

# Michigan State University Potato Outreach Program: On-Farm Chip

## Processing Variety Trials Summary, 2024

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## Statewide Chip Processing Trials: Summary Across 12 Locations

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
	MSDD372-07 LOW N <sup>f</sup>	694	811	87	13	86			0	1	1.092	1.2						2
MSDD376-4 LOW N <sup>f</sup>	589	667	90	9	89	0	2	1.083	1.2	2	22	2	0	0.3	0.2	2.0	3.5	Uniform blocky round to oval, sticky stolons, medium netted skin
MSGG409-3 <sup>abcdeffgj</sup>	566	636	88	11	88	0	1	1.083	1.1	2	6	7	0	0.6	0.2	1.6	3.3	Sticky stolons, sheep nose, severe skinning, blocky round uniform tubers, medium netted, nice general appearance
MSDD376-4 <sup>abcdeffgj</sup>	548	615	89	10	88	1	1	1.085	1.4	7	8	7	0	0.9	0.1	2.1	3.4	Large blocky flat round to oval tubers, medium to heavy dark netted, sticky stolons, severe skinning, deep apical eyes, misshapes, traces of heat sprouts, good general appearance
MSBB060-1 <sup>ij</sup>	534	552	97	2	96	1	1	1.081	1.2	1	2	11	0	0.5	0.2	1.5	3.3	Large blocky round uniform tubers, severe sticky stolons, sheep nose, good general appearance
MSBB630-2 LOW N <sup>f</sup>	529	605	89	10	88	0	3	1.078	1.2	2	2	2	0	0.3	0.1	1.5	4.5	Round tubers, bright skin
ND13220C-3 <sup>acdefghij</sup>	526	679	77	21	77	0	3	1.094	1.5	2	2	1	1	1.1	0.1	2.3	3.5	Large round blocky rough, pine cone eyes, light skin, not uniform tuber type, traces of heat sprouts and points, severe skinning, misshapes, sticky stolons
Mackinaw <sup>abcdeffij</sup>	524	588	89	11	89	0	1	1.087	1.1	1	2	0	0	0.6	0.1	1.8	3.2	Blocky flat round oval pear-shaped uniform, sheep nose, sticky stolons, slight skinning, light netted, traces of points
Atlantic <sup>h<sup>k</sup></sup>	518	563	93	5	91	1	2	1.089	1.0	35	4	15	6	1.5	0.1	2.4	2.8	Slight skinning, blocky tuber type
NY174 <sup>acdefghij</sup>	497	542	91	8	91	0	1	1.090	1.1	0	0	2	0	0.7	0.1	2.0	3.2	Large blocky round tubers, severe skinning, traces of pear shape, light netted, slight skinning, deep apical eyes, sticky stolons, sheep nose
AF6206-3 <sup>hj</sup>	490	544	89	10	88	0	1	1.089	1.2	1	1	0	0	2.1	0.0	1.8	2.8	Large flat blocky round, medium netted, sticky stolons, slight skinning, traces of pear-shaping
W17AF6670-1 <sup>h</sup>	487	546	89	11	88	0	0	1.081	1.2	1	2	0	0	1.0	0.0	1.9	3.0	Flat round, medium netted
Manistee <sup>abcdeffij</sup>	483	534	90	10	89	1	0	1.084	1.2	10	0	2	0	1.3	0.0	1.8	2.9	Large flat blocky round tubers, medium to heavy netted, deep apical eyes and stem end, sticky stolons, medium to severe skinning
MSFF029-10 <sup>efij</sup>	479	560	85	14	85	0	1	1.089	1.2	2	3	11	0	1.2	0.2	1.7	3.0	Flat blocky round, medium to heavy netted, sticky stolons, medium skinning
NYU34-6 <sup>abcdeffgj</sup>	476	551	85	13	85	0	2	1.092	1.3	13	2	0	2	1.4	0.1	2.1	3.1	Flat blocky round, light skin appearance, traces of heat sprouts, traces of sticky stolons, traces of pear-shaping, poor general appearance for chip industry, not uniform tubers, growth cracks
MSDD244-05 <sup>acdefgj</sup>	464	515	89	9	88	1	2	1.082	1.2	4	1	1	0	0.4	0.0	1.7	3.1	Blocky round tubers, medium netted, sticky stolons, deep apical eyes, slight to moderate growth cracks, rough appearance, pear shapes
MSGG302-1 <sup>acdefgij</sup>	460	493	93	5	89	4	2	1.085	1.3	4	8	1	1	0.7	0.2	1.8	3.3	Sticky stolons, deep apical eyes, growth cracks, knobs, large round oval blocky, medium netted, traces of heat sprouts, growth cracks, misshapes, deep eyes, severe skinning
Paige <sup>j</sup>	459	564	81	18	81	0	1	1.094	1.2	11	1	1	0	0.4	0.1	NA	3.1	Uniform flat round to oval tubers, pear-shaping
MSDD249-9 <sup>abcdeffgj</sup>	456	489	93	6	92	1	1	1.087	1.1	0	1	1	0	1.2	0.1	1.6	3.1	Large flat round blocky tubers, bright appearance, sheep nose, non uniform tubers, heart shaped tubers, sticky stolons, medium netted, slight skinning
Snowden <sup>abcdeffghij</sup>	453	517	86	13	86	0	1	1.084	1.1	2	6	0	0	1.2	0.1	1.9	2.9	Flat blocky round tubers, deep apical eyes, medium to severe skinning, light to medium netted, sticky stolons, sheep nose
NY177 <sup>abcdeffghij</sup>	452	542	82	17	82	0	1	1.094	1.2	2	5	3	0	0.8	0.1	1.9	3.0	Large blocky flat round oval uniform tubers, traces of pear shape, light netted, medium to severe skinning, bright skin, deep apical eyes, traces of points, moderate black spot bruise, purple blush
MSFF038-3 <sup>abcdeffgj</sup>	450	504	89	9	88	1	2	1.083	1.4	10	3	0	0	1.0	0.1	1.7	2.9	Flat large blocky round, slight skinning, deeper apical eye, sheep nose, medium netted, traces of growth cracks
W17066-34 <sup>h</sup>	449	504	88	12	87	0	1	1.089	1.2	3	2	0	0	0.7	0.1	1.9	3.0	Flat round oval
MSBB230-1 <sup>acefj</sup>	443	506	87	12	87	0	2	1.087	1.2	1	1	0	0	1.2	0.3	2.0	3.1	Blocky round tubers, medium to heavy netted, traces of sticky stolons, deep apical eyes
F160032-6 <sup>abcdeffj</sup>	435	490	88	11	88	0	1	1.079	1.1	1	2	0	0	1.0	0.1	2.3	2.7	Blocky round uniform tubers, light netted, medium to light skin appearance, deep stem end eyes, slight skinning

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
AF6206-5 <sup>bj</sup>	435	490	88	11	87	0	2	1.098	1.2	2	1	0	0	1.7	0.0	1.9	3.1	Growth cracks, sticky stolons, slight skinning, bottlenecks, flat round oval large blocky uniform tubers, medium netted
MSFF037-17 <sup>abcdefgij</sup>	431	511	83	15	83	0	2	1.085	1.3	0	4	8	2	1.1	0.1	1.5	3.1	Severe sticky stolons, large blocky round flat tubers, points, growth cracks, heat sprouts, knobs, slight skinning, deep apical eyes, light netted
<b>Bliss</b> <sup>acdefgij</sup>	<b>425</b>	<b>487</b>	<b>87</b>	<b>12</b>	<b>86</b>	<b>1</b>	<b>1</b>	<b>1.083</b>	<b>1.2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.7</b>	<b>2.9</b>	<b>Blocky round tubers, light netted, traces of sticky stolons, purple blush, traces of points</b>
MSBB058-1 <sup>abcdehij</sup>	425	484	87	12	84	3	1	1.090	1.2	0	0	1	0	0.8	0.0	1.8	3.0	Small blocky round tubers, moderate skinning, growth cracks, sticky stolons, medium netted, misshapes, deep stem end and apical eyes
Dundee <sup>abcdehij</sup>	420	471	88	8	88	0	3	1.091	1.1	0	0	1	0	0.8	0.1	1.8	3.1	Large blocky round tubers, moderate skinning, medium to heavy netted, traces of soft rot, growth cracks, sticky stolons, alligator skin, moderate shatter bruise, heat sprouts
NC821-30 <sup>dfi</sup>	415	470	88	10	88	0	2	1.091	1.1	52	0	5	0	1.1	0.2	1.6	2.8	Flat large blocky round, light skin appearance, medium netted, not uniform tubers, severe skinning
MSDD247-11 <sup>acfeij</sup>	410	479	85	14	84	1	2	1.090	1.1	13	1	1	0	0.4	0.0	1.8	3.0	Medium to heavy netted, blocky round oval, growth cracks, knobby, sheep nose, good general appearance
MSDD244-15 <sup>cfeij</sup>	403	441	91	7	90	0	3	1.079	1.2	7	2	2	0	0.4	0.1	1.5	3.1	Misshapen, medium to heavy netted, deep stem end, deep apical eyes, flat round tuber type, sheep nose, heat knobs, sticky stolons
MSSE031-3 <sup>deji</sup>	396	440	91	8	91	0	1	1.082	1.3	9	5	2	0	0.8	0.1	1.9	3.1	Large blocky tubers, slight skinning, light to medium skin appearance, sheep nose, not uniform tuber type
B3403-6 <sup>bcij</sup>	396	490	79	20	78	1	1	1.094	1.2	2	1	1	0	1.8	0.2	2.2	3.3	Flat round tubers, slight to moderate skinning, light to medium netted, traces of sticky stolons, uniform tubers
AF6671-10 <sup>fi</sup>	394	436	91	9	91	0	1	1.087	0.9	1	1	2	5	0.6	0.1	1.9	2.3	Flat blocky round to oval tubers, severe skinning
AF5933-4 <sup>abcdehij</sup>	390	456	84	15	84	0	1	1.085	1.1	1	4	2	0	1.3	0.1	1.8	3.0	Round oval uniform tubers, traces of growth cracks, moderate to severe skinning, light netted skin
MSSE035-4 <sup>bcij</sup>	379	441	86	12	85	0	3	1.091	1.2	1	7	6	0	1.0	0.3	1.6	3.4	Light netted, large round blocky tubers, bottlenecks
<b>Lamoka</b> <sup>acdefhij</sup>	<b>371</b>	<b>424</b>	<b>86</b>	<b>11</b>	<b>86</b>	<b>0</b>	<b>3</b>	<b>1.081</b>	<b>1.1</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0.9</b>	<b>0.1</b>	<b>2.2</b>	<b>2.9</b>	<b>Flat blocky round oval, light netted, traces of misshapes, sheep nose, points, slight skinning</b>
MSAA076-6 <sup>abcdehij</sup>	368	445	83	15	83	0	2	1.086	1.3	0	1	18	1	0.9	0.1	1.9	3.1	Round tubers, light netted, deep apical eye, traces of heat sprouts, rough general appearance, moderate growth cracks, traces of rough tubers, sheep nose
MSGA24-02 <sup>z</sup>	350	369	98	2	97	0	1	1.094	1.2	2	2	2	0	0.3	0.2	2.5	4.0	Blocky tubers, sticky stolons, medium skinning, poor periderm formation
MSDD247-07 <sup>acfeij</sup>	342	394	87	12	87	0	2	1.096	1.2	5	1	7	6	1.1	0.0	2.1	3.1	Flat round to oval blocky tubers, medium to heavy netted skin
CMK2009-630-001 <sup>abcdehij</sup>	325	485	66	32	66	0	2	1.084	1.4	14	4	0	0	1.5	0.1	2.3	2.8	Round oval not uniform tubers, light yellow appearance, slight skinning, pear-shaping, light netted, knobs, heat sprouts, sticky stolons
AF6896-1 <sup>bcfeij</sup>	320	387	81	17	81	0	2	1.084	1.4	4	3	1	0	0.9	0.2	1.8	2.9	Round oval tubers, light to medium netted, sticky stolons
Petoskey <sup>cdeij</sup>	316	388	79	17	79	0	4	1.088	1.2	0	10	1	2	0.7	0.1	1.7	3.1	Blocky round to oval tubers, light to medium netted, traces of growth cracks, misshapes, moderate skinning, sticky stolons, traces of pear shaping, good general appearance
AC13126-1Wadg <sup>abcdehij</sup>	310	360	86	11	85	1	4	1.076	1.3	10	1	4	0	1.7	0.1	1.9	2.5	Blocky round tubers, misshapes, sticky stolons, deep apical eye, medium netted, apical sprouts, rough appearance, slight soft rot, not for chip industry
AC13125-5W <sup>abcdehij</sup>	308	376	82	17	82	0	2	1.069	1.2	6	1	1	2	1.5	0.2	1.7	2.4	Blocky round oval, light to medium netted skin, slight skinning, bright appearance, growth cracks, pear shaping
W17043-37 <sup>h</sup>	305	383	76	23	75	0	1	1.084	1.2	3	2	0	0	1.4	0.0	1.9	2.5	Flat round tubers, heavy netted skin
MSSE016-10 <sup>abcdehij</sup>	301	379	79	19	79	0	2	1.086	1.2	1	1	3	0	0.8	0.1	1.6	3.0	Small round tubers, sticky stolons, light to moderate skinning, medium to heavy netted skin, deep apical eye, rough skin
AF6868-6 <sup>abcdehij</sup>	289	394	70	25	71	0	5	1.079	1.8	6	12	2	0	1.3	0.3	2.3	2.9	Pink blush rough eyes, bright yellow appearance, severe heat sprouts, severe rots, not uniform tuber shape, oval to pointy, knobs, sticky stolons, deep apical eye, growth cracks

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
Kal. 91. 03 <sup>§</sup>	276	311	89	11	88	0	1	1.084	1.2	2	2	2	0	0.3	0.1	1.5	4.0	Blocky round, medium netted
MI-4 <sup>abcdefij</sup>	271	467	58	41	58	0	2	1.085	1.3	17	1	0	0	1.6	0.0	2.1	3.1	Golden yellow skin appearance, round oval to oblong tubers, sticky stolons, misshapes, bottlenecks, knobs, heat sprouts, light netted, slight to moderate skinning
Sinatra <sup>abcdefij</sup>	266	407	63	34	63	0	3	1.085	1.1	0	1	2	0	1.1	0.1	2.0	3.2	Small round oval tubers, traces of pear-shaping, light skin appearance, slight skinning, traces of misshapes, sticky stolons, traces of heat sprouts
MSBB230-1 Low N <sup>§</sup>	263	370	65	34	64	0	2	1.080	1.2	2	2	2	0	0.8	0.1	3.0	3.5	Small round tubers
Elevate <sup>§</sup>	243	343	64	36	63	0	1	1.078	1.2	2	2	2	0	1.8	0.1	2.5	4.0	Small round tuber type, slight skinning
<b>LSMEAN</b>	<b>418</b>	<b>489</b>	<b>84</b>	<b>14</b>	<b>84</b>	<b>0</b>	<b>2</b>	<b>1.086</b>	<b>1.2</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>1.0</b>	<b>0.1</b>	<b>1.9</b>	<b>3.1</b>	

**2024 Chip Variety Trial Sites**

- <sup>4</sup>L Farms, Storage Trial
- <sup>§</sup>Black Gold Farms, Fresh Trial
- <sup>§</sup>Hampton Potato Growers, Storage Trial
- <sup>§</sup>Lennard Ag. Co., Fresh Trial
- <sup>§</sup>Lennard Ag. Co., Storage Trial
- <sup>§</sup>Main Farms, Storage Trial
- <sup>§</sup>Montcalm Research Center Box Bin Trial
- <sup>§</sup>Sandyland Farms SNAC Replicated Storage Trial
- <sup>§</sup>Walther Farms, Fresh Trial
- <sup>§</sup>Walther Farms, Replicated Storage Trial

**<sup>1</sup>SIZE**

- Bs: < 1 7/8"
- As: 1 7/8" - 3 1/4"
- OV: > 3 1/4"
- PO: Pickouts
- % of total: Values rounded to the nearest whole number

**<sup>2</sup>SPECIFIC GRAVITY**

Total solids

**<sup>3</sup>OUT OF THE FIELD CHIP COLOR SCORE**

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

**<sup>4</sup>RAW TUBER QUALITY**

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

**<sup>5</sup>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

**<sup>6</sup>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

**<sup>7</sup>VINE VIGOR RATING**

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

**<sup>8</sup>VINE MATURITY RATING**

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

# Storage Chip Processing Trial, 4-L Farms, Inc., Kalamazoo County

Planting: 05/28/2024 Vine Kill: 9/27/24 Harvest: 10/24/2024  
CGDD<sub>10</sub>: 3997

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
ND13220C-3	819	915	90	7	90	0	4	1.100	1.5	10	0	0	10	1.0	0.0	2.0	3.5	Blocky rough, large, pine cone eyes, light netted tuber type
<b>Manistee</b>	<b>740</b>	<b>775</b>	<b>96</b>	<b>4</b>	<b>90</b>	<b>5</b>	<b>0</b>	<b>1.091</b>	<b>1.5</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Large flat blocky round tuber type, deep apical and stem end, medium netted</b>
NY177	737	766	96	4	96	0	0	1.094	1.0	0	0	0	0	0.5	0.0	1.5	3.5	Large round to blocky, bright skin, light netted, deep apical eyes
MSGG409-3	703	742	95	5	90	4	1	1.081	1.5	0	0	0	0	1.5	0.1	1.0	3.5	Blocky round to oval, light netted tuber type
MSDD244-05	700	751	93	5	90	3	2	1.085	1.5	0	0	0	0	0.5	0.0	1.0	3.5	Blocky round, medium netted tuber type, sticky stolons deep apical eyes
<b>Mackinaw</b>	<b>688</b>	<b>727</b>	<b>95</b>	<b>5</b>	<b>94</b>	<b>1</b>	<b>0</b>	<b>1.083</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.1</b>	<b>1.5</b>	<b>3.5</b>	<b>Round oval blocky, medium to heavy netted tuber type, sticky stolons</b>
NYU34-6	685	728	94	4	93	1	2	1.092	1.0	0	0	0	0	0.5	0.2	2.0	3.5	Large blocky round to oval, not uniform, light to medium netted
NY174	649	682	95	5	93	2	0	1.087	1.5	0	0	0	0	1.0	0.1	1.5	3.5	Flat blocky round to oval, medium netted tuber type
MSDD376-4	614	652	94	3	90	5	3	1.091	2.0	20	0	0	0	1.0	0.1	1.5	3.5	Blocky large, flat round to oval, medium netted tuber type, sticky stolons
Dundee	609	659	93	3	93	0	5	1.095	1.0	0	0	10	0	0.5	0.0	1.5	3.5	Medium netted tuber type, flat round to oval blocky, growth cracks
MSFF037-17	606	664	91	7	91	0	1	1.083	1.5	0	0	10	0	0.5	0.0	1.0	4.0	Large blocky round, flat tuber type, light netted, deep apical eyes, sticky stolons
<b>Lamoka</b>	<b>554</b>	<b>591</b>	<b>94</b>	<b>4</b>	<b>94</b>	<b>0</b>	<b>2</b>	<b>1.085</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.5</b>	<b>0.0</b>	<b>2.0</b>	<b>3.5</b>	<b>Flat oval, blocky, light netted skin</b>
MSBB058-1	549	581	94	5	94	0	1	1.093	1.0	0	0	0	0	1.0	0.0	1.5	3.5	Blocky round to oval, medium netted tuber type, sticky stolons
MSFF038-3	544	579	94	4	89	5	2	1.077	2.0	60	0	0	0	0.5	0.0	1.0	3.0	Flat round to oval, medium netted tuber type, deep apical eyes
MSDD247-11	539	596	90	6	88	3	4	1.089	1.0	30	0	0	0	0.5	0.0	1.5	3.5	Medium to heavy netted tuber type, round oval to blocky, growth cracks, knobs
<b>Bliss</b>	<b>534</b>	<b>568</b>	<b>94</b>	<b>6</b>	<b>89</b>	<b>5</b>	<b>0</b>	<b>1.082</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.5</b>	<b>Blocky round light netted tuber type, sticky stolons, purple blushing</b>
MSDD249-9	524	541	97	3	95	2	0	1.086	2.0	0	0	10	0	1.0	0.3	1.0	3.5	Blocky round to oval, light netted tuber type
CMK2009-630-001	515	598	86	13	86	0	1	1.084	2.5	30	0	0	0	1.5	0.0	2.0	3.5	Round to oval golden appearance, light netted tuber type
<b>Snowden</b>	<b>514</b>	<b>544</b>	<b>94</b>	<b>4</b>	<b>94</b>	<b>0</b>	<b>2</b>	<b>1.088</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>2.0</b>	<b>3.5</b>	<b>Blocky round to oval, medium netted tuber type</b>
ML-4	507	640	79	20	79	0	1	1.085	2.0	0	0	0	0	1.0	0.0	1.5	3.5	Oval to oblong, golden appearance, light netted tuber type, heat sprouts
AF5933-4	480	523	92	7	92	0	2	1.092	1.0	0	0	0	0	1.0	0.1	1.0	3.5	Light netted, medium size, round to oval, uniform tuber type
MSBB230-1	451	492	92	6	92	0	3	1.087	1.5	0	0	0	0	1.5	0.1	1.5	3.5	Blocky round, light to medium netted tuber type
Sinatra	447	544	82	15	82	0	3	1.085	1.5	0	0	0	0	1.5	0.1	1.5	3.5	Light netted tuber type, flat round to oval, some misshapes
AF6896-1	444	477	93	6	93	0	1	1.087	2.0	20	0	0	0	1.0	0.0	1.0	3.5	Flat round oval blocky, medium netted tuber type, sticky stolons
MSAA076-6	439	510	86	10	86	0	4	1.084	1.5	0	0	0	0	0.5	0.1	1.5	3.5	Light netted tuber type, smaller round tuber type, deep apical eyes
MSEE016-10	427	470	91	8	91	0	2	1.087	1.0	0	0	0	0	0.5	0.0	1.0	3.5	Uniform round to oval, blocky medium netted tuber type
MSDD247-07	422	458	92	7	92	0	1	1.099	1.5	0	0	20	20	1.5	0.0	1.5	3.5	Flat round to oval, medium netted tuber type
F160032-6	410	447	92	8	92	0	1	1.072	1.0	0	0	0	0	1.0	0.1	2.0	3.5	Light bright skin appearance, smaller uniform round tuber type
MSGG302-1	383	415	92	3	78	14	5	1.081	1.5	0	0	0	0	0.5	0.1	1.5	3.5	Sticky stolons, deep apical eyes, growth cracks, knobs
AF6868-6	372	445	84	13	84	0	4	1.081	2.5	0	20	0	0	0.5	0.0	2.0	3.0	Pink blushed eyes, deep apical eyes, round oval blocky, light golden appearance, points, sticky stolons
AC13126-1Wadg	312	364	86	7	81	5	7	1.077	2.0	60	0	10	0	1.5	0.0	1.0	3.0	Round to oval, blocky misshapen tubers, deep apical eyes, medium netted
AC13125-SW	193	220	88	6	88	0	6	1.068	1.5	0	0	0	0	1.0	0.0	1.0	3.0	Large blocky round to oval, growth cracks, light netted tuber type
<b>MEAN</b>	<b>535</b>	<b>583</b>	<b>91</b>	<b>7</b>	<b>90</b>	<b>2</b>	<b>2</b>	<b>1.086</b>	<b>1.5</b>	<b>8</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>0.9</b>	<b>0.1</b>	<b>1.4</b>	<b>3.5</b>	

**<sup>1</sup>SIZE**

Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

**<sup>2</sup>SPECIFIC GRAVITY**

Total solids

**<sup>3</sup>OUT OF THE FIELD CHIP COLOR**

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

**<sup>4</sup>RAW TUBER QUALITY**

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

**<sup>5</sup>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

**<sup>6</sup>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

**<sup>7</sup>VINE VIGOR RATING**

Date: 06/19/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

**<sup>8</sup>VINE MATURITY RATING**

Date: 8/14/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**

Planting date 5/28/2024  
Vine Kill Date 9/27/2024  
Harvest Date 10/24/2024  
Days (planting to vine kill) 122  
Days (planting to harvest) 149  
CGDD<sub>10</sub> MAWN Station 3997 Allegan  
CGDD<sub>10</sub> (planting to vine kill) 3559  
Seed Spacing 10"

# Fresh chip Processing Trial, Black Gold Farms, St. Joseph County

Planting: 04/22/2024 Harvest: 08/19/2024

CGDD<sub>10</sub>: 3396

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
MSGG409-3	784	860	91	8	91	0	1	1.083	1.5	20	10	0	0	0.0	0.1	3.5	3.0	Flat round to oval tubers, traces of greening, severe skinning
Mackinaw	760	849	90	10	90	0	1	1.090	1.5	0	0	0	0	0.0	0.0	3.5	3.5	Flat round to oval tubers, medium to heavy netted skin, slight skinning
Snowden	744	799	93	7	92	1	0	1.090	1.0	0	0	0	0	0.0	0.0	3.5	3.0	Blocky flat round tuber, deep apical eyes, severe skinning
MSDD376-4	666	755	88	10	88	0	2	1.069	1.5	0	0	0	0	0.0	0.0	4.0	3.5	Large flat round tubers, sticky stolons, heavy netted skin, severe skinning
Manistee	658	724	91	9	91	0	0	1.078	1.0	0	0	0	0	0.5	0.0	4.0	3.0	Flat round tubers
AF5933-4	655	718	91	9	91	0	0	1.060	1.5	0	0	0	0	0.0	0.3	3.5	2.5	Flat round to oval tubers, slight skinning
NYU34-6	643	727	88	9	88	0	2	1.085	1.5	0	0	0	0	0.5	0.0	3.5	2.5	Flat oval to oblong large tubers, light to medium skin, some pear-shaped tubers, poor general appearance for chip industry
MSFF038-3	632	700	90	9	90	0	1	1.094	2.0	0	0	0	0	0.0	0.0	3.5	3.0	Flat round large tubers, minimal skinning
NY177	628	732	86	14	86	0	0	1.085	1.5	20	0	0	0	0.0	0.0	3.0	3.0	Flat round to oval, mod skinning
Atlantic	615	679	91	7	86	4	2	1.087	1.0	20	10	40	10	1.0	0.1	4.0	3.0	Blocky tubers, moderate skinning
MSFF037-17	608	691	88	10	88	0	2	1.085	2.0	0	0	0	0	0.5	0.1	2.5	3.0	Blocky flat round tubers, heat spouts and knobby tubers, slight skinning
AF6868-6	590	699	84	14	84	0	1	1.070	2.5	20	20	0	0	0.0	0.9	4.0	2.5	Pink bluish eyes, heat spouts, tuber knobbing, variable tuber shape, rough eyes
MSDD249-9	570	606	94	5	94	0	1	1.089	1.0	0	0	0	0	0.0	0.0	3.0	3.0	Blocky, flat round tubers, little skinning
AC13125-5W	486	566	86	13	86	0	1	1.081	1.5	0	0	0	0	0.0	0.2	3.5	2.0	Uniform round tubers, bright appearance
Dundee	471	506	93	6	92	1	1	1.084	1.0	0	0	0	0	0.0	0.0	3.0	3.0	Variable blocky round tubers, moderate skinning, medium to heavy skin set, soft rot susceptible
Sinatra	451	586	77	22	77	0	1	1.080	1.0	0	0	0	0	0.0	0.1	3.5	3.5	Variable tuber shapes, light skin, some knobby tubers
B3403-6	449	531	85	15	85	0	1	1.086	1.0	0	0	0	0	0.5	0.1	4.0	3.0	Flat round tubers, moderate skinning
MSAA076-6	436	553	79	19	79	0	2	1.087	1.5	0	0	0	0	0.0	0.0	3.5	3.0	Rough blocky tubers, deep apical eye, slight skinning
AC13126-1Wadg	421	465	91	9	91	0	0	1.079	1.5	0	0	0	0	1.5	0.2	4.0	2.5	Apical sprouting, rough appearance, slight soft rot, not for chip industry
MSEE016-10	414	510	81	18	81	0	1	1.072	1.5	0	0	0	0	0.0	0.0	3.0	3.0	Medium to round tubers, rough skin, slight skinning
FI60032-6	395	459	86	14	84	2	0	1.080	1.0	0	0	0	0	0.5	0.1	4.0	2.5	Variable skin and tuber shape
MSBB058-1	320	421	76	23	76	0	1	1.082	1.5	0	0	0	0	0.0	0.0	3.0	3.0	Small round tubers, moderate skinning
MI-4	301	438	69	29	69	0	2	1.080	1.0	20	0	0	0	0.5	0.0	3.5	3.5	Flat oval to oblong tubers, golden appearance, moderate skinning
CMK2009-630-001	185	333	56	43	56	0	2	1.077	2.5	20	20	0	0	0.0	0.0	4.0	2.5	Small round to oval tubers, golden appearance, moderate skinning
<b>MEAN</b>	<b>537</b>	<b>621</b>	<b>85</b>	<b>14</b>	<b>85</b>	<b>0</b>	<b>1</b>	<b>1.081</b>	<b>1.4</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0.2</b>	<b>0.1</b>	<b>3.5</b>	<b>2.9</b>	

<sup>1</sup>**SIZE**  
Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

<sup>2</sup>**SPECIFIC GRAVITY**  
Total solids

<sup>3</sup>**OUT OF THE FIELD CHIP COLOR**  
(SNAC Scale)  
Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>**RAW TUBER QUALITY**  
(percent of tubers out of 10)  
HH: Hollow Heart  
VD: Vascular Discoloration  
IBS: Internal Brown Spot  
BC: Brown Center

<sup>5</sup>**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

<sup>6</sup>**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

<sup>7</sup>**VINE VIGOR RATING**  
Date: 6/03/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>**VINE MATURITY RATING**  
Date: 8/9/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**  
Planting date: 4/22/2024  
Vine Kill Date: 8/19/2024  
Harvest Date: 8/19/2024  
Days (planting to vine kill): 119  
Days (planting to harvest): 119  
CGDD<sub>10</sub> MAWN Station: 3396 Mendon  
CGDD<sub>10</sub> (planting to vine kill): 3396  
Seed Spacing: 10"

# Storage Chip Processing Trial, Hamptons Potato Growers LLC, Bay County

Planting: 5/24/2024 Vine Kill: 09/01/2024 Harvest: 10/16/2024

CGDD<sub>40</sub>: 3907

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
AC13125-5W	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	1.5	3.5	Poor yield no data	
MSDD376-4	539	603	89	9	87	3	1	1.092	1.0	0	0	0	1.0	0.2	1.5	4.0	Large block flat tuber type, sticky stolons	
MSBB230-1	535	587	91	8	91	0	1	1.091	1.0	0	0	0	1.5	0.2	1.5	3.5	Light to medium netted, blocky round, deep apical eyes	
NYU34-6	531	583	91	7	91	0	2	1.098	1.0	10	0	0	1.5	0.0	1.5	3.5	Large round to oval blocky tuber type, light netted skin	
<b>Snowden</b>	<b>490</b>	<b>531</b>	<b>92</b>	<b>6</b>	<b>92</b>	<b>0</b>	<b>2</b>	<b>1.089</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.0</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Light netted skin, round oval blocky, sticky stolons, not uniform tuber type</b>	
MSGG302-1	471	508	93	5	90	3	2	1.099	1.0	0	0	0	0.5	0.3	1.5	3.5	Large round to oval, blocky, medium netted, sticky stolons deep apical eyes	
MSFF037-17	440	520	85	14	85	0	1	1.093	1.0	0	0	10	1.0	0.1	1.5	3.5	Flat round to oval, smaller tuber type, light netted, sticky stolons	
ND13220C-3	440	543	81	16	81	0	3	1.103	1.0	0	0	0	1.0	0.1	1.5	3.5	Light skin appearance, flat round, not uniform tuber type	
AF6896-1	418	460	91	7	91	0	2	1.094	1.0	0	0	0	1.5	0.0	1.5	3.5	Medium netted kin, flat blocky tuber type	
NY174	405	437	93	7	93	0	1	1.096	1.0	0	0	0	0.5	0.2	1.5	3.5	Light netted skin type, deeper apical eyes	
MSBB058-1	379	450	84	15	84	0	0	1.102	1.0	0	0	0	1.0	0.1	1.5	3.0	Smaller round uniform, medium netted, deeper apical eyes	
<b>Manistee</b>	<b>357</b>	<b>407</b>	<b>88</b>	<b>12</b>	<b>88</b>	<b>0</b>	<b>1</b>	<b>1.087</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.0</b>	<b>0.1</b>	<b>1.5</b>	<b>3.5</b>	<b>medium netted, blocky round tuber type, deeper apical eyes</b>	
MSDD249-9	351	379	93	6	93	0	2	1.094	1.0	0	0	0	1.0	0.2	1.5	3.0	Large round to oval, blocky, light netted tuber type	
F160032-6	346	400	87	12	87	0	1	1.078	1.0	0	0	0	1.0	0.2	1.5	3.5	Round uniform tuber type, bright appearance	
MSDD244-05	344	392	88	8	86	1	4	1.086	1.0	10	0	0	0.5	0.0	1.5	3.5	Blocky round tuber type, medium netted, slight growth cracks, deep apical eyes	
Dundee	344	390	88	7	87	2	5	1.097	1.0	0	0	0	1.0	0.1	1.5	3.5	Blocky round tuber type, sticky stolons, alligator skin	
AF6868-6	332	414	80	16	80	0	4	1.094	1.0	20	10	0	1.5	NA	1.5	3.5	Pink blush eye pigmentation, light yellow app, rough round tuber type	
MSAA076-6	325	410	79	19	79	0	2	1.094	1.0	0	0	10	1.0	0.1	1.5	3.5	Blocky round tuber type, light netted, deep apical eyes	
CMK2009-630-001	325	439	74	26	74	0	0	1.089	1.0	0	0	0	0.5	0.1	1.5	3.5	Medium netted tuber type, round to oval, not uniform	
Petoskey	324	396	82	14	82	0	4	1.093	1.0	0	0	0	1.0	0.0	1.5	3.5	Medium blocky round tuber type, light to medium netted, traces of growth cracks	
MSFF038-3	313	368	85	12	85	0	3	1.084	1.0	0	0	0	1.5	0.1	1.5	3.5	Traces growth cracks, light netted, deeper apical eyes	
AF5933-4	311	364	86	13	86	0	1	1.094	1.0	0	0	0	1.0	0.0	1.5	3.5	Light netted, smaller round tuber type	
NY177	306	356	86	13	86	0	1	1.094	1.0	0	0	0	1.5	0.1	1.5	3.5	Blocky flat round to oval, light to medium netted skin	
<b>Mackinaw</b>	<b>297</b>	<b>344</b>	<b>86</b>	<b>12</b>	<b>86</b>	<b>0</b>	<b>2</b>	<b>1.083</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Medium netted, blocky round to oval, not uniform</b>	
<b>Lamoka</b>	<b>293</b>	<b>323</b>	<b>91</b>	<b>8</b>	<b>91</b>	<b>0</b>	<b>1</b>	<b>1.087</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.5</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Flat round to oval, blocky, light netted skin</b>	
MSGG409-3	282	363	78	22	78	0	1	1.087	1.0	0	0	0	0.5	0.2	1.5	3.5	Round oval medium size tuber type, light netted skin	
<b>Bliss</b>	<b>246</b>	<b>296</b>	<b>83</b>	<b>12</b>	<b>83</b>	<b>0</b>	<b>5</b>	<b>1.086</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Large blocky round to oval, light netted tuber type</b>	
Sinatra	222	311	72	25	72	0	3	1.083	1.0	0	0	0	1.0	0.0	1.5	4.0	Smaller flat round, light netted skin, traces of heat sprouts	
MSEE016-10	210	266	79	20	79	0	1	1.099	1.0	0	0	0	1.0	0.1	1.5	3.5	Small round tuber type, medium netted	
MI-4	152	286	53	47	53	0	0	1.086	1.0	0	0	0	2.0	0.0	1.5	3.5	Smaller to oval tuber type, light yellow appearance	
<b>MEAN</b>	<b>356</b>	<b>418</b>	<b>84</b>	<b>14</b>	<b>84</b>	<b>0</b>	<b>2</b>	<b>1.091</b>	<b>1.0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1.1</b>	<b>0.1</b>	<b>1.5</b>	<b>3.5</b>		

<sup>1</sup>**SIZE**  
Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole numbers

<sup>2</sup>**SPECIFIC GRAVITY**  
Total solids

<sup>3</sup>**OUT OF THE FIELD CHIP COLOR**  
(SNAC Scale)  
Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>**RAW TUBER QUALITY**  
(percent of tubers out of 10)  
HH: Hollow Heart  
VD: Vascular Discoloration  
IBS: Internal Brown Spot  
BC: Brown Center

<sup>5</sup>**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

<sup>6</sup>**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

<sup>7</sup>**VINE VIGOR RATING**  
Date: 06/20/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>**VINE MATURITY RATING**  
Date: 08/16/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**  
Planting date: 5/24/2024  
Vine Kill Date: 9/1/2024  
Harvest Date: 10/16/2024  
Days (planting to vine kill): 100  
Days (planting to harvest): 145  
CGDD<sub>40</sub> (MAWN Station): 3907  
CGDD40 (planting to vine kill): 2947  
Seed Spacing: 10"

# Fresh Chip Processing Trial, Lennard Ag Co., St. Joseph County

Planting: 5/16/24 Vine Kill: 8/27/2024 Harvest: 8/27/2024

CGDD<sub>10</sub>: 2866

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
MSGG409-3	525	566	93	4	93	0	3	1.086	1.0	0	0	0	0	0.0	0.0	1.0	4.0	Large blocky flat tubers, light skin, minimum skinning
<b>Atlantic</b>	<b>476</b>	<b>529</b>	<b>90</b>	<b>5</b>	<b>90</b>	<b>0</b>	<b>5</b>	<b>1.091</b>	<b>1.5</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.1</b>	<b>2.0</b>	<b>3.0</b>	<b>Uniform tuber shape, round blocky, uniform size, minimum skinning</b>
<b>Bliss</b>	<b>439</b>	<b>524</b>	<b>84</b>	<b>11</b>	<b>84</b>	<b>0</b>	<b>5</b>	<b>1.085</b>	<b>2.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Oval blocky tubers, light skin appearance</b>
Dundee	438	456	96	4	96	0	0	1.092	1.5	0	0	0	0	1.5	0.1	1.0	3.5	Large round oval tubers, moderate skinning, traces of growth cracks
NYU34-6	436	497	88	8	88	0	4	1.098	1.0	30	0	0	0	0.0	0.0	2.0	3.0	Large round oval, little skinning
<b>Mackinaw</b>	<b>408</b>	<b>442</b>	<b>92</b>	<b>7</b>	<b>92</b>	<b>0</b>	<b>1</b>	<b>1.095</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.5</b>	<b>3.5</b>	<b>Blocky round tubers, netted skin, minimum skinning</b>
NY177	402	461	87	10	87	0	3	1.097	1.5	0	0	0	0	0.0	0.0	2.0	3.5	Large blocky tubers, uniform tuber size, minimum skinning
F160032-6	402	452	89	10	89	0	1	1.078	1.5	0	0	0	0	0.5	0.0	2.0	3.0	Round medium sized tubers, minimum skinning, deep stem end eyes
<b>Snowden</b>	<b>394</b>	<b>474</b>	<b>83</b>	<b>17</b>	<b>83</b>	<b>0</b>	<b>0</b>	<b>1.085</b>	<b>1.5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Round flat uniform tubers, minimum skinning</b>
<b>Manistee</b>	<b>393</b>	<b>437</b>	<b>90</b>	<b>8</b>	<b>90</b>	<b>0</b>	<b>2</b>	<b>1.086</b>	<b>1.5</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Large round tubers, greening, minimum skinning</b>
MSDD249-9	392	433	91	3	91	0	6	1.085	1.0	0	0	0	0	2.0	0.1	1.0	3.5	Large non uniform tuber shape, little skinning,
NC821-30	391	459	85	10	85	0	5	1.099	1.5	100	0	0	0	0.0	0.1	1.0	3.0	Flat large round tubers, light skin
NY174	370	404	92	7	92	0	1	1.092	1.5	0	0	0	0	0.0	0.0	1.0	3.5	Light skin appearance, blocky round, little skinning, uniform tuber size
ND13220C-3	351	471	75	22	75	0	4	1.101	2.0	10	0	0	0	0.5	0.0	2.0	3.5	Blocky large tubers, light skin, medium skinning, variable tuber shape
AF5933-4	349	385	91	8	91	0	1	1.095	1.5	10	0	0	0	1.0	0.0	1.5	3.0	Round to blocky oblong, medium to large tubers
MSDD376-4	346	403	86	13	86	0	1	1.086	2.0	0	0	0	0	1.5	0.0	2.0	3.5	Misshapes, pear-shapes, flat round tubers, non uniform tubers
MSEE031-3	330	377	88	11	88	0	1	1.085	2.0	30	10	0	0	0.5	0.0	1.5	3.5	Blocky large tubers, minimum skinning, light skin appearance
MSBB058-1	324	376	86	11	61	25	3	1.090	1.5	0	0	0	0	0.5	0.0	1.0	3.0	Mishappen round-like tubers, deep stem end eye, minimum skinning
MSAA076-6	322	374	86	13	86	0	1	1.084	2.0	0	0	0	0	1.0	0.0	1.5	3.0	Growth cracks, non uniform tubers, medium round oval
MSFF038-3	289	338	86	7	86	0	7	1.084	1.5	0	0	0	0	0.5	0.1	1.0	3.0	Growth cracks, netted skin, minimum skinning
MSGG302-1	276	326	85	10	85	0	6	1.082	1.5	0	0	0	0	2.0	0.1	1.0	3.5	Growth cracks, misshapes
MSEE016-10	252	321	79	14	79	0	8	1.090	1.5	10	0	0	0	0.5	0.0	1.0	3.0	Netted skin, minimum skinning, oval-round-like tubers
AC13126-1Wadg	245	335	73	12	73	0	15	1.080	1.5	0	0	0	0	2.5	0.1	1.5	2.5	Round blocky uniform tuber shape
MSFF037-17	239	302	79	17	79	0	4	1.086	1.5	0	10	0	0	1.0	0.0	1.0	3.5	Oval round tubers
AC13125-5W	226	306	74	24	74	0	2	1.067	1.5	0	0	0	0	0.5	0.3	1.5	3.0	Uniform tuber shape, round oval, light skin, little skinning
Petoskey	215	299	72	15	72	0	13	1.088	1.5	0	0	0	0	0.5	0.0	1.0	3.0	Growth cracks, misshapen
MI-4	182	448	41	56	41	0	4	1.094	2.0	0	0	0	0	0.0	0.0	1.5	3.0	Oval tubers, yellow light skin, minimum skinning
Sinatra	160	343	47	41	47	0	12	1.092	1.5	0	0	0	0	2.0	0.2	1.5	4.0	Small-sized tubers, round oval, minimum skinning
CMK2009-630-001	144	362	40	56	40	0	4	1.087	1.5	10	0	0	0	1.0	0.0	1.5	3.0	Light yellow skin, round oval, minimum skinning
AF6868-6	66	181	36	38	36	0	26	1.077	2.5	0	0	0	0	1.5	0.3	1.5	3.5	Severe rots, not uniform tuber shape, pink eyes, oval to pointy
<b>MEAN</b>	<b>326</b>	<b>403</b>	<b>79</b>	<b>16</b>	<b>79</b>	<b>1</b>	<b>5</b>	<b>1.088</b>	<b>1.6</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0.8</b>	<b>0.0</b>	<b>1.4</b>	<b>3.2</b>	

<sup>1</sup>**SIZE**

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

% of total: Values rounded to the nearest whole number

<sup>2</sup>**SPECIFIC GRAVITY**

Total solids

<sup>3</sup>**OUT OF THE FIELD CHIP COLOR**

(SNAC Scale)

Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>**RAW TUBER QUALITY**

(percent of tubers out of 10)

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

<sup>5</sup>**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

<sup>6</sup>**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

<sup>7</sup>**VINE VIGOR RATING**

Date: 6/11/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>**VINE MATURITY RATING**

Date: 8/12/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**

Planting date 5/16/2024  
Vine Kill Date 8/27/2024  
Harvest Date 8/27/2024  
Days (planting to vine kill) 103  
Days (planting to harvest) 103  
CGDD<sub>10</sub> MAWN Station 2866 Cassopolis  
CGDD<sub>10</sub> (planting to vine kill) 2866  
Seed Spacing 10"



# Storage Chip Processing Trial, Lennard Ag Co., St. Joseph County

Planting: 04/25/2025 Vine Kill: 8/28/2024 Harvest: 9/26/2024  
CGDD<sub>40</sub>: 4426

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>						RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	HH	VD	IBS						BC
MSGG409-3	788	841	94	5	94	0	1	1.097	1.0	0	30	50	0	1.0	0.4	3.0	3.0	Heavy netted, large blocky, sticky stolons
NY174	759	790	96	4	95	1	0	1.104	1.0	0	0	0	0	0.5	0.2	4.0	3.0	Large blocky round tuber type, medium netted
MSGG302-1	705	741	95	3	94	2	1	1.090	1.0	0	50	0	0	1.0	0.2	4.0	3.0	Large blocky round tuber type, medium netted, slight heat sprouts
MSDD376-4	633	706	90	10	90	0	1	1.083	1.0	0	50	30	0	0.5	NA	4.0	3.5	Heavy netted, uniform round tuber type, slight heat sprouts
<b>Mackinaw</b>	<b>627</b>	<b>657</b>	<b>95</b>	<b>4</b>	<b>95</b>	<b>0</b>	<b>0</b>	<b>1.093</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.2</b>	<b>4.0</b>	<b>3.0</b>	<b>Blocky round to oval tuber type, sticky stolons, medium netted</b>
MSBB230-1	627	702	89	10	89	0	1	1.098	1.0	0	0	0	0	1.0	0.6	4.0	3.0	Heavy netted skin, uniform round tuber type, deep apical eyes
MSFF029-10	608	667	91	9	91	0	0	1.099	1.0	0	20	50	0	1.5	0.4	3.5	3.0	Heavy netted, round blocky
MSBB058-1	602	675	89	11	89	0	0	1.092	1.0	0	0	0	0	1.0	0.1	3.5	3.0	Round oval tuber type, medium netted, uniform tuber type
MSDD249-9	572	605	94	6	94	0	0	1.098	1.0	0	0	0	0	1.5	0.1	3.5	3.0	Blocky oval, light skin type
<b>Snowden</b>	<b>565</b>	<b>645</b>	<b>88</b>	<b>12</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>1.094</b>	<b>1.0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.1</b>	<b>4.0</b>	<b>2.5</b>	<b>Heavy netted, round blocky, sticky stolons</b>
ND13220C-3	558	795	70	30	70	0	0	1.088	1.0	0	10	0	0	0.5	0.1	4.0	3.0	Flat round to oval, blocky not uniform, light netted, slight heat sprouts
<b>Bliss</b>	<b>554</b>	<b>638</b>	<b>87</b>	<b>13</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>1.089</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>4.0</b>	<b>3.0</b>	<b>Light netted skin, round to oval blocky tuber type</b>
<b>Manistee</b>	<b>533</b>	<b>578</b>	<b>92</b>	<b>8</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>1.094</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>1.5</b>	<b>0.1</b>	<b>4.0</b>	<b>3.0</b>	<b>Heavy netted, blocky round oval to flat, sticky stolons</b>
MSDD244-05	530	564	94	5	94	0	1	1.087	1.0	0	0	0	0	1.0	0.1	4.0	3.0	Growth cracks, medium netted, rough appearance, large blocky tuber type
<b>Dundee</b>	<b>527</b>	<b>576</b>	<b>91</b>	<b>6</b>	<b>91</b>	<b>0</b>	<b>3</b>	<b>1.088</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>4.0</b>	<b>3.0</b>	<b>Medium netted, blocky round oval tuber type, not uniform</b>
MSFF037-17	516	580	89	11	89	0	0	1.092	1.0	0	20	50	0	1.0	0.1	3.0	3.0	Round oval uniform tuber type, medium netted, heat sprouts
MSFF038-3	512	559	92	8	92	0	1	1.094	1.0	0	10	0	0	1.5	0.2	3.5	3.0	Large blocky round tuber type, medium netted
MSDD244-15	512	540	95	5	95	0	0	1.086	1.0	10	0	0	0	0.5	0.0	3.5	3.0	Misshapen, medium netted, deep stem end
NY177	509	588	87	13	87	0	0	1.092	1.0	0	0	30	0	0.5	0.4	3.5	2.5	Smaller round to oval tuber type, light to medium skin netted
AF5933-4	489	553	88	11	88	0	0	1.086	1.0	0	40	0	0	1.0	0.3	3.5	5.0	Round oval, not uniform tuber type, light skin netting
CMK2009-630-001	450	605	74	22	74	0	4	1.092	1.0	0	10	0	0	2.0	0.1	4.0	2.5	Knobs, golden yellow appearance, round to oval and not uniform
<b>Lamoka</b>	<b>421</b>	<b>468</b>	<b>90</b>	<b>7</b>	<b>90</b>	<b>0</b>	<b>3</b>	<b>1.079</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.1</b>	<b>4.5</b>	<b>2.5</b>	<b>Blocky oval, light skin type</b>
MSDD247-11	409	479	85	15	85	0	0	1.099	1.0	0	0	0	0	0.5	0.1	4.0	2.5	Round oval, netted skin
AC13126-1Wadg	407	440	92	7	92	0	1	1.076	1.0	0	0	10	0	2.0	0.1	4.0	2.0	Heat sprouts, medium netted, round oval, sticky stolons
AC13125-5W	372	429	87	13	87	0	1	1.076	1.0	0	10	10	0	2.0	0.1	3.5	1.5	Light skin netting, round oval uniform
Petoskey	354	434	82	18	82	0	0	1.095	1.0	0	40	0	0	0.5	0.2	4.0	3.0	Round oval tuber type, medium netted
MSDD247-07	353	400	88	11	88	0	1	1.087	1.0	0	0	20	0	0.5	0.1	4.5	3.0	Flat round to oval, medium netted skin
F160032-6	343	402	85	14	85	0	0	1.102	1.0	0	10	0	0	1.0	0.3	4.5	2.5	Round uniform, medium to light skin appearance
MSEE016-10	342	422	81	19	81	0	0	1.092	1.0	0	0	30	0	1.0	0.0	3.5	3.0	Round oval uniform, medium netted
NYU34-6	335	440	76	23	76	0	1	1.100	1.0	0	0	0	0	2.0	0.2	3.5	3.0	Flat round to oval, light skin appearance, slight heat sprouts
MSAA076-6	335	417	80	18	80	0	1	1.090	1.5	0	0	100	0	1.0	0.0	3.5	3.0	light skin appearance, smaller oval to round, slight heat sprouts
AF6896-1	318	407	78	21	78	0	1	1.084	1.0	0	10	0	0	1.0	0.3	3.5	3.0	Round to oval, medium netted skin
Sinatra	293	432	68	30	68	0	2	1.088	1.0	0	0	10	0	1.0	0.0	4.0	3.0	Oval to oblong, light skin appearance, smaller tuber type
MI-4	289	482	60	35	60	0	5	1.089	1.0	0	10	0	0	2.0	0.2	4.5	3.0	Golden yellow appearance, traces of knobs, oval to oblong, medium netted
AF6868-6	245	367	67	32	67	0	1	1.091	1.0	0	30	0	0	0.5	0.1	4.5	3.0	Severe heat sprouts, pink eyes. Smaller round to oval
<b>MEAN</b>	<b>485</b>	<b>561</b>	<b>86</b>	<b>13</b>	<b>86</b>	<b>0</b>	<b>1</b>	<b>1.091</b>	<b>1.0</b>	<b>0</b>	<b>11</b>	<b>12</b>	<b>0</b>	<b>1.0</b>	<b>0.2</b>	<b>3.8</b>	<b>2.9</b>	

<sup>1</sup>SIZE: Bs: < 1 7/8" As: 1 7/8" - 3 1/4" OV: > 3 1/4" PO: Pickouts  
% of total: Numbers rounded to whole numbers

<sup>2</sup>SPECIFIC GRAVITY: Total solids  
<sup>3</sup>OUT OF THE FIELD CHIP COLOR (SNAC Scale): Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>RAW TUBER QUALITY (percent of tubers out of 10):  
HH: Hollow Heart  
VD: Vascular Discoloration  
IBS: Internal Brown Spot  
BC: Brown Center

<sup>5</sup>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

<sup>6</sup>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

<sup>7</sup>VINE VIGOR RATING: Date: 06/03/2024 Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>VINE MATURITY RATING: Date: 08/09/2024 Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**  
Planting date: 4/25/2024  
Vine Kill Date: 8/28/2024  
Harvest Date: 9/26/2024  
Days (planting to vine kill): 125  
Days (planting to harvest): 154  
CGDD<sub>40</sub> MAWN Station: 4426 Constantine  
CGDD<sub>40</sub> (planting to vine kill): 3618  
Seed Spacing: 10"

# Storage Chip Processing Trial, Main Farms LLC, Montcalm County

Planting: 05/23/2024 Vine Kill: 09/08/2024 Harvest: 10/07/2024  
CGDD<sub>10</sub>: 3684

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
MSDD376-4	588	635	93	7	93	0	0	1.090	1.0	0	20	20	0	2.0	0.0	1.5	3.5	Flat round blocky, large, medium dark netted
MSFF038-3	550	609	90	7	90	0	3	1.086	1.0	0	20	0	0	1.5	0.0	1.0	3.0	Flat round, medium heavy netted, deep apical eyes
MSFF029-10	523	608	86	13	86	0	1	1.091	1.0	0	0	0	0	2.0	0.0	1.5	3.0	Flat round, uniform, medium dark netted
<b>Mackinaw</b>	<b>512</b>	<b>604</b>	<b>85</b>	<b>15</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>1.089</b>	<b>1.0</b>	<b>0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>3.5</b>	<b>Flat round, light to medium netted</b>
MSGG409-3	502	592	85	14	85	0	1	1.083	1.0	0	0	0	0	0.5	0.5	1.0	3.5	Blocky round tuber type, nice general appearance, light netted skin type
ND13220C-3	477	622	77	21	77	0	2	1.098	1.0	0	10	10	0	2.0	0.0	1.0	4.0	Flat round oval, light netted
MSDD244-05	473	512	92	6	91	1	1	1.082	1.0	0	10	0	0	0.5	0.0	1.5	3.0	Blocky round, medium netted, moderate growth cracks
<b>Snowden</b>	<b>450</b>	<b>511</b>	<b>88</b>	<b>12</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>1.087</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.0</b>	<b>0.1</b>	<b>1.5</b>	<b>2.5</b>	<b>Blocky round, not uniform tuber type</b>
F160032-6	438	520	84	15	84	0	1	1.080	1.0	0	10	0	0	1.0	0.0	1.5	2.5	Small round tuber type, light netted
MSBB058-1	416	491	85	15	85	0	1	1.097	1.0	0	0	10	0	1.5	0.0	1.0	3.0	Small blocky round
<b>Bliss</b>	<b>385</b>	<b>456</b>	<b>84</b>	<b>15</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>1.088</b>	<b>1.0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>2.5</b>	<b>Small blocky round, light netted</b>
<b>Lamoka</b>	<b>378</b>	<b>446</b>	<b>85</b>	<b>12</b>	<b>85</b>	<b>0</b>	<b>3</b>	<b>1.084</b>	<b>1.0</b>	<b>0</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.1</b>	<b>2.0</b>	<b>2.5</b>	<b>Flat round oval, light netted</b>
MSDD247-11	366	434	84	15	84	0	0	1.090	1.0	30	0	0	0	0.5	0.0	1.5	3.0	Small round tuber type, heavy netted
NY177	366	500	73	25	73	0	2	1.095	1.0	0	30	0	0	1.5	0.1	1.0	3.0	Flat round to oval, pear shape traces, light netted
MSE016-10	355	428	83	15	83	0	3	1.089	1.0	0	10	0	0	1.0	0.0	1.0	3.0	Blocky round, medium heavy netted
CMK2009-630-001	354	510	69	29	69	0	1	1.089	1.0	0	0	0	0	2.5	0.0	2.0	3.0	Small round oval, golden appearance
MSFF037-17	350	453	77	22	77	0	1	1.089	1.0	0	0	0	0	2.0	0.0	1.0	3.0	Blocky round, medium netted
MSGG302-1	349	364	96	4	94	2	0	1.090	1.0	0	20	10	0	0.5	0.2	1.0	3.0	Blocky round large, medium netted
NY174	339	403	84	16	84	0	0	1.091	1.0	0	0	10	0	2.0	0.0	1.5	3.0	Blocky round oval not uniform, medium netted
NC821-30	328	371	88	11	88	0	1	1.093	1.0	0	0	0	0	1.5	0.1	1.0	3.0	Blocky round, medium netted
MSAA076-6	311	349	89	10	89	0	1	1.091	1.0	0	10	0	0	1.0	0.0	1.0	3.0	Rough general appearance, light netted
NYU34-6	305	417	73	26	73	0	1	1.098	1.0	0	20	0	0	2.0	0.0	1.5	3.0	Flat round oval, not uniform tuber type
AC13126-1Wadg	304	353	86	13	86	0	1	1.076	1.0	0	0	0	0	2.0	0.1	1.0	2.0	Blocky round oval, medium netted
<b>Manistee</b>	<b>297</b>	<b>363</b>	<b>82</b>	<b>18</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>1.082</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.5</b>	<b>0.0</b>	<b>1.0</b>	<b>2.0</b>	<b>Round heavy netted</b>
MSDD244-15	293	366	80	14	80	0	6	1.077	1.0	10	0	0	0	0.5	0.0	1.0	3.0	Flat round tuber type, medium heavy netted, deep apical eyes
MSDD249-9	285	344	83	17	83	0	0	1.089	1.0	0	10	0	0	1.0	0.0	1.0	3.0	Flat round, light to medium netted
MSBB230-1	283	332	85	15	85	0	0	1.085	1.0	0	0	0	0	2.0	0.1	1.5	3.0	Blocky round, medium netted
AF6868-6	270	367	74	26	74	0	0	1.074	NA	0	0	0	0	2.5	NA	2.0	1.5	Pink eyes, bright yellow appearance
AF5933-4	260	337	77	23	77	0	0	1.090	1.0	0	0	20	0	2.0	0.1	1.0	2.0	Round oval, light skin netted
MSDD247-07	244	299	82	16	82	0	2	1.104	1.0	20	0	0	10	1.0	0.0	1.5	3.0	Flat blocky round, medium netted
Dundee	237	302	79	15	79	0	6	1.101	1.0	0	0	0	0	1.0	0.0	1.5	3.0	Traces of growth cracks, blocky round medium to heavy netted skin
AC13125-5W	221	293	76	23	76	0	1	1.067	1.0	50	0	0	0	2.0	0.1	1.0	2.5	Small round oval, light netted
MI-4	185	344	54	46	54	0	0	1.085	1.0	10	0	0	0	2.0	0.0	1.5	3.0	Flat round oval, small not uniform tuber type, medium netted
AF6896-1	177	259	68	30	68	0	2	1.088	1.0	0	10	0	0	1.0	0.1	1.5	2.5	Small round tuber type
Sinatra	173	346	50	50	50	0	0	1.087	1.0	0	0	10	0	1.5	0.0	1.5	2.5	Small flat round, traces of pear shaped
<b>MEAN</b>	<b>353</b>	<b>433</b>	<b>81</b>	<b>18</b>	<b>81</b>	<b>0</b>	<b>1</b>	<b>1.088</b>	<b>1.0</b>	<b>3</b>	<b>7</b>	<b>3</b>	<b>0</b>	<b>1.4</b>	<b>0.0</b>	<b>1.3</b>	<b>2.8</b>	

**<sup>1</sup>SIZE**

Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

**<sup>2</sup>SPECIFIC GRAVITY**

Data not replicated

**<sup>3</sup>OUT OF THE FIELD CHIP COLOR**

(SNAC Scale)

Ratings: 1 - 5  
1: Excellent  
5: Poor

**<sup>4</sup>RAW TUBER QUALITY**

(percent of tubers out of 10)

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

**<sup>5</sup>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

**<sup>6</sup>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

**<sup>7</sup>VINE VIGOR RATING**

Date: 06/17/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

**<sup>8</sup>VINE MATURITY RATING**

Date: 8/23/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**

Planting date 5/23/2024  
Vine Kill Date 9/8/2024  
Harvest Date 10/7/2024  
Days (planting to vine kill) 108  
Days (planting to harvest) 137  
CGDD<sub>10</sub> MAWN Station 3684  
CGDD<sub>10</sub> (planting to vine kill) 2992  
Seed Spacing 10"

Entrican/Lakeview

# Storage Chip Processing Trial, MPIC Box Bin, Montcalm Research Center, Montcalm County

Planting: 05/10/2024 Vine Kill: 9/03/2024 Harvest: 09/25/2024  
CGDD<sub>40</sub>: 3026

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
MSDD372-07 LOW N	598	710	84	16	84	0	0	1.093	1.0	0	0	0	0	0.5	0.0	1.5	3.0	Flat round tuber type, sticky stolons
MSGG409-3	582	674	86	12	86	0	1	1.083	1.0	0	0	0	0	1.0	0.2	1.0	3.0	Uniform blocky-round-oval tubers, sticky stolons, medium netted skin
MSDD376-4	551	609	90	8	90	0	2	1.087	1.0	0	0	0	0	0.5	0.0	1.5	2.5	Flat round-oval tubers, sticky stolons, heavy netted skin, deep apical eye
MSDD249-9	502	521	96	4	96	0	0	1.086	1.0	0	0	0	0	1.5	0.0	1.0	2.0	Large blocky tuber type, light skin type, round to oval
MSDD376-4 LOW N	493	566	87	12	87	0	1	1.084	1.0	0	20	0	0	0.5	0.1	1.5	2.5	Uniform blocky round to oval, sticky stolons, medium netted skin
MSGG302-1	492	512	96	2	89	7	2	1.084	1.0	10	0	0	0	0.5	0.0	1.5	2.0	Large blocky round tubers, growth cracks, deeper eyes, sticky stolons
MSBB630-2 LOW N	433	504	86	13	86	0	2	1.079	1.0	0	0	0	0	0.5	0.0	1.0	3.5	Round tuber type, bright skin, shallow eyes
ND13220C-3	420	588	72	28	72	0	0	1.092	1.0	0	0	0	0	2.0	0.0	2.0	3.0	Flat round to oval, blocky tuber type
NY174	367	396	93	7	93	0	0	1.089	1.0	0	0	0	0	1.0	0.1	1.5	2.0	Flat round to oval, large tuber type
MSDD247-07	361	411	88	11	88	0	1	1.103	1.0	0	0	0	0	1.5	0.0	1.5	2.0	Flat round to oval, heavy netted skin
MSBB060-1	359	365	98	2	98	0	0	1.085	1.0	0	0	0	0	0.5	0.0	1.0	2.5	Blocky round tuber type, sticky stolons
MSFF037-17	356	411	86	14	86	0	0	1.085	1.0	0	0	0	0	1.0	0.0	1.0	2.0	Flat round to oval, sticky stolons
Dundee	355	410	86	12	86	0	2	1.101	1.0	0	0	0	0	0.5	0.0	1.0	2.5	Sticky stolons, blocky round tuber type
MSFF029-10	348	434	80	20	80	0	0	1.090	1.0	0	0	0	0	1.5	0.0	1.0	1.5	Blocky round to oval, medium heavy netted skin
MSBB058-1	345	398	87	9	87	0	5	1.087	1.0	0	0	0	0	0.5	0.0	1.5	2.0	Blocky round, growth cracks, sticky stolons
NYU34-6	329	384	86	14	86	0	1	1.091	1.0	0	0	0	0	2.0	0.0	1.5	2.0	Flat round to oval, blocky tuber type
MSDD244-15	328	351	93	5	93	0	2	1.085	1.0	0	0	0	0	0.5	0.0	1.0	2.0	Medium netted, slight skimming, sheep nose
MSEE031-3	327	368	89	10	89	0	1	1.082	1.0	0	0	0	0	1.0	0.1	1.5	1.5	Blocky flat round tuber type, sheep nose, light to medium skin type
AC13126-1Wadg	325	349	93	6	93	0	1	1.076	1.0	20	0	0	0	1.5	0.0	1.0	2.0	Flat round to oval, blocky, deep apical eye
MSFF038-3	325	384	85	14	85	0	1	1.082	1.0	10	0	0	0	1.0	0.0	1.5	2.0	Blocky round to oval larger tuber type, deep apical eye, light skimming
AF6671-10	302	361	84	16	84	0	1	1.089	1.0	0	0	0	0	1.0	0.0	1.5	1.0	Medium round to oval tuber type
MSDD247-11	290	355	82	18	82	0	1	1.095	1.0	0	0	0	0	0.5	0.0	1.0	2.0	Small round uniform, heavy netted skin
MSDD244-05	276	329	84	15	84	0	2	1.083	1.0	0	0	0	0	0.0	0.0	1.0	2.5	Deep apical eye, flat round to oval, heavy netted skin
MSEE035-4	271	327	83	16	83	0	1	1.089	1.0	0	0	0	0	1.0	0.0	1.0	2.5	Light netted, round to oval, pear shapes
NY177	269	370	73	26	73	0	2	1.097	1.0	0	0	0	0	1.0	0.0	1.5	2.0	Small round uniform, round to oval
<b>Bliss</b>	<b>261</b>	<b>316</b>	<b>82</b>	<b>17</b>	<b>82</b>	<b>0</b>	<b>0</b>	<b>1.088</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.0</b>	<b>1.0</b>	<b>2.0</b>	<b>Small round to oval tuber type, light netted skin</b>
MSGA24-02	254	268	95	5	95	0	0	1.095	1.0	0	0	0	0	0.5	0.1	2.0	3.0	Blocky tubers, sticky stolons, medium skinning, poor periderm formation
CMK2009-630-001	246	344	71	28	71	0	0	1.083	1.0	0	0	0	0	2.0	0.0	2.0	1.5	Oval tuber type, slight golden yellow
MSEE016-10	241	333	72	26	72	0	2	1.088	1.0	0	0	0	0	1.5	0.0	1.0	2.0	Round uniform tuber type, deeper apical eye
<b>Snowden</b>	<b>235</b>	<b>317</b>	<b>74</b>	<b>26</b>	<b>74</b>	<b>0</b>	<b>0</b>	<b>1.078</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3.0</b>	<b>0.0</b>	<b>1.5</b>	<b>1.0</b>	<b>Round tuber type, heavy netted skin</b>
AC13125-5W	230	280	82	18	82	0	0	1.068	1.0	0	0	0	10	2.5	0.0	1.0	1.0	Round to oval tuber type, medium netted
MSAA076-6	227	292	78	22	78	0	1	1.086	1.0	0	0	0	0	1.5	0.0	1.5	2.5	Blocky round tuber type, deep apical eye
B3403-6	184	274	67	33	67	0	0	1.096	1.0	0	0	0	0	2.5	0.0	1.5	2.5	Smaller round tuber type, medium netted skin, slight skimming
Kal. 91.03	180	210	86	14	86	0	0	1.085	1.0	0	0	0	0	0.5	0.0	1.0	3.0	Blocky round, medium netted
AF5933-4	173	268	65	32	65	0	3	1.089	1.0	0	0	0	0	2.0	0.0	1.5	1.0	Small round uniform, traces of growth cracks
Sinatra	167	302	55	44	55	0	1	1.090	1.0	0	0	0	0	0.5	0.0	2.0	2.0	Small round to oval, light skin type
MSBB230-1 LOW N	167	269	62	37	62	0	1	1.081	1.0	0	0	0	0	1.0	0.0	2.5	2.5	Small round tuber type, light skin
AF6896-1	166	218	76	24	76	0	0	1.083	1.5	0	0	0	0	0.5	0.5	1.5	1.5	Round to oval tuber type
Elevate	147	242	61	39	61	0	0	1.079	1.0	0	0	0	0	2.0	0.0	2.0	3.0	Small round tuber type, slight skimming
<b>MEAN</b>	<b>320</b>	<b>385</b>	<b>82</b>	<b>17</b>	<b>82</b>	<b>0</b>	<b>1</b>	<b>1.087</b>	<b>1.0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1.1</b>	<b>0.0</b>	<b>1.4</b>	<b>2.2</b>	

<sup>1</sup>SIZE  
Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

<sup>2</sup>SPECIFIC GRAVITY  
Total solids

<sup>3</sup>OUT OF THE FIELD CHIP COLOR  
(SNAC Scale)  
Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>RAW TUBER QUALITY  
(percent of tubers out of 10)  
HH: Hollow Heart  
VD: Vascular Discoloration  
IBS: Internal Brown Spot  
BC: Brown Center

<sup>5</sup>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

<sup>6</sup>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

<sup>7</sup>VINE VIGOR RATING  
Date: 6/10/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>VINE MATURITY RATING  
Date: 8/22/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**  
Planting date: 6/10/2024  
Vine Kill Date: 9/3/2024  
Harvest Date: 9/25/2024  
Days (planting to vine kill): 85  
Days (planting to harvest): 107  
CGDD<sub>40</sub> MAWN Station: 3026  
CGDD<sub>40</sub> (planting to vine kill): 2487  
Seed Spacing: 10"

# Potatoes USA/SNAC Trial, Sandyland Farms, Montcalm County

Planting: 05/01/2024 Vine Kill: 08/28/2024 Harvest: 10/03/2024  
CGDD<sub>10</sub>: 4072

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
ND13220C-3	563	725	78	19	78	0	3	1.095	1.0	0	0	0	0	2.7	0.1	2.5	3.5	Flat blocky round oval, light netted, not uniform, traces of points
AF6206-5	491	570	86	13	86	0	1	1.102	1.0	4	0	0	0	2.8	0.0	2.0	3.0	Blocky round oval, medium netted
AF6206-3	476	567	84	15	84	0	1	1.097	1.0	1	0	0	0	3.2	0.0	2.0	2.5	Flat round oval blocky, medium netted
W17AF6670-1	444	531	84	16	84	0	0	1.083	1.0	1	0	0	0	1.8	0.0	2.0	3.0	Blocky flat round medium to heavy netted
NY174	438	520	84	14	84	0	2	1.087	1.0	1	0	0	0	1.7	0.1	2.5	3.0	Flat round oval, medium netted
NY177	415	567	73	27	73	0	0	1.099	1.0	0	0	0	0	1.8	0.1	2.5	3.0	Flat round oval, purple blush, small tuber type
W17066-34	406	489	83	17	83	0	1	1.091	1.0	3	0	0	0	1.5	0.1	2.0	3.0	Flat round oval, med netted
<b>Snowden</b>	<b>335</b>	<b>436</b>	<b>77</b>	<b>22</b>	<b>77</b>	<b>0</b>	<b>1</b>	<b>1.084</b>	<b>1.0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.3</b>	<b>0.0</b>	<b>1.5</b>	<b>3.0</b>	<b>Blocky round tuber type, Rough general appearance, medium netted</b>
MSBB058-1	326	390	84	15	84	0	1	1.090	1.0	1	0	0	0	1.0	0.1	2.0	3.0	Blocky round tuber type, not uniform, medium to heavy netted
W17043-37	262	368	71	28	71	0	1	1.086	1.0	3	0	0	0	2.2	0.0	2.0	2.5	Flat round, heavy netted
<b>Lanoka</b>	<b>221</b>	<b>310</b>	<b>71</b>	<b>26</b>	<b>71</b>	<b>0</b>	<b>3</b>	<b>1.082</b>	<b>1.0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.1</b>	<b>1.5</b>	<b>3.0</b>	<b>Small round flat oval not uniform</b>
<b>MEAN</b>	<b>398</b>	<b>498</b>	<b>79</b>	<b>19</b>	<b>79</b>	<b>0</b>	<b>1</b>	<b>1.090</b>	<b>1.0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.0</b>	<b>0.1</b>	<b>2.0</b>	<b>3.0</b>	

<sup>1</sup>**SIZE**

Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

<sup>2</sup>**SPECIFIC GRAVITY**

Total solids

<sup>3</sup>**OUT OF THE FIELD CHIP COLOR**

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

<sup>4</sup>**RAW TUBER QUALITY**

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

<sup>5</sup>**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

<sup>6</sup>**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

<sup>7</sup>**VINE VIGOR RATING**

Date: 06/03/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>**VINE MATURITY RATING**

Date: 8/22/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**

Planting date 5/1/2024  
Vine Kill Date 8/28/2024  
Harvest Date 10/3/2024  
Days (planting to vine kill) 119  
Days (planting to harvest) 155  
CGDD<sub>10</sub> MAWN Station 4072 Entrican/Lakeview  
CGDD<sub>10</sub> (planting to vine kill) 3205  
Seed Spacing 10"

# Fresh Chip Processing Trial, Walther Farms, St. Joseph County

Planting: 5/16/2024 Vine Kill: 8/13/24 Harvest: 08/13/24  
CGDD<sub>10</sub>: 2716

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
F160032-6	626	665	94	5	94	0	1	1.063	1.5	10	0	0	0	1.5	0.0	1.5	3.0	Blocky round oval tubers, nice general appearance
<b>Manistee</b>	<b>526</b>	<b>565</b>	<b>93</b>	<b>7</b>	<b>92</b>	<b>1</b>	<b>0</b>	<b>1.069</b>	<b>2.0</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Severe skinning, flat blocky</b>
<b>Mackinaw</b>	<b>502</b>	<b>604</b>	<b>83</b>	<b>13</b>	<b>83</b>	<b>0</b>	<b>4</b>	<b>1.073</b>	<b>1.5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Flat round to oval tubers, not uniform, traces of pear shape and points</b>
MSDD376-4	429	520	82	17	82	0	0	1.071	2.0	30	0	0	0	0.0	0.0	1.5	4.0	Flat round to oval, severe skinning, larger tuber type
NYU34-6	424	510	83	16	83	0	1	1.076	3.0	60	0	0	20	1.5	0.0	1.5	4.0	Flat round to oval, non uniform, severe skinning, trace of growth cracks
<b>Atlantic</b>	<b>413</b>	<b>444</b>	<b>93</b>	<b>6</b>	<b>93</b>	<b>0</b>	<b>2</b>	<b>1.074</b>	<b>1.5</b>	<b>40</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>2.0</b>	<b>0.0</b>	<b>1.5</b>	<b>3.0</b>	<b>Blocky, not uniform, moderate skinning</b>
NY174	410	473	87	10	86	1	3	1.076	1.0	0	0	10	0	0.0	0.0	1.0	4.0	Blocky round to oval tuber type, severe skinning, traces of pear-shape
CMK2009-630-001	400	627	64	33	64	0	3	1.073	1.5	60	0	0	0	1.5	0.0	1.5	3.0	Non uniform, light yellow appearance, slight skinning, some pear shaped
ND13220C-3	386	569	68	29	68	0	3	1.077	3.5	0	0	0	0	0.5	0.2	1.5	4.0	Round blocky, non uniform, severe skinning
AC13125-5W	379	474	80	19	80	0	1	1.052	1.5	0	0	0	0	1.0	0.6	1.0	3.0	Smaller oval tuber, pear shape
B3403-6	370	476	78	21	76	2	1	1.081	1.5	0	0	0	0	2.0	0.0	1.5	4.0	Uniform tuber type, traces of sticky stolons, nice small uniform tubers
MSAA076-6	360	430	84	8	82	2	8	1.073	1.0	0	0	10	10	0.0	0.1	1.0	3.5	Moderate growth cracks, non uniform, deep apical eye, severe skinning
MSGG409-3	346	408	85	14	85	0	3	1.071	1.0	0	20	0	0	0.0	0.0	1.0	3.0	Severe skinning, sticky stolons, blocky round tuber type
<b>Bliss</b>	<b>339</b>	<b>384</b>	<b>88</b>	<b>11</b>	<b>88</b>	<b>0</b>	<b>1</b>	<b>1.073</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>3.0</b>	<b>Smaller uniform tuber type, moderate skinning, traces of purple skin, traces of sticky stolons</b>
MSFF038-3	333	383	87	11	85	2	2	1.065	2.0	20	0	0	0	0.5	0.0	1.0	3.0	Blocky flat round, slight skinning, deeper apical eye
AF5933-4	315	377	83	15	83	0	1	1.072	1.0	0	0	0	0	0.5	0.0	1.5	4.0	Moderate to severe skinning, smaller round tuber type
Dundee	311	380	82	10	82	0	8	1.072	1.5	0	0	0	0	0.0	0.0	1.0	3.0	Moderate shatter bruising, blocky round to oval tuber, slight growth cracks
AF6671-10	305	333	92	8	92	0	1	1.071	1.0	0	0	0	10	0.0	0.1	1.0	3.0	Flat blocky to oval tuber, severe skinning
NY177	304	422	72	25	70	2	3	1.085	1.5	0	20	0	0	0.5	0.0	1.0	3.0	Severe skinning, non uniform, moderate black spot bruise
MSBB058-1	301	353	85	15	85	0	0	1.077	1.5	0	0	0	0	0.5	0.0	1.0	4.0	Small blocky round, moderate skinning
NC821-30	292	363	80	17	80	0	2	1.072	1.5	60	0	10	0	1.5	0.1	1.0	3.0	Flat blocky round to oval, non uniform tuber type, severe skinning
MSFF037-17	280	387	72	26	72	0	2	1.068	1.5	0	10	0	20	1.0	0.0	1.0	3.0	Sticky stolons, heat churning, flat round
<b>Snowden</b>	<b>268</b>	<b>326</b>	<b>82</b>	<b>17</b>	<b>82</b>	<b>0</b>	<b>1</b>	<b>1.066</b>	<b>1.5</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.1</b>	<b>1.0</b>	<b>3.5</b>	<b>Blocky flat round tuber type</b>
MSDD249-9	265	286	93	6	90	3	1	1.067	1.5	0	0	0	0	0.5	0.0	1.0	4.0	Smooth bright appearance, large blocky tubers
MSEE031-3	262	309	85	10	86	1	5	1.068	1.5	0	0	0	0	0.5	0.0	1.0	4.0	Not uniform tuber type, moderate skinning
ML-4	254	535	48	50	48	0	3	1.070	1.5	80	0	0	0	2.0	0.0	1.5	3.0	Small flat oval tubers, yellow skin appearance
MSGG302-1	239	260	92	6	92	0	2	1.068	2.0	0	0	0	0	0.0	0.0	1.0	4.5	Severe skinning, blocky tuber type,
AF6868-6	231	316	73	25	73	0	2	1.064	3.0	10	10	10	0	2.0	0.3	1.5	4.5	Pink eye blush, sticky stolons, non uniform
MSEE016-10	216	279	77	22	77	0	1	1.072	2.0	0	0	0	0	0.0	0.1	1.0	3.0	Small uniform round tubers, moderate skinning, heavy netting
AC13126-1Wadg	181	234	77	20	77	0	3	1.059	2.0	0	10	0	0	0.0	0.1	1.5	3.0	Non uniform tuber
Petoskey	130	197	66	30	67	1	4	1.074	1.5	0	0	0	10	0.0	0.0	1.0	4.0	Flat round tuber type, moderate skinning, not uniform, traces of growth cracks
Sinatra	111	257	43	50	43	0	7	1.072	1.5	0	10	0	0	0.5	0.0	1.0	3.0	Flat pear-shaped, non uniform, slight to medium skinning, lack of tuber uniformity a major issue
<b>MEAN</b>	<b>328</b>	<b>411</b>	<b>80</b>	<b>18</b>	<b>79</b>	<b>0</b>	<b>3</b>	<b>1.071</b>	<b>1.7</b>	<b>13</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>0.7</b>	<b>0.1</b>	<b>1.2</b>	<b>3.4</b>	

<sup>1</sup>**SIZE**  
Bs: < 1 7/8"  
As: 1 7/8" - 3 1/4"  
OV: > 3 1/4"  
PO: Pickouts  
% of total: Values rounded to the nearest whole number

<sup>2</sup>**SPECIFIC GRAVITY**  
Total solids

<sup>3</sup>**OUT OF THE FIELD CHIP COLOR**  
(SNAC Scale)  
Ratings: 1 - 5  
1: Excellent  
5: Poor

<sup>4</sup>**RAW TUBER QUALITY**  
(percent of tubers out of 10)  
HH: Hollow Heart  
VD: Vascular Discoloration  
IBS: Internal Brown Spot  
BC: Brown Center

<sup>5</sup>**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

<sup>6</sup>**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

<sup>7</sup>**VINE VIGOR RATING**  
Date: 6/11/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>**VINE MATURITY RATING**  
Date: 8/9/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some flowering)

**FIELD DATA**  
Planting date 5/16/2024  
Vine Kill Date 8/13/2024  
Harvest Date 8/13/2024  
Days (planting to vine kill) 89  
Days (planting to harvest) 89  
CGDD<sub>10</sub> MAWN Station 2716  
CGDD<sub>10</sub> (planting to vine kill) 2716  
Seed Spacing 10"

## Storage Chip Processing Replicated Trial, Walther Farms, St. Joseph County

Planting: 5/08/2024 Vine Kill: 9/03/2024 Harvest: 9/18/2024  
CGDD<sub>10</sub>: 3929

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>					SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO			HH	VD	IBS	BC					
MSBB060-1	733	755	97	3	96	1	0	1.077	1.0	0	0	20	0	0.8	0.5	1.0	3.0	Severe sticky stolons, large flat round oval, good general appearance, medium skinning, uniform tubers, sheep nose
MSGG302-1	687	709	97	2	95	2	1	1.086	1.0	20	0	0	10	0.7	0.5	1.2	3.3	Sticky stolons, heat sprouts, sheep nose, large flat round, non uniform tubers, growth cracks, sheep nose, sticky stolons, netted skin
MSDD249-9	686	705	98	3	97	1	0	1.083	1.0	0	0	0	0	1.3	0.4	1.2	3.0	Large flat round blocky tuber, sheep nose, light skin appearance, non uniform tuber type, heart shaped, sticky stolons
MSBB058-1	684	707	97	3	97	0	0	1.094	1.0	0	0	0	0	1.2	0.0	1.5	2.8	Flat round uniform to non uniform tubers, growth cracks, sheep nose, sticky stolons, slight skinning
NYU34-6	643	690	93	6	93	0	1	1.088	1.0	20	0	0	0	2.0	0.3	1.7	3.0	Pear-shaped, medium skinning, growth cracks, light skin appearance
B3403-6	642	746	86	14	86	0	0	1.094	1.5	10	0	0	0	1.2	0.7	1.7	3.0	Round oval uniform tubers, light netted skin
MSGG409-3	627	691	91	9	91	0	1	1.077	1.0	0	0	10	0	0.5	0.5	1.2	3.0	Sticky stolons, flat round oval pear shaped uniform, slight skinning sticky stolons, sheep nose
MSDD376-4	612	671	91	9	91	0	0	1.091	1.0	10	0	10	0	0.5	0.7	1.7	3.0	Flat round, good general appearance, uniform tuber, netted skin, severe sticky stolons
NY174	612	647	94	5	94	0	0	1.090	1.0	0	0	0	0	0.5	0.4	1.7	3.2	Flat round blocky uniform tuber type, sticky stolons, sheep nose, good general appearance, pear shape, good general appearance
MSAA076-6	600	681	88	10	88	0	2	1.085	1.0	0	0	50	0	1.3	0.5	1.7	2.8	Sheep nose, round blocky, sheep nose, uniform to non uniform tuber type, misshapen
MSDD247-11	600	660	91	9	91	0	1	1.087	1.0	0	0	0	0	0.5	0.2	1.2	3.0	Round oval uniform tubers, good general appearance, sheep nose, netted skin
MSFF038-3	598	631	95	5	95	0	0	1.079	1.5	0	0	0	0	1.3	0.7	1.3	2.8	Uniform round to oval flat pear shapes, sheep nose
ND13220C-3	597	758	79	16	79	0	5	1.092	1.0	0	0	0	0	0.5	0.5	2.2	3.2	Misshapes, heat sprouts, severe skinning, sticky stolons, non uniform tuber type, bottlenecks, flat oval tuber
AF6206-3	582	622	93	6	93	0	0	1.081	1.0	0	0	0	0	1.8	0.3	1.3	3.0	Large round blocky flat oval uniform tubers, sticky stolons, skinning, traces of pear-shaping
NY177	580	662	87	12	87	0	1	1.098	1.0	0	0	0	0	0.5	0.5	1.7	3.0	Pear shaped, points, non uniform, round to oval tuber type, good general appearance
Paige	580	681	85	15	85	0	0	1.092	1.0	10	0	0	0	0.5	0.2		3.0	Uniform flat round to oval tuber type, pear shapes
<b>Bliss</b>	<b>563</b>	<b>606</b>	<b>93</b>	<b>7</b>	<b>93</b>	<b>0</b>	<b>0</b>	<b>1.078</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.1</b>	<b>1.3</b>	<b>3.0</b>	<b>Pear shaped good general appearance, round oval uniform tubers, traces of pointed ends, sticky stolons</b>
MSDD244-05	557	597	93	6	93	0	1	1.082	1.0	10	0	0	0	0.7	0.3	1.0	2.8	Pear shapes, medium netted skin, sheep nose, non flat round oval, uniform tuber type
<b>Mackinaw</b>	<b>539</b>	<b>596</b>	<b>90</b>	<b>10</b>	<b>90</b>	<b>0</b>	<b>0</b>	<b>1.084</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.5</b>	<b>0.2</b>	<b>1.2</b>	<b>3.2</b>	<b>Flat pear shaped, sheep nose, round oval, good general appearance, sticky stolons, uniform tubers</b>
<b>Snowden</b>	<b>537</b>	<b>587</b>	<b>92</b>	<b>8</b>	<b>92</b>	<b>0</b>	<b>1</b>	<b>1.081</b>	<b>1.0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>1.0</b>	<b>0.3</b>	<b>1.5</b>	<b>3.0</b>	<b>Sheep nose, large flat round blocky uniform tubers</b>
MSFF037-17	529	605	87	10	87	0	3	1.080	1.0	0	0	0	0	1.2	0.3	1.0	3.0	Severe sticky stolons, large round flat uniform tubers, growth cracks points, heat sprouts
Dundee	528	579	91	8	90	1	1	1.089	1.0	0	0	0	0	1.0	0.5	1.3	3.0	Heat sprouts, sticky stolons, round oval uniform to non uniform tuber, sheep nose, misshapen, good general appearance
AF5933-4	523	590	89	10	89	0	1	1.083	1.0	0	0	0	0	2.0	0.4	1.5	2.7	Round oval uniform pear-shaped tubers
MSDD244-15	517	544	95	5	95	0	0	1.074	1.0	0	0	0	0	0.7	0.5	1.0	3.0	Flat round oval uniform tubers, sheep nose, heat knobs, sticky stolons, pear shapes
Petoskey	514	565	91	8	91	0	1	1.085	1.0	0	10	0	0	1.3	0.3	1.0	3.0	Sticky stolons, round flat oval shape, netted skin, uniform tubers, good general appearance, traces of pear shapes
MSEE035-4	511	571	90	8	90	0	3	1.092	1.0	0	10	10	0	1.3	0.7	1.3	3.2	Bottlenecks, uniform to non uniform tuber type, large round blocky oval tuber, growth cracks, points, sticky stolons
MSBB230-1	508	572	89	10	89	0	1	1.088	1.0	0	0	10	0	0.7	0.7	1.7	3.0	Round oval uniform tubers, slight sticky stolons, netted skin
<b>Lamoka</b>	<b>507</b>	<b>544</b>	<b>93</b>	<b>6</b>	<b>93</b>	<b>0</b>	<b>1</b>	<b>1.083</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1.2</b>	<b>0.3</b>	<b>1.7</b>	<b>3.0</b>	<b>Traces of misshapes, large blocky tubers, sheep nose, pear shapes, uniform tuber type, slight skinning, points</b>
<b>Manistee</b>	<b>500</b>	<b>539</b>	<b>93</b>	<b>7</b>	<b>92</b>	<b>1</b>	<b>0</b>	<b>1.080</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.7</b>	<b>0.1</b>	<b>1.2</b>	<b>3.0</b>	<b>Large flat round uniform tubers, sheep nose, netted skin, slight skinning, flat round large tuber, skinning</b>
AF6896-1	492	555	88	10	88	0	2	1.084	1.0	0	0	0	0	1.0	0.5	1.2	3.0	Round oval flat uniform tubers, sticky stolons, light netted skin

LINE	CWT/A		PERCENT OF TOTAL <sup>1</sup>				SP GR <sup>2</sup>	OTF CHIP SCORE <sup>3</sup>	RAW TUBER QUALITY <sup>4</sup> (%)				COMMON SCAB RATING <sup>5</sup>	SED SCORE <sup>6</sup>	VINE VIGOR <sup>7</sup>	VINE MATURITY <sup>8</sup>	COMMENTS	
	US#1	TOTAL	US#1	Bs	As	OV			PO	HH	VD	IBS						BC
MSDD247-07	485	529	92	8	92	0	0	1.096	1.0	0	0	0	0	1.8	0.1	1.5	3.0	Uniform round oval tubers
MSFF029-10	474	565	84	16	84	0	0	1.084	1.0	0	0	0	0	0.6	0.7	1.2	3.0	Round oval uniform tuber, sticky stolons, medium skinning
AC13125-5W	461	529	88	13	87	1	0	1.064	1.0	0	0	0	10	2.2	0.2	1.7	2.7	Round oval uniform tubers
AF6206-5	456	511	89	10	89	0	2	1.094	1.0	0	0	0	0	1.5	0.2	1.5	3.0	Growth cracks, sticky stolons, greening, traces of skinning, bottlenecks, flat round oval large blocky uniform tubers
MI-4	438	675	65	34	65	0	1	1.088	1.0	30	0	0	0	2.0	0.1	1.7	3.0	Gold yellow skin appearance, round oval uniform tuber shape, sticky stolons, bottlenecks, misshapen
Sinatra	416	557	75	24	75	0	1	1.085	1.0	0	0	0	0	1.2	0.3	1.5	3.0	Small round uniform tubers, sticky stolons, traces of misshapes
AC13126-1Wadg	387	427	91	8	91	0	1	1.078	1.0	0	0	0	0	2.0	0.3	1.3	2.8	Bad general appearance, round, growth cracks, blemish appearance, Round oval tubers, sticky stolons
AF6868-6	349	476	73	26	73	0	1	1.078	1.0	0	10	20	0	0.8	0.6	1.5	2.8	Round oval uniform tuber type, sticky stolons, gold yellow skin appearance, pink eyes, heat sprouts, small tuber size distribution, heat sprouts, growth cracks
CMK2009-630-001	348	565	62	37	62	0	2	1.081	1.0	10	10	0	0	2.0	0.4	1.7	3.0	Golden yellow skin appearance, round oval uniform tuber, sticky stolons, heat sprouts
MSEE016-10	296	401	73	27	73	0	0	1.084	1.0	0	0	0	0	1.2	0.5	1.0	2.7	Small round uniform tuber type, sticky stolons, netted skin
<b>MEAN</b>	<b>537</b>	<b>608</b>	<b>88</b>	<b>11</b>	<b>88</b>	<b>0</b>	<b>1</b>	<b>1.085</b>	<b>1.0</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>1.1</b>	<b>0.4</b>	<b>1.4</b>	<b>3.0</b>	
<b>LSD</b>	<b>99</b>	<b>102</b>	<b>6</b>	<b>5</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>0.005</b>	<b>NA</b>	<b>10</b>	<b>11</b>	<b>9</b>	<b>4</b>	<b>0.7</b>	<b>NA</b>	<b>0.5</b>	<b>0.3</b>	

<sup>1</sup>SIZE

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

% of total: Values rounded to the nearest whole number

<sup>2</sup>SPECIFIC GRAVITY

Total solids

<sup>3</sup>OUT OF THE FIELD CHIP COLOR

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

<sup>4</sup>RAW TUBER QUALITY

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

<sup>5</sup>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

<sup>6</sup>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

<sup>7</sup>VINE VIGOR RATING

Date: 06/03/2024  
Rating 1-5  
1: Slow emergence  
5: Early emergence (vigorous vines, some flowering)

<sup>8</sup>VINE MATURITY RATING

Date: 8/09/2024  
Rating 1-5  
1: Early (vines completely dead)  
5: Late (vigorous vines, some)

FIELD DATA

Planting date 5/8/2024  
Vine Kill Date 9/3/2024  
Harvest Date 9/18/2024  
Days (planting to vine kill) 118  
Days (planting to harvest) 133  
CGDD<sub>40</sub> MAWN Station 3929 Constantine  
CGDD<sub>40</sub> (planting to vine kill) 3520.1  
Seed Spacing 10"