

2015 Statewide Chip Processing Potato Variety Trials

Overall Average- Ten Locations

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	OTF CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	SCAB RATING ⁴			
MSV033-1 ⁱ	765	815	94	4	86	8	2	1.081	1.0	3	58	3	0	0.0	3.5	3.4	uniform round tuber type, heat sprouts, sticky stolons
MSV313-2 ^{gj}	631	651	97	2	53	44	1	1.083	1.0	0	18	0	0	0.5	3.8	2.8	large round tuber type, heavy netted skin, gc
NY152 ^j	596	676	88	10	81	7	2	1.074	1.0	0	13	3	0	1.2	2.5	3.5	sl compressed tuber type
NY154 ^{abcd} efghj	592	629	93	6	86	7	1	1.083	1.1	3	31	2	0	0.8	3.1	3.2	netted skin type, flat to oval tuber type, alligator hide
NY157 ^{abcd} efgj	552	595	92	6	85	7	2	1.081	1.0	0	23	1	3	0.4	3.1	2.9	alligator hide, oval to pear shaped tuber type
A01143-3C ^{ae} fgh	535	610	87	9	83	4	4	1.081	1.2	0	23	5	0	0.6	3.5	3.5	knobby tuber shape, sheepnosing in pickouts, heat sprouts, sl alligator hide
FL1879^{ae}fj	533	560	93	6	68	25	1	1.079	1.1	5	22	13	3	0.6	2.8	2.3	severe pink eye, alligator hide, flattened tuber shape
MSW474-1 ^{gi}	522	642	80	20	78	2	0	1.086	1.0	0	3	0	0	0.3	4.0	2.9	compressed tuber type, heavy netted skin, sl sheep nose
Snowden^{ab}efghij	514	559	91	7	81	10	2	1.083	1.0	2	40	2	0	2.1	3.3	2.0	compressed tuber type, pink eye, netted skin type, gc
MSX540-4 ^{gj}	507	572	88	11	87	1	1	1.096	1.3	0	24	3	0	1.0	4.0	2.5	sticky stolons, round pointed tuber type
W6822-3 ^j	502	562	88	9	76	12	3	1.085	1.0	2	14	23	0	0.6	3.3	2.2	points in tubers, moderate pinkeye
Pike^{ae}fj	474	502	91	9	86	5	0	1.085	1.0	0	25	28	0	0.0	3.0	2.6	sl alligator hide, round to pear shaped tuber type
AF4975-3 ^{ae} fj	466	517	89	8	76	13	3	1.082	1.5	2	19	20	7	0.4	3.6	2.4	heat sprouts, knobby tuber shape, raised lenticels
CO03243-3W ^{abcd} efghij	461	497	92	6	80	12	2	1.076	1.2	1	18	0	0	1.8	2.9	3.2	uniform round tuber type, thin skin, sl rot
Manistee ^{abcd} efgj	455	483	93	6	81	12	1	1.081	1.0	4	27	1	0	1.8	2.6	2.2	compressed tuber type, netted skin type, sl alligator hide
Lamoka^{abcd}efgij	449	477	94	4	80	14	2	1.082	1.0	0	38	6	0	0.6	3.6	2.7	oval to pear shaped tuber type, alligator hide
AF4648-2 ^{abcd} efghij	448	494	90	8	79	11	2	1.080	1.2	1	6	1	0	0.2	2.7	2.8	oval shaped tuber type, bright tuber appearance, sl alligator hide
W5955-1 ^{abcd} efghj	440	490	89	8	76	13	3	1.083	1.0	5	19	7	1	0.3	3.3	2.9	alligator hide, netted skin type, uniform round shaped tubers
NY148 ^h	426	475	90	7	85	5	3	1.082	1.0	0	0	0	0	0.5	2.0	4.0	
Atlanticⁱ	418	452	93	4	68	25	3	1.081	1.0	30	3	0	0	0.7	3.0	2.0	netted skin type
AC01151-5W ⁱ	400	542	74	24	71	3	2	1.072	1.0	3	10	3	0	2.7	2.5	4.0	gc
A00188-3C ⁱ	384	487	79	13	76	3	8	1.079	1.0	0	7	0	0	0.0	4.0	3.5	pointed tubers in pickouts
MSR127-2 ^g	362	428	85	15	85	0	0	1.093	1.0	0	20	0	0	0.0	3.5	2.5	small uniform tuber size
AC03433-1W ⁱ	320	375	85	7	62	23	8	1.068	1.0	40	20	0	0	1.7	1.5	3.5	
MEAN	490	545	89	9	78	11	2	1.081	1.1	4	20	5	1	0.8	3.1	2.9	tr = trace, sl = slight, N/A = not available gc=growth crack

2015 Chip Variety Trial Sites

^aCounty Line Farms; Allegan Co.

^bCrooks Farms; Set #1; Montcalm Co.

^cCrooks Farms; Set#2; Montcalm Co.

^dCrooks Farms; Set#3; Montcalm Co.

^eLennard Ag. Company; St. Joseph Co.

^fMain Farms; Montcalm Co.

^gMSU Box Bin Trial; Montcalm Co.

^hSandyland Farms; Set #1; Montcalm Co.

ⁱSandyland Farms; SFA Trial (replicated); Montcalm Co.

^jWalther Farms (replicated); St. Joseph Co.

¹SIZE

Bs: < 4.0 oz.

As: 4.0 - 10.0 oz.

OV: > 10 oz.

PO: Pickouts

³CHIP COLOR SCORE - Snack Food Association Scale

(Out of the field)

Ratings: 1 - 5

1: Excellent

5: Poor

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

²TUBER QUALITY (percentage of tubers)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁵VINE VIGOR RATING

Ratings: 1 - 5

1: Slow Emergence

5: Early Emergence

(vigorous vine, some flowering)

⁶VINE MATURITY RATING

Ratings: 1 - 5

1: Early (vines completely dead)

5: Late (vigorous vine, some flowering)

2015 Processing Potato Variety Trial County Line Farms, Allegan County, MI

Harvest 13-Oct-15 140 Days

DD, Base 40⁷ 3436

LINE	CWT/A		PERCENT OF TOTAL ¹						CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON	VINE	VINE	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR		HH	VD	IBS	BC	SCAB RATING ⁴	VIGOR ⁵	MATURITY ⁶	
NY157	335	373	90	8	80	10	2	1.078	1.0	0	50	0	0	0.0	3.0	3.5	alligator hide, misshapen pickouts
Lamoka	314	341	92	8	79	13	0	1.075	1.0	0	20	0	0	0.0	3.5	2.5	alligator hide
A01143-3C	312	393	79	17	76	3	3	1.074	1.0	0	30	0	0	0.0	3.5	4.0	severe sheep nose in pickouts, sl alligator hide
AF4648-2	270	328	82	17	80	2	1	1.076	1.0	0	0	0	0	0.0	2.5	2.5	alligator hide
Snowden	265	338	79	21	76	3	0	1.082	1.0	0	30	0	0	2.5	3.0	2.0	sl alligator hide
AF4975-3	252	300	84	16	77	7	0	1.079	1.0	0	30	0	0	0.0	3.5	2.5	sheep nose, alligator hide
NY154	218	255	85	13	72	13	2	1.073	1.0	0	40	0	0	0.0	3.5	3.5	alligator hide
W5955-1	204	230	89	11	78	11	0	1.074	1.0	0	40	0	0	0.0	1.5	4.0	alligator hide
FL1879	178	213	83	17	65	18	0	1.076	1.0	0	20	0	0	0.0	1.5	2.5	alligator hide
Manistee	177	214	83	17	68	14	0	1.077	1.0	30	40	0	0	2.5	1.0	2.5	alligator hide
CO03243-3W	168	197	85	13	75	10	1	1.070	1.0	0	20	0	0	2.0	1.5	3.5	alligator hide, two tubers with late blight
Pike	157	200	78	22	74	4	0	1.077	1.0	0	30	0	0	0.0	1.5	3.0	sl alligator hide
MEAN	237	282	84	15	75	9	1	1.076	1.0	3	29	0	0	0.6	2.5	3.0	tr = trace, sl = slight, NA = not available SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 24-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 28-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 26-May-15
Vines Killed: 22-Sep-15
Days from Planting to Vine Kill: 119
Seed Spacing: 10"
Fumigation: No

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

⁷MAWN STATION: Allegan
Planting to Vine Kill

2015 "Select" Processing Potato Variety Trial; Set #1 Crooks Farms, Deaner rd., Montcalm County, MI

Harvest 22-Sep-15 145 Days

DD, Base 40⁷ 3102

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC				
NY157	582	610	95	2	93	3	2	1.080	1.0	0	20	0	0	0.0	3.5	2.0	flat oval tuber type, tr points
NY154	531	555	96	4	95	1	0	1.081	1.0	0	0	0	0	0.0	2.5	1.0	
CO03243-3W	526	538	98	2	90	7	0	1.079	1.5	0	30	0	0	2.0	3.0	2.0	4 rotten tubers in plot,
Lamoka	481	503	96	4	81	15	0	1.079	1.0	0	70	0	0	0.5	3.0	1.0	sl skinning, oval to oblong tuber type
Snowden	419	444	94	5	88	6	1	1.086	1.0	10	40	0	0	2.0	3.5	0.5	
W5955-1	395	458	86	9	86	0	5	1.080	1.0	0	10	0	0	0.5	4.0	0.0	points in pickouts
AF4648-2	394	439	90	8	90	0	3	1.077	1.5	0	20	0	0	0.0	2.0	1.0	oval tuber type, thin skin
Manistee	393	408	96	4	85	11	0	1.082	1.0	0	20	0	0	2.0	2.5	0.5	flat apical to stem end, netted skin type
MEAN	465	494	94	5	88	5	1	1.081	1.1	1	26	0	0	0.9	3.0	1.0	

tr = trace, sl = slight, N/A = not applicable
SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date Taken: 1-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date Taken: 17-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 30-Apr-15
Vines Killed: 1-Sep-15
Days from Planting to Vine Kill: 124
Seed Spacing : 10"
Fumigation: No

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

⁷MAWN STATION: Entrican
Planting to Vine Kill

2015 "Select" Processing Potato Variety Trial; Set #2

Crooks Farms, Peoples Rd., Montcalm County, MI

Harvest 7-Oct-15

146 Days

DD, Base 40⁷ 2680

LINE	CWT/A		PERCENT OF TOTAL ¹				SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS					BC
NY154	685	712	96	4	93	3	0	1.091	1.0	0	10	0	0	2.0	2.5	4.5	flat oval tuber type
CO03243-3W	666	694	96	4	83	13	0	1.083	1.0	0	0	0	0	2.0	3.0	3.0	flat oval tuber type
NY157	648	673	96	4	95	1	0	1.089	1.0	0	10	0	0	0.0	3.0	4.0	oval to oblong tuber type
W5955-1	585	643	91	9	83	8	0	1.090	1.0	10	20	0	0	0.0	3.5	4.5	flat round tuber type
Lamoka	564	593	95	3	75	20	2	1.084	1.0	0	20	10	0	0.0	4.0	4.0	oval tuber type, sl alligator hide
Manistee	522	558	94	4	89	5	2	1.086	1.0	0	20	0	0	2.5	2.5	4.0	flat apical to stem end
AF4648-2	504	555	91	7	83	8	2	1.080	1.0	0	20	0	0	0.0	2.0	4.0	flat round tuber type
Lamoka (Field)	438	475	92	5	86	6	3	1.089	1.0	0	10	0	0	0.5	4.0	4.0	oval tuber type, sl alligator hide
MEAN	576	613	94	5	86	8	1	1.087	1.0	1	14	1	0	0.9	3.1	4.0	

tr = trace, sl = slight, N/A = not applicable
SED = stem end defect, gc = growth crack

<p>¹SIZE</p> <p>Bs: < 1 7/8"</p> <p>As: 1 7/8" - 3.25"</p> <p>OV: > 3.25"</p> <p>PO: Pickouts</p>	<p>²TUBER QUALITY (percentage of tubers out of 10)</p> <p>HH: Hollow Heart</p> <p>VD: Vascular Discoloration</p> <p>IBS: Internal Brown Spot</p> <p>BC: Brown Center</p>	<p>³CHIP COLOR SCORE - Snack Food Association Scale (Out of the field)</p> <p>Ratings: 1 - 5</p> <p>1: Excellent</p> <p>5: Poor</p>	<p>⁵VINE VIGOR RATING</p> <p>Date: 10-Jun-15</p> <p>Ratings: 1 - 5</p> <p>1: Slow Emergence</p> <p>5: Early Emergence (vigorous vine, some flowering)</p>	<p>⁶VINE MATURITY RATING</p> <p>Date: 17-Aug-15</p> <p>Ratings: 1 - 5</p> <p>1: Early (vines completely dead)</p> <p>5: Late (vigorous vine, some flowering)</p>	<p>Planted: 14-May-15</p> <p>Vines Killed: 26-Aug-15</p> <p>Days from Planting to Vine Kill: 104</p> <p>Seed Spacing : 10"</p> <p>Fumigation: No</p>
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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

⁷MAWN STATION: Entrican
Planting to Vine Kill

2015 "Select" Processing Potato Variety Trial; Set #3 Crooks Farms, Wyman rd., Montcalm County, MI

Harvest 7-Oct-15 119 Days

DD, Base 40⁷ 2999

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC				
NY157	461	495	93	7	88	5	0	1.086	1.0	0	60	0	0	1.0	3.0	4.0	alligator hide
NY154	436	454	96	4	85	11	0	1.086	1.0	20	40	0	0	2.5	2.5	4.0	alligator hide, pink eye
CO03243-3W	367	401	91	9	89	2	0	1.077	1.5	0	30	0	0	3.5	2.5	4.0	uniform round tuber type
Manistee	357	375	95	5	87	8	0	1.079	1.0	0	40	0	0	3.0	3.0	3.0	flat apical to stem end
Lamoka	356	381	93	5	77	16	2	1.079	1.0	0	50	20	0	3.0	3.0	3.0	oval tuber type
AF4648-2	309	369	84	14	82	2	2	1.082	1.0	10	10	0	0	1.0	2.5	3.5	flat oval tuber type, tc pear shape tuber
W5955-1	261	313	83	13	78	5	4	1.087	1.0	0	20	0	0	0.5	2.5	4.0	pointed tubers in pickouts
MEAN	364	398	91	8	84	7	1	1.082	1.1	4	36	3	0	2.3	2.7	3.6	tr = trace, sl = slight, N/A = not applicable

SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 6-Jul-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 31-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 10-Jun-15
Vines Killed: 28-Sep-15
Days from Planting to Vine Kill: 110
Seed Spacing : 10"
Fumigation: No

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

⁷MAWN STATION: Entrican
Planting to Vine Kill

2015 Processing Potato Variety Trial
Lennard Ag., St. Joseph County, MI
Harvest 6-Oct-15 151 Days
DD, Base 40⁷ 3613

LINE	CWT/A		PERCENT OF TOTAL ¹						CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP		GR	HH	VD	IBS	BC	RATING ⁴		
NY154	815	845	96	3	82	14	1	1.083	1.5	0	100	0	0	0.0	3.0	3.0	nice uniform tuber type, netted skin type
FL1879	768	789	97	2	55	42	1	1.081	1.0	10	40	30	0	0.0	3.5	3.0	severe pink eye and alligator hide
Snowden	741	767	97	2	75	22	1	1.081	1.0	0	80	10	0	2.0	3.5	2.5	netted skin type, uniform tuber type
A01143-3C	646	699	92	4	79	13	4	1.080	1.0	0	40	20	0	0.5	4.0	3.5	alligator hide, sheep nosing in pickouts
Pike	643	655	98	2	86	12	0	1.089	1.0	0	20	40	0	0.0	3.5	2.5	alligator hide, bright skin, uniform round tuber type
AF4648-2	629	673	94	4	77	17	2	1.083	1.0	0	0	0	0	0.0	2.5	3.0	gc in pickouts, thin skin, bright appearance, sl pink eye and alligator hide
NY157	598	634	94	4	80	14	2	1.075	1.0	0	10	10	20	0.0	3.0	2.5	alligator hide
W5955-1	578	613	94	4	65	29	2	1.082	1.0	10	20	20	10	0.0	4.0	3.0	tr greening, tr rot, alligator hide, light netted skin type, uniform round tuber type
Manistee	546	562	97	3	79	18	0	1.081	1.0	0	50	0	0	0.0	3.0	2.0	sl greening, flat tuber type apical to stem end
Lamoka	512	546	94	3	60	34	3	1.083	1.0	0	100	0	0	0.0	3.5	3.5	severe alligator hide, oval tuber type
AF4975-3	505	587	86	4	63	23	10	1.078	2.0	0	0	60	0	0.0	3.5	3.5	heat sprouts and deep apical eyes in pickouts, sl rot
CO03243-3W	391	432	91	6	72	19	3	1.068	1.5	10	10	0	0	0.0	3.0	3.5	severe alligator hide and pink eye, misshapen pickouts, sl greening
MEAN	614	650	94	3	73	21	2	1.081	1.2	3	39	16	3	0.2	3.3	3.0	

tr = trace, sl = slight, NA = not available
SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 11-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 13-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 8-May-15
Vines Killed: 17-Sep-15
Days from Planting to Vine Kill: 132
Seed Spacing: 10"
Fumigation: No

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

⁷MAWN STATION: Constantine
Planting to Vine Kill

2015 Processing Potato Variety Trial
Main Farms, Montcalm County, MI
Harvest 10-Sep-15 133 Days
DD, Base 40⁷ 2984

LINE	CWT/A		PERCENT OF TOTAL ¹				SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS					BC
NY157	780	815	96	2	76	20	2	1.086	1.0	0	0	0	0	0.0	2.5	3.5	pear shaped tubers, flat tuber type
NY154	660	690	94	5	93	1	1	1.091	1.0	0	10	0	0	0.5	2.5	3.5	tr pear shaped tubers
CO03243-3W	655	677	97	2	86	11	1	1.090	1.0	0	20	0	0	2.5	3.0	3.5	severe alligator hide, round tuber type, rhizoctonia
A01143-3C	595	671	89	8	88	1	3	1.091	1.5	0	30	10	0	2.0	2.5	3.5	sheep nose and misshapen tubers in pickouts
Manistee	566	575	98	2	82	16	0	1.084	1.0	0	20	0	0	1.5	2.5	1.5	flat apical to stem end tubers with greening
Snowden	555	585	95	4	90	5	1	1.096	1.0	0	40	0	0	3.0	3.0	1.5	severe pinkeye
Pike	467	501	93	6	91	2	1	1.087	1.0	0	30	70	0	0.0	3.5	2.5	small overall tuber size, tr pear shaped tubers
FL1879	466	484	96	2	85	11	2	1.082	1.0	0	10	0	10	2.5	3.0	1.0	severe pinkeye
AF4975-3	457	492	93	6	86	7	1	1.084	1.5	0	20	0	0	0.0	3.5	1.5	raised lenticels
AF4648-2	457	494	93	4	87	6	3	1.084	1.0	0	0	0	0	0.0	2.0	3.0	oval tuber type, smooth skin type
Lamoka	451	476	95	3	88	7	2	1.090	1.0	0	20	0	0	0.5	3.0	2.5	sl pear shaped tubers
W5955-1	420	472	89	7	81	8	4	1.089	1.0	10	10	10	0	0.0	3.5	2.5	netted skin tuber type, sl pointed tubers
MEAN	544	578	94	4	86	8	2	1.088	1.1	1	18	8	1	1.0	2.9	2.5	

tr = trace, sl = slight, N/A = not available
SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date Taken: 1-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date Taken: 17-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 30-Apr-15
Vines Killed: 28-Aug-15
Days from Planting to Vine Kill: 120
Seed Spacing: 10"
No Fumigation

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

⁷MAWN STATION: Entrican
Planting to Vine Kill

2015 MPIC Box Bin Processing Potato Variety Trial MSU Montcalm Research Center, Montcalm County, MI

Harvest date **5-Oct-15** **156 Days**
DD, Base 40⁶ **3364**

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY (%) ²				COMMON			COMMENTS ⁷
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	RATING ⁴	VIGOR ⁵	MATURITY ⁶	
A01143-3C	544	598	91	9	91	0	0	1.086	1.0	0	10	0	0	0.5	4.0	3.0	sheep nose, nice tuber size profile and yield
MSV313-2	516	537	96	3	59	37	1	1.084	1.0	0	20	0	0	1.0	4.0	2.5	uniform round tuber type, large tuber size, dark russeted skin gc and tr HH, candidate for the low N trial
NY154	495	549	90	8	88	2	2	1.089	1.5	0	20	0	0	0.5	4.0	3.0	flat oval tuber type, large yield, high tuber numbers
Snowden	450	508	89	9	81	7	2	1.089	1.0	0	60	0	0	3.0	3.5	1.5	
W5955-1	437	500	87	10	79	8	3	1.091	1.0	0	30	0	0	0.5	4.0	2.0	tr pointed tubers, 3.0 alligator hide
MSW474-1	399	548	73	27	70	2	0	1.090	1.0	0	0	0	0	0.5	4.5	2.5	uniform round tuber type, sticky stolons
CO03243-3W	397	450	88	4	64	24	8	1.080	1.5	0	10	0	0	2.5	3.0	2.5	gc and knobs in pickouts, tr tuber rot
Manistee	396	453	88	11	77	10	1	1.084	1.0	0	10	0	0	3.0	3.0	2.0	flat apical to stem end tubers
Lamoka	391	422	93	6	91	1	1	1.087	1.0	0	30	0	0	1.0	4.5	1.0	oval tuber type, variable tuber type, tr black leg
AF4975-3	369	418	88	10	84	4	2	1.086	1.5	0	20	0	30	2.0	3.5	1.5	uniform round tuber type
MSX540-4	369	418	88	11	88	0	1	1.099	1.5	0	30	0	0	2.0	4.5	2.0	oval tuber type
MSR127-2	362	428	85	15	85	0	0	1.093	1.0	0	20	0	0	0.0	3.5	2.5	small uniform tuber size
NY157	356	435	82	16	82	0	2	1.080	1.0	0	20	0	0	2.0	3.5	1.0	oval tuber type, resprouting
AF4648-2	339	378	90	10	87	3	0	1.083	1.0	0	0	0	0	0.5	4.0	2.0	bright appearance, oval tuber type
MEAN	416	474	88	11	81	7	2	1.087	1.1	0	20	0	2	1.4	3.8	2.1	tr = trace, sl = slight, NA = not available SED = stem end defect, gc = growth crack

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
QV: > 3.25"
PO: Pickouts

²TUBER QUALITY (percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE - Snack Food Association Scale (Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 10-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 14-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 2-May-15
Vines Killed: 10-Sep-15
Days from Planting to Vine Kill: 131
Seed Spacing: 10"
Fumigation: No

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

⁷ALLIGATOR HIDE RATING
0.0: No incidence of raised corky skin spots
2.0: Unmarketable corky skin spots
5.0: Multiple, large corky skin lesions, covering a significant amount of surface area of the tuber

⁶MAWN STATION: Entrican
Planting to Vine Kill

2015 Processing Potato Variety Trial

Sandyland Farms, Montcalm County, MI

Harvest **21-Sep-15** **118** Days
DD, Base 40⁷ **3076**

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC				
NY154	707	774	91	6	83	8	3	1.077	1.0	0	30	20	0	1.5	4.0	3.5	
AF4648-2	490	536	91	3	71	20	6	1.077	1.5	0	0	10	0	0.5	3.5	3.0	
A01143-3C	485	536	91	6	87	4	3	1.075	1.5	0	10	0	0	0.5	3.0	3.5	
Snowden	431	495	87	7	78	9	6	1.075	1.0	0	20	0	0	2.5	3.0	3.0	gc and deep apical eye
NY148	426	475	90	7	85	5	3	1.082	1.0	0	0	0	0	0.5	2.0	4.0	
CO03243-3W	389	432	90	8	85	5	2	1.069	1.0	0	20	0	0	2.5	3.0	3.5	gc
W5955-1	376	436	86	6	68	18	8	1.078	1.0	10	0	20	0	1.0	3.0	3.0	knobby tubers in pickouts
MEAN	472	526	90	6	80	10	4	1.076	1.1	1	11	7	0	1.3	3.1	3.4	tr = trace, sl = slight, NA = not available

SED = stem end defect, gc = growth crack

¹SIZE _____
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percentage of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 24-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 31-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 26-May-15
Vines Killed: 17-Sep-15
Days from Planting to Vine Kill: 114
Seed Spacing: 12"
Fumigation: Yes

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

⁷MAWN STATION: Entrican
Planting to Vine Kill

2015 Chip Processing Potato Variety Trial

Walther Farms, St. Joseph County, MI

Harvest 11-Sep-15 133 Days
DD, Base 40⁷ 3461

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR*	CHIP SCORE ^{3*}	RAW TUBER QUALITY ² (%)				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC				
NY154	779	827	94	6	83	11	0	1.080	1.0	3	28	0	0	0.0	3.6	2.5	sticky stolons
MSV033-1	765	815	94	4	86	8	2	1.081	1.0	3	58	3	0	0.0	3.5	3.4	uniform round tuber type, heat sprouts, sticky stolons
AF4975-3	746	789	94	4	71	23	2	1.084	1.5	8	23	38	3	0.0	3.8	2.9	heat sprouts, knobby tuber shape, gc
MSV313-2	746	764	98	2	46	52	0	1.082	1.0	0	15	0	0	0.0	3.5	3.1	large round tuber type, heavy netted skin, gc
FL1879	719	753	96	3	67	29	1	1.077	1.5	10	18	23	0	0.0	3.1	2.5	
W5955-1	705	747	94	6	68	26	0	1.080	1.0	3	25	15	0	0.0	3.8	2.8	uniform round tuber type, sticky stolons
Manistee	685	717	96	3	83	13	1	1.073	1.0	0	15	5	0	0.0	3.3	2.1	flat apical to stem end
Snowden	671	698	96	4	80	16	0	1.080	1.0	3	30	3	0	0.0	3.5	2.6	sticky stolons
CO03243-3W	666	706	94	5	78	16	1	1.069	1.0	0	10	3	0	0.3	3.3	2.8	moderate alligator hide
NY157	659	725	90	3	86	4	7	1.077	1.0	0	13	0	3	0.0	3.1	2.5	moderate pinkeye, knobby tuber shape
W6822-3	648	689	94	6	77	17	0	1.090	1.0	0	15	35	0	0.3	3.6	2.4	points in tubers, moderate pinkeye
MSW474-1	644	737	87	12	86	1	0	1.081	1.0	0	5	0	0	0.0	3.5	3.3	flat apical to stem end, heavy netted skin, sl sheep nose
MSX540-4	645	725	89	10	86	3	1	1.093	1.0	0	18	5	0	0.0	3.5	3.0	sticky stolons, pointed tuber type
Lamoka	635	654	97	3	84	13	0	1.081	1.0	0	33	3	0	0.0	3.5	2.9	
AF4648-2	632	676	93	7	68	25	0	1.078	1.0	0	10	0	0	0.0	2.9	3.3	blocky tuber type
A01143-3C	631	762	82	7	79	3	11	1.083	1.0	0	15	3	3	0.1	4.0	3.4	knobby shape, severe heat sprouts, sticky stolons
Pike	627	652	96	4	93	3	0	1.086	1.0	0	20	0	0	0.0	3.4	2.3	sticky stolons
NYK28-18	577	659	87	9	86	1	4	1.084	1.0	0	13	10	0	0.0	3.8	2.3	flattened, pear-shaped tuber type, sticky stolons, knobs in pickouts
MEAN	677	727	93	5	78	15	2	1.081	1.1	2	20	8	0	0.03	3.5	2.8	tr = trace, sl = slight, N/A = not available
LSD_{0.05}	128	125	5.8	2.7	12.3	9.9	4.4			4.7	19.2	12.3	3.0	0.3	0.4	0.4	SED = stem end defect, gc = growth crack
ANOVA (Prob>F)	0.13	0.17	<.0001	<.0001	<.0001	<.0001	0.0002			0.001	0.001	<.0001	0.470	0.580	<.0001	<.0001	

¹SIZE
Bs: < 1 7/8"
As: 1 7/8" - 3.25"
OV: > 3.25"
PO: Pickouts

²TUBER QUALITY
(percent of tubers out of 10)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

³CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date: 2-Jun-15
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 13-Aug-15
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 1-May-15
Vines Killed: 3-Sep-15
Days from Planting to Vine Kill: 125
Seed Spacing: 10"
Fumigation: Yes

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

*data not replicated

⁷MAWN STATION: Mendon
Planting to Vine Kill

2015 MSU Processing Potato Variety Trials

Entry	Pedigree	2014 Scab Rating*	Characteristics
Atlantic	Wauseon X B5141-6 (Lenape)	2.6	High yield, early maturing, high incidence of internal defects, high specific gravity
FL1879	Snowden X FL1207	2.5	High yield, late maturity, large tuber type, late season storage, medium specific gravity
Lamoka (NY139)	NY120 X NY115	1.5	High yield, mid-late season maturity, medium specific gravity, oval to oblong tuber type, low internal defects, long term chip quality
Manistee (MSL292-A)	Snowden X MSH098-2	2.5	Average yield, scab resistance similar to Snowden, medium specific gravity, long storage potential, uniform, flat round tuber type, heavy netted skin
MegaChip (W1201)	WISCHIP X FYF85	1.0	High specific gravity, round oval tubers, medium-large size, common scab resistant, deep apical eye
Pike (NYE55-35)	Allegany X Atlantic	1.3	Average yield, early to mid-season maturity, small tuber size profile, early storage, some internal defects, medium specific gravity
Pinnacle (W5015-12)	Brodick X W1355-1	2.6	High tuber set and yield, medium-late vine maturity, uniform size tubers, tubers tend toward flat shape, very flat in some environments
Snowden (W855)	B5141-6 X Wischip	2.6	High yield, late maturity, mid-season storage, reconditions well in storage, medium to high specific gravity
A00188-3C	A91790-13 X Dakota Pearl	1.5	Medium yield, scaly buff skin, high specific gravity, mid-season chip quality, common scab resistant
A01143-3C	COA95070-8 X Chipeta	1.8	Average yielding, scaly buff chipper, smaller tuber size, late maturity, high incidence of sheep-nose
AC01151-5W	COA96142-7 X NDA2031-2	1.5	Low yielding, high specific gravity, medium maturity, medium vine size, round tuber with white skin and white flesh
AC03433-1W	A94322-8C X COA96141-4	-	High yield potential with good size profile, medium maturity, resistance to internal defects and black spot bruise
AF4648-2	NY132 X Liberator	-	High yield potential, common scab resistant, high specific gravity, low internal defects

*Scab rating based on 0-5 scale; 0 = most resistant and 5 = most susceptible. Common scab data and descriptions provided by Potato Outreach Program with novel line information derived from MSU Potato Breeding and Genetics Program and other potato breeding programs.

Entry	Pedigree	2014 Scab Rating*	Characteristics
AF4975-3	Atlantic X W1355-1	-	High yield potential, high specific gravity, good chip color
CO03243-3W	BC894-2W X A91790-13W	1.5	Large vine size with medium maturity, large yield potential, medium specific gravity
MSR127-2	MSJ167-1 X MSG227-2	1.4	Scab resistant, high specific gravity, good chip quality from storage, above average yield potential, medium-late maturity
MST441-1	Kalkaska X OP	-	Average yield potential, common scab resistant, medium specific gravity
MSU383-A	MSP292-7 X MSG227-2	-	Medium/high yield potential, common scab resistant, medium specific gravity
MSV033-1	Beacon Chipper X MSJ147-1	-	High yield potential, common scab susceptible, high specific gravity
MSX540-4	MSR061-1 X NY139	-	Medium/high yield potential, common scab, late blight and PVY resistant, high specific gravity
MSW474-1	MSN190-2 X MSP516-A	-	Average yield potential, common scab resistant, moderately susceptible to late blight, high specific gravity
NY148	B38-14 X Marcy	1.6	High yield potential, high specific gravity, moderate common scab resistance, late maturing
NY152	NYH15-5 X Marcy	1.5	High yield potential, medium to high specific gravity, moderate resistance to common scab
NY154	B3814 X Marcy	1.6	High yield potential, high specific gravity, moderate common scab resistance, late maturing
NY157	White Pearl X Marcy	-	High yield potential, low internal defects, medium specific gravity, moderate common scab resistance

*Scab rating based on 0-5 scale; 0 = most resistant and 5 = most susceptible. Common scab data and descriptions provided by Potato Outreach Program with novel line information derived from MSU Potato Breeding and Genetics Program and other potato breeding programs.

Entry	Pedigree	2014 Scab Rating*	Characteristics
NYK28-18	Snowden X E48-2	-	Moderately high yield potential, high specific gravity, common scab resistant
W5955-1	Pike X C31-5-120	1.6	Average yield, high specific gravity, size profile similar to Atlantic, long storage potential, pear-shaped
W6822-3	White Pearl X Dakota Pearl	1.8	Average yield, medium maturity, high specific gravity, susceptible to internal defects, moderate common scab resistance

*Scab rating based on 0-5 scale; 0 = most resistant and 5 = most susceptible. Common scab data and descriptions provided by Potato Outreach Program with novel line information derived from MSU Potato Breeding and Genetics Program and other potato breeding programs.