

2016 Southwestern Regional Potato Variety Trial Report



Table of Contents

Description of Clones - 2016 Southwestern Regional Trial	1
Table 1. Locations, Cooperators, and Cultural Information	2
Table 2. Percent Stand and Stems/Hill	3
Table 3. Vine Size and Vine Maturity	4
Table 4. Total Yield, Yield Rank, and Merit Scores	5
Table 5. Yield and Percent of U.S. No. 1s	6
Table 6. Yield and Percent of U.S. No. 1s > 10 oz.	7
Table 7. Yield and Percent of U.S. No. 1s 6 - 10 oz.	8
Table 8. Yield and Percent of U.S. No. 1s 4 - 6 oz.	9
Table 9. Yield and Percent of B (< 4 oz.) Tubers	10
Table 10. Yield and Percent Culls/No. 2s	11
Table 11. Specific Gravity	12
Table 12. Tuber Weight (oz.) and Shape	13
Table 13. Eye Depth and Growth Cracks	14
Table 14. Percent Hollow Heart/Brown Center, Verticillium Wilt, Blackspot Bruising, and Fry Results	15
Table 15. Vigor and Flesh Color	16
Table 17. Colorado Chipping Results	17
Table 18. Notes	18
Table 19. Summary	19
Status of Entries following the Southwestern Regional Trial- 2017 Worksheet	20

Description of Clones - 2016 Southwestern Regional Trial

Entry #	Clone/Cultivar	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Entered		Seed Source	2016 Year	2017 Status
		Female	Male						By	Use			
Red Trial													
1	Chieftain	La1354	Ia1027-18	Lavender	Med-Large	Medium	Oblong	Lt. Red	Check	Fresh	CO	***	***
2	Red LaSoda	Triumph	Katahdin	Red-purple	Med	Medium	Oval	Lt. Red	Check	Fresh	CO	***	***
3	COTX00104-6R	ND3574-5R	C086218-2	Purple	Med	Early	Oblong	Red	TX	Fresh	CO	1	
4	NDC081655-1R	ND8555-8R	ND6126-4R	Purple	Small	Early	Round	Red	CO	Fresh	CO	1	
Russet Trial													
5	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	Check	Fresh	CO	***	***
6	CO08065-2RU	Premier Russet	AC98043-2RU	White	Med-Large	Medium	Oblong	Russet	CO	Dual	CO	1	***
7	CO08155-2RU/Y	Fortress Russet	Innovator	White	Medium	Medium	Oblong	Russet	CO	Dual	CO	1	
8	CO08231-1RU	Crestone Russet	Sage Russet	White	Large	Medium	Oblong	Russet	CO	Fresh	CO	1	
Chip Trial													
9	Atlantic	Wauseon	B5141-6	Red-purple	Med	Medium	Oval	Scaley-buff	Check	Chip	CO	***	***
10	Snowden	Lenape	Wischip	White	Med-Large	Medium	Oval	Buff	Check	Chip	CO	***	
11	AC01144-1W	COA96141-2	Willamette	White	Med-Large	Medium	Oval	White	CO	Chip	CO	1	

Table 1. Locations, Cooperators, and Cultural Information

Locations	Cooperators	Irrigation	Fertilizer N-P-K-S (lb./A)	Vine Kill Method	Planting Date	Vine Kill Date	Harvest Date	Days to Vine Kill	Pesticides Applied			
									Herbicides	Insecticides	Fungicides	
1. Kern Co. California (KRN)	J. Nunez J. DuBose	Sprinkler	All Trials		2/5/2016		5/31/2016					
2. Tulelake California (TUL)	R. Wilson D. Culp K. Nicholson S. Peterson	Solid-set sprinkler	Red Russet Chip	185-0-100	Machine Reglone	5/18/2016	9/8/2016	9/29/2016	113	Matrix Outlook Roundup Prowl H2O	Admire Pro Vydate	Tanos Omega
3. San Luis Valley Colorado (SLV)	D. Holm C. Gray K. Zavislan	Pivot	Red Russet Chip	117-60-80-25S-2.5Zn	Reglone	5/20/2016	8/30/2016	9/27/2016	102	Boundary Dual Magnum Brawl	Mineral Oil Leverage 360	Bravo WS Quadris Endura
4. Springlake Texas (SPR)	C. Miller J. Koym D. Scheuring	Pivot	Red Russet Chip	133-28-28	Machine	4/3/2016 4/3/2016 4/3/2016	7/8/2016 8/2/2016 7/18/2016	7/12/2016 8/7/2016 7/25/2016	96 121 106	Roundup Dual, Matrix Stealth	Movento, Blackhawk Sivanto, Enzo, Scorpion Torac, Venom Cruiser Maxx	Scala, Quadris Copper, Echo Tanos, Revus
5. Dalhart Texas (Dal)	C. Miller J. Koym D. Scheuring	Pivot	Red Russet Chip	263-218-227	Reglone	5/4/2016 5/4/2016 5/4/2016	8/15/2016 9/10/2016 8/15/2016	10/3/2016 10/10/2016 9/14/2016	103 129 103	Select Max, Tricor Chateau Brawl Acumen Marix SG, Reglone	Beleaf Fulfill Movento Reaper, Torac Grandevo, Sivanto 200SL	Quadris, Scala SC Penncozeb, Orondis Opti A Bravo, Plantinum Copper Revus Top, Curzate 60DF Gavel 75DF, Ranman

Table 2. Percent Stand and Stems/Hill for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Percent Stand					Stems per Hill			
	California	Colorado	Texas		Mean	Colorado	Texas	Mean	
	TUL	SLV	SPR	Dal		SLV	SPR		
Red Trial									
1	Chieftain	89	99	98	100	97	2.5	2.9	2.7
2	Red LaSoda	95	100	100	100	99	3.0	4.4	3.7
3	COTX00104-6R			96	88	92		1.9	1.9
4	NDC081655-1R	99	100	100	100	100	4.0	5.2	4.6
Russet Trial									
5	Russet Norkotah	95	100	100	100	99	3.8	2.5	3.2
6	CO08065-2RU	95	99	100	100	99	3.4	2.6	3.0
7	CO08155-2RU/Y	95	88	100	100	96	2.9	1.6	2.2
8	CO08231-1RU	95	97	100	100	98	3.5	2.6	3.1
Chip Trial									
9	Atlantic	89	98	100	100	97	2.8	2.3	2.5
10	Snowden	93	99	100	100	98	3.7	3.3	3.5
11	AC01144-1W	91	96	100	100	97	2.9	2.0	2.4
Mean		94	98	100	99	97	3.2	2.8	3.0

Table 3. Vine Size and Maturity for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Vine Size (1-5=largest)				Vine Maturity (1-5=latest)				
	Colorado	Texas		Mean	Colorado	Texas		Mean	
	SLV	SPR	Dal		SLV	SPR	Dal		
Red Trial									
1	Chieftain	3.5	3.7	4.0	3.7	3.5	3.3	3.5	3.4
2	Red LaSoda	2.8	4.3	4.5	3.9	2.8	4.7	4.8	4.1
3	COTX00104-6R		2.2	3.7	2.9		4.7	5.0	4.8
4	NDC081655-1R	2.0	3.7	3.9	3.2	2.3	2.6	3.8	2.9
Russet Trial									
5	Russet Norkotah	2.5	3.4	3.7	3.2	2.0	3.3	3.0	2.8
6	CO08065-2RU	4.0	3.0	3.3	3.4	3.5	4.0	3.5	3.7
7	CO08155-2RU/Y	3.0	3.6	4.0	3.5	3.5	3.3	2.5	3.1
8	CO08231-1RU	4.0	3.1	3.9	3.6	4.0	4.0	4.8	4.3
Chip Trial									
9	Atlantic	3.0	3.8	4.5	3.8	3.3	3.6	4.0	3.6
10	Snowden	3.8	3.9	4.5	4.0	3.3	3.9	4.5	3.9
11	AC01144-1W	3.8	3.6	3.9	3.7	3.3	2.8	4.5	3.5
Mean		3.2	3.4	4.0	3.5	3.1	3.6	4.0	3.6

Table 4. Total Yield, Yield Rank Within Type (Specialty, Russet, Red, and Chip), and Merit Score1 (MS), for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California						Colorado			Texas						Mean		
	KRN		TUL			SLV			SPR			DAL			Cwt/A	Rank	MS	
	Cwt/A	Rank	Cwt/A	Rank	MS ¹	Cwt/A	Rank	MS ¹	Cwt/A	Rank	MS	Cwt/A	Rank	MS				
Red Trial																		
1	Chieftain	385	1	504	2	3.0	498	1	5.0	300	2	3.5	627	2	3.4	463	2	3.7
2	Red LaSoda	372	2	535	1	2.3	496	2	3.0	409	1	3.6	700	1	3.3	503	1	3.1
3	COTX00104-6R	218	4							151	4	3.0	337	4	3.5	236	4	3.2
4	NDC081655-1R	229	3	476	3	2.5	352	3	3.0	290	3	3.6	499	3	3.5	369	3	3.1
Russet Trial																		
5	Russet Norkotah	259	3	392	3	2.8	376	4	2.0	301	3	3.6	550	1	3.5	376	2	3.0
6	CO08065-2RU	268	2	402	2	3.4	399	2	3.0	245	4	3.2	385	4	3.4	340	4	3.2
7	CO08155-2RU/Y	235	4	403	1	3.0	380	3	3.0	304	2	3.0	428	3	3.4	350	3	3.1
8	CO08231-1RU	292	1	387	4	3.0	496	1	5.0	348	1	3.0	479	2	3.4	400	1	3.6
Chip Trial																		
9	Atlantic	376	1	455	1	3.0	449	2	5.0	323	1	3.8	614	1	3.5	443	1	3.8
10	Snowden	306	3	374	3	2.9	439	3	1.0	259	2	3.5	536	2	3.4	383	3	2.7
11	AC01144-1W	371	2	446	2	3.0	474	1	2.0	226	3	3.4	523	3	3.6	408	2	3.0
Mean		301		437			436		3.2	287		3.4	516		3.4	388		3.2

¹ 1=very poor to 5= excellent

Indicates high or strength

Table 5. 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, 2016

Clone / Variety	California						Colorado ¹			Texas ²						Mean			
	KRN			TUL			SLV			SPR			DAL			Cwt/A	Rank	%	
	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%	Cwt/A	Rank	%				
Red Trial																			
1	Chieftain	349	1	91	382	1	76	432	2	87	71	2	24	540	2	86	355	1	73
2	Red LaSoda	341	2	92	278	3	52	442	1	89	81	1	20	606	1	87	349	2	68
3	COTX00104-6R	190	3	87							21	3	14	294	3	87	168	4	63
4	NDC081655-1R	185	4	81	344	2	72	209	3	59	4	4	1	284	4	57	205	3	54
Russet Trial																			
5	Russet Norkotah	212	3	82	285	3	73	338	2	90	68	2	22	361	1	66	253	2	67
6	CO08065-2RU	231	1	86	303	1	75	328	4	82	27	4	11	223	4	58	222	4	62
7	CO08155-2RU/Y	191	4	81	291	2	72	329	3	86	77	1	25	318	2	74	241	3	68
8	CO08231-1RU	227	2	78	278	4	72	436	1	88	63	3	18	307	3	64	262	1	64
Chip Trial																			
9	Atlantic	350	1	93	386	1	85	388	1	86	198	1	61	495	1	81	363	1	81
10	Snowden	284	3	93	270	3	72	310	3	71	106	2	41	392	3	73	272	3	70
11	AC01144-1W	317	2	86	276	2	62	332	2	70	60	3	26	393	2	75	276	2	64
Mean		261		86	309		71	354		81	70		24	383		73	270		67

Table 6. Yield and Percent of U.S. No. 1's (>10oz.) for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California				Colorado ³		Texas				Mean		
	KRN ¹		TUL ²		SLV		SPR ⁴		DAL		Mean		
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	
Red Trial													
1	Chieftain	0	0	176	35	181	36	0	0	117	19	95	18
2	Red LaSoda	0	0	103	19	177	36	0	0	182	26	92	16
3	COTX00104-6R	0	0					0	0	68	20	23	7
4	NDC081655-1R	0	0	70	15	10	3	0	0	14	3	19	4
Russet Trial													
5	Russet Norkotah	0	0	103	26	83	22	0	0	104	19	58	13
6	CO08065-2RU	0	0	84	21	45	11	0	0	28	7	31	8
7	CO08155-2RU/Y	0	0	52	13	65	17	0	0	42	10	32	8
8	CO08231-1RU	0	0	40	10	78	16	0	0	47	10	33	7
Chip Trial													
9	Atlantic	5	1	93	20	80	18	10	3	96	16	57	12
10	Snowden	0	0	24	6	25	6	0	0	34	6	17	4
11	AC01144-1W	0	0	13	3	25	5	0	0	35	7	15	3
Mean		0	0	76	17	77	17	1	0	70	13	43	9

¹ > 11oz

Table 7. Yield and Percent of U.S. No. 1's (6 - 10oz.) for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California				Colorado		Texas				Mean		
	KRN		TUL		SLV ¹		SPR		DAL		Mean		
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	
Red Trial													
1	Chieftain	14	4	150	30	251	50	21	7	197	31	127	25
2	Red LaSoda	13	3	112	21	265	53	15	4	216	31	124	22
3	COTX00104-6R	4	2					0	0	158	47	54	16
4	NDC081655-1R	0	0	180	38	200	57	0	0	64	13	89	21
Russet Trial													
5	Russet Norkotah	0	0	116	30	255	68	10	3	148	27	106	26
6	CO08065-2RU	5	2	131	32	284	71	2	1	88	23	102	26
7	CO08155-2RU/Y	2	1	136	34	263	69	22	7	129	30	110	28
8	CO08231-1RU	0	0	130	34	358	72	16	5	113	24	123	27
Chip Trial													
9	Atlantic	21	6	194	43	308	69	63	19	207	34	159	34
10	Snowden	1	0	114	30	285	65	17	6	137	26	111	26
11	AC01144-1W	5	1	103	23	307	65	0	0	133	25	109	23
Mean		6	2	137	31	278	64	15	5	144	28	110	25

¹ 4-10 oz

Table 8. Yield and Percent of U.S. No. 1's (4 - 6 oz.) for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California				Texas				Mean		
	KRN		TUL		SPR		DAL		Cwt/A	%	
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%			
Red Trial											
1	Chieftain	335	87	55	11	49	10	232	37	168	36
2	Red LaSoda	328	88	63	12	66	16	221	32	170	37
3	COTX00104-6R	185	85			21	14	72	21	93	40
4	NDC081655-1R	185	81	93	20	4	1	211	42	123	36
Russet Trial											
5	Russet Norkotah	212	82	66	17	58	19	127	23	116	35
6	CO08065-2RU	225	84	88	22	25	10	108	28	112	36
7	CO08155-2RU/Y	190	81	104	26	55	18	147	34	124	40
8	CO08231-1RU	227	78	107	28	47	9	147	31	132	36
Chip Trial											
9	Atlantic	329	87	99	22	125	39	202	33	189	45
10	Snowden	282	92	132	35	89	34	220	41	181	51
11	AC01144-1W	259	70	161	36	60	13	226	43	176	40
Mean		251	83	97	23	54	17	174	33	144	39

Table 9. Yield and Percent B (<4 oz.) Tubers for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California				Colorado		Texas				Mean		
	KRN		TUL		SLV		SPR		DAL		Mean		
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	
Red Trial													
1	Chieftain	35	9	48	9	57	11	224	75	81	13	89	24
2	Red LaSoda	29	8	43	8	47	10	328	80	81	12	106	23
3	COTX00104-6R	23	11					130	86	40	12	64	36
4	NDC081655-1R	42	18	69	14	141	40	278	96	210	42	148	42
Russet Trial													
5	Russet Norkotah	46	18	52	13	34	9	230	76	104	19	93	27
6	CO08065-2RU	30	11	56	14	70	17	218	89	28	7	80	28
7	CO08155-2RU/Y	41	17	88	22	46	12	219	72	42	10	87	27
8	CO08231-1RU	64	22	100	26	56	11	283	81	47	10	110	30
Chip Trial													
9	Atlantic	18	5	54	12	56	12	125	39	109	18	72	17
10	Snowden	21	7	101	27	128	29	153	59	144	27	109	30
11	AC01144-1W	25	7	163	37	139	29	166	74	129	25	124	34
Mean		34	12	77	18	77	18	214	75	92	18	99	29

Table 10. Yield and Percent Culls/No. 2s for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California				Colorado		Texas				Mean		
	KRN		TUL ¹		SLV		SPR		DAL		Mean		
	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	Cwt/A	%	
Red Trial													
1	Chieftain	1	0	74	15	9	2	5	2	0	0	18	4
2	Red LaSoda	2	1	214	40	7	1	0	0	0	0	45	8
3	COTX00104-6R	5	2					0	0	0	0	2	1
4	NDC081655-1R	3	1	64	13	2	1	8	3	0	0	15	4
Russet Trial													
5	Russet Norkotah	1	0	49	13	4	1	4	1	50	9	22	5
6	CO08065-2RU	7	3	43	11	2	0	0	0	23	6	15	4
7	CO08155-2RU/Y	3	1	24	6	5	1	8	3	12	3	10	3
8	CO08231-1RU	1	0	7	2	4	1	2	1	10	2	5	1
Chip Trial													
9	Atlantic	3	1	15	3	5	1	0	0	0	0	5	1
10	Snowden	1	0	3	1	1	0	0	0	0	0	1	0
11	AC01144-1W	4	1	6	1	4	1	0	0	0	0	3	1
Mean		3	1	50	10	4	1	2	1	9	2	13	3

¹ includes over 16 oz tubers

Table 11. Specific Gravity for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	California	Colorado	Texas		Mean
	TUL	SLV	SPR	DAL	
Red Trial					
1 Chieftain	1.071	1.074	1.073	1.056	1.069
2 Red LaSoda	1.068	1.076	1.072	1.058	1.069
3 COTX00104-6R			1.061	1.052	1.056
4 NDC081655-1R	1.074	1.081	1.077	1.064	1.074
Russet Trial					
5 Russet Norkotah	1.070	1.075	1.070	1.058	1.068
6 CO08065-2RU	1.097	1.104	1.075	1.076	1.088
7 CO08155-2RU/Y	1.082	1.086	1.078	1.064	1.077
8 CO08231-1RU	1.082	1.087	1.073	1.065	1.077
Chip Trial					
9 Atlantic	1.098	1.099	1.093	1.075	1.091
10 Snowden	1.091	1.096	1.079	1.064	1.082
11 AC01144-1W	1.076	1.082	1.075	1.070	1.075
Mean	1.081	1.086	1.075	1.064	1.075

Table 12. Average Tuber Weight (Size) and Shape for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Weight (oz.)				Shape ¹				Length	Width		
	California	Texas		Mean	California	Colorado	Texas		Colorado	Colorado		
	TUL	SPR	DAL		TUL	SLV	SPR	DAL	SLV	SLV		
Red Trial												
1	Chieftain	7.5	2.2	4.3	4.7	3.3	2.0	3.0	2.5	2.7	1.3	1.2
2	Red LaSoda	7.7	2.1	4.7	4.8	2.8	2.0	3.0	3.0	2.7	1.1	1.3
3	COTX00104-6R	5.9	1.9	5.1	4.3			2.0	2.5	2.3		
4	NDC081655-1R		1.4	2.3	1.8	3.0	1.0	2.0	2.0	2.0	1.1	1.1
Russet Trial												
5	Russet Norkotah	6.4	2.5	5.1	4.7	4.3	4.0	3.8	4.0	4.0	1.8	1.2
6	CO08065-2RU	6.0	2.2	4.2	4.1	4.0	3.0	3.5	3.0	3.4	1.7	1.2
7	CO08155-2RU/Y	5.1	2.5	4.5	4.0	4.4	4.0	3.5	3.8	3.9	1.8	1.2
8	CO08231-1RU	4.8	2.3	3.8	3.6	3.5	3.0	3.5	3.5	3.4	1.6	1.2
Chip Trial												
9	Atlantic	6.1	3.4	4.3	4.6	2.5	1.0	2.5	2.5	2.1	1.1	1.2
10	Snowden	4.6	2.4	3.6	3.6	2.9	1.0	2.5	2.0	2.1	1.0	1.3
11	AC01144-1W	4.1	2.1	3.2	3.1	2.5	1.0	2.5	2.0	2.0	1.0	1.2
Mean		5.8	2.3	4.1	3.9	3.3	2.2	2.9	2.8	2.8	1.4	1.2

¹ 1=round to 5 =long

Table 13. Eye Depth and Growth Cracks for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Eye Depth ¹				Growth Cracks ²					
	California	Texas		Mean	California	Colorado	Texas		Mean	
	TUL	SPR	DAL		TUL ³	SLV	SPR	DAL		
Red Trial										
1 Chieftain	3.4	4.0	4.0	3.8	7.9	5.0	5.0	5.0	5.0	5.0
2 Red LaSoda	3.4	2.0	2.0	2.5	22.0	4.0	5.0	5.0	5.0	4.7
3 COTX00104-6R		4.0	4.0	4.0			5.0	5.0	5.0	5.0
4 NDC081655-1R	3.9	4.0	4.0	4.0	8.2	4.0	5.0	5.0	5.0	4.7
Russet Trial										
5 Russet Norkotah	3.5	3.6	3.5	3.5	1.3	5.0	5.0	5.0	5.0	5.0
6 CO08065-2RU	4.0	4.0	4.0	4.0	5.2	4.0	5.0	5.0	5.0	4.7
7 CO08155-2RU/Y	4.0	4.0	4.0	4.0	0.6	5.0	5.0	5.0	5.0	5.0
8 CO08231-1RU	3.6	4.0	4.0	3.9	0.1	5.0	5.0	5.0	5.0	5.0
Chip Trial										
9 Atlantic	3.8	4.0	4.0	3.9	0.2	5.0	5.0	5.0	5.0	5.0
10 Snowden	3.4	4.0	3.5	3.6	0.1	5.0	5.0	5.0	5.0	5.0
11 AC01144-1W	3.5	4.0	4.0	3.8	0.0	5.0	5.0	5.0	5.0	5.0
Mean	3.6	3.8	3.7	3.7	4.6	4.7	5.0	5.0	5.0	4.9

¹ 1=deep to 5=shallow

² 1 to 5=none

³ % of total count

Table 14. Percent Hollow Heart/Brown Center, Blackspot Bruising, and Fry Results for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Hollow Heart/Brown Center (%)					Mean	Vert Wilt Rating AUDPC ¹			Fry Data ⁵		
	California	Colorado	Texas		California		Blackspot Bruising		Colorado			
	TUL	SLV	SPR	DAL	TUL		California TUL ²	Colorado SLV ³	SLV ⁴	SLV ⁵	MS ⁶	
Red Trial												
1 Chieftain	3	0	0	0	1	895	0	4.5	2.0	3.0	3.0	
2 Red LaSoda	3	3	0	0	1	325	0.0	4.7	2.0	3.0	1.0	
3 COTX00104-6R	3		0	0	1	353	0.0					
4 NDC081655-1R		0	0	0	0			4.4	1.0	2.0	2.0	
Russet Trial												
5 Russet Norkotah	3	0	0	0	1	1683	5.0	5.0	2.0	2.0	2.0	
6 CO08065-2RU	13	1	0	0	3	564	5.0	4.6	0.0	0.0	4.0	
7 CO08155-2RU/Y	0	0	0	0	0	877	0.0	4.9	1.0	1.0	4.0	
8 CO08231-1RU	0	1	0	0	0	242	2.5	4.7	2.0	2.0	5.0	
Chip Trial												
9 Atlantic	0	1	6	60	17	836	0.0	4.2			1.0	
10 Snowden	0	0	0	10	3	523	0.0	3.2			2.0	
11 AC01144-1W	2	0	0	0	1	472	5.0	4.2			3.0	
Mean	2	1	1	6	2			4.4	1.4	1.9	2.7	

¹Area Under Disease Product Curve Based on reading taken 80, 92, 99 days from planting

² Percent

³ 1 to 5=none

⁴ 0=light, 5= dark

⁵ at harvest

⁶ 1-5=excellent

Table 15. Vigor and Flesh Color for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Vigor ¹				Flesh Color ²				Mean	
	Colorado	Texas		California	Colorado	Texas				
	SLV	SPR	DAL	TUL	SLV	SPR	DAL			
Red Trial										
1	Chieftain	3.3	3.5	3.8	3.5	1	1.0	1.0	1.0	1.0
2	Red LaSoda	3.5	4.1	4.5	4.0	1.3	1.0	1.0	1.0	1.1
3	COTX00104-6R		2.0	1.4	1.7		1.0	1.0	1.0	1.0
4	NDC081655-1R	2.3	3.6	3.8	3.2	1.0	1.0	1.0	1.0	1.0
Russet Trial										
5	Russet Norkotah	3.0	3.3	3.6	3.3		1.0	1.0	1.0	1.0
6	CO08065-2RU	3.8	2.9	3.3	3.3		1.0	1.0	1.0	1.0
7	CO08155-2RU/Y	4.0	3.5	4.5	4.0		2.0	2.5	2.5	2.3
8	CO08231-1RU	3.3	2.9	3.9	3.4		1.0	1.0	1.0	1.0
Chip Trial										
9	Atlantic	4.0	3.7	4.5	4.1		1.0	1.0	1.0	1.0
10	Snowden	4.3	3.8	4.4	4.1		1.0	1.0	1.0	1.0
11	AC01144-1W	3.5	3.5	4.0	3.7		1.0	1.0	1.0	1.0
Mean		3.5	3.3	3.8	3.5	1.1	1.1	1.1	1.1	1.1

¹ 1= poor, 2= fair, 3= medium, 4= vigorous, 5= very vigorous

² 1=light to 5=dark

Table 16. Colorado Chipping Results for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Chip Color ¹ Colorado				Chip Color ¹ Texas		Chip Color ¹ Texas ⁴		Texas ⁵	
	40 ²	R40 ²	50 ³	R50 ³	40 ²	R40 ²	SPR	DAL	SPR	DAL
8 Atlantic	4.0	4.0	3.5	3.5	5.0	5.0	1	1	1GH	35% ZC
9 Snowden	5.0	3.0	2.5	2.5	5.0	5.0	1	1	3GH	
10 AC01144-1W	3.5	3.0	1.0	3.0	3.0	3.0	1	1		

¹ 1=light, 5=dark

²40°F Storage protocol prior to frying

Initial storage temperature 55°F

Holding temperature 40°F

Weeks to holding temperature 4

Weeks at holding temperature 4

Reconditioning temp. (if applicable) 60°F

Number of weeks reconditioning 3

³50°F Storage protocol prior to frying

Initial storage temperature 55°F

Holding temperature 50°F

Weeks to holding temperature 4

Weeks at holding temperature 4

Reconditioning temp. (if applicable) 60°F

Number of weeks reconditioning 3

⁴ Chipped immediately following harvest

⁵ Chip notes

Table 17. Notes for Clones in the Southwestern Regional Trial, 2016

Clone / Variety		Colorado	Texas	
		SLV	SPR	DAL
Red Trial				
1	Chieftain		light skin, yield+, large tubers	light skin color, silver scurf
2	Red LaSoda		yield++, deep eyes, ZC	yield++, deep eyes, silver scurf,
3	COTX00104-6R		road map, poor skin, nice shape, many B's	silver scurf, nice shape
4	NDC081655-1R	skinning	small, nice skin color	small potato
Russet Trial				
5	Russet Norkotah		second set, ZC, nice shape, small, nice skin	skinny, curved, variable size
6	CO08065-2RU		variable size, nice dark skin, small, very nice skin finish	nice skin, oblong, small, nice shape
7	CO08155-2RU/Y		drop, light skin, nice light yellow flesh, skinny	light skin, nice shape, small, light yellow flesh
8	CO08231-1RU		variable size, drop, small, light skin	very small, second set, nice shape
Chip Trial				
9	Atlantic		nice size and shape, poor internals, , ,	large tubers, poor internals
10	Snowden		small, uniform, nice flesh, , ,	nice size, some rough
11	AC01144-1W		light set, small, uniform, , ,	smooth

Table 18. Summary for Clones in the Southwestern Regional Trial, 2016

Clone / Variety	Field Data				Yield Qualities					Tuber Description					
	% Stand	Stems/hill	Vine Size	Vine Mat.	Total Yield	% #1s	% >10 ¹	% <4	% Culls	Merit Score	Specific Gravity	Tuber Shape	Tuber Weight	Skin Color	
Red Trial															
1	Chieftain	97	2.7	3.7	3.4	463	73	18	24	4	3.7	1.069	Oblong	4.7	Lt. Red
2	Red LaSoda	99	3.7	3.9	4.1	503	68	16	23	8	3.1	1.069	Oval	4.8	Lt. Red
3	COTX00104-6R	92	1.9	2.9	4.8	236	63	7	36	1	3.2	1.056	Oblong	4.3	Red
4	NDC081655-1R	100	4.6	3.2	2.9	369	54	4	42	4	3.1	1.074	Round	1.8	Red
Russet Trial															
5	Russet Norkotah	99	3.2	3.2	2.8	376	67	13	27	5	3.0	1.068	Long	4.7	Russet
6	CO08065-2RU	99	3.0	3.4	3.7	340	62	8	28	4	3.2	1.088	Oblong	4.1	Russet
7	CO08155-2RU/Y	96	2.2	3.5	3.1	350	68	8	27	3	3.1	1.077	Oblong	4.0	Russet
8	CO08231-1RU	98	3.1	3.6	4.3	400	64	7	30	1	3.6	1.077	Oblong	3.6	Russet
Chip Trial															
9	Atlantic	97	2.5	3.8	3.6	443	81	12	17	1	3.8	1.091	Oval	4.6	Scaley-buff
10	Snowden	98	3.5	4.0	3.9	383	70	4	30	0	2.7	1.082	Oval	3.6	Buff
11	AC01144-1W	97	2.4	3.7	3.5	408	64	3	34	1	3.0	1.075	Oval	3.1	White

New Entries 2017 Southwestern Regional Trial

Entry #	Clone/Cultivar	Class	Parents		Flower Color	Vine Size	Maturity	Tuber Shape	Skin Type	Entered By	Use	Seed Source	2016 Year	2016 Status
			Female	Male										
	CO08037-2P/P	Specialty/Colored												
	CO09036-2RU	Russet												
	CO09076-3RU	Russet												
	CO09079-5PW/Y	Specialty/Yellow												
	CO09127-3W/Y	Specialty/Yellow												
	CO09128-3W/Y	Specialty/Yellow												
	CO09128-5W/Y	Specialty/Yellow												
	CO09165-6W	Long White												
	CO09205-2RU	Russet												
	CO09218-4W/Y	Specialty/Yellow												
	AOTX05043-1RU	Russet												
	COTX05095-2RU	Russet												
	COTX94416-1R	Red												
	NDTX092237C-2P/WR	Specialty/Colored												
	COTX08322-10Ru	Russet												

Compiled by Jeff Koym*, Douglas Scheuring, and Creighton Miller
Edited by Jeannie Miller, Cover by Angel Chappell
Department of Horticultural Sciences Texas A&M University
College Station and Lubbock*
California data provided by Joe Nunez, Jed DuBose (Bakersfield),
Rob Wilson, and Darrin Culp (Tule Lake)
Colorado data provided by David Holm and Caroline Gray