

2016 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Chip Processing Trials

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2016 Michigan Statewide Chip Processing Potato Variety Trials

Overall Averages- Fourteen 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				
Atlantic ^f	658	734	90	3	63	27	7	1.086	1.0	30	0	60	0	0.0	3.0	3.0	misshapened tubers and pickouts	
BNC182-5 ^l	630	672	94	6	77	17	0	1.077	1.0	0	57	0	0	0.2	4.0	3.2		
B2904-2 ^m	585	619	94	6	92	3	0	1.073	1.0	0	40	0	0	1.0	4.0	4.0		
W8822-1 ^{ghkli}	563	616	91	7	87	4	2	1.078	1.1	0	29	5	2	0.4	3.3	2.6		heavy netted skin, yellow flesh color
NY153 ^{cdeghil}	548	593	92	6	78	14	2	1.080	1.0	13	36	0	0	1.1	2.4	3.0		
MSX540-4 ^{acdeghijl}	547	589	93	5	82	11	2	1.080	1.2	0	41	1	0	0.9	2.3	3.4		
MSV033-1 ^{ghim}	527	602	88	6	71	18	6	1.070	1.0	0	45	0	0	1.9	2.9	3.8		heat sprouts and gc in pickouts
MSR127-2 ^{acdeghijkln}	527	579	91	7	78	13	3	1.076	1.2	1	34	0	1	0.7	2.5	4.2		heavy netted skin, gc in pickouts, sl alligator hide
TX09396-1W ^{ik}	513	548	93	4	65	28	2	1.080	1.0	3	43	12	0	1.9	3.0	4.0		sticky stolons
MSW485-2 ^{cdeghikl}	512	575	89	11	84	5	1	1.080	1.0	7	40	6	4	0.8	2.9	4.1	nice overall tuber appearance, sl alligator hide, tr sticky stolons	
NYL1-7 ^{ghim}	496	533	93	7	90	3	1	1.069	1.1	0	30	0	0	1.1	3.6	1.9	small overall tuber size	
NY152 ^{acdeghijkln}	493	578	84	15	82	2	1	1.073	1.1	0	34	2	1	0.8	2.8	3.0		
NY162 ^{ghim}	483	529	91	6	82	9	3	1.073	1.0	0	35	3	0	1.1	2.3	2.6		
NC0349-3 ^{bfgghikm}	481	532	90	10	76	14	1	1.067	1.1	53	68	0	0	2.4	2.7	2.8	slightly flattened shape, severe scab	
Lamoka ^{adeghikm}	473	524	90	7	79	12	3	1.075	1.1	0	43	1	0	0.8	3.3	3.0	flattened, pear shaped tubers	
MSZ219-14 ^l	468	531	88	4	81	8	8	1.067	1.0	7	43	0	0	0.5	4.0	2.5	heat sprouting, non-uniform tuber type	
Manistee ^{aghim}	467	514	91	7	83	8	2	1.071	1.0	0	30	4	0	1.6	2.4	2.2	flattened apical to stem end, netted skin	
Snowden ^{acghijklmn}	467	538	87	12	82	5	2	1.076	1.1	2	47	4	2	2.0	3.1	3.2	light, smooth skin, round tuber type	
NYL7-2 ^{ghim}	465	502	92	6	81	11	2	1.072	1.0	0	25	0	0	0.9	2.9	2.1		
MSV313-2 ^{il}	457	482	95	2	33	62	2	1.067	1.0	0	17	12	0	0.3	3.1	2.9		
MSV301-2 ^{ghim}	455	503	90	8	83	7	2	1.072	1.0	0	33	0	0	0.5	3.3	2.1		round tuber shape, tr sheep nosing
MSV358-3 ^{ghim}	454	517	88	10	86	2	2	1.073	1.1	0	25	0	0	0.1	3.0	2.1		uniform tuber type, netted skin
MSZ222-19 ^l	449	504	89	5	67	22	9	1.076	1.0	7	23	17	0	0.3	4.2	2.5		
NY154 ⁱ	444	497	89	7	72	17	4	1.076	1.0	0	50	0	0	0.0	3.5	3.5		
MSW474-1 ^{cdeghijl}	431	514	83	15	76	7	1	1.071	1.1	0	18	1	0	0.5	2.5	3.7		heavy netted skin, deep apical eye

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LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	OTF CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	
NY157 ^{ghkl}	428	479	88	11	81	6	1	1.070	1.0	2	37	1	2	1.1	3.0	2.4	shatter bruise
MSZ219-1 ^l	426	488	87	3	84	3	9	1.068	1.0	0	40	0	0	0.2	4.3	2.5	gc in pickouts
MSW509-5 ^{ghim}	425	483	88	11	83	5	1	1.068	1.8	0	60	3	0	0.5	3.0	2.5	
W5955-1 ^{acdegghijn}	423	464	91	7	66	25	2	1.074	1.1	16	42	6	11	0.8	2.6	3.5	tr points, nice round tuber shape
ND7519-1 ^{bcddefghil}	412	466	87	11	81	7	2	1.079	1.1	0	32	10	7	0.9	3.2	2.7	circular, flattened tuber shape
B2869-29 ^m	410	510	80	20	80	0	0	1.077	1.0	0	50	0	0	0.0	3.0	3.0	
NYK27-1 ^{ghim}	402	453	89	9	80	9	2	1.070	1.0	5	23	0	8	1.0	3.4	2.0	
AF4648-2 ^{ghikm}	400	439	91	6	74	16	3	1.076	1.1	6	45	1	0	0.7	2.3	3.5	gc in pickouts, heat sprouts
MSV241-2 ^{il}	395	426	93	6	85	8	1	1.079	1.0	0	27	7	0	1.4	2.0	3.0	
MSM246-B ^{ghijm}	378	412	92	7	84	8	1	1.078	1.0	0	32	0	0	1.4	2.9	3.5	sl sheepnosing
BNC311-4 ^m	364	495	74	9	74	0	17	1.069	1.0	0	20	0	0	0.0	4.0	2.0	
W6822-3 ^{ghikl}	358	443	77	23	72	4	1	1.078	1.0	3	43	14	7	1.7	3.7	2.3	small, non uniform tuber type
Pike^{aghl}	355	396	89	9	85	4	2	1.073	1.3	0	23	7	0	0.5	1.9	3.3	
MSV507-040 ^{ghil}	352	388	91	3	71	21	5	1.075	1.0	0	34	13	2	1.0	2.5	2.5	heavy eyebrowing, deep apical eye, tr heat sprouts
NDA081453CAB-2C ^k	335	386	82	11	73	8	2	1.078	1.0	0	27	7	3	2.0	5.0	2.5	
NDTX081648CB-13W ^{ghikl}	314	402	79	17	79	1	4	1.075	1.4	0	33	0	0	1.3	3.3	2.9	small size profile, severe heat sprouts
B2727-2 ^{bcddefghikl}	305	362	83	15	81	3	2	1.077	1.0	3	14	1	0	2.4	2.6	2.1	oblong tuber shape
CO07070-13W ^{bfgghim}	304	382	78	21	77	1	2	1.069	1.0	2	10	2	0	1.7	3.8	1.2	round tuber shape, bright skinned
AF5040-8 ^k	303	376	81	18	77	4	1	1.080	1.0	0	13	7	0	2.7	4.5	4.5	
MSV383-B ^{cdeghil}	275	362	76	8	67	9	16	1.075	1.1	10	19	2	1	0.5	2.5	2.6	severe gc in pickouts, heavy netted skin
CO07070-10W ^{cdeghikl}	273	358	75	24	74	1	1	1.082	1.1	1	10	1	0	1.8	3.4	1.5	round tuber shape
MEAN	440	498	87	9	77	10	3	1.075	1.1	4	33	5	1	1.0	3.1	2.9	tr = trace, sl = slight, N/A = not available gc=growth crack

2016 Chip Variety Trial Sites

^a4-L Farms; Allegan Co.

^bCrooks Farms; Set #1; Montcalm Co.

^cCrooks Farms; Set#2; Montcalm Co.

^dCrooks Farms; Set#3; Montcalm Co.

^eCrooks Farms; Set#4; Montcalm Co.

^fLennard Ag. Company (Early Trial); St. Joseph Co.

^gLennard Ag. Company (Chip Trial); Howe, IN

^hMain Farms; Montcalm Co.

ⁱMSU Box Bin Trial; Montcalm Co.

^jSandyland Farms; Set #1; Montcalm Co.

^kSandyland Farms; SFA Trial (replicated); Montcalm Co.

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

^mWalther Farms (Strip Trial); St. Joseph Co.

ⁿCrawford Farms; Montcalm Co.

¹SIZE

Bs: < 1 7/8"

As: 1 7/8" - 3.25"

OV: > 3.25"

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)

2016 Processing Potato Variety Trial

4-L Farms, Allegan County, MI

Harvest 12-Oct-16 154 Days

DD, Base 40⁷ 3793

LINE	CWT/A		PERCENT OF TOTAL ¹					CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO		SP GR	HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵		VINE MATURITY ⁶
Snowden	556	658	84	15	81	3	0	1.076	1.0	0	70	10	20	0.0	3.0	3.0	
W5955-1	541	577	94	6	55	39	0	1.076	1.0	20	50	0	30	1.5	3.0	4.0	
MSR127-2	528	569	93	7	75	18	0	1.079	1.0	0	40	0	0	1.0	2.5	3.5	
Lamoka	526	573	92	7	84	7	1	1.076	1.0	0	30	0	0	0.5	3.5	3.0	
NY152	503	541	93	7	91	2	0	1.072	1.0	0	40	0	0	0.0	2.5	2.5	
MSX540-4	494	534	93	7	83	9	0	1.080	1.0	0	50	0	0	1.0	2.0	3.5	
Manistee	391	443	88	10	88	0	1	1.072	1.0	0	40	0	0	0.0	2.0	2.5	
Pike	334	390	86	9	84	1	5	1.074	1.0	0	30	0	0	0.0	2.0	3.0	
MEAN	484	536	90	9	80	10	1	1.076	1.0	3	44	1	6	0.5	2.6	3.1	tr = trace, sl = slight, NA = not available

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: 10-Jun-16
 Ratings: 1 - 5
 1: Slow Emergence
 5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
 Date: 19-Aug-16
 Ratings: 1 - 5
 1: Early (vines completely dead)
 5: Late (vigorous vine, some flowering)

Planted: 11-May-16
 Vines Killed: 14-Sep-16
 Days from Planting to Vine Kill: 126
 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

2016 "Select" Processing Potato Variety Trial; Set #1 Crooks Farms, Kendaville Rd., Montcalm County, MI

Harvest 31-Aug-16 117 Days

DD, Base 40⁷ 2787

LINE	CWT/A		US#1	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		Bs	As	OV	PO			HH	VD	IBS	BC				
ND7519-1	304	386	79	21	76	3	0	1.079	1.0	0	60	0	0	2.0	2.5	3.0	flat shape
NC0349-3	285	340	84	16	82	2	0	1.070	1.0	40	90	0	0	4.0	2.0	2.5	
B2727-2	252	343	73	27	73	0	0	1.081	1.0	0	0	0	0	3.5	4.0	2.0	oblong shaped
CO07070-13W	188	316	60	40	60	0	0	1.068	1.0	0	0	10	0	2.5	2.0	1.0	nice round tuber shape, bright white skin
MEAN	258	346	74	26	73	1	0	1.074	1.0	10	38	3	0	3.0	2.6	2.1	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: 6-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date Taken: 11-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

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

Planted: 6-May-16
Vines Killed: 17-Aug-16
Days from Planting to Vine Kill: 103
Seed Spacing : 10"
Fumigation: No

⁷MAWN STATION: Entrican
Planting to Vine Kill

2016 "Select" Processing Potato Variety Trial; Set #2 **Crooks Farms, Lake Montcalm Rd., Montcalm County, MI**

Harvest 27-Sep-16 138 Days

DD, Base 40⁷ 3144

LINE	CWT/A		US#1	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		Bs	As	OV	PO			HH	VD	IBS	BC				
NY153	595	626	95	4	75	20	1	1.078	1.0	10	50	0	0	0.0	2.0	3.0	
MSX540-4	589	616	96	4	83	13	0	1.079	1.0	0	70	0	0	0.0	2.0	3.5	
NY152	523	571	92	8	87	5	0	1.070	1.0	0	40	0	0	0.0	2.0	2.5	
MSW474-1	516	580	89	11	74	15	0	1.071	1.5	0	30	10	0	0.0	3.0	4.0	
ND7519-1	479	515	93	7	74	19	0	1.076	1.0	0	60	0	10	0.5	3.5	1.0	
W5955-1	447	481	93	6	65	28	1	1.069	1.0	0	90	0	0	0.5	3.0	3.0	
MSR127-2	438	508	86	9	66	21	4	1.071	1.0	0	70	0	0	0.0	2.5	5.0	
Snowden	434	475	91	8	83	9	1	1.071	1.5	0	60	0	0	2.0	3.0	2.5	
MSW485-2	369	431	86	14	84	2	0	1.079	1.0	0	70	0	0	0.0	2.5	5.0	
MSV383-B	337	381	89	8	84	5	3	1.075	1.0	30	50	0	0	0.5	2.5	1.0	
B2727-2	235	276	85	15	85	0	0	1.076	1.0	0	50	0	0	2.5	3.0	2.0	
CO07070-10W	163	243	67	31	67	0	2	1.078	1.0	0	20	0	0	1.0	3.5	1.0	
MEAN	427	475	88	10	77	11	1	1.074	1.1	3	55	1	1	0.6	2.7	2.8	

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: 10-Jun-16

Ratings: 1 - 5

1: Slow Emergence

5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date Taken: 26-Aug-16

Ratings: 1 - 5

1: Early (vines completely dead)

5: Late (vigorous vine, some flowering)

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

Planted: 12-May-16

Vines Killed: 31-Aug-16

Days from Planting to Vine Kill: 111

Seed Spacing : 10"

Fumigation: No

⁷MAWN STATION: Entrican

Planting to Vine Kill

2016 "Select" Processing Potato Variety Trial; Set #3

Crooks Farms, Musson Rd., Montcalm County, MI

Harvest 5-Oct-16 139 Days

DD, Base 40⁷ 3237

LINE	CWT/A		US#1	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		Bs	As	OV	PO			HH	VD	IBS	BC				
MSR127-2	718	778	92	6	73	19	2	1.072	2.0	0	40	0	0	1.0	1.5	4.5	pinkeye
MSX540-4	611	627	97	3	77	20	0	1.079	2.5	0	70	0	0	2.0	1.5	3.5	tr pinkeye
NY153	535	560	96	3	68	27	1	1.078	1.0	30	30	0	0	1.0	1.5	2.5	round flattened shape
Lamoka	472	499	95	4	54	41	1	1.071	1.5	0	70	0	0	2.0	2.5	2.5	
MSW485-2	462	508	91	9	80	11	0	1.074	1.0	20	20	0	10	1.0	2.0	4.0	sl alligator hide
W5955-1	408	456	89	6	69	20	4	1.075	2.0	20	30	0	0	0.5	2.0	3.0	nice round tuber shape
MSW474-1	345	425	81	18	75	7	1	1.068	1.5	0	10	0	0	0.5	2.0	4.5	pinkeye, heavy lenticels
CO07070-10W	331	402	82	18	80	2	0	1.074	1.0	0	10	0	0	3.0	3.0	1.0	nice round tuber shape
NY152	325	417	78	22	75	3	0	1.066	1.0	0	60	0	0	1.5	2.0	1.5	
ND7519-1	293	352	83	14	81	2	3	1.074	1.0	0	20	0	0	1.5	2.5	2.0	circular flat tuber shape
B2727-2	274	313	88	12	82	6	0	1.067	1.0	0	0	0	0	4.0	1.5	1.5	oblong shape
MSV383-B	261	288	90	9	85	6	1	1.068	1.0	0	0	0	0	0.5	2.5	4.0	pinkeye, alligator hide, round slightly flattened tuber shape
MEAN	420	469	89	10	75	14	1	1.072	1.4	6	30	0	1	1.5	2.0	2.9	tr = trace, sl = slight, N/A = not applicable

SED = stem end defect, gc = growth crack

¹ SIZE Bs: < 1 7/8" As: 1 7/8" - 3.25" OV: > 3.25" PO: Pickouts	² TUBER QUALITY (percentage of tubers out of 10) HH: Hollow Heart VD: Vascular Discoloration IBS: Internal Brown Spot BC: Brown Center	³ CHIP COLOR SCORE - Snack Food Association Scale (Out of the field) Ratings: 1 - 5 1: Excellent 5: Poor	⁵ VINE VIGOR RATING Date Taken: 15-Jun-16 Ratings: 1 - 5 1: Slow Emergence 5: Early Emergence (vigorous vine, some flowering)	⁶ VINE MATURITY RATING Date Taken: 22-Aug-16 Ratings: 1 - 5 1: Early (vines completely dead) 5: Late (vigorous vine, some flowering)	Planted: 19-May-16 Vines Killed: 6-Sep-16 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	⁷ MAWN STATION: Entrican Planting to Vine Kill				

2016 "Select" Processing Potato Variety Trial; Set #4

Crooks Farms, McBride Rd., Montcalm County, MI

Harvest 17-Oct-16 139 Days

DD, Base 40⁷ 3059

LINE	CWT/A		US#1	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		Bs	As	OV	PO			HH	VD	IBS	BC				
MSR127-2	703	766	92	5	75	17	4	1.084	1.0	10	40	0	10	0.0	2.0	5.0	
NY153	566	613	92	8	79	13	0	1.087	1.0	10	40	0	0	2.0	1.5	3.5	
MSX540-4	549	590	93	6	82	11	1	1.088	1.0	0	20	0	0	1.0	1.0	3.5	
Lamoka	532	584	91	8	74	17	1	1.080	1.0	0	50	0	0	0.0	4.5	3.0	pointed pear shaped tubers
MSW485-2	505	567	89	11	83	6	0	1.090	1.0	10	50	0	0	0.0	1.5	5.0	
W5955-1	459	499	92	6	58	34	2	1.084	1.0	80	30	0	0	0.0	1.5	4.5	
NY152	437	501	87	12	86	2	1	1.082	1.0	0	40	0	10	0.5	1.5	3.5	
B2727-2	328	370	88	12	88	0	0	1.086	1.0	0	20	0	0	2.5	1.5	2.0	
MSW474-1	326	410	80	19	76	4	1	1.081	1.0	0	20	0	0	0.5	1.0	4.0	
ND7519-1	321	380	84	16	81	3	0	1.089	1.0	0	60	10	0	0.5	2.5	3.0	
MSV383-B	315	394	80	11	71	9	9	1.083	1.0	0	30	0	10	0.0	1.5	4.0	growth cracks, knobbing
CO07070-10W	205	314	65	34	63	2	1	1.092	1.0	0	0	0	0	0.0	3.0	1.5	
MEAN	437	499	86	12	76	10	2	1.085	1.0	9	33	1	3	0.6	1.9	3.5	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: 24-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date Taken: 26-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

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

Planted: 31-May-16
Vines Killed: 10-Sep-16
Days from Planting to Vine Kill: 102
Seed Spacing : 10"
Fumigation: No

⁷MAWN STATION: Entrican
Planting to Vine Kill

2016 Chip Processing Potato Variety Trial

Crawford Farms, Montcalm County, MI

Harvest 19-Oct-16 148 Days
DD, Base 40⁷ 3242

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ² (%)				SCAB	COMMON VINE	VINE	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR	HH	VD	IBS	BC	RATING ³	VIGOR ⁴	MATURITY ⁵	
MSR127-2	473	496	95	4	95	1	0	1.081	0	10	0	0	0.0	2.5	4.5	
Snowden	468	541	86	14	83	3	0	1.079	0	40	0	0	2.0	3.5	3.5	
NY152	463	633	73	27	73	0	0	1.074	0	80	0	0	0.0	3.0	3.5	
W5955-1	248	273	91	5	63	28	4	1.070	10	60	0	0	2.0	2.0	3.5	
MEAN	413	486	86	12	79	8	1	1.076	3	48	0	0	1.0	2.8	3.8	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

⁴VINE VIGOR RATING
Date: 22-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁵VINE MATURITY RATING
Date: 26-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 24-May-16
Vines Killed: 9-Sep-16
Days from Planting to Vine Kill: 108
Seed Spacing: 10"
Fumigation: No

⁷MAWN STATION: Entrican
Planting to Vine Kill

³COMMON 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

2016 Processing Potato Variety Trial
Lennard Ag. Co., Howe, IN
Harvest 26-Sep-16 140 Days
DD, Base 40⁷ 3412

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	
W8822-1	778	816	95	3	89	6	1	1.078	1.0	0	50	10	10	0.0	3.0	3.0	heavily russeted skin, yellowed fresh color
MSX540-4	691	762	91	6	88	3	3	1.078	1.0	0	30	0	0	2.0	2.5	3.5	
NY153	679	734	92	3	81	12	4	1.079	1.0	40	60	0	0	1.5	3.0	4.0	
MSW485-2	678	714	95	5	91	4	0	1.080	1.0	20	70	10	0	1.0	3.5	4.0	nice overall tuber appearance
NYL7-2	665	705	94	2	82	12	3	1.078	1.0	0	50	0	0	1.0	3.0	2.5	
Snowden	647	692	93	5	89	5	2	1.078	1.0	0	50	0	0	2.5	3.0	3.5	
NC0349-3	643	718	90	8	70	20	2	1.048	1.5	80	90	0	0	5.0	2.5	2.5	severe scab
NY152	624	716	87	11	86	2	2	1.070	1.5	0	20	0	0	2.0	2.5	4.0	
MSV301-2	623	655	95	4	83	12	1	1.076	1.0	0	60	0	0	0.5	3.5	2.0	trace sheep nosing
Manistee	606	638	95	3	78	17	2	1.076	1.0	0	50	0	0	2.5	2.5	2.5	
NY162	592	641	92	5	73	20	3	1.078	1.0	0	60	0	0	2.0	2.5	2.0	
NY157	583	612	95	4	85	10	1	1.071	1.0	10	70	0	10	2.0	2.5	2.0	
NYL1-7	575	597	96	3	95	1	1	1.074	1.5	0	40	0	0	1.0	4.0	1.5	
MSV033-1	571	744	77	5	52	25	18	1.071	1.0	0	80	0	0	2.0	2.5	3.5	knobbed pickouts
W6822-3	570	644	89	10	84	5	1	1.075	1.0	10	60	50	30	3.0	3.5	2.0	
MSR127-2	569	618	92	4	74	18	4	1.073	2.0	0	50	0	0	0.5	2.0	4.0	
W5955-1	539	563	96	3	67	29	1	1.074	1.0	10	40	10	30	1.0	3.0	4.0	
Lamoka	517	573	90	6	87	3	4	1.076	1.0	0	30	0	0	0.5	2.5	3.0	
MSV358-3	514	572	90	8	89	1	2	1.071	1.5	0	20	0	0	0.0	3.0	2.0	dark buff skin
AF4648-2	443	491	90	6	72	18	4	1.073	1.0	0	70	0	0	0.5	2.0	3.0	
MSW509-5	435	514	85	14	80	5	1	1.070	3.0	0	90	10	0	1.0	3.0	3.0	excellent size profile
CO07070-13W	432	483	89	9	89	0	2	1.068	1.0	10	30	0	0	3.0	3.5	1.0	
MSV507-040	393	414	95	2	65	30	3	1.079	1.0	0	60	30	0	1.5	2.5	3.5	lumpy shape, heavy eyebrow
Pike	389	416	94	5	84	10	1	1.075	1.0	0	40	20	0	1.5	1.0	4.0	
MSW474-1	385	516	75	22	72	3	4	1.067	1.0	0	20	0	0	1.5	3.0	4.0	slight sheep nosing
MSM246-B	384	400	96	4	84	12	0	1.075	1.0	0	50	0	0	2.5	2.5	4.0	
ND7519-1	376	404	93	6	90	4	1	1.074	1.0	0	30	20	0	1.5	3.5	4.0	
NYK27-1	365	403	91	9	79	11	1	1.068	1.0	20	40	0	0	3.5	3.0	2.0	
B2727-2	303	378	80	8	76	4	11	1.072	1.0	20	20	0	0	3.0	2.0	3.0	rot noted in plot, sl tubular shape
NDTX081648CB-13W	295	397	74	25	74	0	1	1.066	1.5	0	40	0	0	3.0	2.5	3.5	
CO07070-10W	295	377	78	19	78	0	3	1.078	1.5	10	20	0	0	3.5	2.5	2.0	
MSV383-B	191	323	59	8	30	29	32	1.069	1.5	40	10	10	0	0.5	2.0	2.5	
MEAN	511	570	89	7	79	10	4	1.073	1.2	8	47	5	3	1.8	2.7	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: 7-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 19-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 9-May-16
Vines Killed: 29-Aug-16
Days from Planting to Vine Kill: 112
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

2016 Potato Processing On-Farm Trial
Lennard Ag. Co., St. Joseph County, MI
Harvest 30-Aug-16 132 Days
DD, Base 40⁷ 3711

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	
NC0349-3	759	780	97	2	54	43	1	1.075	1.0	80	40	0	0	0.0	3.0	3.5	slightly flattened shape
Atlantic	658	734	90	3	63	27	7	1.086	1.0	30	0	60	0	0.0	3.0	3.0	misshapen tubers and pickouts
ND7519-1	576	603	95	5	79	17	0	1.086	1.0	0	0	40	0	0.0	3.0	4.0	slightly flattened shape
B2727-2	490	516	95	3	87	8	2	1.087	1.0	10	0	0	0	0.0	2.0	2.0	oblonged tuber shape
CO07070-13W	421	512	82	11	80	2	6	1.073	1.0	0	0	0	0	0.0	4.0	1.5	nice round shape, growth cracks in pickouts
MEAN	581	629	92	5	73	19	3	1.081	1.0	24	8	20	0	0.0	3.0	2.8	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: 2-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 12-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 20-Apr-16
Vines Killed: 30-Aug-16
Days from Planting to Vine Kill: 132
Seed Spacing: 10"
Fumigation: NA

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

2016 Processing Potato Variety Trial
Main Farms, Montcalm Co., MI
Harvest 12-Sep-16 118 Days
DD, Base 40⁷ 2922

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR	CHIP SCORE ³	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	
NY152	670	702	95	4	94	1	0	1.070	1.0	0	10	0	0	1.5	2.5	4.0	
MSV033-1	587	608	97	2	78	18	1	1.065	1.0	0	20	0	0	3.0	1.5	4.0	
ND7519-1	578	599	96	4	88	8	0	1.081	1.5	0	20	0	50	2.0	3.0	2.5	
MSW485-2	571	613	93	7	83	11	0	1.075	1.0	0	20	0	20	1.0	2.5	4.0	
NY153	557	579	96	4	78	18	0	1.082	1.0	0	20	0	0	1.0	2.5	3.0	
NYL1-7	526	551	95	5	85	10	0	1.068	1.0	0	10	0	0	2.0	3.5	2.5	
NYL7-2	525	553	95	4	94	1	1	1.074	1.0	0	20	0	0	2.0	2.0	1.5	light smooth skin, round tuber type
MSX540-4	501	513	98	1	87	11	1	1.077	1.0	0	40	0	0	0.0	1.5	4.0	
W8822-1	497	528	94	5	92	2	0	1.075	1.0	0	20	0	0	0.0	2.5	2.0	heavy netted skin
NY162	491	507	97	2	92	5	1	1.075	1.0	0	20	0	0	0.5	2.0	3.0	
MSW474-1	486	526	92	5	79	13	2	1.067	1.0	0	10	0	0	0.5	2.5	3.5	netted skin
MSV358-3	446	491	91	9	90	1	1	1.081	1.0	0	0	0	0	0.0	2.5	3.0	
NC0349-3	437	487	90	9	81	8	2	1.068	1.0	60	30	0	0	3.5	2.0	2.0	
Manistee	433	474	91	9	91	0	0	1.071	1.0	0	20	0	0	2.5	1.5	1.5	flattened shape
MSV301-2	428	470	91	8	88	3	1	1.074	1.0	0	0	0	0	1.0	2.0	3.0	round tuber shape
NYK27-1	421	447	94	6	88	6	0	1.068	1.0	0	30	0	20	0.5	3.5	1.5	
MSW509-5	417	443	94	6	85	9	0	1.064	1.0	0	10	0	0	0.5	2.0	2.0	
Lamoka	407	449	91	5	86	5	4	1.073	1.5	0	20	0	0	0.5	2.0	2.5	
CO07070-10W	400	446	90	9	90	0	2	1.083	1.0	0	0	0	0	3.0	2.0	2.0	uniform round tuber shape
W5955-1	357	391	91	8	75	16	0	1.066	1.0	0	30	0	20	1.0	2.0	3.5	
Snowden	342	395	86	14	86	0	0	1.075	1.0	0	30	0	0	2.0	1.5	3.5	
NY157	329	363	91	9	87	4	0	1.063	1.0	0	10	0	0	1.0	2.5	2.5	
MSV507-040	323	331	97	3	88	10	0	1.075	1.0	0	0	0	0	0.5	2.0	2.0	
AF4648-2	316	362	87	5	87	0	8	1.077	1.0	0	10	0	0	0.5	1.0	3.5	gc in pickouts
MSR127-2	315	352	89	9	88	1	2	1.065	1.0	0	10	0	0	1.0	1.5	4.0	
MSM246-B	315	335	94	6	94	0	0	1.077	1.0	0	20	0	0	0.5	1.5	4.0	sl sheepnosing observed
W6822-3	314	399	79	21	77	2	0	1.076	1.0	0	20	0	0	2.5	3.0	1.5	
B2727-2	300	341	88	12	88	0	0	1.070	1.0	0	0	0	0	3.5	2.5	2.0	
Pike	278	320	87	13	87	0	1	1.072	1.5	0	0	0	0	0.5	1.5	3.5	
NDTX081648CB-13W	272	316	86	13	86	0	1	1.073	1.5	0	30	0	0	0.5	2.0	3.0	
MSV383-B	245	332	74	4	74	0	22	1.074	1.0	0	20	0	0	1.0	2.0	2.0	severe gc in pickouts, heavy netted skin
CO07070-13W	163	233	70	28	68	2	1	1.067	1.0	0	10	0	0	3.0	3.5	1.0	
MEAN	414	452	91	8	85	5	2	1.073	1.1	2	16	0	3	1.3	2.2	2.7	tr = trace, sl = slight, NA = not available

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: 15-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 26-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 17-May-16
Vines Killed: 26-Aug-16
Days from Planting to Vine Kill: 101
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: Entrican
Planting to Vine Kill

2016 MPIC Box Bin Processing Potato Variety Trial

MSU Montcalm Research Center, Montcalm County, MI

Harvest date **30-Sep-16** **150 Days**
DD, Base 40⁸ **3537**

LINE	CWT/A		PERCENT OF TOTAL ¹					CHIP SCORE ³	RAW TUBER QUALITY (%) ²				COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS ⁷	
	US#1	TOTAL	US#1	Bs	As	OV	PO		SP GR	HH	VD	IBS	BC				
TX09396-1W	618	659	94	3	63	31	3	1.081	1.0	0	60	20	0	2.0	3.0	4.0	Sticky stolons
MSR127-2	606	641	94	5	88	6	1	1.076	1.0	0	60	0	0	2.0	3.0	4.0	
Snowden	510	596	85	14	76	9	1	1.073	1.0	10	40	10	0	2.5	3.0	3.0	
W8822-1	480	539	89	9	84	5	2	1.081	1.5	0	10	0	0	0.0	3.5	2.5	Heavy dark russet skin type and light yellow flesh
MSX540-4	478	539	89	9	82	7	2	1.081	1.0	0	40	10	0	0.0	3.0	4.0	
MSV313-2 (Low N)	472	532	89	9	89	0	2	1.073	1.0	0	40	0	0	1.0	2.0	3.5	
MSW474-1	459	566	81	18	77	4	1	1.075	1.0	0	10	0	0	0.5	3.0	3.5	Deep apical eye
Manistee	457	491	93	6	76	17	1	1.072	1.0	0	20	0	0	2.0	2.5	2.0	Flat apical stem end tuber type, netted skin
AF4648-2	457	480	95	4	74	21	1	1.076	1.0	30	60	0	0	1.5	3.0	3.0	
MSW485-2	452	544	83	17	82	1	0	1.088	1.0	0	20	0	0	0.5	3.5	3.0	Tr sticky stolons
MSV033-1	447	505	88	7	63	25	5	1.073	1.0	0	40	0	0	1.5	4.0	3.0	Growth cracking, sticky stolons, nice chip color
NY154	444	497	89	7	72	17	4	1.076	1.0	0	50	0	0	0.0	3.5	3.5	
NYL1-7	436	483	90	9	89	1	1	1.067	1.0	0	40	0	0	1.5	3.5	1.5	
MSW509-5	423	483	87	11	81	6	2	1.074	2.0	0	50	0	0	0.5	4.0	2.5	
MSV358-3	403	493	82	16	82	0	2	1.073	1.0	0	10	0	0	0.5	2.5	1.5	Uniform tuber type, moderate netted skin
NY153	398	462	86	13	82	4	1	1.081	1.0	0	20	0	0	2.0	3.0	2.5	
Lamoka	378	447	85	11	76	9	4	1.075	1.0	0	70	0	0	0.5	3.0	2.5	Flat oval tuber type
MSM246-B	366	403	91	9	82	9	0	1.080	1.0	0	20	0	0	2.0	3.0	3.0	
NCO349-3	360	415	87	13	75	12	0	1.071	1.0	40	70	0	0	2.0	2.0	3.0	
NDTX081648CB-13W	359	427	84	14	83	1	2	1.085	1.5	0	30	0	0	1.0	4.0	2.5	
NYK27-1	358	431	83	16	68	15	1	1.072	1.0	0	20	0	10	0.0	2.5	2.5	Severe shatter bruising, tr black spot bruise
MSV301-2	353	408	87	12	84	3	1	1.066	1.0	0	0	0	0	0.0	3.5	1.5	
Snowden (Low N)	352	399	89	10	85	4	1	1.072	1.0	0	40	0	0	2.0	2.5	3.0	Tr pinkeye, deep apical eye

Continued on next page

LINE	CWT/A		PERCENT OF TOTAL ¹					CHIP SCORE ³	RAW TUBER QUALITY (%) ²				SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS ⁷	
	US#1	TOTAL	US#1	Bs	As	OV	PO		SP GR	HH	VD	IBS					BC
W5955-1	339	391	87	11	76	11	2	1.072	1.0	0	50	0	30	0.0	3.0	3.0	Excellent chip color and quality
MSV313-2	336	350	96	3	44	52	1	1.068	1.0	0	10	0	0	0.5	2.5	3.0	
ND7519-1	332	438	76	22	75	1	2	1.079	1.0	0	10	20	0	0.5	4.0	2.0	Small uniform tuber type
NY162	319	377	85	13	80	5	2	1.067	1.0	0	10	0	0	2.0	2.0	3.0	
MSV507-040	315	344	92	2	64	28	6	1.073	1.0	0	40	0	0	1.5	2.0	2.0	Deep apical eyes
MSV241-2	303	330	92	6	87	5	2	1.083	1.0	0	10	10	0	1.5	1.5	3.0	
NYL7-2	269	296	91	7	62	29	2	1.067	1.0	0	10	0	0	0.5	3.0	2.5	Growth cracking
CO07070-13W	241	322	75	24	75	0	1	1.075	1.0	0	0	0	0	0.0	4.5	1.0	Small overall tuber type
NY152	240	391	61	39	61	0	0	1.078	1.0	0	10	0	0	1.0	3.5	2.0	Small overall tuber type
MSV383-B	234	318	74	11	67	7	15	1.074	1.0	0	0	0	0	1.0	3.0	2.0	Severe growth cracking and mishapened tubers
CO07070-10W	199	301	66	34	66	0	0	1.083	1.0	0	0	0	0	1.5	3.5	1.0	
NY157	195	266	73	26	66	7	1	1.070	1.0	0	30	0	0	0.5	3.5	3.0	Severe shatter bruise
B2727-2	175	276	63	37	63	0	0	1.077	1.0	0	20	0	0	1.0	3.0	2.0	
W6822-3	162	292	56	44	56	0	0	1.081	1.0	0	40	0	0	1.0	4.0	2.0	Small overall tuber type
MEAN	371	436	84	14	74	10	2	1.075	1.1	2	29	2	1	1.0	3.1	2.6	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: 10-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence
(vigorous vine, some flowering)

⁶VINE MATURITY RATING

Date: 24-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 3-May-16
Vines Killed: 9-Sep-16
Days from Planting to Vine Kill: 129
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

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

⁸MAWN STATION: Entrican
Planting to Vine Kill

2016 Processing Potato Variety Trial Sandyland Farms, Montcalm County, MI

Harvest 13-Oct-16 146 Days
DD, Base 40⁷ 2757

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				
NY152	464	576	81	18	78	3	2	1.074	1.0	0	20	0	0	0.5	4.0	3.5	
MSR127-2	425	478	89	9	67	22	2	1.080	1.0	0	0	0	0	1.0	3.0	4.0	
W5955-1	409	457	90	9	63	27	2	1.082	1.0	20	30	10	0	0.5	3.0	4.0	tr points
MSX540-4	391	441	89	9	81	8	3	1.084	1.0	0	10	0	0	2.0	4.0	3.0	
Snowden	387	472	82	17	77	5	1	1.082	1.0	0	10	0	0	2.0	3.5	3.0	
MSM246-B	357	400	89	11	82	7	0	1.086	1.0	0	10	0	0	2.0	3.5	3.5	
MEAN	405	471	86	12	75	12	1	1.081	1.0	3	13	2	0	1.3	3.5	3.5	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: 22-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 26-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 20-May-16
Vines Killed: 22-Aug-16
Days from Planting to Vine Kill: 94
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

2016 Potatoes USA/SNAC International Processing Potato Variety Trial

Sandyland Farms, Montcalm County, MI

Harvest

13-Oct-16

146 Days

DD, Base 40⁷

2757

LINE	CWT/A		PERCENT OF TOTAL ¹						CHIP SCORE ²	RAW TUBER QUALITY ³ (%)				COMMON			COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR		HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	
NY152	578	664	87	12	85	3	1	1.076	1.0	0	23	7	0	2.0	4.0	3.0	
MSR127-2	543	600	90	8	76	14	1	1.082	1.0	0	47	0	0	1.2	3.5	4.5	
W8822-1	515	583	88	11	84	5	1	1.084	1.0	0	43	0	0	2.0	3.5	3.0	alligator hide, cream colored flesh
NY157	504	560	90	9	83	7	1	1.079	1.0	0	47	3	0	2.0	3.0	2.0	
MSW485-2	483	575	84	15	83	1	1	1.086	1.0	7	40	3	0	2.0	4.0	5.0	
Lamoka	441	489	90	9	85	5	1	1.081	1.0	0	30	7	0	2.0	4.0	4.5	flat pointed tuber type
Snowden	438	524	83	16	81	3	1	1.086	1.0	7	43	0	0	2.0	4.5	3.5	
NC0349-3	420	472	89	11	80	9	0	1.072	1.5	60	83	0	0	2.5	4.0	2.5	
TX09396-1W	407	437	93	6	67	26	1	1.080	1.0	7	27	3	0	1.8	3.0	4.0	
CO07070-10W	368	468	79	21	77	1	1	1.088	1.5	0	27	7	0	2.3	5.0	1.5	
NDA081453CAB-2C	335	386	82	11	73	8	2	1.078	1.0	0	27	7	3	2.0	5.0	2.5	
B2727-2	304	352	86	13	81	5	1	1.079	1.0	3	13	13	0	3.0	3.5	2.0	oval tuber type
AF5040-8	303	376	81	18	77	4	1	1.080	1.0	0	13	7	0	2.7	4.5	4.5	
AF4648-2	301	347	87	11	73	14	2	1.075	1.0	0	33	3	0	0.8	3.0	4.5	
NDTX081648CB-13W	287	359	80	20	79	1	1	1.084	1.5	0	20	0	0	2.2	4.0	3.0	small size profile
W6822-3	198	295	67	32	66	1	1	1.082	1.0	3	50	3	3	2.0	4.0	3.5	
MEAN	402	468	85	11	78	7	5	1.081	1.1	5	35	4	0	2.0	3.9	3.3	tr = trace, sl = slight, NA = not available
ANOVA P-Value	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.495	<0.0001	-	<0.0001	<0.0001	0.67	0.57	-	-	-	SED = stem end defect, gc = growth crack
LSD	58	57	4.9	3.7	5.4	4.5	-	0.002	-	7.8	21.2	-	-	-	-	-	

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

³TUBER QUALITY
(percentage of tubers out of 10 per rep)
HH: Hollow Heart
VD: Vascular Discoloration
IBS: Internal Brown Spot
BC: Brown Center

²CHIP COLOR SCORE -
Snack Food Association Scale
(Out of the field)
Ratings: 1 - 5
1: Excellent
5: Poor

⁵VINE VIGOR RATING
Date Taken: 22-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous some flowering)

⁶VINE MATURITY RATING
Date Taken: 26-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 20-May-16
Vines Killed: 22-Aug-16
Days from Planting to Vine Kill: 94
Seed Spacing: 10"
Fall Fumigation: Yes

⁷MAWN STATION: Entrican
Planting to Vine Kill

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 presented represents averages of three replications

2016 Strip Chip Processing Potato Variety Trial

Walther Farms, St. Joseph County, MI

Harvest 13-Sep-16

139 Days

DD, Base 40⁷

3621

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				
B2904-2	585	619	94	6	92	3	0	1.073	1.0	0	40	0	0	0	1.0	4.0	4.0	
NY162	533	589	90	3	84	7	7	1.071	1.0	0	50	10	0	0	0.0	2.5	2.5	
Lamoka	508	575	88	4	83	5	8	1.073	1.0	0	40	0	0	0	0.0	4.0	3.0	
MSV033-1	503	550	91	9	89	3	0	1.069	1.0	0	40	0	0	0	1.0	3.5	4.5	severe heat sprouts
AF4648-2	483	513	94	6	65	29	0	1.076	1.5	0	50	0	0	0	0.0	2.5	3.5	heat sprouts
MSM246-B	467	521	90	7	76	14	3	1.073	1.0	0	60	0	0	0	0.0	4.0	3.0	
NYK27-1	466	530	88	6	83	5	6	1.071	1.0	0	0	0	0	0	0.0	4.5	2.0	
NC0349-3	465	514	91	9	88	3	0	1.067	1.0	10	70	0	0	0	0.0	3.5	3.5	
MSV358-3	453	511	89	8	84	5	3	1.066	1.0	0	70	0	0	0	0.0	4.0	2.0	
Manistee	451	524	86	7	79	7	7	1.068	1.0	0	20	20	0	0	1.0	3.5	2.5	
NYL1-7	449	501	90	10	90	0	0	1.068	1.0	0	30	0	0	0	0.0	3.5	2.0	
MSW509-5	425	491	86	14	86	0	0	1.065	1.0	0	90	0	0	0	0.0	3.0	2.5	
MSV301-2	416	477	87	6	79	8	6	1.071	1.0	0	70	0	0	0	0.5	4.0	2.0	
B2869-29	410	510	80	20	80	0	0	1.077	1.0	0	50	0	0	0	0.0	3.0	3.0	
Snowden	403	482	84	9	79	5	8	1.068	1.0	0	80	20	0	3.0	3.0	4.0		
NYL7-2	399	453	88	10	88	0	2	1.071	1.0	0	20	0	0	0	0.0	3.5	2.0	
CO07070-13W	380	424	90	10	90	0	0	1.065	1.0	0	20	0	0	0	1.5	5.0	1.5	
BNC311-4	364	495	74	9	74	0	17	1.069	1.0	0	20	0	0	0	0.0	4.0	2.0	
MEAN	453	515	88	8	83	5	4	1.070	1.0	1	46	3	0	0.44	3.6	2.8		tr = trace, sl = slight, N/A = not available

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

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

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

⁵**VINE VIGOR RATING**
Date: 7-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶**VINE MATURITY RATING**
Date: 12-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 27-Apr-16
Vines Killed: 31-Aug-16
Days from Planting to Vine Kill: 126
Seed Spacing: 10"
Fumigation: None

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

*data not replicated

⁷**MAWN STATION:** Constantine
Planting to Vine Kill

2016 Replicated Chip Processing Potato Variety Trial

Walther Farms, St. Joseph County, MI

Harvest 13-Sep-16 139 Days
DD, Base 40⁷ 3621

LINE	CWT/A		PERCENT OF TOTAL ¹					CHIP SCORE ^{3*}	RAW TUBER QUALITY ² (%)				COMMON			COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO		SP GR*	HH	VD	IBS	BC	SCAB RATING ⁴	VINE VIGOR ⁵		VINE MATURITY ⁶
BNC182-5	630	672	94	6	77	17	0	1.077	1.0	0	57	0	0	0.2	4.0	3.2	
MSX540-4	620	684	90	4	76	15	6	1.073	1.0	0	37	3	0	0.3	3.5	2.5	heat sprouting, pear shaped tubers
NY152	596	645	92	8	85	7	0	1.068	1.0	0	27	17	0	0.0	3.0	2.5	
MSV313-2	578	614	94	2	23	71	4	1.067	1.0	0	23	23	0	0.2	3.7	2.8	
MSW485-2	578	649	89	6	85	5	4	1.072	1.0	0	33	37	0	0.7	3.7	2.5	
W6822-3	543	587	93	7	80	13	0	1.074	1.0	0	43	17	0	0.0	4.2	2.5	non uniform tuber type
W8822-1	543	615	88	7	88	0	5	1.073	1.0	0	23	13	0	0.0	3.8	2.5	heavy netted skin, tr heat sprouts, yellow flesh
NY157	528	591	89	6	86	4	5	1.065	1.0	0	30	3	0	0.2	3.6	2.5	
NY153	507	575	89	8	83	6	4	1.076	1.0	0	30	0	3	0.2	3.0	2.5	pear shaped tubers, heat sprouts
MSW474-1	499	575	87	13	83	4	0	1.070	1.0	0	23	0	0	0.0	3.3	2.5	heavy netted skin
Snowden	487	544	89	8	85	4	2	1.070	1.0	0	50	0	3	2.3	3.3	2.5	
MSV241-2	486	522	93	6	83	10	1	1.076	1.0	0	43	3	0	1.3	2.5	3.0	heavy netted skin
W5955-1	485	551	89	5	68	21	6	1.068	1.0	0	13	43	0	0.5	3.8	2.5	
MSR127-2	475	563	85	7	79	5	9	1.069	1.0	0	3	0	0	0.5	3.2	3.0	gc in pickouts, heavy netted skin, alligator hide
MSZ219-14	468	531	88	4	81	8	8	1.067	1.0	7	43	0	0	0.5	4.0	2.5	heat sprouting, non uniform tuber type
MSZ222-19	449	504	89	5	67	22	9	1.076	1.0	7	23	17	0	0.3	4.2	2.5	
ND7519-1	445	520	85	5	82	3	10	1.072	1.0	0	27	3	0	0.0	4.5	2.5	severe heat sprouting
MSZ219-1	426	488	87	3	84	3	9	1.068	1.0	0	40	0	0	0.2	4.3	2.5	gc in pickouts
Pike	417	456	91	8	85	6	1	1.073	1.5	0	20	7	0	0.0	3.2	2.5	
B2727-2	387	451	86	13	82	3	2	1.075	1.0	0	20	0	0	0.5	3.2	2.5	
MSV507-40	375	461	81	6	66	16	13	1.072	1.0	0	37	23	7	0.5	3.5	2.5	tr heat sprouts
NDTX081648CB-13W	359	513	71	12	71	1	16	1.069	1.0	0	47	0	0	0.0	4.0	2.5	severe heat sprouting
MSV383-B	338	500	68	4	61	7	29	1.080	1.0	3	23	3	0	0.0	3.8	2.5	severe gc in pickouts, heavy netted skin
CO07070-10W	226	313	71	29	69	2	0	1.079	1.0	0	0	0	0	0.2	4.3	2.3	
MEAN	477	547	87	8	76	11	6	1.072	1.0	1	30	9	1	0.35	3.6	2.6	tr = trace, sl = slight, N/A = not available
LSD_{0.05}	109.7	82.4	N/A	5.877	16.7	12.3	N/A			3.3	N/A	17.2	N/A	0.6	0.7	N/A	SED = stem end defect, gc = growth crack
ANOVA (Prob>F)	<.0001	<.0001	0.0757	<.0001	<.0001	<.0001	0.1100			0.0009	0.090	<.0001	0.557	<.0001	<.0001	0.48	

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: 7-Jun-16
Ratings: 1 - 5
1: Slow Emergence
5: Early Emergence (vigorous vine, some flowering)

⁶VINE MATURITY RATING
Date: 12-Aug-16
Ratings: 1 - 5
1: Early (vines completely dead)
5: Late (vigorous vine, some flowering)

Planted: 27-Apr-16
Vines Killed: 31-Aug-16
Days from Planting to Vine Kill: 126
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: Constantine
Planting to Vine Kill