

2021 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Chip Processing Trials

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2021 Michigan Statewide Chip Processing Potato Variety Trials

Overall Averages - Thirteen Locations

LINE	CWT/A		PERCENT OF TOTAL ¹					RAW TUBER QUALITY ⁴ (%)							COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC						
MSAA252-7 ^{bdh}	706	734	97	3	85	12	0	1.079	1.3	0	23	0	0	1.2	0.5	3.2	2.8	deeper eyes, larger blocky round type	
MSAFB605-4 ^l	600	652	92	8	92	0	0	1.073	1.0	0	0	0	0	2.0	0.6	2.5	3.5	med to heavy netted skin, nice blocky round type, uniform, sl skinning	
NY165 ^l	600	662	91	8	91	0	1	1.078	1.0	0	0	0	0	1.3	1.4	5.0	3.0	flat oval type, darker med netted skin, sl deep apical eyes	
NYP103-1 ^l	598	715	84	14	84	0	2	1.083	1.0	20	0	3	3	1.5	0.3	3.7	3.0	flattened oval type, trace growth crack	
CO12293-1W ^h	590	668	88	9	88	0	3	1.082	1.0	0	0	0	0	2.5	0.6	3.0	4.0	generally uniform, light skin	
NY174 ^{adhi}	568	629	90	7	89	1	3	1.086	1.1	0	0	0	0	0.9	0.4	3.9	3.4	flat oval type, thin skin	
MSAA570-3 ^{bl}	561	628	88	4	87	1	8	1.081	1.3	7	0	0	2	0.6	0.5	2.8	2.8	large flattened type, sheep nose	
MSBB058-3 ^{bck}	539	563	96	4	95	1	0	1.075	2.0	0	20	0	0	0.5	0.9	2.7	4.7	medium netted skin, darker netted skin, slight skinning	
NDTX14362AB-1W ^h	532	605	88	11	88	0	1	1.069	1.5	0	0	0	0	0.5	0.3	3.5	4.0	uniform round type, thin light skin	
Lady Liberty ^{abcdehijkl}	525	587	89	10	89	0	1	1.077	1.2	0	5	1	0	0.9	0.4	3.3	3.1	smaller uniform round type, light netted skin	
BNC718-1 ^{ek}	524	561	94	3	93	1	3	1.067	1.5	5	15	0	0	1.0	1.3	2.5	1.8	purple skin, light yellow flesh, round type	
BNC821-9 ^{ek}	521	565	93	2	88	5	5	1.076	1.3	15	0	0	0	1.5	0.7	2.8	4.0	poor appearance, larger type	
Mackinaw ^{abcdehijklm}	513	556	92	6	91	1	2	1.084	1.5	0	4	0	0	0.7	0.6	3.5	3.0	slightly flattened round to oval type, deeper apical eyes	
NY168 ^{bl}	504	612	83	16	83	0	1	1.086	1.0	2	0	0	0	1.5	0.9	3.5	3.3	moderate skinning, purple pigment around eyes	
MSBB230-2 ³	503	533	94	5	94	0	1	1.079	1.5	0	0	0	0	0.0	1.3	2.5	3.0	uniform, round to oval blocky type, sticky stolons, good appearance	
NYOR14Q9-9 ^j	495	554	90	10	89	1	0	1.080	1.0	10	3	0	3	2.0	1.0	3.5	4.0	pitted scab lesions, flat oval type, med netted skin	
MSW474-1 ^g ^{abcdehijklm}	493	580	85	14	85	0	1	1.081	1.5	0	0	0	0	0.6	0.4	3.6	3.5	deeper apical eyes, darker heavy netted skin, slight sticky stolons	
MSY022-2 ^{ckel}	493	535	92	6	92	0	2	1.075	1.1	3	8	3	1	0.7	0.7	3.2	3.0	inconsistent shape, larger type, thinner skin	
NVR1-7 ^{adefgj}	493	540	90	10	90	0	0	1.084	1.2	2	0	7	0	1.2	0.5	3.4	2.5	trace alligator hide, oval type, lighter skin	
AF6598-6 ^e	490	529	92	6	91	1	2	1.078	2.5	0	0	0	0	1.5	1.1	5.0	2.5	blocky type, oval type, light netted skin	
MSBB635-14 ^h	488	558	87	11	87	0	2	1.076	1.0	0	30	0	0	1.5	0.0	2.5	3.5	severe sticky stolons, compressed shape	
MSAA217-3 ^h	486	543	90	10	90	0	0	1.096	1.0	40	0	0	0	1.5	0.7	4.0	4.0	nice uniform round to oval type, trace skinning	
MSAA260-3 ^{hi}	484	533	91	7	90	1	2	1.081	1.0	0	8	8	8	1.3	0.5	3.5	2.8	uniform round blocky type	
AF6603-5 ^e	484	532	91	8	91	0	1	1.089	1.0	0	0	0	0	2.0	1.1	5.0	2.0	deeper apical eyes, slight sticky stolons	
Blackberry ^h	479	622	77	22	77	0	1	1.063	1.0	0	0	0	0	2.0		2.5	4.0	dark purple skin with some white eyes, moderate silver scurf	
MSAA076-6 ^{gh}	474	548	86	13	86	0	1	1.086	1.2	0	7	20	3	1.2	0.5	3.7	3.2	deep apical eyes, light netted skin, blocky round type	
Kelly ^{abdfh}	471	656	71	18	71	0	11	1.082	1.7	4	10	0	0	1.1	0.7	3.5	3.2	long shape, severe knobs and misshapen tubers	
MSZ242-13 ^{adefghij}	466	505	92	4	91	1	4	1.095	1.3	0	1	2	0	0.5	0.6	3.8	3.2	large round blocky type, slight growth crack and knobs	
NY173 ^{hi}	465	593	78	21	78	0	1	1.079	1.3	8	7	0	0	1.3	0.7	4.2	1.3	light skin, slight deep apical eyes	
MSAA232-4 ³	463	500	92	5	91	1	3	1.090	1.5	40	0	0	0	0.0	0.8	2.5	3.0	non uniform, light netted thin skin, slight deep eyes and eyebrows	
AF6582-1 ^e	462	536	86	13	86	0	1	1.084	1.0	0	0	0	0	2.0	0.1	5.0	1.5	oval flattened type, light netted skin	
MSBB625-2 ^{bel}	461	529	87	9	87	0	4	1.085	1.7	3	10	54	0	1.0	0.6	3.4	3.1	moderate skinning, heat sprouts and knobs	
NYQ37-1 ^l	461	546	85	12	84	1	3	1.087	1.0	3	0	0	0	2.0	1.3	2.8	2.8	thin skin, trace points and pears	
Atlantic ^{bcek}	448	486	92	7	92	0	1	1.079	1.4	38	3	13	0	1.6	0.5	3.4	2.9	blocky oval type, deep apical eyes	
NY172 ^{adhi}	443	495	90	8	90	0	2	1.076	1.7	22	0	0	0	1.3	0.3	3.8	2.2	oval blocky type, slight sticky stolons	
MSA311-1 ^{ki}	441	490	90	7	90	0	3	1.072	1.5	18	7	2	0	1.2	1.0	3.3	2.4	heavy netted skin, deeper apical eyes, blocky type	
MSBB221-1 ^d	441	484	91	7	90	1	2	1.076	1.5	0	0	0	0	0.0	0.4	5.0	5.0	medium netted skin, slight growth crack, nice round type	
Lamoka ^{adfgilm}	438	477	92	6	88	4	2	1.082	1.5	0	3	0	0	0.7	0.9	4.0	2.5	flattened oval type, trace points, bright thin skin	
NY163 ^{bcdehijklm}	437	508	85	12	85	0	3	1.084	1.1	0	2	0	0	0.8	0.4	3.5	2.4	thinner light skin, pink eyes, attractive chips, trace points	
NVR3-5 ^{agh}	436	470	93	5	93	0	2	1.085	1.8	5	0	0	0	0.8	0.6	4.3	2.8	blocky oval type, deep apical eyes	
W12078-76 ^{abcdehijklm}	430	477	91	8	90	1	1	1.085	1.3	19	3	1	4	0.8	0.4	3.5	2.7	uniform round type, attractive, medium netted skin	
MSBB079-2 ^{dh}	425	463	92	7	92	0	1	1.079	1.0	0	0	0	0	0.3	0.3	3.3	3.3	variable skin finish, attractive shape	
Snowden ^{adfgilm}	423	475	89	10	87	2	1	1.083	1.2	6	17	4	1	1.0	0.3	3.9	2.5	deeper eyes, slight skinning, blocky type	
BNC816-3 ^{ek}	422	506	83	14	83	0	3	1.068	1.0	0	0	0	0	1.0	0.6	4.3	2.8	many pointed tubers, slight deep eyes	
MSAFB609-12 ² ^{abcdehijkl}	418	476	88	11	88	0	1	1.082	1.4	0	0	0	0	1.4	0.5	3.2	3.1	light thin skin, trace points, uniform round type	
MSAFB635-15 ^h	417	502	83	17	83	0	0	1.093	1.0	0	0	0	0	1.0	0.1	3.0	3.0	medium netted skin, round uniform type	
MSCC058-01 ^{cdthi}	414	445	93	6	91	2	1	1.079	1.3	11	31	4	3	1.0	0.4	3.1	3.0	round appearance, trace growth crack	
MSBB047-1 ^a	414	443	93	4	93	0	3	1.074	1.5	0	0	70	0	0.0	1.5	3.0	2.5	round to oval blocky type, thin light netted skin	
MSBB626-11 ^{hi}	406	442	92	7	91	1	1	1.081	1.5	12	0	2	0	1.1	1.0	3.5	3.5	deeper eyes, round type	

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						
AF6526-7 ⁸	398	424	94	4	94	0	2	1.086	2.0	10	0	0	0	2.5	0.4	5.0	1.5	bright appearance, thin skin, blocky oval type	
MSBB610-13 ^{abcemgmk}	393	421	93	6	89	4	1	1.078	1.8	0	0	0	0	0.8	0.4	2.9	2.8	attractive round type, bright thin skin	
MSBB614-15 ^{dhl}	388	429	90	7	88	2	3	1.079	1.2	11	13	0	3	0.7	0.3	4.0	2.9	heavy netted skin, blocky oval type	
MSAA076-04 ^h	380	501	76	23	76	0	1	1.086	1.0	0	0	0	0	1.0	0.3	3.0	2.5	uniform heavy netted skin, nice appearance	
WAF16107-2 ⁶	378	428	88	9	88	0	3	1.088	1.5	30	0	0	0	2.0	0.4	4.0	1.5	round to oval blocky type, medium netted skin	
MSDD271-11 ^d	371	417	89	6	89	0	5	1.064	1.5	0	0	0	0	0.0	0.9	4.0	4.0	non uniform flat oval type, prominent eyes	
MSBB058-1 ^h	370	446	83	16	83	0	1	1.096	1.0	0	0	0	0	1.5	0.1	3.0	3.0	small round type	
MSCC376-01 ^{cdh}	370	401	92	4	91	1	4	1.081	1.3	0	0	0	0	0.2	0.5	3.2	2.7	hravy netted skin, consistent size, slight skinning	
CO11037-5W ^{dffh}	368	469	80	8	80	0	12	1.076	1.0	3	0	7	0	0.3	0.4	3.3	2.7	oval type, variable shape, heat knobs	
AC11494-6W ^{dff}	353	454	77	22	77	0	1	1.066	1.8	6	0	0	0	0.8	0.4	3.2	2.7	round blocky type, medium netted skin, slight sticky stolons	
MSZ242-07 ^{gh}	342	393	87	6	87	0	7	1.093	1.5	0	0	0	0	0.5	0.2	3.0	3.0	growth crack in pickouts, slight shatter bruise	
BNC811-22 ^{kk}	340	466	73	23	73	0	4	1.080	2.0	35	0	0	5	1.8	0.6	4.8	3.8	smaller size profile, medium netted skin, oval type	
CO12235-3W ^{dff}	340	402	85	12	85	0	3	1.072	1.5	0	0	3	0	0.2	0.4	4.5	3.7	thin skin, bright appearance, smaller type	
AF6550-2 ⁸	334	389	86	12	86	0	2	1.090	1.5	0	0	0	0	2.5	0.8	4.5	1.5	light netted skin, oval type	
NDTX113030C-3W ^k	333	432	77	22	77	0	1	1.069	1.0	20	0	0	0	0.5	0.4	3.5	4.5	less uniform	
Petoskey ^{abcdehghim}	332	390	85	10	85	0	5	1.084	1.3	2	2	0	0	0.7	0.7	3.6	3.2	heavy netted skin, round type, slight growth crack and knobs	
AF6543-2 ⁸	308	366	84	16	84	0	0	1.079	1.5	50	0	0	10	1.5	0.2	5.0	1.5	oval blocky type, slight netting, less uniform type	
NVR101-2 ^{ahj}	301	475	62	36	62	0	2	1.082	1.2	2	2	0	0	1.1	0.4	4.4	1.6	light skin, less uniform type	
AF6526-3 ⁸	285	360	80	19	78	2	1	1.089	1.0	0	0	0	10	1.0	0.8	4.5	1.5	less uniform type, medium netted skin	
MSAA309-15 ^{de}	284	320	88	10	88	0	2	1.080	1.3	0	0	0	5	0.8	0.4	4.5	2.5	slight skinning, moderate growth crack	
MSCC248-2 ⁹	279	359	78	5	78	0	17	1.073	2.0	0	0	0	0	0.0	1.3	2.0	2.5	significant growth crack and alligator hide, not uniform, some shatter bruise	
MSBB012-1Y ^k	276	313	88	9	88	0	3	1.066	2.0	0	0	0	0	0.0	0.5	3.0	4.0	blocky, round type, tr pear shapes, med netted skin	
MSBB230-1 ^h	273	346	79	21	79	0	0	1.090	1.0	0	0	0	0	2.5	0.1	4.0	2.5	small uniform round blocky type, medium netted skin	
MSBB634-8 ^{hl}	265	303	87	12	87	0	1	1.074	1.3	0	7	2	7	0.6	0.9	2.3	2.8	blocky round type, slight sheep nose	
AF6527-3 ⁸	260	300	87	10	87	0	3	1.092	1.0	0	0	0	0	1.0	0.3	5.0	1.5	flat oval tuber type, medium netted skin	
MSDD085-13 ^{hkl}	247	353	68	31	68	0	1	1.078	1.0	3	0	0	0	1.2	0.4	3.4	2.0	smaller size profile, flattened round type	
NDTX112203AB-1W ^k	243	352	69	25	69	0	6	1.063	1.0	0	0	0	0	2.0	0.6	4.0	4.0	bright, sl knobs and gc, less uniform type	
COTX12235-2W ^j	216	416	52	46	52	0	2	1.069	1.5	3	0	0	0	0.7	0.4	3.0	2.5	smaller size profile, pears and points	
MSAA328-4 ^h	198	213	93	7	93	0	0	1.084	1.0	0	0	0	0	0.5	0.0	5.0	2.0	less uniform blocky oval tuber type	
Betty ^{bcl}	197	343	57	41	57	0	2	1.078	1.2	0	0	1	0	1.7	0.7	4.0	1.8	less uniform type, inconsistent skin finish	
Corsica ^{ck}	190	354	55	22	55	0	23	1.074	2.5	0	0	0	0	1.0	1.1	3.0	3.3	thinner netted skin, severe knobs, light yellow flesh	
TX17846-1W ^k	167	273	61	36	61	0	3	1.074	2.0	0	10	0	0	0.0	0.6	4.0	2.5	thin skin, bright appearance, nice	
COOR13270-2 ^h	162	335	48	50	48	0	2	1.085	1.0	0	0	0	0	1.5	0.6	2.5	3.5	non uniform tuber type, inconsistent skin	
MEAN	412	482	85	13	84	1	3	1.080	1.3	6	3	3	1	1.1	0.6	3.6	2.9		

2021 Chip Variety Trial Sites

- ^a4-L Farms, Storage Trial
- ^bBlack Gold Farms, Fresh Trial
- ^cHampton Potato Growers, Fresh Trial
- ^dHampton Potato Growers, Storage Trial
- ^eLennard Ag. Co., Fresh Trial
- ^fLennard Ag. Co., Storage Trial
- ^gMain Farms, Storage Trial
- ^hMontcalm Research Center Box Bin Trial
- ⁱSandyland Farms SNAC Replicated Storage Trial
- ^jSandyland Farms, Set 1 Storage Trial
- ^kWalther Farms, Fresh Trial
- ^lWalther Farms, Replicated Storage Trial
- ^mVerbrigghe Farms, Fresh Chip Trial

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

⁸VINE MATURITY RATING

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

2021 Storage Chip Processing Potato Variety trial

4-L Farms

Planting: 5/12/21 Vine Kill: 10/6/21 Harvest: 11/3/21

GDD₄₀: 4081

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						
NY174	659	704	93	5	92	1	2	1.092	1.5	0	0	0	0	0.0	0.8	4.0	3.5	flat oval type, thin skin	
M5AA076-6	639	709	90	7	90	0	3	1.085	1.5	0	0	30	0	0.0	1.0	3.0	3.5	slight alligator hide, slight sheep nose, deep apical eyes, blocky round type	
Lady Liberty	626	671	93	5	93	0	2	1.080	1.0	0	0	0	0	0.5	0.5	3.5	3.0	small uniform round to oval type, light netted skin	
NYR1-7	623	658	95	5	95	0	0	1.087	1.0	0	0	30	0	0.0	0.5	3.5	3.0	trace alligator hide, flat oval type, light netted skin	
MSW474-1	523	611	86	11	86	0	3	1.081	1.5	0	0	0	0	0.5	0.3	4.0	3.0	deep apical eyes, round blocky type, medium netted skin	
Mackinaw	513	538	95	5	95	0	0	1.079	1.0	0	0	0	0	0.0	0.9	2.5	3.0	moderate alligator hide, lat to round to oval type, medium skin	
MSBB230-2	503	533	94	5	94	0	1	1.079	1.5	0	0	0	0	0.0	1.3	2.5	3.0	uniform, round to oval blocky type, sticky stolens, good appearance	
Lamoka	497	546	91	7	91	0	2	1.081	2.0	0	0	0	0	0.0	1.3	3.5	3.0	flat oval type, thin skinned	
NY163	489	523	94	4	94	0	2	1.081	1.0	0	0	0	0	0.0	0.3	3.0	2.5	not uniform, thinner light skin	
Petoskey	480	527	91	6	91	0	3	1.094	2.0	0	0	0	0	0.0	1.5	3.0	3.0	flat round to oval type, uniform, slight alligator hide	
NYR3-5	471	491	96	3	96	0	1	1.081	2.0	10	0	0	0	0.5	0.6	3.5	3.0	blocky oval type, heavy netted skin	
MSAFB609-12	467	517	90	9	90	0	1	1.077	2.0	0	0	0	0	0.0	0.4	3.0	3.0	uniform round to oval type, buff uniform skin	
M5AA232-4	463	500	92	5	91	1	3	1.090	1.5	40	0	0	0	0.5	0.8	2.5	3.0	non uniform, light netted thin skin, slight deep eyes and eyebrows	
Snowden	455	486	93	6	93	0	1	1.087	1.5	0	0	0	0	0.0	0.4	3.5	2.5	deep eyes, slight sheep nose	
NYR101-2	428	519	82	16	82	0	2	1.084	1.5	0	0	0	0	0.0	0.6	4.0	2.0	flat to round to oval type, light skin	
Kelly	425	588	72	11	72	0	17	1.080		0	10	0	0	0.0		4.0	3.0	long shape, thin skin, points and bottlenecks in pickouts	
MSBB047-1	414	443	93	4	93	0	3	1.074	1.5	0	0	70	0	0.0	1.5	3.0	2.5	round to oval blocky type, thin light netted skin	
NY172	409	418	98	1	98	0	1	1.078	2.0	10	0	0	0	0.0	0.4	3.0	2.0	oval blocky type, deep eyes, light netted skin	
MSZ242-07	357	402	89	5	89	0	6	1.089	2.0	0	0	0	0	0.0	0.3	3.0	2.5	non uniform, growth cracks in pickouts, slight shatter bruise	
MSBB610-13	346	368	95	5	91	4	0	1.076	2.0	0	0	0	0	0.0	0.5	1.5	3.0	uniform round to oval type, medium netted skin	
W12078-76	335	376	89	11	89	0	0	1.085	1.0	0	0	0	0	0.0	0.5	3.0	3.0	uniform flat round type, light to medium netted skin	
MSZ242-13	288	311	93	4	93	0	3	1.088	1.5	0	0	0	0	0.0	0.8	3.0	2.0	non uniform, medium netted skin	
M5CC248-02	279	359	78	5	78	0	17	1.073	2.0	0	0	0	0	0.5	1.3	2.0	2.5	significant growth crack and alligator hide, not uniform, some shatter bruise	
CO12235-3W	272	333	82	16	82	0	2	1.070	1.0	0	0	0	0	0.5	0.3	5.0	3.0	small uniform round type, thin skin	
MEAN	457	505	90	7	90	0	3	1.082	1.5	3	0	5	0	0.1	0.1	3.2	2.8		

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: 6/16/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/23/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/12/21
Vine Kill Date 10/6/21
Harvest Date 11/3/21
Days (planting to vine kill) 147
Days (planting to harvest) 175
GDD₄₀ MAWN Station Kalamazoo
GDD₄₀ (planting to vine kill) 4081
Seed Spacing 10"

2021 Fresh Chip Processing Potato Variety Trial

Black Gold Farms

Planting: 4/19/21 Vine Kill: N/A Harvest: 9/9/21

GDD₄₀: 3952

LINE	CWT/A		PERCENT OF TOTAL ¹				RAW TUBER QUALITY ⁴ (%)							COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC					
MSAA252-7	810	842	97	3	84	13	0	1.074	1.0	0	70	0	0	2.0	0.1	4.0	3.0	deep eyes, severe skinning
MSAA570-3	737	780	95	3	94	1	2	1.084	1.5	0	0	0	0	0.5	0.5	3.0	3.0	large flattened type, deep apical eyes, moderate sheep nose
Kelly	701	891	79	17	79	0	4	1.085	2.0	0	0	0	0	2.0	0.9	4.0	3.0	oblong type, medium netted skin
NY163	664	717	93	5	93	0	2	1.089	1.0	0	10	0	0	0.0	0.2	3.0	3.0	slight growth crack, thin skin, purple pigment around eyes
Mackinaw	619	648	95	5	94	1	0	1.085	1.5	0	0	0	0	0.5	0.2	3.5	2.0	less uniform, blocky type
Lady Liberty	583	646	90	10	89	1	0	1.071	1.5	0	0	0	0	1.5	0.3	3.5	4.0	blocky type, moderate skinning, slight greening
NY168	555	669	83	16	83	0	1	1.087	1.0	0	0	0	0	1.0	0.1	3.5	3.5	purple pigment around eyes, inconsistent type, skinning
Atlantic	530	575	92	8	92	0	0	1.085	1.5	70	0	10	0	1.5	0.9	3.5	3.0	blocky oval type, deep eyes
MSBB058-3	508	527	96	4	96	0	0	1.082	2.5	0	0	0	0	0.5	0.5	2.5	4.0	uniform type, medium netted skin, slight skinning
MSBB610-13	507	525	96	4	88	8	0	1.074	2.5	0	0	0	0	1.5	0.3	2.5	4.0	large blocky type, deep apical eyes, medium netted skin
W12078-76	434	488	89	9	89	0	2	1.083	1.0	60	0	0	0	0.0	0.1	3.5	3.5	uniform round flat type, medium netted skin, moderate skinning
MSBB625-2	427	509	84	12	84	0	4	1.083	1.5	10	10	20	0	1.5	0.4	3.0	3.0	moderate skinning, heat sprouts, pointed tubers, less uniform type
MSW474-1	407	511	80	20	80	0	0	1.078	1.0	0	0	0	0	1.0	0.3	4.0	3.0	sticky stolons, deep apical eyes
Petoskey	268	378	71	10	71	0	19	1.073	1.0	0	0	0	0	0.5	0.3	3.0	5.0	severe growth crack, less uniform type, potential herbicide reaction
Betty	158	365	43	52	43	0	5	1.075	1.0	0	0	0	0	1.0	0.8	4.0	3.5	light netted skin, less uniform type
MEAN	527	605	86	12	84	2	3	1.081	1.4	9	6	2	0	1.0	0.4	3.4	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

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(SNAC Scale)

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(percent of tubers out of 10)

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

⁷VINE VIGOR RATING

Date: 6/9/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/23/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/19/21
Vine Kill Date N/A
Harvest Date 9/9/21
Days (planting to vine kill) N/A
Days (planting to harvest) 150
GDD₄₀ MAWN Station Mendon
GDD₄₀ (planting to vine kill) 3952
Seed Spacing 10"

2021 Fresh Chip Processing Potato Variety Trial

Hampton Potato Growers

Planting: 4/21/21 Vine Kill: N/A Harvest: 10/19/21

GDD₄₀: 4569

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						
Mackinaw	673	732	92	7	92	0	1	1.089	1.5	0	20	0	0	2.0	0.9	4.0	2.5	less uniform tuber type, inconsistent skin finish	
MSW474-1	538	664	81	16	81	0	3	1.086	1.0	0	0	0	0	0.5	0.5	4.0	4.0	round blocky type, deeper apical eyes	
Lady Liberty	536	609	88	12	88	0	0	1.074	1.0	0	0	0	0	2.0	0.3	3.5	3.0	thinner skin, round uniform type	
MSBB058-3	524	538	97	3	96	1	0	1.076	1.5	0	60	0	0	0.0	1.1	2.5	5.0	moderate sticky stolons, trace alligator hide, blocky round type, darker netted skin	
MSCC058-01	371	400	93	7	93	0	0	1.085	1.5	10	10	0	0	2.0	0.3	3.0	2.0	light netted skin, blocky round uniform type	
MSCC376-01	364	389	93	5	93	0	2	1.082	1.5	0	0	0	0	0.0	0.7	3.0	3.0	nice appearance, consistent size, darker netted skin, slight skinning	
MSBB610-13	345	382	90	9	88	2	1	1.079	1.0	0	0	0	0	2.0	0.3	3.0	3.0	blocky round type, bright thin skin	
MSY022-2	328	371	88	12	88	0	0	1.077	1.0	0	0	0	0	1.5	0.6	2.5	2.5	thinner skin, flat round type	
NY163	306	381	80	17	80	0	3	1.081	1.0	0	0	0	0	2.0	0.3	3.0	1.5	smaller oval type, slight purple pigment around eyes, attractive chips	
MSAFB609-12	289	359	81	19	81	0	0	1.084	1.0	0	0	0	0	3.0	0.2	3.5	3.5	thinner light skin, uniform small type, attractive chips	
W12078-76	277	318	87	12	87	0	1	1.081	1.5	0	0	0	0	2.0	0.4	2.0	2.0	flat round type, medium netted skin, small chip blisters	
Petoskey	272	300	91	5	91	0	4	1.081	1.0	0	0	0	0	0.5	0.9	2.0	2.5	medium netted skin, pears and pointed tubers in pickouts	
Atlantic	248	269	92	8	92	0	0	1.073	1.0	10	0	0	0	2.0	0.4	3.0	1.5	sl pits, tr sheep nose	
Betty	161	316	51	49	51	0	0	1.079	1.0	0	0	0	0	2.5	0.4	4.0	1.0	non uniform type, inconsistent skin finish, bright chips with small blisters	
Corsica	138	245	56	26	56	0	18	1.075	2.0	0	0	0	0	0.5	0.9	2.5	2.0	thinner netted skin, less uniform type, lt yellow flesh, chip blistering	
MEAN	358	418	84	14	84	0	2	1.080	1.2	1	6	0	0	1.5	0.5	3.0	2.6		

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

²SPECIFIC GRAVITY

Data not replicated

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(SNAC Scale)
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(percent of tubers out of 10)
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4: Severe stem end defect
5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/11/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/17/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/21/21
Vine Kill Date N/A
Harvest Date 10/19/21
Days (planting to vine kill) N/A
Days (planting to harvest) 181
GDD₄₀ MAWN Station Munger
GDD₄₀ (planting to vine kill) 4569
Seed Spacing 10"

2021 Storage Chip Processing Potato Variety traceial

Hampton Potato Growers

Planting: 5/11/21 Vine Kill:10/1/21 Harvest: 10/19/21
GDD₄₀: 3842

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)						COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC						
MSAA252-7	689	703	98	2	77	21	0	1.080	1.5	0	0	0	0	0.5	0.6	2.5	2.5	deeper eyes, large round blocky type	
NY174	631	674	94	1	92	2	5	1.081	1.0	0	0	0	0	0.0	0.4	4.0	4.0	blocky type	
Kelly	604	746	81	14	81	0	5	1.085	2.0	0	0	0	0	1.0	0.4	4.0	4.0	sticky stolons, points, flat oblong type	
MSZ242-13	565	635	89	1	84	5	10	1.095	1.5	0	0	0	0	0.0	0.3	3.0	3.0	large blocky oval type, dark netted skin, growth crack and points in pick outs	
NYR1-7	537	576	93	5	93	0	2	1.086	1.0	0	0	0	0	0.5	0.7	3.0	3.0	slight aligator hide, round type, medium netted skin	
MSW474-1	519	581	89	11	88	1	0	1.081	2.0	0	0	0	0	0.0	0.5	3.0	3.0	flat round type, deep eyes, medium netted skin, trace sticky stolons	
Mackinaw	483	532	91	5	91	0	4	1.085	2.0	0	0	0	0	0.0	0.6	3.0	3.0	flat round type, deep eyes	
Lamoka	479	524	91	6	91	0	3	1.091	1.5	0	0	0	0	1.0	0.7	3.0	3.0	flat oval type, bright thin skin	
MSBB614-15	475	500	95	1	88	7	4	1.078	1.0	0	20	0	0	0.0	0.3	4.0	4.0	darker netted skin, deeper eyes, blocky round type, attractive chips	
W12078-76	474	509	93	6	93	0	1	1.086	2.0	0	0	0	0	0.5	0.2	3.0	3.0	flat round uniform type, medium netted skin	
MSBB221-1	441	484	91	7	90	1	2	1.076	1.5	0	0	0	0	0.0	0.4	5.0	5.0	medium netted skin, slight growth crack, nice round type	
Lady Liberty	423	474	89	11	89	0	0	1.074	1.0	0	0	0	0	0.0	0.2	3.0	3.0	trace aligator hide, nice uniform flat round type	
MSCC376-01	418	431	97	2	94	3	1	1.076	1.5	0	0	0	0	0.0	0.6	2.0	2.0	flat round type, deeper eyes, heavy netted skin	
MSBB079-2	407	438	93	6	93	0	1	1.077	1.0	0	0	0	0	0.5	0.5	2.5	2.5	variable skin finish, slight skinning, nice shape	
MSAFB609-12	405	444	91	9	91	0	0	1.079	1.5	0	0	0	0	0.5	0.3	4.0	4.0	flat round type, thin netted skin, nice appearance	
Snowden	385	410	94	6	94	0	0	1.083	1.5	0	30	10	0	0.0	0.3	4.0	4.0	deep eyes, blocky type	
MSDD271-11	371	417	89	6	89	0	5	1.064	1.5	0	0	0	0	1.5	0.9	4.0	4.0	non uniform flat oval type, prominent eyes	
CO11037-5W	363	414	88	6	88	0	6	1.074	1.0	0	0	0	0	0.5	0.9	3.0	3.0	oval type, deeper eyes, thin skin	
MSCC058-01	354	374	95	5	95	0	0	1.072	1.0	0	80	0	0	0.5	0.3	4.0	4.0	trace aligator hide, deeper apical eyes, slightly flattened type	
MSAA309-15	343	369	93	4	93	0	3	1.081	1.0	0	0	0	0	0.0	0.5	4.0	4.0	variable thin skin, growth crack in pick outs, slight aligator hide	
CO12235-3W	340	374	91	5	91	0	4	1.079	2.0	0	0	0	0	0.0	0.4	5.0	5.0	slight powdery scab, thin skin, round flat type, bright appearance	
NY163	333	415	80	19	80	0	1	1.090	1.5	0	0	0	0	0.0	0.3	4.0	4.0	round, bright thin skin, purple pigment around eyes	
AC11494-6W	292	390	75	23	75	0	2	1.075	2.5	0	0	0	0	1.0	0.4	3.0	3.0	round type, medium netted skin, less uniform	
Petoskey	209	242	87	7	84	3	6	1.073	2.0	0	10	0	0	0.0	1.2	5.0	5.0	slight aligator hide, darker skin, round type	
MEAN	439	486	90	7	89	2	3	1.080	1.5	0	6	0	0	0.3	0.5	3.5	3.5		

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

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(percent of tubers out of 10)
HH: Hollow Heart
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0: No stem end defect
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4: Severe stem end defect
5: Extreme stem end defect

⁷VINE VIGOR RATING

Date: 6/22/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/24/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/11/21
Vine Kill Date 10/1/21
Harvest Date 10/19/21
Days (planting to vine kill) 143
Days (planting to harvest) 161
GDD₄₀ MAWN Station Linwood
GDD₄₀ (planting to vine kill) 3842
Seed Spacing 10"

2021 Fresh Chip Processing Potato Variety Trial

Lennard Ag. Co.

Planting: 4/19/21 Vine Kill: N/A Harvest: 8/31/21

GDD₄₀: 3679

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						
BNC821-9	607	658	92	1	83	9	7	1.085	1.0	20	0	0	0	2.0	0.5	3.0	3.0	poor appearance	
W12078-76	540	576	94	5	94	0	1	1.091	1.0	20	10	0	0	1.0	0.2	4.5	2.0	slight shatter bruise, thin skin, flatter type, trace pears and points, trace sticky stolons	
Lady Liberty	536	606	88	10	88	0	2	1.081	1.0	0	0	10	0	2.0	0.8	3.5	2.0	trace rhizoctonia, uniform size profile, trace sticky stolons	
NY163	520	637	82	11	82	0	7	1.086	1.0	0	0	0	0	2.0	0.4	4.0	1.5	pink around eyes, slight pear shapes, thin skin, moderate blistering	
MSW474-1	520	579	90	8	90	0	2	1.083	1.5	0	0	0	0	0.0	0.3	4.0	3.0	heavy netted skin type, slight sticky stolons	
NYR1-7	519	569	91	9	91	0	0	1.087	1.5	0	0	0	0	2.0	0.4	4.0	2.0	attractive chips	
BNC718-1	509	541	94	4	94	0	2	1.071	1.5	0	30	0	0	2.0	1.5	2.0	1.0	purple skin, light yellow flesh	
BNC816-3	501	578	87	11	87	0	2	1.071	1.0	0	0	0	0	1.5	0.6	4.5	2.0	smaller tuber size profile, many pear shaped tubers, slight blistering	
MSY022-2	495	536	92	4	92	0	4	1.080	1.0	0	20	10	0	0.0	0.6	4.5	3.0	mod skinning, knobs in POs, attractive chips	
Atlantic	485	517	94	4	94	0	2	1.089	1.5	40	0	30	0	2.0	0.5	4.5	2.5	deep apical eyes	
MSBB625-2	482	533	90	7	90	0	3	1.091	2.0	0	20	90	0	0.5	0.3	4.5	3.0	slight flaky skin, slight netting and skinning	
MSAFB609-12	469	491	96	4	96	0	0	1.093	1.0	0	0	0	0	1.5	0.5	3.5	2.5	slight blistering	
MSBB610-13	438	466	94	4	93	1	2	1.082	1.0	0	0	0	0	1.0	0.2	3.0	3.0	moderate skinning, trace growth crack	
Petoskey	437	469	93	4	93	0	3	1.090	1.0	10	10	0	0	0.5	0.3	4.5	3.0	misshapen pickouts	
Mackinaw	416	444	94	4	94	0	2	1.083	1.5	0	30	0	0	0.5	0.3	3.5	2.0	slight pinkeye, deeper apical eyes	
BNC811-22	326	435	75	19	75	0	6	1.089	2.0	40	0	0	10	2.0	0.4	4.5	3.5	smaller size, less uniform type	
MEAN	488	540	90	7	90	1	3	1.085	1.3	8	8	9	1	1.3	0.5	3.9	2.4		

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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: 6/9/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 8/23/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/19/21
Vine Kill Date N/A
Harvest Date 8/31/21
Days (planting to vine kill) N/A
Days (planting to harvest) 134
GDD₄₀ MAWN Station Coldwater
GDD₄₀ (planting to vine kill) 3679
Seed Spacing 10"

2021 Storage Chip Processing Potato Variety Trial

Lennard Ag. Co.

Planting: 5/5/21 Vine Kill: 9/15/21 Harvest: 10/12/21
GDD₄₀: 4634

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				
Lady Liberty	698	748	93	7	93	0	0	1.068	0	10	0	0	2.0	2.5	3.0	uniform type
MSW474-1	647	724	89	10	87	2	1	1.079	0	0	0	0	0.5	3.0	4.0	deep apical eyes, trace aligator hide
MSZ242-13	635	664	96	1	95	1	3	1.092	0	0	10	0	0.0	3.0	4.0	trace aligator hide, slight growth crack, larger blocky round type
NY163	560	620	90	8	89	1	2	1.073	0	0	0	0	0.0	3.0	2.5	very thin skin, nice shape
Mackinaw	548	572	96	4	96	0	0	1.078	0	0	0	0	0.5	3.0	3.0	trace aligtor hide, attractive medium netted skin
MSCC058-01	518	568	91	6	85	6	3	1.071	0	30	10	0	0.5	3.0	4.0	blocky oval type, medium skin, growth crack in pickouts
W12078-76	510	562	91	6	91	0	3	1.080	0	10	10	10	2.0	2.5	3.0	medium skin, round to oval type, slight sticky stolons
Snowden	509	564	90	10	90	0	0	1.075	0	30	20	0	2.0	3.5	3.0	deeper eyes
NY172	507	550	92	7	92	0	1	1.073	20	0	0	0	2.0	3.5	2.0	trace sticky stolons, medium netted skin
AC11494-6W	490	590	83	16	83	0	1	1.059	0	0	0	0	3.5	3.5	3.0	severe heat sprouts and heat knobs
MSAFB609-12	487	531	92	8	92	0	0	1.079	0	0	0	0	0.5	2.5	3.0	light netted skin, round to oval type, attractive
CO12235-5W	410	498	82	16	81	1	2	1.068	0	0	10	0	3.0	3.5	3.0	light to medium skin, round type, moderate sticky stolons
Lamoka	405	451	90	9	90	0	1	1.071	0	20	0	0	1.5	3.5	2.5	oval type, light skin, slight greening
CO11037-3W	384	576	67	10	67	0	23	1.070	0	0	20	0	1.5	3.0	2.5	severe heat knobs, done,
Kelly	364	649	56	25	56	0	19	1.080	0	40	0	0	3.5	3.0	3.0	long type, severe bottlenecks and points
Petoskey	309	380	81	15	81	0	4	1.073	0	0	0	0	0.5	2.5	3.0	severe skinning, non uniform shape, deep apical eyes, slight growth crack
MEAN	499	578	86	10	86	1	4	1.074	1	9	5	1	1.5	3.0	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

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: 6/9/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁶VINE MATURITY RATING

Date: 8/12/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/5/21
Vine Kill Date 9/15/21
Harvest Date 10/12/21
Days (planting to vine kill) 133
Days (planting to harvest) 160
GDD₄₀ MAWN Station Constantine
GDD₄₀ (planting to vine kill) 4634
Seed Spacing 10"

2021 Storage Chip Processing Potato Variety Trial

Main Farms

Planting: 5/10/21 Vine Kill: 8/31/21 Harvest: 9/10/21

GDD₄₀: 3175

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
Lady Liberty	503	568	89	11	89	0	0	1.084	1.5	0	0	0	0	1.5	0.7	4.0	2.5	uniform round type, medium netted skin
MSW474-1	499	600	83	17	83	0	0	1.089	2.0	0	0	0	0	0.5	0.7	3.0	3.5	medium netted skin, attractive uniform type
AF6598-6	490	529	92	6	91	1	2	1.078	2.5	0	0	0	0	1.5	1.1	5.0	2.5	blocky type, oval type, light netted skin
AF6603-5	484	532	91	8	91	0	1	1.089	1.0	0	0	0	0	2.0	1.1	5.0	2.0	deeper apical eyes, slight sticky solons
Mackinaw	477	500	95	5	95	0	0	1.095	2.0	0	0	0	0	1.5	0.8	4.5	2.5	medium netted skin, flat round to oval type, trace sticky stolon:
AF6582-1	462	536	86	13	86	0	1	1.084	1.0	0	0	0	0	2.0	0.1	5.0	1.5	oval flattened type, light netted skin
Lamoka	434	474	91	8	91	0	1	1.088	2.0	0	0	0	0	1.5	0.7	5.0	1.5	flattened oblong type, thinner skin
MSAFB609-12	419	466	90	10	90	0	0	1.086	2.0	0	0	0	0	2.5	0.7	4.0	2.5	light netted skin, uniform round type
NYR3-5	401	449	89	8	89	0	3	1.088	1.5	0	0	0	0	1.5	0.5	5.0	2.5	oval type, light netted skin
AF6526-7	398	424	94	4	94	0	2	1.086	2.0	10	0	0	0	2.5	0.4	5.0	1.5	bright appearance, thin skin, blocky oval type
NY163	395	448	88	12	88	0	0	1.095	1.0	0	0	0	0	2.0	0.3	4.5	1.5	race anthocyanins around eyes, small uniform type, thinner ski
MSAA076-6	379	465	81	18	81	0	1	1.085	1.0	0	0	30	10	2.0	0.6	5.0	2.0	deep apical eyes, light netted skin, blocky round type
WAF16107-2	378	428	88	9	88	0	3	1.088	1.5	30	0	0	0	2.0	0.5	4.0	1.5	round to oval blocky type, medium netted skin
MS2242-13	375	420	89	7	89	0	4	1.099	1.0	0	0	0	0	1.0	0.6	5.0	2.5	medium netted skin, slight knobs and growth cracks
Snowden	359	405	89	10	89	0	1	1.086	1.0	20	0	0	0	2.0	0.2	4.5	2.0	medium netted skin, slight deep apical eyes
Petoskey	340	416	82	15	82	0	3	1.085	1.0	0	0	0	0	1.5	0.2	5.0	2.0	uniform round type, netted skin
AF6550-2	334	389	86	12	86	0	2	1.090	1.5	0	0	0	0	2.5	0.8	4.5	1.5	light netted skin, oval type
MSBB610-13	320	364	88	11	88	0	1	1.084	2.5	0	0	0	0	1.0	0.6	4.5	1.0	attractive uniform round type
AF6543-2	308	366	84	16	84	0	0	1.079	1.5	50	0	0	10	1.5	0.2	5.0	1.5	oval blocky type, slight netting, less uniform type
W12078-76	299	349	86	13	86	0	1	1.085	1.0	0	0	0	20	2.0	0.6	5.0	1.5	uniform round blocky type
NYR1-7	290	341	85	15	85	0	0	1.083	1.5	10	0	0	0	2.5	0.3	3.0	2.0	uniform round to oval type, medium netted skin
AF6526-3	285	360	80	19	78	2	1	1.089	1.0	0	0	0	10	1.0	0.8	4.5	1.5	less uniform type, medium netted skin
AF6527-3	260	300	87	10	87	0	3	1.092	1.0	0	0	0	0	1.0	0.3	5.0	1.5	flat oval tuber type, medium netted skin
MSAA309-15	225	270	83	16	83	0	1	1.078	1.5	0	0	0	10	1.5	0.4	5.0	1.0	non uniform type, slight skinning,
MEAN	380	433	87	11	87	0	1	1.087	1.5	5	0	1	3	1.7	0.6	4.6	1.9	

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
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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: 6/29/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 9/1/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/10/21
Vine Kill Date 8/31/21
Harvest Date 9/10/21
Days (planting to vine kill) 113
Days (planting to harvest) 123
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3175
Seed Spacing 10"

2021 Storage Chip Processing Potato Variety Trial Montcalm Research Center Box Bin

Planting: 5/14/21 Vine Kill: 9/8/21 Harvest: 10/18 and 10/19
GDD₄₀: 3327

LINE	CWT/A		PERCENT OF TOTAL ¹						RAW TUBER QUALITY ⁴ (%)						COMMON SCAB RATING ⁵	SED SCORE ⁶	VINE VIGOR ⁷	VINE MATURITY ⁸	COMMENTS
	US#1	TOTAL	US#1	Bs	As	OV	PO	SP GR ²	OTF CHIP SCORE ³	HH	VD	IBS	BC						
MSAA252-7	619	656	95	5	94	1	0	1.083	1.5	0	0	0	0	1.5	0.8	3.0	3.0	large blocky round type, medium netted skin	
CO12293-1W	590	668	88	9	88	0	3	1.082	1.0	0	0	0	0	2.5	0.6	3.0	4.0	generally uniform, light skin	
MSAA260-3	508	570	89	9	89	0	2	1.082	1.0	0	0	0	0	1.5	0.1	3.5	2.5	round blocky type, uniform	
MSBB635-14	488	558	87	11	87	0	2	1.076	1.0	0	30	0	0	1.5	0.0	2.5	3.5	severe sticky stolons, compressed shape	
MSAA217-3	486	543	90	10	90	0	0	1.096	1.0	40	0	0	0	1.5	0.7	4.0	4.0	nice uniform round to oval type, trace skinning	
Blackberry	479	622	77	22	77	0	1	1.063	1.0	0	0	0	0	2.0		2.5	4.0	dark purple skin with some white eyes, moderate silver scurf	
MSW474-1	446	540	83	17	83	0	0	1.087	1.0	0	0	0	0	0.5	0.1	3.5	3.0	uniform round type, slight recessed stem end and deep apical eyes	
MSBB079-2	443	488	91	9	91	0	0	1.081	1.0	0	0	0	0	0.5	0.1	4.0	4.0	uniform round type, medium netted skin	
Lady Liberty	425	519	82	17	82	0	1	1.086	1.0	0	0	0	0	0.0	0.0	3.0	4.0	light netted skin	
NY173	421	589	71	29	71	0	0	1.080	1.0	10	10	0	0	1.5	0.3	5.0	1.0	light skin, some pitted lesions, slight compressed shape	
MSAFB635-15	417	502	83	17	83	0	0	1.093	1.0	0	0	0	0	1.0	0.1	3.0	3.0	medium netted skin, round uniform type	
MSAA076-6	404	469	86	14	86	0	0	1.089	1.0	0	20	0	0	1.5	0.0	3.0	4.0	deep apical eyes, light netted skin	
NY174	402	483	83	14	83	0	3	1.086	1.0	0	0	0	0	1.5	0.1	3.5	3.0	moderate skinning, slightly flattened, variable skin finish	
MSBB626-11	398	433	92	8	92	0	0	1.087	1.0	10	0	0	0	1.0	0.7	3.5	4.0	unif round type, light netted skin, slight deep eyes	
MSAA076-04	380	501	76	23	76	0	1	1.086	1.0	0	0	0	0	1.0	0.3	3.0	2.5	uniform heavy netted skin, nice appearance	
MSBB058-1	370	446	83	16	83	0	1	1.096	1.0	0	0	0	0	1.5	0.1	3.0	3.0	small round type	
W12078-76	369	456	81	18	81	0	1	1.092	1.0	10	0	0	0	1.0	0.0	3.5	2.0	attractive uniform tuber type	
CO11037-5W	356	418	85	7	85	0	8	1.085	1.0	10	0	0	0	1.0	0.0	4.0	2.5	variable shape, medium netted skin, misshapen pickouts	
NY172	354	427	83	14	83	0	3	1.082	1.0	10	0	0	0	2.0	0.0	5.0	2.5	non uniform, slight skinning	
MSZ242-13	345	384	90	6	90	0	4	1.106	1.0	0	0	0	0	0.5	0.2	3.0	3.5	blocky oval to round type, slight growth crack	
Mackinaw	340	396	86	13	86	0	1	1.084	1.0	0	0	0	0	1.0	0.2	3.5	3.5	flat round tuber type, trace points	
Snowden	339	404	84	15	84	0	1	1.087	1.0	0	20	0	0	2.0	0.0	4.5	1.5		
MSCC058-01	334	358	93	7	93	0	0	1.089	1.0	10	30	0	10	2.0	0.0	3.0	2.0	round uniform type, medium netted skin	
MSAFB609-12	331	439	75	22	75	0	3	1.080	1.0	0	0	0	0	3.0	0.5	3.0	3.0	points, less uniform, light skin	
MSCC376-01	328	382	86	5	86	0	9	1.084	1.0	0	0	0	0	0.5	0.2	4.5	3.0	deep apical eyes, heavier netted skin	
MSZ242-07	327	383	85	7	85	0	8	1.098	1.0	0	0	0	0	1.0	0.1	3.0	3.5	growth cracks in pickouts	
NY163	325	423	77	18	77	0	5	1.088	1.0	0	20	0	0	0.5	0.0	2.5	1.5	non uniform type, purple and pink eye blushing	
MSBB614-15	321	349	92	6	92	0	2	1.079	1.0	10	10	0	10	0.5	0.0	5.0	2.0	nice uniform slightly heavy netted skin, oval type	
Petoskey	314	422	74	22	74	0	4	1.099	1.0	0	0	0	0	1.5	0.0	5.0	3.0	heavy netted skin, growth crack and knobs in pickouts	
MSBB230-1	273	346	79	21	79	0	0	1.090	1.0	0	0	0	0	2.5	0.1	4.0	2.5	small uniform round blocky type, medium netted skin	
MSBB634-8	200	247	81	19	81	0	0	1.077	1.0	0	10	0	0	0.5	0.3	2.5	3.0	flat to blocky round type	
MSAA328-4	198	213	93	7	93	0	0	1.084	1.0	0	0	0	0	0.5	0.0	5.0	2.0	less uniform blocky oval tuber type	
COOR13270-2	162	335	48	50	48	0	2	1.085	1.0	0	0	0	0	1.5	0.6	2.5	3.5	non uniform tuber type, inconsistent skin	
NYR101-2	141	444	32	67	32	0	1	1.081	1.0	0	0	0	0	1.5	0.0	5.0	1.0	light skin, non uniform tyoe	
MSDD085-13	125	222	56	44	56	0	0	1.082	1.0	0	0	0	0	1.5	0.0	2.5	1.0	smaller size profile, round type	
MEAN	365	447	81	17	81	0	2	1.086	1.0	3	4	0	1	1.3	0.2	3.5	2.8		

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: 6/23/21
 Rating 1-5
 1: Slow emergence
 5: Early emergence (vigorous vines, some flowering)

8 VINE MATURITY RATING

Date: 9/1/21
 Rating 1-5
 1: Early (vines completely dead)
 5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date	5/14/21
Vine Kill Date	9/8/21
Harvest Date	10/18/21
Days (planting to vine kill)	117
Days (planting to harvest)	157
GDD ₄₀ MAWN Station	Entrican
GDD ₄₀ (planting to vine kill)	3327
Seed Spacing	10"

2021 Replicated Chip Processing Potato Variety Trial Potatoes USA SNAC Trial Sandyland Farms

Planting: 5/17/21 Vine Kill: 9/8/21 Harvest: 10/13/21

GDD₄₀: 3274

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						
NY165	600	662	91	8	91	0	1	1.078	1.0	0	0	0	0	1.3	1.4	5.0	3.0	flat oval type, darker med netted skin, sl deep apical eyes	
MSAFB605-4	600	652	92	8	92	0	0	1.073	1.0	0	0	0	0	2.0	0.6	2.5	3.5	med to heavy netted skin, nice blocky round type, uniform, sl skinning	
MSW474-1	532	621	86	13	86	0	1	1.080	1.0	3	0	0	0	0.0	0.4	3.0	4.0	deep apical eyes, darker heavy net skin, no skinning	
MSZ242-13	519	557	93	5	92	1	2	1.093	1.0	0	0	0	0	1.3	0.9	5.0	3.5	large, round, blocky, trace growth crack	
NY163	511	563	91	8	91	0	1	1.083	1.0	0	0	0	0	2.0	1.0	4.5	2.5	sl skinning, apical blushing, uniform round tuber type, sl points	
W12078-76	503	571	89	10	89	0	1	1.086	1.0	27	3	0	17	2.0	0.4	5.0	2.5	tr pointed tubers, nice uniform flat type, med netted skin	
NYOR14Q9-9	495	554	90	10	89	1	0	1.080	1.0	10	3	0	3	2.0	1.0	3.5	4.0	pitted scab lesions, flat oval type, med netted skin	
Snowden	480	536	90	10	90	0	0	1.079	1.0	0	3	0	3	2.3	0.7	5.0	2.5	deeper apical eyes, sl skinning, inconsistent skin finish	
Lamoka	438	494	89	9	89	0	2	1.079	1.0	0	0	0	0	2.0	1.1	5.0	3.0	oval to oblong type, sl skinning, tr sticky stolons	
MEAN	520	579	90	9	90	0	1	1.081	1.0	4	1	0	3	1.7	0.8	4.3	3.2		

¹SIZE

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

²SPECIFIC GRAVITY

Data is 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

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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: 6/29/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸VINE MATURITY RATING

Date: 9/1/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 5/17/21
Vine Kill Date 9/8/21
Harvest Date 10/13/21
Days (planting to vine kill) 114
Days (planting to harvest) 149
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3274
Seed Spacing 10"

2021 Storage Chip Processing Potato Variety Trial Sandyland Set 1

Planting: 5/17/21 Vine Kill: 9/8/21 Harvest: 10/13/21
GDD₄₀: 3274

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	HH	VD	IBS	BC				
Mackinaw	690	728	95	4	94	1	1	1.083	0	0	0	0	2.0	3.5	4.0	deeper apical eyes, blocky oval type, some pitted lesions and black scurf
MSW474-1	484	569	85	14	84	1	1	1.078	0	0	0	0	2.0	3.0	4.0	very deep apical eyes, round uniform type, tr sticky stolons
MSZ242-13	458	495	92	5	91	1	3	1.097	0	0	0	0	0.0	5.0	4.0	blocky round type, shallow apical eyes
MSAFB609-12	443	505	88	11	88	0	1	1.086	0	0	0	0	2.0	2.5	2.5	tr pointed tubers, medium netted skin
NY163	421	464	90	9	89	1	1	1.083	0	0	0	0	0.0	3.0	2.5	apical blushing, some pear shapes
W12078-76	410	502	82	18	82	0	0	1.084	30	0	0	10	3.0	5.0	2.5	flat oval type, medium netted skin
MEAN	484	544	89	10	88	1	1	1.085	5	0	0	2	1.5	3.7	3.3	

¹SIZE Bs: < 1 7/8" As: 1 7/8" - 3 1/4" OV: > 3 1/4" PO: Pickouts	²SPECIFIC GRAVITY Data not replicated	³OUT OF THE FIELD CHIP COLOR SCORE (SNAC Scale) Ratings: 1 - 5 1: Excellent 5: Poor	⁴RAW TUBER (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
FIELD DATA Planting date: 5/17/21 Vine Kill Date: 9/8/21 Harvest Date: 10/13/21 Days (planting to vine kill): 114 Days (planting to harvest): 149 GDD ₄₀ MAWN Station: Entrican GDD ₄₀ (planting to vine kill): 3274 Seed Spacing: 10"	⁶VINE VIGOR RATING Date: 6/29/21 Rating 1-5 1: Slow emergence 5: Early emergence (vigorous vines, some flowering)	⁷VINE MATURITY RATING Date: 9/1/21 Rating 1-5 1: Early (vines completely dead) 5: Late (vigorous vines, some flowering)		

2021 Fresh Chip Processing Potato Variety Trial

Walther Farms

Planting: 4/19/21 Vine Kill: N/A Harvest: 9/9/21
GDD₄₀: 3955

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						
Mackinaw	825	928	89	10	89	0	1	1.073	2.0	0	0	0	0	0.5	0.5	4.0	3.5	med netted skin, less uniform type	
W12078-76	647	700	93	6	93	0	1	1.078	2.0	30	0	0	0	0.5	0.6	3.5	4.0	sticky stolons, heavier netted skin	
MSY022-2	596	628	95	4	95	0	1	1.068	1.0	0	10	0	0	0.5	0.7	3.5	3.5	large, blocky, deeper apical eyes, lt net skin	
MSBB058-3	586	623	94	6	93	1	0	1.068	2.0	0	0	0	0	1.0	1.2	3.0	5.0	heavy skin, skinning, sticky stolons, deeper eyes	
MSBB610-13	574	610	94	6	94	0	0	1.066	1.5	0	0	0	0	0.0	0.8	3.0	3.5	large, nice appearance	
BNC718-1	538	580	93	4	92	1	3	1.063	1.5	10	0	0	0	0.0	1.0	3.0	2.5	severe skinning, round type	
NDTX14362AB-1W	532	605	88	11	88	0	1	1.069	1.5	0	0	0	0	0.5	0.3	3.5	4.0	uniform round type, thin light skin	
Atlantic	528	585	90	9	90	0	1	1.071	1.5	30	10	10	0	1.0	0.4	2.5	4.5	blocky oval type, deep apical eyes	
MSAA311-1	523	581	90	6	90	0	4	1.069	1.5	10	10	0	0	1.0	0.9	3.5	3.5	heavy netted skin, deep apical eyes, larger blocky type	
Lady Liberty	466	514	91	7	91	0	2	1.074	1.5	0	40	0	0	0.5	0.5	3.5	4.0	nice type, blocky, thin netted skin	
MSW474-1	447	570	78	21	78	0	1	1.062	3.0	0	0	0	0	0.5	0.5	4.5	4.5	round, med netted skin, sl deep apical eyes	
BNC821-9	435	472	92	5	92	0	3	1.068	1.5	10	0	0	0	1.0	0.9	2.5	5.0	large, less uniform, med netted skin	
MSAFB609-12	401	481	83	16	83	0	1	1.071	1.5	0	0	0	0	0.5	0.7	3.0	4.0	small, round, some deep apical eyes, thinner skin	
BNC811-22	355	498	71	27	71	0	2	1.071	2.0	30	0	0	0	1.5	0.7	5.0	4.0	oval type, med netted skin, tr sticky stolons	
NY163	344	491	70	25	70	0	5	1.081	1.0	0	0	0	0	0.0	0.5	3.5	3.0	purple pigment around eyes, bright appearance	
BNC816-3	343	433	79	18	79	0	3	1.065	1.0	0	0	0	0	0.5	0.5	4.0	3.5	sl pear shapes, mod netted skin, sl deep eyes	
NDTX113030C-3W	333	432	77	22	77	0	1	1.069	1.0	20	0	0	0	0.5	0.4	3.5	4.5	less uniform	
MSBB012-1Y	276	313	88	9	88	0	3	1.066	2.0	0	0	0	0	0.0	0.5	3.0	4.0	blocky, round type, tr pear shapes, med netted skin	
MSDD085-13	274	421	65	34	65	0	1	1.072	1.0	0	0	0	0	1.5	0.5	4.0	3.0	smaller size profile, flat oval type, med netted skin	
Corsica	243	462	53	19	53	0	28	1.074	3.0	0	0	0	0	1.5	1.2	3.5	4.5	severe knobs	
NDTX112203AB-1W	243	352	69	25	69	0	6	1.063	1.0	0	0	0	0	2.0	0.6	4.0	4.0	bright, sl knobs and gc, less uniform type	
TX17846-1W	167	273	61	36	61	0	3	1.074	2.0	0	10	0	0	0.0	0.6	4.0	2.5	thin skin, bright appearance, nice	
MEAN	440	525	82	15	82	0	3	1.070	1.6	6	4	0	0	0.7	0.7	3.5	3.8		

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: 6/9/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸**VINE MATURITY RATING**
Date: 8/12/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA
Planting date: 4/19/21
Vine Kill Date: N/A
Harvest Date: 9/9/21
Days (planting to vine kill): N/A
Days (planting to harvest): 143
GDD₄₀ MAWN Station: Mendon
GDD₄₀ (planting to vine kill): 3955
Seed Spacing: 10"

2021 Storage Chip Processing Potato Variety Trial

Walther Replicated Chip Trial

Planting: 4/27/21 Vine Kill: 8/29/21 Harvest: 9/20/21
GDD₄₀: 3585

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						
NY174	580	657	88	9	88	0	3	1.085	1.0	0	0	0	0	2.0	0.5	4.0	3.0	slight sheep nose, heavier skin	
NY163	574	652	88	10	88	0	2	1.079	1.0	0	0	0	0	1.2	0.5	3.2	2.2	thin skin, purple pigment around eyes	
MSY022-2	552	605	92	4	91	1	4	1.076	1.5	10	0	0	3	0.8	1.0	2.3	2.8	inconsistent shape, larger type, trace knobs	
MSZ242-13	546	575	95	4	92	3	1	1.092	1.5	3	7	3	0	0.8	0.5	3.0	3.0	heavy netted skin, trace sticky stolons and knobs	
Snowden	543	616	88	12	88	0	0	1.080	1.0	30	0	0	3	2.0	0.4	3.5	2.5	deeper eyes, round blocky type	
NY173	510	597	85	14	85	0	1	1.078	1.5	7	3	0	0	1.0	1.1	3.3	1.5	deep apical eyes, round blocky type	
NY172	503	587	86	11	86	0	3	1.073	2.0	47	0	0	0	2.0	0.5	3.7	2.3	oval type, slight sticky stolons	
NYR1-7	495	555	89	11	88	1	0	1.076	1.0	0	0	3	0	1.7	0.5	3.3	2.7	oval blocky tuber type, lighter skin	
MSCC058-01	492	523	94	5	88	6	1	1.077	1.5	33	7	10	3	1.0	1.0	2.7	3.0	large round blocky type, medium netted skin	
Petoskey	487	533	91	6	91	0	3	1.082	1.0	13	0	0	0	0.7	1.2	3.0	2.8	round type, medium netted skin	
MSBB625-2	474	546	87	7	86	1	6	1.081	1.5	0	0	53	0	1.0	1.2	2.7	3.3	moderate heat knobs, poor appearance	
MSAFB609-12	464	524	89	10	89	0	1	1.083	1.0	0	0	0	0	1.7	0.3	3.0	3.0	uniform round type, deeper apical eyes	
MSAA260-3	461	495	93	5	91	2	2	1.080	1.0	0	17	17	17	1.2	0.9	3.5	3.0	blocky oval type, deeper apical eyes	
Lady Liberty	453	515	88	10	88	0	2	1.075	1.0	3	0	0	0	1.2	0.6	3.0	2.8	uniform medium netted skin	
NY168	453	554	82	17	82	0	1	1.084	1.0	3	0	0	0	2.0	1.7	3.5	3.0	uniform round flattened type	
Lamoka	451	475	95	4	95	0	1	1.077	1.0	0	0	0	3	1.5	0.7	4.0	2.0	blocky oval type, trace points	
W12078-76	440	482	91	8	91	0	1	1.079	1.0	83	0	0	0	0.8	0.8	3.0	2.3	light skin, flattened round type	
MSW474-1	438	525	83	15	81	2	2	1.079	1.0	0	0	0	0	1.2	0.5	3.8	3.3	slight sticky stolons, round type	
MSBB626-11	414	451	91	8	90	1	1	1.076	2.0	13	0	3	0	1.2	1.2	3.5	3.0	sticky stolons, deeper eyes, round type	
MSAA570-3	385	475	81	5	80	1	14	1.078	1.0	13	0	0	3	0.7	0.6	2.5	2.7	sheep nose, large flat blocky type, knobs	
Mackinaw	377	411	92	4	90	2	4	1.084	1.0	3	0	0	0	0.7	0.7	2.8	2.8	slight sticky stolons, blocky oval type	
MSBB614-15	367	437	84	13	84	0	3	1.079	1.5	23	10	0	0	1.5	0.7	3.0	2.7	heavy netted skin, inconsistent shape	
MSAA311-1	359	399	90	8	90	0	2	1.074	1.5	27	3	3	0	1.3	1.2	3.0	1.3	blocky oval type, slight growth crack	
MSDD085-13	342	418	82	17	82	0	1	1.081	1.0	10	0	0	0	0.7	0.7	3.7	2.0	medium netted skin, round type	
NYR101-2	335	463	72	26	72	0	2	1.080	1.0	7	7	0	0	1.7	0.6	4.2	1.8	non uniform type	
MSBB634-8	330	359	92	6	92	0	2	1.070	1.5	0	3	3	13	0.7	1.6	2.0	2.7	blocky round type, slight sheep nose	
AC11494-6W	277	382	72	27	72	0	1	1.064	1.0	17	0	0	0	2.3	0.4	3.2	2.2	round blocky type, slight sticky stolons	
Betty	272	347	78	21	78	0	1	1.079	1.5	0	0	3	0	1.7	0.9	4.0	1.0	inconsistent shape, medium netted skin	
Kelly	263	407	65	26	65	0	9	1.081	1.0	20	0	0	0	3.3	0.7	2.7	3.0	very long type, knobs	
COTX12235-2W	216	416	52	46	52	0	2	1.069	1.5	3	0	0	0	0.7	0.4	3.0	2.5	smaller size profile, pears and points	
MEAN	428	499	85	12	85	1	3	1.078	1.2	12	2	3	2	1.3	0.8	3.2	2.5		

¹**SIZE**

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

²**SPECIFIC GRAVITY**

Data is 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
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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: 6/9/21
Rating 1-5
1: Slow emergence
5: Early emergence (vigorous vines, some flowering)

⁸**VINE MATURITY RATING**

Date: 8/23/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting date 4/27/21
Vine Kill Date 8/29/21
Harvest Date 9/20/21
Days (planting to vine kill) 124
Days (planting to harvest) 146
GDD₄₀ MAWN Station Mendon
GDD₄₀ (planting to vine kill) 3585
Seed Spacing 10"

2021 Chip Processing Potato Variety Trial

Verbrigghe Potato Farms

Planting: 6/2/21 Vine Kill: 9/1/21 Harvest: 10/4/21

GDD₄₀: 2424

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				
MSW474-1	410	444	92	8	92	0	0	1.096	0	0	0	0	0.5	4.0	3.5	
Lamoka	361	377	96	1	67	29	3	1.085	0	0	0	0	0.0	4.0	2.5	
W12078-76	332	338	98	2	92	6	0	1.093	0	10	0	0	0.0	3.5	4.0	
Snowden	315	382	82	17	68	14	1	1.086	0	50	0	0	0.0	3.0	2.0	
NY163	244	268	91	7	89	2	2	1.082	0	0	0	0	0.0	4.0	3.0	
MSBB610-3	221	233	95	4	84	11	1	1.083	0	0	0	0	0.0	2.5	2.0	
Petoskey	201	229	88	11	88	0	1	1.089	0	0	0	0	0.0	2.5	3.0	Very uniform in size
Mackinaw	199	240	83	4	81	2	13	1.089	0	0	0	0	0.0	4.0	4.0	
MEAN	285	314	91	7	83	8	3	1.088	0	8	0	0	0.1	3.4	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

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: 7/9/21
Rating 1-5
1: Slow emergence
5: Early emergence

⁶VINE MATURITY RATING

Date: 8/31/21
Rating 1-5
1: Early (vines completely dead)
5: Late (vigorous vines, some flowering)

FIELD DATA

Planting Date 6/2/21
Vine Kill Date 9/1/21
Harvest Date 10/4/21
Days (planting to vine kill) 91
Days (planting to harvest) 124
GDD₄₀ MAWN Station Escanaba
GDD₄₀ (planting to vine kill) 2424
Seed Spacing 10"

2021 Chip Process Potatoes Bulk Planting Test Digs

LINE	CWT/A		PERCENT OF TOTAL ¹					SP GR ²	Stand Count	Stem Count	Bs	As	OV	PO	Total Tubers	Tubers		Average Tuber Weight	RAW TUBER QUALITY ³ (%)				COMMON SCAB RATING ⁴	
	US#1	TOTAL	US#1	Bs	As	OV	PO									per Plant	Tubers per Stem		HH	VD	IBS	BC		
NY163 Sandyland Farms	562	593	95	4	64	31	1	1.083	11	35	15	66	15	2	98	8.9	2.8	6.3	0	0	0	0	0	0.0
Manistee Sandyland Farms	593	609	98	3	54	44	0	1.081	9	31	10	55	22	0	87	9.7	2.8	7.3	0	0	0	0	0	0.0
MSW474-1 Thorlund Bros.	333	456	73	27	73	0	0	1.091	10	40	78	86	0	0	164	16.4	4.1	2.9	0	0	0	0	0	0.5
FL2137 Thorlund Bros.	291	427	68	32	68	0	0	1.089	10	46	93	69	0	0	162	16.2	3.5	2.7	0	0	0	0	0	0.0
MS2242-13 Walther Farms Three Rivers	472	514	92	8	65	27	0	1.090	15	50	25	54	12	0	91	6.1	1.8	5.9	0	0	0	0	0	1.5
Manistee Walther Farms Three Rivers	484	597	81	18	73	8	1	1.079	11	40	81	85	4	2	172	15.6	4.3	3.6	0	0	0	0	0	0.5
MEAN	456	533	85	15	66	18	0	1.086	11	40	50	69	9	1	129	12.1	3.2	4.8	0	0	0	0	0	0.4

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
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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