

2020 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Chip Processing Trials

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2020 Michigan Statewide Chip Processing Potato Variety Trials

Overall Averages- Eight Locations

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)							COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC						
MSAA252- ^{bc}	524	588	89	5	77	12	6	1.070	2.5	0	0	5	0	1.5	0.4	3.5	5.0	large blocky tubers, sl pinkeye, tr periderm cracking	
MSAA100-1 ^{bc}	494	526	94	3	94	0	3	1.062	1.8	5	10	0	0	1.5	0.7	3.8	2.3	heavy netted skin, round, uniform	
MSZ120-04 ^{abcde}	493	552	89	9	89	0	2	1.081	1.7	4	0	0	2	1.2	0.7	2.0	3.8	round, thin skin, bright, sl sticky stolons	
NYOR14Q9-9 ^{abcde}	470	523	89	9	89	0	2	1.079	2.6	16	12	2	2	2.0	1.4	3.1	3.3	flattened oval type, sl greening, light skin	
MSBB635-14 ^b	468	533	88	12	88	0	0	1.075	2.0	0	0	20	0	1.0	0.6	3.0	3.5	sticky stolons	
Mackinaw ^{abcdeg}	459	520	88	11	87	0	2	1.087	1.9	0	5	5	0	1.0	0.3	2.5	2.8	med netted skin, points in pos, netted skin	
NY165 ^{abcdeg}	458	553	81	15	81	0	4	1.079	1.2	0	0	0	0	1.2	0.6	2.8	3.6	med netted skin, uniform, round to oval, attractive appearance	
MSBB079-2 ^d	433	494	88	10	88	0	2	1.078	1.5	0	0	0	0	0.5	0.2	2.5	2.0	compressed tuber shape, trace ah	
MSAA328-4 ^d	428	447	96	3	96	0	1	1.079	1.5	20	10	0	0	1.0	0.2	2.0	3.0	blocky oval type	
MSW474-1 ^{bcdef}	422	540	77	22	77	0	1	1.082	1.7	0	0	0	0	1.2	0.4	3.4	3.8	round, uniform, med netted skin, sl sticky stolons, attractive appearance	
Lady Liberty ^{acdeh}	419	469	89	11	87	1	1	1.079	1.1	6	0	0	2	2.1	0.3	2.3	2.6	flat round to oval type, med netted skin	
MSBB190-1 ^{bc}	388	468	83	6	81	2	11	1.062	1.8	0	0	0	0	1.8	1.1	3.0	2.5	mod gc, sheep nose, poor appearance and chip quality	
NY163 ^{bcdefg}	386	475	80	16	80	0	4	1.080	1.3	0	2	0	0	1.6	0.3	2.8	2.1	apical purple pigmentation, round, attractive, waxy skin	
CO11023-2W ^{cdf}	384	475	81	14	81	0	5	1.081	1.3	26	11	0	0	2.0	0.4	3.0	2.7	round to oval, gc in pos, tr ah	
COOR13270-2 ^{abcde}	377	458	81	16	81	0	3	1.080	2.2	0	0	8	0	3.1	0.8	3.2	3.5	round, uniform, bright, sl gc	
MSZ242-13 ^{abcdefg}	369	429	86	9	81	5	5	1.090	1.6	0	0	6	0	1.2	0.3	2.4	3.5	med netted skin, gc, sheep nose, round to oval	
Lamoka^{df}	367	482	76	17	76	0	7	1.079	1.7	0	6	1	0	1.4	0.4	3.3	2.3	oval type, bright skin, points in pos	
MSZ194-2 ^b	362	395	92	5	92	0	3	1.076	1.0	0	0	0	0	2.0	0.1	2.0	3.5	light netted skin, tr gc	
ND7519-1 ^f	361	460	78	18	78	0	4	1.085	1.0	0	7	0	0	2.2	0.1	4.0	3.0	trace growth crack and points, moderate pitted scab, oval shape	
MSX526-1 ^{cd}	358	397	90	9	90	0	1	1.073	1.8	0	0	0	0	1.5	1.0	3.3	2.3	thin skin, sl greening, sheepnose	
CO11023-9W ^{cdf}	357	422	84	13	84	0	3	1.071	1.7	17	20	6	1	3.2	0.7	2.0	3.0	round shape, bright thin skin	
WAF10664-3 ^{de}	354	409	86	12	86	0	2	1.077	1.5	0	10	0	0	1.0	0.7	2.5	1.8	round, inconsistent type, deeper eyes	
MSZ063-2 ^{bcdef}	352	463	75	23	75	0	2	1.080	1.7	0	0	1	1	1.5	0.6	2.6	2.9	round to oval type, sl flattened tubers, bright waxy skin	
MSAA275-3 ^{bc}	343	447	77	8	77	0	15	1.065	2.0	0	5	5	0	1.8	0.5	2.3	3.5	bottlenecking, knobs, heat sprouting	
MSAA260-3 ^e	340	371	92	5	92	0	3	1.082	2.5	20	0	0	0	2.5	1.1	2.0	2.0	gc in pos	
MSV498-1 ^e	337	384	88	9	88	0	3	1.077	1.5	20	10	0	0	0.5	0.4	1.5	2.5	heavier skin, deeper apical eyes, Manistee type	
Petoskey ^{cdef}	334	395	84	12	84	0	4	1.084	2.0	3	0	0	0	1.8	0.8	1.6	2.3	round flattened type, sl sticky stolons, gc in pos	
NY162 ^{bc}	330	458	70	20	70	0	10	1.077	1.0	0	0	0	0	0.3	0.3	3.3	2.3	apical purple pigmentation, oval type, bright	
CO11037-5W ^{cd}	328	429	76	10	76	0	14	1.070	1.5	0	5	0	5	2.3	0.4	3.5	3.5	oval to oblong, points and heat knobs in pos	
Snowden^{acdef}	328	415	75	24	75	0	1	1.081	1.6	0	4	0	0	2.3	0.5	2.6	2.3	round shape, darker netted skin	
B2869-29 ^{bf}	325	514	63	36	63	0	1	1.085	1.5	2	0	0	9	3.0	0.5	4.3	3.0	uniform type, mod scab, sl chip blistering	
MSAFB635-3 ^e	325	373	87	12	87	0	1	1.081	1.5	10	0	0	0	2.5	0.6	3.0	1.0	round, lighter skin type	
MSZ242-07 ^{cde}	323	373	87	8	87	0	5	1.094	1.5	0	0	0	0	1.3	0.4	2.2	3.7	oval type, netted skin, gc in pos	
Atlantic^b	323	348	93	6	93	0	1	1.074	1.5	0	0	0	10	3.0	0.3	2.5	1.5		
NY166 ^{bcdeg}	322	463	69	26	69	0	5	1.077	1.1	0	0	2	0	1.5	0.3	3.1	2.8	oval type, sl flattened tubers, bright light skin	
MSZ269-18 ^b	304	358	85	14	83	2	1	1.072	1.5	0	0	0	10	0.5	0.1	3.0	3.0	pinkeye, gc, possible pvv ntn	
MSAFB635-15e	302	409	74	25	74	0	1	1.091	3.0	0	0	0	0	2.0	0.7	2.0	3.0	small uniform type, med netted skin	
MSBB618-9 ^{bd}	288	351	81	15	81	0	4	1.062	2.3	0	25	25	5	2.0	0.9	1.5	2.0	sl flattened tubers, bright, tr heat sprouting	
MSZ242-09 ^e	283	321	88	7	88	0	5	1.087	2.5	0	0	0	0	1.5	0.7	2.0	2.5	heavier netted skin, less uniform, sl ah	
MSAFB605-4 ^e	282	304	93	6	93	0	1	1.083	1.5	0	0	0	0	1.5	0.6	1.5	3.5	uniform round type, heavy netted skin	
MSAFB609-12 ^e	281	349	80	20	80	0	0	1.079	1.5	0	0	0	0	3.5	0.6	2.0	3.0		
MSAA076-6 ^e	273	332	82	13	82	0	5	1.085	1.5	0	0	10	0	1.0	0.4	2.0	2.5	flat to round, misshapen pos, sl ah	
MSAA217-3 ^e	257	280	92	7	92	0	1	1.091	1.5	20	0	0	0	2.0	0.7	2.0	3.0	sl pinkeye, med netted skin	
MSAA373-3 ^e	246	307	80	13	80	0	7	1.091	3.5	0	0	0	0	2.0	0.6	1.5	4.0	flat round tuber type	
MSX225-02 ^e	239	311	77	23	77	0	0	1.083	1.5	0	10	0	0	2.0	0.4	3.0	3.0	med netted skin, uniform round to oval	
MSBB610-13 ^e	228	246	93	7	93	0	0	1.077	1.5	0	0	10	0	1.5	0.4	2.0	1.5	nice appearance, blocky oval	
MSBB058-1 ^e	220	264	83	15	83	0	2	1.092	1.5	0	0	0	0	0.5	0.3	2.0	1.5	med netted skin, flat to round, uniform type	
MSY156-2 ^e	218	274	80	20	80	0	0	1.078	2.5	0	0	0	0	2.0	0.8	2.5	3.5	small and round, uniform, med netted skin	
NDAF102629C-4 ^{abd}	216	328	61	33	61	0	6	1.071	1.2	0	0	0	0	1.0	0.5	3.0	1.3	small and round, tr pointed tubers, mod ah, thin skin	
MSAA570-3 ^e	210	266	79	16	79	0	5	1.077	2.0	0	0	0	0	2.5	0.7	2.0	2.0	less uniform	
NDTX1244-3W/Y ^b	165	287	58	39	58	0	3	1.063	2.0	10	10	10	0	0.0	0.4	4.0	2.0	sticky stolons, bacterial rot, non uniform, poor shape, light yellow flesh	
MSBB614-10 ^b	89	103	86	14	86	0	0	1.083	2.0	0	0	0	0	0.0	0.2	1.0	4.0		
MEAN	337	407	83	14	82	0	3	1.079	1.7	3	3	2	1	1.6	1.6	2.6	2.8		

2020 Chip Variety Trial Sites

- ^aCrawford Farms
- ^bHampton Potato Growers, Fresh Trial
- ^cLennard Ag. Co., Storage Trial
- ^dMain Farms, Storage Trial
- ^eMRC Box Bin, Storage Trial
- ^fSandyland Farms, SNAC
- ^gSandyland Farms, Set 1
- ^hVerbirghe Potato Farms
- ⁱWalther Farms Norkotah Fertility Trial

¹SIZE

- Bs: < 1 7/8"
- As: 1 7/8" - 3 1/4"
- OV: > 3 1/4"
- PO: Pickouts

⁶SED (STEM END DEFECT) SCORE

- 0: No stem end defect
- 1: Trace stem end defect
- 2: Slight stem end defect
- 3: Moderate stem end defect
- 4: Severe stem end defect
- 5: Extreme stem end defect

²SPECIFIC GRAVITY

Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE (SNAC Scale)

- Ratings: 1 - 5
- 1: Excellent
- 5: Poor

⁷VINE VIGOR RATING

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

⁴RAW TUBER QUALITY (percent of tubers out of 10)

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

⁸VINE MATURITY RATING

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

⁵COMMON 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

2020 Storage Chip Processing Potato Variety Trial

Crawford Farms

Planting: 6/4/20 Vine Kill: 9/10/20 Harvest: 10/15/20
GDD₄₀: 3169

LINE	CWT/A		PERCENT OF TOTAL ¹				OTF CHIP		RAW TUBER QUALITY ⁴ (%)				COMMON	SED	VINE	VINE	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP	GR ²	SCORE ³	HH	VD	IBS	BC	RATING ⁵	SCORE ⁶		VIGOR ⁷
NYOR14Q9-9	534	600	89	6	89	0	5	1.087	3.5	0	0	0	0	0.5	2.0	3.0	3.5	flat type, sl lenticels
NY165	418	500	84	12	84	0	4	1.082	1.5	0	0	0	0	1.0	1.0	2.5	3.0	med netted skin, attractive round uniform type
MSZ120-04	383	459	83	14	83	0	3	1.088	2.5	10	0	0	10	1.5	1.1	2.0	4.0	round, sl sticky stolons
Mackinaw	336	391	86	11	86	0	3	1.090	3.0	0	0	0	0	1.0	0.7	2.5	3.0	med netted skin, sl ah, oval type
Lady Liberty	332	399	83	17	83	0	0	1.080	1.0	10	0	0	0	1.5	0.5	1.5	3.0	flat oval to round
COOR13270-2	330	441	75	17	75	0	8	1.086	2.5	0	0	30	0	2.5	0.7	2.5	3.0	bright, round, sl gc
Snowden	282	357	79	20	79	0	1	1.090	2.0	0	0	0	0	2.0	1.0	2.5	2.0	pitted scab lesions
NDAF102629C-4	87	252	34	62	34	0	4	1.075	1.5	0	0	0	0	0.5	0.3	3.0	1.0	small and round, uniform, bright
MSZ242-13								1.081	2.0	0	0	0	0	0.5	0.4	1.5	3.0	med netted skin
MEAN	338	425	77	20	77	0	4	1.084	2.2	2	0	3	1	1.2	1.2	2.3	2.8	

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OV: > 3 1/4"
PO: Pickouts

²SPECIFIC GRAVITY
Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE
(SNAC Scale)
Ratings: 1 - 5
1: Excellent
5: Poor

⁴RAW TUBER QUALITY
(percent of tubers out of 10)
HH: Hollow Heart
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IBS: Internal Brown Spot
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0.0: Complete absence of surface or pitted lesions
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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

⁶SED (STEM END DEFECT) SCORE
0: No stem end defect
1: Trace stem end defect
2: Slight stem end defect
3: Moderate stem end defect
4: Severe stem end defect
5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 7/9/20
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING
Date: 8/27/20
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA
Planting date 6/4/20
Vine Kill Date 9/10/20
Harvest Date 10/15/20
Days (planting to vine kill) 98
Days (planting to harvest) 133
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3169
Seed Spacing 10"

2020 Fresh Chip Processing Potato Variety Trial

Hampton Potato Growers

Planting: 4/25/20 Vine Kill: 8/30/20 Harvest: 9/10/20
GDD₄₀: 3450

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR ²	OTF CHIP SCORE ³	RAW TUBER QUALITY ⁴ (%)				COMMON SCAB		VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC	RATING ⁵	SCORE ⁶			
MSW474-1	571	710	80	18	80	0	2	1.082	2.0	0	0	0	0	1.5	0.0	3.5	4.5	netted skin, sticky stolons
MSAA252-7	557	589	94	4	79	15	2	1.069	2.0	0	0	10	0	1.5	0.2	4.0	5.0	large blocky tubers, tr periderm cracking, early bulking
Mackinaw	544	561	97	3	97	0	0	1.085	1.5	0	0	0	0	0.5	0.0	2.0	3.5	nice general appearance, variable oval tuber type
MSAA100-1	539	550	98	2	98	0	0	1.064	1.5	0	20	0	0	2.5	0.2	3.5	2.0	heavy netted skin, nice general appearance
NYOR14Q9-9	534	578	92	7	92	0	1	1.074	1.5	10	60	10	10	2.5	0.8	3.5	3.0	large round tuber type
MSBB635-14	468	533	88	12	88	0	0	1.075	2.0	0	0	20	0	1.0	0.6	3.0	3.5	sticky stolons
MSZ120-04	461	496	93	6	93	0	1	1.074	1.5	0	0	0	0	1.0	0.2	2.0	5.0	sticky stolons
NY165	440	534	82	12	82	0	6	1.074	1.5	0	0	0	0	2.0	0.2	3.0	4.0	non uniform type, tr sticky stolons
COOR13270-2	426	485	88	11	88	0	1	1.075	2.0	0	0	0	0	2.5	0.3	3.5	3.5	round, uniform, bright
MSBB190-1	421	491	86	9	86	0	5	1.062	1.5	0	0	0	0	2.0	0.6	3.5	3.5	gc, sheep nose, poor appearance, poor chip quality
B2869-29	387	533	73	27	73	0	0	1.086	1.0	0	0	0	0	2.5	0.7	4.0	3.0	uniform tuber type, knobs, mod chip blistering
NDAF102629C-4	368	433	85	9	85	0	6	1.068	1.0	0	0	0	0	0.5	0.9	3.5	1.5	tr pointed tubers, non uniform type
MSZ194-2	362	395	92	5	92	0	3	1.076	1.0	0	0	0	0	2.0	0.1	2.0	3.5	light netted skin, tr gc
MSZ242-13	334	408	82	10	82	0	8	1.082	1.5	0	0	30	0	0.5	0.3	1.5	4.0	heavier netted skin, gc
MSAA275-3	327	446	73	9	73	0	18	1.067	2.5	0	0	0	0	2.5	0.4	2.0	4.5	bottlenecking, knobs, heat sprouting
Atlantic	323	348	93	6	93	0	1	1.074	1.5	0	0	0	10	3.0	0.3	2.5	1.5	
MSZ269-18	304	358	85	14	83	2	1	1.072	1.5	0	0	0	10	0.5	0.1	3.0	3.0	pinkeye, gc, possible pvy ntn
NY166	276	432	64	34	64	0	2	1.074	1.0	0	0	10	0	2.0	0.1	3.0	2.5	oval tuber type
MSZ063-2	269	354	76	23	76	0	1	1.078	1.0	0	0	0	0	0.5	0.1	2.5	4.0	round to oval tuber type
MSBB618-9	219	305	72	23	72	0	5	1.059	2.0	0	30	30	10	2.0	1.0	2.0	1.0	significant bacterial breakdown, non uniform type, tr heat sprouting and knobbing
NY163	191	297	64	32	64	0	4	1.073	1.5	0	0	0	0	2.0	0.3	3.0	2.0	bright skin
NY162	181	289	63	37	63	0	0	1.073	1.0	0	0	0	0	0.0	0.1	3.5	1.5	small, bright, round to oval
NDTX1244-3W/Y	165	287	58	39	58	0	3	1.063	2.0	10	10	10	0	0.0	0.4	4.0	2.0	sticky stolons, bacterial rot, non uniform, poor shape, light yellow flesh
MSBB614-10	89	103	86	14	86	0	0	1.083	2.0	0	0	0	0	0.0	0.2	1.0	4.0	
MEAN	365	438	82	15	81	1	3	1.073	1.6	1	5	5	2	1.5	1.5	2.9	3.1	

¹**SIZE**

Bs: < 1 7/8"
As: 1 7/8" - 3 1/4"
OV: > 3 1/4"
PO: Pickouts

²**SPECIFIC GRAVITY**

Data not replicated

³**OUT OF THE FIELD CHIP COLOR SCORE**

(SNAC Scale)
Ratings: 1 - 5
1: Excellent
5: Poor

⁴**RAW TUBER QUALITY**

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

⁵**COMMON SCAB RATING**

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4.0: Pitted lesions severe on tubers
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⁶**SED (STEM END DEFECT) SCORE**

0: No stem end defect
1: Trace stem end defect
2: Slight stem end defect
3: Moderate stem end defect
4: Severe stem end defect
5: Extreme stem end defect

⁷**VINE VIGOR RATING**

Date: 6/12/2020
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸**VINE MATURITY RATING**

Date: 8/13/2020
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/25/20
Vine Kill Date 8/30/20
Harvest Date 9/10/20
Days (planting to vine kill) 127
Days (planting to harvest) 138
GDD₄₀ MAWN Station Munger
GDD₄₀ (planting to vine kill) 3450
Seed Spacing 10"

2020 Storage Chip Processing Potato Variety Trial

Lennard Ag. Co.

Planting: 5/4/20 Vine Kill: 9/11/20 Harvest: 9/23/20

GDD₄₀: 3813

LINE	CWT/A		PERCENT OF TOTAL ¹				OTF CHIP		RAW TUBER QUALITY ⁴ (%)				COMMON SCAB	SED	VINE	VINE	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	SCORE ³	HH	VD	IBS	BC	RATING ⁵	SCORE ⁶	VIGOR ⁷		MATURITY ⁸
MSZ120-04	684	773	88	7	88	0	5	1.077	1.5	10	0	0	0	1.0	1.1	3.5	2.5	round uniform type
Mackinaw	674	765	88	6	87	1	6	1.082	2.0	0	30	30	0	0.5	0.4	3.0	2.0	oval type, heavier netted skin
NY165	642	760	85	7	85	0	8	1.077	1.0	0	0	0	0	0.0	0.7	3.0	4.0	oval type, uniform
NY163	620	749	83	5	83	0	12	1.082	1.0	0	0	0	0	0.5	0.6	3.0	1.5	apical purple pigmentation, inconsistent tuber type
Snowden	578	637	91	7	90	1	2	1.081	1.0	0	0	0	0	1.5	0.6	3.5	3.5	
Lady Liberty	504	554	91	7	90	1	2	1.070	1.5	0	0	0	0	2.0	0.3	3.5	1.5	
MSAA252-7	492	588	84	6	75	9	10	1.071	3.0	0	0	0	0	1.5	0.6	3.0	5.0	severe ah, sl pinkeye, marginal apperance
COOR13270-2	486	575	84	11	84	0	5	1.082	2.0	0	0	10	0	2.5	1.3	4.0	4.0	round to oval
NY162	478	628	76	5	76	0	19	1.080	1.0	0	0	0	0	0.5	0.6	3.0	3.0	apical purple pigmentation, sl gc, thinner skin
NYOR14Q9-9	467	519	90	7	88	2	3	1.071	3.0	0	0	0	0	2.0	1.6	3.5	5.0	round to oval type, lighter skin
MSW474-1	466	543	86	13	86	0	1	1.081	2.0	0	0	0	0	1.0	1.1	4.0	4.5	round, uniform, heavier netted skin
MSZ063-2	463	597	78	16	78	0	6	1.074	2.0	0	0	0	0	0.5	1.7	4.0	3.0	round to oval, non uniform, knobs in pos
MSAA100-1	448	501	90	5	90	0	5	1.061	2.0	10	0	0	0	0.5	1.3	4.0	2.5	round and uniform, misshapen pos
Lamoka	427	582	73	10	73	0	17	1.075	2.0	0	0	0	0	1.5	0.8	4.0	2.0	pear shapes and points in pos
MSZ242-13	425	525	81	6	81	0	13	1.090	1.5	0	0	0	0	1.5	0.8	3.0	4.5	sheep nose, gc
MSX526-1	424	447	95	5	95	0	0	1.071	1.5	0	0	0	0	1.5	1.4	4.5	2.5	sl greening, sheeppose
CO11037-5W	412	533	77	9	77	0	14	1.071	1.5	0	10	0	0	1.5	0.5	4.5	5.0	oval to oblong, heat knobs in pos
CO11023-2W	393	477	82	9	82	0	9	1.073	1.5	0	20	0	0	1.5	0.4	3.5	3.0	round to oval, gc in pos
NY166	392	514	76	9	75	1	15	1.076	1.5	0	0	0	0	1.0	0.5	3.0	2.5	oval type, flat, misshapen pos
MSZ242-07	374	413	91	6	91	0	3	1.087	1.5	0	0	0	0	1.0	0.5	3.0	5.0	oval type, netted skin
MSAA275-3	359	447	80	9	80	0	11	1.063	1.5	0	10	10	0	1.0	0.6	2.5	2.5	blocky oval type
MSBB190-1	355	445	80	4	76	4	16	1.063	2.0	0	0	0	0	1.5	1.5	2.5	1.5	gc and sheep nose in pos
CO11023-9W	254	305	83	11	83	0	6	1.069	2.5	0	40	0	0	2.5	1.5	2.0	2.0	
Petoskey	223	313	71	18	71	0	11	1.076	3.0	0	0	0	0	0.5	1.0	2.5	1.5	sl ah, sheeppose in pos
MEAN	460	550	83	8	83	1	8	1.075	1.8	1	5	2	0	1.2	1.2	3.3	3.1	

¹SIZE

Bs: < 1 7/8"
As: 1 7/8" - 3 1/4"
OV: > 3 1/4"
PO: Pickouts

²SPECIFIC GRAVITY
Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE
(SNAC Scale)

Ratings: 1 - 5
1: Excellent
5: Poor

⁴RAW TUBER QUALITY
(percent of tubers out of 10)

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

⁵COMMON 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

⁶SED (STEM END DEFECT) SCORE

0: No stem end defect
1: Trace stem end defect
2: Slight stem end defect
3: Moderate stem end defect
4: Severe stem end defect
5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/18/20
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/18/20
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/4/20
Vine Kill Date 9/11/20
Harvest Date 9/23/20
Days (planting to vine kill) 130
Days (planting to harvest) 142
GDD₄₀ MAWN Station Constantine
GDD₄₀ (planting to vine kill) 3813
Seed Spacing 10"

2020 Storage Chip Processing Potato Variety Trial

Main Farms

Planting: 6/4/20 Vine Kill: 9/23/20 Harvest: 10/8/20
GDD₄₀: 3241

LINE	CWT/A		PERCENT OF TOTAL ¹				OTF CHIP		RAW TUBER QUALITY ⁴ (%)				COMMON		SED	VINE	VINE	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	SCORE ³	HH	VD	IBS	BC	RATING ⁵	SCORE ⁶	VIGOR ⁷	MATURITY ⁸	
NY165	605	683	88	9	88	0	3	1.081	1.0	0	0	0	0	2.0	0.5	2.0	3.0	
MSZ120-04	590	644	92	7	92	0	1	1.086	1.0	0	0	0	0	1.0	0.4	1.0	4.0	thin skin, bright
NYOR14Q9-9	531	579	92	7	92	0	1	1.081	3.0	60	0	0	0	2.0	1.4	3.0	3.0	flattened oval tubers, sl greening, visible lenticels
Lady Liberty	519	564	92	7	92	0	1	1.078	1.0	10	0	0	0	2.5	0.3	1.5	3.0	round shape
MSZ063-2	478	574	83	16	83	0	1	1.083	1.5	0	0	0	0	2.0	0.7	2.0	3.0	variable scab distribution, sl flattened tubers, recessed apical ends
COOR13270-2	448	508	88	11	88	0	1	1.084	2.0	0	0	0	0	3.5	1.3	3.0	3.0	severe pitting, attractive bright appearance, thin skin
WAF10664-3	445	504	88	10	88	0	2	1.079	2.0	0	10	0	0	1.0	0.8	2.0	2.5	misshape in pos, deep eyes
MSBB079-2	433	494	88	10	88	0	2	1.078	1.5	0	0	0	0	0.5	0.2	2.5	2.0	compressed tuber shape, trace ah
MSAA328-4	428	447	96	3	96	0	1	1.079	1.5	20	10	0	0	1.0	0.2	2.0	3.0	blocky oval type
MSW474-1	404	503	80	19	80	0	1	1.078	2.0	0	0	0	0	1.0	0.3	2.5	2.5	points in pos, flaky skin
Mackinaw	404	449	90	9	90	0	1	1.086	1.0	0	0	0	0	2.0	0.2	2.0	3.5	points in pos
NY166	376	455	83	15	83	0	2	1.072	1.0	0	0	0	0	2.0	0.2	2.0	2.0	some pits, flattened oval shaped
CO11023-9W	370	442	84	14	84	0	2	1.077	1.0	0	10	0	0	3.5	0.3	1.5	4.0	
MSBB618-9	358	397	90	8	90	0	2	1.065	2.5	0	20	20	0	2.0	0.8	1.0	3.0	sl flattened tubers, bright appearance
Petoskey	358	412	87	10	87	0	3	1.087	1.5	0	0	0	0	2.5	0.8	1.0	3.0	gc in pos
CO11023-2W	355	439	81	14	81	0	5	1.082	1.5	60	0	0	0	2.0	0.5	2.5	2.5	gc in pos
MSZ242-13	343	417	82	10	82	0	8	1.089	1.0	0	0	0	0	1.0	0.4	2.0	3.0	gc and second growth in pos
NY163	305	372	82	15	82	0	3	1.077	1.0	0	10	0	0	2.0	0.2	2.0	1.5	variable scab distribution, pink around apical eyes
Lamoka	302	385	78	20	78	0	2	1.080	2.0	0	10	0	0	1.0	0.5	2.0	2.0	
MSX526-1	293	346	85	14	85	0	1	1.075	2.0	0	0	0	0	1.5	0.7	2.0	2.0	thin skin
MSZ242-07	284	352	81	14	81	0	5	1.096	1.5	0	0	0	0	1.5	0.4	2.0	3.0	sl greening, gc in pos
CO11037-5W	243	326	75	11	75	0	14	1.070	1.5	0	0	0	10	3.0	0.2	2.5	2.0	pointed ends in pos
Snowden	216	321	67	32	67	0	1	1.075	1.5	0	20	0	0	2.5	0.3	1.5	2.0	
NDAF102629C-4	193	299	65	28	65	0	7	1.069	1.0	0	0	0	0	2.0	0.3	2.5	1.5	moderate ah, thin skin
MEAN	387	455	84	13	84	0	3	1.080	1.5	6	4	1	0	1.9	1.9	2.0	2.7	

¹**SIZE**

Bs: < 1 7/8"
As: 1 7/8" - 3 1/4"
OV: > 3 1/4"
PO: Pickouts

²**SPECIFIC GRAVITY**

Data not replicated

³**OUT OF THE FIELD CHIP COLOR SCORE**

(SNAC Scale)
Ratings: 1 - 5
1: Excellent
5: Poor

⁴**RAW TUBER QUALITY**

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

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0.0: Complete absence of surface or pitted lesions
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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

⁶**SED (STEM END DEFECT) SCORE**

0: No stem end defect
1: Trace stem end defect
2: Slight stem end defect
3: Moderate stem end defect
4: Severe stem end defect
5: Extreme stem end defect

⁷**VINE VIGOR RATING**

Date: 7/2/20
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸**VINE MATURITY RATING**

Date: 8/31/20
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 6/4/20
Vine Kill Date 9/23/20
Harvest Date 10/8/20
Days (planting to vine kill) 111
Days (planting to harvest) 126
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3241
Seed Spacing 10"

2020 Storage Chip Processing Potato Variety Trial

Montcalm Research Center Chip Box Bin

Planting: 5/7/20 Vine Kill: 8/31/20 Harvest: 9/21/20 and 9/22/20

GDD₄₀: 3335

LINE	CWT/A		PERCENT OF TOTAL ¹					OTF CHIP		RAW TUBER QUALITY ⁴ (%)				COMMON SCAB	SED	VINE	VINE	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP	GR ²	SCORE ³	HH	VD	IBS	BC	RATING ⁵	SCORE ⁶	VIGOR ⁷	
MSZ120-04	344	389	88	10	88	0	2	1.081	2.0	0	0	0	0	1.5	0.5	1.5	3.5	deeper apical eyes, misshapen pos
MSAA260-3	340	371	92	5	92	0	3	1.082	2.5	20	0	0	0	2.5	1.1	2.0	2.0	gc in pos
MSV498-1	337	384	88	9	88	0	3	1.077	1.5	20	10	0	0	0.5	0.4	1.5	2.5	heavier skin, deeper apical eyes, Manistee type
MSAFB635-3	325	373	87	12	87	0	1	1.081	1.5	10	0	0	0	2.5	0.6	3.0	1.0	round, higher skin type
MSZ242-07	311	353	88	6	88	0	6	1.098	1.5	0	0	0	0	1.5	0.2	1.5	3.0	non uniform type, gc in pos
MSAFB635-15	302	409	74	25	74	0	1	1.091	3.0	0	0	0	0	2.0	0.7	2.0	3.0	small uniform type, med netted skin
Petoskey	295	338	87	13	87	0	0	1.083	2.5	0	0	0	0	2.0	0.9	1.0	2.0	round flat type, med netted skin
Lady Liberty	293	336	87	13	87	0	0	1.079	1.0	0	0	0	0	2.5	0.4	1.0	3.0	med netted skin, smaller round uniform type
MSW474-1	288	397	72	28	71	1	0	1.083	1.5	0	0	0	0	2.0	0.6	3.0	4.0	round type, med netted skin, uniform
NYOR14Q9-9	284	340	83	16	83	0	1	1.081	2.0	10	0	0	0	3.0	1.2	2.5	2.0	flat round to oval type, lighter skin, misshapen pos
MSZ242-09	283	321	88	7	88	0	5	1.087	2.5	0	0	0	0	1.5	0.7	2.0	2.5	heavier netted skin, less uniform, sl ah
MSAFB605-4	282	304	93	6	93	0	1	1.083	1.5	0	0	0	0	1.5	0.6	1.5	3.5	uniform round type, heavy netted skin
MSAFB609-12	281	349	80	20	80	0	0	1.079	1.5	0	0	0	0	3.5	0.6	2.0	3.0	
MSAA076-6	273	332	82	13	82	0	5	1.085	1.5	0	0	10	0	1.0	0.4	2.0	2.5	flat to round, misshapen pos, sl ah
WAF10664-3	263	314	84	14	84	0	2	1.075	1.0	0	10	0	0	1.0	0.6	3.0	1.0	round uniform tuber type
NY163	263	332	79	17	79	0	4	1.083	1.5	0	0	0	0	2.5	0.6	1.5	1.5	small, round, light skin
MSAA217-3	257	280	92	7	92	0	1	1.091	1.5	20	0	0	0	2.0	0.7	2.0	3.0	sl pinkeye, med netted skin
MSAA373-3	246	307	80	13	80	0	7	1.091	3.5	0	0	0	0	2.0	0.6	1.5	4.0	flat round tuber type
MSX225-02	239	311	77	23	77	0	0	1.083	1.5	0	10	0	0	2.0	0.4	3.0	3.0	med netted skin, uniform round to oval
Mackinaw	237	305	78	21	78	0	1	1.089	3.0	0	0	0	0	2.0	0.5	2.0	2.0	med netted skin, lamoka type
MSBB610-13	228	246	93	7	93	0	0	1.077	1.5	0	0	10	0	1.5	0.4	2.0	1.5	nice appearance, blocky oval
MSZ242-13	222	256	87	13	87	0	0	1.096	2.0	0	0	0	0	2.0	0.3	2.0	3.0	flat, round to oval, med net skin
MSBB058-1	220	264	83	15	83	0	2	1.092	1.5	0	0	0	0	0.5	0.3	2.0	1.5	med netted skin, flat to round, uniform type
MSY156-2	218	274	80	20	80	0	0	1.078	2.5	0	0	0	0	2.0	0.8	2.5	3.5	small and round, uniform, med netted skin
MSAA570-3	210	266	79	16	79	0	5	1.077	2.0	0	0	0	0	2.5	0.7	2.0	2.0	less uniform
NY165	210	312	67	31	67	0	2	1.081	1.0	0	0	0	0	2.0	0.5	2.5	4.0	uniform, round, netted skin, nice appearance
NY166	203	364	56	41	56	0	3	1.080	1.0	0	0	0	0	2.5	0.5	3.5	3.5	non uniform type, oval to pear shaped
MSZ063-2	202	279	72	27	72	0	1	1.083	2.5	0	0	0	0	2.0	0.4	1.5	1.0	bright smooth skin
COOR13270-2	193	280	69	30	69	0	1	1.074	2.5	0	0	0	0	4.5	0.6	3.0	4.0	round to oval, lighter, sl gc
Snowden	143	244	59	40	59	0	1	1.077	2.0	0	0	0	0	3.0	0.4	2.0	1.0	
MEAN	260	321	81	17	81	0	2	1.083	1.9	3	1	1	0	2.1	2.1	2.1	2.6	

¹SIZE

Bs: < 1 7/8"
As: 1 7/8" - 3 1/4"
OV: > 3 1/4"
PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE

(SNAC Scale)

Ratings: 1 - 5

1: Excellent
5: Poor

⁴RAW TUBER QUALITY

(percent of tubers out of 10)

HH: Hollow Heart

VD: Vascular Discoloration

IBS: Internal Brown Spot

BC: Brown Center

⁵COMMON SCAB RATING

0.0: Complete absence of surface or pitted lesions

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

⁶SED (STEM END DEFECT) SCORE

0: No stem end defect

1: Trace stem end defect

2: Slight stem end defect

3: Moderate stem end defect

4: Severe stem end defect

5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/18/20

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/31/20

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date

5/7/20

Vine Kill Date

8/31/20

Harvest Date

9/21/20 and 9/22/20

Days (planting to vine kill)

116

Days (planting to harvest)

137

GDD₄₀ MAWN Station

Entrican

GDD₄₀ (planting to vine kill)

3335

Seed Spacing

10"

2020 Replicated Chip Processing Potato Variety Trial Potatoes USA SNAC Trial Sandyland Farms

Planting: 5/22/20 Vine Kill: 9/4/20 and 9/11/20 Harvest: 10/6/20

GDD₄₀: 3606

LINE	CWT/A		PERCENT OF TOTAL ¹				RAW TUBER QUALITY ⁴ (%)							COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC					
MSZ242-13	485	534	90	8	90	0	2	1.096	1.5	3	0	0	0	1.5	0.0	3.0	light netted skin, misshapen pick outs, growth crack in larger tubers	
NY163	481	560	86	13	86	0	1	1.081	1.5	0	0	0	0	2.3	0.3	3.5	light pink around apical eyes, round, attractive, waxy skin, slight pitted scab	
Petoskey	460	516	89	9	89	0	2	1.090	1.0	10	0	0	0	2.0	0.4	2.0	deeper apical eyes, slightly flattened oval type, slight sticky stolons	
CO11023-9W	447	520	86	13	86	0	1	1.066	1.5	50	10	17	3	3.7	0.4	2.5	surface and pitted scab, consistent round shape, bright thin skin, moderate chip blistering	
Snowden	419	515	81	18	81	0	1	1.081	1.5	0	0	0	0	2.5	0.1	3.5	attractive round shape, darker netted skin	
CO11023-2W	404	510	79	19	79	0	2	1.088	1.0	17	13	0	0	2.5	0.2	3.0	trace alligator hide, netted skin, round shape, more pitted than surface scab	
MSW474-1	379	546	69	30	69	0	1	1.083	1.0	0	0	0	0	0.5	0.1	4.0	flaky skin, trace back dot, round, uniform, attractive appearance	
Lamoka	372	478	78	21	78	0	1	1.082	1.0	0	7	3	0	1.7	0.1	4.0	oval type, bright skin, surface scab only, no pitted lesions, some deeper eyes	
ND7519-1	361	460	78	18	78	0	4	1.085	1.0	0	7	0	0	2.2	0.1	4.0	trace growth crack and points, moderate pitted scab, oval shape	
MSZ063-2	350	512	68	31	68	0	1	1.080	1.5	0	0	7	3	2.5	0.2	3.0	bright waxy skin, smaller size profile, slight sticky stolons,	
B2869-29	263	495	53	45	53	0	2	1.083	2.0	3	0	0	17	3.5	0.3	4.5	deeper apical eyes, moderate pitted scab, trace greening, slight chip blistering	
MEAN	402	513	78	20	78	0	2	1.083	1.3	8	3	2	2	2.3	0.2	3.4	#DIV/0!	

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Bs: < 1 7/8"
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OV: > 3 1/4"
PO: Pickouts

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Data is replicated

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4: Severe stem end defect
5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/24/20
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/21/20
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date: 5/22/20
Vine Kill Date: 9/4/20 and 9/11/20
Harvest Date: 10/6/20
Days (planting to vine kill): 105
Days (planting to harvest): 137
GDD₄₀ MAWN Station: Entrican
GDD₄₀ (planting to vine kill): 3606
Seed Spacing: 10"

2020 Storage Chip Processing Potato Variety Trial

Sandyland Set 1

Planting: 5/22/20 Vine Kill: 9/4/20 and 9/11/20 Harvest: 10/6/20

GDD₄₀: 3606

LINE	CWT/A		PERCENT OF TOTAL ¹				OTF CHIP		RAW TUBER QUALITY ⁴ (%)				COMMON SCAB		SED	VINE	VINE	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	SCORE ³	HH	VD	IBS	BC	RATING ⁵	SCORE ⁶	VIGOR ⁷	MATURITY ⁸	
Mackinaw	560	650	86	13	86	0	1	1.090	1.0	0	0	0	0	0.0	0.1	3.5	3.0	
NY163	456	539	85	14	85	0	1	1.082	1.0	0	0	0	0	0.0	0.1	4.0	3.0	
NY165	433	531	82	17	82	0	1	1.079	1.0	0	0	0	0	0.0	0.5	4.0	3.5	variable skin finish
MSZ242-13	427	475	90	9	90	0	1	1.097	1.5	0	0	10	0	2.0	0.1	3.0	3.5	sl ah, flattened oval shape
NY166	364	550	66	32	66	0	2	1.081	1.0	0	0	0	0	0.0	0.2	4.0	3.5	attractive light bright skin, sl pointed ends
MEAN	448	549	82	17	82	0	1	1.086	1.1	0	0	2	0	0.4	0.4	3.7	3.3	

¹SIZE

Bs: < 1 7/8"
 As: 1 7/8" - 3 1/4"
 OV: > 3 1/4"
 PO: Pickouts

²SPECIFIC GRAVITY

Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE

(SNAC Scale)
 Ratings: 1 - 5
 1: Excellent
 5: Poor

⁴RAW TUBER QUALITY

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

⁵COMMON 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

⁶SED (STEM END DEFECT) SCORE

0: No stem end defect
 1: Trace stem end defect
 2: Slight stem end defect
 3: Moderate stem end defect
 4: Severe stem end defect
 5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/24/30
 Rating 1-5
 1: Slow emergence
 5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/21/20
 Rating 1-5
 1: Early (vines completely dead)
 5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/25/20
 Vine Kill Date 9/4/20 and 9/11/20
 Harvest Date 10/6/20
 Days (planting to vine kill) 105
 Days (planting to harvest) 137
 GDD₄₀ MAWN Station Entrican
 GDD₄₀ (planting to vine kill) 3606
 Seed Spacing 10"

2020 Chip Process Potatoes Bulk Planting Test Digs

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR ²	Stand Count	Stem Count	Bs	As	OV	PO	Total Tubers	Tubers per Plant	Tubers per Stem	Average Tuber Weight	RAW TUBER QUALITY ³ (%)				COMMON SCAB RATING ⁴
	US#1	TOTAL	US#1	Bs	As	OV	PO												HH	VD	IBS	BC	
Petoskey Walther Farms	465	496	94	5	92	2	1	1.087	11	43	12	85	1	1	99	9.0	2.3	5.2	0	0	0	0	
Lady Liberty Verbrigghe Potato Farms	448	492	91	8	85	6	1	1.086											10	0	0	10	
Lamoka Walther Farms	436	500	87	11	81	6	2	1.082	11	31	30	79	3	3	115	10.5	3.7	4.5	0	0	0	0	
MSZ219-13 Thorlund Bros.	389	421	93	8	82	11	0	1.076	12	24	19	63	4	0	86	7.2	3.6	5.1	0	0	0	10	
MSZ242-13 Walther Farms	344	387	88	8	55	33	4	1.092											0	3	7	0	0.5
Mackinaw Sackett Potatoes	325	398	82	18	82	0	0	1.088	8	24	38	78	0	0	116	14.5	4.8	3.6	0	10	0	0	
MEAN	401	449	89	10	80	10	1	1.085	11	31	25	76	2	1	104	10.3	3.6	4.6	2	2	1	3	0.5

¹SIZE

Bs: < 1 7/8"
As: 1 7/8" - 3 1/4"
OV: > 3 1/4"
PO: Pickouts

²SPECIFIC GRAVITY

Data is replicated for
MSZ242-13 only

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