

2016 Potato Cultivar Yield and Postharvest Quality Evaluations

HEALTHY

PVY O

PVY N:O

PVY NTN

GROWER'S EDITION

Potato Virus Y Demo
42 Varieties, 2 Planting Dates
Healthy plants and 3 strains of PVY:
PVY-O
PVY N:O
PVY NTN

WASHINGTON STATE UNIVERSITY Potato Research Group
USDA United States Department of Agriculture National Institute of Food and Agriculture

WSU Potato Research Group

WASHINGTON STATE UNIVERSITY

World Class. Face to Face.

2016 Potato Cultivar Yield and Postharvest Quality Evaluations

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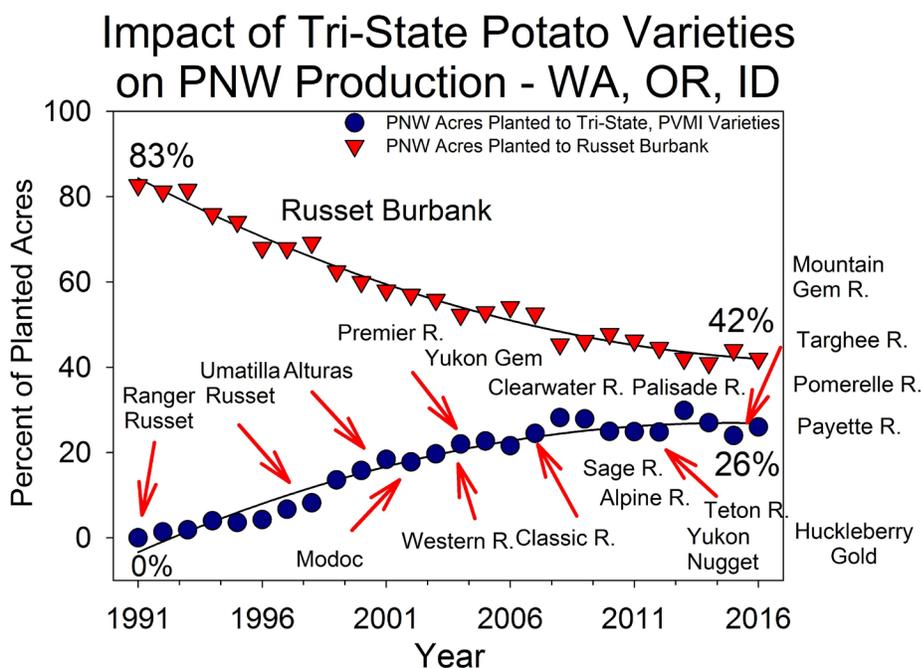
On the cover: WSU Othello Potato Group hosted a Potato Virus Y workshop which included an in-field demo trial. Plants were inoculated with different strains of Potato Virus Y.

INTRODUCTION

The 2016 Washington State University (WSU) “Potato Cultivar Yield and Postharvest Quality Evaluations” is an annual report providing detailed information about promising new clones and cultivars grown in Washington conducted by the **WSU Potato Research Group**. The postharvest sections include information on process quality and storability for samples grown in WA, ID, and OR.

Our mission: to identify and release new potato varieties that will provide profitable, sustainable production for the grower, improved competitiveness for the Washington and NW US potato industry, a healthy, inexpensive food supply for American consumers, and contributions towards a healthy environment. **Tri-State trials** include the newest clones which are created and evaluated in ID, OR, and WA by the USDA/ARS of Aberdeen, ID and Prosser, WA, Univ. of ID, OR State University, and WA State University. **Regional trials** include advanced clones from, and evaluated by, ID, OR, WA, CO, TX, and CA. Potato Commissions from the Tri-State area support and fund much of the variety development efforts. **Potato Variety Management Institute (PVMI)** is a nonprofit organization that licenses and promotes Tri-State varieties. PVMI collects royalties from the varieties which are then distributed among the Tri-State research programs to support the ongoing development efforts. Learn more at www.pvmi.org.

Recent Accomplishments: The effect of the Tri-State Potato Variety Development Program on the Northwest potato industry has been substantial. **Ranger Russet, Umatilla Russet, Alturas, Bannock Russet, and Clearwater Russet**, are examples of russet cultivars released from the Tri-State program that have greatly benefited the United States and Northwest potato industry. These cultivars are ranked as the 3rd, 4th, 7th, 9th, and 10th most widely grown cultivars in the United States in 2016, respectively, with Tri-State varieties representing 33.5%, or 309,000 acres, of the fall crop nationally. (NASS, Crop Production, December 2016). **Ranger Russet, Umatilla Russet, and Alturas** were the 3rd, 4th, and 5th most widely grown cultivars in the PNW (ID, OR, WA) in 2016, respectively, and accounted for 27% of the PNW planted acreage. Varieties recently released by the Tri-State program are now produced on more than 143,000 acres in the Pacific Northwest with value to growers estimated at approximately \$600 million. In the past 10 years, the US farm-gate value of Tri-State varieties has increased by approximately \$190 million.



Multi-Year Summaries of Graduating Russet Entries and Reference Varieties

Entry	Year	Early/Late* Harvest		US # 1 & 2 Yield > 6 oz	Specific Gravity	Average Tuber Weight/ Number per Plant		Bruise Blackspot/ Shatter	Internal** Issues	Merit Scores (5 = Best)		
		Total Yield	% of Total			oz/number	%			Field Performance		Postharvest Processing Performance
										Early/Late Fresh	Early/Late Process	
A03921-2	2016	CWT/A 560/816	80	1.098	10.3/6.5	23/74	3% IBS, 3% BC	1.9/1.7	3.1/2.9	3.7		
	2015	320/590	71	1.095	8.1/6.3	0/88	3% IBS	0.7/1.1	2.8/2.3	4.6		
	2014	520/712	80	1.093	9.9/6.3	33/72	3% IBS, 3% HH	3.4/1.5	4.7/3.3	3.5		
	2013	326/864	81	1.094	10.8/6.5	34/61	18% IBS, 3% BC	1.3/3.5	3.7/3.3	4.2		
	2012	290/708	74	1.092	7.7/8.1	10/51	3% BC	1.4	-4.3	4.1		
Due to ugly skin, this clone should be used for processing only. Good tuber length for french fries and post-harvest performance.												
A06021-1T	2016	534/571	75	1.080	9.7/5.8	34/77	none	2.1/2.7	4.3/2.9	2.7		
	2015	353/659	78	1.080	8.2/6.8	20/84	none	2.1/3.1	4.2/2.5	4.2		
	2014	515/665	83	1.078	9.6/6.1	36/41	none	4.9/3.2	3.2/2.8	2.1		
	2013	448/685	87	1.080	9.2/6.0	16/24	3% HH	3.9/3.4	-3.2	2.6		
This clone has nice shape and could be marketed fresh or process. Yields are similar or less than Russet Norkotah. It has early to medium maturity. Skin issues and low yield could affect fresh performance.												
Ranger R.	2016	465/788	77	1.087	8.4/8.8	58/13	none	NA	2.6/4.6	3.2		
	2015	479/851	77	1.086	7.1/8.8	17/23	none	NA	3.6/3.8	4.9		
	2014	524/681	76	1.077	8.9/6.6	49/19	3% IBS	NA	4.3/2.5	2.8		
	2013	479/821	75	1.085	7.9/8.4	29/45	none	NA	2.7/4.4	3.8		
	2012	396/852	86	1.085	9.6/7.7	50/50	3% IBS	NA	3.1/4.6	3.1		
	2011	468/735	75	1.086	7.5/8.4	49/46	3% IBS	NA	3.1/3.5	4.1		
Long, shape variable at times, yet uniform other times												
R. Burbank	2016	526/734	63	1.085	6.8/9.0	57/57	14% BC, 4% IBS	0.9/1.3	2.0/3.2	2.2		
	2015	460/677	70	1.072	7.7/8.0	41/59	3% BC	1.3/1.4	2.9/1.2	2.7		
	2014	466/730	63	1.077	9.4/6.8	31/61	3% HH, 6% IBS	0.9/0.4	1.3/1.2	2.0		
	2013	364/738	67	1.075	8.0/7.5	22/47	9% HH, 3% BC	1.2/0.6	1.4/1.7	1.9		
	2012	364/710	63	1.076	7.0/8.8	27/57	10%HH, 20% BC	0.5/0.9	1.0/1.6	1.9		
	2011	487/641	68	1.076	6.8/8.2	6/24	35%HH, 21% BC	2.3/1.3	3.3/1.5	3.9		
Shape typically variable, often with many growth cracks and knobs												
R. Norkotah	2016	473/696	63	1.076	6.8/8.3	24/12	none	2.5/2.5	NA	NA		
	2015	468/602	70	1.065	7.7/7.6	21/29	none	1.7/2.5	NA	NA		
	2014	465/730	73	1.068	7.5/8.0	22/11	none	2.3/3.5	NA	NA		
	2013	364/598	58	1.067	5.7/8.5	18/33	3% HH, 3% IBS	2.0/1.0	NA	NA		
Shape and skin typically very uniform, size profile typically on the small side												
Shepody (Early Harvest) only	2016	502	82	1.092	11.1/4.9	29/24	none	NA	4.3	-		
	2015	487	72	1.076	6.7	7/7	none	NA	3.4	-		
	2014	553	84	1.073	9.9/5.8	13/0	none	NA	3.8	-		
	2013	354	77	1.062	7.9/4.4	5/10	none	NA	2.6	-		
Early-harvest processing variety. Post-harvest merit not available as this and most varieties typically produce acceptable fries directly from the field.												
*Early Harvest ~ 110 days after planting, Late Harvest ~ 150 DAP. **HH = Hollow heart, BC = brown center, IBS = internal brown spot.												

FRESH MARKET MERIT - NEWEST LINES 2014-2016

(5 = best) - Entries ranked by means

EARLY HARVEST - Fresh Market Merit Scores				
Entry	Mean	2016	2015	2014
1	AOR06576-1	3.1	3.1	-
2	AOR07781-5	2.3	2.3	-
3	A08009-2TE	2.1	2.3	2.0
4	A07061-6	2.1	2.1	-
5	Ranger Russet	2.1	2.2	1.4
6	Russet Norkotah	2.0	1.6	1.8
7	A08422-2VRsto	1.9	1.9	-
8	A06030-23	1.8	0.5	3.1
9	AOR07821-1	1.7	1.7	-
10	A061070-3CSR	1.6	1.3	1.9
11	A07088-6	1.5	1.5	-
12	A071012-4BF	1.5	1.5	-
13	A10214-2TE	1.3	1.3	-
14	A06403-12	1.3	1.3	-
15	Russet Burbank	1.2	0.9	0.6
16	AOR08032-1	1.1	1.1	-
17	A10210-7TE	0.8	0.8	-

LATE HARVEST - Fresh Market Merit Scores				
Entry	Mean	2016	2015	2014
1	AOR07781-5	3.0	3.0	-
2	A08009-2TE	2.7	3.0	2.5
3	Russet Norkotah	2.6	2.9	2.4
4	AOR06576-1	2.4	2.4	-
5	Ranger Russet	2.3	2.7	1.7
6	AOR08032-1	2.2	2.2	-
7	A06030-23	2.2	0.8	2.9
8	A07061-6	2.1	2.1	-
9	AOR07821-1	1.9	1.9	-
10	A071012-4BF	1.7	1.7	-
11	A061070-3CSR	1.7	1.3	1.9
12	A07088-6	1.7	1.7	-
13	A08422-2VRsto	1.3	1.3	-
14	Russet Burbank	1.2	1.2	1.3
15	A06403-12	1.0	1.0	-
16	A10210-7TE	0.7	0.7	-
17	A10214-2TE	0.4	0.4	-

For more information on these cultivars, see the Early and Late Harvest Regional Trial Sections in this Book. The dash (“ - ”) indicates the clone was not yet entered into the trial.

FRESH MARKET MERIT - ADVANCED LINES 2012-2016

(5 = best) - Entries ranked by means

EARLY HARVEST - Fresh Market Merit Scores						
Entry	Mean	2016	2015	2014	2013	2012
1 AO06191-1 ^a	3.6	3.4	3.4	4.0	-	-
2 A06021-1T	3.2	2.1	2.1	4.9	3.9	-
3 CO05175-1RU	2.6	2.2	2.9	-	-	-
4 TX08352-5Ru	2.5	2.2	2.8	-	-	-
5 A03141-6	2.4	2.4	2.3	2.2	2.8	-
6 Ranger Russet	2.3	2.8	2.7	2.6	1.7	1.6
7 COTX09052-2Ru	2.1	3.1	1.2	-	-	-
8 CO05068-1RU	2.1	2.6	2.5	1.1	-	-
9 CO05152-5RU	2.1	2.1	-	-	-	-
10 Russet Norkotah	2.0	2.5	1.7	2.3	2.0	1.3
12 A03921-2	1.7	1.9	0.7	3.4	1.3	1.4
13 CO04220-7RU	1.5	1.5	-	-	-	-
14 AOR06070-1KF	1.5	1.6	1.6	1.3	1.4	-
15 AO03123-2	1.3	0.9	1.2	2.0	1.5	1.0
16 COTX09022-3RuRE/Y	1.1	2.0	0.3	-	-	-
17 Russet Burbank	1.0	0.9	1.3	0.9	1.2	0.5

^aShatter bruise on AO06191-1 may be a concern

LATE HARVEST - Fresh Market Merit Scores						
Entry	Mean	2016	2015	2014	2013	2012
1 CO05175-1RU	2.7	2.1	2.3	3.7	-	-
2 A06021-1T	2.6	2.7	3.1	3.2	3.4	0.8
3 CO05175-1RU	2.6	2.6	-	-	-	-
4 AO06191-1	2.5	4.4	1.8	1.5	-	-
5 COTX09052-2Ru	2.2	2.8	1.6	-	-	-
6 TX08352-5Ru	2.2	2.5	1.9	-	-	-
7 AO03123-2	2.2	1.9	2.3	1.1	3.5	2.1
8 Russet Norkotah	2.1	2.5	2.5	3.5	1.0	1.2
9 A03921-2	1.9	1.7	1.1	1.5	3.5	-
10 CO05068-1RU	1.9	2.0	1.7	1.9	-	-
11 A03141-6	1.7	1.7	1.5	1.4	2.1	-
12 AOR06070-1KF	1.7	2.0	1.9	1.4	1.4	-
13 Ranger Russet	1.6	2.2	1.8	1.3	0.9	1.8
14 CO04220-7RU	1.0	1.0	-	-	-	-
15 Russet Burbank	0.9	1.3	1.4	0.4	0.6	0.9
16 COTX09022-3RuRE/Y	0.8	1.4	0.1	-	-	-

For more information on these cultivars, see the Early and Late Harvest Regional Trial Sections in this Book. The dash (“-”) indicates the clone was not yet entered into the trial.

PROCESS MARKET MERIT - NEWEST LINES 2014-2016

(5 = best) - Entries ranked by Field Performance means

EARLY HARVEST - Process Market Merit Scores					
Entry	Field Performance Mean	Field Performance Only*			
		2016	2015	2014	
1	Shepody	3.5	4.3	2.9	3.3
2	A08009-2TE	3.4	3.5	3.4	-
3	AOR06576-1	3.3	3.3	-	-
4	A07061-6	3.2	3.2	-	-
5	Ranger Russet	3.1	2.7	4.0	2.8
6	A08422-2VRsto	3.0	3.0	-	-
7	A071012-4BF	3.0	3.0	-	-
8	AOR07821-1	2.9	2.9	-	-
9	AOR07781-5	2.5	2.5	-	-
10	Russet Burbank	2.5	2.6	1.3	3.5
11	A07088-6	2.4	2.4	-	-
12	A06403-12	2.3	2.3	-	-
13	A10214-2TE	2.2	2.2	-	-
14	Russet Norkotah	2.2	2.0	2.6	2.0
15	A061070-3CSR	2.2	1.8	2.6	-
16	A06030-23	2.0	1.3	2.8	-
17	AOR08032-1	1.9	1.9	-	-
18	A10210-7TE	1.2	1.2	-	-

*Postharvest values are not given for the Early Harvest Trial because all varieties typically fry well when delivered directly from the field and cold storage is not typical. The dash (" - ") indicates the clone was not yet entered into the trial.

LATE HARVEST - Process Market Merit Scores									
Field & Postharvest Processing Performance									
Entry	All Years		(Washington only)						
	WA Post		2016		2015		2014		
	Field Mean	Harvest Mean	Field	Post Harv	Field	Post Harv	Field	Post Harv	
1	AOR07781-5	4.0	4.0	4.0	4.0	-	-	-	-
2	Ranger Russet	3.6	3.6	3.8	3.9	4.1	4.4	2.8	2.7
3	AOR06576-1	3.3	2.1	3.3	2.1	-	-	-	-
4	A071012-4BF	3.0	1.8	3.0	1.8	-	-	-	-
5	A08422-2VRsto	2.9	2.8	2.9	2.8	-	-	-	-
6	AOR08032-1	2.8	3.6	2.8	3.6	-	-	-	-
7	A06403-12	2.8	3.3	2.8	3.3	-	-	-	-
8	A061070-3CSR	2.7	4.3	1.3	3.9	4.1	4.7	-	-
9	A06030-23	2.6	4.6	1.7	4.3	3.4	4.9	-	-
10	Russet Burbank	2.5	2.1	3.1	2.4	1.3	2.2	3.1	2.0
11	AOR07821-1	1.8	3.3	1.8	3.3	-	-	-	-
12	A10210-7TE	1.7	3.3	1.7	3.3	-	-	-	-
13	A07088-6	1.6	2.9	1.6	2.9	-	-	-	-
14	A07061-6	1.3	2.8	1.3	2.8	-	-	-	-
15	A10214-2TE	0.7	3.3	0.7	3.3	-	-	-	-

For more information on these cultivars, see the Early and Late Harvest Regional Trial Sections in this Book. The dash (" - ") indicates the clone was not yet entered into the trial.

PROCESS MARKET MERIT - ADVANCED LINES 2012-2016

(5 = best) - Entries ranked by Field Performance means

EARLY HARVEST - Process Market Merit Scores							
Entry	Field Performance Mean	Field Performance Only*					
		2016	2015	2014	2013	2012	
1	AO06191-1	3.8	3.9	3.6	-	-	-
2	CO05152-5RU	3.8	3.8	3.6	-	-	-
3	A03141-6	3.7	3.9	4.3	4.4	2.4	-
4	A06021-1T	3.6	4.3	2.9	4.2	3.2	-
5	CO05175-1RU	3.6	3.2	3.6	4.1	-	-
6	CO05068-1RU	3.6	3.0	4.3	3.5	-	-
7	A03921-2	3.6	3.1	2.8	4.7	3.7	-
8	TX08352-5Ru	3.6	4.3	2.8	-	-	-
9	Shepody	3.5	4.3	3.4	3.8	2.6	-
10	Ranger Russet	3.5	2.6	3.6	4.3	2.7	4.0
11	COTX09052-2Ru	3.3	3.6	3.1	-	-	-
12	AOR06070-1KF	3.1	2.8	4.0	3.1	2.7	-
13	Norkotah	2.8	3.1	3.3	2.6	2.0	3.2
14	AO03123-2	2.5	1.8	3.6	2.4	2.2	-
15	Burbank	2.3	2.0	2.9	1.3	1.4	4.0
16	CO04220-7RU	1.9	1.9	-	-	-	-
17	COTX09022-3RuRE/Y	1.5	2.3	0.8	-	-	-

*Postharvest values are not given for the Early Harvest Trial because all varieties typically fry well when delivered directly from the field and cold storage is not typical. The dash (" - ") indicates the clone was not yet entered into the trial.

LATE HARVEST - Process Market Merit Scores													
Field & Postharvest Processing Performance													
Entry	All Years		(Washington only)										
	WA Post		2016		2015		2014		2013		2012		
	Field Mean	Harvest Mean	Field	Post Harv	Field	Post Harv	Field	Post Harv	Field	Post Harv	Field	Post Harv	
1	A03141-6	4.2	4.2	3.9	3.5	4.1	4.7	4.5	4.3	-	-	-	-
2	Ranger Russet	4.0	3.6	4.6	3.2	3.8	4.9	2.5	2.8	4.4	3.8	4.6	3.1
3	AO03123-2	3.8	4.2	4.2	3.8	3.5	4.7	2.9	3.5	4.7	4.6	3.8	4.3
4	CO05068-1RU	3.8	3.9	4.4	3.0	2.8	4.7	4.1	3.9	-	-	-	-
5	AOR06070-1KF	3.3	4.0	3.7	3.7	3.7	4.3	3.1	3.8	2.8	4.0	-	-
6	CO05175-1RU	3.3	3.5	3.3	-	2.4	4.1	4.2	2.8	-	-	-	-
7	A03921-2	3.2	4.0	2.9	3.7	2.3	4.6	3.3	3.5	3.3	4.2	4.3	4.1
8	AO06191-1	3.2	3.9	4.0	3.0	2.4	4.7	3.1	3.9	-	-	-	-
9	A06021-1T	2.9	2.9	2.9	2.7	2.5	4.2	2.8	2.1	3.2	2.6	-	-
10	CO04220-7RU	2.6	3.9	2.6	3.9	-	-	-	-	-	-	-	-
11	CO05152-5RU	2.5	-	2.5	-	-	-	-	-	-	-	-	-
12	COTX09052-2Ru	2.5	-	3.6	-	1.4	-	-	-	-	-	-	-
13	TX08352-5Ru	1.8	2.3	2.1	-	1.5	2.3	-	-	-	-	-	-
14	Russet Burbank	1.8	2.1	3.2	2.2	1.2	2.7	-	2.0	1.7	1.9	1.6	1.9
15	COTX09022-3RuRE/Y	0.9	-	1.6	-	0.2	-	-	-	-	-	-	-

For more information on these cultivars, see the Early and Late Harvest Regional Trial Sections in this Book. Varieties with 'fresh' were designated for direct processing or fresh market only.

At-Harvest Grading Comments & Fresh Market Appearance

Newest Lines - 2016 Tri-State Trials			
Clone	Fresh Market Appearance		Tuber Appearance Comments
	1-5 (5 = Best)		
	2016	2015	
Early Harvest Tri-State			
Ranger Russet	2.7	2.7	Mostly ttypy, some irregular shapes
Russet Burbank	2.0	1.0	Smaller, shapes a bit irregular.
Russet Norkotah	3.7	2.3	Small and ttypy.
Shepody	2.0	1.0	Irregular shapes, light skin.
A06030-23	2.0	4.0	Small, dark russet, bad rhizoc.
A061070-3CSR	1.0	2.0	Mostly round, growth cracks, DISCARD.
A06403-12	2.7	-	Small, not early, ugly skin.
A07061-6	2.0	-	Light skin, small, round.
A07088-6	2.0	-	Irregular shapes, small, not early.
A071012-4BF	2.0	-	Not Early! Small, some round, bad skin.
A08009-2TE	3.0	4.0	Smaller, short, but some ttypy.
A08422-2VRsto	3.0	-	Small, short, some round.
A10210-7TE	2.7	-	Not early, bad skin, a bit short.
A10214-2TE	3.0	-	Not early, small, some ttypy.
AOR06576-1	3.3	-	Not early, small, ugly.
AOR07781-5	3.3	-	Mostly ttypy, some irregular shapes.
AOR07821-1	2.3	-	Irregular shapes, bad skin!
AOR08032-1	2.7	-	Not early, small, pears.
Late Harvest Tri-State			
Ranger Russet	3.0	3.7	Large, long, mostly ttypy.
Russet Burbank	2.5	2.8	Non uniform shape, but not bad.
Russet Norkotah	3.5	4.0	Good length, ttypy.
A06030-23	3.0	4.0	Too round! DISCARD
A061070-3CSR	2.0	1.8	Too round. Softballs and baseballs. DISCARD
A06403-12	2.3	-	Blocky, ugly skin, too many greens. DISCARD
A07061-6	2.0	-	Too short, with ugly skin. DISCARD
A07088-6	2.0	-	Mostly round, small, with bad skin. DISCARD
A071012-4BF	2.0	-	Plump, many short ones, bad skin.
A08009-2TE	3.5	3.0	50% round, 50% long and ttypy.
A08422-2VRsto	2.8	-	A lot of short and small ones.
A10210-7TE	2.0	-	Ugly skin, non uniform shape, DISCARD.
A10214-2TE	2.3	-	Too round and short.
AOR06576-1	2.0	-	Length ok, some curves and points.
AOR07781-5	3.8	-	Typy, nice russet skin. Could go fresh.
AOR07821-1	2.0	-	Short, round, irregular shapes, DISCARD.
AOR08032-1	3.0	-	A bit flat, mostly ttypy, short, oval.

*Typy - Visually appealing, uniform tuber shape.

AOR07781-5



A08009-2TE



AOR07781-5



A08009-2TE



At-Harvest Grading Comments & Fresh Market Appearance

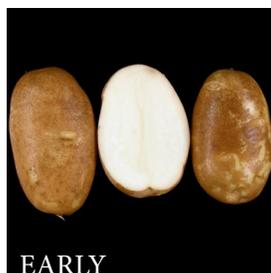
Advanced Lines - 2016 Regional Trials				
Fresh Market Appearance				
1-5 (5 = Best)				
Clone	2016	2015	2014	Tuber Appearance Comments*
Early Harvest Regional				
Ranger Russet	4.0	3.0	3.0	Nice size, typy.
Russet Burbank	2.3	2.5	1.7	Irregular shapes, some rot.
Russet Norkotah	3.3	2.5	3.3	Mostly typy.
Shepody	1.7	2.0	1.7	Huge, with irregular shapes.
A03141-6	2.3	2.0	1.3	Irregular shapes, spotty russetting, DISCARD
A03921-2	2.3	2.0	3.0	Light buff russet, irregular shape.
A06021-1T	2.3	3.3	4.0	Bad skin, nice size.
AO03123-2	2.7	3.0	3.2	Small, irregular shapes
AO06191-1	4.0	4.0	4.0	Typy, dark russet, poor skin set.
AOR06070-1KF	2.3	1.7	2.0	Irregular shapes, ok size.
CO04220-7RU	3.3	-	-	Small, baby potatoes, not early.
CO05068-1RU	3.0	3.0	2.7	Flat, irregular shapes like RB.
CO05152-5RU	3.0	-	-	Irregular shape, not an early variety.
CO05175-1RU	3.7	3.7	3.3	Typy, some large, not great skin.
COTX09022-3RuRE/Y	2.0	1.0	-	Looks like a flat river rock! DISCARD
COTX09052-2Ru	4.0	3.3	-	Flat, long, a lot of small ones.
TX08352-5Ru	3.7	4.0	-	Small, typy, not an early variety.
Late Harvest Regional				
Ranger Russet	3.3	2.0	2.7	Typy, long, large.
Russet Burbank	2.7	2.8	1.8	Good length and size, non uniform skin.
Russet Norkotah	3.0	4.0	3.5	Non uniform russetting, bad skin.
A03141-6	1.8	1.8	2.0	Large, plump, non uniform shape.
A03921-2	2.0	2.3	2.5	Very large, ugly skin, plump.
A06021-1T	3.0	4.0	3.8	Nice size and length, ugly skin.
AO03123-2	2.0	3.3	2.5	Non-uniform shape, a bit short, ugly.
AO06191-1	4.0	4.0	4.0	Very nice shape and size, typy, dark russet.
AOR06070-1KF	2.0	2.5	2.5	Large, bad roadmapping. Scab.
CO04220-7RU	2.3	-	-	Too small, pointy, DISCARD.
CO05068-1RU	2.5	2.0	2.8	Poor skin set, irregular shapes.
CO05152-5RU	3.0	-	-	Round, too small.
CO05175-1RU	2.8	4.0	3.0	Non uniform shape and size.
COTX09022-3RuRE/Y	1.5	1.0	-	Round, pink eyes, ugly, DISCARD!!!
COTX09052-2Ru	3.0	4.0	-	Flat uniform shape, mostly typy.
TX08352-5Ru	3.0	4.0	-	Small, uniform shape, short.

*Typy - Visually appealing, uniform tuber shape

AO06191-1



COTX09052-2Ru



AO06191-1



2016 Tri-State Specialty Potato Clones - Washington State University

2016 Tri-State Specialty Trial					
US#1	US #1 Yield		Fresh Market Appearance	Comments	(See also Tri-State Specialty Section near end of book)
	2016				
Yield	0-6 oz	6-10oz			
CWT/A	-----%-----		5 = best		
<u>Red Skin/White Flesh*</u>					
Chieftain	626	44	39	3.5	Nice shape, lots of cracks
<u>Red or Purple Skin/Yellow Flesh</u>					
COA07365-4RY	512	73	24	4.0	Deep red, very tpy, smooth and round.
<u>Yellow Flesh</u>					
Yukon Gold	514	28	44	2.8	Good shape, lots of russeting.
A06336-2Y	518	73	25	2.3	Shaped like pears and bowling pins.
A06336-5Y	500	93	7	3.3	Nice shape, round, small with pink eyes.
POR11PG20-2	706	54	34	2.3	Irregular shapes, ok skin, a lot of US # 2's.
POR11PG62-3	429	88	12	1.0	Discard, long with ugly skin, lot's of knobs.

*Skin/Flesh Color: R = Red, W = White, Y = Yellow, P = Purple, Rus = Russet, Buff = off-white with or without light russeting.

Chieftain



COA07365-4RY



A06336-2Y



Yukon Gold



A06336-5Y



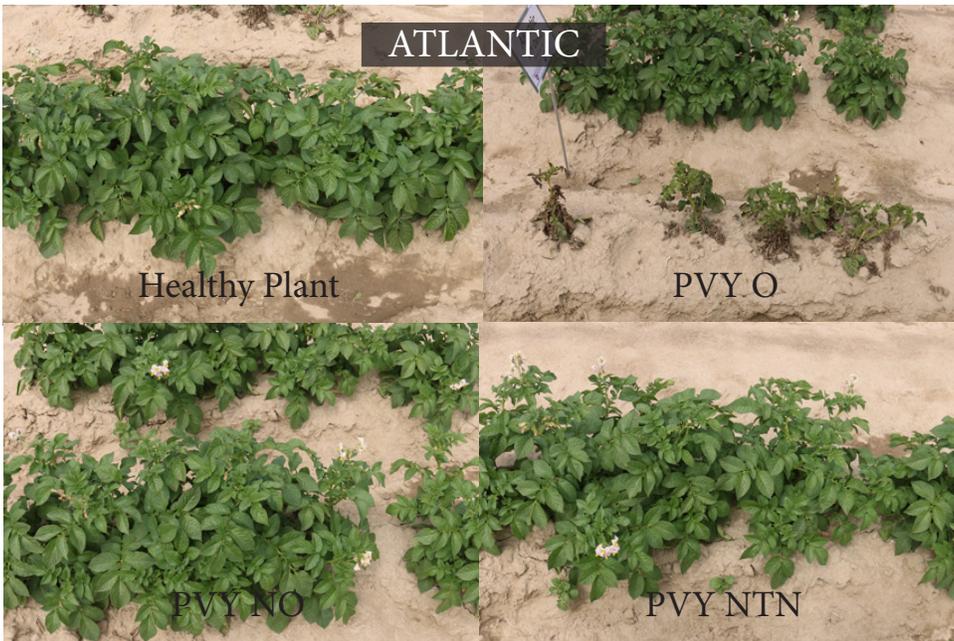
POR11PG20-2



POR11PG62-3



2016 POTATO VIRUS Y DEMO



Left: One of the 42 varieties displayed (healthy vs. 3 strains of PVY) within the 2016 WSU-Othello Potato Virus Y demonstration plot (below).



2016 Early Harvest Tri-State Trial

Summaries

ENTRY	TOTAL YIELD						CARTON YIELD		PROCESS YIELD	
	CWT/A	STATS**	Tons/A	US # 1's*	US # 2's*	Culls*	100-50 count (US 1's 7-18 oz)		US 1's and 2's > 6 oz	
				> 4 oz	> 4 oz	& < 4 oz	% of Total Yield	Tons/A	% of Total Yield	Tons/A
Ranger Russet	481	CDE	24.1	88	0	12	66	15.9	75	18.1
Russet Burbank	504	BCD	25.2	73	1	26	37	9.4	51	12.9
Russet Norkotah	394	EF	19.7	74	0	26	30	5.9	38	7.9
Shepody	549	ABC	27.5	94	0	6	63	17.2	84	23.0
A06030-23	340	F	17.0	83	0	17	45	7.7	61	10.4
A061070-3CSR	524	ABCD	26.2	75	0	25	54	14.2	59	15.7
A06403-12	532	ABCD	26.6	80	0	20	39	10.4	53	14.2
A07061-6	613	A	30.7	85	0	14	44	13.6	62	18.9
A07088-6	544	ABCD	27.2	80	0	20	37	10.2	53	14.7
A071012-4BF	534	ABCD	26.7	89	0	11	44	11.7	64	17.2
A08009-2TE	543	ABCD	27.2	78	0	22	36	9.8	51	14.1
A08422-2VRsto	513	BCD	25.6	90	0	10	54	13.8	71	18.2
A10210-7TE	499	BCD	25.0	72	0	28	22	5.6	35	8.7
A10214-2TE	405	EF	20.3	75	0	25	36	7.3	48	9.9
AOR06576-1	579	AB	28.9	83	0	17	45	12.9	57	16.6
AOR07781-5	472	CDE	23.6	86	1	13	48	11.3	64	15.2
AOR07821-1	455	DE	22.8	79	0	21	54	12.3	65	14.5
AOR08032-1	484	CDE	24.2	78	0	22	33	8.0	48	12.3

ENTRY	US # 1 YIELD						> 4 oz SPECIFIC GRAVITY	INTERNAL DEFECTS (%) (8-12 oz tubers)		
	> 4 oz	STATS**	Tons/A	> 4 oz	4-7 oz*	7-14 oz*		% HH	% BC	% IBS
				> 4 oz	%					
Ranger Russet	422	BCDEF	21.1	23	62	15	1.097	0	0	0
Russet Burbank	369	EFGHI	18.4	49	48	3	1.089	7	13	0
Russet Norkotah	296	HI	14.8	60	39	1	1.095	0	0	0
Shepody	513	AB	25.6	17	53	31	1.095	0	0	3
A06030-23	282	I	14.1	43	55	3	1.098	5	0	0
A061070-3CSR	392	CDEFG	19.6	28	65	8	1.091	0	0	0
A06403-12	427	BCDEF	21.3	51	44	4	1.098	0	0	0
A07061-6	523	A	26.1	47	52	1	1.092	0	0	0
A07088-6	436	ABCDEF	21.8	47	42	11	1.103	0	0	0
A071012-4BF	474	ABCD	23.7	46	46	8	1.106	0	0	0
A08009-2TE	422	BCDEF	21.1	51	43	5	1.091	0	0	0
A08422-2VRsto	460	ABCDE	23.0	40	57	2	1.105	0	3	0
A10210-7TE	360	FGHI	18.0	69	31	0	1.102	0	0	0
A10214-2TE	306	GHI	15.3	53	46	1	1.093	0	0	0
AOR06576-1	483	ABC	24.2	44	52	4	1.102	0	0	0
AOR07781-5	409	CDEFG	20.4	40	53	7	1.104	0	0	0
AOR07821-1	359	FGHI	18.0	27	58	15	1.094	0	3	0
AOR08032-1	381	DEFGH	19.1	52	34	14	1.098	0	3	0

* Percent values may not total 100% due to rounding

ENTRY	30 DAY STAND	40 DAY STAND	50 DAY STAND	STEMS PER PLANT	AVERAGE TUBER		SKIN SET 1 = Poor 5 = Good	TUBER SHAPE 1 = Round 5 = Long	BRUISE (%) (8-12 oz tubers)	
	% Emerged	% Emerged	% Emerged		Ounces	Tubers/Plant			BLACKSPOT	SHATTER
Ranger Russet	9	96	96	1.7	8.5	5.9	4	4	47	7
Russet Burbank	2	87	98	1.9	6.5	8.1	3	3	47	10
Russet Norkotah	7	67	91	2.4	5.5	7.3	4	3	13	17
Shepody	0	82	93	1.6	10.0	5.7	4	3	20	20
A06030-23	18	31	84	1.9	6.6	5.4	4	4	55	18
A061070-3CSR	4	69	96	1.9	8.3	6.6	4	2	40	73
A06403-12	0	40	96	2.4	6.5	8.5	3	2	27	53
A07061-6	13	93	100	2.1	6.5	9.8	4	3	20	47
A07088-6	11	80	96	2.5	6.3	9.0	4	3	23	23
A071012-4BF	2	78	98	1.8	7.1	7.8	3	3	27	13
A08009-2TE	2	84	98	2.6	5.7	10.0	4	3	43	20
A08422-2VRsto	0	73	91	1.3	7.4	7.3	4	3	3	20
A10210-7TE	4	84	98	2.4	5.3	9.9	3	3	10	30
A10214-2TE	4	62	96	2.2	5.8	7.2	4	3	6	30
AOR06576-1	2	80	96	1.8	6.6	9.3	4	3	15	15
AOR07781-5	16	76	100	2.6	7.2	6.8	4	3	37	23
AOR07821-1	2	49	93	2.0	8.0	6.0	4	3	20	23
AOR08032-1	4	87	100	2.2	6.2	8.2	4	3	10	50



Lucas and Caleb Garza measure soil temperature and internode length in various 2016 trials.

2016 Early Harvest Tri-State Trial

Tubers

Ranger Russet



Russet Burbank



Russet Norkotah



A06030-23



A061070-3CSR



A06403-12



AOR08032-1



A07088-6



A071012-4BF



A08009-2TE



Shepody



A08422-2VRsto



A10210-7TE



A10214-2TE



AOR06576-1



AOR07781-5



AOR07821-1



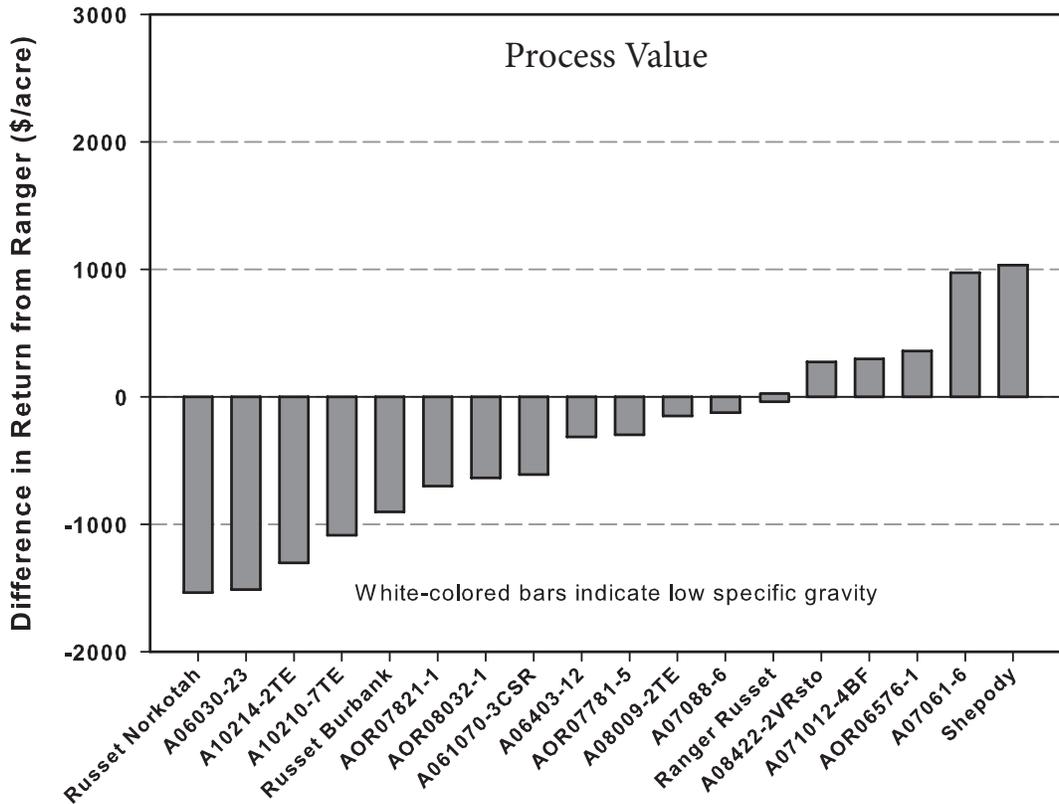
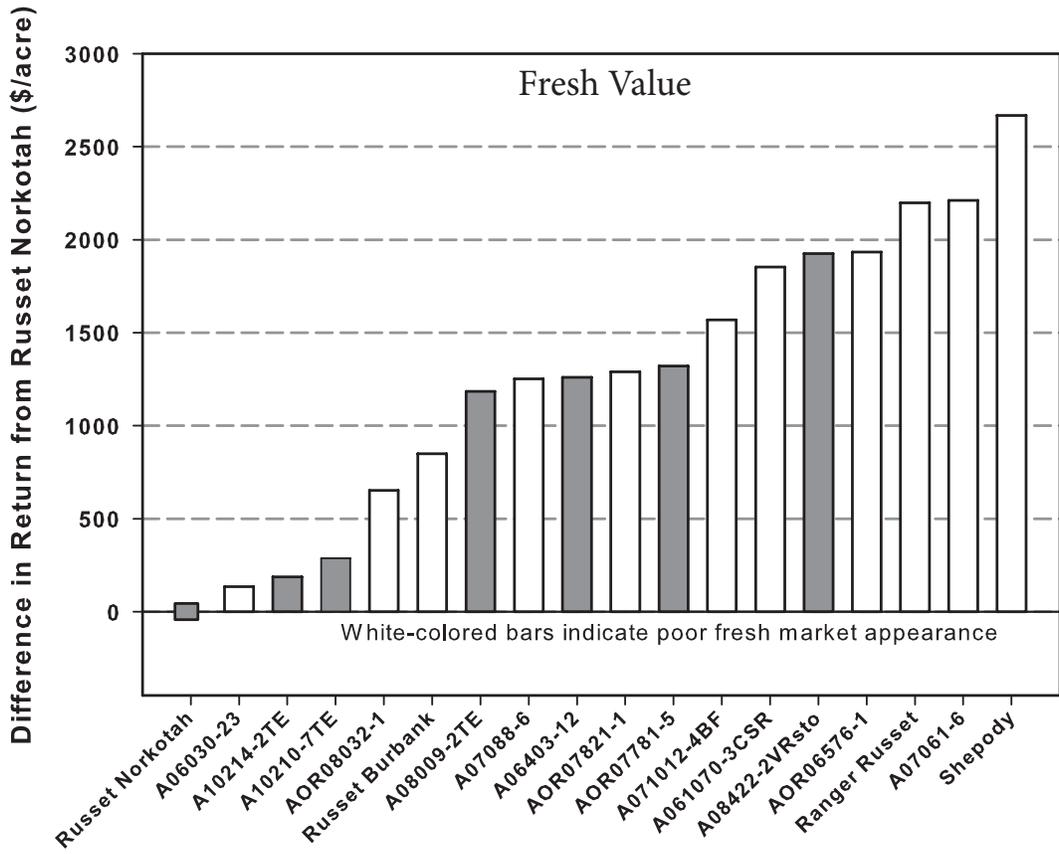


Figure 1 (Top). Difference in gross return per acre (Fresh Market) from Russet Norkotah calculated by subtracting the gross return of Russet Norkotah from the gross return of the particular entry. **Figure 2 (Bottom).** Difference in gross return per acre (Process Market) from Ranger Russet calculated by subtracting the gross return of Ranger Russet from the gross return of the particular entry. Entries with the white-colored bars would be penalized due to a low specific gravity.

2016 Late Harvest Tri-State Trial

Summaries

ENTRY	TOTAL YIELD						CARTON YIELD		PROCESS YIELD	
	CWT/A	STATS**	Tons/A	US # 1's*	US # 2's*	Culls*	100-50 count		US 1's and 2's	
				> 4 oz	> 4 oz	& < 4 oz	(US 1's 7-18 oz)		> 6 oz	
			----- % of Total Yield -----			% of Total Yield	Tons/A	% of Total Yield	Tons/A	
Ranger Russet	846	BC	42.6	81	7	12	62	26.6	77	32.6
Russet Burbank	817	C	40.9	83	1	16	51	20.9	65	26.4
Russet Norkotah	786	CD	39.3	85	0	14	54	21.1	67	26.4
A06030-23	724	D	36.2	78	0	21	45	16.4	57	21.0
A061070-3CSR	818	C	40.9	86	1	14	55	22.5	68	27.8
A06403-12	812	CD	40.6	75	1	24	47	19.2	59	23.9
A07061-6	992	A	49.6	84	1	16	56	27.9	68	33.9
A07088-6	863	BC	43.1	86	1	13	60	25.8	73	31.3
A071012-4BF	915	AB	45.7	86	3	11	53	24.2	74	34.1
A08009-2TE	926	AB	46.3	83	2	15	53	24.5	71	32.6
A08422-2VRsto	790	CD	39.5	88	0	12	59	23.2	74	29.2
A10210-7TE	859	BC	43.0	75	0	25	45	19.2	56	24.0
A10214-2TE	722	D	36.1	80	0	20	39	14.2	53	19.0
AOR06576-1	980	A	49.0	83	1	16	61	29.8	74	36.2
AOR07781-5	851	BC	42.5	86	0	14	55	23.5	67	28.7
AOR07821-1	922	AB	46.1	92	1	7	60	27.6	80	36.9
AOR08032-1	852	BC	42.6	83	0	17	52	22.1	64	27.3

ENTRY	US # 1 YIELD						> 4 oz SPECIFIC GRAVITY	INTERNAL DEFECTS (%)		
	> 4 oz CWT/A	STATS**	Tons/A	> 4 oz	4-7 oz*	7-14 oz*		(8-12 oz tubers)		
				> 4 oz	----- % -----	> 14 oz*		% HH	% BC	% IBS
Ranger Russet	756	BCDEF	37.8	25	59	17	1.082	0	0	0
Russet Burbank	682	FGH	34.1	35	55	10	1.088	3	0	7
Russet Norkotah	670	FGH	33.5	34	54	12	1.073	0	0	0
A06030-23	567	I	28.4	42	52	6	1.084	0	0	0
A061070-3CSR	699	EFG	35.0	33	54	13	1.084	0	0	0
A06403-12	609	HI	30.4	35	53	12	1.093	0	0	0
A07061-6	832	AB	41.6	29	57	14	1.077	0	0	0
A07088-6	739	CDEF	36.9	25	59	16	1.092	0	0	0
A071012-4BF	787	ABCD	39.4	28	53	19	1.093	0	0	0
A08009-2TE	768	ABCDE	38.4	28	53	19	1.086	0	0	0
A08422-2VRsto	697	EFG	34.8	28	58	15	1.082	0	6	8
A10210-7TE	644	GHI	32.2	38	53	8	1.094	0	0	0
A10214-2TE	577	I	28.9	49	44	7	1.075	0	0	0
AOR06576-1	815	ABC	40.8	21	61	18	1.075	0	0	0
AOR07781-5	731	CDEF	36.5	32	55	13	1.090	0	0	0
AOR07821-1	846	A	42.3	23	48	29	1.085	0	0	0
AOR08032-1	708	DEFG	35.4	36	55	9	1.086	0	0	0

ENTRY	30 DAY	40 DAY	50 DAY	STEMS PER PLANT	AVERAGE TUBER		SKIN	TUBER	BRUISE (%)	
	STAND	STAND	STAND		WEIGHT	NUMBER	SET	SHAPE	(8-12 oz tubers)	
	% Emerged	% Emerged	% Emerged		Ounces	Tubers/Plant	1 = Poor 5 = Good	1 = Round 5 = Long	BLACKSPOT	SHATTER
Ranger Russet	88	90	100	2.0	8.4	8.8	4	4	61	42
Russet Burbank	85	95	96	1.9	6.9	9.8	3	3	40	67
Russet Norkotah	85	94	99	2.0	7.3	9.0	4	4	21	52
A06030-23	53	95	96	2.8	6.3	9.5	4	2	60	53
A061070-3CSR	81	96	99	2.3	7.6	8.9	4	2	10	83
A06403-12	44	85	94	2.4	7.3	9.3	4	3	57	93
A07061-6	90	91	91	2.5	7.0	11.6	4	2	28	68
A07088-6	78	95	96	2.2	8.0	8.9	4	2	11	83
A071012-4BF	84	93	98	2.2	8.0	9.5	4	3	50	78
A08009-2TE	75	93	98	2.7	7.3	10.4	4	3	50	77
A08422-2VRsto	65	90	95	1.7	7.9	8.3	4	3	17	72
A10210-7TE	83	95	100	3.3	6.2	11.4	4	3	60	80
A10214-2TE	54	81	95	2.6	6.1	9.7	5	2	17	100
AOR06576-1	83	88	98	2.2	8.1	10.0	4	3	18	56
AOR07781-5	79	91	99	3.5	7.4	9.5	4	3	47	97
AOR07821-1	83	89	98	3.1	9.1	8.4	4	2	29	94
AOR08032-1	79	98	99	2.9	6.7	10.5	4	3	19	78

* Percent values may not total 100% due to rounding

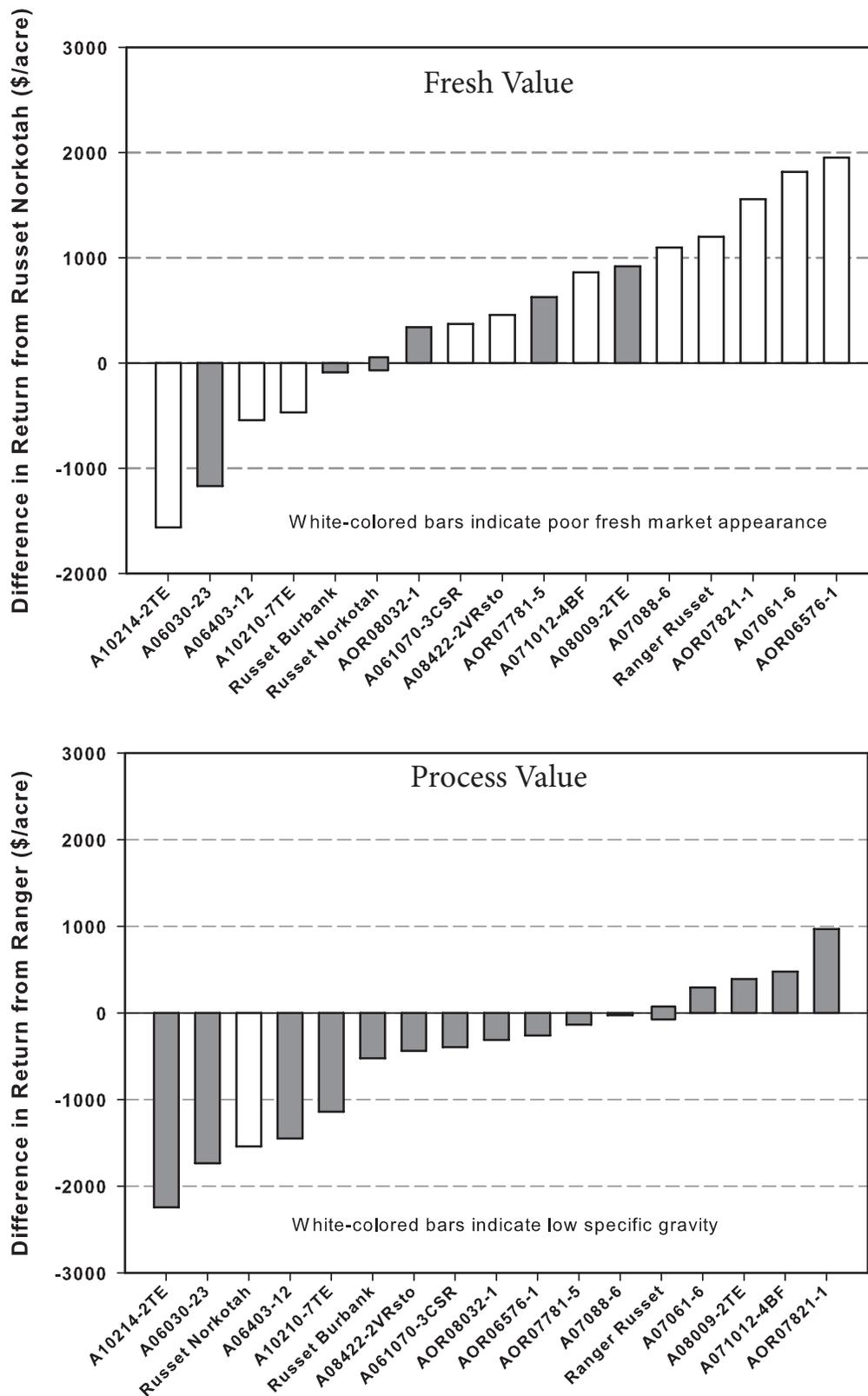
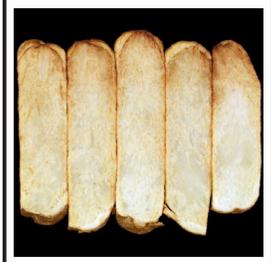
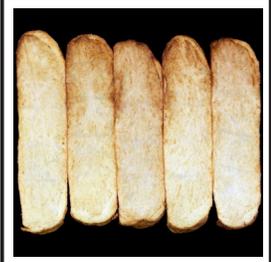
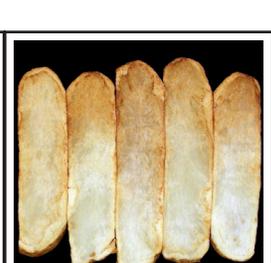
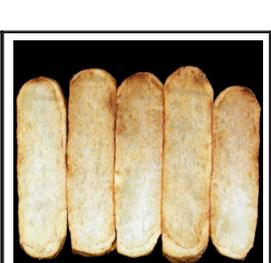
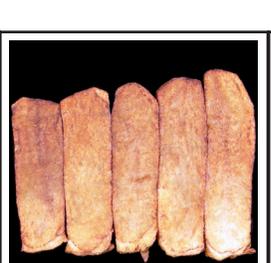
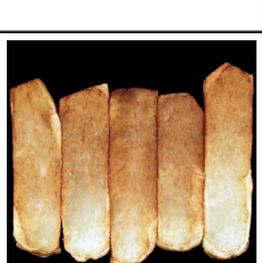
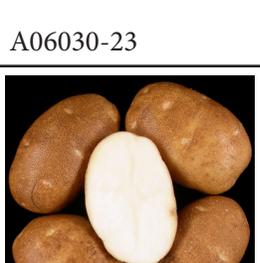
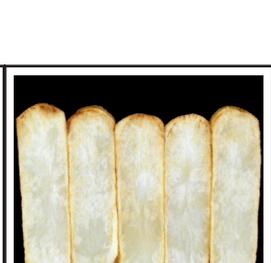
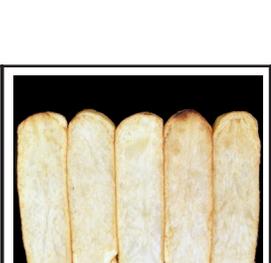
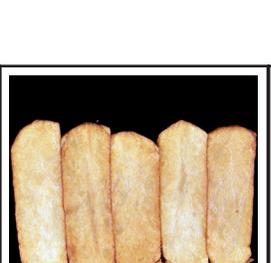
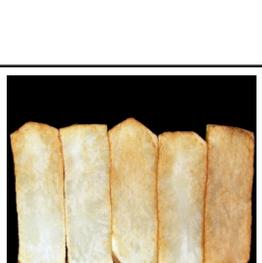
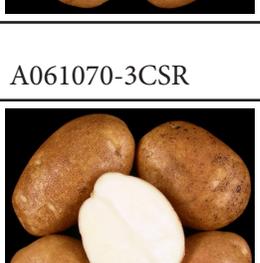
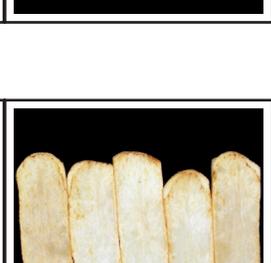
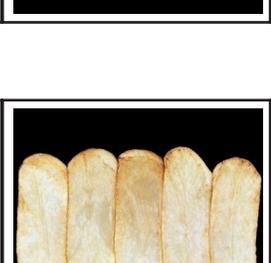
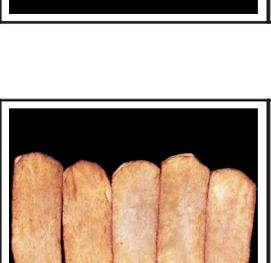
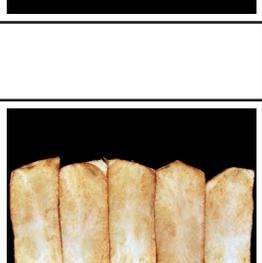
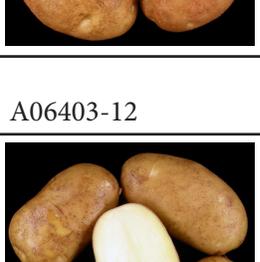
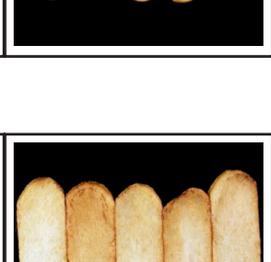
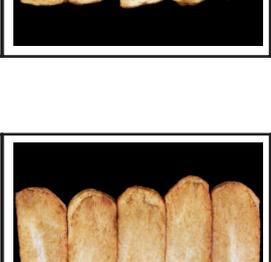
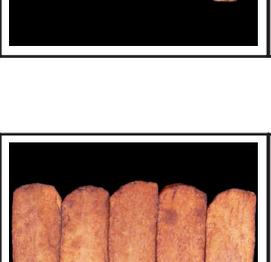
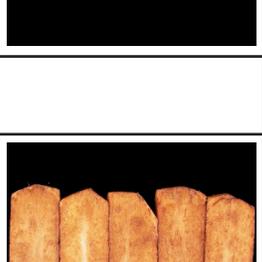
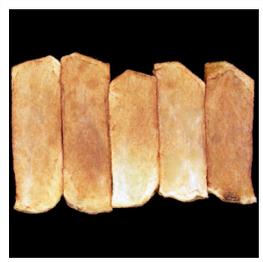
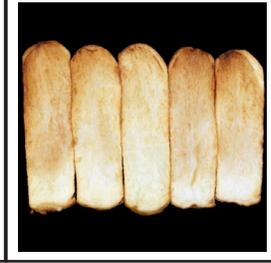
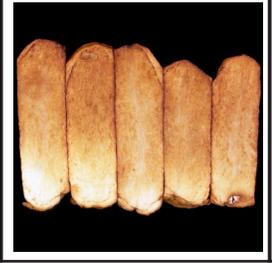
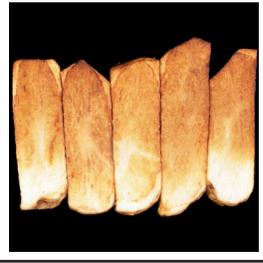
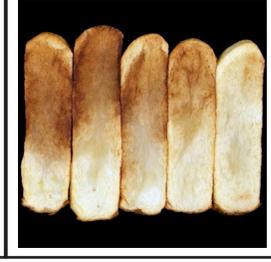
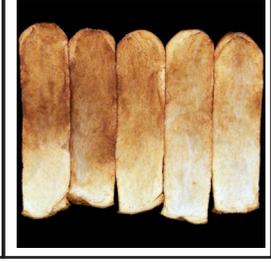
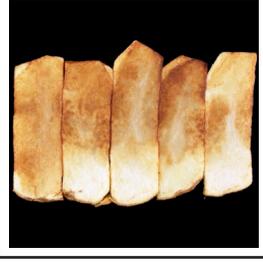
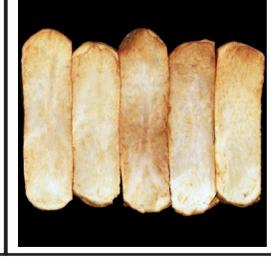
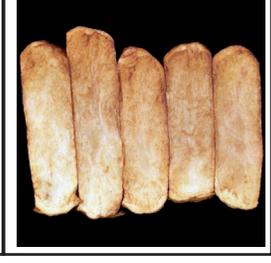
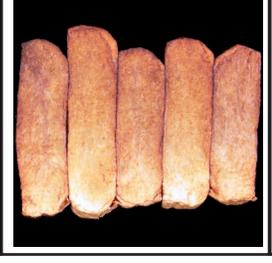
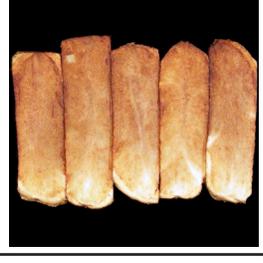
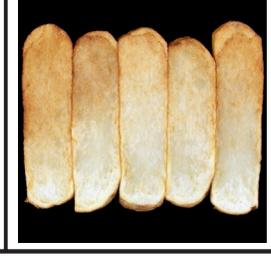
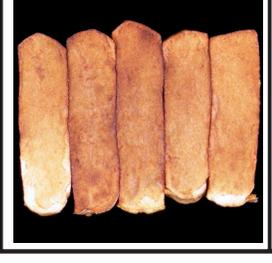
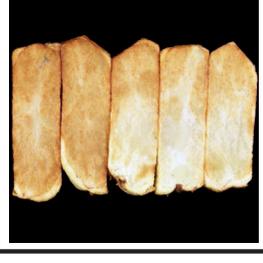
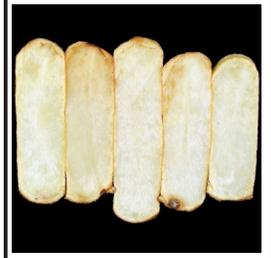
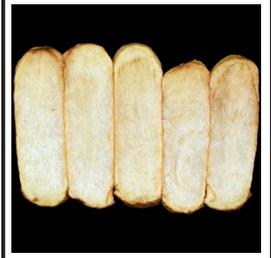
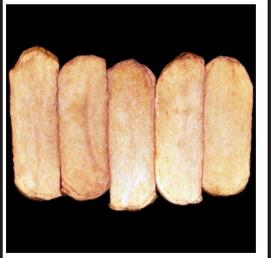
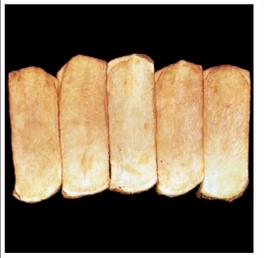
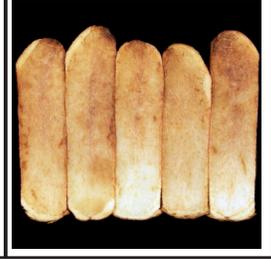
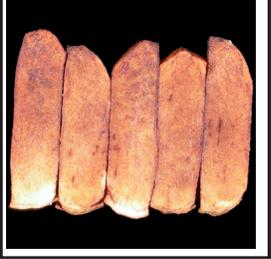
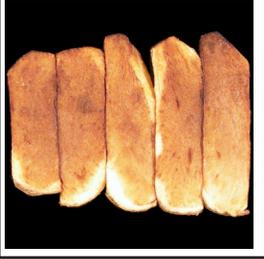
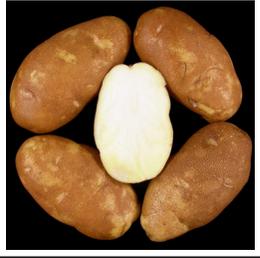
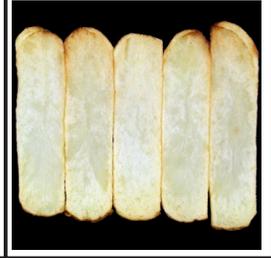
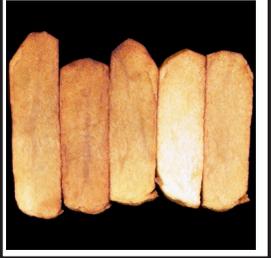
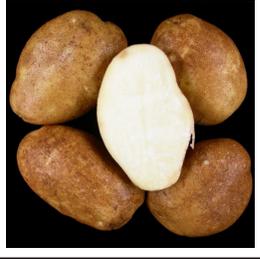
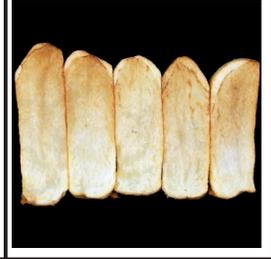
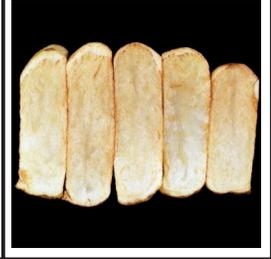
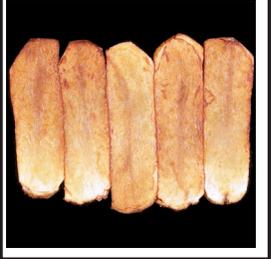
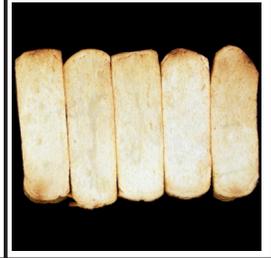
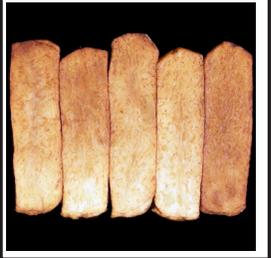
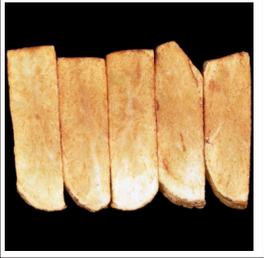


Figure 1 (Top). Difference in gross return per acre (Fresh Market) from Russet Norkotah calculated by subtracting the gross return of Russet Norkotah from the gross return of the particular entry. Entries with the white-colored bars may not appeal to fresh market consumers due to undesirable shape or appearance. **Figure 2 (Bottom)** Difference in gross return per acre (Process Market) from Ranger Russet calculated by subtracting the gross return of Ranger Russet from the gross return of the particular entry. Entries with the white-colored bars would be penalized (under the mock contract parameters) due to a specific gravity less than 1.075.

Tubers	48° F Storage	44° F Storage	40° F Storage	40° F Recon.
Ranger Russet				
				
Russet Burbank				
				
A06030-23				
				
A061070-3CSR				
				
A06403-12				
				

Tubers	48° F Storage	44° F Storage	40° F Storage	40° F Recon.
A07061-6				
A07088-6				
A071012-4BF				
A08422-2VRsto				
A10210-7TE				

Tubers	48° F Storage	44° F Storage	40° F Storage	40° F Recon.
A10214-2TE				
				
AOR06576-1				
				
AOR07781-5				
				
AOR07821-1				
				
AOR08032-1				
				

2016 Late Harvest Tri-State Trial

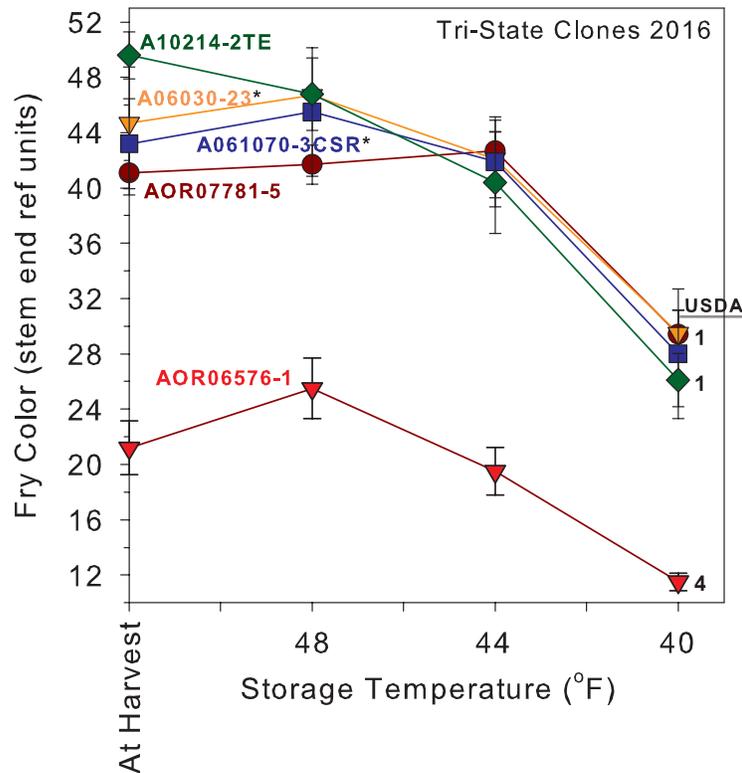
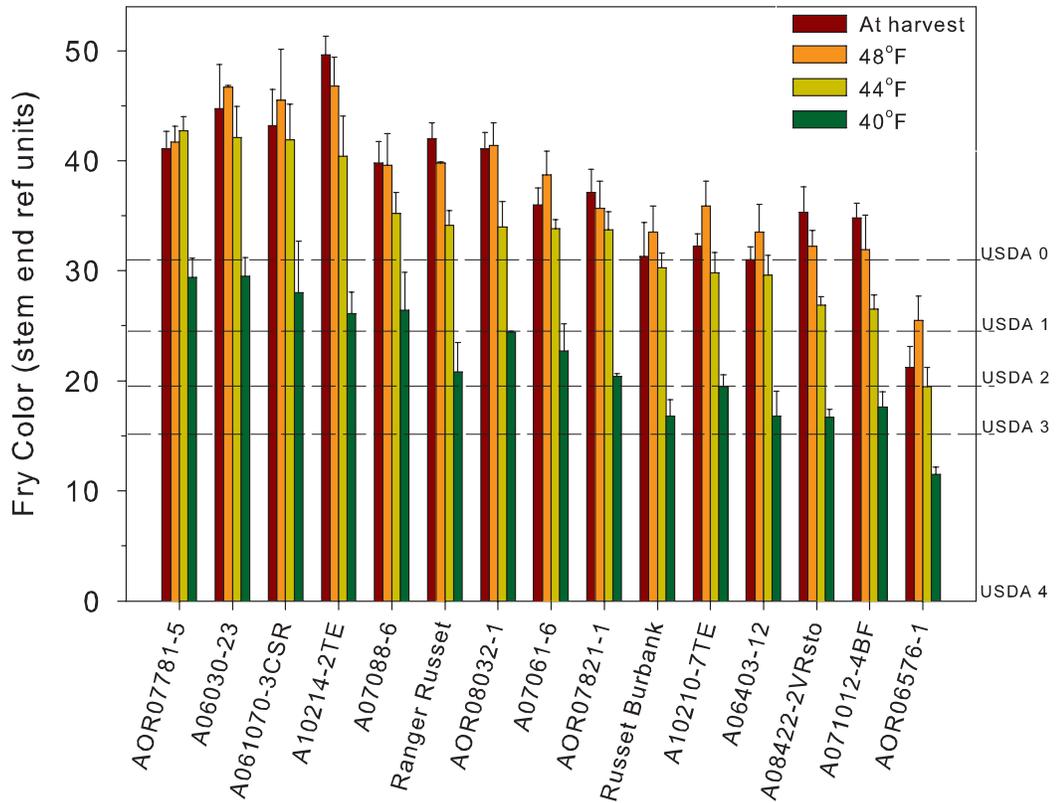
Accumulated Total Postharvest Rating of Clones

Clone	WA		ID		OR		3 State av. Rating Total
	Rating Total §	Discard §§	Rating Total §	Discard §§	Rating Total §	Discard §§	
13 AOR07781-5	30.3		32.5		29.9		30.9
3 A06030-23	32.6		28.5		27.3	SG	29.5
1 Ranger Russet	29.4		31.8		24.4	SG, 40°F	28.5
4 A061070-3CSR	29.6		31.9		20.4	SG	27.3
15 AOR08032-1	27.6		29.7		24.5	SG	27.3
11 A10214-2TE	25.3	SG	28.7		22.3	SG	25.4
14 AOR07821-1	24.9		24.4		25.4	SG	24.9
6 A07061-6	21.0		29.2		23.0	SG	24.4
7 A07088-6	22.4		29.0		20.4	SG	23.9
10 A10210-7TE	24.8	40°F	26.0		19.8	SG	23.5
9 A08422-2VRsto	21.2		27.2		18.1	SG, 40°F	22.2
2 Russet Burbank	18.4	40°F	28.5	40°F	17.3	SG, 40°F	21.4
5 A06403-12	24.8	40°F	21.9		15.9	SG, 40°F	20.9
8 A071012-4BF	13.6	40°F	22.3		19.7	SG, 40°F	18.5
12 AOR06576-1	16.1	40°F	17.0	40°F	11.7	SG,44,40°F	14.9
	24.1		27.2		21.3		24.2



GPS has been one of many improvements we've been able to incorporate into our program thanks to the contributions of the Washington State Potato Commission.

2016 Late Harvest Tri-State Trial

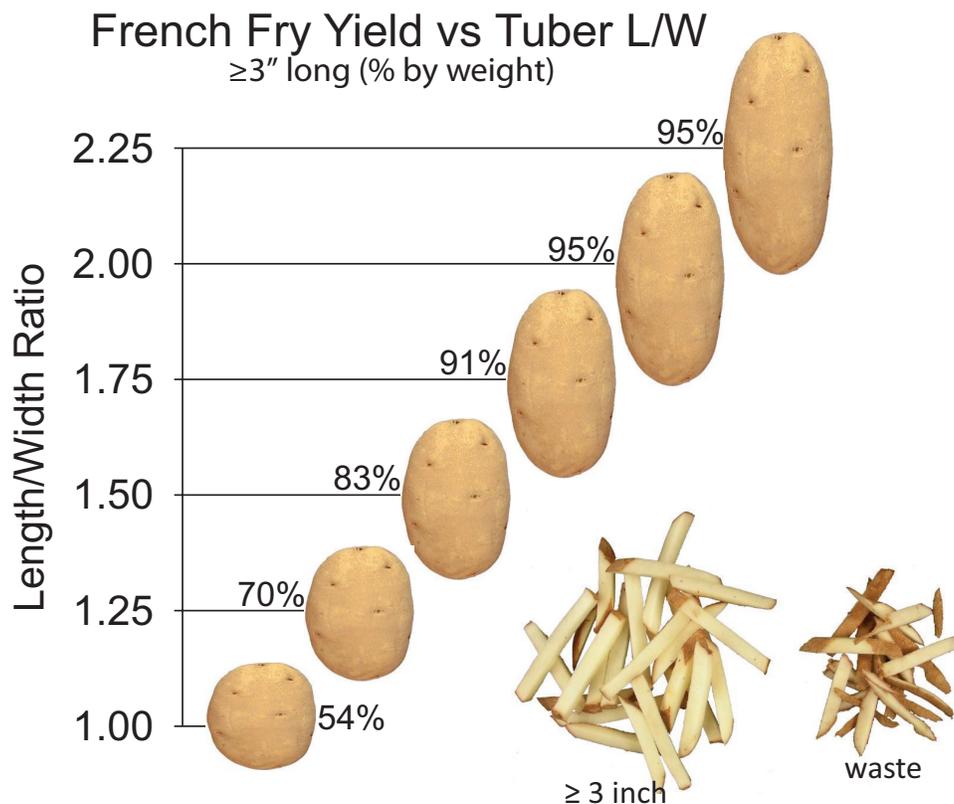


Top: At-harvest and after-storage French fry colors (stem end) of clones in the Tri-State Trial. Tubers were stored for 60 days at 48, 44, and 40°F. The clones are ranked from best to worst on fry color of the 44°F-stored tubers. High reflectance values indicate light colored fries.

Bottom: Line graph depicting the effects of storage temperature on change in French fry processing quality (stem end fry color) of the most cold sweetening resistant (A10214-2TE, A06030-23, A061070-3CSR, and AOR07781-5) and susceptible (AOR06576-1) clones in the Tri-State Trial. *Indicates similar performance of the clones last year.

2016 Late Harvest Tri-State Trial
Tuber Shape and Associated French Fry Yields
 (8- to 10-oz Tubers)

Clone	WA	Length to width ratio				3 State Avg.
		rtg §	ID	rtg §	OR	
1 Ranger Russet	1.72	4	2.36	5	2.08	2.05
2 Russet Burbank	1.68	4	2.00	5	2.11	1.93
3 A06030-23	1.56	3	1.97	5	1.65	1.73
4 A061070-3CSR	1.37	2	1.59	3	1.47	1.48
5 A06403-12	1.64	3	1.68	4	1.78	1.70
6 A07061-6	1.36	2	1.96	5	1.63	1.65
7 A07088-6	1.41	2	1.72	4	1.77	1.63
8 A071012-4BF	1.54	3	1.77	4	1.82	1.71
9 A08422-2Vrsto	1.61	3	1.95	5	1.64	1.73
10 A10210-7TE	1.73	4	1.94	5	1.92	1.86
11 A10214-2TE	1.46	2	1.51	3	1.36	1.44
12 AOR06576-1	1.86	5	1.96	5	2.12	1.98
13 AOR07781-5	1.65	4	1.88	5	1.83	1.79
14 AOR07821-1	1.46	2	1.76	4	1.76	1.66
15 AOR08032-1	1.45	2	2.12	5	1.65	1.74
Average	1.57		1.88		1.77	1.74



2016 Early Harvest Regional Trial

Summaries

ENTRY	TOTAL YIELD						CARTON YIELD		PROCESS YIELD	
	CWT/A		Tons/A	US # 1's*	US # 2's*	Culls*	100-50 count (US 1's 7-18 oz)		US 1's and 2's > 6 oz	
				> 4 oz	> 4 oz	& < 4 oz	% of Total Yield	Tons/A	% of Total Yield	Tons/A
Ranger Russet	465	E	23.2	91	1	8	60	13.9	74	17.5
Russet Burbank	526	BCDE	26.3	73	0	27	44	11.6	53	14.2
Russet Norkotah	473	DE	23.7	84	0	16	53	12.7	64	15.5
Shepody	502	BCDE	25.1	91	1	9	56	14.0	82	20.9
A03141-6	569	ABCD	28.5	92	1	7	67	19.0	83	23.5
A03921-2	560	ABCDE	28.0	89	1	10	61	17.1	75	21.0
A06021-1T	534	BCDE	26.7	89	1	10	66	17.6	77	20.6
AO03123-2	469	E	23.5	80	0	20	35	8.3	49	11.6
AO06191-1	576	ABC	28.8	94	0	5	81	23.2	88	25.3
AOR06070-1KF	569	ABCD	28.4	85	1	14	55	15.7	73	21.2
CO04220-7RU	513	BCDE	25.6	61	1	39	16	4.0	26	6.7
CO05068-1RU	558	ABCDE	27.9	87	2	10	59	16.5	74	20.5
CO05152-5RU	580	ABC	29.0	86	2	12	51	14.8	66	19.1
CO05175-1RU	486	CDE	24.3	85	3	12	51	12.3	74	17.8
COTX09022-3RuRE/Y	633	A	31.7	90	0	10	60	19.1	78	24.7
COTX09052-2Ru	585	AB	29.3	87	0	13	54	15.9	66	19.3
TX08352-5Ru	587	AB	29.4	84	0	16	36	10.6	54	15.9

ENTRY	US # 1 YIELD						> 4 oz SPECIFIC GRAVITY	INTERNAL DEFECTS (%) (8-12 oz tubers)		
	> 4 oz CWT/A	STATS**	> 4 oz Tons/A	4-7 oz*	7-14 oz*	> 14 oz*		% HH	% BC	% IBS
				%						
Ranger Russet	426	CDEF	21.3	31	63	6	1.097	0	0	0
Russet Burbank	383	EFG	19.1	39	53	8	1.091	6	0	11
Russet Norkotah	402	DEFG	20.1	36	59	5	1.083	0	0	0
Shepody	456	BCDE	22.8	14	40	45	1.092	0	0	0
A03141-6	523	AB	26.1	24	60	17	1.104	0	0	0
A03921-2	501	ABC	25.0	28	55	17	1.112	0	0	0
A06021-1T	478	ABCDE	23.9	25	65	10	1.092	0	0	0
AO03123-2	376	FG	18.8	55	44	1	1.097	0	0	0
AO06191-1	543	AB	27.1	14	64	22	1.102	3	0	0
AOR06070-1KF	488	ABCD	24.4	26	46	28	1.106	22	0	0
CO04220-7RU	312	G	15.6	74	26	0	1.097	0	0	0
CO05068-1RU	485	ABCD	24.2	27	56	17	1.106	11	4	0
CO05152-5RU	500	ABC	25.0	41	55	4	1.090	0	0	0
CO05175-1RU	412	CDEF	20.6	28	49	23	1.095	0	0	0
COTX09022-3RuRE/Y	574	A	28.7	20	48	32	1.099	0	0	0
COTX09052-2Ru	508	ABC	25.4	35	58	6	1.098	0	0	0
TX08352-5Ru	494	ABCD	24.7	57	43	0	1.084	0	0	0

* Percent values may not total 100% due to rounding

ENTRY	30 DAY	40 DAY	50 DAY	STEMS PER PLANT	AVERAGE TUBER		SKIN SET 1 = Poor 5 = Good	TUBER SHAPE 1 = Round 5 = Long	BRUISE (%)	
	STAND	STAND	STAND		WEIGHT	NUMBER			(8-12 oz tubers)	
	% Emerged	% Emerged	% Emerged	Above Ground	Ounces	Tubers/Plant			BLACKSPOT	SHATTER
Ranger Russet	24	89	98	1.7	7.9	6.1	4	4	83	33
Russet Burbank	31	80	96	2.0	6.7	8.0	3	3	67	17
Russet Norkotah	4	62	98	1.8	6.8	7.2	3	3	32	0
Shepody	22	73	98	1.6	11.1	4.9	4	3	29	24
A03141-6	4	87	100	1.9	8.9	6.7	3	3	36	7
A03921-2	2	87	100	1.7	8.3	7.0	4	3	30	60
A06021-1T	13	31	91	1.9	8.1	6.8	4	3	25	30
AO03123-2	20	49	96	2.1	5.8	8.5	4	3	13	37
AO06191-1	4	24	93	1.8	9.8	6.1	3	4	20	30
AOR06070-1KF	11	73	100	1.8	8.7	6.8	3	3	33	81
CO04220-7RU	22	89	100	2.7	4.7	11.4	4	3	7	17
CO05068-1RU	4	89	98	1.8	8.4	6.9	3	3	36	25
CO05152-5RU	4	80	98	1.9	7.2	8.4	3	3	38	100
CO05175-1RU	0	62	96	2.0	8.3	6.1	4	3	22	22
COTX09022-3RuRE/Y	22	91	100	2.4	9.6	6.9	4	2	60	5
COTX09052-2Ru	11	36	91	1.4	7.0	8.7	4	4	0	27
TX08352-5Ru	4	11	96	1.8	6.1	10.0	4	3	0	20



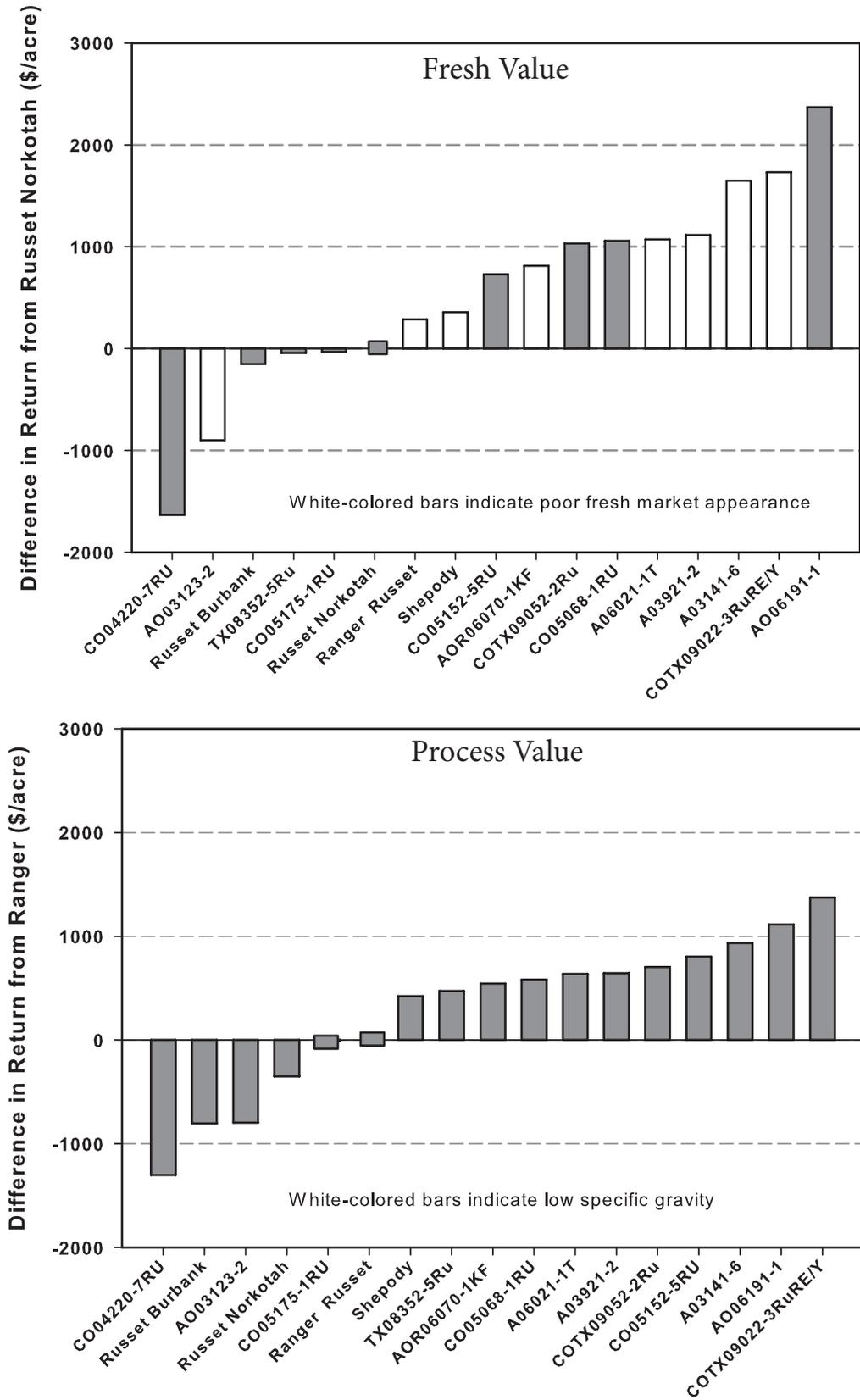


Figure 1 (Top). Difference in gross return per acre (Fresh Market) from Russet Norkotah calculated by subtracting the gross return of Russet Norkotah from the gross return of the particular entry. Entries with the white-colored bars may not appeal to fresh market consumers due to the undesirable shape or appearance. **Figure 2 (Bottom).** Difference in gross return per acre (Process Market) from Ranger Russet calculated by subtracting the gross return of Ranger Russet from the gross return of the particular entry.

2016 Early Harvest Regional Trial

Tubers

Ranger Russet



A03921-2



CO04220-7RU



COTX09052-2Ru



Russet Burbank



A06021-1T



CO05068-1RU



TX08352-5Ru



Russet Norkotah



AO03123-2



CO05152-5RU



COTX09022-3RuRE/Y



Shepody



AO06191-1



A03141-6



AOR06070-1KF



2016 Late Harvest Regional Trial

Summaries

ENTRY	TOTAL YIELD						CARTON YIELD		PROCESS YIELD	
	CWT/A	STATS**	Tons/A	US # 1's*	US # 2's*	Culls*	100-50 count		US 1's and 2's	
				> 4 oz	> 4 oz	& < 4 oz	(US 1's 7-18 oz)		> 6 oz	
			% of Total Yield			% of Total Yield	Tons/A	% of Total Yield	Tons/A	
Ranger Russet	901	A	45.1	88	2	10	58	26.3	77	32.6
Russet Burbank	734	DEF	36.7	78	1	20	48	17.7	63	23.2
Russet Norkotah	696	EF	34.8	82	1	17	50	17.5	63	22.5
A03141-6	845	ABC	42.3	94	1	5	56	23.9	91	38.4
A03921-2	816	ABCD	40.8	89	0	10	57	23.1	80	32.8
A06021-1T	688	EF	34.4	83	0	17	59	20.2	75	25.9
AO03123-2	771	BCDE	38.6	91	0	9	59	22.7	75	28.6
AO06191-1	711	DEF	35.6	93	2	5	69	24.7	91	32.5
AOR06070-1KF	872	AB	43.6	91	1	9	61	26.7	81	35.4
CO04220-7RU	642	F	32.1	53	1	46	12	3.9	22	7.4
CO05068-1RU	876	AB	43.8	90	0	10	64	27.9	80	35.2
CO05152-5RU	862	AB	43.1	83	1	16	46	19.8	60	26.0
CO05175-1RU	721	DEF	36.0	87	3	10	58	20.8	77	27.6
COTX09022-3RuRE/Y	782	BCDE	39.1	82	0	18	46	18.1	57	23.0
COTX09052-2Ru	853	ABC	42.6	86	0	14	52	22.3	67	28.8
TX08352-5Ru	754	CDE	37.7	88	0	12	50	18.8	67	25.2

ENTRY	US # 1 YIELD						> 4 oz SPECIFIC GRAVITY	INTERNAL DEFECTS (%)		
	> 4 oz	STATS**	Tons/A	> 4 oz	4-7 oz*	7-14 oz*		(8-12 oz tubers)		
				> 14 oz*	% of Total Yield			% HH	% BC	% IBS
			% of Total Yield							
Ranger Russet	788	A	39.4	26	55	19	1.087	0	0	0
Russet Burbank	574	D	28.7	36	58	6	1.085	0	14	4
Russet Norkotah	580	D	29.0	36	55	8	1.076	0	0	0
A03141-6	795	A	39.8	9	40	51	1.095	0	0	0
A03921-2	728	ABC	36.4	17	48	35	1.098	0	3	3
A06021-1T	571	D	28.5	14	52	34	1.080	0	0	0
AO03123-2	700	ABC	35.0	29	56	15	1.091	0	0	0
AO06191-1	665	BCD	33.2	7	47	46	1.092	0	0	0
AOR06070-1KF	790	A	39.5	19	52	30	1.096	3	0	0
CO04220-7RU	347	E	17.3	77	23	0	1.086	0	0	0
CO05068-1RU	790	A	39.5	18	55	27	1.093	5	0	0
CO05152-5RU	720	ABC	36.0	45	51	4	1.082	0	0	0
CO05175-1RU	625	CD	31.2	24	56	20	1.085	0	0	0
COTX09022-3RuRE/Y	646	BCD	32.3	42	49	9	1.089	0	0	0
COTX09052-2Ru	732	AB	36.6	35	52	13	1.080	0	0	0
TX08352-5Ru	666	BCD	33.3	41	53	5	1.066	0	0	0

ENTRY	30 DAY STAND	40 DAY STAND	60 DAY STAND	STEMS PER PLANT	AVERAGE TUBER		SKIN SET	TUBER SHAPE	BRUISE (%)	
	% Emerged	% Emerged	% Emerged	Above Ground	WEIGHT	NUMBER	1 = Poor 5 = Good	1 = Round 5 = Long	(8-12 oz tubers)	
				Ounces		Tubers/Plant			BLACKSPOT	SHATTER
Ranger Russet	94	94	96	2.4	8.4	8.8	4	4	58	13
Russet Burbank	84	88	98	2.1	6.8	9.0	4	3	57	57
Russet Norkotah	64	80	96	2.9	6.8	8.3	4	4	24	12
A03141-6	73	91	100	1.8	12.4	5.7	4	3	29	68
A03921-2	68	93	99	2.2	10.3	6.5	4	3	23	74
A06021-1T	29	88	91	1.8	9.7	5.8	4	3	34	77
AO03123-2	25	93	100	2.4	8.0	7.9	4	3	3	67
AO06191-1	8	91	96	1.5	12.3	4.8	4	4	29	82
AOR06070-1KF	75	95	98	2.0	9.2	7.9	4	3	18	87
CO04220-7RU	79	96	96	3.2	4.3	12.4	4	4	7	17
CO05068-1RU	54	96	96	2.5	9.6	7.5	3	3	58	50
CO05152-5RU	53	90	95	2.4	6.5	10.8	4	3	21	76
CO05175-1RU	60	88	98	2.8	8.6	6.9	4	3	13	23
COTX09022-3RuRE/Y	61	83	98	2.7	6.4	10.0	4	1	38	30
COTX09052-2Ru	16	89	100	1.3	7.3	9.6	4	3	18	58
TX08352-5Ru	13	93	100	2.1	7.1	8.8	4	3	50	60

* Percent values may not total 100% due to rounding



Healthy



PVY: O



PVY: NO



PVY: NTN



Healthy



PVY: O



PVY: NO



PVY: NTN



Healthy



PVY: O



PVY: NO



PVY: NTN

Early growth of three common varieties in the Columbia Basin that were included in the 2016 PVY Demo Trial in Othello.

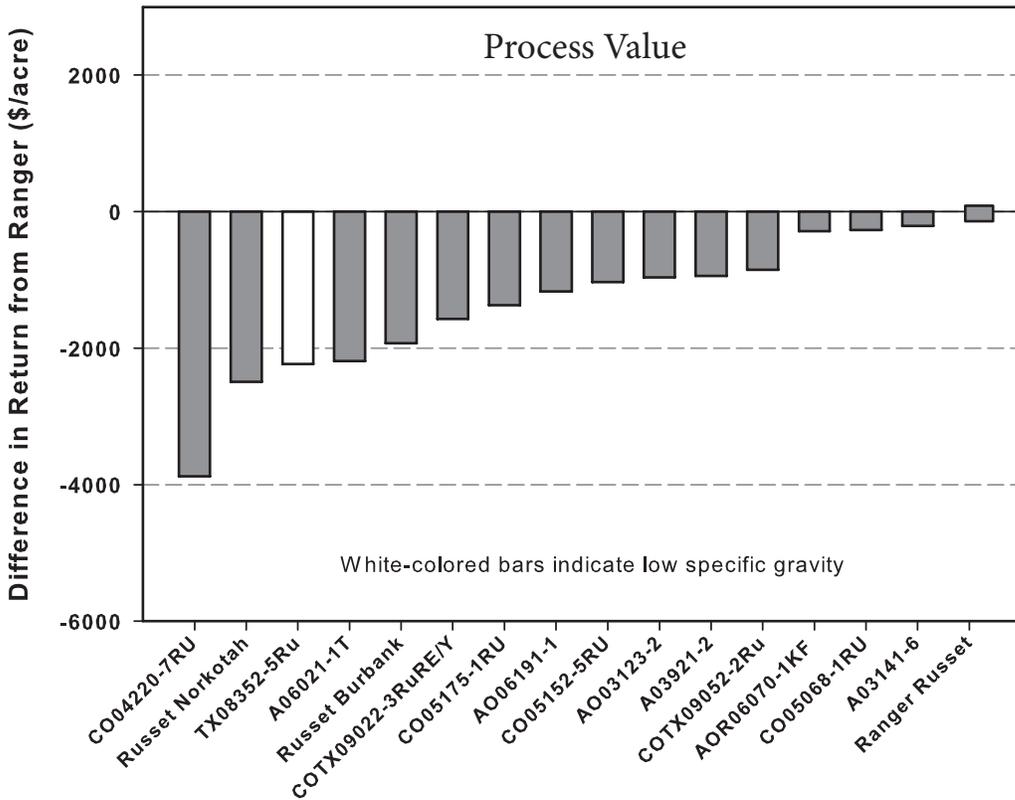
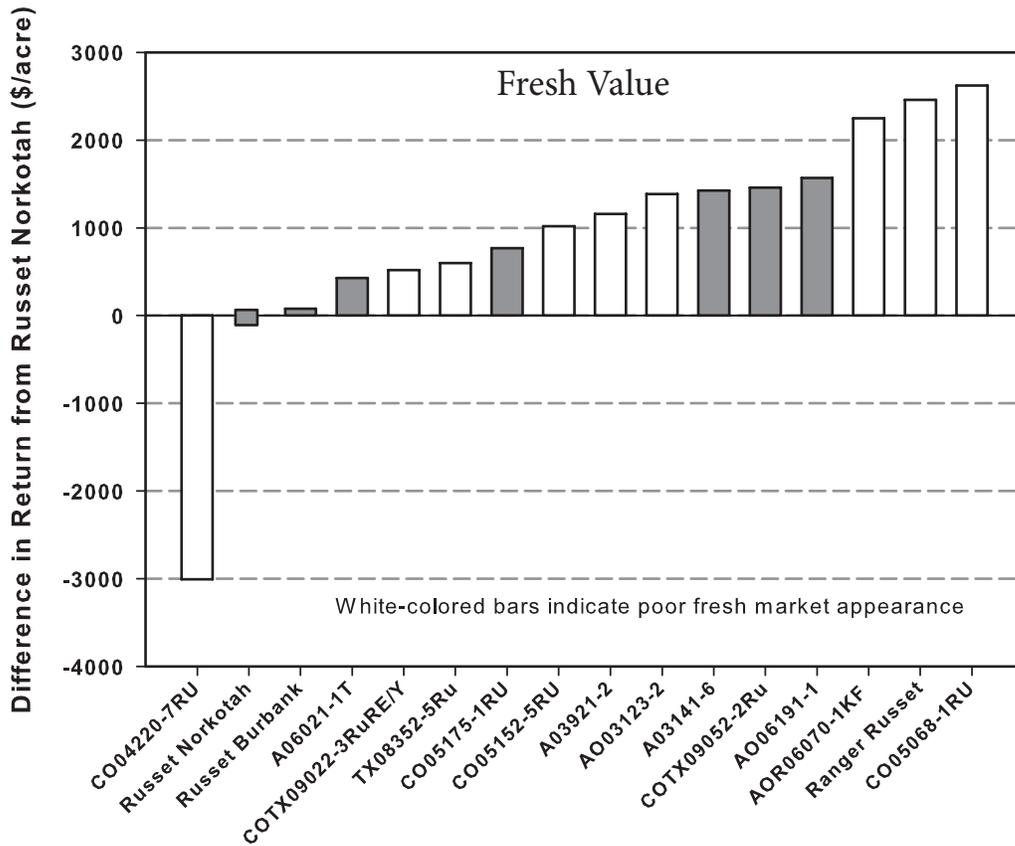


Figure 1 (Top). Difference in gross return per acre (Fresh Market) from Russet Norkotah calculated by subtracting the gross return of Russet Norkotah from the gross return of the particular entry. Entries with the white-colored bars may not appeal to fresh market consumers due to the undesirable shape or appearance. **Figure 2 (Bottom).** Difference in gross return per acre (Process Market) from Ranger Russet calculated by subtracting the gross return of Ranger Russet from the gross return of the particular entry.

Graduate Student Columbia Basin Tour



Above/Right: Ed Schneider showed the group his harvesting operation in action.



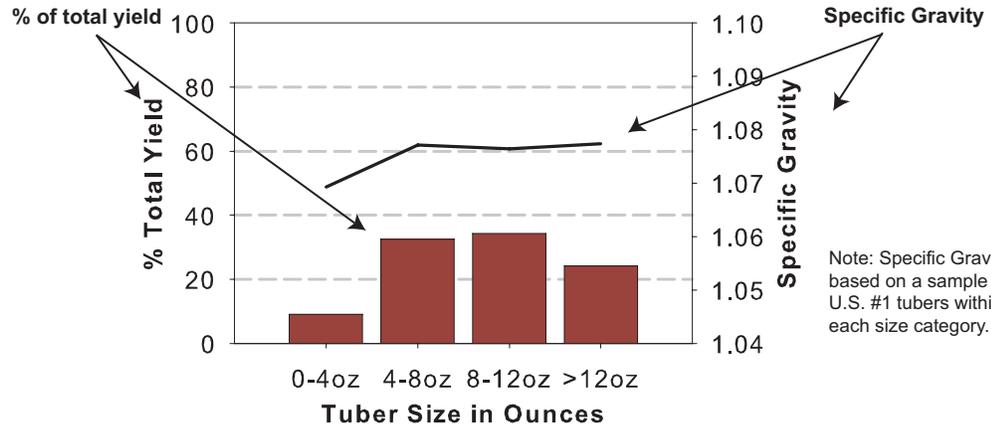
Left/Below: Warden Hutterian Brethren facilities.



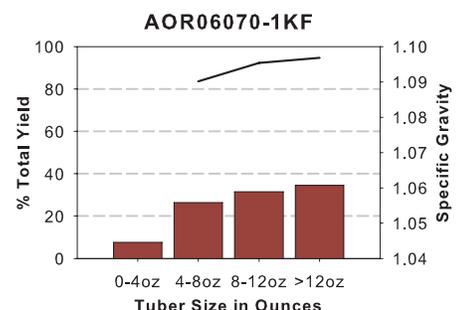
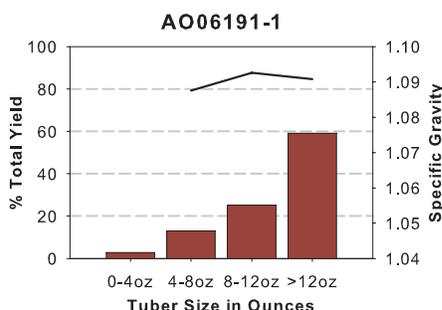
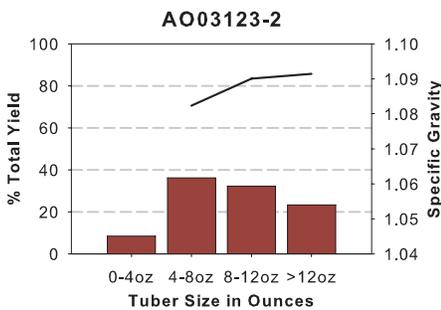
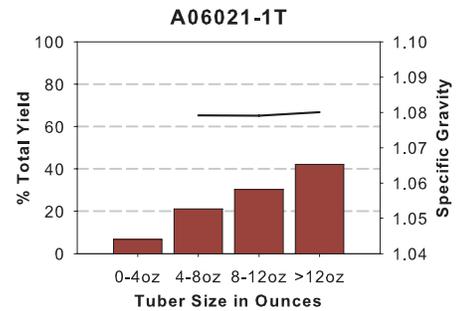
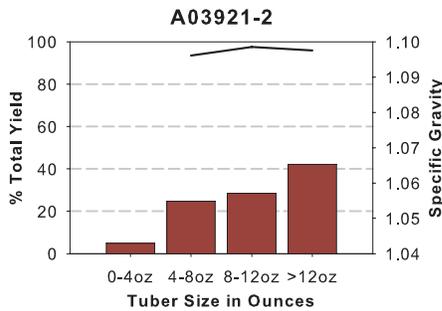
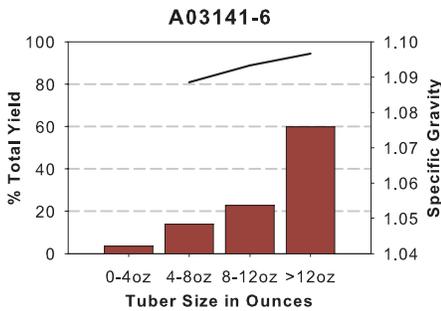
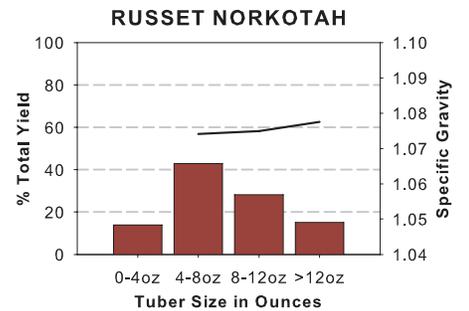
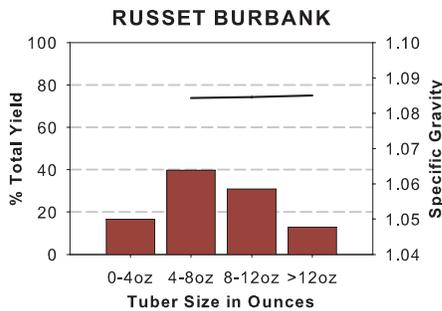
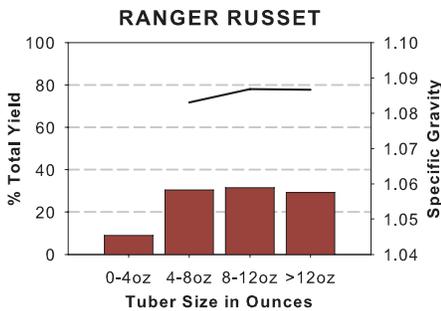
2016 Late Harvest Regional Trial

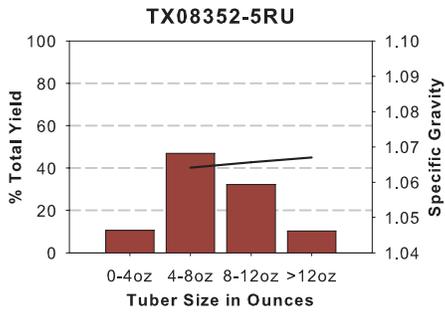
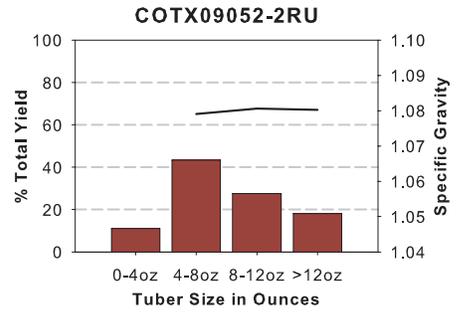
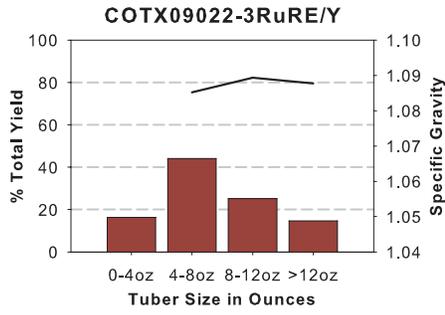
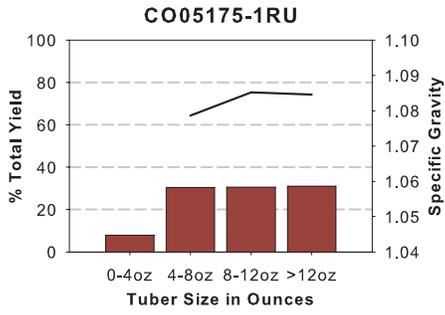
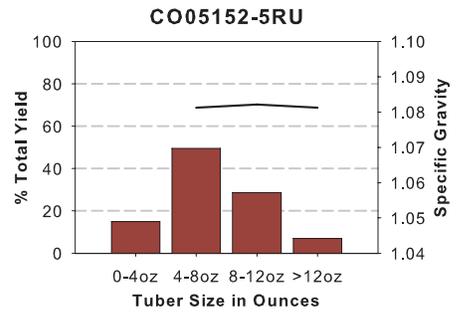
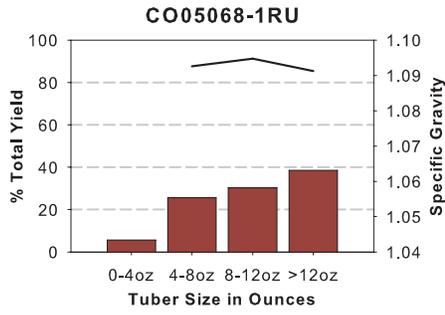
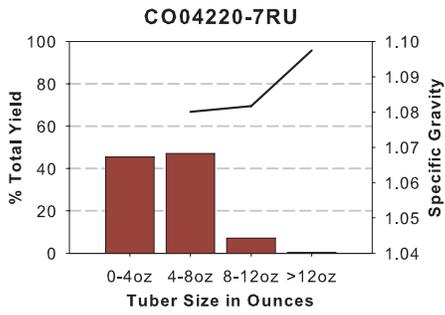
Tuber Yield and Specific Gravity Distributions

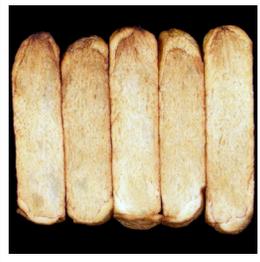
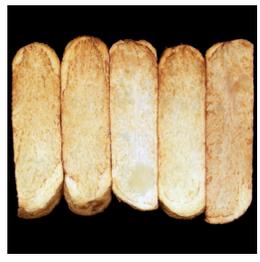
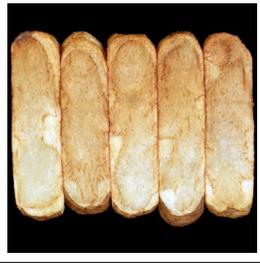
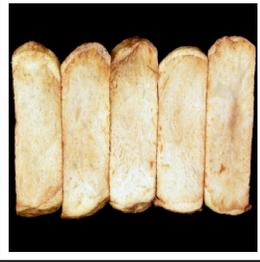
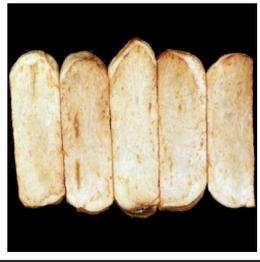
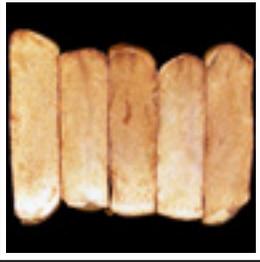
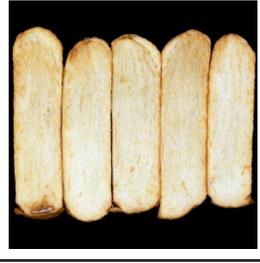
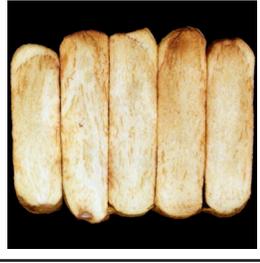
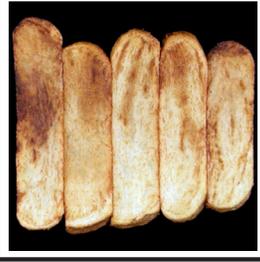
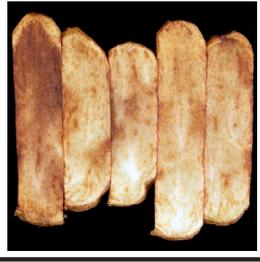
10 inch In-Row Spacing

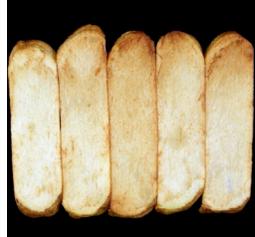
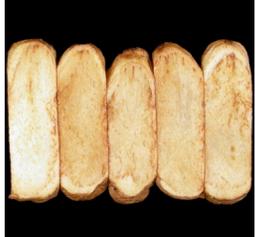
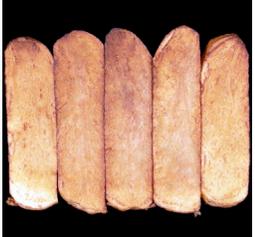
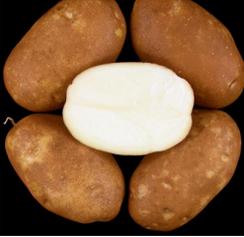
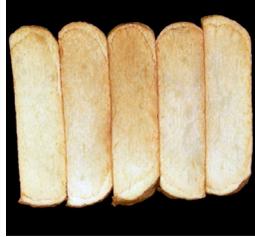
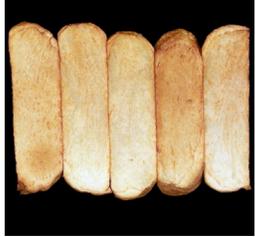
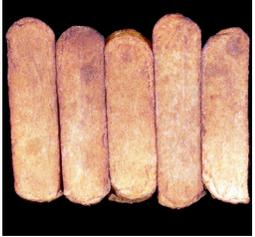
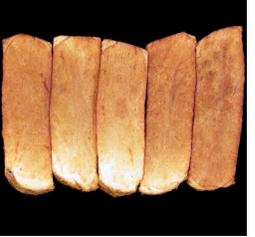
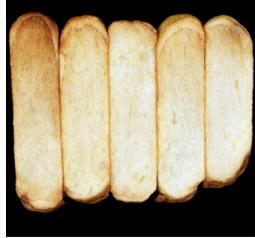
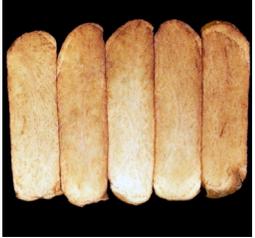
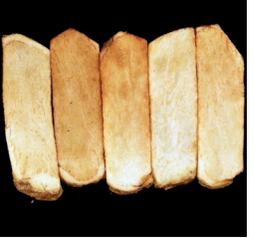
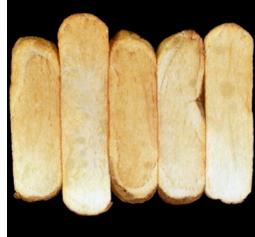
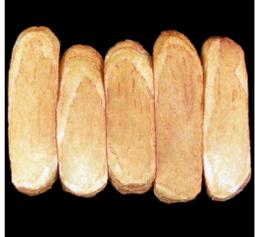
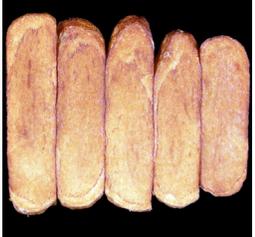
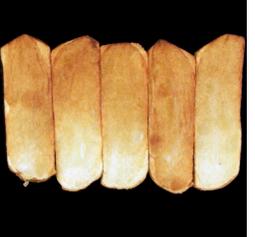
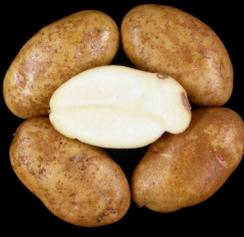
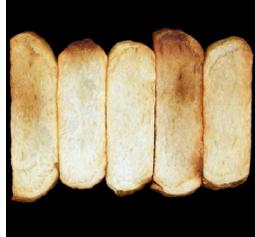
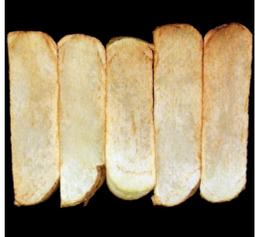
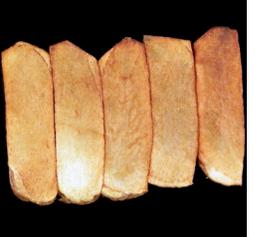


Note: Specific Gravity is based on a sample of U.S. #1 tubers within each size category.





Tubers	48° F Storage	44° F Storage	40° F Storage	40° F Recon.
Ranger Russet				
Russet Burbank				
A03141-6				
A03921-2				
A06021-1T				

Tubers	48° F Storage	44° F Storage	40° F Storage	40° F Recon.
AO03123-2				
				
AO06191-1				
				
AOR06070-1KF				
				
CO04220-7RU				
				
CO05068-1RU				
				

Entries Retained from the 2015 Trials Currently in the Regional Trial

Harvested fall of 2015

Held at 48°F until December 18

Stored at 44°F until analysis

AO06191-1 was the only clone advanced from the 2015 Tri-State Trial into the 2016 Regional Trial (Table 7B). Six clones were retained in the Regional Trial. When averaged across states, A03921-2 (53.5 ref units), A03141-6 (52.7) and AOR06070-1KF (51.4) produced the lightest fries. A03141-6 and A03921-2 also produced the lightest fries following long-term storage last year. Uniformity of fry color was unacceptable for the OR entries, A03141-6 and AO03123-2. At least one check from all three states also produced unacceptable stem to bud fry color differences. When grown in OR, all tubers of AO03123-2 produced mottled fries. WA- and ID-grown samples of this clone also produced mottled fries, but at a somewhat lower frequency than OR samples. All entries sprouted over the 7-mo storage period. AOR06070-1KF had the shortest dormancy, producing the highest 3-state average sprout length of 7.5 inches. The most dormant entries were A06021-1T (2nd year) and AO06191-1, each with 0.5-inch-long sprouts.

Clone	PHOTOVOLT READING				USDA	% REDUCING SUGAR			Sprouting	
	stem	bud	avg	DIFF	COLOR	stem	bud	avg	percent	length (in.)
Washington										
1 Ranger Russet	38.2	46.4	42.3	8.9	0	0.8	0.5	0.7	100	4.0
2 Russet Burbank	36.1	45.7	40.9	10.4	0	0.9	0.6	0.7	100	5.5
3 A03141-6	52.0	52.5	52.3	1.8	0	0.5	0.5	0.5	100	2.0
4 A03921-2	54.2	54.1	54.2	2.3	0	0.5	0.5	0.5	100	2.0
5 A06021-1T	36.0	42.5	39.3	6.4	0	0.9	0.6	0.8	100	0.5
6 AO03123-2	52.9	52.1	52.5	3.6	0	0.5	0.5	0.5	100	2.0
7 AO06191-1 §	45.8	48.6	47.2	3.5	0	0.6	0.5	0.5	100	0.8
8 AOR06070-1KF	52.8	51.2	52.0	2.7	0	0.5	0.5	0.5	100	9.0
9 CO05068-1RU	45.5	45.9	45.7	1.7	0	0.6	0.5	0.6	100	2.5
Average		<i>LSD 0.05</i>	2.8	2.8						
	45.2	48.3	46.8	4.9	0	0.6	0.5	0.6	100	
Idaho										
1 Ranger Russet	41.0	44.1	42.5	5.9	0	0.7	0.6	0.6	100	4.0
2 Russet Burbank	34.8	48.2	41.5	16.6	0	1.0	0.5	0.8	100	2.0
3 A03141-6	54.1	52.8	53.5	4.5	0	0.5	0.5	0.5	100	2.0
4 A03921-2	54.5	52.0	53.2	3.7	0	0.5	0.5	0.5	100	3.0
5 A06021-1T	43.3	43.2	43.2	3.1	0	0.6	0.6	0.6	100	0.5
6 AO03123-2	50.8	51.8	51.3	3.1	0	0.5	0.5	0.5	100	1.5
7 AO06191-1 §	41.7	44.4	43.0	5.8	0	0.7	0.6	0.6	100	0.3
8 AOR06070-1KF	53.2	49.1	51.1	4.1	0	0.6	0.5	0.5	100	8.0
9 CO05068-1RU	36.2	43.1	39.7	6.9	0	0.9	0.6	0.8	100	3.0
Average		<i>LSD 0.05</i>	3.0	3.3						
	45.5	47.6	46.6	6.0	0	0.7	0.6	0.6	100	
Oregon										
1 Ranger Russet	31.2	41.8	36.5	10.6	0	1.3	0.7	1.0	100	3.0
2 Russet Burbank	35.2	41.4	38.3	8.0	0	1.0	0.7	0.8	100	7.0
3 A03141-6	50.7	53.0	51.9	9.0	0	0.5	0.6	0.5	100	2.0
4 A03921-2	55.4	50.8	53.1	4.7	0	0.5	0.5	0.5	100	4.0
5 A06021-1T	43.1	46.1	44.6	4.1	0	0.6	0.5	0.6	100	2.0
6 AO03123-2	49.1	44.6	46.8	9.2	0	0.5	0.6	0.6	100	2.0
7 AO06191-1 §	43.5	47.6	45.5	4.1	0	0.6	0.5	0.6	100	0.5
8 AOR06070-1KF	49.7	52.1	50.9	6.8	0	0.5	0.5	0.5	100	5.5
9 CO05068-1RU	37.0	43.2	40.1	7.6	0	0.9	0.6	0.7	100	2.0
Average		<i>LSD 0.05</i>	3.9	4.7						
	43.9	46.7	45.3	7.1	0	0.7	0.6	0.7	100	

§ Advanced from 2015 Tri-State Trial.

Date test performed:

Washington May 5

Idaho May 5

Oregon May 4

2016 Late Harvest Regional Trial

Accumulated Total Postharvest Rating of Clones

Clone	WA		ID		OR		3 State av. Rating Total
	Rating Total §	Discard §§	Rating Total §	Discard §§	Rating Total §	Discard §§	
4 A03921-2	28.3		30.3		32.2		30.3
8 AOR06070-1KF	27.8		29.4		30.5		29.2
9 CO04220-7RU	29.4		32.4		25.5	SG	29.1
3 A03141-6	26.7		30.6		28.8		28.7
6 AO03123-2	28.6		32.8		24.5	SG, 40°F	28.6
1 Ranger Russet	24.2		30.0	40°F	24.2	SG, 40°F	26.1
7 AO06191-1	22.5		25.1		23.3	40°F	23.6
10 CO05068-1RU	23.1		25.0		20.9		23.0
5 A06021-1T	20.2	40°F	28.2		20.0	SG, 40°F	22.8
2 Russet Burbank	16.7	40°F	28.9		17.1	SG, 40°F	20.9
	24.8		29.3		24.7		26.2

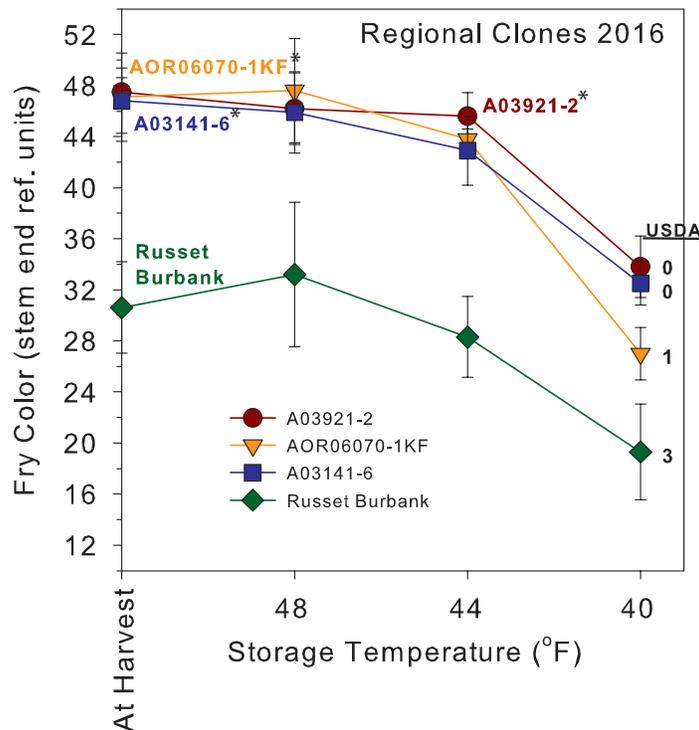
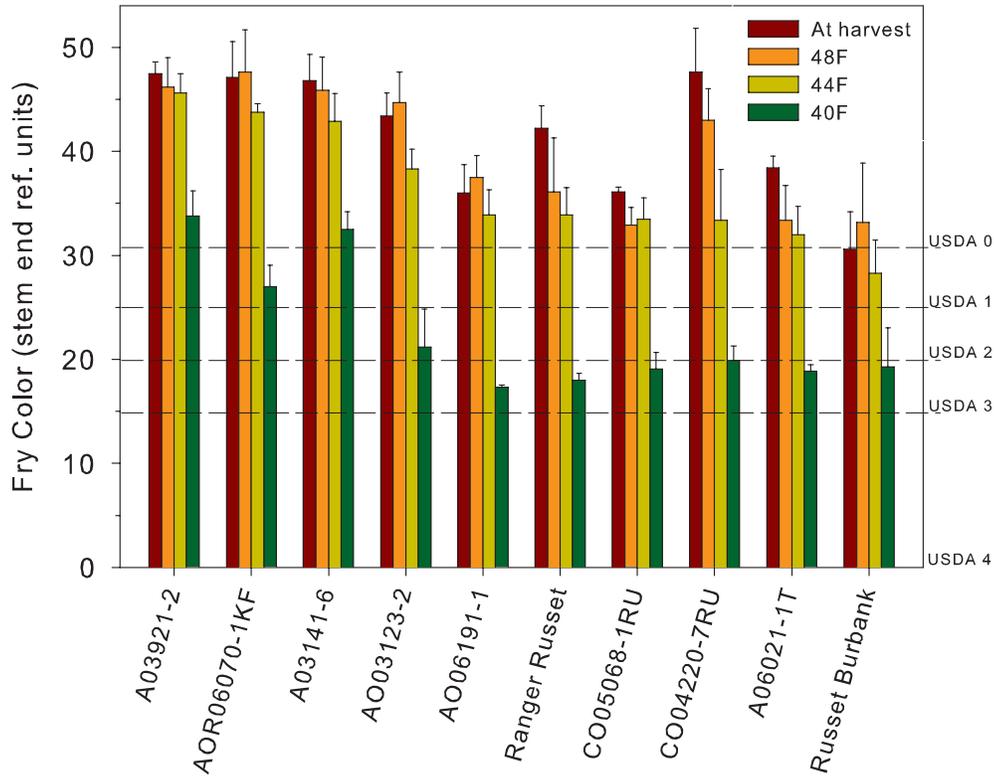
§ maximum rating possible = 38

§§ Values for the indicated evaluation are lower than the rejection level.



2016 WSU Othello Potato Field Day is attended by many growers and industry members each year.

2016 Late Harvest Regional Trial



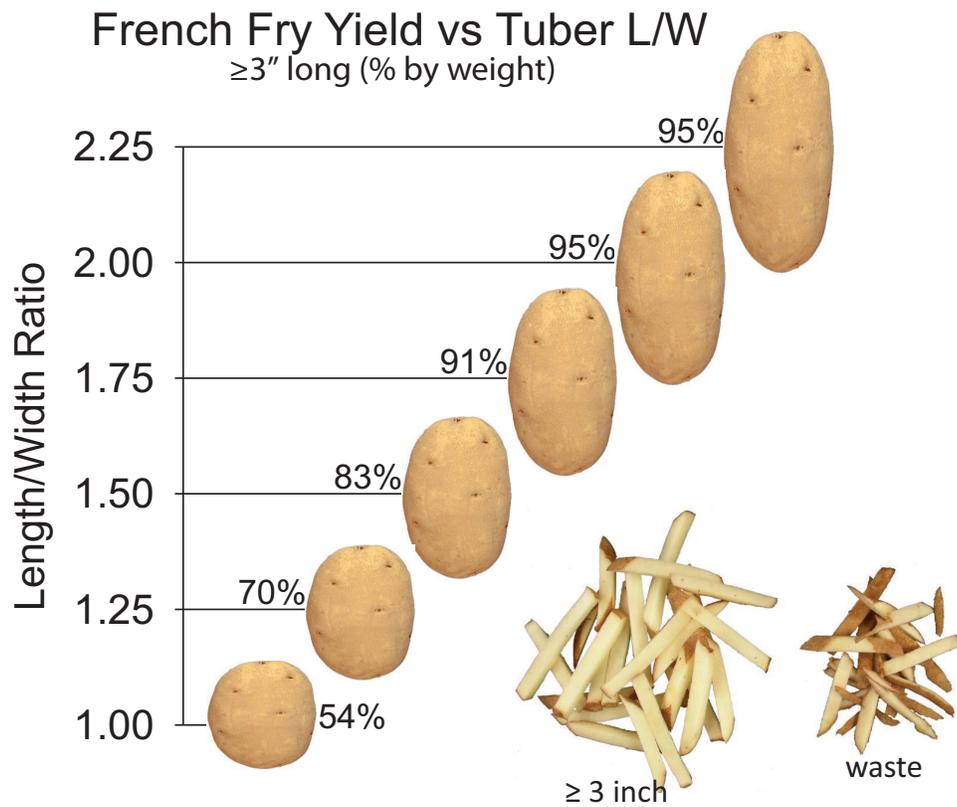
Top: At-harvest and after-storage French fry colors (stem end) of clones in the Regional Trial. Tubers were stored for 60 days at 48, 44 and 40°F. The clones are ranked from best to worst based on fry color of the 44°F-stored tubers. High reflectance values indicate light colored fries.

Bottom: Line graph depicting the effects of storage temperature on change in French fry processing quality (stem end fry color) of the most cold sweetening resistant (A03141-6, AOR06070-1KF, and A03921-2) and susceptible (Russet Burbank) clones in the Regional Trial. *Indicates similar performance of the clones last year.

2016 Late Harvest Regional Trial

Tuber Shape and Associated French Fry Yields (8- to 10-oz Tubers)

Clone	Length to width ratio						3 State Avg.
	WA	rtg §	ID	rtg §	OR	rtg §	
1 Ranger Russet	1.77	4	2.10	5	2.08	5	1.98
2 Russet Burbank	1.73	4	1.99	5	2.11	5	1.94
3 A03141-6	1.52	3	1.64	3	1.60	3	1.59
4 A03921-2	1.54	3	1.93	5	1.58	3	1.68
5 A06021-1T	1.66	4	1.88	5	1.63	3	1.72
6 AO03123-2	1.70	4	1.95	5	1.75	4	1.80
7 AO06191-1	1.49	2	1.90	5	1.60	3	1.67
8 AOR06070-1KF	1.60	3	1.79	4	1.90	5	1.76
9 CO04220-7RU	2.06	5	2.08	5	2.18	5	2.11
10 CO05068-1RU	1.54	3	1.94	5	1.55	3	1.68
Average	1.66		1.92		1.80		1.79



2016 Regional Red and Specialty Trial

Summaries

ENTRY	TOTAL YIELD		US # 1's*	US # 2's*	Culls*	EXTERNAL DEFECTS (%)				SPECIFIC GRAVITY
	CWT/A	Tons/A	> 0 oz	> 0 oz	> 0 oz	Knobs	Malformed	Growth		
			% of Total Yield					Cracks	Green	
Red Skin/White Flesh										
Chieftain	664	33.2	74	1	25	0	0	4	0	1.080
Red-Purple/White Flesh										
COA07365-4RY	530	26.5	54	1	45	0	1	1	0	1.084
Yellow Flesh										
Yukon Gold	530	26.5	86	1	13	0	0	1	1	1.094
A06336-2Y	534	26.7	63	1	36	0	0	1	2	1.080
A06336-5Y	504	25.2	31	0	69	0	0	0	0	1.078
POR11PG20-2	741	37.1	68	3	29	0	0	0	1	1.095
POR11PG62-3	459	22.9	35	1	64	5	0	0	0	1.094

ENTRY	US # 1 YIELD		US # 1 YIELD					INTERNAL DEFECTS (%)		
	CWT/A	Tons/A	0-2 oz*	2-4 oz*	4-6 oz*	6-10 oz*	> 10 oz*	(6-10 oz tubers)		
			-----%-----					% HH	% BC	% IBS
Red Skin/White Flesh										
Chieftain	626	31.3	3	18	23	39	16	0	0	0
Red-Purple/White Flesh										
COA07365-4RY	512	25.6	7	38	29	24	3	0	0	0
Yellow Flesh										
Yukon Gold	514	25.7	1	10	17	44	28	0	0	0
A06336-2Y	518	25.9	3	32	38	25	3	0	0	0
A06336-5Y	500	25.0	15	54	25	7	0	0	0	0
POR11PG20-2	706	35.3	4	24	26	34	12	0	0	0
POR11PG62-3	429	21.5	14	48	26	12	1	0	0	0

ENTRY	SKIN SET	TUBER SHAPE	50 DAY STAND	STEMS PER PLANT	AVERAGE TUBER		SIZE UNIFORMITY	SHAPE UNIFORMITY	BRUISE (%)		Length to Width Ratio
	1 = Poor 5 = Good	1 = Round 5 = Long	% Emerged	Above Ground	WEIGHT	NUMBER	1 = Poor 5 = Good	1 = Poor 5 = Good	(6-10 oz tubers)		1 = Round 2 = Oblong
					Ounces	Tubers/Plant			BLACKSPOT	SHATTER	
Red Skin/White Flesh											
Chieftain	4	2	97	2.0	5.8	7.9	3	4	23	63	1.2
Red-Purple/White Flesh											
COA07365-4RY	5	2	97	1.9	4.3	8.6	3	4	7	77	1.2
Yellow Flesh											
Yukon Gold	5	2	98	1.6	7.4	5.0	3	3	20	10	1.1
A06336-2Y	5	3	95	1.8	4.8	7.7	3	2	0	0	1.3
A06336-5Y	5	1	98	2.2	3.4	10.5	4	4	17	72	1.1
POR11PG20-2	5	2	99	2.3	5.3	9.7	3	2	37	0	1.2
POR11PG62-3	5	4	94	2.0	3.5	9.1	3	3	5	0	1.7

* Percent values may not total 100% due to rounding

Overall Culinary Evaluations

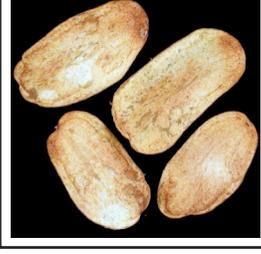
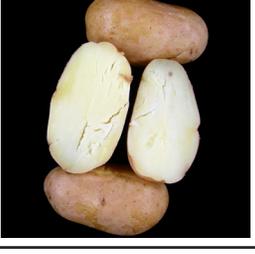
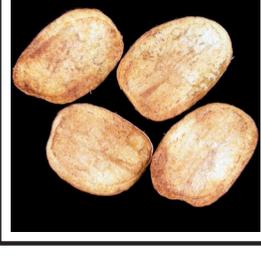
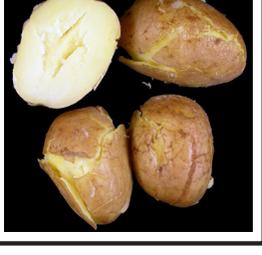
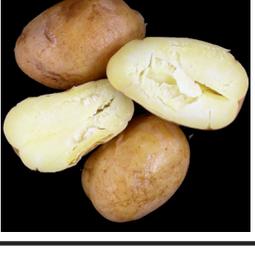
Clone	Boiled (25 max)	Baked (25 max)	Microwaved (25 max)	Total (75 max)
5 A06336-5Y	18.3	20.4	19.9	58.6
1 Chieftain	20.4	20.0	17.6	58.0
2 COA07365-4RY	20.0	18.9	17.9	56.7
7 POR11PG62-3	17.1	18.9	18.7	54.7
3 Yukon Gold	14.6	19.8	19.0	53.3
4 A06336-2Y	16.8	18.0	17.7	52.5
6 POR11PG20-2	12.4	16.8	17.8	46.9

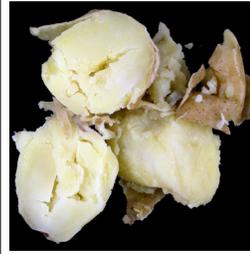
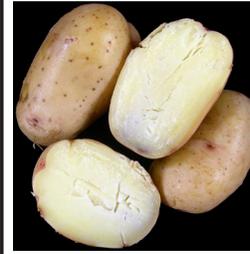
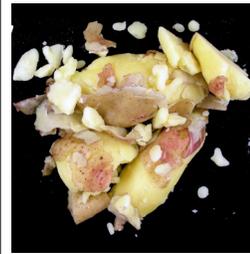
Chipped: Aug. 25
 Boiled: Aug. 23
 Microwaved: Aug. 24
 Baked: Aug. 24
 Cooking Time: Aug. 20

Chipping and Boiling Evaluations

Clone	(Chips)	(BOILED Cooking Time)		
	Av of 8 raters SFA	Time to Breakdown (min)		
		Stem	Bud	Average
1 Chieftain	3.7	5.6	3.6	4.6
2 COA07365-4RY	2.3	6.3	3.7	5.0
3 Yukon Gold	3.2	6.2	3.0	4.6
4 A06336-2Y	2.8	6.2	4.2	5.2
5 A06336-5Y	3.3	5.7	4.1	4.9
6 POR11PG20-2	3.4	4.2	3.1	3.7
7 POR11PG62-3	3.0	4.2	3.6	3.9
<i>LSD 0.05 *</i>		1.2	0.6	
Average		3.1	5.5	3.6
			4.5	

*Differences between clones equal to or greater than the LSD 0.05 are significant. SFA 1 (lightest) to 5 (darkest).

Tubers	Chips	Baked	Boiled	Microwaved
Chieftain				
				
COA07365-4RY				
				
Yukon Gold				
				
A06336-2Y				
				
A06336-5Y				
				

Tubers	Chips	Baked	Boiled	Microwaved
POR11PG20-2				
				
POR11PG62-3				
				



Left: Lisa Knowles speaks at the 2016 Field Day. Right: Mark Pavek, Rudy Garza and graduate student Francisco (Paco) Gonzalez adjusts a custom sprayer for post planting applications.

Index of Clones and Cultivars

Early Harvest Tri-State Trial12-15

A06030-23
A061070-3CSR
A06403-12
A07061-6
A07088-6
A071012-4BF

A08009-2TE
A08422-2VRsto
A10210-7TE
A10214-2TE
AOR06576-1
AOR07781-5

AOR07821-1
AOR08032-1
Ranger Russet
Russet Burbank
Russet Norkotah
Shepody

Late Harvest Tri-State Trial16-23

A06030-23
A061070-3CSR
A06403-12
A07061-6
A07088-6
A071012-4BF
A08009-2TE

A08422-2VRsto
A10210-7TE
A10214-2TE
AOR06576-1
AOR07781-5
AOR07821-1
AOR08032-1

Ranger Russet
Russet Burbank
Russet Norkotah

Early Harvest Regional Trial24-27

A03141-6
A03921-2
A06021-1T
AO03123-2
AO06191-1
AOR06070-1KF
CO04220-7RU

CO05068-1RU
CO05152-5RU
CO05175-1RU
COTX09022-3RuRE/Y
COTX09052-2Ru
Ranger Russet
Russet Burbank

Russet Norkotah
Shepody
TX08352-5Ru

Late Harvest Regional Trial28-39

A03141-6
A03921-2
A06021-1T
AO03123-2
AO06191-1
AOR06070-1KF

CO04220-7RU
CO05068-1RU
CO05152-5RU
CO05175-1RU
COTX09022-3RuRE/Y
COTX09052-2Ru

Ranger Russet
Russet Burbank
Russet Norkotah
TX08352-5Ru

Tri-State Specialty Trial40-43

A06336-2Y
A06336-5Y
Chieftain
COA07365-4RY
POR11PG20-2

POR11PG62-3
Yukon Gold