2025

Potato Variety Development In Tulelake, CA

Three variety trials were grown at the Intermountain Research and Extension Center during 2025.

Trials were categorized by their market type and included russet, specialty and chip.

Trial results are summarized in this report.

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Table of Contents

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RESEARCH REPORT
Number 211, 2026

2025 Annual Progress Report
Potato Variety Development in Tulelake

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Prepared Report

Three potato variety trials were conducted at the Intermountain Research and Extension Center (IREC) in Tulelake, CA. Trials were categorized by market type and included a Russet trial, a Specialty trial and a Chipping trial. Entries included selections from the Western Regional (WR) variety development program, Southwest Regional (SWR) variety development program, and varieties of local interest. Funding for this project was received from the the USDA-NIFA grant # 2023-34141-40976 and the California Potato Research Advisory Board.

Weather data can be found at: http://www.cimis.water.ca.gov Station # 91.

Late Russet Variety Trial

The Late Russet Variety Trial is a combination of fifteen entries from the Western Regional Variety Trial (WR), one entry from the Southwest Regional Trial (SWR). Merit scoring and culls were evaluated considering fresh market standards, given most Russets grown in Tulelake, CA are sold for fresh market. Important characteristics for the local area include total yield, percent US No. 1 yield, fresh merit score, tuber shape uniformity, low internal and external defects, and resistance to early-dying. See Tables 1-4 for Russet results and Figure 1 for entry pictures and comments.

Trial Information

Location:	Intermountain Research and Extension Center, Tulelake, CA
Soil Type:	Tulebasin mucky silty clay loam
Planting Date:	May 15th
Vine Kill Date:	September 2nd
Days to Vine Kill:	110
Harvest Date:	September 29th
Irrigation:	Solid-set sprinklers; applied water + precipitation = 22.82 inches
Plot Length:	18.3 Feet
In-Row Spacing:	10 Inches
Row Spacing:	36 Inches
Number of Reps:	4
# of Fertilizer/Acre:	162-100-100
Seed Treatment:	Maxim 4FS and Fir Bark Dust
Weed Control:	Matrix, Prowl H20, Outlook
Insecticides:	Admire Pro, Salebro
Fungicides:	Luna Tranquility, Quadris
Vine Kill Method:	Rolling and Reglone at labeled rates

Table 1. Tuber Yield and Size of Russet Potato Entries.

				Tuber Yield (cwt/A)													
								U.S. No. 1's									
	Trial	%1's		U.S. 1's		Total		>14oz		10-14oz		6-10oz		4-6oz		<4oz		Culls + 2's	
Clearwater Russet	WR	70.4	abc[1]	305.4	bcd	435.2	bcde	31.9	de	69.1	cd	145.6	bcd	90.7	a	66.0	abc	31.9	bcd
Ranger Russet	WR	71.8	abc	345.2	bcd	481.5	bcd	64.9	cde	109.8	bc	179.5	bc	55.8	bcde	32.6	def	38.9	bcd
Russet Burbank	WR	68.0	bcd	294.1	cdef	435.7	bcde	23.4	de	65.6	cd	138.8	bcd	89.7	a	69.2	ab	49.0	bc
A12304-1sto	WR	74.4	abc	408.8	ab	548.6	ab	78.1	cd	129.8	abc	198.8	ab	80.3	abc	43.4	cde	18.5	cd
A12308-3adg	WR	79.3	abc	494.2	a	624.4	a	99.7	bc	190.5	a	251.0	a	52.7	cde	20.7	ef	10.0	cd
A13072-7	WR	47.3	ef	251.7	def	536.3	ab	208.1	a	135.5	abc	83.9	d	32.3	e	13.4	f	63.2	b
A13091-5	WR	71.3	abc	269.6	def	378.8	def	67.7	cde	97.2	bc	124.3	cd	48.1	de	21.4	ef	20.1	cd
AOR13064-2	WR	70.7	abc	287.0	cdef	405.5	cdef	49.1	cde	95.3	bc	123.2	cd	68.6	abcd	36.5	def	33.0	bcd
AOR15166-2	WR	77.1	abc	317.4	bcd	407.5	cdef	56.6	cde	91.1	cd	163.7	bc	62.6	abcde	20.2	ef	13.3	cd
AOR15227-2	WR	77.1	abc	382.9	bc	498.3	bcd	80.5	cd	164.9	ab	167.3	bc	50.7	cde	25.6	def	9.4	cd
OR11222-4	WR	39.6	f	200.2	ef	501.9	bc	151.5	ab	75.7	cd	85.8	d	38.7	de	20.7	ef	129.7	a
RN 278	WR	56.3	de	303.6	cde	541.0	ab	160.6	ab	137.5	abc	123.7	cd	42.3	de	31.7	def	45.3	bc
CO15016-1RUsto	WR	65.6	cd	199.2	f	303.9	f	8.8	e	21.4	d	85.0	d	92.9	a	83.2	a	12.7	cd
CO15070-4RU	WR	79.9	ab	346.3	bcd	432.6	bcde	25.7	de	80.5	cd	175.7	bc	90.1	a	47.6	bcd	13.1	cd
CO16238-4RUsto	WR	82.1	a	316.5	bcd	385.9	cdef	30.9	de	68.0	cd	163.5	bc	84.9	ab	34.5	def	4.1	d
AC15239-1RU	SWR	73.7	abc	264.4	def	359.0	ef	24.9	de	65.2	cd	145.0	bcd	54.1	bcde	37.1	def	32.7	bcd
Mean		**69.0**		**311.6**		**454.7**		**72.6**		**99.8**		**147.2**		**64.7**		**37.7**		**32.8**	

[1]**Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different**

Table 2. External Tuber Characteristics of Russet Potato Entries.

	Trial	Merit Score[1]	Russeting[2]	Eye Depth[3]	Shape Uniformity[4]	Length/Depth Ratio[5]	Length/Width Ratio[5]
Clearwater Russet	WR	3.0	4.0	3.0	2.0	2.07	1.73
Ranger Russet	WR	3.0	3.0	4.0	3.0	2.46	2.07
Russet Burbank	WR	3.5	4.0	4.0	3.0	2.12	1.84
A12304-1sto	WR	2.5	4.5	3.5	4.0	1.94	1.65
A12308-3adg	WR	3.0	3.5	3.0	4.0	1.78	1.61
A13072-7	WR	4.0	4.0	4.0	4.0	1.87	1.62
A13091-5	WR	3.0	4.5	3.0	3.0	1.90	1.70
AOR13064-2	WR	4.0	3.0	4.0	3.0	2.16	1.83
AOR15166-2	WR	1.5	3.5	3.0	3.0	1.99	1.69
AOR15227-2	WR	3.5	5.0	4.0	3.5	1.82	1.56
OR11222-4	WR	3.0	4.0	3.0	4.0	2.06	1.87
RN 278	WR	3.0	4.0	4.0	3.0	1.89	1.61
CO15016-1RUsto	WR	3.0	4.0	4.0	3.0	2.16	1.84
CO15070-4RU	WR	2.5	3.5	3.0	3.0	2.30	1.98
CO16238-4RUsto	WR	3.5	4.5	3.5	3.5	1.99	1.73
AC15239-1RU	SWR	3.0	4.0	3.0	4.0	2.07	1.86
Mean		**3.0**	**3.9**	**3.5**	**3.3**	**2.04**	**1.76**

[1] 1=Worst, 5=Best - Fresh Market Russet Merit Score takes into account multiple factors including tuber shape, eye depth, russeting, and shape uniformity
[2] 1=Light,5=Heavy
[3] 1=Deep, 5=Shallow
[4] 1= Non Uniform, 5=Very Uniform
[5] Ratio of 10 tubers measured from each plot, 8-14 oz size class.

Table 3. Tuber Defects of Russet Potato Entries.

	Trial	Hollow Heart[1]	Stem-end Necrosis[1]	Vascular Discoloration[1]	Knobs[2]	Growth Crack[2]	Irregular Shaped[2]
		%	%	%	%	%	%
Clearwater Russet	WR	7.0	3.0	23.0	1.2 b	0.0 b	3.6 bc
Ranger Russet	WR	3.0	7.0	7.0	1.0 b	2.4 b	1.6 bcde
Russet Burbank	WR	0.0	23.0	7.0	2.0 ab	1.0 b	2.5 bcde
A12304-1sto	WR	3.0	37.0	3.0	0.5 b	0.0 b	1.3 cde
A12308-3adg	WR	0.0	17.0	23.0	0.4 b	0.2 b	0.7 de
A13072-7	WR	0.0	20.0	7.0	1.7 ab	2.6 b	3.1 bcd
A13091-5	WR	0.0	10.0	10.0	0.6 b	2.1 b	0.8 de
AOR13064-2	WR	0.0	20.0	3.0	1.8 ab	0.2 b	7.0 a
AOR15166-2	WR	0.0	23.0	3.0	0.3 b	0.7 b	1.1 cde
AOR15227-2	WR	0.0	0.0	3.0	0.6 b	0.0 b	1.0 cde
OR11222-4	WR	0.0	20.0	23.0	4.8 a	14.4 a	0.2 e
RN 278	WR	3.0	10.0	20.0	2.3 ab	1.1 b	3.7 bc
CO15016-1RUsto	WR	0.0	7.0	3.0	1.1 b	0.0 b	1.1 cde
CO15070-4RU	WR	0.0	20.0	7.0	0.9 b	0.2 b	1.1 cde
CO16238-4RUsto	WR	0.0	30.0	37.0	0.9 b	0.0 b	0.2 e
AC15239-1RU	SWR	0.0	37.0	17.0	2.4 ab	0.3 b	4.1 b
Mean		**1.0**	**18.0**	**12.0**	**1.4**	**1.6**	**2.1**

[1] Thirty, 8 to 14 oz. tubers were evaluated from each plot.

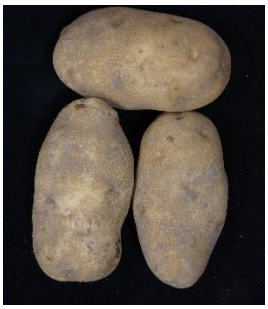
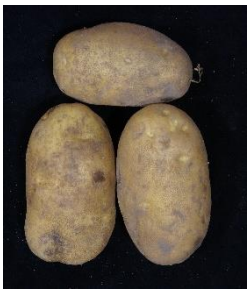
[2] Percent of total tubers.

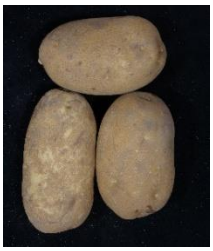
Table 4. Stand, Tuber Set, Average Tuber Size and Specific Gravity of Russet Potato Entries.

	Trial	% Stand		Tubers per Plant		Average Tuber Size		Specific Gravity	Early Dying (A.U.D.P.C.)
Clearwater Russet	WR	94	abc[1]	7.2	ab	5.9	gh	1.101	177
Ranger Russet	WR	99	ab	5.8	cde	7.7	cde	1.104	142
Russet Burbank	WR	100	a	6.8	bc	5.9	gh	1.084	435
A12304-1sto	WR	86	c	8.2	a	7.1	efg	1.094	340
A12308-3adg	WR	94	abc	7.2	ab	8.5	bcd	1.104	345
A13072-7	WR	98	ab	4.7	ef	10.8	a	1.091	307
A13091-5	WR	98	ab	4.5	f	7.9	cde	1.102	600
AOR13064-2	WR	95	abc	5.8	cdef	6.7	efg	1.108	880
AOR15166-2	WR	98	ab	5.2	def	7.5	def	1.106	197
AOR15227-2	WR	98	ab	5.8	cde	8.1	cde	1.115	740
OR11222-4	WR	98	ab	4.8	ef	9.8	ab	1.091	320
RN 278	WR	99	ab	5.6	cdef	8.9	bc	1.080	1080
CO15016-1RUsto	WR	98	ab	6.3	bcd	4.6	h	1.076	479
CO15070-4RU	WR	95	abc	6.8	bc	6.2	fg	1.083	1065
CO16238-4RUsto	WR	100	a	5.8	cdef	6.2	fg	1.081	355
AC15239-1RU	SWR	88	bc	5.6	cdef	6.7	efg	1.090	269
Mean		**96**		**6.0**		**7.4**		**1.095**	**483**

[1]Area Under Disease Progress Curve based on foliar early-dying ratings taken 60, 67, 76, 82 and 91 days after planting. Higher value is more susceptible

Figure 1. 2025 Late Russet Trial Entries.

Clearwater Russet	Ranger Russet	Russet Burbank
		
• Check	• Check	• Check
A12304-1sto	**A12308-3adg**	**A13072-7**
		
• Pink eyes • Long and narrow shape		
A13091-5	**AOR13064-2**	**AOR15166-2**
		
		• Pink eyes • Red pigmentation on skin

AOR15227-2	OR11222-4	RN 278
 • Very heavy russet	 • Pink eyes	
CO15016-1RUsto	**CO15070-4RU**	**CO16238-4RUsto**
 • Pink eyes	 • Long shape • Light russeting • Yellow skin color	 • Heavy russet • Good shape for fresh market
AC15239-1RU		
		

Red/Specialty Variety Trial

The Red/Specialty Trial included fifteen entries from the Western Regional Variety Trial (WR) and two entries from the South West Region Variety Trial (SWR). Important vine and tuber characteristics for fresh market red/specialty types include: skin and flesh color, fresh merit score, tuber shape, tuber uniformity, tubers per plant, and average tuber size. See Tables 5-9 for Red/Specialty trial results and Figure 2 for entry pictures and comments.

Trial Information

Location:	Intermountain Research and Extension Center, Tulelake, CA
Soil Type:	Tulebasin mucky silty clay loam
Planting Date:	May 15th
Vine Kill Date:	September 2nd
Days to Vine Kill:	110
Harvest Date:	September 29th
Irrigation:	Solid-set sprinklers; applied water + precipitation = 22.82 inches
Plot Length:	18.3 Feet
In-Row Spacing:	10 Inches
Row Spacing:	36 Inches
Number of Reps:	4
# of Fertilizer/Acre:	162-100-100
Seed Treatment:	Maxim 4FS and Fir Bark Dust
Weed Control:	Matrix, Prowl H20, Outlook
Insecticides:	Admire Pro, Salebro
Fungicides:	Luna Tranquility, Quadris
Vine Kill Method:	Rolling and Reglone at labeled rates

Table 5. Skin and Flesh Characteristics of Specialty Potato Entries.

Clone / Variety	Trial	Skin Color	Skin Color Rating[1]	Flesh Color	Flesh Color Rating[1]
Chieftain	**WR**	Red	1.5	White	1.5
Modoc	**WR**	Red	2.0	White	1.0
COOR15108-1	**WR**	Red	2.0	White	1.0
AC11596-1Rsto	**SWR**	Red	2.0	White	2.0
COTX15083-1R	**SWR**	Red	2.5	White	1.5
ATX11586-2R/Y	**WR**	Red	2.0	Yellow	3.0
TX19495-9RYpinto/Y	**WR**	Red/White	2.0	Yellow	2.0
Yukon Gold	**WR**	Yellow	1.5	Yellow	2.5
A11576-1Ysto	**WR**	Yellow	2.0	Yellow	3.0
TXA18020-1DY	**WR**	Yellow	2.0	Yellow	4.0
Purple Majesty	**WR**	Purple	5.0	Purple	5.0
NDTX14156-3P/WP	**WR**	Purple	5.0	Purple/White	1.0
POR18PG54-1	**WR**	Purple	5.0	Purple	5.0
TC17742-1PW/PW	**WR**	Purple/White	1.5	Purple/White	5.0
Austrian Crescent	**WR**	Yellow	1.5	Yellow	3.0
ATX11684f-2W/Y	**WR**	Yellow	1.5	Yellow	2.5
TX17788f-4R/R	**WR**	Red	2.0	Red	2.5

[1]1=Light, 5=Dark; Reds and purples were rated using red/purple color scale. Yellows were rated using a white/yellow color scale. All varieties were rated using the same internal flesh darkness scale.

Table 6. Tuber Yield and Size of Specialty Potato Entries.

		Tuber Yield (cwt/A)[1]													
Clone / Variety	**Trial**	**Total Yield**		**10-14 oz**		**6-10 oz**		**4-6 oz**		**< 4oz**		**> 14 oz**		**Undersize**		**Culls**	
Chieftain	**WR**	675.4	a¹	151.1	a	217.4	ab	70.0	fgh	34.1	gh	140.7	a	5.5	ef	56.68	b
Modoc	**WR**	464.0	cde	73.6	bcd	161.1	bcde	88.8	efgh	76.1	defg	24.3	cd	8.4	def	31.78	bcde
COOR15108-1	**WR**	342.3	efg	8.1	e	79.4	f	89.0	efgh	120.9	bc	0.0	d	40.7	bc	4.3	de
AC11596-1Rsto	**SWR**	631.6	ab	103.8	ab	223.0	ab	152.6	abc	93.1	cdef	20.0	cd	31.0	cd	8.23	cde
COTX15083-1R	**SWR**	519.1	bcd	34.9	cde	172.1	abcd	126.6	bcde	124.1	bc	10.6	d	44.9	bc	5.9	de
ATX11586-2R/Y	**WR**	395.8	defg	14.6	de	99.1	ef	116.5	cdef	111.9	bcd	0.0	d	27.1	cde	26.73	bcde
TX19495-9RYpinto/Y	**WR**	457.1	cdef	77.6	bc	186.8	abc	93.9	defgh	62.0	efgh	10.8	d	11.8	def	14.3	cde
Yukon Gold	**WR**	479.3	cd	101.9	ab	163.5	bcde	51.2	gh	30.5	h	104.5	ab	3.3	f	24.2	bcde
A11576-1Ysto	**WR**	558.2	abc	0.0	e	84.2	f	178.8	a	233.3	a	0.0	d	54.9	b	6.9	cde
TXA18020-1DY	**WR**	619.3	ab	52.7	bcde	242.5	a	167.1	ab	107.2	bcd	1.9	d	25.4	cdef	22.63	bcde
Purple Majesty	**WR**	561.9	abc	44.6	bcde	178.4	abc	127.6	bcde	139.5	b	5.8	d	29.5	cd	36.55	bcde
NDTX14156-3P/WP	**WR**	464.5	cde	102.1	ab	159.7	bcde	82.3	efgh	59.1	fgh	23.3	cd	12.3	def	25.7	bcde
POR18PG54-1	**WR**	475.1	cd	79.0	bc	99.3	def	45.7	h	23.8	h	73.3	bc	2.5	f	151.58	a
TC17742-1PW/PW	**WR**	328.2	fg	21.3	cde	118.1	cdef	97.2	defg	72.9	defg	0.0	d	16.5	def	2.2	e
Austrian Crescent	**WR**	485.1	cd	8.6	e	74.5	f	120.6	bcde	122.3	bc	1.5	d	112.4	a	45.23	bc
ATX11684f-2W/Y	**WR**	465.3	cde	13.8	de	101.0	def	140.4	abcd	125.3	bc	0.0	d	43.4	bc	41.45	bcd
TX17788f-4R/R	**WR**	319.5	g	10.0	e	65.5	f	80.0	efgh	101.4	bcde	0.0	d	55.5	b	7.23	cde
Mean		**484.8**		**52.8**		**142.7**		**107.5**		**96.3**		**24.5**		**30.9**		**30.1**	

[1]Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different

Table 7. External Tuber Characteristics of Specialty Potato Entries.

Clone / Variety	Trial	Merit[1]	Eye Depth[2]	Tuber Shape[3]	Shape Uniformity[4]	Length/ Depth Ratio[5]	Length/ Width Ratio[5]
Chieftain	**WR**	2.5	3.0	2.5	3.0	1.42	1.13
Modoc	**WR**	4.0	4.0	2.0	3.5	1.46	1.28
COOR15108-1	**WR**	4.0	4.0	1.0	4.0	1.23	1.08
AC11596-1Rsto	**SWR**	3.5	3.5	2.5	3.0	1.85	1.59
COTX15083-1R	**SWR**	4.0	4.0	2.0	4.0	1.26	1.04
ATX11586-2R/Y	**WR**	3.0	4.0	3.5	2.5	1.43	1.21
TX19495-9RYpinto/Y	**WR**	2.5	3.0	2.5	3.0	1.55	1.31
Yukon Gold	**WR**	3.5	3.5	2.0	3.5	1.38	1.13
A11576-1Ysto	**WR**	4.0	3.5	2.0	3.5	1.24	1.07
TXA18020-1DY	**WR**	2.0	3.5	2.0	3.5	1.37	1.18
Purple Majesty	**WR**	2.5	3.5	4.0	3.0	2.01	1.49
NDTX14156-3P/WP	**WR**	1.0	4.0	4.0	3.0	2.16	1.44
POR18PG54-1	**WR**	1.5	3.5	3.0	2.5	1.42	1.25
TC17742-1PW/PW	**WR**	2.0	3.0	1.5	3.5	1.21	0.99
Austrian Crescent	**WR**	2.0	2.5	5.0	3.5	4.15	3.64
ATX11684f-2W/Y	**WR**	2.0	3.5	5.0	2.0	2.44	2.16
TX17788f-4R/R	**WR**	2.5	4.5	5.0	3.0	2.75	2.22
Mean		**2.7**	**3.6**	**2.9**	**3.2**	**1.78**	**1.48**

[1] 1=Worst, 5=Best - Specialty Merit Score takes into account important appearance factors of the Specialty market including tuber shape, eye depth, and shape uniformity

[2] 1=Deep, 5=Shallow

[3] 1=Round, 5=Oblong

[4] 1= Poor uniformity, 5=Very Uniform

[5] Ratio of 10 tubers measured from the 10-14 oz category in each plot

Table 8. Tuber Defects of Specialty Potato Entries.

Clone / Variety	Trial	Stem End Necrosis[1]	Vascular Dicoloration[1]	Knobs[2]		Growth Crack[2]		Undersize	
		%	%	%		%		%[3]	
Chieftain	**WR**	0.0	16.0	0.8	bc	3.7	b	0.9	g
Modoc	**WR**	1.0	2.0	1.0	bc	2.4	bc	2.0	g
COOR15108-1	**WR**	0.0	7.0	0.5	bc	0.0	c	12.3	c
AC11596-1Rsto	**SWR**	0.0	7.0	0.6	bc	0.0	c	5.2	defg
COTX15083-1R	**SWR**	2.0	19.0	0.6	bc	0.0	c	8.7	cde
ATX11586-2R/Y	**WR**	3.0	11.0	2.4	abc	1.5	bc	7.4	cdef
TX19495-9RYpinto/Y	**WR**	0.0	24.0	0.3	c	1.7	bc	2.7	fg
Yukon Gold	**WR**	3.0	2.0	0.8	bc	2.2	bc	0.7	g
A11576-1Ysto	**WR**	2.0	4.0	0.7	bc	0.0	c	9.9	cd
TXA18020-1DY	**WR**	2.0	11.0	0.2	c	1.3	bc	4.3	efg
Purple Majesty	**WR**	0.0	2.0	1.7	bc	0.7	bc	5.7	defg
NDTX14156-3P/WP	**WR**	0.0	33.0	2.1	abc	0.2	c	2.9	fg
POR18PG54-1	**WR**	0.0	2.0	1.3	bc	18.9	a	0.8	g
TC17742-1PW/PW	**WR**	2.0	6.0	0.2	c	0.0	c	5.2	defg
Austrian Crescent	**WR**	0.0	10.0	3.4	ab	0.0	c	25.9	a
ATX11684f-2W/Y	**WR**	0.0	14.0	5.0	a	1.0	bc	10.2	cd
TX17788f-4R/R	**WR**	12.0	2.0	0.8	bc	0.0	c	18.0	b
Mean		**2.0**	**10.0**	**1.3**		**2.0**		**7.2**	

[1] Thirty, 6-10oz. tubers were evaluated from each entry.
[2] Percent of total tubers.
[3] Percent of total CWT.

Table 9. Stand, Tuber Set, Average Tuber Size and Specific Gravity of Specialty Potato Entries.

Clone / Variety	Trial	% Stand		Tubers/Plant		Average Size (oz)		Specific Gravity	Early Dying[1] (A.U.D.P.C.)
Chieftain	**WR**	99	a[2]	7.8	efg	8.1	a	1.084	391
Modoc	**WR**	85	bcd	9.1	cde	5.5	bc	1.071	1325
COOR15108-1	**WR**	98	ab	10.0	cde	3.3	efg	1.103	800
AC11596-1Rsto	**SWR**	97	abc	12.1	bc	5.0	bcd	1.075	384
COTX15083-1R	**SWR**	90	abcd	13.3	ab	4.0	defg	1.078	260
ATX11586-2R/Y	**WR**	83	d	11.4	bcd	3.9	defg	1.104	66
TX19495-9RYpinto/Y	**WR**	98	ab	7.9	efg	5.5	bc	1.066	1125
Yukon Gold	**WR**	94	abcd	6.0	fg	7.9	a	1.088	1160
A11576-1Ysto	**WR**	100	a	15.8	a	3.3	efg	1.093	257
TXA18020-1DY	**WR**	100	a	11.9	bcd	4.8	bcd	1.105	365
Purple Majesty	**WR**	91	abcd	13.0	ab	4.4	cde	1.076	1045
NDTX14156-3P/WP	**WR**	84	cd	8.8	def	5.8	b	1.063	205
POR18PG54-1	**WR**	93	abcd	5.5	g	8.6	a	1.067	1100
TC17742-1PW/PW	**WR**	93	abcd	7.5	efg	4.3	cdef	1.084	540
Austrian Crescent	**WR**	99	a	15.2	a	3.0	g	1.100	269
ATX11684f-2W/Y	**WR**	95	abcd	12.0	bc	3.8	defg	1.095	660
TX17788f-4R/R	**WR**	97	abc	9.7	cde	3.1	fg	1.113	318
Mean		**94**		**10.4**		**4.9**		**1.086**	**604**

[1]Area Under Disease Progress Curve based on foliar early-dying ratings taken 60, 67, 76, 82 and 91 days after planting. Higher value is more susceptible

[2]Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different

Figure 2. 2025 Specialty Trial Entries

Cheiftain	Modoc	COOR15108-1
		
• Check	• Check	• Low turgor at evaluation
AC11596-1Rsto	**COTX15083-1R**	**ATX11586-2R/Y**
		
• Nice color	• Netting on skin	• Netting on skin
TX19495-9RYpinto/Y	**Yukon Gold**	**A11576-1Ysto**
		
• Specialty market	• Check	• Nice shape and color

TXA18020-1DY	Purple Majesty	NDTX14156-3P/WP
 • Pink discoloration	 • Check	 • Pancake/flat
POR18PG54-1	**TC17742-1PW/PW**	**Austrian Crescent**
 • Susceptible to black dot • Low turgor	 • Specialty market	 • Oversized in our trial
ATX11684f-2W/Y	**TX17788f-4R/R**	
 • Stubby and oversized		

Chipping Potato Variety Trial

The 2025 Chipping Trial included nine entries from the Western Regional Variety Trial (WR) and one entry from the South West Region (SWR). Important characteristics for processing chippers include: total yield, tubers per plant, tuber shape, tuber uniformity, average tuber size, and specific gravity. See Tables 10-13 for Chipping Trial results and Figure 3 for entry pictures and comments.

Trial Information

Location:	Intermountain Research and Extension Center, Tulelake, CA
Soil Type:	Tulebasin mucky silty clay loam
Planting Date:	May 15th
Vine Kill Date:	September 2nd
Days to Vine Kill:	110
Harvest Date:	September 29th
Irrigation:	Solid-set sprinklers; applied water + precipitation = 22.82 inches
Plot Length:	18.3 Feet
In-Row Spacing:	10 Inches
Row Spacing:	36 Inches
Number of Reps:	4
# of Fertilizer/Acre:	162-100-100
Seed Treatment:	Maxim 4FS and Fir Bark Dust
Weed Control:	Matrix, Prowl H20, Outlook
Insecticides:	Admire Pro, Salebro
Fungicides:	Luna Tranquility, Quadris
Vine Kill Method:	Rolling and Reglone at labeled rates

Table 10. Tuber Yield and Size of Chipping Potato Entries.

			Tuber Yield (cwt/A)[1]											
Clone / Variety	Trial	Total	>14 oz		10-14 oz		6-10oz		4-6 oz		<4 oz		Culls	
Atlantic	**WR**	539.4	a[1]	44.2	b	113.1	a	228.5	a	99.5	bcd	51.1	cd	2.9	c
Lamoka	**WR**	489.9	ab	44.9	b	116.9	a	207.5	ab	75.0	cde	40.0	cd	5.6	c
Snowden	**WR**	488.2	ab	19.0	b	59.5	abcd	191.7	abc	146.0	a	61.3	cd	10.8	c
A15311-6Ctrv	**WR**	524.7	a	28.1	b	72.9	abc	133.8	de	82.7	bcde	40.1	cd	167.1	a
A16150-1C	**WR**	418.0	bc	20.2	b	73.5	abc	178.3	bc	77.7	cde	49.0	cd	19.3	c
AC13126-1Wadg	**WR**	460.3	ab	146.1	a	116.5	a	99.1	e	51.1	e	33.4	d	14.2	c
AOR15304-7	**WR**	433.0	b	25.1	b	53.0	bcd	168.7	bcd	110.0	bc	69.5	c	6.8	c
AOR10902-2	**WR**	343.5	c	0.0	b	1.2	d	51.6	f	113.4	ab	176.9	a	0.6	c
OR16ER.2.1435	**WR**	526.7	a	41.4	b	107.5	ab	153.9	cd	68.2	de	48.2	cd	107.5	b
AFC6911-2Wadg	**SWR**	406.3	bc	0.0	b	16.5	cd	109.1	e	147.7	a	132.5	b	0.6	c
Mean		**463.0**		**36.9**		**73.0**		**152.2**		**97.1**		**70.2**		**33.5**	

[1]Mean comparisons were performed using Tukey's-Kramer HSD; means with the same letter within columns are not significantly different

Table 11. Merit Score and Tuber Characteristics of Chipping Potato Entries

Clone / Variety	Trial	Merit[1]	Eye depth[2]	Tuber Shape[3]	Shape Uniformity[4]	Length/Depth Ratio[5]	Length/Width Ratio[5]
Atlantic	**WR**	3.0	3.0	1.5	3.5	1.24	1.02
Lamoka	**WR**	3.5	3.5	2.0	3.5	1.43	1.14
Snowden	**WR**	3.0	3.5	1.5	3.0	1.19	0.94
A15311-6Ctrv	**WR**	4.0	4.0	2.0	4.0	1.25	1.11
A16150-1C	**WR**	3.5	4.0	2.0	3.0	1.22	1.01
AC13126-1Wadg	**WR**	3.0	4.0	2.0	3.0	1.36	1.13
AOR15304-7	**WR**	3.5	3.0	1.5	3.0	1.19	0.99
AOR10902-2	**WR**	3.0	3.0	1.5	3.0	1.04	0.85
OR16ER.2.1435	**WR**	3.0	3.5	2.0	3.5	1.27	1.05
AFC6911-2Wadg	**SWR**	3.0	1.5	1.0	3.0	1.08	0.94
Mean		**3.3**	**3.3**	**1.7**	**3.3**	**1.23**	**1.02**

[1] 1=Worst, 5=Best - Chipper Merit Score takes into account multiple factors including tuber shape, eye depth, and shape uniformity
[2] 1=Deep, 5=Shallow
[3] 1=Round, 5=Oblong
[4] 1= No Uniformity, 5=Very Uniform
[5] Ratio of 10 tubers measured from 10-14 oz size category.

Table 12. Tuber Defects of Chipping Potato Entries.

Clone / Variety	Trial	Hollow Heart[1]	Vascular Discoloration[1]	Stem End Necrosis[1]	Knobs[2]	Growth Crack[2]	Greening[2]
		%	%	%	%	%	%
Atlantic	**WR**	0.0	10.0	0.0	0.0 a	0.2 c	0.8 ab
Lamoka	**WR**	3.3	20.0	3.3	0.3 a	0.0 c	0.7 ab
Snowden	**WR**	0.0	33.3	0.0	0.2 a	0.7 c	0.3 b
A15311-6Ctrv	**WR**	0.0	10.0	0.0	0.0 a	18.3 a	1.3 ab
A16150-1C	**WR**	0.0	26.7	0.0	0.0 a	2.2 c	0.5 ab
AC13126-1Wadg	**WR**	0.0	20.0	0.0	0.2 a	1.1 c	1.2 ab
AOR15304-7	**WR**	0.0	30.0	6.7	0.0 a	0.5 c	0.3 ab
AOR10902-2	**WR**	0.0	3.3	0.0	0.0 a	0.0 c	0.1 b
OR16ER.2.1435	**WR**	0.0	23.3	0.0	0.2 a	12.1 b	2.5 a
AFC6911-2Wadg	**SWR**	0.0	26.7	0.0	0.0 a	0.0 c	0.1 b
Mean		**0.3**	**20.3**	**1.0**	**0.1**	**3.5**	**0.8**

[1]Thirty, 6-10oz tubers were evaluated from each entry.
[2] Percent of total tubers.

Table 13. Stand, Tuber Set, Average Tuber Size and Specific Gravity of Chipping Potato Entries.

Clone / Variety	Trial	% Stand	Tubers per Plant	Average Tuber Size (oz)	Specific Gravity	Early Dying[1] (A.U.D.P.C.)
Atlantic	**WR**	96 abc	8.7 abc	6.6 bcde	1.107	330
Lamoka	**WR**	94 abc	7.5 cd	7.0 bcd	1.098	374
Snowden	**WR**	97 ab	8.7 abc	5.9 de	1.106	620
A15311-6Ctrv	**WR**	98 a	7.1 cd	7.6 ab	1.085	161
A16150-1C	**WR**	85 c	7.9 bcd	6.3 cde	1.106	304
AC13126-1Wadg	**WR**	86 bc	6.4 d	8.4 a	1.091	220
AOR15304-7	**WR**	99 a	7.8 bcd	5.7 e	1.094	820
AOR10902-2	**WR**	97 ab	9.9 a	3.6 f	1.111	840
OR16ER.2.1435	**WR**	91 abc	8.2 abcd	7.2 bc	1.096	470
AFC6911-2Wadg	**SWR**	98 a	9.6 ab	4.3 f	1.103	320
Mean		**94**	**8.2**	**6.2**	**1.100**	**457**

[1]Area Under Disease Progress Curve based on foliar early-dying ratings taken 60, 67, 76, 82 and 91 days after planting. Higher value is more susceptible

Figure 3. 2025 Chipping Trial Entries

Atlantic	Lamoka	Snowden
 • Check	 • Check	 • Check
A15311-6Ctrv	**A16150-1C**	**AC13126-1Wadg**
		
AOR15304-7	**AOR10902-2**	**OR16ER.2.1435**
		

AFC6911-2Wadg