

2024 Southwestern Regional Potato Variety Trial Report



California



Texas



Colorado

Table of Contents

<u>Description of Clones - 2024 Southwestern Regional Trial</u>	<u>1</u>
<u>Table 1. Locations, Cooperators, and Cultural Information</u>	<u>2</u>
<u>Table 2. Percent Stand and Stems/Hill</u>	<u>3</u>
<u>Table 3. Vine Size and Vine Maturity</u>	<u>4</u>
<u>Table 4. Total Yield, Yield Rank, and Merit Scores</u>	<u>5</u>
<u>Table 5. Yield and Percent of U.S. No. 1s</u>	<u>6</u>
<u>Table 6. Yield and Percent of U.S. No. 1s > 10 oz.</u>	<u>7</u>
<u>Table 7. Yield and Percent of U.S. No. 1s 6 - 10 oz.</u>	<u>8</u>
<u>Table 8. Yield and Percent of U.S. No. 1s 4 - 6 oz.</u>	<u>9</u>
<u>Table 9. Yield and Percent of B (< 4 oz.) Tubers</u>	<u>10</u>
<u>Table 10. Yield and Percent Culls/No. 2s</u>	<u>11</u>
<u>Table 11. Specific Gravity</u>	<u>12</u>
<u>Table 12. Tuber Weight (oz.) and Shape</u>	<u>13</u>
<u>Table 13. Eye Depth and Growth Cracks</u>	<u>14</u>
<u>Table 14. Fry Data, Antioxidant Equivalents, and Vert. Wilt/Early Dying</u>	<u>15</u>
<u>Table 15. Internal Defects</u>	<u>16</u>
<u>Table 16. Vigor and Flesh Color</u>	<u>17</u>
<u>Table 17. Notes</u>	<u>18</u>
<u>Table 18. Notes</u>	<u>19</u>
<u>Table 19 Summary</u>	<u>21</u>
<u>2025 Southwestern Regional Trial Entries</u>	<u>22</u>

Description of Clones - 2024 Southwestern Regional Trial

Entry#	Clone/Cultivar	Parents		Flower Color	Vine		Tuber Shape	Skin Type	Flesh Color	Entered By	Use	Seed Source	2024 Year	2025 Status	Notes
		Female	Male		Size	Maturity									
Russet Trial															
1	Russet Norkotah	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	White	Check	Fresh	???	***		
2	CO15070-4RU	AO06191-1	CO09036-2RU	White	Medium	Med-Early	Long	Russet	White	CO	Dual	CO	1		
3	CO16238-4RU	CO10090-9RU	CO08065-2RU	White	Large	Medium	Oblong	Russet	White	CO	Dual	CO	1		
Red Trial															
4	Purple Majesty	All Blue	ND2008-2	Dark Purple	Medium	Early	Round	Purple	Purple	CO	Fresh	CO	***		
5	TC17742-1PW/PW	ATTX98500-3Pu/Y	NDTX059761-1R/R	Dark Purple	Large	Late	Round	Bi-color	Purple/White	CO	Fresh	CO	***		
													1		
White/Yellow Trial															
6	Yukon Gold														
7	ATX13134-3W/Y	NDA081451CB-1CY	CO02321-4W	White	Large	Medium	Round	White	Yellow	TX	Fresh	CO	***		
8	CO16154-2Y	AC07315-1W/Y	CO11323-1W/Y	White	Large	Medium	Oval	White	Yellow	CO	Fresh	CO	***		
9	CO16279-5Y	CO11317-1W/Y	AC07315-1W/Y	Red-Purple	Large	Medium	Round	White	Yellow	CO	Fresh	CO	1		

[Table of Contents](#)

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	Herbicides	Pesticides Applied Insecticides	Fungicides	Comments
1. Kern Co. California (KRN)	J. Sidhu J. Nunez J. DuBose												
2. Tulelake California (TUL)	R. Wilson D. Culp K. Nicholson	Solid-set sprinkler		162-100-100-32	Reglone and Rolling	5/17/2024	8/26/2024	9/25/2024	101	Prowl H2O Outlook Matrix	Admire-Pro (infurrow) Vydate (Chemigation)	Quadris (in furrow) Maxim 4Fs Luna Tranquility (Chemigation)	
3. San Luis Valley Colorado (SLV)	C. Gray E. Messier V. Lopez K. Voelker	Pivot		150-80-60	Reglone	5/17/2024	9/9/2024	10/2/2024	115	Prowl H2O Matrix	Platinum 75SG Velum Prime Mevento HL Sefina Inscalis Perm Up 3.2 EC	Elatus Revus Top Quadris Top	We had a new operator cultivate so some plots were not centered on the hill. We did not fry reds or specialties, so there are no process merit scores.
4. Springlake Texas (SPR)	I. Vales J. Koym D. Scheuring J. Pandey S. Toinga-Villafuerte J. Johnson	Pivot	Russet Red/Chip	209-74-109	Mechanical	3/27/2024	7/7/2024	7/15/2024	102	Acumen® Herbicide Boundary 6.5 EC Eptam 7E Intensity One Makaze Matrix Medal EC Metribuzin 75 CA Pin-Dee™ 3.3 EC Reglone Select 2EC Herbicide Stealth	Carbine® 50 WG CruiserMaxx Vibrance Minecto Pro Movento® MPC Sivanto 200 SL SPE 120 Transform WG Velum Prime	Endura Headline Luna Tranquility Miravis Prime NUCOP Provysof™ fungicide Scala SC Velum Rise	These trials received 8.6 inches of precipitation.
5. Dalhart Texas (Dal)	I. Vales J. Koym D. Scheuring J. Pandey S. Toinga-Villafuerte J. Johnson	Pivot	Russet Red/Chip	145-172-85.2	Reglone	5/2/2024	8/23/2024	9/30/2024	113	Aim EC Matrix SG (Corteva) Reglone Rely TriCor 4F Volunteer Herbicide (EPA)	Bestile Bifenture EC Direct Ag Lambda-Cy Ag Lambda-Cyhalothrin 1 Movento Reaper ClearForm Scorpion 35SL Silencer	ECHO 720 Elatus Manzate Max MetaStar 4S Minuet Revus Top SCALA SC	These plots received 10.3 inches of precipitation during the growing season. 30 inches of irrigation was applied.

[Table of Contents](#)

Table 2. Percent Stand and Stems/Hill

Clone / Variety	Percent Stand						Stems per Hill		
	California		Colorado	Texas		Mean	Colorado	Texas	Mean
	KRN	TUL	SLV	SPR	Dal		SLV	SPR	
Russet Trial									
1 Russet Norkotah ¹	-	98	98	100	100	99	4.4	1.5	3.0
2 CO15070-4RU	96	94	98	100	92	96	3.0	1.4	2.2
3 CO16238-4RU	48	99	95	100	92	97	1.6	1.4	1.5
Red Trial									
4 Purple Majesty	-	98	99	100	100	99	4.0	2.2	3.1
5 TC17742-1PW/PW	96	98	98	100	79	94	2.4	1.7	2.1
White/Yellow Trial									
6 Yukon Gold	-	97	97	98	100	98	2.1	1.7	1.9
7 ATX13134-3W/Y	80	100		100	100	100		2.2	2.2
8 CO16154-2Y	80	96	99	100	100	99	2.9	2.7	2.8
9 CO16279-5Y	83	91	94	100	100	96	4.1	2.2	3.2
Mean	81	97	97	100	96	98	3.1	1.9	2.4

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 3. Vine Size and Maturity

Clone / Variety		Vine Size (1-5=largest)				Vine Maturity (1-5=latest)			
		Colorado	Texas		Mean	Colorado	Texas		Mean
		SLV	SPR	Dal		SLV	SPR	Dal	
Russet Trial									
1	Russet Norkotah ¹	3.3	3.5	4.2	3.7	2.4	3.0	5.0	3.5
2	CO15070-4RU	3.0	3.4	3.9	3.4	2.4	3.1	3.9	3.1
3	CO16238-4RU	2.8	3.4	3.9	3.4	3.0	3.5	4.5	3.7
Red Trial									
4	Purple Majesty	3.0	3.9	4.5	3.8	1.5	3.6	3.4	2.8
5	TC17742-1PW/PW	4.0	3.3	3.0	3.4	3.3	4.7	5.0	4.3
White/Yellow Trial									
6	Yukon Gold	4.0	3.5	3.8	3.8	1.3	3.3	4.5	3.0
7	ATX13134-3W/Y	-	3.6	3.0	3.3	-	3.3	3.5	3.4
8	CO16154-2Y	3.0	4.0	4.2	3.7	2.5	3.8	5.0	3.8
9	CO16279-5Y	4.0	3.8	3.8	3.9	2.1	3.9	3.9	3.3
Mean		3.4	3.6	3.8	3.6	2.3	3.6	4.3	3.4

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 4. Total Yield, Yield Rank Within Type and Merit Score¹ (MS)

Clone / Variety	California					Colorado			Texas						Mean cwt/a	Rank	MS ²
	KRN		TUL			SLV			SPR			DAL					
	cwt/a	Rank	cwt/a	Rank	MS ²	cwt/a	Rank	MS ²	cwt/a	Rank	MS ²	cwt/a	Rank	MS ²			
Russet Trial																	
1 Russet Norkotah ¹	-	-	503	1	3.5	382	1	3.4	255	1	4.0	329	3	3.7	368	1	3.7
2 CO15070-4RU	119	1	413	2	3.5	352	2	4.0	226	3	4.2	362	2	3.7	295	2	3.9
3 CO16238-4RU	87	2	240	3	3.0	331	3	4.0	229	2	4.1	494	1	3.7	276	3	3.7
Red Trial																	
4 Purple Majesty	-	-	501	1	2.5	230	2	3.6	244	1	3.8	299	1	3.7	318	1	3.4
5 TC17742-1PW/PW	86	1	242	2	1.0	360	1	3.8	59	2	3.5	232	2	3.6	196	2	3.0
White/Yellow Trial																	
6 Yukon Gold	-	-	405	3	3.0	274	3	3.0	210	2	4.3	448	2	4.2	334	1	3.6
7 ATX13134-3W/Y	78	3	278	4	2.0	-	-	-	203	3	3.9	321	3	4.0	220	4	3.3
8 CO16154-2Y	111	2	489	2	1.5	387	1	3.8	170	4	3.8	471	1	4.2	326	2	3.3
9 CO16279-5Y	124	1	570	1	2.5	351	2	2.9	256	1	3.9	267	4	3.6	314	3	3.2
Mean	101		405		2.5	333		3.6	206		3.9	358		3.8	294		3.4

¹ Tulelake used Russet Norkotah 278

² 1=very poor to 5= excellent

[Table of Contents](#)

Table 5. Yield and Percent of U.S. No. 1's (>4oz.) and Yield Rank Within Type

Clone / Variety	California						Colorado			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	%
Russet Trial																		
1 Russet Norkotah ¹				460	1	91	283	1	74	129	1	51	190	3	58	266	1	68
2 CO15070-4RU	54	1	45	335	2	81	272	2	77	100	2	44	235	2	65	199	2	63
3 CO16238-4RU	35	2	40	127	3	53	242	3	73	99	3	43	304	1	61	161	3	54
Red Trial																		
4 Purple Majesty	-	-	-	283	1	56	117	2	51	25	1	10	67	1	22	123	1	35
5 TC17742-1PW/PW	40	1	47	129	2	53	218	1	61	2	2	3	40	2	17	86	2	36
White/Yellow Trial																		
6 Yukon Gold	-	-	-	333	2	82	197	2	72	121	1	58	375	1	84	257	1	74
7 ATX13134-3W/Y	35	3	45	126	4	45	-	-	-	45	4	22	157	3	49	91	4	40
8 CO16154-2Y	91	1	82	290	3	59	251	1	65	57	3	33	289	2	61	196	2	60
9 CO16279-5Y	68	2	55	381	1	67	195	3	56	63	2	25	76	4	29	157	3	46
Mean	54		52	274		65	222		66	71		32	193		50	170		53

¹ Tulalake used Russet Norkotah 278

[Table of Contents](#)

Table 6. Yield and Percent of U.S. No. 1's (>10oz.)

Clone / Variety	California				Colorado		Texas				Mean	
	KRN ²		TUL		SLV		SPR		DAL			
	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%
Russet Trial												
1 Russet Norkotah ¹	-	-	225	45	142	37	0	0	69	21	109	26
2 CO15070-4RU	0	0	69	17	73	21	0	0	61	17	41	11
3 CO16238-4RU	0	0	4	2	43	13	27	12	58	12	26	8
Red Trial												
4 Purple Majesty	-	-	47	9	8	3	0	0	0	0	14	3
5 TC17742-1PW/PW	0	0	5	2	16	4	0	0	0	0	4	1
White/Yellow Trial												
6 Yukon Gold	-	-	132	33	74	27	0	0	138	31	86	23
7 ATX13134-3W/Y	0	0	4	2	-	-	0	0	32	10	9	3
8 CO16154-2Y	0	0	12	2	51	13	0	0	50	11	23	5
9 CO16279-5Y	0	0	57	10	17	5	0	0	0	0	15	3
Mean	0	0	62	13	53	15	3	1	45	11	36	9

¹ Tulelake used Russet Norkotah 278

² > 11oz

[Table of Contents](#)

Table 7. Yield and Percent of U.S. No. 1's (6 - 10oz.)

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL		SLV		SPR		DAL			
	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%
Russet Trial												
1 Russet Norkotah ¹	-	-	164	33	92	24	48	19	57	17	90	23
2 CO15070-4RU	0	0	171	41	131	37	35	15	103	28	77	21
3 CO16238-4RU	0	0	42	17	111	34	39	17	118	24	50	15
Red Trial												
4 Purple Majesty	-	-	112	22	33	14	0	0	7	2	40	8
5 TC17742-1PW/PW	0	0	61	25	64	18	0	0	0	0	15	6
White/Yellow Trial												
6 Yukon Gold	-	-	134	33	83	30	32	15	111	25	93	24
7 ATX13134-3W/Y	0	0	47	17	-	-	5	2	47	15	25	8
8 CO16154-2Y	5	5	142	29	100	26	18	11	127	27	73	18
9 CO16279-5Y	0	0	163	29	81	23	9	3	12	5	46	9
Mean	1	1	115	27	87	26	21	9	65	16	56	15

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 8. Yield and Percent of U.S. No. 1's (4 - 6 oz.)

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL		SLV		SPR		DAL			
	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%
Russet Trial												
1 Russet Norkotah ¹	-	-	71	14	49	13	81	32	64	19	72	22
2 CO15070-4RU	54	45	95	23	68	19	65	29	71	20	71	29
3 CO16238-4RU	35	40	81	34	88	27	33	15	128	26	69	29
Red Trial												
4 Purple Majesty	-	-	124	25	76	33	25	10	60	20	70	18
5 TC17742-1PW/PW	40	47	63	26	138	38	2	4	40	17	36	23
White/Yellow Trial												
6 Yukon Gold	-	-	67	17	40	15	89	42	125	28	94	29
7 ATX13134-3W/Y	35	45	75	27	-	-	41	20	79	24	57	29
8 CO16154-2Y	86	77	136	28	100	26	38	23	112	24	93	38
9 CO16279-5Y	68	55	161	28	97	28	54	21	64	24	87	32
Mean	53	52	97	25	82	25	48	22	82	22	72	28

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 9. Yield and Percent B (<4 oz.) Tubers

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL		SLV		SPR		DAL		Mean	
	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%
Russet Trial												
1 Russet Norkotah ¹	-	-	34	7	52	14	118	46	73	22	69	22
2 CO15070-4RU	63	53	74		63	18	122	54	82	23	81	37
3 CO16238-4RU	51	59	113	47	74	22	125	55	158	32	104	43
Red Trial												
4 Purple Majesty	-	-	209	42	113	49	203	83	202	68	182	60
5 TC17742-1PW/PW	45	52	113	47	142	39	52	88	134	58	97	57
White/Yellow Trial												
6 Yukon Gold	-	-	58	14	36	13	86	41	37	8	54	19
7 ATX13134-3W/Y	37	47	150	54	-	-	155	76	141	44	121	55
8 CO16154-2Y	69	62	186	38	117	30	111	65	124	26	122	44
9 CO16279-5Y	54	44	178	31	144	41	182	71	131	49	138	47
Mean	53	53	124	35	93	28	128	64	120	37	107	43

¹ Tulelake used Russet Norkotah 278[Table of Contents](#)

Table 10. Yield and Percent Culls/No. 2s

Clone / Variety	California				Colorado		Texas				Mean	
	KRN		TUL ²		SLV		SPR		DAL		Mean	
	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%	cwt/a	%
Russet Trial												
1 Russet Norkotah ¹	-	-	10	2	47	12	9	3	66	20	33	9
2 CO15070-4RU	3	3	5	1	17	5	4	2	45	13	15	5
3 CO16238-4RU	1	1	1	0	15	5	4	2	33	7	11	3
Red Trial												
4 Purple Majesty	-	-	9	2	1	0	16	6	31	10	14	5
5 TC17742-1PW/PW	1	1	0	0	1	0	5	8	58	25	13	7
White/Yellow Trial												
6 Yukon Gold	-	-	15	4	40	15	3	2	36	8	24	7
7 ATX13134-3W/Y	7	9	2	1	-	-	3	1	23	7	9	5
8 CO16154-2Y	6	5	13	3	20	5	3	2	58	12	20	5
9 CO16279-5Y	2	2	11	2	11	3	11	4	59	22	19	7
Mean	3	3	7	2	19	6	6	3	45	14	17	6

¹ Tulelake used Russet Norkotah 278

² includes over 16 oz tubers

[Table of Contents](#)

Table 11. Specific Gravity

Clone / Variety		California	Colorado	Texas		Mean
		TUL	SLV	SPR	DAL	
Russet Trial						
1	Russet Norkotah ¹	1.086	1.075	1.070	1.061	1.073
2	CO15070-4RU	1.091	1.077	1.070	1.064	1.076
3	CO16238-4RU	1.091	1.074	1.069	1.057	1.073
Red Trial						
4	Purple Majesty	1.085	1.076	1.071	1.056	1.072
5	TC17742-1PW/PW	1.079	1.081	1.070	1.059	1.072
White/Yellow Trial						
6	Yukon Gold	1.091	1.082	1.069	1.071	1.078
7	ATX13134-3W/Y	1.075		1.069	1.056	1.067
8	CO16154-2Y	1.095	1.085	1.074	1.077	1.083
9	CO16279-5Y	1.097	1.085	1.079	1.065	1.082
Mean		1.088	1.079	1.071	1.063	1.075

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 12. Average Tuber Weight (Size) and Shape

Clone / Variety	Weight (oz.)					Shape ²					Length / Width					Width/ Thickness				
	California	Colorado	Texas		Mean	California	Colorado	Texas		Mean	California	Colorado	Texas		Mean	California	Colorado	Texas		Mean
	TUL	SLV	SPR	DAL		TUL	SLV	SPR	DAL		TUL	SLV	SPR	DAL		TUL	SLV	SPR	DAL	
Russet Trial																				
1 Russet Norkotah ¹	7.6	10.8	3.9	5.2	6.9	4.0	5.0	4.3	4.6	4.5	1.79	2.01	1.68	2.16	1.91	1.15	1.14	1.14	1.09	1.13
2 CO15070-4RU	5.6	7.2	3.6	5.0	5.4	4.5	4.0	3.9	4.6	4.3	1.79	1.84	1.68	2.24	1.89	1.12	1.18	1.13	1.19	1.15
3 CO16238-4RU	3.8	6.6	4.1	5.7	5.1	3.5	3.0	3.7	3.7	3.5	1.60	1.69	1.61	1.75	1.66	1.12	1.19	1.06	1.06	1.11
Red Trial																				
4 Purple Majesty	3.6	3.6	2.0	2.3	2.9	4.0	2.0	1.9	2.5	2.6	1.58	1.27	1.18	1.41	1.36	1.22	1.16	1.20	1.20	1.19
5 TC17742-1PW/PW	3.6	4.5	1.2	2.1	2.8	2.0	1.0	1.0	1.0	1.3	0.91	0.94	1.04	1.09	1.00	1.25	1.29	1.15	1.12	1.20
White/Yellow Trial																				
6 Yukon Gold	6.5	11.0	3.9	6.7	7.0	2.0	1.0	1.6	2.8	1.9	1.10	1.15	1.10	1.10	1.11	1.26	1.25	1.20	1.23	1.24
7 ATX13134-3W/Y	3.1	-	2.2	3.4	2.9	2.0	-	1.1	1.6	1.6	1.00	-	1.03	1.06	1.03	-	-	1.18	1.24	1.21
8 CO16154-2Y	3.8	6.1	2.7	4.1	4.2	2.5	1.0	1.0	1.8	1.6	1.13	1.08	1.12	1.04	1.09	1.23	1.29	1.19	1.20	1.23
9 CO16279-5Y	4.2	4.5	2.2	2.7	3.4	2.0	1.0	1.0	1.5	1.4	1.05	1.11	1.02	1.06	1.06	1.25	1.24	1.25	1.22	1.24
Mean	4.6	6.8	2.9	4.1	4.5	2.9	2.3	2.2	2.7	2.5	1.33	1.39	1.27	1.43	1.35	1.20	1.22	1.17	1.17	1.19

¹ Tulelake used Russet Norkotah 278² 1=round to 5 =long[Table of Contents](#)

Table 13. Eye Depth and Growth Cracks

Clone / Variety		Eye Depth ²				Growth Cracks ³				
		California	Texas		Mean	California	Colorado	Texas		Mean
		TUL	SPR	DAL		TUL ⁴	SLV	SPR	DAL	
Russet Trial										
1	Russet Norkotah ¹	3.5	4.0	3.8	3.8	0.0	5.0	5.0	5.0	5.0
2	CO15070-4RU	3.5	4.0	4.3	3.9	0.0	5.0	5.0	5.0	5.0
3	CO16238-4RU	4.0	4.0	4.5	4.2	0.0	5.0	5.0	5.0	5.0
Red Trial										
4	Purple Majesty	3.5	4.0	4.5	4.0	0.3	5.0	4.9	5.0	5.0
5	TC17742-1PW/PW	3.0	4.0	4.0	3.7	0.0	5.0	5.0	5.0	5.0
White/Yellow Trial										
6	Yukon Gold	3.5	4.0	4.3	3.9	0.8	1.0	4.9	5.0	3.6
7	ATX13134-3W/Y	3.5	4.0	4.6	4.0	0.5	-	5.0	5.0	5.0
8	CO16154-2Y	4.0	4.2	4.6	4.3	0.0	5.0	5.0	5.0	5.0
9	CO16279-5Y	3.5	4.2	4.6	4.1	0.0	4.0	5.0	5.0	4.7
Mean		3.6	4.0	4.3	4.0	0.2	4.4	5.0	5.0	4.8

¹ Tulalake used Russet Norkotah 278

² 1=deep to 5=shallow

³ 1=many to 5=none

⁴% of total count

[Table of Contents](#)

Table 14. Fry Data, Antioxidant Equivalents, Vert. Wilt/Early Dying, and

Clone / Variety	Fry Data ²			Antioxidant Equivalents ⁶		% PVY	Vert. Wilt/Early Dying ¹⁰
	Colorado			□g Trolox equivalents/gfw ⁷ SPR	AOA Levels ⁸		
	SLV ³	SLV ⁴	MS ⁵			Winter Test SLV ⁹	
Russet Trial							
1 Russet Norkotah ¹	1.5	1.0	3.5	263.7	M	32.7%	1345
2 CO15070-4RU	0.5	0.0	4.5	193.5	M	2.7%	291
3 CO16238-4RU	0.5	0.0	4.5	228.0	M	0.0%	1783
Red Trial							
4 Purple Majesty				464.2	VH	36.3%	1081
5 TC17742-1PW/PW				376.1	H	0.0%	1185
White/Yellow Trial							
6 Yukon Gold				202.1	M	8.1%	1020
7 ATX13134-3W/Y				173.9	L	0.0%	2653
8 CO16154-2Y				185.9	L	0.0%	1014
9 CO16279-5Y				186.3	L	0.0%	654
Mean	0.8	0.3		252.6			1225

¹ Tulelake used Russet Norkotah 278

² 0=light, 5= dark

³ at harvest

⁴ 0=light, 5=dark, stored at 45F for 11 weeks

⁵ Process Merit Score, 1-5=excellent

⁶ The assay used at Texas A&M University was based on "Use of a Free Radical Method to Evaluate Antioxidant Activity" by Brand-Williams, et al. 1995, Lebensm. Wiss. Technol. 28:25-30. Antioxidants soluble in methanol were extracted and allowed to react with the stable radical, 2,2,-Diphenyl-1-picrylhydrazyl (DPPH). This provided a rapid evaluation of the antioxidant properties of the potato extracts based on absorbance.

⁷ µg Trolox equivalents/gfw - Absorbance was converted to trolox equivalents based on standard curves using the following equation: $y = -250(x) + 279.25$

⁸ VH=very high (>417), H=high (416-302), M=medium (301-127), L=low (126-67), VL=very low (<66). n=70 including 14 check varieties

⁹ % PVY based on winter test growout in Hawaii or lab tests performed by the Colorado Potato Certification Service

¹⁰ AUDPC=Area Under Disease Progress Curve based on foliar early-dying rating taken 77, 83, 89, 96, 104 and 110 days after planting

[Table of Contents](#)

Table 15. Internal Defects

Clone/Variety		Hollow Heart					Internal Brownspot					Vacular Discoloration					Blackspot Bruise ²				
		California	Colorado	Texas		Mean	Colorado	Texas		Mean	Colorado	California	Texas		Mean	Colorado	Texas		Mean		
		TUL	SLV	SPR	DAL		SLV	SPR	DAL		SLV	TUL	SPR	DAL		SLV	SPR	DAL			
Russet Trial																					
1	Russet Norkotah ¹	10.0	0.0	0.0	0.0	2.5	0.0	0.0	7.0	2.3	2.2	3.3	17.0	16.7	9.8	4.8	5.0	5.0	4.9		
2	CO15070-4RU	3.3	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	3.3	0.0	6.7	2.5	4.5	5.0	5.0	4.8		
3	CO16238-4RU	0.0	0.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.8	4.6	5.0	5.0	4.9		
Red Trial																					
4	Purple Majesty	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	5.0	5.0	5.0		
5	TC17742-1PW/PW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	2.5	-	5.0	5.0	5.0		
White/Yellow Trial																					
6	Yukon Gold	0.0	0.0	0.0	0.0	0.0	0.0	17.0	0.0	5.7	0.0	3.3	3.0	10.0	4.1	4.6	5.0	5.0	4.9		
7	ATX13134-3W/Y	0.0	-	0.0	10.0	3.3	-	0.0	0.0	0.0	-	0.0	0.0	25.0	8.3	-	5.0	5.0	5.0		
8	CO16154-2Y	0.0	0.0	0.0	5.0	1.3	2.5	0.0	10.0	4.2	2.5	0.0	3.0	5.0	2.6	4.7	5.0	5.0	4.9		
9	CO16279-5Y	0.0	0.4	0.0	0.0	0.1	0.0	0.0	10.0	3.3	0.0	6.7	0.0	15.0	5.4	4.2	5.0	5.0	4.7		
Mean		1.5	0.1	0.0	1.7	0.9	0.3	1.9	3.0	1.7	0.6	3.0	2.9	8.7	4.0	4.6	5.0	5.0	4.9		

¹ Tulelake used Russet Norkotah 278

² 1 to 5=none

Table 16. Vigor and Flesh Color

Clone / Variety		Vigor ²			Flesh Color ³			
		Texas		Mean	Colorado	Texas		Mean
		SPR	DAL		SLV	SPR	DAL	
Russet Trial								
1	Russet Norkotah ¹	3.5	4.2	3.9	1.0	1.2	1.0	1.1
2	CO15070-4RU	3.4	3.9	3.7	1.0	1.4	1.0	1.1
3	CO16238-4RU	3.4	3.9	3.7	1.0	1.3	1.0	1.1
Red Trial								
4	Purple Majesty	3.9	4.5	4.2	4.5	4.0	4.0	4.2
5	TC17742-1PW/PW	3.2	3.0	3.1	4.5	3.8	4.0	4.1
White/Yellow Trial								
6	Yukon Gold	3.5	3.8	3.7	2.0	3.0	3.0	2.7
7	ATX13134-3W/Y	3.6	3.0	3.3	-	1.2	2.0	1.6
8	CO16154-2Y	4.0	4.2	4.1	2.5	4.0	4.0	3.5
9	CO16279-5Y	3.8	3.8	3.8	4.0	4.5	4.0	4.2
Mean		3.6	3.8	3.7	2.6	2.7	2.7	2.6

¹ Tulelake used Russet Norkotah 278

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

³ 1=light to 5=dark

[Table of Contents](#)

Table 17. Notes

Clone / Variety	SPR	Texas	DAL
Russet Trial			
1 Russet Norkotah ¹	some misshapen, intense russet skin+, some pointed, heals dark		some misshapen+, good skin, deep eyes, intense russet skin,
2 CO15070-4RU	very nice+, nice intense russet skin++, good size and shape+		good skin, some misshapen, nice russet skin, many knobs, pointed,
3 CO16238-4RU	short, good skin		good russet skin, short+, ,
Red Trial			
4 Purple Majesty	knobs+, netted skin, ugly skin		scab, dull skin+, dislike skin, oval, scab,
5 TC17742-1PW/PW	very few tubers, pinto, nice pattern, very small, sprouting, knobs	MANY gemmations+, nice flesh (purple and white), attached stolons, nice pinto pattern,	
Yellow Trial			
6 Yukon Gold	large, high tuber number, , large, high tuber number		large+, very high yield+, nice, pink eyes,
7 ATX13134-3W/Y	feathering, mixed flesh, most white, extreme feathering, high tuber number+, excellent round shape+, parent, IMP: all white flesh, good shape, parent		good size, the flesh is cream not yellow, remove Y, ,
8 CO16154-2Y	very nice intense yellow flesh, good skin, no feathering, very nice, thin netting++, nice+, round,	very yellow skin+, yellow flesh, very nice, parent, impressive high tuber number, medium-large,	high yield+,
9 CO16279-5Y	very intense yellow flesh, knobs, very high tuber number, some netting, nice, round, sprouts	knobs+, heat sprouts+, dislike shape, angular, dull skin, pointed, scab,	

¹ Tulclake used Russet Norkotah 278

[Table of Contents](#)

Table 18. Notes

Clone / Variety	California TUL	Colorado SLV
Russet Trial		
1 Russet Norkotah	Rhizoc susceptible	
2 CO15070-4RU	long and narrow, heavy russet	skin texture
3 CO16238-4RU	little round	
Red Trial		
4 Purple Majesty	Check	dry rot, scurf
5 TC17742-1PW/PW	Niche market only, non uniform in color, purple bleeds into interior flesh	soft rot, scurf, sprouting?
White/Yellow Trial		
6 Yukon Gold		big, okay yellow
7 ATX13134-3W/Y	Chip like, susceptible to pink disease,	white flesh, nice, round, good yield
8 CO16154-2Y	Pink Splotchy, internal brown spot	nice yellow, scab, flat
9 CO16279-5Y	Dull skin appearance, internal brown spot, black dot	scab, nice yellow

¹ Tulelake used Russet Norkotah 278

[Table of Contents](#)

Table 19. Summary

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
Russet Trial															
1	Russet Norkotah	99	3.0	3.7	3.5	368	68	26	22	9	3.7	1.073	Long	6.9	Russet
2	CO15070-4RU	96	2.2	3.4	3.1	295	63	11	37	5	3.9	1.076	Long	5.4	Russet
3	CO16238-4RU	97	1.5	3.4	3.7	276	54	8	43	3	3.7	1.073	Oblong	5.1	Russet
Red Trial															
4	Purple Majesty	99	3.1	3.8	2.8	318	35	3	60	5	3.4	1.072	Round	2.9	Purple
5	TC17742-1PW/PW	94	2.1	3.4	4.3	196	36	1	57	7	3.0	1.072	Round	2.8	Bi-color
White/Yellow Trial															
6	Yukon Gold	98	1.9	3.8	3.0	334	74	23	19	7	3.6	1.078	0	7.0	0
7	ATX13134-3W/Y	100	2.2	3.3	3.4	220	40	3	55	5	3.3	1.067	0	2.9	0
8	CO16154-2Y	99	2.8	3.7	3.8	326	60	5	44	5	3.3	1.083	Round	4.2	White
9	CO16279-5Y	96	3.2	3.9	3.3	314	46	3	47	7	3.2	1.082	Oval	3.4	White

[Table of Contents](#)

2025 Southwestern Regional Trial Entries															
Entry		Parents		Flower	Vine		Tuber	Skin	Flesh	Entered		Seed	2025	2026	
#	Clone/Cultivar	Female	Male	Color	Size	Maturity	Shape	Type	Color	By	Use	Source	Year	Status	Notes
Russet Trial															
1	Russet Norkotah 278	ND9687-5RU	ND9526-4RU	White	Small	Early	Long	Russet	White	Check	Fresh	???	***		
2	AC15239-1RU									CO	Fresh	CO	1		
Red Trial															
3	Chieftain	La 1354	Ia 1027-18	Lavender	Med-Large	Medium	Oblong	Lt. Red	White	Check	Fresh	CO	***		
4	Red LaSoda	Triumph	Katahdin	Red-purple	Med	Medium	Oval	Lt. Red	White	Check	Fresh	CO	***		
5	AC11596-1Rsto									CO	Fresh	CO	1		
6	COTX15083-1R	CO01218-2R	NDA050237B-1R		Med-Large	Med-late	Oval	Red	White	TX	Fresh	CO	1		
Chip Trial															
7	Atlantic	Wauseon	B5141-6	Red-Purple	Med	Medium	Oval	Scaley-buf	White	Check	Chip	CO	***		
8	Snowden	B5141-6	Wischip	White	Large	Late	Oval	White	White	Check	Chip	CO	***		
9	AFC6911-2Wadg								White	CO		CO	1		



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