

2019 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Russet Variety Trials

Table of Contents

1.....	2019 Statewide Russet Potato Line Summary
2.....	2019 Russet Variety Trial; 4-L Farms, Allegan County, MI
3.....	2019 Russet Variety Trial; Crawford Farms, Montcalm County, MI
4.....	2019 Russet Variety Trial; Elmaple Farms, Kalkaska County, MI
5.....	2019 Russet Variety Trial; Horkey Brothers, Monroe County, MI
6.....	2019 Russet Variety Trial; Jenkins Farms, Kalkaska County, MI
7.....	2019 Russet Variety Trial; Kitchen Farms, Antrim County, MI
8.....	2019 Mini Bulk Russet Variety Trial; Kitchen Farms, Antrim County, MI
9.....	2019 Russet Variety Trial; Lennard Ag. Co., St. Clair County, MI
10.....	2019 Montcalm Research Center Processing Trial; Montcalm County, MI
11-12.....	2018 NFPT Trial and Added Lines; Walther Farms, St. Joseph County, MI
13.....	2019 Russet Variety Trial; Styma Potato Farms, Presque Isle County, MI
14.....	2019 Russet Variety Trial; Verbrigghe Potato Farms, Delta County, MI
15.....	2019 Russet Norkotah Mgmt. Trial; Walther Farms, St. Joseph County, MI
16.....	2019 Silverton Russet Mgmt. Trial; Walther Farms, St. Joseph County, MI
17.....	2019 Bulk Russet Test Digs, Multiple Locations, MI

2019 Michigan Statewide Russet Potato Variety Trials

Overall Averages- Fourteen Locations

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet ^{abcdeghiklmn}	524	596	87	7	60	27	6	1.071	2	6	3	0	0.4	2.6	3.1	mod skinning, uniform type
A08433-4sto ^{abcdeghiklmn}	466	571	81	11	64	17	8	1.079	16	5	0	0	0.3	2.9	3.8	misshapen pos, points, sl gc
Silverton Russet ^{abcdeghiklmn}	437	539	82	11	64	18	7	1.073	4	6	6	1	0.2	3.4	3.5	mod gc, points, bottlenecking
Alta Cloud Russet ⁱ	435	561	78	10	72	6	12	1.078	20	10	3	10	0.0	2.0	3.5	heavy russetting, bottlenecking
Russet Norkotah ^{abcdeghiklmn}	425	535	77	15	61	16	8	1.074	43	15	0	4	0.7	2.9	2.7	severe pinkete, mod ah
A071012-4BFRUS ^{abcdeghiklmn}	406	514	79	12	57	22	9	1.084	35	4	0	1	1.0	3.4	3.8	tubular, knobs, misshapen, long shape
A07061-6RUS ^{abcdeghiklmn}	392	502	78	15	55	23	7	1.078	6	6	1	0	1.0	3.5	3.5	light russet skin, variable skin finish
AOR07781-5 ^{abcdeghiklmn}	391	512	75	13	61	14	12	1.087	20	6	1	0	0.0	3.6	3.7	attractive appearance, sl skinning
River Russet ^{bcefhiklmn}	388	518	76	8	51	25	16	1.074	30	3	6	1	0.2	3.0	3.2	poor shape and size, misshapen
Vanguard ^{abcdeghiklmn}	365	450	78	16	66	12	6	1.067	0	9	1	0	0.3	2.6	2.1	blocky, attractive type, tr ah
Pacific Russet ^{bcddeghiklmn}	361	470	71	25	63	8	4	1.068	0	12	0	0	0.6	3.3	2.4	variable type, points, deep apical ends
Castle Russet ^{abcdeghiklmn}	351	428	79	17	69	10	4	1.086	36	11	0	4	0.1	2.4	3.5	dark skin, nice appearance
Payette Russet ^{ci}	314	427	72	16	67	5	12	1.091	10	20	0	0	0.5	1.5	2.8	skinning, blocky shape
AO02183-2 ^{abcdeghijklmn}	313	450	64	28	62	2	8	1.086	14	23	1	2	0.3	2.8	3.4	tubular, bottlenecking, mod ah
Dakota Russet ^{ik}	308	404	76	19	63	13	5	1.083	0	5	0	0	0.5	2.5	3.3	silverton type, mod ah
CO10091-1RUS ^{cefhiklmn}	292	418	68	28	66	2	4	1.083	19	13	8	1	0.1	1.7	3.3	smaller tubers, sl skinning, rounder
Goldrush Russet ^{cef}	244	354	66	27	61	5	7	1.076	17	3	9	9	0.0	2.7	1.8	attractive dark russet skin
Ranger Russet ^{ci}	243	484	48	39	47	1	13	1.095	7	30	0	0	1.2	3.0	3.0	tubular, dark skin, mod ah
Clearwater Russet ⁱ	216	346	62	34	59	3	4	1.087	0	70	0	0	0.5	2.0	2.5	
Russet Burbank ^{ej}	142	434	30	43	29	1	27	1.080	15	15	0	0	0.7	3.5	3.2	oblong type, misshapen pos
Umatilla Russet ⁱ	111	378	29	62	29	0	9	1.087	0	30	0	0	1.5	2.5	2.0	smaller tubers, inconsistent shape
MEAN	339	471	69	22	58	11	9	1.080	14	14	2	2	0.5	2.8	3.1	

2019 RUSSET VARIETY TRIAL SITES

a 4-L Farms, Allegan County
b Crawford Farms, Montcalm County
c Elmaple Farms, Kalkaska County
d Horkey Brothers, Monroe County
e Jenkins Farms, Kalkaska County
f Kitchen Farms, Antrim County
g Kitchen Farms Mini Bulk Trial, Antrim County
h Lennard Ag. Co., St. Clair County
i Montcalm Research Center, Montcalm County
j NFPT Trial Selected Varieties, St. Joseph County
k Styra Potato Farm, Presque Isle County
l Verbigghe Farms, Delta County
m Walther Farms Norkotah Fertility Trial, St. Joseph County
n Walther Farms Silverton Fertility Trial, St. Joseph County

¹SIZE

Russets

Bs: < 4 oz
 As: 4 - 10 oz
 OV: > 10 oz
 PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent

HH: Hollow Heart
 VD: Vascular Discoloration
 IBS: Internal Brown Spot
 BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions
 1.0: Presence of surface lesions
 2.0: Pitted lesions on tubers, though coverage is low
 3.0: Pitted lesions common on tubers
 4.0: Pitted lesions severe on tubers
 5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: Variable
 Rating 1-5
 1: Slow emergence
 5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: Variable
 Rating 1-5
 1: Early (vines completely dead)
 5: Late (vigorous vines, some flowering)

2019 Russet Potato Variety Trial

4-L Farms

Planting: 5/28/19 Vine Kill: 9/12/19 Harvest: 10/24/19

GDD₄₀: 3164

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
A07061-6RUS	510	548	94	3	67	27	3	1.071	0	0	0	0	1.0	2.5	4.0	
A071012-4BFRUS	510	548	93	2	44	49	5	1.090	90	0	0	0	2.0	3.0	3.5	eyebrows
A08433-4sto	468	527	89	3	52	37	8	1.074	30	0	0	0	0.0	3.0	3.5	sl flattened tubers
AO02183-2	340	405	84	12	80	4	4	1.080	30	0	0	10	2.0	2.5	3.0	darker russet skin
AOR07781-5	488	555	87	5	59	28	8	1.080	40	10	10	0	0.0	3.0	4.0	pointed
Castle Russet	458	501	91	3	57	34	5	1.077	50	0	0	0	0.0	2.0	4.0	nice dark russet skin type
Reveille Russet	529	570	91	5	37	54	4	1.065	0	0	0	0	0.0	2.0	4.0	
Russet Norkotah	579	637	89	5	42	47	6	1.072	100	0	0	0	0.0	3.0	4.0	
Silverton Russet	567	674	84	3	45	39	13	1.062	0	0	0	0	0.0	3.0	4.0	misshapen pos
Vanguard	420	456	92	3	65	27	5	1.059	0	0	0	0	0.0	2.5	3.5	
MEAN	487	542	89	4	55	35	6	1.073	34	1	1	1	0.5	2.7	3.8	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 7/5/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/14/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/28/19

Vine Kill Date

9/12/19

Harvest Date

10/24/19

Days (planting to vine kill)

107

Days (planting to harvest)

149

GDD₄₀ MAWN Station

Allegan

GDD₄₀ (planting to vine kill)

3164

Seed Spacing

10"

2019 Russet Potato Variety Trial

Crawford Farms

Planting: 6/7/19 Vine Kill: 9/16/19 Harvest: 10/28/19

GDD₄₀: 2784

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
A08433-4sto	505	598	84	8	72	12	8	1.074	40	0	0	0	0.0	3.0	4.0	med russet, rhizoc
Silverton Russet	479	566	85	11	79	6	4	1.076	0	0	0	0	0.0	3.0	4.0	
Reveille Russet	415	465	89	9	65	24	2	1.072	0	0	0	0	0.0	1.0	3.5	uniform medium to dark russet
River Russet	336	419	81	5	66	15	14	1.070	70	0	0	0	0.0	3.0	3.0	med russetting
A071012-4BFRUS	330	457	72	15	63	9	13	1.096	30	0	0	0	1.5	3.5	3.5	
Russet Norkotah	299	413	72	8	64	8	20	1.069	50	0	0	10	0.0	2.5	3.0	moderate pink eye inconsistent russetting
Vanguard	275	357	77	19	67	10	4	1.068	0	0	0	0	0.0	1.0	1.5	tr ah
AOR07781-5	268	445	61	23	56	5	16	1.088	10	0	0	0	0.0	4.0	3.5	nice appearance, pinecone, misshapen po
A07061-6RUS	252	405	62	35	61	1	3	1.082	0	0	0	0	0.0	4.0	4.0	bright appearance, no russetting, thin skinned
Castle Russet	210	252	83	12	69	14	5	1.089	50	0	0	10	0.0	2.0	3.5	attractive skin and type, mod gc
Pacific Russet	151	278	55	44	50	5	1	1.067	0	0	0	0	0.0	3.0	3.0	
AO02183-2	100	357	28	62	28	0	10	1.101	0	10	0	0	0.0	2.0	3.5	tubular, pinecone shaped tubers
MEAN	302	418	71	21	62	9	8	1.079	21	1	0	2	0	3	3	

¹SIZE

Russets

Bs: < 4 oz
As: 4 - 10 oz
OV: > 10 oz
PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 7/5/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/30/19
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 6/7/19
Vine Kill Date 9/16/19
Harvest Date 10/28/19
Days (planting to vine kill) 101
Days (planting to harvest) 143
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 2784
Seed Spacing 10"

2019 Russet Potato Variety Trial

Elmapple Farms

Planting: 5/13/19 Vine Kill: 9/17/19 Harvest: 10/3/19

GDD₄₀: 3015

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)				COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
A07061-6RUS	635	736	86	9	76	10	5	1.084	0	20	0	0	1.0	4.5	3.0	mod alligator hide and scurf
A08433-4sto	605	692	87	7	64	23	6	1.085	30	20	0	0	0.5	3.5	4.0	sl scab, mod rhizoc
Pacific Russet	569	701	81	14	72	9	5	1.075	0	10	0	0	0.0	4.0	2.0	variable tuber type
Reveille Russet	553	669	82	7	63	19	11	1.075	20	20	0	0	0.0	3.0	3.5	sl skinning
Castle Russet	528	607	87	10	75	12	3	1.082	100	0	0	0	0.0	3.0	4.5	prominent eyes, darker skin
Silverton Russet	505	599	84	14	75	9	2	1.077	10	0	0	0	0.5	4.0	3.5	mod skinning, sl skin flaking
River Russet	465	599	77	7	56	21	16	1.077	30	10	0	0	1.0	3.5	2.5	blocky, non uniform
A071012-4BFRUS	462	579	79	10	66	13	11	1.092	70	10	0	0	0.5	4.0	4.0	
Russet Norkotah	453	554	82	11	68	14	7	1.072	60	20	0	0	2.0	3.0	2.5	pinkeye, ah
AOR07781-5	429	507	84	8	76	8	8	1.089	70	20	0	0	0.0	4.0	3.5	large tubers, nice appearance
Vanguard	426	534	79	8	58	21	13	1.070	0	20	0	0	0.5	2.5	2.0	blocky, attractive shape
Payette Russet	407	527	77	12	69	8	11	1.090	20	10	0	0	0.5	1.5	3.5	moderate skinning
Goldrush Russet	402	511	78	21	68	10	1	1.076	30	0	0	0	0.0	3.5	2.0	darker netted skin, attractive
CO10091-1RUS	368	479	77	18	74	3	5	1.084	50	0	0	0	0.0	2.0	3.5	gc, ah
Ranger Russet	328	551	59	34	55	4	7	1.095	20	20	0	0	0.5	3.0	2.5	tubular
AO02183-2	242	395	61	31	58	3	8	1.095	0	40	0	0	0.0	3.0	3.0	tubular
MEAN	461	578	79	14	67	12	7	1.082	32	14	0	0	0.4	3.3	3.1	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/24/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/23/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/13/19

Vine Kill Date

9/17/19

Harvest Date

10/3/19

Days (planting to vine kill)

127

Days (planting to harvest)

143

GDD₄₀ MAWN Station

Arlene

GDD₄₀ (planting to vine kill)

3015

Seed Spacing

10"

2019 Russet Potato Variety Trial

Horkey Brothers

Planting: 5/16/19 Vine Kill: 9/4/19 Harvest: 9/26/19

GDD₄₀: 3285

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)				COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet	529	620	85	7	77	8	8	1.062	0	0	30	0	0.5	3.5	2.0	moderate skinning, attractive type
A08433-4sto	492	726	68	14	66	2	18	1.076	40	0	0	0	2.0	3.5	4.0	pinkeye, moderate pithium leak
Silverton Russet	423	646	66	10	63	3	24	1.066	0	20	60	10	0.5	4.0	3.5	medium skin, bottlenecking, misshapen
Pacific Russet	371	496	75	20	73	2	6	1.051	0	30	0	0	3.5	3.5	1.0	done evaluating
Russet Norkotah	313	566	55	20	54	1	25	1.060	50	40	0	10	0.0	3.0	2.0	darker skin, severe pinkeye, tubular
AOR07781-5	310	499	63	15	62	1	23	1.077	0	0	0	0	0.0	4.0	2.5	heavy russet skin, sl skinning
A071012-4BFRUS	220	392	57	20	56	1	24	1.079	0	0	0	0	2.5	4.0	3.0	tubular, bottlenecking, done evaluating
Vanguard	180	267	67	27	66	1	6	1.053	0	0	10	0	2.0	3.0	1.0	
Castle Russet	135	213	63	34	63	0	3	1.076	20	0	0	0	0.0	3.0	3.5	dark russet skin
A07061-6RUS	132	299	44	35	44	0	21	1.057	0	0	0	0	4.0	3.5	3.0	bottlenecking, poor appearance
A002183-2	123	251	49	34	46	3	17	1.071	0	0	0	0	0.0	3.5	2.5	sticky stolons, tubular
MEAN	293	452	63	21	61	2	16	1.066	10	8	9	2	1.4	3.5	2.5	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/25/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/30/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/16/19

Vine Kill Date

9/4/19

Harvest Date

9/26/19

Days (planting to vine kill)

111

Days (planting to harvest)

133

GDD₄₀ MAWN Station

Deerfield

GDD₄₀ (planting to vine kill)

3285

Seed Spacing

10"

2019 Russet Potato Variety Trial

Jenkins Farms

Planting: 5/21/19 Vine Kill: 9/1/19 Harvest: 10/4/19

GDD₄₀: 2588

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)				COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet	662	720	92	4	53	39	4	1.073	0	20	0	0	0.3	2.5	3.5	blocky shape
AOR07781-5	534	669	80	13	64	16	7	1.094	30	10	0	0	0.5	3.0	4.0	
Russet Norkotah	463	546	85	14	70	15	1	1.072	90	10	0	0	0.0	3.0	3.0	
A071012-4BFRUS	447	549	82	12	67	15	6	1.094	20	0	0	0	0.5	4.0	4.5	misshapen pos
River Russet	411	541	76	11	58	18	13	1.077	20	0	0	0	0.0	4.0	4.0	
Castle Russet	379	509	75	19	74	1	6	1.094	30	30	0	0	0.0	2.5	3.5	sl skinning
AO02183-2	339	554	61	39	61	0	0	1.085	0	40	0	0	0.5	3.0	4.0	long and narrow tubers
Russet Burbank	336	537	63	31	60	3	6	1.089	30	20	0	0	0.0	4.5	4.0	oblong tubers, skinning, pointed ends
Silverton Russet	273	381	72	19	69	3	9	1.080	20	20	0	0	0.0	4.0	3.5	
A07061-6RUS	271	348	78	18	71	7	4	1.076	0	20	0	0	1.5	4.0	4.0	round russet shape, lighter skin
Vanguard	266	339	78	13	65	13	9	1.067	0	20	0	0	0.0	3.0	2.0	moderate skinning, 2 glassy ends
CO10091-1RUS	254	414	61	38	57	4	1	1.085	0	40	0	0	0.0	2.0	4.5	attractive appearance, sl growth crack
Goldrush Russet	157	299	53	33	49	4	14	1.071	10	10	0	0	0.0	2.0	2.0	dark russet skin
Pacific Russet	63	200	32	64	32	0	4	1.071	0	10	0	0	0.0	3.5	4.0	
A08433-4sto														2.0	4.0	
MEAN	347	472	71	23	61	10	6	1.081	18	18	0	0	0	3	4	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/24/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some

flowering)

⁶VINE MATURITY RATING

Date: 8/23/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/21/19

Vine Kill Date

9/1/19

Harvest Date

10/4/19

Days (planting to vine kill)

103

Days (planting to harvest)

136

GDD₄₀ MAWN Station

Arlene

GDD₄₀ (planting to vine kill)

2588

Seed Spacing

10"

2019 Russet Potato Variety Trial

Kitchen Farms

Planting: 5/14/19 Vine Kill: 8/25/19 Harvest: 10/7/19

GDD₄₀: 2232

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)				COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Castle Russet	456	510	90	9	86	4	1	1.097	20	0	0	10	0.3	2.0	4.5	nice shape and size, misshapen pos
River Russet	431	541	80	7	58	22	13	1.086	80	0	0	10	0.0	1.5	3.5	poor shape and size, done evaluating
Russet Norkotah	409	563	72	24	70	2	4	1.082	60	10	0	0	1.8	2.0	2.0	misshapen po, tr gc, sl skinning
A071012-4BFRUS	383	487	79	17	75	4	4	1.017	90	0	0	10	0.5	2.5	4.5	tubular, poor appearance, anthocyanin on bud ends
Silverton Russet	363	472	77	22	72	5	1	1.085	10	0	0	0	0.0	3.0	2.5	
AO02183-2	337	497	68	30	68	0	2	1.100	10	10	0	0	0.5	2.0	4.5	long, narrow, tubular
CO10091-1RUS	281	454	62	34	62	0	4	1.094	90	10	0	0	0.0	1.0	3.5	sl skinning
AOR07781-5	233	327	71	19	60	11	10	1.100	50	0	0	0	0.0	2.0	4.0	attractive skin, eyebrows
Goldrush Russet	174	251	69	26	67	2	5	1.080	10	0	0	0	0.0	2.5	1.5	nice appearance, dark russet skin
A07061-6RUS														3.0	2.5	
MEAN	341	456	74	21	69	6	5	1.082	47	3	0	3	0.3	2.2	3.3	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/24/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/23/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/14/19

Vine Kill Date

8/25/19

Harvest Date

10/7/19

Days (planting to vine kill)

103

Days (planting to harvest)

146

GDD₄₀ MAWN Station

Kalkaska

GDD₄₀ (planting to vine kill)

2232

Seed Spacing

10"

2019 Mini Bulk Russet Potato Variety Trial

Kitchen Farms

Planting: 5/14/19 Vine Kill: 8/25/19 Harvest: 10/7/19

GDD₄₀: 2232

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)				COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet	468	555	85	8	69	16	7	1.084	0	0	0	0	0.0	3.0	3.5	attractive type and appearance
Vanguard	457	523	87	12	80	7	1	1.078	0	0	0	0	0.0	2.5	2.5	
A08433-4sto	371	453	82	18	81	1	0	1.087	10	0	0	0	0.0	3.5	4.0	
Pacific Russet														3.0	1.5	
MEAN	432	510	85	13	77	8	3	1.083	3	0	0	0	0	3.0	2.9	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/24/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/23/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/14/19

Vine Kill Date

8/25/19

Harvest Date

10/7/19

Days (planting to vine kill)

103

Days (planting to harvest)

146

GDD₄₀ MAWN Station

Kalkaska

GDD₄₀ (planting to vine kill)

2232

Seed Spacing

10"

2019 Russet Potato Variety Trial

Lennard Ag. Co.

Planting: 4/25/19 Vine Kill: 9/24/19 Harvest: 10/9/19

GDD₄₀: 4092

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Silverton Russet	545	650	84	10	62	22	6	1.076	0	10	10	0	0.5	3.5	3.0	misshapen pos, moderate growth cracks
Russet Norkotah	534	601	89	10	72	17	1	1.081	0	0	0	0	0.0	2.5	4.0	
A07061-6RUS	533	615	88	3	11	77	9	1.101	50	0	0	0	0.3	3.0	3.5	moderate alligator hide, variable russetting pale yellow flesh, attractive shape and type tuber bottlenecking, pear shapes
AOR07781-5	500	618	81	14	72	9	5	1.090	0	0	0	0	0.0	3.5	4.0	
AO02183-2	461	551	84	12	79	5	4	1.087	40	0	0	0	0.5	2.0	3.0	misshapen pos, moderate mechanical damage variable skin color, some alligator hide poor appearance, deep eyes, tubular
Reveille Russet	460	547	84	12	75	9	4	1.073	0	0	0	0	0.0	2.0	2.5	
A08433-4sto	440	498	88	10	68	20	2	1.082	0	0	0	0	0.0	3.0	3.5	deep apical ends, rot, nice appearance
Castle Russet	431	504	86	12	78	7	2	1.090	20	30	0	0	0.0	2.5	2.0	
River Russet	427	582	73	11	59	14	16	1.075	20	0	30	0	0.5	3.5	2.0	light russet, long and narrow, bent ends
Pacific Russet	416	497	84	13	71	12	3	1.072	0	0	0	0	0.5	3.0	2.5	
Vanguard	405	529	76	21	75	1	3	1.074	0	0	0	0	0.0	2.5	3.0	
CO10091-1Rus	329	434	76	19	74	2	5	1.088	10	0	40	0	1.0	2.0	2.5	
MEAN	457	552	83	12	66	16	5	1.083	12	3	7	0	0.3	2.8	3.0	

¹**SIZE**
Russets
Bs: < 4 oz
As: 4 - 10 oz
OV: > 10 oz
PO: Pickouts

²**SPECIFIC GRAVITY**
Data not replicated

³**RAW TUBER QUALITY**
(percent of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

⁴**COMMON SCAB RATING**
0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

⁵**VINE VIGOR RATING**
Date: 6/3/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁶**VINE MATURITY RATING**
Date: 8/13/19
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA
Planting Date 4/25/19
Vine Kill Date 9/24/19
Harvest Date 10/9/19
Days (planting to vine kill) 152
Days (planting to harvest) 167
GDD₄₀ MAWN Station Cassopolis
GDD₄₀ (planting to vine kill) 4092
Seed Spacing 10"

2019 Russet Processing Potato Variety Trial

Montcalm Research Center

Planting: 5/8/19 Vine Kill: 9/9/19 Harvest: 9/30/19

GDD₄₀: 3133

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
AO02183-2	275	415	66	29	66	0	5	1.092	0	80	0	0	1.0	2.5	4.0	variable skin, heavy russetting, severe ah, deep eyes
A08433-4sto	249	359	69	20	68	1	11	1.081	0	20	0	0	0.5	2.5	3.0	
Dakota Russet	225	366	61	34	61	0	5	1.084	0	10	0	0	1.0	2.0	3.0	nice appearnce
Payette Russet	221	326	67	21	65	2	12	1.092	0	30	0	0	0.5	1.5	2.0	skinning, blocky
Clearwater Ruset	216	346	62	34	59	3	4	1.087	0	70	0	0	0.5	2.0	2.5	
Ranger Russet	145	385	37	54	37	0	9	1.097	0	70	0	0	2.5	3.0	3.0	darker skin, alligator hide
Castle Russet	117	258	45	49	45	0	6	1.088	10	50	0	0	0.5	2.0	1.5	heavy netted russetted skin
Umatilla Russet	111	378	29	62	29	0	9	1.087	0	30	0	0	1.5	2.5	2.0	small tubers, inconsistent shape
Russet Norkotah	110	256	43	51	43	0	6	1.072	0	80	0	0	0.5	2.5	1.0	
Vanguard	103	225	45	49	45	0	6	1.068	0	20	0	0	0.5	2.0	1.0	alligator hide
Russet Burbank	40	224	18	66	18	0	16	1.075					2.0	2.5	2.5	misshapen pickouts, pitted scab
MEAN	165	322	49	43	49	1	8	1.084	1	46	0	0	1.0	2.3	2.3	

¹SIZE

Russets

Bs: < 4 oz
As: 4 - 10 oz
OV: > 10 oz
PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/17/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 9/3/19
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 5/8/19
Vine Kill Date 9/9/19
Harvest Date 9/30/19
Days (planting to vine kill) 124
Days (planting to harvest) 145
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3133
Seed Spacing 10"

Walther NFPT and Added Lines

Planting: 4/16/19 Vine Kill: 8/19/19 Harvest: 9/18/19

GDD₄₀: 3243

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
CO10094-5RU	594	643	41	52	40	1	7	1.075	0	0	0	0	0.0	1.0	3.0	
ND12241YB-2Russ	515	654	73	11	60	13	16	1.089	20	0	20	0	0.5	2.5	2.5	pointed, misshapen
ND13243B-3Russ	503	825	61	14	59	2	25	1.076	0	0	10	0	0.5	3.0	3.5	severe bottlenecking
A11188-1	492	542	91	4	71	20	5	1.064	0	0	0	0	1.0	3.0	3.0	trace growth crack, alligator hide
A10071-1	481	569	85	15	79	6	0	1.071	0	0	0	0	0.0	4.5	4.0	nice dark russet skin type, good appearance
A10595-13sto	477	688	69	25	61	8	6	1.071	10	0	0	20	0.0	4.0	2.0	lighter russet, alligator hide, non uniform
AO02183-2	462	555	38	42	38	0	20	1.079	10	20	0	0	0.0	3.0	2.5	poor type and appearance
OR12133-10	461	754	61	16	54	7	23	1.089	0	0	0	0	0.5	3.5	4.0	pointed, misshapen, non uniform type
A10594-8VR	459	624	74	12	63	11	14	1.093	80	10	0	20	0.0	3.5	5.0	moderate to severe pinkeye, irregular tuber type
ND113100-1Russ	456	640	79	5	55	24	16	1.071	10	20	0	0	0.0	3.0	2.0	pointed ends
ND13242B-8Russ	446	616	80	15	70	10	5	1.077	0	0	0	0	0.5	2.0	3.0	non uniform tuber type
A10007-3	431	525	82	11	71	11	7	1.063	0	10	10	0	0.0	4.0	4.5	moderate alligator hide, non uniform
AOR12149-1	404	560	48	7	44	4	45	1.066	0	40	0	0	0.5	4.0	3.0	tubular, knobby, bottlenecking, gc
A12314-1sto	385	677	58	25	58	0	17	1.078	0	10	0	0	0.5	3.0	3.5	non uniform tuber type
A10508-2LB	377	498	76	12	69	7	12	1.077	0	0	30	0	0.5	3.0	3.5	knobs, points, moderate alligator hide
ND13243B-14Russ	374	469												2.0	2.0	
A10611-3adg	363	571	63	15	62	1	22	1.072	0	20	0	0	0.0	2.5	3.0	bottlenecking, misshapen
A09086-1LB	352	502	70	15	57	13	15	1.092	0	0	0	0	0.5	4.0	4.5	light skin, light russetting
A11194-1	338	415	72	18	71	1	10	1.069	0	10	0	0	0.0	4.0	4.0	
A11737-1LB	337	602	70	23	67	3	7	1.068	0	10	0	0	1.5	3.0	3.0	
AOR11217-3	333	581	72	21	71	1	7	1.085	30	20	0	0	0.0	3.5	3.0	tubular
COA11013-2	327	446	72	21	70	2	7	1.066	10	20	10	0	0.5	4.0	3.0	gc, misshapen
A11234-2	327	477	69	22	65	4	9	1.075	0	0	0	0	0.5	3.0	4.0	light russetting
ND13288-2Russ	319	489	65	28	64	1	7	1.083	0	10	0	0	0.5	3.5	2.0	bottleneck
A09119-4LB	318	433	74	14	71	3	12	1.079	0	0	0	0	0.5	3.5	4.0	non uniform tuber type, gc
AOR13064-2	268	567	92	5	87	5	3	1.087	0	40	0	0	0.0	4.0	2.5	good overall appearance
A07769-4	267	343	78	20	77	1	2	1.074	0	20	0	0	0.5	3.0	3.0	smaller uniform tuber type
Ranger Russet	255	517	49	28	49	0	23	1.094	0	0	0	0	0.5	3.0	3.5	tubular, bottlenecking
A12115-16sto	217	342	57	34	55	2	9	1.075	0	20	0	0	0.5	3.5	3.5	variable skin color, pointed ends, black dot
AF5492-6	204	348	83	15	73	10	2	1.079	0	10	0	0	0.0	3.5	3.5	nice type and appearance
A12114-7	198	283	64	23	60	4	13	1.077	0	10	0	0	0.0	3.0	3.0	gc, bottlenecking
AOR08540-1	189	502	57	29	57	0	14	1.078	50	10	0	10	0.5	3.0	3.0	tubular, bottlenecking
A11326-1	125	173	56	20	56	0	24	1.092	20	10	0	10	0.5	3.0	4.0	heat sprouting, alligator hide
CO11009-3RU	62	149	74	19	70	4	7	1.074	100	0	0	0	1.0	1.0	3.5	nice dark russet skin type, good appearance
Russet Burbank	49	540	9	33	9	0	58	1.076	0	10	0	0	0.0	3.5	3.0	poor quality, many pickouts

WAF14006-6	555	655	84	7	71	13	9	1.072	0	10	10	0	0.0	3.0	2.5	nice appearance, but severe gc in pos
COAF13066-1	554	670	83	12	64	19	5	1.084	0	10	0	0	0.0	3.0	3.0	
AF6073-3	543	679	80	7	50	30	13	1.070	10	10	0	0	0.0	3.0	3.0	
AF6104-11	536	693	77	15	58	19	8	1.069	0	20	0	0	0.5	4.0	2.5	
AAF10736-2	489	792	62	29	59	3	9	1.081	0	30	0	0	0.5	4.0	3.0	pointed, netting, light russetting
WAF14010-3	481	555	86	11	81	5	3	1.071	0	10	20	0	0.0	3.5	2.0	dark skin, trace black dot
AF6061-1	469	659	71	8	53	18	21	1.083	0	50	0	0	1.0	2.5	4.0	non uniform tuber type
AF6075-1	462	791	59	36	33	26	5	1.066	0	10	0	0	0.0	4.5	3.0	done
NDAF1316Y-1	452	695	66	16	58	8	18	1.074	0	20	0	0	0.0	3.5	2.5	pointed misshapen pos, non uniform tuber
AF6075-9	426	741	58	18	53	5	24	1.061	0	20	0	0	0.0	3.0	3.0	bottleneck, misshapen, heat sprouts
AF6104-6	416	527	79	17	63	16	4	1.071	0	20	0	0	0.0	3.5	3.0	attractive tuber type
COTX08063-2Rus	408	535	76	21	74	2	3	1.102	0	10	0	0	0.5	4.0	3.0	poor type and appearance smaller uniform tuber type
AF6110-3	408	545	75	10	48	27	15	1.067	20	10	0	10	0.5	3.5	3.0	
AF6086-7	402	519	77	20	75	2	3	1.072	0	30	0	0	0.0	3.5	1.5	
COAF13004-1	401	507	79	19	78	1	2	1.082	0	10	0	0	0.0	3.0	2.0	
WAF13027-2	400	450	89	9	74	15	2	1.064	0	10	0	0	0.0	3.0	1.5	very good type and appearance, want to see again
COAF11018-10	398	458	87	11	85	2	2	1.077	0	20	0	0	0.0	2.5	1.5	nice type and appearance
AF6075-8	393	962	41	10	34	7	49	1.068	0	20	0	0	0.5	4.0	3.0	many misshapen tubers
AAF11263-1	390	457	86	5	62	24	9	1.099	0	10	0	0	0.5	2.0	3.0	minor scurf, trace black dot
AAF09137-1	384	705	54	17	51	3	29	1.078	0	10	10	0	0.0	3.5	3.0	tubular, bottlenecking
WAF14165-7	380	437	87	9	71	16	4	1.073	0	30	0	0	0.0	3.0	1.5	nice dark russet skin type, good appearance
AF5735-8	347	497	70	21	63	7	9	1.070	20	0	0	0	1.0	2.5	3.5	bottlenecking, done light russetting, bottlenecking, misshapen growth crack
AF6118-5	329	677	49	8	47	2	43	1.085	0	10	0	0	0.5	2.5	3.5	
AF6132-4	326	818	40	13	31	9	47	1.069	10	10	10	20	0.0	4.0	3.0	
COTX08322-10Rus	301	445	68	18	58	10	14	1.070	0	30	0	0	0.0	3.0	2.5	
AF6079-3	277	380	73	23	69	4	4	1.075	0	0	0	0	0.0	3.5	3.5	bottlenecking
AAF10536-3	264	476	55	17	53	2	28	1.089	0	10	0	0	0.0	3.0	2.5	
AF6073-5														4.0	3.0	
MEAN	377	556	67	18	61	8	14	1.077	7	12	2	1	0.3	3.2	3.0	

<u>¹SIZE</u>	<u>²SPECIFIC GRAVITY</u>	<u>³RAW TUBER QUALITY</u>
Russets	Data not replicated	(percent of tubers out of 10)
Bs: < 4 oz		HH: Hollow Heart
As: 4 - 10 oz		VD: Vascular Discoloration
OV: > 10 oz		IBS: Internal Brown Spot
PO: Pickouts		BC: Brown Center

<u>⁴COMMON SCAB RATING</u>
0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

<u>⁵VINE VIGOR RATING</u>
Date: 6/3/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

<u>⁶VINE MATURITY RATING</u>	<u>FIELD DATA</u>
Date: 8/12/19	Planting Date 4/16/19
Rating 1-5	Vine Kill Date 8/19/19
1: Early (vines completely dead)	Harvest Date 9/18/19
5: Late (vigorous vines, some flowering)	Days (planting to vine kill) 125
	Days (planting to harvest) 155
	GDD ₄₀ MAWN Station Mendon
	GDD ₄₀ (planting to vine kill) 3243
	Seed Spacing 10"

2019 Russet Potato Variety Trial

Styma Potato Farms

Planting: 6/5/19 Vine Kill: 9/20/19 Harvest: 10/18/19

GDD₄₀: 2510

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Silverton Russet	439	480	93	3	58	35	4	1.074	0	10	0	0	0.0	3.5	4.0	sl ah, nice appearance
Reveille Russet	431	507	85	5	52	33	10	1.072	0	0	0	0	0.0	2.5	4.5	medium russet skin, some skinning, knobs in pickouts
A08433-4sto	415	490	84	10	57	27	6	1.082	0	0	0	0	0.0	3.0	4.5	
Russet Norkotah	395	467	85	7	71	14	8	1.080	10	0	0	10	0.5	4.0	3.0	severe pinkeye, ah
Castle Russet	392	442	88	10	71	17	2	1.087	60	10	0	30	0.0	3.0	4.0	dark russet skin, mod ah
Dakota Russet	391	442	89	7	64	25	4	1.082	0	0	0	0	0.0	3.0	3.5	greening, silverton type skin, mod ah
AOR07781-5	373	469	80	5	57	23	15	1.088	0	10	0	0	0.0	4.5	4.5	misshapen pos, tr ah
A071012-4BFRUS	360	464	77	14	64	13	9	1.089	0	0	0	0	0.5	3.5	3.5	lots of misshapen pos, some ah
Vanguard	356	428	84	10	68	16	6	1.069	0	30	0	0	0.0	3.5	2.5	cracked, rough skin
A07061-6RUS	304	385	79	14	68	11	7	1.073	0	10	0	0	0.5	4.0	4.0	light russet, ah
River Russet	277	311	89	6	51	38	5	1.072	0	0	0	0	0.5	3.0	4.0	nice netted skin, med skin color
AO02183-2	264	383	69	24	69	0	7	1.082	0	50	0	0	0.0	3.0	3.5	tubular
Pacific Russet	240	349	68	25	67	1	7	1.077	0	20	0	0	0.5	3.5	3.0	small, points and pear shapes
CO10091-1RUS	84	155	55	37	55	0	8	1.074	0	0	0	0	0.0	1.5	4.0	nice skin and appearance, small
MEAN	337	412	80	13	62	18	7	1.079	5	10	0	3	0.2	3.3	3.8	

¹SIZE

Russets

Bs: < 4 oz
As: 4 - 10 oz
OV: > 10 oz
PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 7/10/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/27/19
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 6/5/19
Vine Kill Date 9/20/19
Harvest Date 10/18/19
Days (planting to vine kill) 107
Days (planting to harvest) 135
GDD₄₀ MAWN Station Hawks
GDD₄₀ (planting to vine kill) 2510
Seed Spacing 10"

2019 Russet Potato Variety Trial

Verbrigghe Potato Farms

Planting: 5/15/19 Vine Kill: 9/7/19 Harvest: 10/9/19

GDD₄₀: 2547

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet	579	657	88	6	42	46	6	1.073	0	0	0	0	3.0	2.5	3.5	
A07061-GRUS	511	659	78	21	69	9	1	1.085	0	0	10	0	1.0	4.5	3.5	
Russet Norkotah	469	565	83	10	52	31	7	1.083	50	0	0	0	3.0	3.5	4.0	
A08433-4sto	444	568	78	7	45	33	15	1.075	0	0	0	0	0.0	2.0	4.0	
River Russet	421	451	93	5	33	60	2	1.078	0	0	0	0	0.0	3.0	4.0	
A071012-4BFRUS	404	506	80	11	52	28	9	1.090	0	10	0	0	0.0	4.0	4.0	
Pacific Russet	344	401	86	14	61	25	0	1.070	0	10	0	0	0.0	3.0	4.0	
AO02183-2	322	447	72	18	72	0	10	1.086	0	0	0	0	0.0	3.5	4.5	
Vanguard	307	382	80	11	45	35	9	1.068	0	0	0	0	0.0	2.5	3.0	
Silverton Russet	304	353	86	9	50	36	5	1.069	0	0	0	0	0.0	4.0	4.5	
AOR07781-5	286	416	69	14	33	36	17	1.085	0	0	0	0	0.0	4.5	4.0	
Castle Russet	279	335	83	9	68	15	8	1.080	0	0	0	0	0.0	2.0	4.5	
CO10091-1RUS	244	378	65	35	61	4	0	1.076	0	0	0	0	0.0	1.5	4.0	
MEAN	378	471	80	13	53	28	7	1.078	4	2	1	0	0.5	3.1	4.0	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 7/10/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/28/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

5/15/19

Vine Kill Date

9/7/19

Harvest Date

10/9/19

Days (planting to vine kill)

115

Days (planting to harvest)

147

GDD₄₀ MAWN Station

Escanaba

GDD₄₀ (planting to vine kill)

2547

Seed Spacing

10"

2019 Replicated Russet Variety Trial Walther Norkotah Management Trial

Planting: 4/16/19 Vine Kill: 8/19/19 Harvest: 9/18/19

GDD₄₀: 3243

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ³ (%)					COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Russet Norkotah	610	697	88	10	75	13	2	1.074	10	13	0	3	0.0	4.0	2.8	sevre pinkeye and alligator hide
Vanguard	595	692	86	10	75	11	4	1.063	0	13	0	0	0.3	3.7	3.0	dark skin, heavy russetting
A08433-4sto	545	697	78	10	73	5	12	1.075	7	13	0	0	0.0	3.7	4.0	bottlenecking
Pacific Russet	516	636	81	14	73	8	5	1.061	0	10	0	3	0.3	4.3	1.0	
Silverton Russet	508	627	81	14	68	13	5	1.072	3	10	0	0	0.2	3.8	3.3	trace pointed tubers
A071012-4BFRUS	490	614	85	10	11	74	5	1.093	10	7	0	3	1.0	3.7	3.8	alligator hide, knobs, misshapen
Reveille Russet	466	503	93	5	72	21	2	1.066	0	20	3	0	0.0	3.2	1.8	trace alligator hide, blocky type
A07061-6RUS	465	622	87	9	17	70	4	1.071	0	3	3	0	0.2	4.2	4.7	moderate pinkeye, light russet
AOR07781-5	450	618	73	7	64	9	20	1.082	0	10	0	0	0.0	4.5	3.5	bottlenecking, heavy russet, severe alligator hide
Castle Russet	442	546	81	16	79	2	3	1.086	7	3	0	3	0.0	3.0	4.0	misshapen pickouts, nice appearance
Alta Cloud Russet	435	561	78	10	72	6	12	1.078	20	10	3	10	0.0	2.0	3.5	heavy russetting, bottlenecking
AO02183-2	403	553	73	22	72	1	5	1.083	27	23	7	7	0.0	4.0	3.5	moderate alligator hide
CO10091-1RUS	395	527	75	20	72	3	5	1.080	3	17	0	7	0.0	2.2	2.3	alligator hide, bottlenecking, growth crack
River Russet	395	693	56	9	50	6	35	1.068	7	3	13	0	0.0	4.5	3.0	bottlenecking, netted russet skin
MEAN	480	613	80	12	62	17	9	1.075	7	11	2	3	0.1	3.6	3.2	

¹SIZE

Russets

Bs: < 4 oz
As: 4 - 10 oz
OV: > 10 oz
PO: Pickouts

²SPECIFIC GRAVITY

Three Replicates

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/3/19
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/12/19
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 4/16/19
Vine Kill Date 8/19/19
Harvest Date 9/18/19
Days (planting to vine kill) 125
Days (planting to harvest) 155
GDD₄₀ MAWN Station Mendon
GDD₄₀ (planting to vine kill) 3243
Seed Spacing 10"

2019 Replicated Russet Variety Trial

Walther Silverton Management Trial

Planting: 4/23/19 Vine Kill: 8/24/19 Harvest: 10/9/19

GDD₄₀: 3299

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ³ (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
Reveille Russet	670	739	91	6	59	32	3	1.071	0	10	0	0	0.2	3.0	2.7	tr misshapen, gc, mod skinning
A08433-4sto	596	675	88	6	60	28	6	1.078	20	0	0	0	0.3	2.7	3.3	sl gc, misshapen pos, pointed ends
Vanguard	594	674	88	10	81	7	2	1.071	1	10	1	1	0.0	2.8	2.0	mod bottlenecking, tr ah, nice appearance
Pacific Russet	578	669	86	12	72	14	2	1.068	0	20	0	0	0.3	1.7	1.5	nice skin and type
Russet Norkotah	470	555	84	9	55	29	7	1.073	30	10	0	10	0.3	2.3	2.2	mod ah, nice skin
A071012-4BFRUS	454	541	83	12	74	9	5	1.095	40	10	0	0	0.8	2.2	3.2	long narrow tubers, moderate ah
AOR07781-5	435	509	85	11	73	12	4	1.086	20	10	0	0	0.0	2.5	3.2	nice appearance, sl skinning, mod ah
Silverton Russet	405	486	84	10	62	22	6	1.065	0	0	0	0	0.3	1.8	2.8	gc, pointed pos, bottlenecking
AO02183-2	396	493	80	14	69	11	6	1.084	60	30	0	10	0.0	2.3	2.8	gc, deep apical ends
CO10091-1RUS	383	499	77	18	75	2	5	1.080	0	40	20	0	0.0	1.2	2.3	mod ah, uniform, rounded
Castle Russet	379	459	82	14	67	15	4	1.085	60	10	0	0	0.0	2.0	3.0	sl gc, prominent eyes
River Russet	331	524	61	7	31	30	32	1.059	40	10	10	0	0.0	1.3	2.8	very poor shape and appearance
A07061-6RUS	312	401	74	16	61	13	10	1.077	7	10	0	0	0.5	1.3	3.0	poor shape and appearance, light skin
MEAN	462	556	82	11	65	17	7	1.076	21	13	2	2	0.2	2.1	2.7	

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts

²SPECIFIC GRAVITY

Three Replicates

³RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁴COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

1.0: Presence of surface lesions

2.0: Pitted lesions on tubers, though coverage is low

3.0: Pitted lesions common on tubers

4.0: Pitted lesions severe on tubers

5.0: More than 50% of tuber surface area covered in pitted lesions

⁵VINE VIGOR RATING

Date: 6/3/19

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 8/12/19

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date

4/23/19

Vine Kill Date

8/24/19

Harvest Date

10/9/19

Days (planting to vine kill)

123

Days (planting to harvest)

169

GDD₄₀ MAWN Station

Mendon

GDD₄₀ (planting to vine kill)

3299

Seed Spacing

10"

Russet Potatoes

Bulk Planting Test Digs

LINE	CWT/A		PERCENT OF TOTAL ¹					TUBER SET				Total
	US#1	TOTAL	US#1	Bs	As	OV	PO	Bs	As	OV	PO	
Vanguard Walther Farms	510	642	70	18	73	7	3	46	75	4	4	129
Vanguard Lennard Ag. Co.	389	550	71	25	64	7	4	57	57	3	6	123
Vanguard Crawford Farms	332	166	50	50	43	7	0	74	29	2	0	105
Reveille Lennard Ag. Co.	329	466	70	23	59	11	7	42	47	5	8	102
MEAN	390	456	65	29	60	8	4	55	52	4	5	115

¹SIZE

Russets

Bs: < 4 oz

As: 4 - 10 oz

OV: > 10 oz

PO: Pickouts