

2017 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Chip Processing Trials

Table of Contents

1-2.....	2017 Statewide Chip Line Summary
3.....	2017 Processing Trial; 4-L Farms, Allegan County, MI
4.....	2017 Processing Trial; County Line Farms, Allegan County, MI
5.....	2017 Processing Trial; Crawford Farms, Montcalm County, MI
6.....	2017 Processing Trial; Crooks Farms Set#1, Montcalm County, MI
7.....	2017 Processing Trial; Crooks Farms Set#2, Montcalm County, MI
8.....	2017 Processing Trial; Crooks Farms Set #3 Montcalm County, MI
9.....	2017 Processing Trial; Crooks Farms Set #4, Montcalm County, MI
10.....	2017 Processing Trial; Johnson’s Farm, Bay County, MI
11.....	2017 Early Bulking Chip Trial; Lennard Ag. Co.; St. Joseph County, MI
12.....	2017 Processing Trial; Lennard Ag. Co.; St. Joseph County, MI
13.....	2017 Processing Trial; Main Farms, Montcalm County, MI
14-15.....	2017 MPIC Box Bin Trial; Montcalm Research Center
16.....	2017 MDARD Late Box Bin Trial; Montcalm Research Center
17.....	2017 Processing Trial; Sandyland Farms, Montcalm County, MI
18.....	2017 Potatoes USA/SNAC Trial; Sandyland Farms, Montcalm County, MI
19.....	2017 Replicated Processing Trial; Walther Farms; St. Joseph County, MI

2017 Michigan Statewide Chip Processing Potato Variety Trials

Overall Averages - Sixteen 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					
MSV313-2 ^{di}	713	743	96	2	40	56	2	1.082	1.8	0	20	0	0	0.8	1.8	3.3	3.5	skinning, very large tuber size
MSZ219-13 ^{lp}	596	627	96	2	88	8	2	1.082	1.0	0	12	0	0	0.0	1.0	3.3	3.5	
MSX111-3 ^l	530	579	91	7	73	18	2	1.087	1.0	10	20	20	20	0.5	-	3.5	3.0	
W9968-5 ^{bdefgijklkp}	526	594	88	10	82	6	2	1.087	1.4	6	11	6	3	0.6	2.8	3.1	3.2	pear shaped, oval to oblong tuber type, heavy russetting
Atlantic^{bdip}	520	548	95	4	83	12	1	1.083	1.6	10	13	3	0	1.8	2.3	3.7	3.3	alligator hide
MSX540-4 ^{abeghijklmnop}	511	579	88	10	84	4	2	1.090	1.2	0	12	1	0	0.8	1.1	2.9	3.3	
AF5040-8 ^{dinp}	497	553	88	11	86	2	1	1.084	1.8	0	29	0	0	1.4	1.5	3.7	2.0	large overall tuber size, few b size tubers
NY152 ^{abcdefghijklmnop}	496	577	86	12	82	4	2	1.084	1.3	5	13	0	1	1.1	0.7	3.0	2.8	
MSW485-2 ^{abcefgijklmnop}	495	583	84	14	79	5	2	1.090	1.3	9	12	2	2	0.8	2.6	3.0	3.5	alligator hide
W8822-1 ^{bdik}	494	564	87	11	79	8	2	1.079	1.3	0	8	0	0	0.6	1.5	3.3	2.5	yellow flesh, heavy net skin, pointed pick outs
NY162 ^{kjp}	485	530	91	6	83	8	3	1.080	1.1	3	8	4	3	0.8	1.2	3.1	2.0	very bright chip color
Hodag ^{abcdefghijklmnop}	480	539	88	8	76	13	4	1.086	1.0	8	17	2	2	0.5	0.8	3.4	3.1	poined tubers in pickouts
Snowden^{abchijklmnop}	478	550	88	10	84	4	2	1.088	1.2	4	17	4	0	0.8	0.5	3.5	2.7	
MSR127-2 ^{abcefgijklmnop}	471	536	87	9	81	7	4	1.088	1.1	3	10	1	0	0.5	1.0	3.3	3.7	alligator hide, some brown center
Mega Chip ^k	466	558	84	5	63	21	11	1.091	1.0	0	20	0	0	0.0	1.5	4.5	2.0	
MSZ052-1 ^{befgijklmp}	463	536	86	7	75	11	7	1.078	1.3	3	11	0	0	0.5	1.2	3.1	3.6	sheep nose, deep apical eyes
NDA081453CAB-2C ^{bdikop}	463	516	90	7	81	9	3	1.078	1.5	0	16	12	3	1.0	1.7	3.5	2.6	uniform round tuber type
MSV030-4 ^{befgijklmnop}	461	518	89	10	85	4	2	1.090	1.2	0	12	0	0	0.8	1.5	2.9	2.8	slight pink eye, flattened round tuber type, netted skin
Pinnacle Chipper ^{kp}	455	733	80	20	79	1	0	1.090	1.0	5	25	0	0	0.8	0.8	4.0	2.0	
ND7519-1 ^{bdefgijklkp}	452	512	88	10	85	3	2	1.086	1.3	6	10	9	4	1.0	0.9	3.8	2.5	
ND7799C-1 ^{bdijklkp}	451	502	89	8	75	14	3	1.066	1.3	3	23	1	0	0.6	1.6	4.0	2.1	skinning, trace alligator hide, heat sprouts
TX09396-1W ^{bdijklkp}	440	480	92	4	55	37	4	1.086	1.0	20	13	22	0	1.1	0.6	2.4	2.8	skinning, knobs and misshapes in pickouts
MSZ022-7 ^{lmp}	437	482	90	6	79	11	3	1.075	1.2	0	15	0	0	0.5	1.5	2.7	4.3	
Lamoka^{abefijklmnop}	432	501	89	7	84	5	4	1.085	1.4	2	15	1	1	1.0	1.1	3.5	2.6	flattened oval tuber type, chip blistering
MSZ219-1 ^{lp}	432	460	95	3	78	17	2	1.081	1.0	7	7	0	0	0.3	-	3.7	3.5	
Manistee ^{abchijklmnop}	427	470	89	9	82	7	1	1.081	1.1	0	5	0	0	0.9	0.6	3.4	2.6	flat round tuber type, nice netted skin type
AF4648-2 ^{bdikop}	422	480	87	9	82	5	4	1.081	1.2	4	10	2	0	0.6	1.3	3.6	2.8	slight bruising, oval tuber type, bright appearance
MSZ219-14 ^{lp}	407	439	93	4	86	7	3	1.080	1.5	0	25	0	5	0.3	0.5	3.7	3.5	
NY157 ^{bcj}	398	460	87	12	81	6	1	1.083	1.0	25	0	0	5	2.3	0.5	2.0	2.5	
MSV358-3 ^{abefgijklmnop}	390	438	89	9	85	4	3	1.079	1.4	1	10	0	0	0.8	0.9	2.8	2.3	very nice chip color and quality
MSZ242-9 ^l	351	458	76	19	72	4	5	1.094	1.0	0	10	20	0	0.0	-	4.0	3.0	
Pike^{bkm}	339	401	84	13	75	9	3	1.082	1.0	0	7	30	10	0.2	0.3	2.8	2.7	
Saginaw Chipper ^{kp}	338	426	80	20	79	1	0	1.079	1.3	0	40	0	0	0.3	0.8	5.0	2.5	
MSX120-5Y ^m	336	437	77	19	75	2	4	1.078	1.0	0	0	0	0	0.5	-	2.5	4.0	severe pink eye, light yellow flesh
Madison ^{bkip}	327	392	83	12	80	3	5	1.097	1.5	10	6	3	0	0.6	0.7	3.4	1.8	
NDTX081648CB-13W ^o	320	405	79	19	78	1	2	1.083	3.0	0	40	0	0	2.0	-	1.5	3.0	
MSV016-2 ^m	299	322	93	5	63	30	2	1.089	2.5	30	0	0	0	0.0	-	1.5	3.5	smooth light skin
MSV033-1 ^m	297	437	68	4	49	19	28	1.084	1.0	60	0	0	0	1.0	-	2.5	4.0	many misshapen tubers, sheep nose, knobs
B2727-2 ^o	262	294	89	6	82	7	5	1.081	3.0	10	17	0	0	2.7	-	0.5	3.5	oval tuber type
MSX050-1 ^m	249	352	70	17	64	6	13	1.065	1.5	10	0	0	0	0.5	-	3.5	4.0	
MSV307-2 ^m	241	352	68	16	59	9	16	1.079	1.0	30	0	0	0	0.5	-	3.0	3.0	many misshapen tubers, growth crack
MSZ242-13 ^l	240	313	77	20	77	0	3	1.100	1.0	0	0	0	0	0.0	-	3.5	3.0	
MSZ219-46 ^l	234	246	95	5	73	22	0	1.079	1.0	0	20	0	0	0.5	-	4.0	3.5	
AC01144-1W ^o	222	318	71	23	68	3	6	1.067	4.0	3	43	0	0	1.3	-	2.0	3.0	some black leg
MSW075-2 ^l	125	197	64	35	64	0	1	1.078	1.0	0	0	0	0	0.0	-	3.5	3.0	
MEAN	440	507	87	9	77	10	4	1.084	1.3	6	14	4	1	0.8	1.2	3.2	2.9	

2017 Chip Variety Trial Sites

- ^a4-L Farms, Allegan County
- ^bCounty Line Farms, Allegan County
- ^cCrawford Farms, Montcalm County
- ^dCrooks Farms Set #1, Montcalm County
- ^eCrooks Farms Set #2, Montcalm County
- ^fCrooks Farms Set #3, Montcalm County
- ^gCrooks Farms Set #4, Montcalm County
- ^hJohnsons Farms, Bay County
- ⁱLennard Ag. Company Early Trial, St. Joseph County, MI
- ^jLennard Ag. Company Chip Trial, St. Joseph County, MI
- ^kMain Farms, Montcalm County
- ^lMSU Box Bin Trial, Montcalm County
- ^mMSU Late Box Bin Trial, Montcalm County
- ⁿSandyland Farms, Montcalm County
- ^oSandyland Farms SNAC Trial, Montcalm County
- ^pWalther Farms, St. Joseph County

¹SIZE

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

²SPECIFIC GRAVITY

Data not replicated
within trials

**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: variable
Rating 1-5
1: Slow emergence
5: Early emergence

⁸VINE MATURITY RATING

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

2017 Chip Processing Potato Variety Trial

4-L Farms, Allegan County, MI

Planting: 5/17 Vine Kill: 9/12 Harvest: 9/25
GDD₄₀: 3240

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
Hodag	660	703	93	4	68	25	3	1.085	1.0	0	30	0	0	0.5	0.5	4.0	3.5	
MSX540-4	579	653	89	10	86	3	1	1.089	1.5	0	40	0	0	0.5	1.0	3.5	3.0	
Manistee	521	555	94	6	81	13	0	1.085	1.0	0	0	0	0	0.0	0.5	3.5	4.0	flat round tuber type
Lamoka	513	554	92	4	87	5	4	1.087	1.0	0	10	0	0	0.5	0.5	4.0	3.0	flattened oval tuber type
NY152	501	562	89	9	84	5	2	1.082	1.5	0	40	0	0	0.0	0.5	3.5	3.0	
Snowden	475	540	88	7	87	1	5	1.093	1.0	0	0	0	0	0.0	0.5	4.0	3.5	
MSW485-2	466	541	86	13	84	2	1	1.097	2.0	0	10	0	0	0.5	3.0	4.0	3.0	
MSV358-3	449	495	91	8	91	0	1	1.076	1.0	0	10	0	0	0.5	0.5	3.5	3.5	
MSR127-2	161	260	62	33	55	7	5	1.083	1.0	0	10	0	0	0.5	0.5	3.5	4.0	
MEAN	481	540	87	10	80	7	2	1.086	1.2	0	17	0	0	0.3	0.8	3.7	3.4	

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: 6/15/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vine, some flowering)

⁸VINE MATURITY RATING

Date: 8/29/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/17/17
Vine Kill Date 9/12/17
Harvest Date 9/25/17
Days (planting to vine kill) 118
Days (planting to harvest) 131
GDD₄₀ MAWN Station Allegan
GDD₄₀ (planting to vine kill) 3240
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial

County Line Farms, Allegan County, MI

Planting: 5/17 Vine Kill: 9/15 Harvest: 10/10
GDD₄₀: 3315

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					
MSV030-4	564	626	90	6	76	14	4	1.092	1.5	0	30	0	0	0.5	2.0	2.0	3.5	
Lamoka	560	578	97	3	86	11	0	1.084	1.0	0	30	0	0	1.5	1.0	1.5	2.5	
MSX540-4	555	634	88	11	83	5	1	1.090	1.0	0	10	0	0	0.5	1.0	1.5	3.5	
MSW485-2	553	628	88	11	79	9	1	1.085	1.0	0	0	0	0	1.0	0.0	2.0	3.0	alligator hide
Atlantic	548	599	91	8	76	15	1	1.084	1.0	40	0	0	0	4.0	2.5	2.5	3.5	
W8822-1	507	561	91	6	81	10	3	1.084	1.5	0	0	0	0	0.0	2.5	1.5	3.5	yellow flesh, heavy net skin
MSR127-2	507	563	90	8	80	10	2	1.092	1.0	0	10	0	0	0.5	1.0	2.0	3.0	alligator hide
Hodag	497	539	93	5	77	16	2	1.086	1.0	30	0	0	0	0.5	2.0	2.0	3.0	
NY157	450	513	85	14	73	12	1	1.084	1.0	50	0	0	10	2.0	0.5	2.0	2.5	
NY152	445	521	86	13	85	1	1	1.087	1.0	0	20	0	0	2.5	0.5	2.0	3.0	
MSZ052-11	442	591	75	4	53	22	21	1.080	1.0	0	0	0	0	0.5	0.5	1.5	4.0	sheep nose
NDA081453CAB-2C	431	466	92	7	79	13	1	1.078	1.5	0	20	0	0	2.0	0.5	2.0	4.0	
ND7519-1	412	495	83	16	83	0	1	1.088	1.5	0	0	10	0	1.0	0.0	2.5	3.5	
Snowden	393	462	86	14	81	5	0	1.088	1.0	0	30	0	0	1.5	1.0	2.0	3.5	
AF4648-2	390	433	90	6	74	16	4	1.080	2.0	20	10	0	0	0.5	2.5	2.0	3.5	
Pike	384	425	91	8	79	12	1	1.082	1.0	0	0	10	20	0.5	0.5	1.5	4.0	
W9968-5	379	437	87	12	75	12	1	1.076	1.5	30	0	0	10	0.5	2.5	1.5	3.0	pear shape
MSV358-3	370	428	86	11	83	3	3	1.088	1.0	0	0	0	0	1.5	0.5	1.5	2.5	
Manistee	344	382	90	9	82	8	1	1.086	1.0	0	20	0	0	2.0	1.0	2.5	2.5	
TX09396-1W	318	332	96	1	49	47	3	1.086	1.0	30	10	0	0	1.5	2.0	1.0	2.5	
Madison	298	392	77	19	74	3	4	1.098	2.0	40	0	10	0	1.0	1.0	3.0	2.5	
ND7799C-1	273	344	79	17	72	7	4	1.065	1.0	0	40	0	0	0.0	1.5	2.0	3.0	
MEAN	437	498	88	10	76	11	3	1.085	1.2	11	10	1	2	1.2	1.2	1.9	3.2	

¹SIZE	²SPECIFIC GRAVITY	³OUT OF THE FIELD CHIP COLOR SCORE	⁴RAW TUBER QUALITY	⁵COMMON SCAB RATING	⁶SED (STEM END DEFECT) SCORE
Bs: < 1 7/8"	Data not replicated	(SNAC Scale)	(percent of tubers out of 10)	0.0: Complete absence of surface or pitted lesions	0: No stem end defect
As: 1 7/8" - 3 1/4"		Ratings: 1 - 5	HH: Hollow Heart	1.0: Presence of surface lesions	1: Trace stem end defect
OV: > 3 1/4"		1: Excellent	VD: Vascular Discoloration	2.0: Pitted lesions on tubers, though coverage is low	2: Slight stem end defect
PO: Pickouts		5: Poor	IBS: Internal Brown Spot	3.0: Pitted lesions common on tubers	3: Moderate stem end defect
			BC: Brown Center	4.0: Pitted lesions severe on tubers	4: Severe stem end defect
				5.0: More than 50% of tuber surface area covered in pitted lesions	5: Extreme stem end defect
⁷VINE VIGOR RATING	⁸VINE MATURITY RATING	FIELD DATA			
Date: 6/15/17	Date: 8/19/17	Planting date	5/17/17		
Rating 1-5	Rating 1-5	Vine Kill Date	9/15/17		
1: Slow emergence	1: Early (vines completely dead)	Harvest Date	10/10/17		
5: Early emergence (vigorous vines, some flowering)	5: Late (vigorous vines, some flowering)	Days (planting to vine kill)	122		
		Days (planting to harvest)	146		
		GDD ₄₀ MAWN Station	Allegan		
		GDD ₄₀ (planting to vine kill)	3315		
		Seed Spacing	10"		

2017 Chip Processing Potato Variety Trial

Crawford Farms, Montcalm County, MI

Planting: 5/22 Vine Kill: 9/7 Harvest: 10/3
GDD₄₀: 2835

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ³ (%)					COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
MSR127-2	494	549	90	7	87	3	3	1.084	0	10	0	0	0.5	2.5	not taken	no comments
Manistee	473	506	93	7	90	3	0	1.080	0	0	0	0	3.0	3.0		
Snowden	447	567	79	12	79	0	9	1.089	0	0	0	0	2.0	2.5		
Hodag	428	487	88	11	88	0	1	1.087	0	20	0	0	0.0	2.5		
NY152	424	504	84	15	84	0	1	1.081	0	0	0	0	2.5	2.0		
MSW485-2	395	527	75	24	73	2	1	1.091	50	0	0	0	2.0	2.0		
NY157	346	407	85	13	77	8	2	1.082	0	0	0	0	2.5	2.0		
MEAN	430	507	85	13	83	2	2	1.085	7	4	0	0	1.8	2.4		

¹SIZE

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

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

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

⁴COMMON SCAB RATING

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

⁵VINE VIGOR RATING

Date: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁶VINE MATURITY RATING

Date: Not taken
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 5/22/17
Vine Kill Date 9/7/17
Harvest Date 10/3/17
Days (planting to vine kill) 109
Days (planting to harvest) 134
GDD₄₀ MAWN Station Entrican
GDD₄₀ 2835
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial: Set #1

Crooks Farms, Montcalm County, MI

Planting: 5/10 Vine Kill: 8/28 Harvest: 9/12
GDD₄₀: 2853

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						
NY152	833	892	93	5	69	24	2	1.075	1.0	0	20	0	0	0.5	1.0	4.0	not taken		
MSV313-2	745	784	95	2	46	49	3	1.079	1.5	0	20	0	0	0.5	1.5	3.0		skinning	
W8822-1	612	654	93	7	78	15	0	1.075	1.0	0	20	0	0	1.5	1.0	4.0		heavy netted skin, light yellow flesh	
W9968-5	608	716	85	15	79	6	0	1.082	1.5	0	40	20	0	1.5	3.0	3.5			
ND7519-1	537	595	90	8	85	5	2	1.078	1.0	10	0	10	0	0.5	0.5	4.0			
TX09396-1W	384	443	86	14	59	27	0	1.078	1.0	0	60	10	0	2.0	0.5	3.0		skinning	
Atlantic	379	385	99	1	82	17	0	1.078	1.0	0	20	10	0	0.0	2.0	3.5			
AF4648-2	356	429	83	11	81	2	6	1.077	1.0	0	30	0	0	1.0	2.0	3.5			
ND7799C-1	338	367	92	7	76	16	1	1.062	1.5	20	30	10	0	2.0	2.0	3.5		skinning	
NDA081453CAB-2C	331	402	83	11	67	16	6	1.067	1.0	0	20	0	0	0.5	1.5	4.0			
AF5040-8	298	330	90	10	90	0	0	1.074	1.5	0	20	0	0	0.5	0.5	4.0			
MEAN	493	545	90	8	74	16	2	1.075	1.2	3	25	5	0	1.0	1.4	3.6			

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
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: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: Not taken
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/10/17
Vine Kill Date 8/28/17
Harvest Date 9/12/17
Days (planting to vine kill) 110
Days (planting to harvest) 126
GDD₄₀ MAWN Station Entrican
GDD₄₀ 2853
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial: Set #2

Crooks Farms, Montcalm County, MI

Planting: 5/18 Vine Kill: 9/1 Harvest: 9/28
GDD₄₀: 2781

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						
MSW485-2	639	731	88	7	84	4	5	1.084	1.5	10	20	10	0	0.5	3.0	3.5	not taken		
MSX540-4	560	613	91	7	90	1	2	1.084	1.5	0	0	0	0	2.0	2.0	4.0			
W9968-5	532	608	88	8	80	8	4	1.087	2.0	0	20	0	0	1.0	3.0	3.0			
MSR127-2	508	581	88	6	78	10	6	1.084	1.0	0	0	0	0	1.0	1.0	3.0			
NY152	506	610	83	17	82	1	0	1.083	1.5	0	0	0	0	1.5	1.0	3.5			
MSV030-4	492	571	87	12	80	7	2	1.086	1.0	0	10	0	0	1.0	1.0	2.5			
MSZ052-11	411	491	84	12	80	4	4	1.077	2.0	0	10	0	0	1.0	1.0	3.5		deep apical eyes	
ND7519-1	398	480	83	16	82	1	1	1.081	1.5	0	20	0	0	1.0	1.0	4.0			
Hodag	376	418	90	8	72	18	3	1.069	1.0	0	40	0	0	0.5	1.5	4.0			
Lamoka	349	362	97	3	77	20	1	1.079	1.0	0	0	0	0	2.0	1.0	3.5		chip blistering	
MSV358-3	239	314	76	18	76	0	6	1.075	1.5	0	0	0	0	0.0	2.0	3.0			
MEAN	455	525	87	10	80	7	3	1.081	1.4	1	11	1	0	1.0	1.6	3.4			

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: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: Not taken
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/18/17
Vine Kill Date 9/1/17
Harvest Date 9/28/17
Days (planting to vine kill) 106
Days (planting to harvest) 134
GDD₄₀ MAWN Station Entrican
GDD₄₀ 2781
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial: Set #3

Crooks Farms, Montcalm County, MI

Planting: 5/22 Vine Kill: 9/11 Harvest: 10/9
GDD₄₀: 2893

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						
MSW485-2	694	732	95	5	92	3	0	1.096	1.0	10	0	0	0	2.0	3.0	4.0	4.5	no comments	
W9968-5	636	681	93	2	92	1	5	1.093	1.5	0	0	0	0	0.5	3.0	3.5	3		
MSR127-2	597	622	96	3	95	1	1	1.094	1.0	0	10	0	0	0.5	2.0	4.0	4		
Hodag	552	602	91	4	82	9	5	1.086	1.0	20	10	0	0	0.5	1.5	4.5	3		
MSV030-4	525	538	98	2	98	0	0	1.095	1.5	0	10	0	0	2.0	1.5	3.5	2.5		
NY152	500	543	92	6	91	1	2	1.084	1.0	0	0	0	0	2.0	0.5	4.0	2.5		
ND7519-1	462	505	92	5	87	5	3	1.093	1.5	10	40	20	0	0.5	2.0	4.0	2		
MSZ052-11	408	456	89	5	84	5	6	1.079	1.5	0	0	0	0	0.5	1.0	4.0	4		
MSV358-3	387	416	93	3	90	3	4	1.085	1.0	10	0	0	0	2.0	1.0	4.0	2		
Lamoka	350	403	87	3	79	8	10	1.086	2.0	20	0	0	0	1.0	3.0	5.0	2		
MEAN	511	550	93	4	89	4	4	1.089	1.3	7	7	2	0	1.2	1.9	4.1	3.0		

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: 6/27/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 9/6/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date	5/22/17
Vine Kill Date	9/11/17
Harvest Date	10/9/17
Days (planting to vine kill)	112
Days (planting to harvest)	141
GDD ₄₀ MAWN Station	Entrican
GDD ₄₀ (planting to vine kill)	2893
Seed Spacing	10"

2017 Chip Processing Potato Variety Trial: Set #4

Crooks Farms, Montcalm County MI

Planting: 6/2 Vine Kill: 9/21 Harvest: 10/18
GDD₄₀: 2958

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						
W9968-5	737	793	93	5	86	7	2	1.091	1.5	20	0	0	0	0.0	2.5	2.0	2.5		
MSW485-2	641	664	97	3	68	28	1	1.088	1.5	10	0	0	0	0.0	3.5	2.5	4.0		
MSR127-2	555	612	91	4	75	16	6	1.097	1.0	30	10	0	0	0.5	0.5	2.5	4.5		
NY152	536	590	91	6	89	2	3	1.087	1.0	10	0	0	10	0.5	1.5	2.5	3.0		
Hodag	527	550	96	1	45	51	3	1.088	1.0	20	20	0	0	0.5	0.5	3.0	2.0		
MSZ052-11	517	573	90	2	72	18	8	1.081	1.5	20	0	0	0	0.0	1.5	1.5	4.0	sheep nose	
MSX540-4	496	532	93	3	79	14	4	1.096	1.0	0	0	0	0	0.5	1.5	1.5	4.0		
MSV030-4	420	450	93	7	93	0	0	1.097	1.5	0	0	0	0	2.0	2.0	2.5	4.5		
MSV358-3	325	348	94	6	94	0	1	1.077	1.5	0	20	0	0	1.0	1.0	2.0	1.5		
ND7519-1	272	319	85	13	83	2	2	1.084	1.5	0	20	0	0	1.0	1.5	2.5	4.0		
MEAN	503	543	92	5	78	14	3	1.089	1.3	11	7	0	1	0.6	1.6	2.3	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: 7/27/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 9/6/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 6/2/17
Vine Kill Date 9/21/17
Harvest Date 10/18/17
Days (planting to vine kill) 111
Days (planting to harvest) 131
GDD₄₀ MAWN Station Entrican
GDD₄₀ 2958
Seed Spacing 10"

2017 Chip Processing Variety Trial

Johnson's Farm, Bay County, MI

Planting: 5/3 Vine Kill: 9/15 Harvest: 9/30
GDD₄₀: 3453

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					
Hodag	444	521	85	9	81	4	6	1.090	1.0	0	20	10	0	0.5	1.0	5.0	1.5	
MSW485-2	409	577	71	26	70	1	3	1.093	1.0	0	10	0	0	0.5	1.5	2.0	2.5	alligator hide
Snowden	400	511	78	20	77	1	2	1.088	1.0	10	10	0	0	1.0	0.5	5.0	1.0	
MSR127-2	391	570	69	18	66	3	13	1.099	1.0	0	0	0	0	1.0	0.5	5.0	2.5	
MSX540-4	349	516	68	29	68	0	3	1.102	1.0	0	30	0	0	0.5	0.5	4.0	2.0	
Manistee	319	412	77	21	74	3	2	1.083	1.5	0	10	0	0	1.0	1.0	5.0	1.0	
NY152	296	462	64	32	64	0	4	1.085	1.5	0	20	0	0	1.0	0.5	3.5	2.5	
MEAN	373	510	73	22	71	2	5	1.091	1.1	1	14	1	0	0.8	0.8	4.2	1.9	

<u>¹SIZE</u> Bs: < 1 7/8" As: 1 7/8" - 3 1/4" OV: > 3 1/4" PO: Pickouts	<u>²SPECIFIC GRAVITY</u> Data not replicated	<u>³OUT OF THE FIELD CHIP COLOR SCORE</u> (SNAC Scale) Ratings: 1 - 5 1: Excellent 5: Poor	<u>⁴RAW TUBER QUALITY</u> (percent of tubers out of 10) HH: Hollow Heart VD: Vascular Discoloration IBS: Internal Brown Spot BC: Brown Center	<u>⁵COMMON SCAB RATING</u> 0.0: Complete absence of surface or pitted lesions 1.0: Presence of surface lesions 2.0: Pitted lesions on tubers, though coverage is low 3.0: Pitted lesions common on tubers 4.0: Pitted lesions severe on tubers 5.0: More than 50% of tuber surface area covered in pitted lesions	<u>⁶SED(STEM END DEFECT) SCORE</u> 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
<u>⁷VINE VIGOR RATING</u> Date: 6/15/17 Rating 1-5 1: Slow emergence 5: Early emergence (vigorous vines, some flowering)	<u>⁸VINE MATURITY RATING</u> Date: 8/29/17 Rating 1-5 1: Early (vines completely dead) 5: Late (vigorous vines, some flowering)	<u>FIELD DATA</u> Planting date 5/3/17 Vine Kill Date 9/15/17 Harvest Date 9/30/17 Days (planting to vine kill) 135 Days (planting to harvest) 150 GDD ₄₀ MAWN Station Munger GDD ₄₀ (planting to vine kill) 3453 Seed Spacing 10"			

2017 Early Bulking Chip Trial

Lennard Ag Co, St. Joseph County, MI

Planting: 4/14 Vine Kill: 8/24 Harvest: 9/6
GDD₄₀: 3437

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						
AF5040-8	831	879	95	5	92	3	0	1.094	1.5	0	10	0	0	1.0	3.5	4.5	2.5	large overall tuber size, few b size tubers	
ND7519-1	684	746	92	8	90	2	0	1.087	1.5	0	0	20	0	1.0	2.0	5.0	2.5		
MSV313-2	680	701	97	2	34	63	1	1.084	2.0	0	20	0	0	1.0	2.0	3.5	3.5	very large tuber size	
ND7799C-1	661	755	88	5	62	26	7	1.068	1.5	0	30	0	0	0.5	1.5	5.0	2.5	trace alligator hide, heat sprouts and knobs in pickouts	
Atlantic	643	657	97	3	84	13	0	1.090	3.0	0	30	0	0	1.5	2.5	5.0	3.0	alligator hide	
NDA081453CAB-2C	576	640	90	8	83	7	2	1.086	1.5	0	0	50	10	1.0	3.0	5.0	2.5	round uniform tuber type	
AF4648-2	570	619	92	7	86	6	1	1.083	1.0	0	0	0	0	0.5	0.5	4.0	3.0	oval tuber type, bright appearance	
TX09396-1W	535	566	94	3	28	66	3	1.088	1.0	20	10	40	0	1.5	0.5	2.0	4.0	knobs and misshapen tubers in pickouts	
W9968-5	525	620	85	15	85	0	0	1.095	1.5	0	10	20	0	0.5	1.0	3.5	4.0	oval to oblong tuber type, heavy russeted skin	
W8822-1	473	572	83	14	79	4	3	1.080	1.0	0	10	0	0	1.0	1.0	4.0	3.0	heavy netted skin, pointed pick outs	
MEAN	618	675	91	7	72	19	2	1.086	1.6	2	12	13	1	1.0	1.8	4.2	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: 6/6/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/15/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/14/17
Vine Kill Date 8/24/17
Harvest Date 9/25/17
Days (planting to vine kill) 132
Days (planting to harvest) 145
GDD₄₀ MAWN Station Constantine
GDD₄₀ (planting to vine kill) 3437
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial

Lennard Ag Co, St. Joseph County, MI

Planting: 4/14 Vine Kill: 8/26 Harvest: 9/15
GDD₄₀: 3475

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						
Snowden	720	759	95	3	81	14	2	1.086	1.0	0	0	0	0	1.0	2.0	4.0	3.0		
MSR127-2	629	667	94	5	83	11	1	1.080	1.5	0	10	0	0	1.0	3.5	5.0	3.0		
MSZ052-11	601	657	91	8	74	17	1	1.074	1.0	0	20	0	0	0.5	1.0	3.0	3.0		
NY162	599	631	95	4	89	6	1	1.084	1.0	0	20	0	10	1.0	1.5	2.5	2.0		
W9968-5	574	616	93	6	89	4	1	1.084	2.0	0	0	10	20	0.5	3.0	4.0	3.0		
Lamoka	557	586	95	5	93	2	0	1.078	1.0	0	0	0	0	1.5	2.5	5.0	2.5		
MSX540-4	537	602	89	10	89	0	1	1.084	1.5	0	0	0	0	1.5	1.5	4.0	3.0	flattened round tuber type, average size profile	
TX09396-1W	520	535	97	1	61	36	2	1.083	1.0	0	0	80	0	1.0	2.0	2.0	3.0	very large round tuber type	
ND7799C-1	489	523	93	6	81	12	1	1.063	1.0	0	10	0	0	0.5	1.0	5.0	2.0	bright tuber appearance	
Manistee	475	505	94	6	83	11	0	1.076	1.0	0	0	0	0	0.5	0.5	3.0	3.0	flattened tuber type	
MSV030-4	428	492	87	13	86	1	0	1.078	1.5	0	50	0	0	1.0	2.0	5.0	2.0		
MEAN	557	597	93	6	83	10	1	1.079	1.2	0	10	8	3	0.9	1.9	3.9	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

⁵**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

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

⁸**VINE MATURITY RATING**

Date: 8/15/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/14/17
Vine Kill Date 8/26/17
Harvest Date 9/15/17
Days (planting to vine kill) 134
Days (planting to harvest) 154
GDD₄₀ MAWN Station Constantine
GDD₄₀ (planting to vine kill) 3475
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial

Main Farms, Montcalm Co.

Planting: 5/10 Vine Kill:9/1 Harvest: 9/29
GDD₄₀: 2940

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					
MSX540-4	664	695	96	4	82	14	0	1.087	1.0	0	10	10	0	0.0	0.5	4.0	2.5	
Pinnacle	547	621	88	12	87	1	0	1.094	1.0	10	0	0	0	0.5	1.0	4.0	2.0	
NY152	518	635	81	14	78	3	5	1.096	1.0	0	10	0	0	1.0	0.5	4.0	1.5	
NY162	501	572	88	11	79	9	1	1.087	1.0	10	0	0	0	0.5	0.0	3.5	1.0	very bright chip color
MSR127-2	490	603	82	11	75	7	7	1.092	1.0	10	0	10	0	0.5	1.0	4.0	2.0	
Hodag	488	555	88	9	80	8	3	1.093	1.0	0	10	0	20	0.5	0.5	4.0	2.5	
NDA081453CAB-2C	474	527	90	7	77	13	3	1.084	1.0	0	10	0	10	0.0	0.5	4.5	1.0	
Mega Chip	466	558	84	5	63	21	11	1.091	1.0	0	20	0	0	0.0	1.5	4.5	2.0	
Snowden	464	510	91	9	86	5	0	1.083	1.0	30	0	0	0	0.5	0.0	4.0	1.5	
MSV030-4	448	544	83	10	78	5	7	1.095	1.0	0	0	0	0	1.0	0.5	4.0	2.0	
MSZ052-11	433	492	89	11	73	16	0	1.074	1.0	0	10	0	0	0.5	1.0	4.0	3.0	
ND7519-1	416	458	91	9	85	6	0	1.093	1.0	10	0	20	20	0.5	0.0	4.5	1.5	
TX09396-1W	415	472	88	5	51	37	7	1.094	1.0	80	0	0	0	0.5	0.0	3.5	2.0	
ND7799C-1	408	466	87	9	70	17	4	1.069	1.0	0	0	0	0	0.5	0.5	4.5	1.0	
W9968-5	390	464	84	13	73	11	3	1.089	1.0	0	0	0	0	0.5	3.5	4.0	2.5	
W8822-1	382	469	82	16	79	3	2	1.077	1.5	0	0	0	0	0.5	1.5	3.5	1.0	light yellow flesh
MSV358-3	381	431	88	8	80	8	4	1.076	1.0	0	0	0	0	1.0	0.0	4.5	1.0	very nice chip color and quality
Pike	366	410	89	8	76	13	3	1.087	1.0	0	0	50	0	0.0	0.0	4.0	0.0	
Madison	350	410	85	10	76	9	5	1.097	1.5	0	0	0	0	1.0	0.5	4.0	1.0	
Saginaw Chipper	320	382	84	16	84	0	0	1.083	1.5	0	20	0	0	0.0	1.0	5.0	2.5	
MSW485-2	291	421	69	29	68	1	2	1.094	1.0	0	20	10	0	1.5	2.5	4.0	2.5	
AF4648-2	268	359	74	20	73	1	6	1.082	1.0	0	0	10	0	0.5	0.5	4.5	2.0	
Manistee	266	314	85	15	79	6	0	1.071	1.0	0	0	0	0	0.0	0.0	4.5	2.0	
Lamoka	259	348	75	13	72	3	12	1.094	1.0	0	20	0	0	1.0	0.0	4.0	2.0	
MEAN	293	372	79	17	75	3	4	1.087	1.2	0	10	3	0	0.7	0.7	4.3	2.0	

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: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/30/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/10/17
Vine Kill Date 9/1/17
Harvest Date 9/29/17
Days (planting to vine kill) 114
Days (planting to harvest) 142
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 2940
Seed Spacing 10"

2017 MPIC Box Bin Chip Potato Variety Trial

MSU Montcalm Research Center, Montcalm County, MI

Planting: 5/8 Vine Kill: 9/13 Harvest: 10/3
GDD₄₀: 3167

LINE*	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)						COMMON SCAB RATING ⁵	VINE VIGOR ⁶	VINE MATURITY ⁷	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC					
MSZ219-13	672	706	95	5	84	11	0	1.084	1.0	0	0	0	0	0.0	3.5	3.5		
MSX111-3	530	579	91	7	73	18	2	1.087	1.0	10	20	20	20	0.5	3.5	3.0		
NY152	519	564	92	7	90	2	1	1.094	1.0	0	10	0	0	0.0	4.0	3.0		
MSR127-2 12"	464	516	90	9	88	2	1	1.081	1.0	0	10	0	0	0.5	4.0	4.0		
MSR127-2 (Low N) 12"	452	511	88	10	84	4	2	1.087	1.0	0	20	0	0	0.0	4.0	4.0		
TX09396-1W	450	500	90	7	63	27	3	1.095	1.0	0	0	10	0	0.0	3.0	2.5		
Snowden (Low N)	448	514	87	9	85	2	4	1.094	1.0	0	0	30	0	0.0	4.0	2.5		
MSR127-2 10"	445	509	88	11	86	2	1	1.085	1.0	0	20	0	0	0.0	4.0	4.0		
Lamoka	438	499	88	12	88	0	0	1.091	1.0	0	20	0	0	0.0	4.0	2.0		
Snowden	436	512	85	13	84	1	2	1.093	1.0	0	50	0	0	0.0	4.0	2.5		
MSR127-2 (Low N) 10"	431	489	88	11	82	6	1	1.092	1.0	0	10	0	0	0.0	4.0	4.0		
Hodag	429	504	86	13	84	2	1	1.091	1.0	0	20	0	0	0.0	4.0	3.0		
AF4648-2	418	458	91	7	87	4	2	1.087	1.0	0	0	0	0	0.5	4.0	2.5	slight bruising	
Manistee	408	464	88	8	82	6	4	1.087	1.0	0	10	0	0	1.0	3.5	2.0		
ND7519-1	382	449	85	13	85	0	2	1.094	1.0	20	0	0	20	0.0	3.5	2.5		
MSV030-4	379	443	85	14	83	2	1	1.096	1.0	0	0	0	0	0.0	3.0	2.5		
MSZ052-11	372	426	87	9	84	3	4	1.084	1.0	0	20	0	0	0.0	3.5	3.0		
MSV358-3	372	411	91	7	87	4	2	1.083	1.0	0	10	0	0	0.0	3.5	2.0		
Hodag (Low N)	368	454	81	19	81	0	0	1.092	1.0	0	0	0	0	0.5	3.5	3.0		
MSX540-4	352	396	89	11	89	0	0	1.094	1.0	0	0	0	0	0.0	4.0	3.5		
MSZ242-9	351	458	76	19	72	4	5	1.094	1.0	0	10	4	20	0.0	4.0	3.0		
MSZ219-1	349	370	94	6	83	11	0	1.086	1.0	0	0	0	0	0.0	4.0	3.5		
ND7799C-1	349	398	88	10	80	8	2	1.074	1.0	0	20	0	0	0.5	4.0	2.0		
W9968-5	334	384	87	7	73	14	6	1.092	1.0	10	20	10	0	0.0	3.0	3.5		
MSW485-2	328	444	74	21	73	1	5	1.092	1.0	20	0	0	20	0.0	4.0	3.0		
MSZ219-14	319	339	94	6	85	9	0	1.085	1.5	0	30	9	10	0.0	4.0	3.5		
MSZ022-7	309	352	87	10	71	16	3	1.079	1.0	0	20	0	0	0.5	3.5	4.5		
Madison	290	347	83	9	82	1	8	1.099	1.0	0	20	0	0	0.0	3.5	2.0		
NY162	278	330	84	8	72	12	8	1.078	1.0	0	0	10	0	1.0	3.5	3.0		
MSZ242-13	240	313	77	20	77	0	3	1.100	1.0	0	0	0	0	0.0	3.5	3.0		
MSZ219-46	234	246	95	5	73	22	0	1.079	1.0	0	20	0	0	0.5	4.0	3.5		
MSW075-2	125	197	64	35	64	0	1	1.078	1.0	0	0	0	0	0.0	3.5	3.0		
MEAN	383	440	87	11	80	6	2	1.088	1.0	2	11	3	2	0.2	3.7	3.0		

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

6 VINE VIGOR RATING

Date: 6/15/17

Rating 1-5

1: Slow emergence

5: Early emergence (vigorous vines, some flowering)

7 VINE MATURITY RATING

Date: 8/19/17

Rating 1-5

1: Early (vines completely dead)

5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 5/8/17

Vine Kill Date 9/13/17

Harvest Date 10/3/17

Days (planting to vine kill) 129

Days (planting to harvest) 149

GDD₄₀ MAWN Station Entrican

GDD₄₀ (planting to vine kill) 3167

Seed Spacing 10"

***Nitrogen Treatments**

Standard Treatment: 273 units N over 4 applications

Low N Treatment: 227 units N over 3 applications

2017 MDARD Late Box Bin Chip Potato Variety Trial

MSU Montcalm Research Center, Montcalm County, MI

Planting: 6/2 Vine Kill: 9/21 Harvest: 10/19
GDD₄₀: 2960

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁶	VINE MATURITY ⁷	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS					BC
Manistee	548	586	94	4	88	6	2	1.088	1.0	0	70	0	0	0.0	3.0	3.5	nice netted skin type
Hodag	523	612	85	5	62	23	10	1.085	1.0	70	0	0	0	0.5	2.5	4.5	points in pickouts
MSV358-3	474	524	90	7	75	15	3	1.085	1.0	0	0	0	0	0.0	3.0	4.0	
MSX540-4	452	536	85	12	84	1	3	1.095	1.0	0	30	0	0	0.0	2.5	4.5	
MSZ022-7	445	487	92	5	83	9	3	1.075	1.0	20	0	0	0	0.5	2.5	4.0	
MSZ052-11	441	516	86	7	72	14	7	1.079	1.5	20	0	0	0	0.5	1.5	4.5	
MSV030-4	434	498	88	11	79	9	1	1.092	1.0	0	0	0	0	0.0	3.0	4.0	flattened round tuber type, nice netted skin type
MSR127-2	432	469	92	7	76	16	1	1.085	1.0	0	20	0	0	0.0	3.0	4.5	
MSW485-2	422	500	85	13	84	1	2	1.087	1.5	0	40	0	0	0.0	3.5	4.5	
NY152	408	452	90	9	82	8	1	1.083	1.0	60	0	0	0	0.0	3.0	4.0	
Snowden	365	456	80	15	79	1	5	1.088	1.0	0	50	0	0	0.0	3.0	4.0	
MSX120-5Y	336	437	77	19	75	2	4	1.078	1.0	0	0	0	0	0.5	2.5	4.0	severe pink eye, light yellow flesh
Lamoka	321	418	77	18	76	1	5	1.088	1.0	0	30	0	0	0.5	2.5	3.5	
MSV016-2	299	322	93	5	63	30	2	1.089	2.5	30	0	0	0	0.0	1.5	3.5	smooth light skin
MSV033-1	297	437	68	4	49	19	28	1.084	1.0	60	0	0	0	1.0	2.5	4.0	many misshapen tubers, sheep nose, knobs
Pike	268	369	73	23	70	3	4	1.077	1.0	0	20	0	0	0.0	3.0	4.0	
MSX050-1	249	352	70	17	64	6	13	1.065	1.5	10	0	0	0	0.5	3.5	4.0	
MSV307-2	241	352	68	16	59	9	16	1.079	1.0	30	0	0	0	0.5	3.0	3.0	many misshapen tubers, growth crack
MEAN	386	462	83	11	73	10	6	1.083	1.2	17	14	0	0	0.3	2.7	4.0	

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

⁶VINE VIGOR RATING

Date: 6/29/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁷VINE MATURITY RATING

Date: 9/6/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 6/2/17
Vine Kill Date 9/21/17
Harvest Date 10/19/17
Days (planting to vine kill) 111
Days (planting to harvest) 140
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 2960
Seed Spacing 10"

2017 Chip Processing Potato Variety Trial

Sandyland Farms, Montcalm County, MI

Planting: 5/26 Vine Kill: 9/12 Harvest: 10/17
GDD₄₀: 2840

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ³ (%)					COMMON SCAB RATING ⁴	VINE VIGOR ⁵	VINE MATURITY ⁶	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	HH	VD	IBS	BC				
MSX540-4	561	641	88	10	86	2	2	1.089	0	0	0	0	2.0	1.5	3.5	
NY152	447	580	77	22	77	0	1	1.082	0	0	0	0	2.0	1.5	2.5	
MSR127-2	442	492	90	7	90	0	3	1.084	0	0	0	0	1.0	1.5	4.5	
MSV358-3	433	490	88	11	84	4	1	1.074	0	0	0	0	2.0	1.5	3.0	
MSV030-4	379	454	83	16	83	0	1	1.092	0	0	0	0	1.0	1.0	3.0	slight pink eye
Hodag	358	440	81	8	78	3	11	1.083	20	0	0	0	0.5	2.0	2.5	
MEAN	437	516	85	12	83	2	3	1.084	3	0	0	0	1.4	1.5	3.2	

¹SIZE

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

²SPECIFIC GRAVITY

Data not replicated

³RAW TUBER QUALITY

(percent of tubers out of 10)

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

⁴COMMON SCAB RATING

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

⁵VINE VIGOR RATING

Date: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁶VINE MATURITY RATING

Date: 9/6/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 5/26/17
Vine Kill Date 9/12/17
Harvest Date 10/17/17
Days (planting to vine kill) 110
Days (planting to harvest) 144
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 2840
Seed Spacing 10"

2017 Potatoes USA/SNAC International Chip Processing Potato Variety Trial

Sandyland Farms, Montcalm County, MI

Planting: 5/26 Vine Kill: 9/12 Harvest: 10/17
GDD₄₀: 2840

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)					COMMON SCAB RATING ⁵	VINE VIGOR ⁶	VINE MATURITY ⁷	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS					BC
MSX540-4	500	570	88	9	86	2	3	1.087	2.0	0	10	0	0	2.0	1.5	3.0	
MSW485-2	495	575	86	13	83	3	1	1.086	2.0	3	37	0	0	1.7	1.0	4.5	
Snowden	493	570	87	11	84	3	2	1.085	3.0	0	47	0	0	2.0	2.0	3.0	
MSR127-2	469	523	90	5	85	5	5	1.086	2.0	3	33	0	0	0.5	1.5	3.5	
NY152	461	551	84	12	82	2	4	1.080	3.0	0	37	0	0	1.8	1.0	3.0	
Lamoka	419	489	87	10	84	3	3	1.082	3.0	0	30	0	0	0.7	1.5	3.0	
MSV358-3	396	477	83	12	79	4	5	1.074	3.0	0	40	0	0	1.8	1.5	1.0	
NDA081453CAB-2C	388	450	88	10	84	4	2	1.079	3.0	0	33	0	0	2.0	1.5	3.0	
NDTX081648CB-13W	320	405	79	19	78	1	2	1.083	3.0	0	40	0	0	2.0	1.5	3.0	
AF5040-8	276	375	76	22	72	4	2	1.081	3.0	0	47	0	0	2.2	2.0	1.5	
B2727-2	262	294	89	6	82	7	5	1.081	3.0	10	17	0	0	2.7	0.5	3.5	oval tuber type
AC01144-1W	222	318	71	23	68	3	6	1.067	4.0	3	43	0	0	1.3	2.0	3.0	some black leg
MEAN	392	467	84	13	81	3	3	1.081	2.8	2	35	0	0	1.7	1.5	2.9	

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

⁶VINE VIGOR RATING

Date: 6/16/17
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁷VINE MATURITY RATING

Date: 9/16/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date: 5/26/17
Vine Kill Date: 9/12/17
Harvest Date: 10/17/17
Days (planting to vine kill): 109
Days (planting to harvest): 145
GDD₄₀ MAWN Station: Entrican
GDD₄₀ (planting to vine kill): 2840
Seed Spacing: 10"

2017 Replicated Chip Processing Potato Variety Trial Walther Farms, St. Joseph County, MI

Planting: 4/26 Vine Kill: 8/26 Harvest: 9/18
GDD₄₀: 3265

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	CHIP SCORE ³	HH	VD	IBS	BC						
ND7799C-1	636	663	96	3	87	9	1	1.063	1.0	0	33	0	0	0.5	1.0	4.2	2.2		
Snowden	617	652	95	2	94	1	3	1.083	1.0	0	37	7	0	0.5	0.5	4.0	3.2		
MSW485-2	607	653	93	3	91	2	4	1.081	1.0	0	33	0	0	1.0	1.0	3.7	3.5		
Hodag	592	623	95	4	90	5	1	1.077	1.0	0	33	10	0	0.5	0.5	3.7	3.2		
AF5040-8	582	630	92	5	92	0	3	1.087	1.0	0	40	0	0	1.0	0.5	4.3	2.2		
NDA081453CAB-2C	577	609	95	4	93	2	1	1.072	1.0	0	13	20	0	0.5	1.5	3.7	3.2		
W9968-5	572	617	92	7	92	0	1	1.081	1.0	0	23	0	0	0.0	3.0	2.7	3.5		
NY162	562	588	95	3	92	3	2	1.073	1.5	0	13	7	0	0.5	1.5	2.7	2.7		
MSZ022-7	558	608	92	4	83	9	4	1.071	1.5	0	10	0	0	0.5	1.5	2.2	3.3		
Lamoka	558	583	96	2	96	0	2	1.078	1.5	0	27	7	7	1.0	1.0	4.2	2.7		
NY152	547	610	90	8	90	0	2	1.076	1.0	0	13	0	0	0.5	0.5	3.3	2.7		
MSZ052-11	543	620	87	4	87	0	9	1.071	1.0	0	27	0	0	0.5	0.5	3.0	3.2		
MSV030-4	541	568	95	4	94	1	1	1.083	1.0	3	7	0	0	0.0	1.0	2.3	3.5		
MSR127-2	534	569	94	3	92	2	3	1.083	1.0	3	10	0	0	0.5	0.5	3.2	4.0	two chips with brown center	
AF4648-2	530	581	91	3	89	2	6	1.081	-	3	17	0	0	0.5	-	3.5	3.3	samples mixed, no chip score	
MSX540-4	523	560	93	3	90	3	4	1.081	1.0	0	37	0	0	0.5	1.0	3.3	3.5		
MSZ219-13	520	549	95	2	91	4	3	1.081	1.0	0	23	0	0	0.0	1.0	3.0	4.5		
MSZ219-1	515	550	94	2	72	22	4	1.077	-	13	13	0	0	0.5	-	3.3	3.8	samples mixed, no chip score	
Atlantic	512	550	93	5	89	4	2	1.082	1.5	0	0	0	0	1.5	2.0	-	-		
ND7519-1	508	558	91	5	87	4	4	1.079	1.0	0	13	0	0	1.5	0.0	4.0	2.7		
MSZ219-14	496	538	92	2	87	5	6	1.075	1.5	0	20	0	0	0.5	0.5	3.3	3.8		
Manistee	489	510	96	2	96	0	2	1.073	1.0	0	3	3	0	1.0	0.0	2.8	1.8		
MSV358-3	463	488	95	4	95	0	1	1.076	1.5	0	17	0	0	0.0	1.0	3.2	2.3		
TX09396-1W	455	508	90	1	74	16	9	1.080	1.0	7	10	17	0	1.0	0.5	2.0	4.3		
Madison	370	418	89	8	89	0	3	1.095	1.5	0	3	0	0	0.5	0.5	3.0	1.2		
Pinnacle Chipper	363	514	71	29	71	0	0	1.086	1.0	0	50	0	0	1.0	0.5	-	-		
Saginaw Chipper	355	470	76	24	74	2	0	1.075	1.0	0	60	0	0	0.5	0.5	-	-		
MEAN	523	570	92	5	88	4	3	1.079	1.0	1	22	3	0	0.6	0.9	3.3	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**
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

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

⁸**VINE MATURITY RATING**
Date: 8/16/17
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA
Planting date: 4/26/17
Vine Kill Date: 8/26/17
Harvest Date: 9/18/17
Days (planting to vine kill): 122
Days (planting to harvest): 146
GDD₄₀ MAWN Station: Constantine
GDD₄₀: 3265
Seed Spacing: 10"