

# 2012 Southwestern Regional Potato Variety Trial Report



**1997 - Fifteen Years of Collaboration - 2012**

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Description of Clones - 2012 Southwestern Regional Trial

Entry #	Clone/Cultivar	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Entered By	Use	Seed Source	2012 Year	2013 Status
		Female	Male										
<b>Specialty Trial</b>													
<b>Yellow Flesh</b>													
1	Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Check	Spec	CO	***	
2	AC03534-2R/Y	ATA98472-2Y	Mazama	Purple	Med-Large	Medium	Oval	Red	CO	Spec	CO	1	
3	CO04029-5W/Y	ATC98515-1R/Y	PA99P35-1	Red-Purple	Large	Medium	Oval	White	CO	Spec	CO	1	
4	CO04067-8R/Y	CO97232-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oval	Red	CO	Spec	CO	1	
5	CO04099-3W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Med-Large	Early	Oval	White	CO	Spec	CO	1	
6	CO04099-4W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Large	Medium	Round	White	CO	Spec	CO	1	
7	CO04188-4R/Y	ATC98515-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oblong	Red	CO	Spec	CO	1	
8	COTX04015-3AW/Y	ATC98495-1W/Y	TX1674-1W/Y	Lavender	Large	Med-Late	Oblong	White	TX	Spec	CO	1	
<b>Colored Flesh</b>													
9	Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Check	Spec	CO	***	
10	CO04056-3P/PW	CO97216-1P/PW	CO97227-2P/PW	Purple	Med-Large	Med-Early	Oval	Purple	CO	Spec	CO	1	
11	CO04063-4R/R	CO97226-2R/R	CO97222-1R/R	White	Med-Small	Med-Early	Oblong	Red	CO	Spec	CO	1	
<b>Fingerling</b>													
12	Banana	Unknown	Unknown	Light Purple	Med-Small	Late	Long	White	Check	Spec	CO	***	
13	CO03134-4RF/RW	Laratte	PA97B36-3	Red-Purple	Med-Large	Medium	Long	Red	CO	Spec	CO	1	
<b>Russet Trial</b>													
14	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	Check	Fresh	CO	***	
15	AOTX02136-1RU	A96563-8	A92030-5	White	Small	Med-Late	Long	Russet	TX	Fresh	CO	1	
16	CO04211-4RU	CO96045-1RU	CO98009-3RU	White	Small	Early	Oblong	Russet	CO	Dual	CO	1	
17	CO04220-7RU	CO96109-7RU	Summit Russet	White	Medium	Early	Long	Russet	CO	Dual	CO	1	
18	CO04233-1RU	CO97138-3RU	Summit Russet	White	Medium	Med-Early	Oblong	Russet	CO	Fresh	CO	1	
<b>Red Trial</b>													
19	Norland (Dark Red)	RedKote	ND626	Red-Purple	Small	Early	Oval	Red	Check	Fresh	CO	***	
20	Red LaSoda	Triumph	Katahdin	Red-Purple	Medium	Medium	Oval	Red	Check	Fresh	CO	***	
21	ATTX98453-3R	A93490-1R	A91846-5R	Lavender	Small	Early	Oblong	Red	TX		CO	1	
22	CO04159-1R	AC97521-1R/Y	CO99076-6R	Purple	Medium	Med-Early	Round	Red	CO	Fresh	CO	1	
23	COTX02172-1R	CO94065-2R	ND3574-5R	Lavender	Medium	Early-Med	Oblong	Red	TX	Fresh	CO	2	
24	COTX02293-4R	NDC5281-2R	ND3574-5R	Lavender	Medium	Medium	Oblong	Red	TX	Fresh	CO	1	
<b>Chip Trial</b>													
25	Atlantic	Wauseon	B5141-6	Red-Purple	Medium	Medium	Round	Buff	Check	Chip	CO	***	
26	Chipeta	WNC612-13	Wischip	Purple	Large	Med-Late	Oval	White	Check	Chip	CO	***	
27	AC00206-2W	AC87340-2	Dakota Pearl	White	Small	Med-Early	Round	White	CO	Chip	CO	1	
28	AC03452-2W	A98423-1C	COA96141-2C	White	Med-Large	Medium	Round	White	CO	Chip	CO	1	

Table 1. Locations, Cooperators, and Cultural Information

Locations	Cooperators	Irrigation	Trial	Fertilization (lb/A)	Harvest method	Planting Dates	Vine Kill	Harvest	Days to Vine Kill or Harvest
1. Kern Co. California (KRN)	J. Nunez J. DuBose	Sprinkler	All Trials		Machine/Hand	2/23/2012		6/4/2012	101
2. Tulelake California (TUL)	D. Kirby R. Wilson D. Culp K. Nicholson	Solid-set sprinkler	Specialty (Reds) Russet Chip	199-73-16-31S	Machine Machine Machine	5/17/2012 5/16/2012 5/16/2012	9/14/2012 9/14/2012 9/14/2012	10/11/2012 10/10/2012 10/10/2012	117 118 118
3. San Luis Valley Colorado (SLV)	D. Holm C. Gray	Pivot	Specialty Russet Red Chip	120-60-40-25-2.5Zn	Machine Machine Machine Machine	5/16/2012 5/16/2012 5/16/2012 5/16/2012	8/31/2012 8/31/2012 8/31/2012 8/31/2012	9/24/2012 9/24/2012 9/24/2012 9/24/2012	105 105 105 105
4. Springlake Texas (SPR )	C. Miller, J. Koym D. Scheuring	Pivot	Specialty Russet Red Chip	155-50-50	Machine/Hand Machine/Hand Machine/Hand Machine/Hand	3/27/2012 3/27/2012 3/27/2012 3/27/2012	7/20/2012 7/27/2012 7/20/2012 7/20/2012	7/24/2012 8/2/2012 7/24/2012 7/31/2012	113 120 113 113
4. Dalhart Texas (Dal )	C. Miller, J. Koym D. Scheuring	Pivot	Chip	140-134-62	Machine/Hand	5/7/2012	8/28/2012	9/17/2012	111

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

Item	California		Colorado	Texas	
	KRN	TUL	SLV	SPR	Dal
<b>Plot Information:</b>					
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
<b>Soil Type:</b>					
Fine sand				x	
Fine sandy loam					x
Loamy fine sand					
Sandy loam	x		x		
Silt loam					
Organic - 8%					
Mucky silty clay loam		x			
<b>Fungicides:</b>					
Bravo WS		x			x
Endura			x		
Luna Tranquility					x
Moncut		x			
Manzate		x			
Penncozeb					x
Quadris			x		x
Revus Top					x
Scala SC					x
<b>Insecticides:</b>					
Admire Pro		x			x
Beleaf 50 Sg					x
Epimek				x	x
Fulfill			x	x	x
Movento				x	x
Oberon					x
Platinum				x	
<b>Herbicides:</b>					
Eptam			x		
Matrix		x	x		x
Metribuzin		x			
Roundup				x	
Select Max					x
Sencor DF				x	x
Treflan				x	
<b>Vine Killing:</b>					
Mechanical				x	
Reglone		x			
Sulfuric Acid			x		
<b>Environmental Factors:</b>					
Cool/Wet Spring		x			
Dry/Windy Spring					
Cool and Dry Summer					
Severe Frost					
Favorable		x			
Hot Summer				x	x
Above Av. Prec.					

\* 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, 2012

Clone / Variety	Percent Stand					Stems per Hill			
	California	Colorado	Texas		Mean	Colorado	Texas	Mean	
	TUL	SLV	SPR	Dal		SLV	SPR		
<b>Specialty Trial</b>									
<b>Yellow Flesh</b>									
1	Yukon Gold	92	91	62		82	2.9	1.4	2.2
2	AC03534-2R/Y	91	92	98		94	4.1	2.0	3.0
3	CO04029-5W/Y	89	100	100		96	5.2	1.9	3.5
4	CO04067-8R/Y	91	96	100		96	4.5	2.2	3.3
5	CO04099-3W/Y	99	100	100		100	4.4	2.1	3.2
6	CO04099-4W/Y	93	99	100		97	5.5	2.3	3.9
7	CO04188-4R/Y	96	95	100		97	4.8	2.2	3.5
8	COTX04015-3AW/Y	97	98	100		98	3.4	2.1	2.7
<b>Colored Flesh</b>									
9	Purple Majesty	93	97	100		97	4.9	2.3	3.6
10	CO04056-3P/PW	83	97	100		93	3.8	2.1	3.0
11	CO04063-4R/R	97	99	100		99	5.4	1.7	3.6
<b>Fingerling</b>									
12	Banana	95	96	100		97	4.0	2.1	3.1
13	CO03134-4RF/RW	96	96	100		97	3.5	1.6	2.6
<b>Russet Trial</b>									
14	Russet Norkotah	98	97	100		98	3.3	1.9	2.6
15	AOTX02136-1RU	98	100	58		85	3.7	1.7	2.7
16	CO04211-4RU	99	100	100		100	3.1	2.1	2.6
17	CO04220-7RU	95	98	100		98	3.1	2.1	2.6
18	CO04233-1RU	88	91	100		93	2.2	1.8	2.0
<b>Red Trial</b>									
19	Norland (Dark Red)	93	99	100		97	4.2	2.5	3.4
20	Red LaSoda	98	100	100		99	3.0	2.0	2.5
21	ATTX98453-3R	88	100	97		95	3.0	1.9	2.5
22	CO04159-1R	63	76	80		73	2.7	2.0	2.4
23	COTX02172-1R	93	99	92		95	3.8	2.0	2.9
24	COTX02293-4R	99	99	93		97	4.5	2.1	3.3
<b>Chip Trial</b>									
25	Atlantic	97	94	100	100	98	3.9	1.5	2.7
26	Chipeta	94	97	97	100	97	3.3	1.9	2.6
27	AC00206-2W	94	97	100	100	98	2.6	1.9	2.3
28	AC03452-2W	97	99	100	100	99	3.3	2.2	2.8
Mean			97	96	100	95	3.8	2.0	2.9

Table 4. Vine Size and Maturity for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>								
1 Yukon Gold	4.0	3.4		3.7	2.0	3.6		2.8
2 AC03534-2R/Y	3.5	3.6		3.6	3.0	4.0		3.5
3 CO04029-5W/Y	4.0	4.2		4.1	3.0	4.3		3.6
4 CO04067-8R/Y	4.3	3.9		4.1	2.8	3.9		3.3
5 CO04099-3W/Y	3.8	4.3		4.0	3.0	4.7		3.8
6 CO04099-4W/Y	4.8	4.8		4.8	3.0	4.8		3.9
7 CO04188-4R/Y	4.3	4.2		4.2	2.8	4.1		3.4
8 COTX04015-3AW/Y	3.3	4.4		3.8	2.3	4.5		3.4
<b>Colored Flesh</b>								
9 Purple Majesty	4.0	3.1		3.6	2.5	2.7		2.6
10 CO04056-3P/PW	4.0	4.7		4.4	3.0	4.8		3.9
11 CO04063-4R/R	2.8	2.8		2.8	2.0	2.9		2.5
<b>Fingerling</b>								
12 Banana	4.3	3.9		4.1	3.0	4.7		3.9
13 CO03134-4RF/RW	3.5	3.9		3.7	3.3	4.5		3.9
<b>Russet Trial</b>								
14 Russet Norkotah	3.0	3.3		3.2	1.3	3.4		2.4
15 AOTX02136-1RU	3.0	3.6		3.3	1.8	4.3		3.1
16 CO04211-4RU	3.0	3.0		3.0	3.0	3.0		3.0
17 CO04220-7RU	3.5	3.6		3.6	2.0	3.6		2.8
18 CO04233-1RU	3.8	3.9		3.9	2.8	4.2		3.5
<b>Red Trial</b>								
19 Norland (Dark Red)	3.0	3.0		3.0	1.0	2.9		2.0
20 Red LaSoda	4.0	4.9		4.5	2.8	4.7		3.8
21 ATTX98453-3R	3.0	4.1		3.5	1.3	4.2		2.8
22 CO04159-1R	3.3	3.4		3.3	2.5	4.2		3.4
23 COTX02172-1R	3.0	3.7		3.4	1.0	3.1		2.1
24 COTX02293-4R	3.3	2.8		3.0	1.3	2.4		1.9
<b>Chip Trial</b>								
25 Atlantic	3.8	3.4	4.6	4.4	3.0	3.7	4.5	3.7
26 Chipeta	5.0	4.7	4.7	4.4	3.0	4.8	5.0	4.3
27 AC00206-2W	2.8	3.4	4.7	4.0	3.0	3.5	4.2	3.6
28 AC03452-2W	3.8	4.6	4.8	4.3	3.0	4.7	4.4	4.0
Mean	3.6	3.8	4.7	3.8	2.4	3.9	4.5	3.2

Table 5. Total Yield, Yield Rank Within Type (Specialty, Russet, Red, and Chip), and Merit Score1 (MS), for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	California						Colorado			Texas						Mean		
	KRN		TUL		MS <sup>1</sup>	SLV			SPR			DAL			Cwt/A	Rank	MS	
	Cwt/A	Rank	Cwt/A	Rank		Cwt/A	Rank	MS	Cwt/A	Rank	MS	Cwt/A	Rank	MS				
<b>Specialty Trial</b>																		
<b>Yellow Flesh</b>																		
1	Yukon Gold	237	6	436	8	4.1	382	8	4.0	171	6	4.0				306	8	4.0
2	AC03534-2R/Y	285	2	645	1	3.9	459	2	5.0	164	7	2.5				388	2	3.8
3	CO04029-5W/Y	251	5	522	4	4.3	451	3	4.0	292	3	2.5				379	3	3.6
4	CO04067-8R/Y	345	1	481	6	3.9	435	5	4.0	146	8	3.2				352	7	3.7
5	CO04099-3W/Y	202	8	479	7	4.1	383	7	3.0	388	2	2.3				363	4	3.1
6	CO04099-4W/Y	215	7	529	3	4.3	416	6	4.0	289	4	2.9				362	5	3.7
7	CO04188-4R/Y	254	4	483	5	4.0	469	1	5.0	224	5	3.2				357	6	4.1
8	COTX04015-3AW/Y	282	3	563	2	3.8	444	4	5.0	408	1	3.5				424	1	4.1
<b>Colored Flesh</b>																		
9	Purple Majesty	248	1	527	1	3.3	485	1	5.0	172	2	3.3				358	1	3.9
10	CO04056-3P/PW	184	2	411	2	3.3	311	2	3.0	304	1	3.6				303	2	3.3
11	CO04063-4R/R	139	3	349	3	3.8	237	3	3.0	123	3	2.9				212	3	3.2
<b>Fingerling</b>																		
12	Banana			359	2	3.5	319	1	5.0	116	2	2.5				265	2	3.7
13	CO03134-4RF/RW	187	1	444	1	2.8	290	2	2.0	166	1	2.3				272	1	2.4
<b>Russet Trial</b>																		
14	Russet Norkotah	185	5	333	4	3.8	356	3	3.0	182	5	3.5				264	4	3.4
15	AOTX02136-1RU	204	2	384	3	3.2	344	4	1.0	185	4	3.0				279	3	2.4
16	CO04211-4RU	268	1	423	2	3.4	373	2	5.0	223	2	3.1				322	2	3.8
17	CO04220-7RU	199	3	453	1	3.1	424	1	5.0	225	1	2.4				325	1	3.5
18	CO04233-1RU	194	4	291	5	3.2	328	5	1.0	220	3	2.6				258	5	2.3
<b>Red Trial</b>																		
19	Norland (Dark Red)	263	4	512	3	3.4	442	3	4.0	155	5	2.6				343	3	3.3
20	Red LaSoda	395	1	647	1	3.6	568	1	1.0	385	1	3.5				499	1	2.7
21	ATTX98453-3R	167	6	499	4	3.9	328	4	2.0	318	2	3.3				328	4	3.1
22	CO04159-1R	188	5	347	6	4.0	277	6	1.0	167	4	3.1				245	6	2.7
23	COTX02172-1R	273	3	522	2	3.1	510	2	5.0	169	3	2.7				369	2	3.6
24	COTX02293-4R	314	2	396	5	3.9	318	5	2.0	118	6	3.1				286	5	3.0
<b>Chip Trial</b>																		
25	Atlantic	292	2	461	3	3.7	451	2	4.0	227	3	3.7	402	3	3.5	367	3	3.7
26	Chipeta	272	3	594	1	3.8	500	1	5.0	258	2	3.3	334	4	3.0	392	2	3.8
27	AC00206-2W	265	4	394	4	4.1	279	4	1.0	218	4	3.9	420	1	3.9	315	4	3.2
28	AC03452-2W	328	1	566	2	4.1	412	3	3.0	290	1	3.6	407	2	3.8	401	1	3.6
Mean		246		466		3.7	393		3.4	225		3.1	391		3.6	333		3.4

<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, 2012

Clone / Variety	California						Colorado <sup>1</sup>			Texas <sup>2</sup>						Mean			
	KRN			TUL			SLV			SPR			DAL			Mean			
	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	
<b>Specialty Trial</b>																			
<b>Yellow Flesh</b>																			
1	Yukon Gold	217	6	91	375	3	86	335	1	88	144	3	84				268	3	87
2	AC03534-2R/Y	268	2	94	522	1	81	321	2	70	35	7	21				286	2	67
3	CO04029-5W/Y	241	4	96	298	5	57	204	7	45	45	6	15				197	7	53
4	CO04067-8R/Y	312	1	91	285	6	59	270	5	62	33	8	22				225	5	59
5	CO04099-3W/Y	192	8	95	216	8	45	168	8	44	171	2	44				187	8	57
6	CO04099-4W/Y	210	7	97	368	4	70	264	6	63	117	4	41				240	4	68
7	CO04188-4R/Y	238	5	94	223	7	46	282	4	60	51	5	23				198	6	56
8	COTX04015-3AW/Y	264	3	93	406	2	72	305	3	69	257	1	63				308	1	74
<b>Colored Flesh</b>																			
9	Purple Majesty	235	1	95	299	1	57	232	1	48	74	1	43				210	1	61
10	CO04056-3P/PW	182	2	99	237	2	58	61	2	20	66	2	22				136	2	49
11	CO04063-4R/R	137	3	98	64	3	18	28	3	12	0	3	0				57	3	32
<b>Fingerling</b>																			
12	Banana							279	1	87	31	2	26				155	2	57
13	CO03134-4RF/RW	169	1	90				264	2	91	53	1	32				162	1	71
<b>Russet Trial</b>																			
14	Russet Norkotah	174	5	94	215	4	65	307	3	86	125	4	69				205	4	78
15	AOTX02136-1RU	191	2	94	310	3	81	281	4	82	121	5	65				226	3	80
16	CO04211-4RU	252	1	94	327	1	77	341	1	91	166	1	75				272	1	84
17	CO04220-7RU	187	3	94	313	2	69	311	2	73	128	3	57				235	2	73
18	CO04233-1RU	176	4	91	180	5	62	281	4	86	160	2	73				199	5	78
<b>Red Trial</b>																			
19	Norland (Dark Red)	246	4	94	447	2	87	336	2	76	54	4	35				271	2	73
20	Red LaSoda	361	1	91	564	1	87	441	1	78	158	1	41				381	1	74
21	ATTX98453-3R	144	6	86	415	3	83	198	4	60	122	2	38				220	4	67
22	CO04159-1R	174	5	92	250	6	72	186	5	67	41	5	25				163	6	64
23	COTX02172-1R	265	3	97	326	4	62	316	3	62	57	3	34				241	3	64
24	COTX02293-4R	289	2	92	261	5	66	170	6	53	33	6	28				188	5	60
<b>Chip Trial</b>																			
25	Atlantic	274	2	94	384	3	83	373	2	83	179	2	79	259	1	65	294	3	81
26	Chipeta	258	3	95	548	1	92	413	1	83	208	1	81	229	2	69	331	1	84
27	AC00206-2W	257	4	97	311	4	79	210	4	75	127	4	58	189	4	45	219	4	71
28	AC03452-2W	317	1	96	493	2	87	333	3	81	155	3	53	207	3	51	301	2	74
Mean		231		94	332		69	268		68	104		45	221			228		68

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

<sup>2</sup> Fingerling 1-3inch

Table 7. Yield and Percent of U.S. No. 1's (>10oz.) for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	California				Colorado <sup>3</sup>		Texas				Mean		
	KRN <sup>1</sup>		TUL <sup>2</sup>		SLV		SPR <sup>4</sup>		DAL		Cwt/A	%	
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%			
<b>Specialty Trial</b>													
<b>Yellow Flesh</b>													
1	Yukon Gold	0	0	92	21	109	29	23	13			56	16
2	AC03534-2R/Y	0	0	112	17	46	10	0	0			40	7
3	CO04029-5W/Y	0	0	15	3	13	3	0	0			7	1
4	CO04067-8R/Y	0	0	10	2	12	3	1	1			6	1
5	CO04099-3W/Y	0	0	1	0	6	2	5	1			3	1
6	CO04099-4W/Y	0	0	37	7	37	9	0	0			19	4
7	CO04188-4R/Y	0	0	3	1	17	4	0	0			5	1
8	COTX04015-3AW/Y	0	0	63	11	94	21	34	8			48	10
<b>Colored Flesh</b>													
9	Purple Majesty	0	0	29	6	35	7	1	1			16	3
10	CO04056-3P/PW	0	0	8	2	0	0	0	0			2	0
11	CO04063-4R/R	0	0	0	0	0	0	0	0			0	0
<b>Fingerling</b>													
12	Banana					5	2	5	4			5	3
13	CO03134-4RF/RW	0	0			0	0	23	14			8	5
<b>Russet Trial</b>													
14	Russet Norkotah	0	0	12	4	109	31	20	11			35	11
15	AOTX02136-1RU	0	0	41	11	80	23	17	9			35	11
16	CO04211-4RU	0	0	21	5	107	29	17	8			36	10
17	CO04220-7RU	0	0	21	5	48	11	19	9			22	6
18	CO04233-1RU	0	0	8	3	67	20	18	8			23	8
<b>Red Trial</b>													
19	Norland (Dark Red)	0	0	86	17	49	11	0.0	0			34	7
20	Red LaSoda	0	0	181	28	175	31	18.3	5			94	16
21	ATTX98453-3R	0	0	157	31	28	9	10.4	3			49	11
22	CO04159-1R	0	0	19	5	22	8	0.0	0			10	3
23	COTX02172-1R	0	0	34	7	43	8	0.0	0			19	4
24	COTX02293-4R	0	0	11	3	1	0	0.0	0			3	1
<b>Chip Trial</b>													
25	Atlantic	0	0	111	24	74	16	31	14	86	21	60	15
26	Chipeta	0	0	245	41	100	20	101	39	97	29	109	26
27	AC00206-2W	0	0	31	8	26	9	3	1	26	6	17	5
28	AC03452-2W	0	0	39	7	34	8	14	5	44	11	26	6
Mean		0	0	53	10	48	12	13	5	63	17	28	7

<sup>1</sup> > 11oz

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

<sup>3</sup>Fingerling> 6 inch long

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

Table 8. Yield and Percent of U.S. No. 1's (6 - 10oz.) for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>													
1	Yukon Gold	52	22	189	43	226	59	53	31		130	39	
2	AC03534-2R/Y	35	12	243	38	275	60	4	2		139	28	
3	CO04029-5W/Y	16	6	114	22	191	42	8	3		82	18	
4	CO04067-8R/Y	29	8	102	21	258	59	4	3		98	23	
5	CO04099-3W/Y	11	6	49	10	163	43	59	15		70	18	
6	CO04099-4W/Y	14	7	171	32	228	55	45	15		114	27	
7	CO04188-4R/Y	9	4	67	14	264	56	4	2		86	19	
8	COTX04015-3AW/Y	43	15	188	33	212	48	85	21		132	29	
<b>Colored Flesh</b>													
9	Purple Majesty	17	7	107	20	197	41	44	26		91	23	
10	CO04056-3P/PW	0	0	86	21	61	20	17	6		41	12	
11	CO04063-4R/R	0	0	7	2	28	12	0	0		9	3	
<b>Fingerling</b>													
12	Banana					80	25				80	25	
13	CO03134-4RF/RW	8	4			43	15				26	10	
<b>Russet Trial</b>													
14	Russet Norkotah	24	13	40	12	198	56	40	22		76	26	
15	AOTX02136-1RU	16	8	98	26	201	58	32	17		87	27	
16	CO04211-4RU	57	21	74	17	234	63	69	31		109	33	
17	CO04220-7RU	22	11	54	12	264	62	29	13		92	24	
18	CO04233-1RU	25	13	29	10	214	65	66	30		84	30	
<b>Red Trial</b>													
19	Norland (Dark Red)	34	13	231	45	287	65	7	5		140	32	
20	Red LaSoda	91	23	250	39	266	47	96	25		176	33	
21	ATTX98453-3R	1	0	175	35	170	52	55	17		100	26	
22	CO04159-1R	24	13	132	38	163	59	8	5		82	29	
23	COTX02172-1R	37	13	131	25	273	54	10	6		113	24	
24	COTX02293-4R	46	15	110	28	169	53	9	8		84	26	
<b>Chip Trial</b>													
25	Atlantic	51	17	165	36	298	66	68	30	107	27	138	35
26	Chipeta	46	17	224	38	313	63	55	21	96	29	147	33
27	AC00206-2W	23	9	170	43	184	66	19	9	106	25	100	30
28	AC03452-2W	60	18	275	49	300	73	30	10	107	26	154	35
Mean		29	11	134	27	206	51	35	14	104	27	99	26

<sup>1</sup> 8-12 oz on Russets

<sup>2</sup> 4-10 oz, 4-6 inch on fingerling

Table 9. Yield and Percent of U.S. No. 1's (4 - 6 oz.) for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>											
1	Yukon Gold	123	52	94	22	69	40			95	38
2	AC03534-2R/Y	142	50	167	26	31	19			113	32
3	CO04029-5W/Y	98	39	169	32	37	13			101	28
4	CO04067-8R/Y	179	52	173	36	28	19			127	36
5	CO04099-3W/Y	86	43	166	35	106	27			120	35
6	CO04099-4W/Y	91	42	160	30	72	25			108	33
7	CO04188-4R/Y	125	49	154	32	47	21			109	34
8	COTX04015-3AW/Y	150	53	155	28	138	34			148	38
<b>Colored Flesh</b>											
9	Purple Majesty	102	41	163	31	29	17			98	30
10	CO04056-3P/PW	34	18	143	35	49	16			75	23
11	CO04063-4R/R	13	9	57	16	0	0			23	9
<b>Fingerling</b>											
12	Banana										
13	CO03134-4RF/RW	59	32							59	32
<b>Russet Trial</b>											
14	Russet Norkotah	79	43	162	49	64	35			102	42
15	AOTX02136-1RU	87	43	172	45	72	39			110	42
16	CO04211-4RU	146	55	232	55	80	36			153	49
17	CO04220-7RU	57	29	238	53	80	35			125	39
18	CO04233-1RU	85	44	143	49	76	35			102	43
<b>Red Trial</b>											
19	Norland (Dark Red)	159	60	130	25	46	30			112	39
20	Red LaSoda	227	57	133	21	43	11			135	30
21	ATTX98453-3R	58	35	83	17	56	18			66	23
22	CO04159-1R	87	46	99	29	33	20			73	31
23	COTX02172-1R	139	51	161	31	48	28			116	37
24	COTX02293-4R	198	63	140	35	24	20			121	40
<b>Chip Trial</b>											
25	Atlantic	165	56	109	24	80	35	67	17	105	33
26	Chipeta	180	66	79	13	53	20	41	12	88	28
27	AC00206-2W	172	65	111	28	105	48	57	13	111	39
28	AC03452-2W	217	66	179	32	112	39	56	14	141	37
Mean		121	47	145	32	61	26	55	14	105	34

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

Table 10. Yield and Percent B (<4 oz.) Tubers for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>													
1	Yukon Gold	42	18	55	13	39	10	21	13		39	13	
2	AC03534-2R/Y	91	32	112	17	138	30	103	63		111	36	
3	CO04029-5W/Y	127	51	220	42	245	54	221	76		203	56	
4	CO04067-8R/Y	105	30	190	40	158	36	112	76		141	46	
5	CO04099-3W/Y	95	47	259	54	214	56	190	49		189	51	
6	CO04099-4W/Y	104	48	151	29	149	36	126	43		132	39	
7	CO04188-4R/Y	103	41	255	53	184	39	170	76		178	52	
8	COTX04015-3AW/Y	71	25	134	24	125	28	130	32		115	27	
<b>Colored Flesh</b>													
9	Purple Majesty	117	47	212	40	247	51	91	53		167	48	
10	CO04056-3P/PW	148	80	169	41	249	80	212	70		195	68	
11	CO04063-4R/R	124	89	283	81	210	89	120	97		184	89	
<b>Fingerling</b>													
12	Banana					5	2	35	30		20	16	
13	CO03134-4RF/RW	101	54			0	0	45	27		49	27	
<b>Russet Trial</b>													
14	Russet Norkotah	71	38	111	33	46	13	51.2	28		70	28	
15	AOTX02136-1RU	88	43	68	18	57	17	61.7	33		69	28	
16	CO04211-4RU	48	18	91	22	32	9	55.0	25		57	18	
17	CO04220-7RU	108	54	133	29	106	25	95.9	43		111	38	
18	CO04233-1RU	65	34	108	37	47	14	55.1	25		69	28	
<b>Red Trial</b>													
19	Norland (Dark Red)	53	20	56	11	103	23	73.3	47		71	25	
20	Red LaSoda	43	11	65	10	84	15	115.0	30		77	16	
21	ATTX98453-3R	86	51	59	12	125	38	189.3	59		115	40	
22	CO04159-1R	63	34	90	26	90	32	121.3	73		91	41	
23	COTX02172-1R	90	33	194	37	187	37	92.1	54		141	40	
24	COTX02293-4R	45	14	124	31	135	42	76.4	65		95	38	
<b>Chip Trial</b>													
25	Atlantic	59	20	65	14	61	14	46	20	138	34	74	20
26	Chipeta	32	12	37	6	60	12	31	12	86	26	49	13
27	AC00206-2W	61	23	72	18	61	22	88	40	220	52	100	31
28	AC03452-2W	40	12	65	11	74	18	132	45	175	43	97	26
Mean		81	36	130	29	115	30	102	47	155	39	107	36

<sup>1</sup> Fingerling=< 6 inch

Table 11. Yield and Percent Culls/No. 2s for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>													
1	Yukon Gold	21	9	6	1	7	2	5	3		10	4	
2	AC03534-2R/Y	17	6	10	2	1	0	26	16		13	6	
3	CO04029-5W/Y	10	4	4	1	2	0	26	9		10	4	
4	CO04067-8R/Y	32	9	6	1	8	2	2	1		12	3	
5	CO04099-3W/Y	10	5	4	1	0	0	28	7		10	3	
6	CO04099-4W/Y	6	3	10	2	2	0	46	16		16	5	
7	CO04188-4R/Y	16	6	5	1	4	1	3	1		7	2	
8	COTX04015-3AW/Y	18	7	22	4	13	3	22	5		19	5	
<b>Colored Flesh</b>													
9	Purple Majesty	13	5	17	3	6	1	6	4		11	3	
10	CO04056-3P/PW	3	1	5	1	1	0	26	9		9	3	
11	CO04063-4R/R	2	2	2	1	0	0	4	3		2	1	
<b>Fingerling</b>													
12	Banana					17	5	46	39		31	22	
13	CO03134-4RF/RW	18	10			10	3	44	27		24	13	
<b>Russet Trial</b>													
14	Russet Norkotah	11	6	7	2	3	1	6	3		7	3	
15	AOTX02136-1RU	13	6	6	2	6	2	3	1		7	3	
16	CO04211-4RU	16	6	5	1	0	0	2	1		6	2	
17	CO04220-7RU	13	6	7	2	7	2	2	1		7	3	
18	CO04233-1RU	18	9	3	1	0	0	5	2		7	3	
<b>Red Trial</b>													
19	Norland (Dark Red)	17	6	9	2	3	1	27	18		14	7	
20	Red LaSoda	34	9	17	3	44	8	112	29		52	12	
21	ATTX98453-3R	23	14	25	5	5	2	8	2		15	6	
22	CO04159-1R	14	8	7	2	1	0	4	3		7	3	
23	COTX02172-1R	8	3	2	0	7	1	20	12		9	4	
24	COTX02293-4R	25	8	10	3	13	4	8	7		14	5	
<b>Chip Trial</b>													
25	Atlantic	19	6	11	2	18	4	2	1	4	1	11	3
26	Chipeta	14	5	10	2	26	5	20	8	15	4	17	5
27	AC00206-2W	8	3	10	3	9	3	4	2	12	3	9	3
28	AC03452-2W	12	4	8	1	5	1	4	1	25	6	11	3
Mean		15	6	9	2	8	2	18	8	14	4	13	5

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

Table 12. Specific Gravity for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	California	Colorado	Texas		Mean
	TUL	SLV	SPR	DAL	
<b>Specialty Trial</b>					
<b>Yellow Flesh</b>					
1 Yukon Gold	1.087	1.088	1.073		1.083
2 AC03534-2R/Y	1.067	1.068	1.061		1.065
3 CO04029-5W/Y	1.071	1.072	1.067		1.070
4 CO04067-8R/Y	1.082	1.083	1.064		1.076
5 CO04099-3W/Y	1.094	1.090	1.077		1.087
6 CO04099-4W/Y	1.104	1.098	1.079		1.094
7 CO04188-4R/Y	1.082	1.082	1.076		1.080
8 COTX04015-3AW/Y	1.091	1.083	1.079		1.084
<b>Colored Flesh</b>					
9 Purple Majesty	1.082	1.087			1.085
10 CO04056-3P/PW	1.084	1.085			1.085
11 CO04063-4R/R	1.074	1.068			1.071
<b>Fingerling</b>					
12 Banana	1.088	1.086			1.087
13 CO03134-4RF/RW	1.097	1.091			1.094
<b>Russet Trial</b>					
14 Russet Norkotah	1.079	1.075	1.070		1.075
15 AOTX02136-1RU	1.079	1.089	1.074		1.081
16 CO04211-4RU	1.086	1.086	1.070		1.081
17 CO04220-7RU	1.089	1.087	1.071		1.082
18 CO04233-1RU	1.085	1.081	1.070		1.079
<b>Red Trial</b>					
19 Norland (Dark Red)	1.067	1.071	1.055		1.064
20 Red LaSoda	1.082	1.082	1.057		1.074
21 ATTX98453-3R	1.084	1.076	1.061		1.074
22 CO04159-1R	1.077	1.082	1.063		1.074
23 COTX02172-1R	1.069	1.064	1.060		1.064
24 COTX02293-4R	1.068	1.075	1.054		1.066
<b>Chip Trial</b>					
25 Atlantic	1.101	1.104	1.078	1.081	1.091
26 Chipeta	1.097	1.094	1.058	1.070	1.080
27 AC00206-2W	1.091	1.085	1.076	1.077	1.082
28 AC03452-2W	1.095	1.081	1.052	1.066	1.074
Mean	1.084	1.083	1.067	1.074	1.079

Table 13. Average Tuber Weight (Size) and Shape for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	Weight (oz.)				Shape <sup>1</sup>					Length	Length	Width	
	California	Texas		Mean	California	Colorado	Texas		Mean	California	Colorado	Colorado	
	TUL	SPR	DAL		TUL	SLV	SPR	DAL		TUL	SLV	SLV	
<b>Specialty Trial</b>													
<b>Yellow Flesh</b>													
1	Yukon Gold	6.1	5.0	5.6	2.5	2.0	3.5		2.7	1.21	1.27	1.16	
2	AC03534-2R/Y	5.5	1.7	3.6	2.4	1.0	1.5		1.6	1.08	1.19	1.25	
3	CO04029-5W/Y	3.9	1.8	2.9	1.8	1.0	2.0		1.6	1.03	1.08	1.16	
4	CO04067-8R/Y	4.0	1.9	3.0	2.3	2.0	3.5		2.6	1.15	1.14	1.18	
5	CO04099-3W/Y	3.5	3.0	3.3	2.1	2.0	3.0		2.4	1.12	1.2	1.2	
6	CO04099-4W/Y	4.6	2.4	3.5	2.1	1.0	3.5		2.2	1.10	1.07	1.18	
7	CO04188-4R/Y	3.5	2.0	2.8	1.6	1.0	2.0		1.5	1.02	1.08	1.2	
8	COTX04015-3AW/Y	4.9	3.5	4.2	3.3	3.0	3.5		3.3	1.33	1.37	1.24	
<b>Colored Flesh</b>													
9	Purple Majesty	4.0	3.7	3.9	3.9	2.0	3.5		3.1	1.80	1.38	1.19	
10	CO04056-3P/PW	3.9	2.4	3.2	3.5	2.0	3.5		3.0	1.86	1.35	1.13	
11	CO04063-4R/R	2.7	1.6	2.2	2.9	1.0	3.5		2.5	1.19	1.28	1.11	
<b>Fingerling</b>													
12	Banana	---	1.0	1.0	5.0	5.0	4.5		4.8	3.07	2.71	1.07	
13	CO03134-4RF/RW	---	1.2	1.2	5.0	5.0	4.0		4.7	2.61	2.66	1.09	
<b>Russet Trial</b>													
14	Russet Norkotah	4.3	5.0	4.6	3.8	5.0	4.0		4.3	1.81	1.93	1.15	
15	AOTX02136-1RU	5.6	4.2	4.9	3.9	4.0	3.5		3.8	2.03	1.88	1.09	
16	CO04211-4RU	5.1	4.5	4.8	3.4	4.0	2.5		3.3	1.55	1.67	1.14	
17	CO04220-7RU	4.5	3.9	4.2	3.7	5.0	3.5		4.1	1.92	2	1.08	
18	CO04233-1RU	4.2	4.8	4.5	3.4	4.0	3.5		3.6	1.72	1.58	1.15	
<b>Red Trial</b>													
19	Norland (Dark Red)	6.0	3.0	4.5	2.9	2.0	3.5		2.8	1.31	1.18	1.22	
20	Red LaSoda	6.5	3.8	5.2	2.9	2.0	3.5		2.8	1.16	1.11	1.22	
21	ATTX98453-3R	6.4	3.1	4.8	2.3	1.0	3.5		2.3	1.09	1.05	1.15	
22	CO04159-1R	4.7	2.1	3.4	2.0	1.0	1.5		1.5	1.04	1.06	1.19	
23	COTX02172-1R	4.2	2.9	3.6	2.8	1.0	3.5		2.4	1.27	1.17	1.13	
24	COTX02293-4R	4.3	3.1	3.7	2.1	1.0	2.5		1.9	1.14	1.06	1.08	
<b>Chip Trial</b>													
25	Atlantic	5.9	5.3	4.8	5.3	2.3	1.5	1.5	1.8	1.06	1.18	1.26	
26	Chipeta	7.7	6.2	5.3	6.4	2.2	2.0	3.5	2.3	1.14	1.23	1.2	
27	AC00206-2W	5.2	3.6	3.6	4.1	1.8	1.0	1.5	1.5	1.02	1.06	1.05	
28	AC03452-2W	5.7	3.3	4.1	4.4	2.1	1.0	1.5	1.5	1.03	1.06	1.14	
Mean		4.9	3.2	4.5	3.9	2.9	2.3	3.0	1.5	2.7	1.42	1.39	1.16

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



Table 14 Eye Depth and Growth Cracks for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	Eye Depth <sup>1</sup>				Growth Cracks <sup>2</sup>				Mean	
	California	Texas		California	Colorado	Texas				
	TUL	SPR	DAL	TUL <sup>3</sup>	SLV	SPR	DAL			
<b>Specialty Trial</b>										
<b>Yellow Flesh</b>										
1	Yukon Gold	4.1	4.0	4.1	0.4	4.0	5.0		4.5	
2	AC03534-2R/Y	3.8	4.0	3.9	0.3	4.0	5.0		4.5	
3	CO04029-5W/Y	3.5	4.0	3.8	0.3	5.0	5.0		5.0	
4	CO04067-8R/Y	3.1	3.5	3.3	0.8	4.0	5.0		4.5	
5	CO04099-3W/Y	3.6	4.0	3.8	0.0	5.0	5.0		5.0	
6	CO04099-4W/Y	2.8	4.0	3.4	0.4	5.0	5.0		5.0	
7	CO04188-4R/Y	3.1	4.0	3.6	0.3	4.0	5.0		4.5	
8	COTX04015-3AW/Y	3.4	4.0	3.7	0.0	4.0	5.0		4.5	
<b>Colored Flesh</b>										
9	Purple Majesty	3.1	4.0	3.6	0.4	4.0	5.0		4.5	
10	CO04056-3P/PW	3.1	4.0	3.6	0.1	5.0	5.0		5.0	
11	CO04063-4R/R	3.8	4.0	3.9	0.3	5.0	5.0		5.0	
<b>Fingerling</b>										
12	Banana	4.0	4.0	4.0	---	5.0	5.0		5.0	
13	CO03134-4RF/RW	4.0	4.0	4.0	---	5.0	5.0		5.0	
<b>Russet Trial</b>										
14	Russet Norkotah	3.6	4.9	4.3	0.0	5.0	5.0		5.0	
15	AOTX02136-1RU	3.8	3.8	3.8	0.0	4.0	5.0		4.5	
16	CO04211-4RU	3.8	3.3	3.6	0.0	5.0	5.0		5.0	
17	CO04220-7RU	3.4	4.0	3.7	0.0	4.0	5.0		4.5	
18	CO04233-1RU	3.7	4.0	3.8	0.1	5.0	5.0		5.0	
<b>Red Trial</b>										
19	Norland (Dark Red)	3.5	4.0	3.8	0.1	4.0	5.0		4.5	
20	Red LaSoda	2.9	2.0	2.5	0.3	3.0	5.0		4.0	
21	ATTX98453-3R	3.1	2.0	2.6	7.7	4.0	5.0		4.5	
22	CO04159-1R	3.4	4.0	3.7	0.3	5.0	5.0		5.0	
23	COTX02172-1R	3.6	4.0	3.8	0.1	5.0	5.0		5.0	
24	COTX02293-4R	3.1	4.0	3.6	1.3	4.0	5.0		4.5	
<b>Chip Trial</b>										
25	Atlantic	3.9	4.0	4.0	0.1	3.0	5.0	5.0	4.3	
26	Chipeta	4.0	3.0	4.0	0.0	3.0	5.0	5.0	4.3	
27	AC00206-2W	4.1	4.0	4.0	0.1	4.0	5.0	5.0	4.7	
28	AC03452-2W	3.5	3.5	4.0	0.0	5.0	5.0	5.0	5.0	
Mean		3.5	3.8	4.0	3.7	0.5	4.4	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, Verticillium Wilt Rating, Blackspot Bruising, and Fry Results for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	Hollow Heart/Brown Center (%)				Vert Wilt Rating		Blackspot Bruising		Fry Data <sup>4</sup>			
	California	Colorado	Texas		8/14/2012	8/21/2012	California	Colorado	Colorado			
	TUL	SLV	SPR	DAL	Mean	TUL <sup>1</sup>	TUL <sup>2</sup>	SLV <sup>3</sup>	SLV <sup>3</sup>	SLV <sup>6</sup>	MS <sup>7</sup>	
<b>Specialty Trial</b>												
<b>Yellow Flesh</b>												
1	Yukon Gold	13	0	8	7	6	7	3	4.9	1.0	2.0	5.0
2	AC03534-2R/Y	0	0	0	0	5	5	3	4.8	2.0	4.0	4.0
3	CO04029-5W/Y	8	0	0	3	5	7	5	4.6	2.0	3.0	3.0
4	CO04067-8R/Y	8	0	0	3	5	7	0	3.9	1.0	1.0	5.0
5	CO04099-3W/Y	45	0	10	18	4	5	8	4.6	2.0	1.0	3.0
6	CO04099-4W/Y	3	0	0	1	3	3	5	4.6	1.0	1.0	5.0
7	CO04188-4R/Y	5	0	0	2	6	7	3	4.7	2.0	3.0	3.0
8	COTX04015-3AW/Y	3	0	0	1	6	6	3	4.7	1.0	1.0	5.0
<b>Colored Flesh</b>												
9	Purple Majesty	10	0	0	3	7	7	3				
10	CO04056-3P/PW	13	0	0	4	5	5	3				
11	CO04063-4R/R	18	0	0	6	3	3	3				
<b>Fingerling</b>												
12	Banana	0	0	0	0	8	9	0	5.0	3.0	2.0	
13	CO03134-4RF/RW	0	0	0	0	4	5	0				
<b>Russet Trial</b>												
14	Russet Norkotah	15	0	0	5	9	9	0	5.0	3.0	2.0	2.0
15	AOTX02136-1RU	10	0	0	3	8	8	0	4.9	2.0	2.0	2.0
16	CO04211-4RU	3	0	0	1	7	7	3	4.9	1.0	2.0	5.0
17	CO04220-7RU	20	0	0	7	5	5	0	5.0	1.0	1.0	5.0
18	CO04233-1RU	0	0	0	0	8	7	0	5.0	0.0	2.0	3.0
<b>Red Trial</b>												
19	Norland (Dark Red)	5	0	0	2	7	8	3	4.7	2.0	2.0	5.0
20	Red LaSoda	65	15	0	27	3	4	0	4.6	3.0	3.0	1.0
21	ATTX98453-3R	0	0	0	0	6	7	8	4.6	3.0	4.0	1.0
22	CO04159-1R	33	3	5	14	7	7	0	4.7	4.0	4.0	1.0
23	COTX02172-1R	0	0	0	0	7	9	0	4.5	3.0	4.0	1.0
24	COTX02293-4R	18	0	0	6	9	9	0	4.5	2.0	3.0	2.0
<b>Chip Trial</b>												
25	Atlantic	0	1	0	15	4	6	0	3.7			3.0
26	Chipeta	3	1	0	0	1	3	5	4.3			4.0
27	AC00206-2W	18	1	3	0	6	6	0	4.4			2.0
28	AC03452-2W	5	2	0	8	4	4	0	4.8			4.0
Mean		11	1	1	6	5	6	2	4.6	2.0	2.4	3.2

<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> Percent

<sup>3</sup> 1 to 5=none

<sup>4</sup> 0=light, 5= dark

<sup>5</sup> at harvest

<sup>6</sup> after 8 weeks at 45° F

<sup>7</sup> 1-5=excellent

Table 16. Vigor and Flesh Color for Clones in the Southwestern Regional Trial, 2012

Clone / Variety	Vigor <sup>1</sup>				Flesh Color <sup>2</sup>					
	Colorado	Texas		Mean	California	Colorado	Texas		Mean	
	SLV	SPR	DAL		TUL	SLV	SPR	DAL		
<b>Specialty Trial</b>										
<b>Yellow Flesh</b>										
1	Yukon Gold	3.0	3.2	3.1	3.0	2.0	3.0		3.0	
2	AC03534-2R/Y	3.0	3.9	3.5	2.3	3.0	3.5		2.9	
3	CO04029-5W/Y	3.3	4.3	3.8	3.1	4.0	3.5		3.3	
4	CO04067-8R/Y	2.8	4.0	3.4	3.1	4.0	3.2		3.2	
5	CO04099-3W/Y	3.5	4.4	4.0	3.8	4.0	3.6		3.7	
6	CO04099-4W/Y	3.3	4.7	4.0	3.1	4.0	3.5		3.3	
7	CO04188-4R/Y	3.0	4.0	3.5	3.4	4.0	2.5		3.0	
8	COTX04015-3AW/Y	3.8	4.4	4.1	3.4	4.0	4.0		3.7	
<b>Colored Flesh</b>										
9	Purple Majesty	2.8	3.1	3.0	4.4	4.0	3.6		4.0	
10	CO04056-3P/PW	2.8	4.7	3.8	4.4	5.0	4.8		4.6	
11	CO04063-4R/R	2.8	3.2	3.0	3.9	4.0	4.0		4.0	
<b>Fingerling</b>										
12	Banana	3.0	4.4	3.7	2.1	2.0	1.5		1.8	
13	CO03134-4RF/RW	2.8	4.4	3.6	3.1	2.0	2.5		2.8	
<b>Russet Trial</b>										
14	Russet Norkotah	3.3	3.2	3.3	---		1.1		1.1	
15	AOTX02136-1RU	3.5	2.4	3.0	---		1.0		1.0	
16	CO04211-4RU	3.3	2.9	3.1	---		1.0		1.0	
17	CO04220-7RU	3.5	3.6	3.6	---		1.0		1.0	
18	CO04233-1RU	2.8	3.8	3.3	---		1.0		1.0	
<b>Red Trial</b>										
19	Norland (Dark Red)	3.0	2.8	2.9	1.5		1.0		1.3	
20	Red LaSoda	3.3	4.9	4.1	1.6		1.0		1.3	
21	ATTX98453-3R	3.0	4.1	3.6	1.4		1.0		1.2	
22	CO04159-1R	3.0	3.3	3.2	1.9		1.0		1.5	
23	COTX02172-1R	3.0	3.0	3.0	1.9		1.0		1.5	
24	COTX02293-4R	3.0	2.1	2.6	1.5		1.0		1.3	
<b>Chip Trial</b>										
25	Atlantic	3.5	3.3	4.6	3.8	1.5		1.0	1.0	1.2
26	Chipeta	3.3	4.5	4.9	4.2	1.5		1.0	1.0	1.2
27	AC00206-2W	3.3	3.4	4.7	3.8	1.4		1.0	1.0	1.1
28	AC03452-2W	3.3	4.6	4.7	4.2	1.5		1.0	1.0	1.2
Mean		3.1	3.7	4.7	3.5	2.6		2.1	1.0	2.2

<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 for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>									
1	Yukon Gold	3	23 Stem, 9 SE, 1 dark		0%		0%		
2	AC03534-2R/Y	3	13 Stem		3%		0%		
3	CO04029-5W/Y	3	20MB		3%		0%		
4	CO04067-8R/Y	3	2 Stem, 2 SSE, 1 MB		2%		0%		
5	CO04099-3W/Y	3	4 MB BOT-		0%		3%		
6	CO04099-4W/Y	3	16 Stem, 2 IBS		0%		15%		
7	CO04188-4R/Y	3	27 Stem, 4 MB		0%		3%		
8	COTX04015-3AW/Y	3	8 Stem BOT-		0%		0%		
<b>Colored Flesh</b>									
9	Purple Majesty								
10	CO04056-3P/PW								
11	CO04063-4R/R								
<b>Fingerling</b>									
12	Banana								
13	CO03134-4RF/RW								
<b>Russet Trial</b>									
14	Russet Norkotah	3			0%		0%		
15	AOTX02136-1RU	2	4 Stem, 4 MB		0%		0%		
16	CO04211-4RU	3	3 BC, 3 MB		0%		0%		
17	CO04220-7RU	2	1 Stem		0%		0%		
18	CO04233-1RU	2	2 Stem, 5 SE		0%		0%		
<b>Red Trial</b>									
19	Norland (Dark Red)		18 Stem, 1 Dark, 1 TM		0%		0%		
20	Red LaSoda	3+	10 Dark		7%		0%		
21	ATTX98453-3R	2	15 Stem, 3 SE		0%		0%		
22	CO04159-1R	3+	12 Stem		3%		0%		
23	COTX02172-1R	3	14 Stem, 3 SE		3%		0%		
24	COTX02293-4R	2	21 Stem, 12 SE, 1 TM		0%		0%		
<b>Chip Trial</b>									
25	Atlantic	1	1	2 Stem, 11 MB	6Stem, 1TM, 1HH, 1MB	0%	0%	0%	10%
26	Chipeta	2	1	9 Stem, 5 SE	Drop, 13Stem	0%	0%	0%	0%
27	AC00206-2W	1	1	1 Stem BOT	3Stem, 3TM, 2Mech ,	0%	0%	0%	0%
28	AC03452-2W	1	1	6 Stem	BOT, 3Stem, 4TM, 1Mech	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, Stem=stem end discoloration, MB=mahogany browning

Table 18. Colorado Chipping Results for Clones in the Southwestern Regional Trial, 2012

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	3.0	2.0	1	1
25 Chipeta	4.0	5.0	2.5	1.5	2	1
26 AC03433-1W	3.0	1.5	2.0	1.0	1	1
27 CO03243-3W	3.5	2.5	1.0	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 4

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 4

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, 2012

Clone / Variety	California	Colorado	Texas	
	TUL	SLV	SPR	DAL
<b>Specialty Trial</b>				
<b>Yellow Flesh</b>				
1 Yukon Gold	Not uniform		low yield++	
2 AC03534-2R/Y	Skinning, flat		nice flesh+	
3 CO04029-5W/Y			small potato, heavy set, poor internals++, drop+++	
4 CO04067-8R/Y		skin issues	small+	
5 CO04099-3W/Y			poor skin finish, poor internals, ZC?, high yield, drop	
6 CO04099-4W/Y	Good	pink inside	dark flesh, heavy set, many smalls, poor internals	
7 CO04188-4R/Y			small, light skin	
8 COTX04015-3AW/Y	Pear shape	pointed	heart shaped, very nice flesh, advance?, pointed	
<b>Colored Flesh</b>				
9 Purple Majesty	Ugly shape, not uniform		alligator hide, lighter flesh, poor skin finish+, nice shape, yield	
10 CO04056-3P/PW			heavy set, feathering+, poor skin finish, nice shape, high yield	
11 CO04063-4R/R			poor skin finish+, nice flesh, drop, small potato	
<b>Fingerling</b>				
12 Banana	Not uniform		skinny, dumb bell, rough, better rep, heat sprouts	
13 CO03134-4RF/RW	Ugly inside		very rough, drop, heat sprouts++, culls++	
<b>Russet Trial</b>				
14 Russet Norkotah			blocky, some small, nice, light set, ,	
15 AOTX02136-1RU	nice, shatter		blocky, light set, , bad rep, small, drop	
16 CO04211-4RU	Round, EH	blocky	blocky to round, , ,	
17 CO04220-7RU		eye brow	light set, low yield, , ,	
18 CO04233-1RU			blocky to round, , ,	
<b>Red Trial</b>				
19 Norland (Dark Red)	Skinning		faded color+, poor internal, poor skin finish, drop	
20 Red LaSoda	Skinning	rough	heavy set, deep eyes, rough, heat sprouts	
21 ATTX98453-3R	Shatter, fair	light red, deep eyes	RLS like, nice shape and color, high gravity, deep eyes, heavy set, small, drop?	
22 CO04159-1R	Skinning		nice skin finish, good color++, small++, hollow heart, drop	
23 COTX02172-1R	Not uniform	pink inside	light set, , drop?, drop	
24 COTX02293-4R			nice shape and flesh, light set, drop?, small	
<b>Chip Trial</b>				
25 Atlantic			low yield, buff, poor internals, light set	low yield, buff, nice shape
26 Chipeta			too large, rough, large tubers+, heat sprouts	low yield, rough
27 AC00206-2W		HH, nice	very nice+, size parent, too big??	very nice+, BOT+
28 AC03452-2W		deep eyes	deep nose, heavy set+, small+	nice, tuber moth

Table 20. Summary for Clones in the Southwestern Regional Trial, 2012

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>Yellow Flesh</b>															
1	Yukon Gold	82	2.2	3.7	2.8	306	87	16	13	4	4.0	1.083	Oval	5.6	White
2	AC03534-2R/Y	94	3.0	3.6	3.5	388	67	7	36	6	3.8	1.065	Oval	3.6	Red
3	CO04029-5W/Y	96	3.5	4.1	3.6	379	53	1	56	4	3.6	1.070	Oval	2.9	White
4	CO04067-8R/Y	96	3.3	4.1	3.3	352	59	1	46	3	3.7	1.076	Oval	3.0	Red
5	CO04099-3W/Y	100	3.2	4.0	3.8	363	57	1	51	3	3.1	1.087	Oval	3.3	White
6	CO04099-4W/Y	97	3.9	4.8	3.9	362	68	4	39	5	3.7	1.094	Round	3.5	White
7	CO04188-4R/Y	97	3.5	4.2	3.4	357	56	1	52	2	4.1	1.080	Oblong	2.8	Red
8	COTX04015-3AW/Y	98	2.7	3.8	3.4	424	74	10	27	5	4.1	1.084	Oblong	4.2	White
<b>Colored Flesh</b>															
9	Purple Majesty	97	3.6	3.6	2.6	358	61	3	48	3	3.9	1.085	Oval	3.9	Purple
10	CO04056-3P/PW	93	3.0	4.4	3.9	303	49	0	68	3	3.3	1.085	Oval	3.2	Purple
11	CO04063-4R/R	99	3.6	2.8	2.5	212	32	0	89	1	3.2	1.071	Oblong	2.2	Red
<b>Fingerling</b>															
12	Banana	97	3.1	4.1	3.9	265	57	3	16	22	3.7	1.087	Long	1.0	White
13	CO03134-4RF/RW	97	2.6	3.7	3.9	272	71	5	27	13	2.4	1.094	Long	1.2	Red
<b>Russet Trial</b>															
14	Russet Norkotah	98	2.6	3.2	2.4	264	78	11	28	3	3.4	1.075	Long	4.6	Russet
15	AOTX02136-1RU	85	2.7	3.3	3.1	279	80	11	28	3	2.4	1.081	Long	4.9	Russet
16	CO04211-4RU	100	2.6	3.0	3.0	322	84	10	18	2	3.8	1.081	Oblong	4.8	Russet
17	CO04220-7RU	98	2.6	3.6	2.8	325	73	6	38	3	3.5	1.082	Long	4.2	Russet
18	CO04233-1RU	93	2.0	3.9	3.5	258	78	8	28	3	2.3	1.079	Oblong	4.5	Russet
<b>Red Trial</b>															
19	Norland (Dark Red)	97	3.4	3.0	2.0	343	73	7	25	7	3.3	1.064	Oval	4.5	Red
20	Red LaSoda	99	2.5	4.5	3.8	499	74	16	16	12	2.7	1.074	Oval	5.2	Red
21	ATTX98453-3R	95	2.5	3.5	2.8	328	67	11	40	6	3.1	1.074	Oblong	4.8	Red
22	CO04159-1R	73	2.4	3.3	3.4	245	64	3	41	3	2.7	1.074	Round	3.4	Red
23	COTX02172-1R	95	2.9	3.4	2.1	369	64	4	40	4	3.6	1.064	Oblong	3.6	Red
24	COTX02293-4R	97	3.3	3.0	1.9	286	60	1	38	5	3.0	1.066	Oblong	3.7	Red
<b>Chip Trial</b>															
25	Atlantic	98	2.7	4.4	3.7	367	81	15	20	3	3.7	1.091	Round	5.3	Buff
26	Chipeta	97	2.6	4.4	4.3	392	84	26	13	5	3.8	1.080	Oval	6.4	White
27	AC00206-2W	98	2.3	4.0	3.6	315	71	5	31	3	3.2	1.082	Round	4.1	White
28	AC03452-2W	99	2.8	4.3	4.0	401	74	6	26	3	3.6	1.074	Round	4.4	White

Status of Entries following the Southwestern Regional Trial- 2011 Worksheet

Clone / Variety	Entered by	Status	Years in Trial	Average Total Yield				
				2010	2011	2012	Mean	% of check <sup>1</sup>
<b>Specialty Trial</b>								
<b>Yellow Flesh</b>								
1	Yukon Gold			412	315	306	344	
2	AC03534-2R/Y					388	388	113
3	CO04029-5W/Y					379	379	110
4	CO04067-8R/Y					352	352	102
5	CO04099-3W/Y					363	363	105
6	CO04099-4W/Y					362	362	105
7	CO04188-4R/Y					357	357	104
8	COTX04015-3AW/Y					424	424	123
<b>Colored Flesh</b>								
9	Purple Majesty			427	323	358	369	
10	CO04056-3P/PW					303	303	82
11	CO04063-4R/R					212	212	57
<b>Fingerling</b>								
12	Banana				212	265	238	
13	CO03134-4RF/RW					272	272	114
<b>Russet Trial</b>								
14	Russet Norkotah			350	280	264	298	
15	AOTX02136-1RU					279	279	94
16	CO04211-4RU					322	322	108
17	CO04220-7RU					325	325	109
18	CO04233-1RU					258	258	87
<b>Red Trial</b>								
19	Norland (Dark Red)			431	310	343	361	
20	Red LaSoda			528	433	499	487	
21	ATTX98453-3R					328	328	77
22	CO04159-1R					245	245	58
23	COTX02172-1R				280	369	324	77
24	COTX02293-4R					286	286	68
<b>Chip Trial</b>								
25	Atlantic			456	373	367	399	
26	Chipeta			418	325	392	378	
27	AC00206-2W					315	315	81
28	AC03452-2W					401	401	103

<sup>1</sup> percent of check with in each class



New Entries 2013 Southwestern Regional Trial

Entry #	Clone/Cultivar	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Entered By	Use	Seed Source	2012	2013
		Female	Male									Year	Status
<b>Specialty Trial</b>													
<b>Yellow Flesh</b>													
1	Yukon Gold	Norgleam	W5279-4	Pink	Medium	Early	Oval	White	Check	Spec	CO	***	
2	AC03534-2R/Y	ATA98472-2Y	Mazama	Purple	Med-Large	Medium	Oval	Red	CO	Spec	CO	1	
3	CO04029-5W/Y	ATC98515-1R/Y	PA99P35-1	Red-Purple	Large	Medium	Oval	White	CO	Spec	CO	1	
4	CO04067-8R/Y	CO97232-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oval	Red	CO	Spec	CO	1	
5	CO04099-3W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Med-Large	Early	Oval	White	CO	Spec	CO	1	
6	CO04099-4W/Y	VC1002-3W/Y	ATC98495-1W/Y	Red-Purple	Large	Medium	Round	White	CO	Spec	CO	1	
7	CO04188-4R/Y	ATC98515-1R/Y	ATC98444-1R/Y	Red-Purple	Large	Med-Early	Oblong	Red	CO	Spec	CO	1	
8	COTX04015-3AW/Y	ATC98495-1W/Y	TX1674-1W/Y	Lavender	Large	Med-Late	Oblong	White	TX	Spec	CO	1	
<b>Colored Flesh</b>													
9	Purple Majesty	All Blue	ND2008-2	Blue	Medium	Early	Oval	Purple	Check	Spec	CO	***	
10	CO04056-3P/PW	CO97216-1P/PW	CO97227-2P/PW	Purple	Med-Large	Med-Early	Oval	Purple	CO	Spec	CO	1	
11	CO04063-4R/R	CO97226-2R/R	CO97222-1R/R	White	Med-Small	Med-Early	Oblong	Red	CO	Spec	CO	1	
<b>Fingerling</b>													
12	Banana	Unknown	Unknown	Light Purple	Med-Small	Late	Long	White	Check	Spec	CO	***	
13	CO03134-4RF/RW	Laratte	PA97B36-3	Red-Purple	Med-Large	Medium	Long	Red	CO	Spec	CO	1	
<b>Russet Trial</b>													
14	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	Check	Fresh	CO	***	
15	AOTX02136-1RU	A96563-8	A92030-5	White	Small	Med-Late	Long	Russet	TX	Fresh	CO	1	
16	CO04211-4RU	CO96045-1RU	CO98009-3RU	White	Small	Early	Oblong	Russet	CO	Dual	CO	1	
17	CO04220-7RU	CO96109-7RU	Summit Russet	White	Medium	Early	Long	Russet	CO	Dual	CO	1	
18	CO04233-1RU	CO97138-3RU	Summit Russet	White	Medium	Med-Early	Oblong	Russet	CO	Fresh	CO	1	
<b>Red Trial</b>													
19	Norland (Dark Red)	RedKote	ND626	Red-Purple	Small	Early	Oval	Red	Check	Fresh	CO	***	
20	Red LaSoda	Triumph	Katahdin	Red-Purple	Medium	Medium	Oval	Red	Check	Fresh	CO	***	
21	ATTX98453-3R	A93490-1R	A91846-5R	Lavender	Small	Early	Oblong	Red	TX		CO	1	
22	CO04159-1R	AC97521-1R/Y	CO99076-6R	Purple	Medium	Med-Early	Round	Red	CO	Fresh	CO	1	
23	COTX02172-1R	CO94065-2R	ND3574-5R	Lavender	Medium	Early-Med	Oblong	Red	TX	Fresh	CO	2	
24	COTX02293-4R	NDC5281-2R	ND3574-5R	Lavender	Medium	Medium	Oblong	Red	TX	Fresh	CO	1	
<b>Chip Trial</b>													
25	Atlantic	Wauseon	B5141-6	Red-Purple	Medium	Medium	Round	Buff	Check	Chip	CO	***	
26	Chipeta	WNC612-13	Wischip	Purple	Large	Med-Late	Oval	White	Check	Chip	CO	***	
27	AC00206-2W	AC87340-2	Dakota Pearl	White	Small	Med-Early	Round	White	CO	Chip	CO	1	
28	AC03452-2W	A98423-1C	COA96141-2C	White	Med-Large	Medium	Round	White	CO	Chip	CO	1	

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