon	B5141-6	Red-Purple	Medium	Medium	Round	Buff	Check	Chip	CO	***
25	Chipeta	WNC612-13	Wischip	Purple	Large	Med-Late	Oval	White	Check	Chip	CO	***
26	AC03433-1W	A94322-8C	COA96141-4	Light Purple	Large	Late	Round	White	CO	Chip	CO	1
27	CO03243-3W	BC0894-2W	A91790-13	Light Purple	Large	Medium	Round	White	CO	Chip	CO	1

Table 1. Locations, Cooperators, and Cultural Information

Locations	Cooperators	Irrigation	Trial	Fertilization (lb/A)	Harvest method	Dates Plant	Vine Kill	Harvest	Days to Vine Kill or Harvest
1. Kern Co. California (KRN)	J. Nunez J. DuBose	Sprinkler	All Trials		Machine/Hand	2/22/2011		6/6/2011	104
2. Tulelake California (TUL)	D. Kirby R. Wilson B. Kliewer	Solid-set sprinkler	Specialty (Reds)	204-80-48-21	Machine	5/23/2011	9/16/2011	10/12/2011	113
			Russet	204-80-48-21	Machine	5/23/2011	9/16/2011	10/12/2011	113
			Chip	204-80-48-21	Machine	5/23/2011	9/16/2011	10/11/2011	113
3. San Luis Valley Colorado (SLV)	D. Holm C. Gray	Pivot	Specialty	120-60-40-25	Machine	5/20/2011	9/6/2011	9/29/2011	106
			Russet	120-60-40-25	Machine	5/20/2011	9/6/2011	9/29/2011	106
			Red	120-60-40-25	Machine	5/20/2011	9/6/2011	9/29/2011	106
			Chip	120-60-40-25	Machine	5/20/2011	9/6/2011	9/28/2011	
4. Springlake Texas (SPR )	C. Miller, J. Koym D. Scheuring	Pivot	Specialty	104-21-21-109	Machine/Hand	3/24/2011	7/27/2011	7/31/2011	123
			Russet	125-21-21-124	Machine/Hand	3/24/2011	8/31/2011	8/25/2011	157
			Red	104-21-21-109	Machine/Hand	3/24/2011	7/27/2011	7/31/2011	123
			Chip	125-21-21-124	Machine/Hand	3/24/2011	7/27/2011	8/3/2011	123
4. Dalhart Texas (Dal )	C. Miller, J. Koym D. Scheuring	Pivot	Chip	183-101-44	Machine/Hand	5/2/2011	9/12/2011	10/3/2011	130

Table 2. Plot Information, Soil Type, Fungicides, Insecticides, Herbicides, Vine Killing, and Environmental Factors.

Item	California		Colorado	Texas	
	KRN	TUL	SLV	SPR	Dal
Plot Information:					
Row/plot	1	2	1	2	2
Length of plot (ft)	20'	*	25'	21'	15'
Hill spacing (in)	9"	**	12"	9"	9"
Row spacing (in)	32"	36"	34"	36"	28"
Hills/plot	27	***	25	28	20
Number of reps	4	4	4	4	4
Soil Type:					
Fine sand				x	
Fine sandy loam					x
Loamy fine sand					
Sandy loam	x		x		
Silt loam					
Organic - 8%					
Mucky silty clay loam		x			
Fungicides:					
Bravo WS			x		x
Echo 720 Ag					x
Endura		x			x
Quadris		x	x		x
Revus Top					x
Scala SC					x
Tanos		x			
Insecticides:					
Abacus				x	
Admire Pro				x	
Alias 4F		x			
Beleaf 50 Sg					x
Coragen		x			
Endigo ZC			x		
Epimek				x	
EPI-MEK 0.15 EC					x
Fulfill			x		x
Movento		x		x	x
Oberon					x
Herbicides:					
Brawl					x
Cornerstone					x
Dimetric					x
Dual Magnum			x	x	
Eptam			x		x
Matrix		x	x		x
Metribuzin		x-none on specialty/reds			
Outlook		x			
Roundup				x	
Select Max					x
Sencor DF				x	x
Treflan				x	
Vine Killing:					
Mechanical				x	x
Reglone		x	x		
Sulfuric Acid					
Environmental Factors:					
Cool/Wet Spring		x			
Dry/Windy Spring			x		
Cool and Dry Summer					
Severe Frost				x	
Favorable					
Hot Summer				x	x
Above Av. Prec.					x

\* Spec 18.2ft Russ 20.7ft Red 18.2ft Chip 18.2ft

\*\* Spec 9.1" Russ 11.3" Red 9.1" Chip 9.1"

\*\*\* Spec 48 Russ 44 Red 48 Chip 48

Table 3. Percent Stand and Stems/Hill for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Percent Stand					Stems per Hill		
	California	Colorado <sup>1</sup>	Texas <sup>2</sup>		Mean	Colorado	Texas	Mean
	TUL	SLV	SPR	Dal		SLV	SPR	
<b>Specialty Trial</b>								
<b>Red-Purple/Yellow Flesh</b>								
1 ATTX88654-2P/Y	79	97	61		79	4.4	1.4	2.9
2 ATTX01180-1R/Y	61	77	55		66	4.0	1.4	2.7
3 CO04021-2R/Y	75	98	89		94	4.5	1.5	3.0
<b>White/Yellow Flesh</b>								
4 Yukon Gold	85	96	88		92	2.8	1.1	2.0
5 CO04013-1W/Y	89	100	100		100	8.2	1.5	4.9
6 CO04117-5PW/Y	82	91	85		88	5.5	1.5	3.5
7 TX1674-1W/Y	37	69	77		73	2.9	1.3	2.1
<b>Purple/Purple Flesh</b>								
8 Purple Majesty	90	99	100		100	4.6	1.9	3.3
9 CO03027-2R/R	88	99	57		78	3.9	1.7	2.8
10 CO04045-4P/P	92	99	97		98	4.0	1.8	2.9
<b>Fingerling</b>								
11 Banana	94	99	100		100	4.2	1.8	3.0
12 CO03094-5RF/RW	92	98	100		99	6.3	2.1	4.2
<b>Russet Trial</b>								
13 Russet Norkotah	98	100	100		100	3.7	1.9	2.8
14 AC00395-2RU	96	99	98		99	3.4	2.0	2.7
15 AOTX96075-1RU	97	100	98		99	3.1	1.7	2.4
16 CO03187-1RU	95	98	100		99	3.4	1.6	2.5
17 CO03202-1RU	93	96	100		98	2.6	1.8	2.2
18 CO03276-4RU	85	99	96		98	4.2	2.1	3.2
19 CO03276-5RU	92	100	100		100	5.4	1.7	3.6
<b>Red Trial</b>								
20 Norland (Dark Red)	86	98	100		99	5.1	1.7	3.4
21 Red LaSoda	93	100	100		100	3.3	1.6	2.5
22 COTX02172-1R	59	81	92		87	6.1	1.4	3.8
23 NDTX5438-11R	82	90	71		81	3.3	1.5	2.4
<b>Chip Trial</b>								
24 Atlantic	76	98	96	91	95	3.5	2.0	2.8
25 Chipeta	95	99	98	100	99	4.1	1.8	3.0
26 AC03433-1W	82	96	81	91	89	4.6	1.3	3.0
27 CO03243-3W	89	99	98	100	99	2.9	1.7	2.3
Mean	85	95	90	96	93	4.2	1.7	2.9

Table 4. Vine Size and Maturity for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Vine Size (1-5=largest)				Vine Maturity (1-5=latest)			
	Colorado	Texas		Mean	Colorado	Texas		Mean
	SLV	SPR	Dal		SLV	SPR	Dal	
<b>Specialty Trial</b>								
<b>Red-Purple/Yellow Flesh</b>								
1 ATTX88654-2P/Y	4.3	3.7		4.0	3.3	4.4		3.9
2 ATTX01180-1R/Y	3.0	4.0		3.5	2.0	4.6		3.3
3 CO04021-2R/Y	5.0	4.0		4.5	3.3	4.5		3.9
<b>White/Yellow Flesh</b>								
4 Yukon Gold	3.5	3.3		3.4	2.0	3.4		2.7
5 CO04013-1W/Y	4.8	4.3		4.6	3.0	4.8		3.9
6 CO04117-5PW/Y	2.5	1.9		2.2	2.0	2.1		2.1
7 TX1674-1W/Y	2.5	3.6		3.1	3.0	4.1		3.6
<b>Purple/Purple Flesh</b>								
8 Purple Majesty	3.3	3.6		3.5	2.0	3.4		2.7
9 CO03027-2R/R	4.0	3.8		3.9	3.3	4.8		4.1
10 CO04045-4P/P	2.8	3.6		3.2	2.5	3.8		3.2
<b>Fingerling</b>								
11 Banana	4.8	3.9		4.4	3.0	3.9		3.5
12 CO03094-5RF/RW	4.0	4.3		4.2	2.8	4.4		3.6
<b>Russet Trial</b>								
13 Russet Norkotah	2.3	2.4		2.4	1.0	1.8		1.4
14 AC00395-2RU	5.0	3.3		4.2	4.0	3.4		3.7
15 AOTX96075-1RU	3.0	3.3		3.2	2.0	3.1		2.6
16 CO03187-1RU	2.5	2.8		2.7	1.0	2.7		1.9
17 CO03202-1RU	4.0	3.7		3.9	3.0	3.4		3.2
18 CO03276-4RU	3.0	2.4		2.7	1.3	1.9		1.6
19 CO03276-5RU	3.5	3.6		3.6	2.0	3.2		2.6
<b>Red Trial</b>								
20 Norland (Dark Red)	1.8	2.0		1.9	1.0	2.0		1.5
21 Red LaSoda	4.0	4.4		4.2	2.3	4.7		3.5
22 COTX02172-1R	2.8	3.1		3.0	2.0	3.2		2.6
23 NDTX5438-11R	3	2.9		3.0	2.3	3.1		2.7
<b>Chip Trial</b>								
24 Atlantic	3.8	4	3.8	3.9	3.0	4.0	3.8	3.6
25 Chipeta	4.3	4.5	4.4	4.4	3.0	4.8	4.7	4.2
26 AC03433-1W	4	3.8	4.1	4.0	3.3	3.9	4.1	3.8
27 CO03243-3W	4.3	3.7	4.3	4.1	3.3	3.8	4.0	3.7
Mean	3.5	3.5	4.2	3.5	2.5	3.6	4.2	3.1



Table 5. Total Yield, Yield Rank Within Type (Specialty, Russet, Red, and Chip), and Merit Score1 (MS), for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California					Colorado			Texas						Mean		
	KRN		TUL			SLV			SPR			DAL			Cwt/A	Rank	MS
	Cwt/A	Rank	Cwt/A	Rank	MS <sup>1</sup>	Cwt/A	Rank	MS	Cwt/A	Rank	MS	Cwt/A	Rank	MS			
<b>Specialty Trial</b>																	
<b>Red-Purple/Yellow Flesh</b>																	
1 ATTX88654-2P/Y	188	3	493	2		610	1	3.0	83	3	3.1				344	2	3.1
2 ATTX01180-1R/Y	265	2	440	3		407	3	2.0	138	1	3.3				313	3	2.7
3 CO04021-2R/Y	491	1	652	1		584	2	5.0	120	2	3.4				462	1	4.2
<b>White/Yellow Flesh</b>																	
4 Yukon Gold	255	1	463	2		411	2	3.0	133	1	3.1				315	2	3.1
5 CO04013-1W/Y	205	2	485	1		474	1	2.0	126	2	2.3				322	1	2.2
6 CO04117-5PW/Y	183	3	197	4		258	3	3.0	25	4	1.1				166	4	2.1
7 TX1674-1W/Y	177	4	249	3		251	4	1.0	64	3	1.5				185	3	1.3
<b>Purple/Purple Flesh</b>																	
8 Purple Majesty	190	3	521	1		499	1	5.0	84	3	2.6				323	1	3.8
9 CO03027-2R/R	191	2	429	2		361	3	2.0	101	2	3.1				270	3	2.6
10 CO04045-4P/P	219	1	370	3		400	2	3.0	112	1	3.8				275	2	3.4
<b>Fingerling</b>																	
11 Banana			250	2		364	2	4.0	21	2	1.1				212	2	2.6
12 CO03094-5RF/RW	177	1	464	1		517	1	4.0	29	1	1.0				297	1	2.5
<b>Russet Trial</b>																	
13 Russet Norkotah	233	4	447	2	3.5	393	4	2.0	46	5	1.6				280	4	1.8
14 AC00395-2RU	231	5	439	3	3.4	492	1	5.0	112	1	2.3				318	1	3.7
15 AOTX96075-1RU	223	6	386	7	3.5	376	5	2.0	44	6	1.8				257	6	1.9
16 CO03187-1RU	265	1	397	6	3.7	368	6	1.0	68	3	1.8				275	5	1.4
17 CO03202-1RU	142	7	475	1	3.8	433	3	3.0	101	2	1.6				288	3	2.3
18 CO03276-4RU	247	3	414	4	3.8	333	7	1.0	28	7	1.6				256	7	1.3
19 CO03276-5RU	265	2	408	5	3.4	450	2	2.0	51	4	1.3				293	2	1.7
<b>Red Trial</b>																	
20 Norland (Dark Red)	182	3	516	2		424	3	1.0	119	4	3.2				310	3	2.1
21 Red LaSoda	367	1	593	1		595	1	2.0	178	1	2.9				433	1	2.5
22 COTX02172-1R	111	4	418	4		448	2	2.0	141	2	3.4				280	4	2.7
23 NDTX5438-11R	235	2	464	3		412	4	1.0	134	3	3.5				311	2	2.3
<b>Chip Trial</b>																	
24 Atlantic	279	4	366	4	2.8	458	3	2.0	253	1	3.4	511	2	3.1	373	2	2.8
25 Chipeta	291	2	527	1	3.7	521	1	5.0	110	4	2.3	176	4	2.2	325	4	3.2
26 AC03433-1W	286	3	526	2	4.0	435	4	1.0	176	3	3.5	385	3	3.6	362	3	2.7
27 CO03243-3W	304	1	442	3	4.5	482	2	3.0	247	2	3.5	844	1	3.6	464	1	3.4
Mean	239		438		3.6	435		2.6	105		2.5	479		3.1	308		2.5

<sup>1</sup> 1=very poor to 5= excellent

Table 6. Yield and Percent of U.S. No. 1's (>4oz.) and Yield Rank Within Type (Specialty, Russet, Red, and Chip) for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California						Colorado <sup>1</sup>			Texas						Mean		
	KRN			TUL			SLV			SPR			DAL			Cwt/A	Rank	%
	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%			
<b>Specialty Trial</b>																		
<b>Red-Purple/Yellow Flesh</b>																		
1 ATTX88654-2P/Y	142	3	75	346	2	70	542	1	89	43	2	51				268	2	71
2 ATTX01180-1R/Y	211	2	80	283	3	64	301	3	74	94	1	68				222	3	72
3 CO04021-2R/Y	440	1	90	456	1	70	527	2	90	16	3	13				360	1	66
<b>White/Yellow Flesh</b>																		
4 Yukon Gold	226	1	88	329	1	71	367	1	89	51	1	39				243	1	72
5 CO04013-1W/Y	118	3	58	176	2	36	209	2	44	1	3	1				126	3	35
6 CO04117-5PW/Y	91	4	50	47	4	24	123	4	48	1	4	2				65	4	31
7 TX1674-1W/Y	143	2	81	167	3	67	206	3	82	4	2	6				130	2	59
<b>Purple/Purple Flesh</b>																		
8 Purple Majesty	97	2	51	293	1	56	291	1	58	0	3	0				170	1	41
9 CO03027-2R/R	79	3	41	258	2	60	241	3	67	5	2	4				146	2	43
10 CO04045-4P/P	135	1	62	165	3	45	248	2	62	12	1	10				140	3	45
<b>Fingerling</b>																		
11 Banana							229	2	63	1	2	6				115	2	34
12 CO03094-5RF/RW	90	1	51				372	1	72	5	1	15				156	1	46
<b>Russet Trial</b>																		
13 Russet Norkotah	183	4	79	331	3	74	336	4	85	7	3	15				214	2	63
14 AC00395-2RU	144	6	62	313	4	71	450	1	91	20	1	18				232	1	61
15 AOTX96075-1RU	173	5	78	279	6	72	345	3	92	5	5	11				200	7	63
16 CO03187-1RU	192	3	73	309	5	78	295	6	80	8	2	12				201	6	61
17 CO03202-1RU	99	7	70	333	1	70	375	2	87	2	6	2				202	4	57
18 CO03276-4RU	201	2	81	333	1	80	285	7	86	1	7	5				205	3	63
19 CO03276-5RU	214	1	81	260	7	64	327	5	73	6	4	11				202	5	57
<b>Red Trial</b>																		
20 Norland (Dark Red)	147	3	80	370	1	72	357	2	84	13	4	11				222	3	62
21 Red LaSoda	341	1	93	364	2	61	486	1	82	37	1	21				307	1	64
22 COTX02172-1R	69	4	62	235	4	56	343	4	77	18	3	13				166	4	52
23 NDTX5438-11R	170	2	72	355	3	76	356	3	86	35	2	26				229	2	65
<b>Chip Trial</b>																		
24 Atlantic	244	4	87	254	4	69	396	3	86	133	1	52	271	2	53	260	3	70
25 Chipeta	258	3	88	376	2	71	448	1	86	55	4	50	77	4	44	243	4	68
26 AC03433-1W	263	1	92	395	1	75	362	4	83	77	3	44	261	3	68	272	2	72
27 CO03243-3W	261	2	86	326	3	74	423	2	88	119	2	48	620	1	74	350	1	74
Mean	182		73	294		65	342		78	28		21	308			209		58

<sup>1</sup> Fingerling 2-6inch

Table 7. Yield and Percent of U.S. No. 1's (>10oz.) for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California				Colorado <sup>3</sup>		Texas				Mean	
	KRN <sup>1</sup>		TUL <sup>2</sup>		SLV		SPR		DAL		Mean	
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%
<b>Specialty Trial</b>												
<b>Red-Purple/Yellow Flesh</b>												
1 ATTX88654-2P/Y	8	4	98	20	290	48	3	3			100	19
2 ATTX01180-1R/Y	23	9	83	19	57	14	23	16			46	15
3 CO04021-2R/Y	75	15	220	34	190	33	1	1			122	21
<b>White/Yellow Flesh</b>												
4 Yukon Gold	27	10	100	22	151	37	0	0			69	17
5 CO04013-1W/Y	0	0	3	1	4	1	0	0			2	0
6 CO04117-5PW/Y	1	1	0	0	0	0	0	0			0	0
7 TX1674-1W/Y	12	7	54	22	92	37	0	0			40	16
<b>Purple/Purple Flesh</b>												
8 Purple Majesty	1	1	31	6	28	6	0	0			15	3
9 CO03027-2R/R	0	0	8	2	15	4	0	0			6	2
10 CO04045-4P/P	0	0	4	1	15	4	0	0			5	1
<b>Fingerling</b>												
11 Banana				0	146	40	0	0			73	13
12 CO03094-5RF/RW	0	0		0	227	44	0	0			76	11
<b>Russet Trial</b>												
13 Russet Norkotah	21	9	41	9	100	25	0	0			40	11
14 AC00395-2RU	1	0	17	4	128	26	0	0			37	8
15 AOTX96075-1RU	15	7	50	13	193	51	0	0			64	18
16 CO03187-1RU	25	9	64	16	57	15	0	0			36	10
17 CO03202-1RU	3	2	69	15	119	27	0	0			48	11
18 CO03276-4RU	13	5	28	7	60	18	0	0			25	8
19 CO03276-5RU	50	19	13	3	55	12	0	0			30	9
<b>Red Trial</b>												
20 Norland (Dark Red)	1	1	87	17	83	20	2	1			43	10
21 Red LaSoda	41	11	171	29	227	38	0	0			110	20
22 COTX02172-1R	2	1	7	2	69	15	0	0			19	5
23 NDTX5438-11R	4	2	80	17	94	23	0	0			45	10
<b>Chip Trial</b>												
24 Atlantic	15	5	48	13	110	24	12	5	60	12	49	12
25 Chipeta	18	6	169	32	195	37	5	4	26	15	83	19
26 AC03433-1W	12	4	92	17	93	21	0	0	78	20	55	13
27 CO03243-3W	8	3	86	19	113	23	6	2	230	27	89	15
Mean	14	5	65	13	108	24	2	1	99	19	49	11

<sup>1</sup> > 11oz

<sup>2</sup> >12 oz on Russets >10 oz on red/specialty and Chip

<sup>3</sup>Fingerling> 4 inch long

Table 8. Yield and Percent of U.S. No. 1's (6 - 10oz.) for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL <sup>1</sup>		SLV <sup>2</sup>		SPR		DAL		Cwt/A	%
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%		
<b>Specialty Trial</b>												
<b>Red-Purple/Yellow Flesh</b>												
1 ATTX88654-2P/Y	56	30	176	36	252	41	23	27			127	34
2 ATTX01180-1R/Y	140	53	126	29	243	60	46	33			139	44
3 CO04021-2R/Y	316	64	215	33	337	58	1	1			217	39
<b>White/Yellow Flesh</b>												
4 Yukon Gold	142	56	167	36	216	53	12	9			134	38
5 CO04013-1W/Y	38	19	54	11	205	43	0	0			74	18
6 CO04117-5PW/Y	23	13	8	4	123	48	0	0			39	16
7 TX1674-1W/Y	96	54	74	30	114	45	0	0			71	32
<b>Purple/Purple Flesh</b>												
8 Purple Majesty	12	6	122	23	262	53	0	0			99	21
9 CO03027-2R/R	1	0	106	25	226	63	0	0			83	22
10 CO04045-4P/P	17	8	53	14	233	58	0	0			76	20
<b>Fingerling</b>												
11 Banana				0	118	32	0	0			59	11
12 CO03094-5RF/RW	49	28		0	183	35	0	0			77	16
<b>Russet Trial</b>												
13 Russet Norkotah	136	58	99	22	236	60	1	2			118	36
14 AC00395-2RU	30	13	67	15	322	65	5	4			106	24
15 AOTX96075-1RU	127	57	87	23	152	40	1	2			92	30
16 CO03187-1RU	118	44	111	28	238	65	4	6			118	36
17 CO03202-1RU	48	34	102	21	255	59	1	1			102	29
18 CO03276-4RU	154	62	105	25	224	67	0	0			121	39
19 CO03276-5RU	121	46	50	12	273	61	2	5			112	31
<b>Red Trial</b>												
20 Norland (Dark Red)	58	32	187	36	274	65	1	1			130	33
21 Red LaSoda	246	67	177	30	259	44	7	4			172	36
22 COTX02172-1R	12	11	97	23	275	61	7	5			98	25
23 NDTX5438-11R	49	21	174	38	262	64	12	9			124	33
<b>Chip Trial</b>												
24 Atlantic	167	60	122	33	287	63	48	19	121	24	149	40
25 Chipeta	141	49	194	37	253	49	16	14	15	8	124	31
26 AC03433-1W	190	66	196	37	269	62	37	21	87	23	156	42
27 CO03243-3W	111	36	134	30	310	64	30	12	236	28	164	34
Mean	100	38	120	24	237	55	9	6	115	21	114	30

<sup>1</sup> 8-12 oz on Russets<sup>2</sup> 4-10 oz, 2-4 inch on fingerling

Table 9. Yield and Percent of U.S. No. 1's (4 - 6 oz.) for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California				Texas				Mean	
	KRN		TUL <sup>1</sup>		SPR		DAL		Cwt/A	%
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%		
<b>Specialty Trial</b>										
<b>Red-Purple/Yellow Flesh</b>										
1 ATTX88654-2P/Y	78	42	100	20	17	21			65	28
2 ATTX01180-1R/Y	48	18	97	22	26	19			57	20
3 CO04021-2R/Y	49	10	95	15	14	12			53	12
<b>White/Yellow Flesh</b>										
4 Yukon Gold	57	22	88	19	39	30			61	24
5 CO04013-1W/Y	80	39	120	25	1	1			67	21
6 CO04117-5PW/Y	67	37	40	20	1	2			36	20
7 TX1674-1W/Y	34	19	55	22	4	6			31	16
<b>Purple/Purple Flesh</b>										
8 Purple Majesty	84	44	142	27	0	0			75	24
9 CO03027-2R/R	78	41	144	34	5	4			76	26
10 CO04045-4P/P	118	54	108	29	12	10			79	31
<b>Fingerling</b>										
11 Banana				0	1	6			1	3
12 CO03094-5RF/RW	41	23		0	5	15			23	13
<b>Russet Trial</b>										
13 Russet Norkotah	26	11	199	45	6	13			77	23
14 AC00395-2RU	113	49	232	53	16	14			120	39
15 AOTX96075-1RU	32	14	156	40	4	9			64	21
16 CO03187-1RU	50	19	155	39	4	6			70	21
17 CO03202-1RU	48	34	190	40	2	2			80	25
18 CO03276-4RU	34	14	201	49	1	5			79	22
19 CO03276-5RU	43	16	199	49	3	6			82	24
<b>Red Trial</b>										
20 Norland (Dark Red)	88	48	118	23	10	9			72	26
21 Red LaSoda	54	15	78	13	30	17			54	15
22 COTX02172-1R	55	49	131	31	11	8			66	29
23 NDTX5438-11R	117	50	111	24	23	17			84	30
<b>Chip Trial</b>										
24 Atlantic	62	22	96	26	73	29	107	21	85	25
25 Chipeta	98	34	81	15	35	32	36	21	62	25
26 AC03433-1W	60	21	133	25	41	23	96	25	82	24
27 CO03243-3W	142	47	131	30	83	34	154	18	128	32
Mean	67	30	128	27	17	13	98	21	68	23

<sup>1</sup> 4-8oz for russets

Table 10. Yield and Percent B (&lt;4 oz.) Tubers for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California				Colorado <sup>1</sup>		Texas				Mean	
	KRN		TUL		SLV		SPR		DAL		Cwt/A	%
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%		
<b>Specialty Trial</b>												
<b>Red-Purple/Yellow Flesh</b>												
1 ATTX88654-2P/Y	45	24	69	14	40	7	41	49			49	23
2 ATTX01180-1R/Y	46	17	95	22	100	25	42	31			71	23
3 CO04021-2R/Y	36	7	60	9	48	8	98	82			61	27
<b>White/Yellow Flesh</b>												
4 Yukon Gold	28	11	66	14	33	8	81	61			52	24
5 CO04013-1W/Y	86	42	299	62	265	56	124	98			193	65
6 CO04117-5PW/Y	73	40	144	73	131	51	24	98			93	65
7 TX1674-1W/Y	29	16	54	22	37	15	51	79			43	33
<b>Purple/Purple Flesh</b>												
8 Purple Majesty	92	49	187	36	207	41	70	83			139	52
9 CO03027-2R/R	112	59	160	37	116	32	86	85			118	53
10 CO04045-4P/P	84	38	203	55	152	38	100	89			135	55
<b>Fingerling</b>												
11 Banana				0	58	16	0	0			29	5
12 CO03094-5RF/RW	84	47		0	58	11	0	0			47	15
<b>Russet Trial</b>												
13 Russet Norkotah	49	21	90	20	50	13	38	82			57	34
14 AC00395-2RU	87	37	108	25	28	6	90	81			78	37
15 AOTX96075-1RU	49	22	60	16	17	5	28	63			38	26
16 CO03187-1RU	69	26	51	13	70	19	55	81			61	35
17 CO03202-1RU	39	27	84	18	53	12	32	32			52	22
18 CO03276-4RU	45	18	66	16	46	14	26	95			46	36
19 CO03276-5RU	46	17	140	34	119	26	39	77			86	39
<b>Red Trial</b>												
20 Norland (Dark Red)	35	19	88	17	57	13	104	87			71	34
21 Red LaSoda	19	5	62	10	38	6	121	68			60	22
22 COTX02172-1R	42	38	163	39	94	21	117	82			104	45
23 NDTX5438-11R	61	26	80	17	49	12	88	66			70	30
<b>Chip Trial</b>												
24 Atlantic	34	12	81	22	56	12	119	47	91	18	76	22
25 Chipeta	29	10	41	8	39	7	55	50	83	47	49	24
26 AC03433-1W	18	6	58	11	41	9	94	53	56	14	53	19
27 CO03243-3W	39	13	81	18	46	10	124	50	111	13	80	21
Mean	53	25	104	23	76	18	68	66	85	23	74	33

<sup>1</sup>Fingerling=<2 inch

Table 11. Yield and Percent Culls/No. 2s for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL <sup>1</sup>		SLV		SPR		DAL		Cwt/A	%
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%		
<b>Specialty Trial</b>												
<b>Red-Purple/Yellow Flesh</b>												
1 ATTX88654-2P/Y	2	1	50	10	27	4	0	0			20	4
2 ATTX01180-1R/Y	8	3	39	9	6	1	2	1			14	4
3 CO04021-2R/Y	15	3	62	10	8	1	6	5			23	5
<b>White/Yellow Flesh</b>												
4 Yukon Gold	2	1	41	9	10	2	0	0			13	3
5 CO04013-1W/Y	1	0	10	2	1	0	1	1			3	1
6 CO04117-5PW/Y	19	10	5	3	4	2	0	0			7	4
7 TX1674-1W/Y	5	3	12	5	8	3	9	15			9	6
<b>Purple/Purple Flesh</b>												
8 Purple Majesty	1	0	40	8	1	0	14	16			14	6
9 CO03027-2R/R	0	0	10	2	4	1	11	10			6	3
10 CO04045-4P/P	0	0	2	1	0	0	0	0			1	0
<b>Fingerling</b>												
11 Banana				0	77	21	20	94			49	39
12 CO03094-5RF/RW	3	2		0	86	17	25	85			38	26
<b>Russet Trial</b>												
13 Russet Norkotah	1	1	18	4	8	2	1	3			7	2
14 AC00395-2RU	0	0	15	3	15	3	1	1			8	2
15 AOTX96075-1RU	0	0	33	9	13	3	12	27			15	10
16 CO03187-1RU	3	1	15	4	3	1	5	7			7	3
17 CO03202-1RU	4	3	30	6	6	1	66	66			27	19
18 CO03276-4RU	1	1	15	4	2	1	0	0			5	1
19 CO03276-5RU	5	2	7	2	4	1	6	12			5	4
<b>Red Trial</b>												
20 Norland (Dark Red)	1	1	37	7	10	2	2	2			13	3
21 Red LaSoda	6	2	105	18	72	12	20	11			51	11
22 COTX02172-1R	0	0	20	5	11	2	7	5			10	3
23 NDTX5438-11R	3	1	19	4	7	2	11	8			10	4
<b>Chip Trial</b>												
24 Atlantic	2	1	18	5	6	1	2	1	132	26	32	7
25 Chipeta	5	2	42	8	35	7	0	0	16	9	20	5
26 AC03433-1W	6	2	48	9	33	8	5	3	68	18	32	8
27 CO03243-3W	5	1	11	2	13	3	4	1	112	13	29	4
Mean	4	2	28	5	17	4	9	14	82	16	17	7

<sup>1</sup> includes over 16 oz tubers

Table 12. Specific Gravity for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California	Colorado	Texas		Mean
	TUL	SLV	SPR	DAL	
<b>Specialty Trial</b>					
<b>Red-Purple/Yellow Flesh</b>					
1 ATTX88654-2P/Y	1.076	1.082	1.061		1.073
2 ATTX01180-1R/Y	1.071	1.082	1.057		1.070
3 CO04021-2R/Y	1.082	1.088	1.063		1.078
<b>White/Yellow Flesh</b>					
4 Yukon Gold	1.085	1.087	1.060		1.077
5 CO04013-1W/Y	1.094	1.108	1.053		1.085
6 CO04117-5PW/Y	1.068	1.071	1.048		1.062
7 TX1674-1W/Y	1.090	1.090	1.054		1.078
<b>Purple/Purple Flesh</b>					
8 Purple Majesty	1.077	1.088			1.083
9 CO03027-2R/R	1.081	1.085			1.083
10 CO04045-4P/P	1.067	1.074			1.071
<b>Fingerling</b>					
11 Banana	1.086	1.097			1.092
12 CO03094-5RF/RW	1.075	1.077			1.076
<b>Russet Trial</b>					
13 Russet Norkotah	1.076	1.082	1.059		1.072
14 AC00395-2RU	1.103	1.108	1.066		1.092
15 AOTX96075-1RU	1.080	1.085	1.049		1.071
16 CO03187-1RU	1.078	1.086	1.060		1.075
17 CO03202-1RU	1.087	1.095	1.053		1.078
18 CO03276-4RU	1.089	1.091	1.060		1.080
19 CO03276-5RU	1.088	1.088	1.040		1.072
<b>Red Trial</b>					
20 Norland (Dark Red)	1.066	1.073	1.055		1.065
21 Red LaSoda	1.080	1.082	1.045		1.069
22 COTX02172-1R	1.062	1.067	1.051		1.060
23 NDTX5438-11R	1.066	1.074	1.046		1.062
<b>Chip Trial</b>					
24 Atlantic	1.102	1.101	1.072	1.077	1.088
25 Chipeta	1.090	1.089	1.041	1.083	1.076
26 AC03433-1W	1.084	1.090	1.061	1.071	1.077
27 CO03243-3W	1.093	1.093	1.056	1.069	1.078
Mean	1.081	1.086	1.055	1.075	1.076



Table 13. Average Tuber Weight (Size) and Shape for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Weight (oz.)				Shape <sup>1</sup>				
	California	Texas		Mean	California	Colorado	Texas		Mean
	TUL	SPR	DAL		TUL	SLV	SPR	DAL	
<b>Specialty Trial</b>									
<b>Red-Purple/Yellow Flesh</b>									
1 ATTX88654-2P/Y	5.8	3.0		4.4	1.5	2.0	3.0		2.2
2 ATTX01180-1R/Y	5.0	3.9		4.5	3.1	2.0	2.5		2.5
3 CO04021-2R/Y	6.7	1.7		4.2	3.6	3.0	3.0		3.2
<b>White/Yellow Flesh</b>									
4 Yukon Gold	6.1	2.4		4.3	3.1	2.0	2.5		2.5
5 CO04013-1W/Y	3.2	0.9		2.1	1.5	1.0	1.5		1.3
6 CO04117-5PW/Y	2.8	1.0		1.9	3.5	2.0	3.5		3.0
7 TX1674-1W/Y	5.1	1.6		3.4	3.6	3.0	3.8		3.5
<b>Purple/Purple Flesh</b>									
8 Purple Majesty	4.2	1.3		2.8	4.0	3.0	1.5		2.8
9 CO03027-2R/R	4.0	1.5		2.8	2.6	2.0	1.5		2.0
10 CO04045-4P/P	3.3	1.7		2.5	1.9	1.0	1.5		1.5
<b>Fingerling</b>									
11 Banana		0.3		0.3	5.0	5.0	4.0		4.7
12 CO03094-5RF/RW		0.5		0.5	5.0	5.0	4.0		4.7
<b>Russet Trial</b>									
13 Russet Norkotah	5.2	2.1		3.7	4.3	5.0	3.8		4.4
14 AC00395-2RU	4.7	2.0		3.4	3.9	4.0	2.1		3.3
15 AOTX96075-1RU	5.8	2.2		4.0	4.2	4.0	2.5		3.6
16 CO03187-1RU	6.3	2.1		4.2	4.8	5.0	3.0		4.3
17 CO03202-1RU	5.7	2.3		4.0	4.6	5.0	4.0		4.5
18 CO03276-4RU	5.6	1.2		3.4	4.0	4.0	2.0		3.3
19 CO03276-5RU	4.2	1.5		2.9	4.3	5.0	3.5		4.3
<b>Red Trial</b>									
20 Norland (Dark Red)	5.5	1.8		3.7	2.3	2.0	2.0		2.1
21 Red LaSoda	6.9	1.5		4.2	2.0	2.0	2.5		2.2
22 COTX02172-1R	3.9	1.5		2.7	1.6	2.0	2.3		2.0
23 NDTX5438-11R	5.5	2.3		3.9	1.6	1.0	2.0		
<b>Chip Trial</b>									
24 Atlantic	4.9	2.9	6.1	4.6	1.4	2.0	1.0	3.5	2.0
25 Chipeta	7.0	2.9	3.7	4.5	1.5	2.0	1.0	2.5	1.8
26 AC03433-1W	6.1	2.9	5.4	4.8	1.4	1.0	1.0	1.5	1.2
27 CO03243-3W	4.9	2.9	6.8	4.9	1.2	1.0	1.0	2.0	1.3
Mean	5.1	1.9	5.5	3.4	3.0	2.8	2.4	2.4	2.8

<sup>1</sup> 1=round to 5 =long

Table 14 Eye Depth and Growth Cracks for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Eye Depth <sup>1</sup>				Growth Cracks <sup>2</sup>				
	California	Texas		Mean	California	Colorado	Texas		Mean
	TUL	SPR	DAL		TUL <sup>3</sup>	SLV	SPR	DAL	
<b>Specialty Trial</b>									
<b>Red-Purple/Yellow Flesh</b>									
1 ATTX88654-2P/Y	2.8	2.5		2.7	0.2	4.0	5.0		4.5
2 ATTX01180-1R/Y	3.4	4.0		3.7	0.1	4.0	5.0		4.5
3 CO04021-2R/Y	3.8	4.0		3.9	0.5	4.0	5.0		4.5
<b>White/Yellow Flesh</b>									
4 Yukon Gold	4.1	4.5		4.3	0.6	4.0	5.0		4.5
5 CO04013-1W/Y	3.0	4.5		3.8	0.0	5.0	5.0		5.0
6 CO04117-5PW/Y	3.3	4.5		3.9	0.0	5.0	5.0		5.0
7 TX1674-1W/Y	3.6	4.5		4.1	0.3	5.0	5.0		5.0
<b>Purple/Purple Flesh</b>									
8 Purple Majesty	3.3	4.5		3.9	0.1	5.0	5.0		5.0
9 CO03027-2R/R	3.6	4.5		4.1	0.1	4.0	5.0		4.5
10 CO04045-4P/P	3.4	4.5		4.0	0.0	5.0	5.0		5.0
<b>Fingerling</b>									
11 Banana	3.5	4.5		4.0	n/a	5.0	5.0		5.0
12 CO03094-5RF/RW	3.3	4.5		3.9	n/a	5.0	5.0		5.0
<b>Russet Trial</b>									
13 Russet Norkotah	3.4	3.6			0.3		5.0		
14 AC00395-2RU	3.5	4.0		3.8	0.1	4.0	5.0		4.5
15 AOTX96075-1RU	3.3	4.0		3.7	0.3	5.0	5.0		5.0
16 CO03187-1RU	3.6	4.0		3.8	0.5	5.0	5.0		5.0
17 CO03202-1RU	3.8	4.0		3.9	0.3	5.0	5.0		5.0
18 CO03276-4RU	4.0	4.0		4.0	0.2	5.0	5.0		5.0
19 CO03276-5RU	3.6	4.0		3.8	0.0	5.0	5.0		5.0
<b>Red Trial</b>									
20 Norland (Dark Red)	3.0	3.9		3.5	0.0	4.0	5.0		4.5
21 Red LaSoda	1.2	2.5		1.9	0.3	2.0	5.0		3.5
22 COTX02172-1R	3.1	4.0		3.6	0.1	5.0	5.0		5.0
23 NDTX5438-11R	3.4	4.0		3.7	0.1	4.0	5.0		4.5
<b>Chip Trial</b>									
24 Atlantic	2.9	4.5	4.0	3.8	0.2	5.0	5.0	5.0	5.0
25 Chipeta	3.7	4.5	4.0	4.1	0.4	3.0	5.0	5.0	4.3
26 AC03433-1W	3.9	4.5	4.0	4.1	2.4	2.0	5.0	5.0	4.0
27 CO03243-3W	3.8	4.5	4.0	4.1	0.7	4.0	5.0	5.0	4.7
Mean	3.4	4.1	4.0	3.8	0.3	4.3	5.0	5.0	4.7

<sup>1</sup> 1=deep to 5=shallow<sup>2</sup> 1 to 5=none<sup>3</sup> % of total count

Table 15. Percent Hollow Heart/Brown Center, Blackspot Bruising, and Fry Results for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Hollow Heart/Brown Center (%)					Vert Wilt	Vert Wilt	Blackspot Bruising <sup>1</sup>	Fry Data <sup>2</sup>		
	California	Colorado	Texas		Mean	8/18/2011	9/1/11		Colorado		
	TUL	SLV	SPR	DAL		California		SLV	SLV <sup>3</sup>	SLV <sup>4</sup>	MS <sup>5</sup>
<b>Specialty Trial</b>											
<b>Red-Purple/Yellow Flesh</b>											
1 ATTX88654-2P/Y	13	25	0		13	3	6	5.0	2.0	3.0	4.0
2 ATTX01180-1R/Y	0	0	3		1	5	7	3.9	2.0	4.0	1.0
3 CO04021-2R/Y	3	1	0		1	3	5	4.6	2.0	2.0	5.0
<b>White/Yellow Flesh</b>											
4 Yukon Gold	0	2	8		3	7	8	5.0	2.0	2.0	4.0
5 CO04013-1W/Y	15	0	0		5	4	5	4.2	1.0	2.0	3.0
6 CO04117-5PW/Y	0	0	0		0	8	9	4.9	3.0	3.0	1.0
7 TX1674-1W/Y	0	0	5		2	5	5	4.3	2.0	2.0	5.0
<b>Purple/Purple Flesh</b>											
8 Purple Majesty	0	0	0		0	6	8				
9 CO03027-2R/R	0	0	0		0	3	5				
10 CO04045-4P/P	3	0	0		1	7	7				
<b>Fingerling</b>											
11 Banana	0	0	0		0	6	8	5.0	2.0	3.0	2.0
12 CO03094-5RF/RW	0	0	0		0	4	6	5.0	3.0	4.0	1.0
<b>Russet Trial</b>											
13 Russet Norkotah	0	2	0		1	9	9	4.9	2.0	3.0	1.0
14 AC00395-2RU	0	2	0		1	2	3	5.0	2.0	3.0	3.0
15 AOTX96075-1RU	3	3	0		2	8	8	4.5	2.0	2.0	3.0
16 CO03187-1RU	0	0	0		0	8	9	4.9	1.0	2.0	3.0
17 CO03202-1RU	0	0	0		0	2	6	4.5	2.0	2.0	4.0
18 CO03276-4RU	8	1	0		3	5	7	4.5	0.0	1.0	3.0
19 CO03276-5RU	0	0	0		0	4	7	4.6	1.0	3.0	1.0
<b>Red Trial</b>											
20 Norland (Dark Red)	0	0	0		0	6	8	5.0	1.0	3.0	1.0
21 Red LaSoda	33	19	0		17	4	6	4.7	2.0	3.0	1.0
22 COTX02172-1R	3	0	0		1	6	8	4.9	4.0	3.0	1.0
23 NDTX5438-11R	0	0	0		0	4	6	4.5	4.0	4.0	1.0
<b>Chip Trial</b>											
24 Atlantic	15	2	0	40	14	3	6	3.4			1.0
25 Chipeta	0	0	0	0	0	1	4	4.3			3.0
26 AC03433-1W	13	0	0	0	3	1	3	4.8			3.0
27 CO03243-3W	0	0	0	19	5	2	5	4.1			5.0
Mean	4	2	1	15	3	4	6	4.6	2.0	2.7	2.5

<sup>1</sup> 0= 0 symptoms, 1= Trace, 2= 1-5% of plants show symptoms of disease, 3= 5-10%, 4= 10-20%, 5= 20-40%, 6= 40-60%, 7= 60-75%, 8= 75-90%, 9= 90-100%

<sup>2</sup> 0=light, 5= dark

<sup>3</sup> at harvest

<sup>4</sup> after 8 weeks at 45° F

<sup>5</sup> 1-5=excellent

Table 16. Vigor and Flesh Color for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Vigor <sup>1</sup>				Flesh Color <sup>2</sup>			
	California	Texas		Mean	California	Texas		Mean
	TUL	SPR	DAL		TUL	SPR	DAL	
<b>Specialty Trial</b>								
<b>Red-Purple/Yellow Flesh</b>								
1 ATTX88654-2P/Y	4.4	3.8		4.1	2.9	3.0		3.0
2 ATTX01180-1R/Y	1.8	4.2		3.0	3.0	4.0		3.5
3 CO04021-2R/Y	3.5	4.3		3.9	3.1	3.7		3.4
<b>White/Yellow Flesh</b>								
4 Yukon Gold	3.9	3.4			2.8	2.5		2.7
5 CO04013-1W/Y	4.6	4.3		4.5	3.9	3.6		3.8
6 CO04117-5PW/Y	2.3	1.6		2.0	3.9	4.0		4.0
7 TX1674-1W/Y	2.8	3.6		3.2	2.9	3.0		3.0
<b>Purple/Purple Flesh</b>								
8 Purple Majesty	4.3	3.8		4.1	5.0	2.8		3.9
9 CO03027-2R/R	2.5	4.1		3.3	4.0	3.5		3.8
10 CO04045-4P/P	3.5	4.1		3.8	5.0	4.0		4.5
<b>Fingerling</b>								
11 Banana	3.3	4.0		3.7	2.5	2.0		2.3
12 CO03094-5RF/RW	4.3	4.5		4.4	1.5	1.0		1.3
<b>Russet Trial</b>								
13 Russet Norkotah	4.0	2.1		3.1		1.0		1.0
14 AC00395-2RU	2.6	3.4		3.0		1.0		1.0
15 AOTX96075-1RU	3.5	3.2		3.4		1.0		1.0
16 CO03187-1RU	3.3	2.6		3.0		1.0		1.0
17 CO03202-1RU	1.4	3.8		2.6		1.0		1.0
18 CO03276-4RU	3.4	1.8		2.6		1.0		1.0
19 CO03276-5RU	3.9	3.5		3.7		1.0		1.0
<b>Red Trial</b>								
20 Norland (Dark Red)	4.0	1.9		3.0	1.0	1.0		1.0
21 Red LaSoda	3.7	4.5		4.1	1.7	1.0		1.4
22 COTX02172-1R	2.8	2.9		2.9	1.4	1.0		1.2
23 NDTX5438-11R	1.1	2.9		2.0	1.3	1.0		1.2
<b>Chip Trial</b>								
24 Atlantic	3.1	4.1	3.8	3.7		1.0	1.0	1.0
25 Chipeta	3.9	4.5	4.5	4.3		1.0	1.0	1.0
26 AC03433-1W	3.9	3.8	3.7	3.8		1.0	1.0	1.0
27 CO03243-3W	3.5	3.7	4.1	3.8		1.0	1.0	1.0
Mean	3.3	3.5	4.0	3.4	2.9	1.9	1.0	2.0

<sup>1</sup> 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

<sup>2</sup> 1=light to 5=dark

Table 17. Chip color rating, chip defects and notes, and percentage of Zebra Defect at chipping, and percentage Zebra Defect at grading of 28 entries in the Southwestern Regional Chip Trial grown near Springlake and Dalhart, Texas-2011.

Clone / Variety	Chip Color <sup>1</sup>		Chip Defects and Notes <sup>2</sup>		Percent Zebra Defect after Chipping		Percent Zebra Defect at Grading	
	SPR	DAL	SPR	DAL	SPR	DAL	SPR	DAL
<b>Specialty Trial</b>								
<b>Red-Purple/Yellow Flesh</b>								
1 ATTX88654-2P/Y	2+		2dark		0	0	0	0
2 ATTX01180-1R/Y	3				0	0	0	0
3 CO04021-2R/Y	3+				0	0	0	0
<b>White/Yellow Flesh</b>								
4 Yukon Gold	3				0	0	0	0
5 CO04013-1W/Y	3		1BC		0	0	0	0
6 CO04117-5PW/Y	3		1dark		0	0	0	0
7 TX1674-1W/Y	3+		1dark, 1BC		0	0	0	0
<b>Purple/Purple Flesh</b>								
8 Purple Majesty	0						0	0
9 CO03027-2R/R	0						0	0
10 CO04045-4P/P	0						0	0
<b>Fingerling</b>								
11 Banana	0						0	0
12 CO03094-5RF/RW	0						0	0
<b>Russet Trial</b>								
13 Russet Norkotah	1		4 dark		0	0	0	0
14 AC00395-2RU	2				0	0	0	0
15 AOTX96075-1RU	2		4 dark		0	0	0	0
16 CO03187-1RU	3		4 dark		0	0	0	0
17 CO03202-1RU	2				0	0	0	0
18 CO03276-4RU	2				0	0	0	0
19 CO03276-5RU	3		20 dark		0	0	0	0
<b>Red Trial</b>								
20 Norland (Dark Red)	3				0	0	0	0
21 Red LaSoda	2		6dark vas		0	0	0	0
22 COTX02172-1R	3+		15dark		0	0	0	0
23 NDTX5438-11R	3		5BC, 2dark		0	0	0	0
<b>Chip Trial</b>								
24 Atlantic	1+	1		1GH,1TM,1SED	0	0	0	0
25 Chipeta	2	2	1BC	11SED	0	0	0	0
26 AC03433-1W	1	1		1HH,1MB,3SED	0	0	0	0
27 CO03243-3W	1	1	2MB	1GH,4SED,2TM	0	0	0	0

One .05" slice per tuber, at least 10 tubers per rep, three reps, 1 min 25 sec, 365 °F corn oil.

<sup>1</sup>1=light, 3+=very dark

<sup>2</sup>BOT=Best of Trial, Vas=vascular heat necrosis, Dark=high sugars, BC=brown center, HH=hollow heart, GH=greenheads, Z=zebra, TM=tuber moth, SED=stem end discoloration, MB=mahogany browning

Table 18. Colorado Chipping Results for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Chip Color <sup>1</sup>				Texas <sup>4</sup>	
	Colorado				SPR	DAL
	40 <sup>2</sup>	R40 <sup>2</sup>	50 <sup>3</sup>	R50 <sup>3</sup>		
24 Atlantic	4.5	3.5	3.5	2.5	1+	1
25 Chipeta	5.0	4.0	3.5	1.5	2	2
26 AC03433-1W	3.5	3.5	1.5	2.0	1	1
27 CO03243-3W	3.5	2.5	2.0	1.0	1	1

<sup>1</sup> 1=light, 5=dark

<sup>2</sup>40°F Storage protocol prior to frying

Initial storage temperature 55°F

Holding temperature 40°F

Weeks to holding temperature 3

Weeks at holding temperature 5

Reconditioning temp. (if applicable) 60°F

Number of weeks reconditioning 3

<sup>3</sup>50°F Storage protocol prior to frying

Initial storage temperature 55°F

Holding temperature 50°F

Weeks to holding temperature 3

Weeks at holding temperature 5

Reconditioning temp. (if applicable) 60°F

Number of weeks reconditioning 3

<sup>4</sup> Chipped immediately following harvest

Table 19. Notes for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	California	Texas	
	TUL	SPR	DAL
<b>Specialty Trial</b>			
<b>Red-Purple/Yellow Flesh</b>			
1 ATTX88654-2P/Y	Flat shape, 7.5% of total tubers green	deep eyes, deep stem attachment	
2 ATTX01180-1R/Y	skinned badly, 93% vascular discoloration, 7.4% of total tubers green	very bad feathering, rough shape+, very dark yellow flesh, poor shape, BOT	
3 CO04021-2R/Y	nice appearance, 7.5% of total tubers green	light skin, nice flesh, , nice flesh, small, smooth	
<b>White/Yellow Flesh</b>			
4 Yukon Gold	nice appearance	better rep, less rot, rot++, low yield, BOT	
5 CO04013-1W/Y		heavy set, nice flesh+, many small tubers, heat sprouts+++	
6 CO04117-5PW/Y	43% vascular discoloration	heat sprouts, very nice dark yellow flesh, very small, grape size, low yield, drop+	
7 TX1674-1W/Y		dumbbell, long rough, drop, , heat sprouts,	
<b>Purple/Purple Flesh</b>			
8 Purple Majesty		road map, poor skin finish, nice shape, all blue like flesh, , small++	
9 CO03027-2R/R	33% stem end necrosis	small, nice shape, road map, nice red flesh	
10 CO04045-4P/P		nice dark flesh, BOT+, silver scurf, poor skin finish, nice shape,	
<b>Fingerling</b>			
11 Banana		very small, poor shape, all culls, small curved, pointed	
12 CO03094-5RF/RW	100% vascular discoloration	some vascular discoloration, skinny, poor shape, drop, , no red in flesh	
<b>Russet Trial</b>			
13 Russet Norkotah		bad rep, low yield+, light set, small	
14 AC00395-2RU	Pink skin discoloration, low vert wilt rating	nice skin, small, blocky, heavy set	
15 AOTX96075-1RU		small, skinny, very low yield	
16 CO03187-1RU		blocky, light set++, small	
17 CO03202-1RU		skinny++, many culls+, poor shape	
18 CO03276-4RU		light set++, small, small, small light set,	
19 CO03276-5RU		small, light set, low yield, ugly	
<b>Red Trial</b>			
20 Norland (Dark Red)	Splotchy red coloring (light/dark red)	light skin color, variable color, small, silver scurf, heavy set, heat sprouts, nice shape	
21 Red LaSoda	7.4% of total tubers green	chain tubers+, poor color, heat sprouts, heavy set, small, dumbbell, yield+	
22 COTX02172-1R	skinned badly, 80% vascular discoloration	heavy set+++, nice flesh+, small potato, small, uniform	
23 NDTX5438-11R		light set, nice shape, small	
<b>Chip Trial</b>			
24 Atlantic		nice yield, buff, large tubers	heat necrosis, poor internals, buff, drop
25 Chipeta		heat sprouts, poor yield, light set	light set
26 AC03433-1W		smooth,	sticky stolon, greenhead
27 CO03243-3W		nice rep, large tubers, yield, rough, small, bad rep	

Table 20. Summary for Clones in the Southwestern Regional Trial, 2011

Clone / Variety	Field Data				Yield Qualities					Tuber Description				
	% Stand	Stems/hill	Vine Size	Vine Mat.	Total Yield	% #1s	% >10 <sup>1</sup>	% <4	% Culls	Merit Score	Specific Gravity	Tuber Shape	Tuber Weight	Skin Color
<b>Specialty Trial</b>														
<b>Red-Purple/Yellow Flesh</b>														
1 ATTX88654-2P/Y	79	3	4	4	344	71	19	23	4	3.1	1.073	Oblong	4.4	Purple
2 ATTX01180-1R/Y	66	3	4	3	313	72	15	23	4	2.7	1.070	Oblong	4.5	Red
3 CO04021-2R/Y	94	3	5	4	462	66	21	27	5	4.2	1.078	Oblong	4.2	Red
<b>White/Yellow Flesh</b>														
4 Yukon Gold	92	2	3	3	315	72	17	24	3	3.1	1.077	Oval	4.3	White
5 CO04013-1W/Y	100	5	5	4	322	35	0	65	1	2.2	1.085	Round	2.1	White
6 CO04117-5PW/Y	88	4	2	2	166	31	0	65	4	2.1	1.062	Oblong	1.9	Pur/Wh
7 TX1674-1W/Y	73	2	3	4	185	59	16	33	6	1.3	1.078	Oblong	3.4	White
<b>Purple/Purple Flesh</b>														
8 Purple Majesty	100	3	3	3	323	41	3	52	6	3.8	1.083	Oval	2.8	Purple
9 CO03027-2R/R	78	3	4	4	270	43	2	53	3	2.6	1.083	Round	2.8	Red
10 CO04045-4P/P	98	3	3	3	275	45	1	55	0	3.4	1.071	Round	2.5	Purple
<b>Fingerling</b>														
11 Banana	100	3	4	3	212	34	13	5	39	2.6	1.092	Long	0.3	White
12 CO03094-5RF/RW	99	4	4	4	297	46	11	15	26	2.5	1.076	Long	0.5	Red
<b>Russet Trial</b>														
13 Russet Norkotah	100	3	2	1	280	63	11	34	2	1.8	1.072	Long	3.7	Russet
14 AC00395-2RU	99	3	4	4	318	61	8	37	2	3.7	1.092	Long	3.4	Russet
15 AOTX96075-1RU	99	2	3	3	257	63	18	26	10	1.9	1.071	Long	4.0	Russet
16 CO03187-1RU	99	3	3	2	275	61	10	35	3	1.4	1.075	Long	4.2	Russet
17 CO03202-1RU	98	2	4	3	288	57	11	22	19	2.3	1.078	Long	4.0	Russet
18 CO03276-4RU	98	3	3	2	256	63	8	36	1	1.3	1.080	Oblong	3.4	Russet
19 CO03276-5RU	100	4	4	3	293	57	9	39	4	1.7	1.072	Long	2.9	Russet
<b>Red Trial</b>														
20 Norland (Dark Red)	99	3	2	2	310	62	10	34	3	2.1	1.065	Oval	3.7	Red
21 Red LaSoda	100	2	4	4	433	64	20	22	11	2.5	1.069	Oval	4.2	Red
22 COTX02172-1R	87	4	3	3	280	52	5	45	3	2.7	1.060	Oblong	2.7	Red
23 NDTX5438-11R	81	2	3	3	311	65	10	30	4	2.3	1.062	Round	3.9	Red
<b>Chip Trial</b>														
24 Atlantic	95	3	4	4	373	70	12	22	7	2.8	1.088	Round	4.6	Buff
25 Chipeta	99	3	4	4	325	68	19	24	5	3.2	1.076	Oval	4.5	White
26 AC03433-1W	89	3	4	4	362	72	13	19	8	2.7	1.077	Round	4.8	White
27 CO03243-3W	99	2	4	4	464	74	15	21	4	3.4	1.078	Round	4.9	White



Status of Entries following the Southwestern Regional Trial- 2011 Worksheet

Clone / Variety	Entered by	Status	Years in Trial	Average Total Yield				
				2009	2010	2011	Mean	% of check <sup>1</sup>
<b>Specialty Trial</b>								
<b>Red-Purple/Yellow Flesh</b>								
1 ATTX88654-2P/Y	TX	D	1			344	344	77
2 ATTX01180-1R/Y	TX	R	2		408	313	360	70
3 CO04021-2R/Y	CO	G	1			462	462	103
<b>White/Yellow Flesh</b>								
4 Yukon Gold				392	412	315	373	
5 CO04013-1W/Y	CO	G	1			322	322	86
6 CO04117-5PW/Y	CO	D	1			166	166	44
7 TX1674-1W/Y	TX	D	2		313	185	249	50
<b>Purple/Purple Flesh</b>								
8 Purple Majesty					427	323	375	
9 CO03027-2R/R	CO	D	1			270	270	72
10 CO04045-4P/P	CO	D	1			275	275	73
<b>Fingerling</b>								
11 Banana						212	212	
12 CO03094-5RF/RW	CO	D	1			297	297	140
<b>Russet Trial</b>								
13 Russet Norkotah				427	350	280	352	
14 AC00395-2RU	CO	G	1			318	318	90
15 AOTX96075-1RU	TX	D	1			257	257	73
16 CO03187-1RU	CO	G?	1			275	275	78
17 CO03202-1RU	CO	G	1			288	288	82
18 CO03276-4RU	CO	G	1			256	256	73
19 CO03276-5RU	CO	G?	1			293	293	83
<b>Red Trial</b>								
20 Norland (Dark Red)				467	431	310	403	
21 Red LaSoda				523	528	433	495	
22 COTX02172-1R	TX	R	1			280	280	62
23 NDTX5438-11R	TX	R	2		445	311	378	69
<b>Chip Trial</b>								
24 Atlantic					456	373	415	
25 Chipeta					418	325	371	
26 AC03433-1W	CO	G	1			362	362	92
27 CO03243-3W	CO	G	1			464	464	118

<sup>1</sup>% of check for Red-Purple=average of Dark Red Norland and Red LaSoda, White-Yellow=Yukon Gold, Purple/Purple=Purple Majesty, Fingerling=Banana, Russet=Russet Norkotah, Red=average of Dark Red Norland and Red LaSoda and, Chip=average of Atlantic and Chipeta

2012 Southwestern Regional Trial Entries

Entry	Parents		Flower	Vine		Tuber	Skin	Entered		Seed	2012	
#	Clone/Cultivar	Female	Male	Color	Size	Maturity	Shape	Type	By	Use	Source	Year
<b>Specialty Trial</b>												
	Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Check	Spec	CO	***
	Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Check	Spec	CO	***
	Banana	Unknown	Unknown	Light Purple	Med-Small	Late	Long	White	Check	Fresh	CO	***
	AC03534-2R/Y	ATA98472-2Y	Mazama	Purple	Med-Large	Medium	Oval	Red	CO	Fresh	CO	1
	ATTX01180-1R/Y	ND5084-3R	A92657-1R	Lavender	Small	Medium	Oblong	Red	TX	Spec	CO	3
	CO03134-4RF/RW	Laratte	PA97B36-3	Red-Purple	Med-Large	Medium	Long	Red	CO	Fresh	CO	1
	CO04029-3RW/Y	ATC98515-1R/Y	PA99P35-1	Purple	Small	Very Early	Oval	R/W	CO	Fresh	CO	1
	CO04029-5W/Y	ATC98515-1R/Y	PA99P35-1	Red-Purple	Large	Medium	Oval	White	CO	Fresh	CO	1
	CO04056-3P/PW	CO97216-1P/PW	CO97227-2P/PW	Purple	Med-Large	Med-Early	Oval	Purple	CO	Fresh	CO	1
	CO04063-4R/R	CO97226-2R/R	CO97222-1R/R	White	Med-Small	Med-Early	Oblong	Red	CO	Fresh	CO	1
	CO04067-8R/Y	CO97232-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oval	Red	CO	Fresh	CO	1
	CO04067-10W/Y	CO97232-1R/Y	ATC98444-1R/Y	Purple	Large	Medium	Oblong	White	CO	Fresh	CO	1
	CO04099-3W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Med-Large	Early	Oval	White	CO	Fresh	CO	1
	CO04099-4W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Large	Medium	Round	White	CO	Fresh	CO	1
	CO04188-4R/Y	ATC98515-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oblong	Red	CO	Fresh	CO	1
	COTX04015-3AW/Y	ATC98495-1W/Y	TX1674-1W/Y	Lavender	Large	Med-Late	Oblong	White	TX	Fresh	CO	1
<b>Russet Trial</b>												
	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	Check	Fresh	CO	***
	AOTX98152-3RU	A88338-1	A9201-6	Lavender	Med-Small	Early	Oblong	Russet	TX	Fresh	CO	2
	AOTX02136-1RU	A96563-8	A92030-5	White	Small	Med-Late	Long	Russet	TX	Fresh	CO	1
	CO03186-1RU	Rio Grande Russet	Blazer Russet	Red-Purple	Large	Med-Early	Oblong	Russet	CO	Fresh	CO	1
	CO04211-4RU	CO96045-1RU	CO98009-3RU	White	Small	Early	Oblong	Russet	CO	Fresh	CO	1
	CO04220-7RU	CO96109-7RU	Summit Russet	White	Medium	Early	Long	Russet	CO	Fresh	CO	1
	CO04233-1RU	CO97138-3RU	Summit Russet	White	Medium	Med-Early	Oblong	Russet	CO	Fresh	CO	1
<b>Red Trial</b>												
	Norland (Dark Red)	RedKote	ND626	Red-Purple	Small	Early	Oval	Red	Check	Fresh	CO	***
	Red LaSoda	Triumph	Katahdin	Red-Purple	Medium	Medium	Oval	Red	Check	Fresh	CO	***
	AOTX91861-4R	Red LaSoda	ND2224-5R	Lavender	Large	Medium	Oblong	Red	TX	Fresh	CO	1
	ATTX98453-3R	A93490-1R	A91846-5R	Lavender	Small	Early	Oblong	Red	TX	Fresh	CO	1
	ATTX98453-11BR	A93490-1R	A91846-5R	Lavender	Large	Early	Oblong	Red	TX	Fresh	CO	1
	CO04159-1R	AC97521-1R/Y	CO99076-6R	Purple	Medium	Med-Early	Round	Red	CO	Fresh	CO	1
	COTX02172-1R	CO94065-2R	ND3574-5R	Lavender	Medium	Early-Med	Oblong	Red	TX	Fresh	CO	2
	COTX02293-4R	NDC5281-2R	ND3574-5R	Lavender	Medium	Medium	Oblong	Red	TX	Fresh	CO	1
	NDTX5438-11R	ND4339-10R	ND4269-9R	Lavender	Medium	Late	Round	Red	TX	Fresh	CO	2
<b>Chip Trial</b>												
	Atlantic	Wauseon	B5141-6	Red-Purple	Medium	Medium	Round	Buff	Check	Chip	CO	***
	Chipeta	WNC612-13	Wischip	Purple	Large	Med-Late	Oval	White	Check	Chip	CO	***
	AC00206-2W	AC87340-2	Dakota Pearl	White	Small	Med-Early	Round	White	CO	Chip	CO	1
	AC03452-2W	A98423-1C	COA96141-2C	White	Med-Large	Medium	Round	White	CO	Chip	CO	1

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