

2020 Potato Outreach Program On-Farm Variety Trials

Data Summary: Michigan Chip Processing Trials

Table of Contents

| | |
|-----------------|--|
| 1-2..... | 2020 Statewide Chip Line Summary |
| 3..... | 2020 Processing Trial; Crawford Farms, Montcalm County, MI |
| 4..... | 2020 Fresh Chip Trial; Hampton Potato Growers, Bay County, MI |
| 5..... | 2020 Processing Trial; Lennard Ag. Co., St. Joseph County, MI |
| 6..... | 2020 Processing Trial; Main Farms, Montcalm County, MI |
| 7..... | 2020 Processing Trial; MPIC Box Bin Trial; Montcalm Research Center |
| 8..... | 2020 Potatoes USA/SNAC Trial; Sandyland Farms, Montcalm County, MI |
| 9..... | 2020 Processing Trial; Sandyland Farms, Montcalm County, MI |
| 10..... | 2020 Bulk Chip Test Digs and Misc, Multiple Locations, MI |

2020 Michigan Statewide Chip Processing Potato Variety Trials Overall Averages- Eight Locations

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

2020 Chip Variety Trial Sites

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

¹SIZE

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

⁶SED (STEM END DEFECT) SCORE

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

²SPECIFIC GRAVITY

Data not replicated

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

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

⁷VINE VIGOR RATING

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

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

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

⁸VINE MATURITY RATING

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

⁵COMMON SCAB RATING

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

2020 Storage Chip Processing Potato Variety Trial

Crawford Farms

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

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

¹SIZE

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

²SPECIFIC GRAVITY
Data not replicated

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

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

⁵COMMON SCAB RATING
0.0: Complete absence of surface or pitted lesions
1.0: Presence of surface lesions
2.0: Pitted lesions on tubers, though coverage is low
3.0: Pitted lesions common on tubers
4.0: Pitted lesions severe on tubers
5.0: More than 50% of tuber surface area covered in pitted lesions

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

⁷VINE VIGOR RATING

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

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

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

2020 Fresh Chip Processing Potato Variety Trial

Hampton Potato Growers

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

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

¹**SIZE**

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

²**SPECIFIC GRAVITY**

Data not replicated

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

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

⁴**RAW TUBER QUALITY**

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

⁵**COMMON SCAB RATING**

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

⁸**VINE MATURITY RATING**

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

FIELD DATA

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

2020 Storage Chip Processing Potato Variety Trial

Lennard Ag. Co.

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

GDD₄₀: 3813

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

¹SIZE

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

²SPECIFIC GRAVITY
Data not replicated

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

Ratings: 1 - 5
1: Excellent
5: Poor

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

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

⁵COMMON SCAB RATING

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

⁶SED (STEM END DEFECT) SCORE

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

⁷VINE VIGOR RATING

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

⁸VINE MATURITY RATING

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

FIELD DATA

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

2020 Storage Chip Processing Potato Variety Trial

Main Farms

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

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

¹**SIZE**

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

²**SPECIFIC GRAVITY**

Data not replicated

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

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

⁴**RAW TUBER QUALITY**

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

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

⁸**VINE MATURITY RATING**

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

FIELD DATA

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

2020 Storage Chip Processing Potato Variety Trial

Montcalm Research Center Chip Box Bin

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

GDD₄₀: 3335

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

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: 6/18/20
Rating 1-5
1: Slow emergence

5: Early emergence (vigorous vines, some flowering)

⁸**VINE MATURITY RATING**

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

FIELD DATA

Planting date 5/7/20
Vine Kill Date 8/31/20
Harvest Date 9/21/20 and 9/22/20
Days (planting to vine kill) 116
Days (planting to harvest) 137
GDD₄₀ MAWN Station Entrican
GDD₄₀ (planting to vine kill) 3335
Seed Spacing 10"

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

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

GDD₄₀: 3606

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

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

⁵COMMON SCAB RATING

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

⁶SED (STEM END DEFECT) SCORE

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

⁷VINE VIGOR RATING

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

⁸VINE MATURITY RATING

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

FIELD DATA

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

2020 Storage Chip Processing Potato Variety Trial

Sandyland Set 1

Planting: 5/22/20 Vine Kill: 9/4/20 and 9/11/20 Harvest: 10/6/20
GDD₄₀: 3606

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

¹SIZE

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

²SPECIFIC GRAVITY

Data not replicated

³OUT OF THE FIELD CHIP COLOR SCORE

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

⁴RAW TUBER QUALITY

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

⁵COMMON SCAB RATING

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

⁶SED (STEM END DEFECT) SCORE

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

⁷VINE VIGOR RATING

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

⁸VINE MATURITY RATING

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

FIELD DATA

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

2020 Chip Process Potatoes Bulk Planting Test Digs

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

¹SIZE

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

²SPECIFIC GRAVITY

Data is replicated for
MSZ242-13 only

³RAW TUBER QUALITY

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

⁴COMMON SCAB RATING

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