

Table 1

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

**DATE OF HARVEST TRIAL: EARLY HARVEST
MONTCALM RESEARCH FARM
May 8 to August 11, 2008 (96 days)**

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | SP GR | CHIP SCORE ² | PERCENT (%) | | | | 3-YR AVG |
|------------------------------|------------|------------|-------------------------------|-----------|-----------|----------|----------|--------------|-------------------------|----------------------------|----------|----------|----------|--------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | | | TUBER QUALITY ³ | | | | US#1 |
| | | | | | | | | | | HH | VD | IBS | BC | CWT/A |
| Atlantic | 258 | 290 | 89 | 10 | 89 | 0 | 1 | 1.089 | 1.0 | 5 | 0 | 0 | 0 | 258 |
| FL1879 | 247 | 257 | 96 | 3 | 91 | 5 | 1 | 1.072 | 1.0 | 0 | 0 | 0 | 0 | 300 |
| MSN105-1 ^{LBR} | 241 | 279 | 86 | 12 | 86 | 0 | 2 | 1.076 | 1.0 | 0 | 0 | 0 | 0 | 240 |
| MSL268-D ^{LBR-PVYR} | 232 | 284 | 82 | 16 | 80 | 1 | 3 | 1.073 | 1.0 | 5 | 0 | 0 | 0 | - |
| MSM070-1 | 213 | 241 | 89 | 9 | 85 | 4 | 2 | 1.070 | 1.0 | 3 | 0 | 0 | 0 | - |
| MSM171-A ^{LBR} | 191 | 203 | 94 | 3 | 73 | 21 | 3 | 1.059 | 1.0 | 8 | 0 | 0 | 3 | 261 |
| Snowden | 189 | 229 | 83 | 17 | 82 | 1 | 0 | 1.079 | 1.0 | 0 | 0 | 0 | 0 | 229 |
| MSN170-A | 188 | 210 | 89 | 9 | 89 | 0 | 1 | 1.079 | 1.0 | 0 | 0 | 0 | 0 | - |
| Pike | 159 | 183 | 87 | 13 | 86 | 1 | 0 | 1.079 | 1.0 | 0 | 0 | 0 | 0 | 174 |
| MSM170-2 | 158 | 223 | 71 | 29 | 70 | 1 | 0 | 1.068 | 1.0 | 0 | 0 | 0 | 0 | - |
| MSP459-5 | 153 | 200 | 76 | 23 | 76 | 0 | 1 | 1.081 | 1.0 | 0 | 0 | 0 | 0 | - |
| MSM246-B | 126 | 139 | 91 | 8 | 90 | 1 | 1 | 1.078 | 1.0 | 3 | 0 | 0 | 0 | - |
| MEAN | 196 | 228 | | | | | | 1.075 | | | | | | * Two-Year Average |
| LSD _{0.05} | 43 | 44 | | | | | | 0.003 | | | | | | |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

Table 2

DATE OF HARVEST TRIAL: LATE HARVEST
MONTCALM RESEARCH FARM
May 8 to September 24, 2008 (140 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | | SP GR | CHIP SCORE ² | PERCENT (%) | | | | | MAT ⁵ | 3-YR AVG |
|------------------------------|------------|------------|-------------------------------|-----------|-----------|----------|----------|----------------------------|------------|-------------------------|-------------|----------|----------|-------------------|------------|--------------------|----------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | TUBER QUALITY ³ | | | | | US#1 | | | | |
| | | | | | | | | | | HH | VD | IBS | BC | SCAB ⁴ | | CWT/A | |
| FL1879 | 425 | 445 | 96 | 3 | 70 | 26 | 1 | 1.080 | 1.5 | 23 | 18 | 0 | 0 | 2.5 | 3.0 | 378 | |
| Atlantic | 368 | 422 | 87 | 11 | 84 | 3 | 2 | 1.094 | 1.5 | 3 | 0 | 0 | 0 | 2.4 | 2.8 | 320 | |
| Snowden | 359 | 414 | 87 | 11 | 83 | 3 | 3 | 1.088 | 1.5 | 0 | 43 | 0 | 0 | 2.6 | 4.0 | 325 | |
| MSN105-1 ^{LBR} | 348 | 431 | 81 | 15 | 74 | 7 | 4 | 1.082 | 1.5 | 0 | 10 | 0 | 0 | 1.9 | 2.8 | 293 | |
| MSL268-D ^{LBR,PVYR} | 347 | 437 | 79 | 16 | 75 | 4 | 5 | 1.078 | 1.5 | 3 | 10 | 0 | 0 | 1.1 | 3.0 | - | |
| MSN170-A | 323 | 366 | 88 | 10 | 86 | 2 | 1 | 1.083 | 1.5 | 3 | 0 | 0 | 0 | 1.0 | 2.3 | - | |
| MSM171-A ^{LBR} | 308 | 343 | 90 | 4 | 53 | 37 | 6 | 1.062 | - | 28 | 5 | 0 | 0 | 1.7 | 2.5 | 299 | |
| Pike | 265 | 314 | 84 | 15 | 82 | 2 | 0 | 1.088 | 1.5 | 0 | 15 | 0 | 0 | 1.4 | 3.3 | 230 | |
| MSP459-5 ^{LBR} | 256 | 348 | 74 | 24 | 73 | 0 | 2 | 1.084 | 1.5 | 0 | 5 | 0 | 0 | 1.5 | 2.3 | - | |
| MSM246-B | 236 | 262 | 90 | 9 | 79 | 11 | 1 | 1.085 | 1.5 | 3 | 10 | 0 | 0 | 2.5 | 3.3 | - | |
| MEAN | 323 | 378 | | | | | | 1.082 | | | | | | | | * Two-Year Average | |
| LSD _{0.05} | 52 | 53 | | | | | | 0.004 | | | | | | 0.9 | 0.7 | | |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

⁴SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

⁵MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 3

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICSADVANCED TRIAL
MONTCALM RESEARCH FARM
May 8 to September 24, 2008 (140 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | | SP GR | CHIP SCORE ² | PERCENT (%) | | | | | MAT ⁵ | 3-YR AVG |
|--------------------------------|------------|------------|-------------------------------|-----------|-----------|----------|----------|----------------------------|------------|-------------------------|-------------|----------|----------|-------------------|------------|--------------------|----------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | TUBER QUALITY ³ | | | | | US#1 | | | | |
| | | | | | | | | HH | | | VD | IBS | BC | SCAB ⁴ | CWT/A | | |
| MegaChip | 436 | 469 | 93 | 5 | 80 | 13 | 2 | 1.095 | 1.0 | 0 | 40 | 0 | 0 | 1.5 | 3.8 | - | |
| Kalkaska | 433 | 489 | 89 | 11 | 82 | 6 | 1 | 1.084 | 1.0 | 8 | 8 | 0 | 3 | 1.1 | 3.3 | 375* | |
| Beacon Chipper | 426 | 445 | 96 | 4 | 74 | 22 | 0 | 1.085 | 1.0 | 0 | 7 | 0 | 0 | 1.0 | 2.8 | 347 | |
| FL1879 | 415 | 434 | 96 | 3 | 71 | 25 | 1 | 1.082 | 1.0 | 18 | 15 | 3 | 0 | 2.5 | 2.8 | - | |
| MSI005-20Y | 411 | 455 | 90 | 8 | 83 | 7 | 1 | 1.079 | 1.0 | 0 | 10 | 3 | 0 | 2.2 | 3.3 | - | |
| MSQ176-5 ^{LBR} | 408 | 434 | 94 | 5 | 62 | 32 | 1 | 1.070 | 1.0 | 8 | 10 | 0 | 0 | 2.0 | 3.0 | - | |
| MSK061-4 | 364 | 405 | 90 | 7 | 78 | 12 | 3 | 1.088 | 1.0 | 0 | 60 | 3 | 0 | 1.0 | 3.5 | 266 | |
| Snowden | 360 | 415 | 87 | 13 | 83 | 3 | 1 | 1.088 | 1.0 | 15 | 33 | 0 | 3 | 2.6 | 3.8 | - | |
| MSQ070-1 ^{LBR} | 344 | 411 | 84 | 16 | 82 | 2 | 0 | 1.095 | 1.0 | 0 | 13 | 20 | 0 | 1.0 | 4.3 | - | |
| FL2053 | 331 | 400 | 83 | 8 | 81 | 2 | 9 | 1.096 | 1.0 | 3 | 5 | 0 | 0 | 2.0 | 2.5 | 304 | |
| MSR061-1 ^{LBM,R,PVYR} | 299 | 388 | 77 | 23 | 77 | 0 | 0 | 1.087 | 1.0 | 0 | 18 | 0 | 0 | 1.3 | 3.0 | - | |
| MSJ126-9Y | 279 | 318 | 88 | 12 | 82 | 6 | 0 | 1.078 | 1.0 | 3 | 18 | 0 | 0 | 1.1 | 2.8 | 261 | |
| MSJ147-1 | 271 | 342 | 79 | 21 | 79 | 0 | 0 | 1.092 | 1.0 | 0 | 3 | 0 | 0 | 1.4 | 3.8 | 214 | |
| MSH228-6 | 267 | 295 | 91 | 9 | 87 | 4 | 1 | 1.085 | 1.0 | 8 | 18 | 0 | 0 | 1.0 | 3.8 | 272 | |
| MSN191-2Y | 265 | 318 | 83 | 16 | 82 | 2 | 0 | 1.097 | 1.0 | 0 | 3 | 0 | 0 | 2.5 | 2.8 | 253* | |
| MSK409-1 | 262 | 318 | 82 | 9 | 72 | 11 | 9 | 1.089 | 1.0 | 0 | 33 | 3 | 0 | 1.0 | 3.0 | 222 | |
| Pike | 255 | 305 | 84 | 16 | 82 | 2 | 0 | 1.087 | 1.0 | 0 | 30 | 0 | 0 | 1.4 | 3.5 | - | |
| MSN238-A | 230 | 335 | 69 | 31 | 67 | 2 | 0 | 1.084 | 1.0 | 0 | 18 | 0 | 0 | 2.1 | 3.3 | - | |
| MEAN | 336 | 387 | | | | | | 1.087 | | | | | | | | * Two-Year Average | |
| LSD _{0.05} | 70 | 67 | | | | | | 0.004 | | | | | | 0.9 | 0.8 | | |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

⁴SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

⁵MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 4

ROUND WHITE TRIAL (North Central Regional Entries)
MONTCALM RESEARCH FARM
May 8 to September 11, 2008 (127 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | SP GR | CHIP SCORE ² | PERCENT (%) | | | | SCAB ⁴ | MAT ⁵ | 3-YR AVG | |
|-------------------------|------------|------------|-------------------------------|-----------|-----------|-----------|----------|--------------|-------------------------|----------------------------|-----------|----------|----------|-------------------|------------------|------------|-------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | | | TUBER QUALITY ³ | HH | VD | IBS | | | BC | US#1 |
| | | | | | | | | | | | | | | | | | CWT/A |
| MSM171-A ^{LBR} | 336 | 362 | 93 | 6 | 78 | 15 | 1 | 1.067 | - | 0 | 8 | 0 | 0 | 1.7 | 2.0 | - | |
| Atlantic | 324 | 369 | 88 | 8 | 76 | 11 | 4 | 1.089 | 1.5 | 15 | 5 | 0 | 0 | 2.4 | 2.8 | 312 | |
| MSI005-20Y | 307 | 368 | 83 | 15 | 80 | 3 | 1 | 1.080 | - | 0 | 3 | 0 | 0 | 2.2 | 2.8 | 325 | |
| Snowden | 297 | 351 | 85 | 13 | 76 | 8 | 2 | 1.091 | 1.0 | 13 | 38 | 0 | 0 | 2.6 | 4.5 | 350 | |
| Norvalley | 290 | 355 | 82 | 16 | 77 | 5 | 2 | 1.077 | 1.0 | 0 | 5 | 0 | 0 | - | 2.0 | 299 | |
| MSJ461-1 ^{LBR} | 282 | 375 | 75 | 25 | 74 | 1 | 0 | 1.079 | 1.0 | 0 | 0 | 0 | 0 | 2.1 | 4.0 | - | |
| MSJ316-A | 277 | 321 | 86 | 13 | 83 | 3 | 0 | 1.083 | 1.5 | 3 | 0 | 0 | 0 | 1.6 | 4.5 | 296 | |
| W2310-3 | 234 | 275 | 85 | 14 | 84 | 1 | 1 | 1.092 | 1.0 | 0 | 0 | 0 | 0 | 1.9 | 2.8 | 236 | |
| ND8307C-3 | 222 | 303 | 73 | 27 | 72 | 2 | 0 | 1.087 | 1.5 | 0 | 0 | 0 | 0 | 1.4 | 4.3 | - | |
| W2133-1 | 179 | 268 | 67 | 30 | 65 | 2 | 3 | 1.087 | 1.0 | 0 | 3 | 0 | 0 | 2.1 | 2.3 | 278 | |
| ND8304-2 | 121 | 187 | 65 | 35 | 65 | 0 | 0 | 1.073 | 1.0 | 0 | 3 | 0 | 0 | 3.6 | 1.5 | - | |
| MEAN | 261 | 321 | | | | | | 1.082 | | | | | | | | | |
| LSD _{0.05} | 82 | 82 | | | | | | 0.003 | | | | | | 0.9 | 0.8 | | |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

All the lines in the Round White Trial in 2008 were North Central Regional Trial entries.

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²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

⁴SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

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Table 5

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICSRUSSET TRIAL (+NCR ENTRIES) 2008
MONTCALM RESEARCH FARM
May 8 to September 17, 2008 (133 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | | PERCENT (%) TUBER QUALITY ² | | | | | 3-YR AVG | |
|--------------------------------------|------------|------------|-------------------------------|-----------|-----------|----------|-----------|--------------|---|-----------|----------|----------|-------------------|------------------|--------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | SP GR | HH | VD | IBS | BC | SCAB ³ | MAT ⁴ | US#1 |
| | | | | | | | | | | | | | | | CWT/A |
| A95109-1 | 469 | 508 | 92 | 5 | 65 | 27 | 2 | 1.079 | 13 | 58 | 0 | 0 | 1.0 | 3.8 | 329 |
| MSA8254-2BRUS | 442 | 522 | 85 | 10 | 62 | 23 | 5 | 1.079 | 40 | 3 | 0 | 0 | 1.0 | 4.0 | - |
| W5716-1RUS | 385 | 471 | 82 | 14 | 70 | 11 | 4 | 1.082 | 3 | 5 | 0 | 0 | 1.3 | 4.0 | 351* |
| Silverton Russet | 382 | 412 | 93 | 7 | 68 | 25 | 1 | 1.073 | 0 | 3 | 0 | 0 | 0.8 | 3.3 | - |
| AC99375-1RUS | 369 | 523 | 70 | 18 | 61 | 9 | 11 | 1.092 | 40 | 13 | 3 | 0 | 1.0 | 4.0 | - |
| CO99053-3RUS | 351 | 408 | 86 | 9 | 53 | 34 | 5 | 1.080 | 25 | 8 | 0 | 0 | 1.5 | 3.5 | - |
| W2683-2RUS ^{NCR} | 344 | 464 | 74 | 19 | 66 | 8 | 7 | 1.079 | 20 | 0 | 0 | 0 | 0.8 | 4.0 | 294 |
| W7012-1RUS | 330 | 422 | 78 | 16 | 64 | 14 | 6 | 1.082 | 3 | 15 | 0 | 0 | 1.0 | 3.3 | - |
| W5716-1RUS ^{NCR} | 320 | 405 | 79 | 13 | 60 | 19 | 8 | 1.084 | 10 | 10 | 5 | 0 | 1.3 | 3.3 | - |
| CO95172-3RUS | 310 | 398 | 78 | 20 | 73 | 5 | 2 | 1.086 | 0 | 5 | 0 | 0 | 1.3 | 3.5 | - |
| AOND95292-3RUS ^{NCR} | 309 | 394 | 78 | 17 | 71 | 7 | 4 | 1.082 | 35 | 10 | 0 | 0 | 2.6 | 3.5 | - |
| W3328-1RUS | 304 | 398 | 76 | 17 | 66 | 10 | 7 | 1.074 | 0 | 8 | 0 | 0 | 1.2 | 3.0 | - |
| Canela Russet | 284 | 344 | 82 | 16 | 67 | 15 | 2 | 1.087 | 8 | 13 | 0 | 0 | 1.4 | 2.3 | 261 |
| W3666-2RUS | 277 | 375 | 74 | 23 | 64 | 10 | 3 | 1.076 | 0 | 25 | 0 | 0 | 1.3 | 2.5 | - |
| CORN #3 | 268 | 361 | 74 | 24 | 71 | 3 | 2 | 1.076 | 15 | 10 | 0 | 0 | 2.0 | 3.0 | 278 |
| W2253-5RUS | 265 | 305 | 87 | 9 | 73 | 14 | 5 | 1.071 | 8 | 43 | 0 | 0 | 1.8 | 3.8 | - |
| W8206-1RUS | 258 | 315 | 82 | 13 | 62 | 20 | 5 | 1.079 | 0 | 40 | 0 | 0 | 1.5 | 3.3 | - |
| CO99100-1RUS | 254 | 310 | 82 | 13 | 72 | 10 | 5 | 1.072 | 0 | 15 | 0 | 0 | 1.3 | 1.3 | - |
| CORN #8 | 226 | 304 | 74 | 23 | 67 | 7 | 3 | 1.073 | 13 | 13 | 0 | 0 | 2.1 | 2.0 | 203 |
| CO99053-4RUS | 225 | 326 | 69 | 24 | 64 | 5 | 7 | 1.073 | 0 | 10 | 0 | 0 | 1.4 | 2.3 | - |
| AOTX95265-2ARu | 212 | 303 | 70 | 28 | 61 | 9 | 2 | 1.072 | 15 | 8 | 0 | 0 | 2.3 | 2.2 | - |
| A00727-1 | 210 | 322 | 65 | 33 | 62 | 3 | 2 | 1.082 | 0 | 13 | 0 | 0 | 2.4 | 2.8 | - |
| AOTX95265-4Ru | 206 | 325 | 63 | 30 | 57 | 6 | 6 | 1.070 | 10 | 10 | 0 | 0 | 2.3 | 2.0 | - |
| AOTX95265-3Ru | 201 | 323 | 62 | 30 | 55 | 8 | 8 | 1.070 | 18 | 10 | 0 | 0 | 2.0 | 2.3 | - |
| AC96052-1RUS | 192 | 294 | 65 | 35 | 65 | 0 | 0 | 1.080 | 0 | 13 | 0 | 0 | 1.3 | 3.3 | - |
| A0008-1TE | 191 | 293 | 65 | 30 | 63 | 2 | 5 | 1.073 | 0 | 13 | 0 | 0 | - | 1.0 | - |
| Russet Burbank^{NCR} | 190 | 351 | 54 | 15 | 48 | 6 | 31 | 1.081 | 15 | 3 | 0 | 0 | 1.3 | 3.0 | 209 |
| CO98067-7RUS | 189 | 303 | 63 | 32 | 59 | 4 | 6 | 1.065 | 0 | 25 | 0 | 0 | 1.8 | 1.8 | - |
| W6234-4RUS | 186 | 286 | 65 | 28 | 54 | 11 | 7 | 1.079 | 5 | 13 | 0 | 0 | 2.5 | 2.8 | - |
| Russet Norkotah^{NCR} | 167 | 273 | 61 | 36 | 59 | 2 | 3 | 1.068 | 3 | 10 | 0 | 0 | - | 1.0 | 162 |
| CO98368-2RUS | 163 | 282 | 58 | 37 | 55 | 3 | 5 | 1.076 | 0 | 3 | 0 | 0 | 2.0 | 1.0 | - |
| A98298-1 | 141 | 231 | 61 | 30 | 57 | 4 | 9 | 1.068 | 0 | 28 | 0 | 0 | 1.0 | 2.0 | - |
| W6968-2RUS | 136 | 210 | 65 | 34 | 57 | 7 | 2 | 1.074 | 0 | 5 | 0 | 0 | 2.8 | 1.8 | - |
| MEAN | 265 | 356 | | | | | | 1.077 | | | | | | | * Two-Year Average |
| LSD _{0.05} | 64 | 67 | | | | | | 0.004 | | | | | 0.9 | 0.7 | |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.^{NCR} North Central Regional Entry¹SIZE: B: < 4 oz.; A: 4-10 oz.; OV: > 10 oz.; PO: Pickouts.²QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.³SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.⁴MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 6

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICSADAPTATION TRIAL, CHIP-PROCESSING LINES
MONTCALM RESEARCH FARM
May 8 to September 19, 2008 (136 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | | CHIP SCORE ² | PERCENT (%) TUBER QUALITY ³ | | | | | MAT ⁵ |
|-------------------------------|------------|------------|-------------------------------|-----------|-----------|----------|----------|--------------|-------------------------|---|-----------|----------|----------|-------------------|------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | SP GR | | HH | VD | IBS | BC | SCAB ⁴ | |
| Boulder | 467 | 476 | 98 | 2 | 38 | 60 | 0 | 1.080 | 2.0 | 5 | 0 | 0 | 0 | 1.6 | 3.5 |
| MSQ432-2PP | 464 | 490 | 95 | 4 | 68 | 27 | 2 | 1.075 | 2.5 | 0 | 0 | 0 | 0 | 1.5 | 3.5 |
| MSQ089-1 | 441 | 503 | 88 | 12 | 81 | 6 | 1 | 1.080 | 1.5 | 0 | 3 | 3 | 0 | 1.4 | 3.8 |
| MSM037-3 | 427 | 461 | 92 | 7 | 87 | 6 | 1 | 1.076 | 1.5 | 3 | 8 | 0 | 0 | 1.8 | 3.0 |
| FL1879 | 381 | 401 | 95 | 4 | 77 | 18 | 1 | 1.080 | 1.5 | 10 | 3 | 0 | 0 | 2.5 | 2.8 |
| NY139 | 364 | 395 | 92 | 8 | 89 | 3 | 0 | 1.086 | 1.5 | 0 | 3 | 0 | 0 | 1.5 | 2.8 |
| Atlantic | 356 | 402 | 88 | 10 | 81 | 8 | 1 | 1.091 | 1.5 | 5 | 0 | 0 | 0 | 2.4 | 3.0 |
| Snowden | 343 | 377 | 91 | 9 | 84 | 7 | 0 | 1.088 | 1.5 | 3 | 35 | 0 | 0 | 2.6 | 3.5 |
| MSQ279-1 | 334 | 362 | 92 | 5 | 62 | 30 | 2 | 1.074 | 2.0 | 8 | 3 | 0 | 0 | 1.5 | 3.8 |
| MSR036-5 ^{LBR} | 334 | 373 | 90 | 10 | 77 | 13 | 0 | 1.086 | 2.0 | 8 | 10 | 0 | 0 | 1.5 | 4.5 |
| MSP368-1 | 333 | 361 | 92 | 8 | 80 | 12 | 0 | 1.091 | 1.0 | 0 | 3 | 5 | 0 | - | 3.3 |
| MSN148-A | 306 | 344 | 89 | 11 | 82 | 7 | 0 | 1.095 | 1.5 | 3 | 5 | 0 | 0 | 1.4 | 3.3 |
| W2717-5 | 296 | 345 | 86 | 11 | 79 | 7 | 3 | 1.092 | 1.5 | 5 | 23 | 5 | 8 | 2.4 | 2.5 |
| MSL292-A | 291 | 339 | 86 | 14 | 83 | 3 | 1 | 1.084 | 1.5 | 0 | 0 | 0 | 0 | 2.8 | 2.8 |
| Pike | 256 | 298 | 86 | 14 | 85 | 1 | 0 | 1.086 | 1.5 | 0 | 5 | 0 | 0 | 1.4 | 3.5 |
| CO95051-7W | 255 | 293 | 87 | 12 | 87 | 0 | 1 | 1.090 | 1.5 | 0 | 3 | 0 | 0 | 1.3 | 4.0 |
| MSQ289-5 | 242 | 275 | 88 | 8 | 79 | 9 | 4 | 1.091 | 1.5 | 0 | 5 | 0 | 0 | 1.0 | 2.5 |
| MSQ558-2RR | 223 | 314 | 71 | 29 | 71 | 0 | 0 | 1.076 | 1.5 | 0 | 0 | 0 | 0 | 1.6 | 1.0 |
| MSQ492-2 ^{LBR} | 221 | 274 | 81 | 19 | 76 | 5 | 1 | 1.078 | 1.5 | 0 | 0 | 25 | 0 | 2.2 | 4.5 |
| W4013-1 | 211 | 277 | 76 | 22 | 74 | 3 | 2 | 1.086 | 1.5 | 0 | 0 | 0 | 0 | 2.6 | 2.3 |
| MSP292-7 | 197 | 261 | 76 | 24 | 75 | 1 | 0 | 1.087 | 1.5 | 0 | 0 | 0 | 0 | 1.3 | 2.0 |
| MSR041-3 | 194 | 287 | 68 | 32 | 68 | 0 | 0 | 1.079 | 1.5 | 0 | 0 | 3 | 0 | 1.0 | 2.3 |
| MSR160-2Y ^{LBR,PVYR} | 171 | 360 | 48 | 52 | 47 | 0 | 0 | 1.094 | 1.0 | 0 | 5 | 0 | 0 | 1.8 | 2.8 |
| MSR169-8Y | 163 | 210 | 78 | 22 | 73 | 4 | 1 | 1.084 | 1.5 | 0 | 0 | 0 | 0 | 1.0 | 3.8 |
| MEAN | 303 | 353 | | | | | | 1.085 | | | | | | | |
| LSD _{0.05} | 75 | 77 | | | | | | 0.004 | | | | | | 0.9 | 0.8 |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

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⁵MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 7

**ADAPTATION TRIAL, TABLESTOCK LINES (+NCR ENTRIES)
MONTCALM RESEARCH FARM
May 8 to September 19, 2008 (136 days)**

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | PERCENT (%) TUBER QUALITY ² | | | | | | |
|----------------------------------|------------|------------|-------------------------------|----------|-----------|-----------|----------|---|-----------|-----------|----------|----------|-------------------|------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | SP GR | HH | VD | IBS | BC | SCAB ³ | MAT ⁴ |
| MSN251-1Y ^{LBR} | 470 | 529 | 89 | 11 | 80 | 9 | 1 | 1.086 | 48 | 0 | 3 | 0 | 1.8 | 3.7 |
| ND7132-1R ^{NCR} | 427 | 456 | 94 | 5 | 82 | 12 | 1 | 1.070 | 3 | 3 | 0 | 0 | 2.0 | 2.8 |
| Red Pontiac^{NCR} | 427 | 470 | 91 | 5 | 70 | 21 | 4 | 1.066 | 13 | 0 | 0 | 0 | - | 3.5 |
| MSQ461-2PP | 414 | 428 | 97 | 3 | 91 | 6 | 0 | 1.084 | 0 | 0 | 0 | 3 | 1.5 | 3.0 |
| MSL228-1SPL | 381 | 409 | 93 | 4 | 82 | 11 | 3 | 1.084 | 0 | 8 | 0 | 0 | 1.6 | 2.8 |
| AND00272-1R ^{NCR} | 372 | 443 | 84 | 15 | 82 | 1 | 1 | 1.069 | 0 | 3 | 0 | 0 | 1.4 | 3.0 |
| Eva ^{PVYR} | 367 | 402 | 91 | 7 | 82 | 9 | 2 | 1.075 | 3 | 5 | 0 | 0 | 2.4 | 3.3 |
| Reba | 367 | 379 | 97 | 3 | 81 | 16 | 0 | 1.075 | 3 | 0 | 0 | 3 | 2.0 | 2.8 |
| MSM182-1 ^{LBR,PVYR} | 364 | 410 | 89 | 11 | 84 | 5 | 0 | 1.075 | 5 | 10 | 3 | 0 | 2.1 | 3.0 |
| W5767-1R ^{NCR} | 362 | 392 | 92 | 6 | 72 | 20 | 2 | 1.077 | 8 | 0 | 3 | 3 | 1.7 | 3.0 |
| MSQ086-3 ^{LBR} | 353 | 388 | 91 | 9 | 87 | 4 | 0 | 1.083 | 0 | 5 | 0 | 0 | 1.5 | 3.5 |
| MSM288-2Y | 339 | 415 | 82 | 15 | 79 | 3 | 3 | 1.077 | 0 | 0 | 0 | 0 | 2.9 | 2.8 |
| MSR157-1Y | 338 | 368 | 92 | 8 | 86 | 6 | 1 | 1.082 | 10 | 8 | 0 | 0 | 1.5 | 2.8 |
| Red Norland^{NCR} | 338 | 377 | 90 | 9 | 85 | 4 | 2 | 1.062 | 3 | 0 | 0 | 0 | 1.0 | 1.5 |
| ATND98459-1RY ^{NCR} | 317 | 421 | 75 | 24 | 75 | 0 | 1 | 1.074 | 0 | 0 | 0 | 0 | 2.8 | 2.3 |
| Onaway | 304 | 343 | 89 | 8 | 80 | 9 | 3 | 1.068 | 0 | 13 | 0 | 0 | 1.8 | 1.8 |
| Michigan Purple | 304 | 340 | 89 | 6 | 69 | 20 | 5 | 1.072 | 0 | 0 | 0 | 0 | 1.8 | 1.3 |
| MSQ134-5 ^{LBR} | 298 | 355 | 84 | 16 | 82 | 2 | 0 | 1.079 | 0 | 0 | 0 | 0 | 1.9 | 3.8 |
| Jacqueline Lee ^{LBR} | 293 | 504 | 58 | 41 | 57 | 1 | 1 | 1.087 | 0 | 8 | 0 | 0 | 3.3 | 2.3 |
| CO98012-5R | 270 | 390 | 69 | 30 | 69 | 0 | 0 | 1.071 | 0 | 0 | 0 | 0 | 2.1 | 2.5 |
| Yukon Gold | 255 | 282 | 90 | 6 | 81 | 9 | 4 | 1.073 | 5 | 3 | 5 | 0 | 3.0 | 1.0 |
| Rio Colorado | 233 | 322 | 72 | 27 | 72 | 0 | 1 | 1.069 | 0 | 0 | 0 | 0 | 2.8 | 1.3 |
| MSQ425-4Y | 228 | 296 | 77 | 23 | 76 | 0 | 0 | 1.072 | 0 | 0 | 0 | 0 | 1.9 | 1.5 |
| MSN215-2P | 174 | 239 | 73 | 25 | 71 | 2 | 2 | 1.075 | 0 | 0 | 0 | 0 | 1.0 | 1.0 |
| MEAN | 333 | 390 | | | | | | 1.075 | | | | | | |
| LSD _{0.05} | 69 | 69 | | | | | | 0.004 | | | | | 0.9 | 0.9 |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

^{NCR} North Central Regional Entry

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

²QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

³SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

⁴MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 8

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICSPRELIMINARY TRIAL, CHIP-PROCESSING LINES
MONTCALM RESEARCH FARM
May 8 to September 10, 2008 (126 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | SP GR | CHIP SCORE ² | PERCENT (%) TUBER QUALITY ³ | | | | | |
|--------------------------|------------|------------|-------------------------------|-----------|-----------|----------|----------|--------------|-------------------------|---|-----------|----------|----------|-------------------|------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | | | HH | VD | IBS | BC | SCAB ⁴ | MAT ⁵ |
| FL1879 | 393 | 408 | 96 | 3 | 72 | 24 | 1 | 1.084 | 1.0 | 25 | 20 | 0 | 0 | 2.5 | 2.5 |
| MSQ029-1 ^{LBR} | 363 | 393 | 92 | 7 | 77 | 16 | 1 | 1.087 | 1.5/2.0 | 40 | 0 | 0 | 0 | 2.0 | 5.0 |
| Atlantic | 359 | 396 | 91 | 7 | 83 | 8 | 2 | 1.097 | 1.5 | 0 | 5 | 0 | 0 | 2.4 | 3.0 |
| MSS303-02 | 344 | 387 | 89 | 10 | 87 | 2 | 1 | 1.095 | 1.0 | 0 | 10 | 20 | 0 | 1.5 | 4.0 |
| MSS428-2 | 329 | 373 | 88 | 11 | 81 | 7 | 1 | 1.085 | 1.0 | 20 | 15 | 0 | 0 | 1.7 | 3.0 |
| MSQ089-1 | 305 | 358 | 85 | 11 | 74 | 11 | 4 | 1.076 | 1.5 | 0 | 0 | 0 | 0 | 1.9 | 3.0 |
| Snowden | 300 | 342 | 88 | 10 | 83 | 5 | 3 | 1.090 | 1.0 | 0 | 20 | 0 | 0 | 2.6 | 3.0 |
| MSR161-2 | 299 | 334 | 90 | 9 | 87 | 3 | 2 | 1.090 | 1.0 | 0 | 0 | 0 | 0 | 1.0 | 3.0 |
| MSS514-1PP | 282 | 340 | 83 | 16 | 78 | 5 | 1 | 1.063 | 2.5 | 0 | 0 | 0 | 0 | 0.8 | 3.0 |
| MSS026-2Y | 277 | 305 | 91 | 9 | 76 | 14 | 1 | 1.098 | 1.0 | 0 | 5 | 5 | 0 | 2.2 | 3.0 |
| MSS165-2Y ^{LBR} | 266 | 356 | 75 | 24 | 74 | 1 | 1 | 1.089 | 1.0! | 0 | 0 | 0 | 0 | 1.3 | 3.0 |
| MSS927-1 | 266 | 308 | 86 | 12 | 79 | 7 | 2 | 1.080 | 1.0 | 0 | 0 | 0 | 0 | 2.0 | 2.0 |
| MSR058-2 | 263 | 345 | 76 | 22 | 74 | 3 | 2 | 1.084 | 1.5 | 0 | 5 | 0 | 0 | 1.3 | 4.0 |
| MSQ035-3 ^{LBR} | 263 | 307 | 86 | 13 | 82 | 3 | 1 | 1.078 | 1.0 | 5 | 0 | 0 | 0 | 1.5 | 4.0 |
| MSR102-3 ^{LBR} | 252 | 285 | 89 | 10 | 73 | 16 | 1 | 1.089 | 1.5 | 5 | 0 | 0 | 0 | 1.1 | 5.0 |
| MSS306-4Y | 235 | 281 | 83 | 12 | 76 | 7 | 5 | 1.081 | 1.0 | 0 | 0 | 0 | 0 | 1.5 | 1.5 |
| MSS108-1 ^{LBR} | 223 | 268 | 83 | 16 | 62 | 21 | 1 | 1.072 | - | 0 | 5 | 20 | 0 | 3.0 | 3.0 |
| MSQ130-4 ^{LBR} | 210 | 236 | 89 | 11 | 80 | 8 | 0 | 1.079 | 1.0 | 0 | 0 | 0 | 0 | 1.5 | 3.0 |
| MSS199-2 | 207 | 248 | 83 | 16 | 82 | 1 | 0 | 1.080 | 1.0 | 0 | 0 | 0 | 0 | 1.3 | 2.0 |
| MSM060-3 | 204 | 273 | 75 | 24 | 75 | 0 | 1 | 1.099 | 1.5 | 0 | 10 | 0 | 0 | 1.5 | 2.0 |
| MSR128-4Y | 184 | 242 | 76 | 21 | 75 | 1 | 3 | 1.091 | 1.0 | 0 | 0 | 0 | 0 | 2.0 | 4.5 |
| MSR226-1RR | 181 | 279 | 65 | 32 | 64 | 1 | 3 | 1.073 | 1.0! | 0 | 0 | 0 | 0 | 2.0 | 1.0 |
| Pike | 181 | 212 | 85 | 15 | 83 | 2 | 0 | 1.087 | 1.0 | 0 | 0 | 0 | 0 | 1.4 | 2.5 |
| MSS915-1 | 114 | 233 | 49 | 51 | 49 | 0 | 0 | 1.072 | 1.5 | 0 | 0 | 0 | 0 | 2.5 | 2.0 |
| MEAN | 263 | 313 | | | | | | 1.084 | | | | | | | |
| LSD _{0.05} | 62 | 58 | | | | | | 0.008 | | | | | | 0.9 | 1.0 |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 20 Oversize and/or A-size tubers cut.⁴SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.⁵MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 9

PRELIMINARY TRIAL, TABLESTOCK LINES
MONTCALM RESEARCH FARM
May 8 to September 10, 2008 (126 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | SP GR | CHIP SCORE ² | PERCENT (%) TUBER QUALITY ³ | | | | | |
|--------------------------|------------|------------|-------------------------------|----------|-----------|-----------|----------|--------------|-------------------------|---|----------|----------|----------|-------------------|------------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | | | HH | VD | IBS | BC | SCAB ⁴ | MAT ⁵ |
| MSS582-1SPL | 387 | 414 | 94 | 3 | 61 | 33 | 3 | 1.072 | - | 5 | 0 | 0 | 0 | 2.4 | 4.0 |
| MSS176-1 ^{LBR} | 377 | 390 | 97 | 2 | 72 | 24 | 1 | 1.085 | 2.0 | 25 | 0 | 20 | 0 | 1.0 | 4.0 |
| MSS737-1Y ^{LBR} | 344 | 400 | 86 | 10 | 78 | 8 | 4 | 1.078 | 1.5 | 0 | 0 | 0 | 0 | 1.7 | 3.5 |
| MSS476-05SPL | 313 | 345 | 91 | 8 | 87 | 4 | 1 | 1.076 | 1.5 | 0 | 0 | 0 | 0 | 2.0 | 3.0 |
| MSQ131-A ^{LBR} | 295 | 301 | 98 | 2 | 61 | 38 | 0 | 1.069 | 1.0 | 0 | 0 | 0 | 0 | 2.0 | 3.5 |
| MSS483-1 ^{LBR} | 294 | 337 | 87 | 13 | 81 | 6 | 0 | 1.072 | 2.0 | 0 | 0 | 0 | 0 | 2.4 | 3.5 |
| MSS097-3 ^{LBR} | 292 | 315 | 93 | 7 | 67 | 26 | 0 | 1.073 | 1.0 | 0 | 5 | 0 | 0 | 2.3 | 2.5 |
| Onaway | 265 | 302 | 88 | 9 | 78 | 10 | 3 | 1.068 | 3.5 | 0 | 0 | 0 | 0 | 1.8 | 2.5 |
| Reba | 262 | 274 | 96 | 4 | 85 | 11 | 0 | 1.077 | 1.0 | 0 | 0 | 0 | 0 | 2.0 | 2.5 |
| MSS206-2 ^{LBR} | 250 | 270 | 92 | 2 | 72 | 20 | 5 | 1.071 | 2.0 | 0 | 10 | 0 | 0 | 1.8 | 4.0 |
| MSS526-1 | 242 | 266 | 91 | 7 | 80 | 11 | 2 | 1.065 | 3.5 | 0 | 5 | 0 | 0 | 1.8 | 1.5 |
| MSS737-5Y | 234 | 259 | 90 | 9 | 81 | 10 | 1 | 1.070 | 1.5 | 0 | 0 | 0 | 0 | 2.0 | 3.0 |
| MSR297-A | 230 | 255 | 90 | 10 | 87 | 3 | 0 | 1.072 | 1.0 | 0 | 0 | 0 | 0 | 1.8 | 2.5 |
| MSR176-4P | 211 | 255 | 83 | 15 | 83 | 0 | 2 | 1.079 | - | 5 | 5 | 5 | 0 | 1.3 | 1.5 |
| MSS917-3 ^{LBR} | 197 | 259 | 76 | 24 | 74 | 2 | 0 | 1.089 | 1.0 | 0 | 10 | 0 | 0 | 2.2 | 3.0 |
| MSS411-3Y ^{LBR} | 194 | 292 | 66 | 34 | 66 | 0 | 0 | 1.088 | 1.5 | 0 | 0 | 0 | 0 | 1.0 | 3.5 |
| MSR159-02 ^{LBR} | 194 | 226 | 86 | 13 | 76 | 10 | 1 | 1.085 | 1.5 | 5 | 0 | 0 | 0 | 1.5 | 4.0 |
| MSN111-4PP | 194 | 253 | 77 | 22 | 76 | 1 | 2 | 1.073 | 1.0 | 0 | 0 | 0 | 0 | 2.9 | 3.0 |
| MSS544-1R | 173 | 259 | 67 | 33 | 67 | 0 | 0 | 1.067 | - | 0 | 0 | 0 | 0 | 1.0 | 1.0 |
| MSS442-2 ^{LBR} | 167 | 191 | 87 | 9 | 81 | 6 | 4 | 1.072 | 1.5 | 0 | 0 | 5 | 0 | 3.0 | 1.5 |
| MSS164-6 ^{LBR} | 154 | 209 | 74 | 25 | 74 | 0 | 1 | 1.086 | 2.5 | 0 | 0 | 0 | 0 | 1.0 | 2.5 |
| MSR218-AR | 154 | 203 | 76 | 12 | 68 | 8 | 12 | 1.064 | 1.5 | 0 | 0 | 0 | 0 | 1.0 | 1.0 |
| MSR219-2R | 133 | 149 | 89 | 11 | 65 | 25 | 0 | 1.058 | - | 0 | 5 | 0 | 0 | 2.3 | 1.0 |
| ND7994-1RUS | 115 | 202 | 57 | 35 | 57 | 0 | 8 | 1.078 | - | 0 | 0 | 0 | 0 | 0.3 | 2.5 |
| MSR241-4RY | 100 | 184 | 54 | 45 | 54 | 0 | 1 | 1.073 | - | 0 | 0 | 0 | 0 | 2.3 | 1.0 |
| MEAN | 231 | 272 | | | | | | 1.074 | | | | | | | |
| LSD _{0.05} | 111 | 116 | | | | | | 0.006 | | | | | | 0.9 | 1.4 |

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.

²CHIP SCORE: Snack Food Association Scale (Out of the field); Ratings: 1-5; 1: Excellent, 5: Poor.

³QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 20 Oversize and/or A-size tubers cut.

⁴SCAB DISEASE RATING: MSU Scab Nursery; 0: No Infection; 1: Low Infection <5%; 3: Intermediate; 5: Highly Susceptible.

⁵MATURITY RATING: August 28, 2008; Ratings 1-5; 1: Early (vines completely dead); 5: Late (vigorous vine, some flowering).

Table 10

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

TRANSGENIC TRIAL
MONTCALM RESEARCH FARM
May 8 to September 3, 2008 (119 days)

| LINE | CWT/A | | PERCENT OF TOTAL ¹ | | | | | PERCENT (%) TUBER QUALITY ² | | | | Parental Clone | Trait | |
|------------------------|------------|------------|-------------------------------|----------|-----------|-----------|-----------|---|----------|-----------|----------|-------------------|-------------------|----------------|
| | US#1 | TOTAL | US#1 | Bs | As | OV | PO | SP GR | HH | VD | IBS | | | BC |
| E69.6 | 183 | 271 | 68 | 32 | 66 | 2 | 1 | 1.070 | 0 | 0 | 0 | 0 | MSE149-5Y | RB-Late Blight |
| E75.26 | 155 | 234 | 66 | 34 | 66 | 0 | 0 | 1.076 | 0 | 0 | 0 | 0 | MSE149-5Y | Avidin |
| E75.7 | 153 | 238 | 64 | 35 | 64 | 0 | 1 | 1.066 | 0 | 0 | 0 | 0 | MSE149-5Y | Avidin |
| ND75.6 | 251 | 282 | 89 | 9 | 81 | 7 | 3 | 1.091 | 0 | 0 | 0 | 0 | ND5873-15 | Avidin |
| ND75.3 | 209 | 248 | 84 | 11 | 74 | 11 | 5 | 1.084 | 0 | 10 | 10 | 0 | ND5873-15 | Avidin |
| Norwis | 355 | 378 | 94 | 4 | 84 | 10 | 2 | 1.071 | 0 | 25 | 0 | 5 | Norwis | N/A |
| NO8.28 | 293 | 315 | 93 | 7 | 88 | 5 | 0 | 1.067 | 0 | 0 | 0 | 0 | Norwis | Bt-cry3A |
| NO8.8 | 285 | 308 | 93 | 7 | 89 | 3 | 0 | 1.072 | 0 | 5 | 0 | 0 | Norwis | Bt-cry3A |
| ONAGP.2 | 173 | 231 | 75 | 24 | 75 | 0 | 2 | 1.068 | 0 | 0 | 0 | 0 | Onaway | AGPase |
| ONAGP.1 | 114 | 169 | 67 | 21 | 67 | 0 | 11 | 1.068 | 0 | 10 | 0 | 0 | Onaway | AGPase |
| ATL Newleaf | 197 | 234 | 84 | 16 | 82 | 2 | 0 | 1.087 | 0 | 0 | 0 | 0 | Atlantic | Bt-cry3A |
| RB Newleaf | 55 | 149 | 37 | 39 | 33 | 3 | 25 | 1.076 | 10 | 10 | 0 | 0 | Russet Burbank | Bt-cry3A |
| Spunta | 338 | 410 | 83 | 6 | 62 | 21 | 11 | 1.060 | 5 | 3 | 0 | 5 | Spunta | N/A |
| SpuntaG2 | 327 | 373 | 88 | 6 | 72 | 16 | 6 | 1.062 | 5 | 23 | 3 | 5 | Spunta | Bt-cry1Ia1 |
| SP15.5 | 335 | 406 | 82 | 8 | 75 | 7 | 9 | 1.065 | 0 | 15 | 0 | 0 | Spunta | Bt-cry1 |
| SP15.8 | 250 | 322 | 78 | 13 | 66 | 12 | 10 | 1.063 | 15 | 5 | 0 | 0 | Spunta | Bt-cry1 |
| RB Spunta CSPAG.13 | 328 | 391 | 84 | 9 | 70 | 14 | 7 | 1.063 | 10 | 10 | 0 | 0 | Spunta | RB-Late Blight |
| SPA69.13 | 262 | 316 | 83 | 13 | 71 | 12 | 4 | 1.065 | 0 | 10 | 0 | 0 | Spunta | RB-Late Blight |
| SPHPPD.15 | 290 | 365 | 79 | 11 | 72 | 7 | 10 | 1.064 | 0 | 15 | 0 | 10 | Spunta | Vit. E |
| SPHPPD.13 | 282 | 365 | 77 | 10 | 69 | 8 | 13 | 1.062 | 0 | 15 | 10 | 0 | Spunta | Vit. E |
| SPHPT.3 | 280 | 352 | 79 | 12 | 72 | 8 | 8 | 1.060 | 0 | 5 | 0 | 0 | Spunta | Vit. E |
| Yukon Gold | 218 | 242 | 90 | 5 | 75 | 15 | 5 | 1.068 | 5 | 5 | 0 | 0 | Yukon Gold | N/A |
| YG8.8 | 216 | 246 | 88 | 12 | 85 | 2 | 0 | 1.078 | 5 | 15 | 0 | 0 | Yukon Gold | Bt-cry3A |
| YG8.12 | 186 | 226 | 82 | 17 | 81 | 1 | 0 | 1.077 | 0 | 10 | 0 | 0 | Yukon Gold | Bt-cry3A |
| R605-8 ^{LBR} | 311 | 351 | 89 | 10 | 79 | 9 | 2 | 1.068 | 3 | 0 | 0 | 0 | | Bt-cry1Ia1 |
| R605-17 ^{LBR} | 243 | 310 | 78 | 15 | 75 | 3 | 6 | 1.077 | 0 | 3 | 3 | 0 | | Bt-cry1Ia1 |
| R606-7 | 242 | 323 | 75 | 19 | 72 | 3 | 6 | 1.072 | 0 | 8 | 0 | 0 | | Bt-cry1Ia1 |
| R605-7 ^{LBR} | 235 | 260 | 90 | 10 | 80 | 10 | 0 | 1.072 | 5 | 0 | 33 | 0 | | Bt-cry1Ia1 |
| R605-10 | 233 | 280 | 83 | 17 | 81 | 2 | 0 | 1.078 | 0 | 0 | 0 | 0 | | Bt-cry1Ia1 |
| R605-2 | 217 | 305 | 71 | 15 | 70 | 1 | 14 | 1.063 | 0 | 0 | 0 | 3 | | Bt-cry1Ia1 |
| R606-2 ^{LBR} | 201 | 263 | 76 | 23 | 74 | 3 | 1 | 1.063 | 3 | 0 | 0 | 3 | | Bt-cry1Ia1 |
| R605-5 | 149 | 243 | 61 | 37 | 61 | 0 | 1 | 1.070 | 0 | 3 | 0 | 0 | | Bt-cry1Ia1 |

¹SIZE: B: < 2 in.; A: 2-3.25 in.; OV: > 3.25 in.; PO: Pickouts.²QUALITY: HH: Hollow Heart; BC: Brown Center; VD: Vascular Discoloration; IBS: Internal Brown Spot. Percent of 40 Oversize and/or A-size tubers cut.

Table 11

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS2006-2008 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, EAST LANSING, MI

| LINE | 3-YR* | 2008 | 2008 | 2008 | 2007 | 2007 | 2007 | 2006 | 2006 | 2006 |
|---|-------------|------------|------------|----------|------------|----------|----------|------------|----------|----------|
| | AVG. | RATING | WORST | N | RATING | WORST | N | RATING | WORST | N |
| <i>Sorted by ascending 2008 Rating:</i> | | | | | | | | | | |
| MSA8254-2BRUS | 0.2 | 0.0 | 0.0 | 3 | 0.5 | 1 | 4 | 0.0 | 0 | 4 |
| MSS037-2 | - | 0.0 | 0.0 | 1 | - | - | - | - | - | - |
| ND7994-1 | - | 0.3 | 1.0 | 3 | - | - | - | - | - | - |
| W2683-2RUS ^{NCR} | 0.5 | 0.8 | 1.0 | 8 | 0.5 | 1 | 8 | 0.3 | 1 | 4 |
| MSS514-1PP | - | 0.8 | 1.0 | 4 | - | - | - | - | - | - |
| Silverton Russet | - | 0.8 | 1.0 | 4 | - | - | - | - | - | - |
| A95109-1 | 1.1 | 1.0 | 2.0 | 4 | 0.7 | 1 | 3 | 1.7 | 3 | 3 |
| MSQ070-1 ^{LBR} | 0.9* | 1.0 | 1.0 | 4 | 0.8 | 1 | 4 | - | - | - |
| W2609-1R | 0.9* | 1.0 | 1.0 | 4 | 0.8 | 1 | 4 | - | - | - |
| MSK061-4 | 1.1 | 1.0 | 1.0 | 4 | 1.0 | 1 | 4 | 1.3 | 2 | 3 |
| MSQ289-5 | 0.8 | 1.0 | 1.5 | 4 | 1.0 | 1 | 4 | 0.5 | 1 | 4 |
| MSR161-2 | 1.0* | 1.0 | 1.0 | 4 | 1.0 | 1 | 3 | - | - | - |
| MSN170-A | 1.1* | 1.0 | 1.0 | 4 | 1.3 | 2 | 4 | - | - | - |
| MSH228-6 | 1.3 | 1.0 | 1.0 | 3 | 1.5 | 2 | 4 | 1.4 | 2 | 4 |
| Red Norland^{NCR} | 1.2 | 1.0 | 1.0 | 2 | 1.5 | 3 | 4 | 1.0 | 2 | 4 |
| Beacon Chipper | 1.5 | 1.0 | 1.0 | 1 | 1.8 | 2 | 4 | 1.8 | 2 | 4 |
| A98298-1 | - | 1.0 | 1.0 | 4 | - | - | - | - | - | - |
| AC99375-1RUS | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSN215-2P | - | 1.0 | 1.0 | 4 | - | - | - | - | - | - |
| MSR041-3 | - | 1.0 | 1.0 | 4 | - | - | - | - | - | - |
| MSR169-8Y | - | 1.0 | 1.0 | 2 | - | - | - | - | - | - |
| MSR218-AR | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSR226-ARR | - | 1.0 | 1.0 | 2 | - | - | - | - | - | - |
| MSS070-1 | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS113-1 | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS163-5 | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS164-6 ^{LBR} | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS176-1 ^{LBR} | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS377-10 | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS411-3Y ^{LBR} | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS434-2 | - | 1.0 | 1.0 | 1 | - | - | - | - | - | - |
| MSS544-1R | - | 1.0 | 1.0 | 4 | - | - | - | - | - | - |
| W3160-5LBRUS | - | 1.0 | 1.0 | 4 | - | - | - | - | - | - |
| W7012-1RUS | - | 1.0 | 1.0 | 3 | - | - | - | - | - | - |
| MSR102-3 ^{LBR} | 0.8* | 1.1 | 1.5 | 4 | 0.5 | 1 | 2 | - | - | - |
| Kalkaska (MSJ036-A) | 1.0 | 1.1 | 1.5 | 4 | 0.8 | 1 | 4 | 1.2 | 2 | 3 |
| MSJ126-9Y | 1.3 | 1.1 | 1.5 | 4 | 1.3 | 2 | 4 | 1.5 | 2 | 4 |
| MSL268-D ^{LBR,PVYR} | 1.6 | 1.1 | 1.5 | 4 | 1.5 | 2 | 4 | 2.3 | 3 | 4 |
| W3952-3RUS | - | 1.1 | 1.5 | 4 | - | - | - | - | - | - |
| W3328-1RUS | 1.2 | 1.2 | 1.5 | 3 | 1.0 | 2 | 4 | 1.5 | 2 | 4 |
| MSQ440-2 | 1.3 | 1.3 | 2.0 | 4 | 1.0 | 1 | 4 | 1.8 | 2 | 4 |
| MSR061-1 ^{LBRM,PVYR} | 1.1* | 1.3 | 2.0 | 4 | 1.0 | 1 | 4 | - | - | - |

**2006-2008 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, EAST LANSING, MI**

| LINE | 3-YR* AVG. | 2008 RATING | 2008 WORST | 2008 N | 2007 RATING | 2007 WORST | 2007 N | 2006 RATING | 2006 WORST | 2006 N |
|---|---------------|----------------|---------------|-----------|----------------|---------------|-----------|----------------|---------------|-----------|
| <i>Sorted by ascending 2008 Rating:</i> | | | | | | | | | | |
| MSR127-2 | 1.1* | 1.3 | 1.5 | 4 | 1.0 | 1 | 3 | - | - | - |
| Russet Burbank^{NCR} | 1.5 | 1.3 | 2.0 | 4 | 1.0 | 1 | 4 | 2.3 | 2 | 4 |
| W5716-1RUS | 1.1* | 1.3 | 2.0 | 12 | 1.0 | 2 | 4 | - | - | - |
| CO95051-7W | 1.4 | 1.3 | 1.5 | 4 | 1.5 | 2 | 4 | 1.4 | 2 | 4 |
| CO95172-3RUS | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| CO99100-1RUS | - | 1.3 | 3.0 | 4 | - | - | - | - | - | - |
| FL1922 | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| MSN109-6RR | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| MSR058-1 | - | 1.3 | 1.5 | 4 | - | - | - | - | - | - |
| MSR176-4P | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| MSS145-4 | - | 1.3 | 1.5 | 2 | - | - | - | - | - | - |
| MSS165-2Y ^{LBR} | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| MSS199-2 | - | 1.3 | 2.0 | 4 | - | - | - | - | - | - |
| MSP292-7 | 1.3 | 1.3 | 1.5 | 5 | 1.0 | 1 | 4 | 1.7 | 2 | 3 |
| AC96052-1RUS | - | 1.3 | 2.0 | 3 | - | - | - | - | - | - |
| W3666-2RUS | - | 1.3 | 2.0 | 3 | - | - | - | - | - | - |
| Canela Russet | 0.8* | 1.4 | 2.0 | 4 | 0.3 | 1 | 4 | - | - | - |
| MSJ147-1 | 1.4 | 1.4 | 2.0 | 4 | 1.0 | 1 | 4 | 1.8 | 2 | 4 |
| AND00272-1R | - | 1.4 | 2.5 | 4 | - | - | - | - | - | - |
| CO99053-4RUS | - | 1.4 | 2.0 | 4 | - | - | - | - | - | - |
| MSN148-A | - | 1.4 | 2.0 | 4 | - | - | - | - | - | - |
| ND8307C-3 | - | 1.4 | 2.0 | 4 | - | - | - | - | - | - |
| Pike | 1.4 | 1.4 | 2.0 | 15 | 1.4 | 2 | 8 | 1.4 | 2 | 7 |
| MSP459-5 ^{LBM} | 1.5 | 1.5 | 2.0 | 4 | 1.0 | 1 | 4 | 2.0 | 2 | 4 |
| MSR036-5 ^{LBR} | 1.3* | 1.5 | 2.0 | 3 | 1.0 | 1 | 3 | - | - | - |
| MSQ461-2PP | 1.4* | 1.5 | 2.0 | 4 | 1.3 | 2 | 4 | - | - | - |
| MSR157-1Y | 1.4* | 1.5 | 2.0 | 4 | 1.3 | 2 | 4 | - | - | - |
| MSQ432-2PP | 1.4* | 1.5 | 2.0 | 2 | 1.3 | 2 | 3 | - | - | - |
| MSQ035-3 ^{LBR} | 2.0 | 1.5 | 2.0 | 3 | 1.5 | 2 | 2 | 3.0 | 3 | 2 |
| MSQ130-4 ^{LBR} | 1.5* | 1.5 | 2.0 | 4 | 1.5 | 2 | 4 | - | - | - |
| NY139 | 1.5* | 1.5 | 2.0 | 4 | 1.5 | 2 | 4 | - | - | - |
| MSM060-3 | 1.7 | 1.5 | 2.0 | 4 | 1.8 | 2 | 4 | 1.8 | 2 | 3 |
| MSQ279-1 | 1.6* | 1.5 | 2.0 | 4 | 1.8 | 3 | 4 | - | - | - |
| MSQ086-3 ^{LBR} | 1.5 | 1.5 | 2.0 | 4 | 2.0 | 2 | 4 | 1.0 | 1 | 4 |
| CO99053-3RUS | - | 1.5 | 3.0 | 4 | - | - | - | - | - | - |
| Megachip | - | 1.5 | 2.0 | 4 | - | - | - | - | - | - |
| MSR159-02 ^{LBR} | - | 1.5 | 2.0 | 3 | - | - | - | - | - | - |
| MSS297-3 | - | 1.5 | 1.5 | 1 | - | - | - | - | - | - |
| MSS303-02 | - | 1.5 | 1.5 | 1 | - | - | - | - | - | - |
| MSS306-4Y | - | 1.5 | 2.0 | 2 | - | - | - | - | - | - |
| MSS419-8 | - | 1.5 | 2.0 | 2 | - | - | - | - | - | - |
| W8206-1RUS | - | 1.5 | 2.0 | 3 | - | - | - | - | - | - |
| Boulder | 1.7 | 1.6 | 2.0 | 4 | 1.8 | 2 | 4 | 1.6 | 2 | 4 |
| MSJ316-A | 1.7 | 1.6 | 2.0 | 8 | 1.9 | 3 | 8 | 1.6 | 2 | 4 |

**2006-2008 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, EAST LANSING, MI**

| LINE | 3-YR* AVG. | 2008 RATING | 2008 WORST | 2008 N | 2007 RATING | 2007 WORST | 2007 N | 2006 RATING | 2006 WORST | 2006 N |
|---|---------------|----------------|---------------|-----------|----------------|---------------|-----------|----------------|---------------|-----------|
| <i>Sorted by ascending 2008 Rating:</i> | | | | | | | | | | |
| MSQ558-2RR | 1.8* | 1.6 | 2.0 | 4 | 2.0 | 3 | 4 | - | - | - |
| MSL228-1 | - | 1.6 | 2.0 | 4 | - | - | - | - | - | - |
| MSS428-2 | - | 1.7 | 2.0 | 3 | - | - | - | - | - | - |
| MSS737-1Y ^{LBR} | - | 1.7 | 2.0 | 3 | - | - | - | - | - | - |
| W5767-1R | - | 1.7 | 2.0 | 3 | - | - | - | - | - | - |
| MSM171-A ^{LBR} | 1.4 | 1.7 | 2.5 | 8 | 1.3 | 2 | 4 | 1.3 | 2 | 4 |
| Michigan Purple | 2.3 | 1.8 | 2.5 | 4 | 2.3 | 3 | 4 | 2.8 | 3 | 4 |
| CO98067-7RUS | - | 1.8 | 3.0 | 4 | - | - | - | - | - | - |
| MSM037-3 | - | 1.8 | 2.0 | 4 | - | - | - | - | - | - |
| MSN251-1Y ^{LBR} | - | 1.8 | 2.0 | 4 | - | - | - | - | - | - |
| MSS206-2 ^{LBR} | - | 1.8 | 2.0 | 4 | - | - | - | - | - | - |
| MSS526-1 | - | 1.8 | 3.0 | 4 | - | - | - | - | - | - |
| Onaway | - | 1.8 | 2.0 | 7 | - | - | - | - | - | - |
| MSR160-2Y ^{LBR,PVYR} | 1.5* | 1.8 | 2.5 | 3 | 1.3 | 2 | 4 | - | - | - |
| MSR297-A | - | 1.8 | 2.0 | 3 | - | - | - | - | - | - |
| W2253-5RUS | - | 1.8 | 2.5 | 6 | - | - | - | - | - | - |
| MSQ089-1 | 1.4* | 1.9 | 2.0 | 7 | 1.0 | 1 | 3 | - | - | - |
| MSQ134-5 ^{LBR} | 1.7* | 1.9 | 2.5 | 4 | 1.5 | 2 | 4 | - | - | - |
| MSN105-1 ^{LBR} | 1.8 | 1.9 | 2.5 | 4 | 2.0 | 3 | 4 | 1.5 | 2 | 2 |
| W2310-3 | 1.9 | 1.9 | 3.0 | 8 | 2.0 | 3 | 4 | 1.8 | 3 | 4 |
| MSQ425-4Y | 2.4* | 1.9 | 2.0 | 4 | 3.0 | 3 | 1 | - | - | - |
| MSK409-1 | 1.3 | 2.0 | 4.0 | 3 | 0.8 | 1 | 4 | 1.0 | 1 | 4 |
| MSR128-4Y | 1.5* | 2.0 | 2.5 | 4 | 1.0 | 1 | 3 | - | - | - |
| MSN190-2 | 1.6 | 2.0 | 2.0 | 4 | 1.3 | 2 | 4 | 1.6 | 2 | 4 |
| MSQ029-1 ^{LBR} | 1.8 | 2.0 | 2.0 | 4 | 1.3 | 2 | 3 | 2.0 | 2 | 1 |
| CORN#3 | 1.8* | 2.0 | 2.0 | 4 | 1.5 | 2 | 4 | - | - | - |
| MSM070-1 | 1.8* | 2.0 | 3.0 | 4 | 1.5 | 2 | 4 | - | - | - |
| FL2053 | 2.1 | 2.0 | 2.5 | 4 | 1.8 | 2 | 4 | 2.5 | 3 | 4 |
| Reba | 1.9* | 2.0 | 2.5 | 8 | 1.8 | 2 | 4 | - | - | - |
| MSQ176-5 ^{LBR} | 2.2 | 2.0 | 2.0 | 3 | 2.0 | 2 | 4 | 2.5 | 3 | 2 |
| AOTX95265-3Ru | - | 2.0 | 3.0 | 4 | - | - | - | - | - | - |
| CO98368-2RUS | - | 2.0 | 2.5 | 3 | - | - | - | - | - | - |
| MSQ131-A ^{LBR} | - | 2.0 | 2.0 | 4 | - | - | - | - | - | - |
| MSR226-1RR | - | 2.0 | 2.0 | 3 | - | - | - | - | - | - |
| MSS042-1Y | - | 2.0 | 2.0 | 1 | - | - | - | - | - | - |
| MSS048-1 | - | 2.0 | 3.0 | 2 | - | - | - | - | - | - |
| MSS258-1 | - | 2.0 | 2.0 | 1 | - | - | - | - | - | - |
| MSS476-05SPL | - | 2.0 | 3.0 | 4 | - | - | - | - | - | - |
| MSS487-2 | - | 2.0 | 2.0 | 1 | - | - | - | - | - | - |
| MSS547-2R | - | 2.0 | 2.0 | 1 | - | - | - | - | - | - |
| MSS737-5Y | - | 2.0 | 2.0 | 2 | - | - | - | - | - | - |
| MSS927-1 | - | 2.0 | 2.0 | 4 | - | - | - | - | - | - |
| ND7132-1 | - | 2.0 | 3.0 | 2 | - | - | - | - | - | - |
| MSJ461-1 ^{LBR} | 1.9 | 2.1 | 3.0 | 8 | 1.8 | 3 | 4 | 1.8 | 2 | 4 |

**2006-2008 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, EAST LANSING, MI**

| LINE | 3-YR* AVG. | 2008 RATING | 2008 WORST | 2008 N | 2007 RATING | 2007 WORST | 2007 N | 2006 RATING | 2006 WORST | 2006 N |
|---|---------------|----------------|---------------|-----------|----------------|---------------|-----------|----------------|---------------|-----------|
| <i>Sorted by ascending 2008 Rating:</i> | | | | | | | | | | |
| W2133-1 ^{NCR} | 1.9 | 2.1 | 3.0 | 8 | 1.8 | 2 | 4 | 2.0 | 2 | 4 |
| MSR041-5 | 1.6* | 2.1 | 2.5 | 4 | 1.0 | 1 | 2 | - | - | - |
| MSN238-A | 1.6 | 2.1 | 2.5 | 4 | 1.3 | 2 | 4 | 1.5 | 2 | 4 |
| MSM182-1 ^{LBR,PVYR} | 2.3 | 2.1 | 2.5 | 4 | 2.0 | 3 | 4 | 2.7 | 3 | 3 |
| CORN#8 | 2.2* | 2.1 | 3.0 | 4 | 2.3 | 3 | 4 | - | - | - |
| CO98012-5R | - | 2.1 | 3.0 | 4 | - | - | - | - | - | - |
| MSQ492-2 ^{LBR} | 1.8 | 2.2 | 3.0 | 3 | 1.3 | 2 | 4 | 1.8 | 2 | 3 |
| MSI005-20Y ^{NCR} | 2.2 | 2.2 | 3.0 | 9 | 2.0 | 2 | 4 | 2.5 | 3 | 4 |
| MSS026-2Y | - | 2.2 | 2.5 | 3 | - | - | - | - | - | - |
| MSS917-3 ^{LBR} | - | 2.2 | 2.5 | 3 | - | - | - | - | - | - |
| AOTX95265-2ARu | - | 2.3 | 2.5 | 4 | - | - | - | - | - | - |
| AOTX95265-4Ru | - | 2.3 | 3.0 | 4 | - | - | - | - | - | - |
| MSR219-2R | - | 2.3 | 3.0 | 4 | - | - | - | - | - | - |
| MSR241-4RY | - | 2.3 | 3.0 | 4 | - | - | - | - | - | - |
| MSS203-1 | - | 2.3 | 2.5 | 2 | - | - | - | - | - | - |
| MSR705-2 | - | 2.3 | 3.0 | 3 | - | - | - | - | - | - |
| MSS097-3 ^{LBR} | - | 2.3 | 3.0 | 3 | - | - | - | - | - | - |
| MSS582-1SPL | 2.2* | 2.4 | 3.0 | 4 | 2.0 | 3 | 5 | - | - | - |
| Atlantic | 2.5 | 2.4 | 3.0 | 12 | 2.4 | 3 | 16 | 2.8 | 3 | 16 |
| A00727-1 | - | 2.4 | 3.0 | 4 | - | - | - | - | - | - |
| MSN032-A | - | 2.4 | 3.0 | 4 | - | - | - | - | - | - |
| MSS483-1 ^{LBR} | - | 2.4 | 3.0 | 4 | - | - | - | - | - | - |
| W2717-5 | - | 2.4 | 3.0 | 4 | - | - | - | - | - | - |
| Eva ^{PVYR} | - | 2.4 | 3.0 | 10 | - | - | - | - | - | - |
| FL1879 | 2.4 | 2.5 | 3.0 | 11 | 2.0 | 2 | 4 | 2.6 | 3 | 4 |
| MSN191-2Y | 2.2 | 2.5 | 3.0 | 4 | 1.5 | 2 | 4 | 2.5 | 3 | 4 |
| MSM246-B | 2.4 | 2.5 | 3.0 | 3 | 2.3 | 3 | 4 | 2.4 | 4 | 4 |
| MSN135-A | - | 2.5 | 3.0 | 4 | - | - | - | - | - | - |
| MSS022-1 | - | 2.5 | 3.0 | 2 | - | - | - | - | - | - |
| MSS350-5Y | - | 2.5 | 2.5 | 1 | - | - | - | - | - | - |
| MSS718-1 | - | 2.5 | 3.0 | 2 | - | - | - | - | - | - |
| MSS913-1 | - | 2.5 | 3.5 | 2 | - | - | - | - | - | - |
| W6234-4RUS | - | 2.5 | 3.0 | 2 | - | - | - | - | - | - |
| Snowden^{NCR} | 2.7 | 2.6 | 3.0 | 16 | 2.6 | 3 | 18 | 2.8 | 3 | 16 |
| AOND95292-3RUS | - | 2.6 | 3.0 | 4 | - | - | - | - | - | - |
| MSN200-2 | - | 2.6 | 3.0 | 4 | - | - | - | - | - | - |
| W3186-2 | - | 2.6 | 3.0 | 4 | - | - | - | - | - | - |
| W4013-1 | - | 2.6 | 3.5 | 4 | - | - | - | - | - | - |
| Rio Colorado | 2.1* | 2.8 | 3.0 | 4 | 1.5 | 2 | 4 | - | - | - |
| ATND98459-1RY | 2.4* | 2.8 | 3.0 | 4 | 2.0 | 2 | 4 | - | - | - |
| MSL292-A | 2.5 | 2.8 | 3.0 | 4 | 2.3 | 3 | 4 | 2.5 | 3 | 4 |
| MSS934-4 | - | 2.8 | 3.0 | 2 | - | - | - | - | - | - |
| W6968-2RUS | - | 2.8 | 4.0 | 4 | - | - | - | - | - | - |
| MSM288-2Y | 2.1* | 2.9 | 3.0 | 4 | 1.3 | 2 | 4 | - | - | - |

**2006-2008 SCAB DISEASE TRIAL SUMMARY
SCAB NURSERY, EAST LANSING, MI**

| LINE | 3-YR* AVG. | 2008 RATING | 2008 WORST | 2008 N | 2007 RATING | 2007 WORST | 2007 N | 2006 RATING | 2006 WORST | 2006 N |
|---|---------------|----------------|---------------|-----------|----------------|---------------|-----------|----------------|---------------|-----------|
| <i>Sorted by ascending 2008 Rating:</i> | | | | | | | | | | |
| MSN111-4PP | - | 2.9 | 3.5 | 4 | - | - | - | - | - | - |
| W3743-5RUS | - | 2.9 | 3.5 | 4 | - | - | - | - | - | - |
| Yukon Gold | 2.9* | 3.0 | 3.0 | 1 | 2.8 | 3 | 4 | - | - | - |
| MSL082-A | - | 3.0 | 4.0 | 4 | - | - | - | - | - | - |
| MSM170-2 | - | 3.0 | 3.0 | 4 | - | - | - | - | - | - |
| MSP335-1 | - | 3.0 | 3.0 | 4 | - | - | - | - | - | - |
| MSR216-AP | - | 3.0 | 3.0 | 1 | - | - | - | - | - | - |
| MSS025-2 | - | 3.0 | 3.0 | 1 | - | - | - | - | - | - |
| MSS108-1 ^{LBR} | - | 3.0 | 3.0 | 1 | - | - | - | - | - | - |
| MSS442-2 ^{LBR} | - | 3.0 | 3.0 | 2 | - | - | - | - | - | - |
| MSS517-2P | - | 3.0 | 3.0 | 1 | - | - | - | - | - | - |
| Jacqueline Lee ^{LBR} | 2.8* | 3.3 | 4.0 | 4 | 2.3 | 3 | 4 | - | - | - |
| MSS110-05 | - | 3.4 | 4.0 | 4 | - | - | - | - | - | - |
| ND8304-2 | 3.1* | 3.6 | 5.0 | 4 | 2.5 | 3 | 4 | - | - | - |
| Russet Norkotah^{NCR} | 2.1* | - | - | - | 2.0 | 3 | 4 | 2.2 | 3 | 3 |

SCAB DISEASE RATING: MSU Scab Nursery plot rating of 0-5; 0: No Infection; 1: Low Infection <5%, no pitted lesions; 3: Intermediate >20%, some pitted lesions (Susceptible, as commonly seen on Atlantic); 5: Highly Susceptible, >75% coverage and severe pitted lesions.

LSD_{0.05} =

0.9

0.9

0.9

^{LBR} Line(s) demonstrated foliar resistance to Late Blight (*Phytophthora infestans*) in inoculated field trials at the MSU Muck Soils Research Farm.

^{NCR} North Central Regional Entry

N = Number of replications.

Table 12

2008 LATE BLIGHT VARIETY TRIAL
MUCK SOILS RESEARCH FARM

| LINE | RAUDPC ¹ | | LINE | RAUDPC ¹ | |
|---|---------------------|--------------------|----------------|---|-------------|
| | MEAN | Female | | | Male |
| <i>Sorted by ascending RAUDPC value:</i> | | | | | |
| Foliar Resistance Category (select lines): | | | | Foliar Susceptibility Category (select lines)²: | |
| MSQ176-5 | 0.0 | MSI152-A | MSJ461-1 | RussetBurbank | 16.9 |
| Jacqueline Lee | 0.0 | Tollocan | Chaleur | PremierRusset | 17.2 |
| MSR102-3 | 0.0 | W1773-7 | MSJ461-1 | SilvertonRusset | 17.3 |
| MSQ131-A | 0.2 | Boulder | MSJ461-1 | CO95051-7W | 19.1 |
| MSL082-A | 0.2 | MSE221-1 | J. Lee | MSQ089-1 | 19.3 |
| MSQ134-5 | 0.2 | MSG004-3 | MSJ461-1 | AC96052-1RUS | 19.6 |
| MSQ492-2 | 0.3 | Pike | MSJ461-1 | Pike | 20.2 |
| MSQ029-1 | 0.4 | B0766-3 | NY121 | W2324-1 | 20.4 |
| MSR159-02 | 0.4 | MSL766-1 | MSJ126-9Y | MSS917-3 | 20.7 |
| W6360-1RUS | 0.4 | | | W5716-1RUS | 20.7 |
| MSL268-D | 0.5 | NY103 | J. Lee | W2133-1 | 20.8 |
| MSQ035-3 | 0.6 | MSG227-2 | MSJ461-1 | ND7994-1RUS | 20.9 |
| MSQ070-1 | 0.6 | MSK061-4 | MSJ461-1 | MSR297-A | 21.0 |
| AWN86514-2 | 0.6 | | | W2310-3 | 21.4 |
| B2424-82 | 0.7 | | | MSL228-1SPL | 21.5 |
| AF2376-5 | 0.7 | | | MSN191-2Y | 21.5 |
| MSQ086-3 | 0.9 | Onaway | MSJ461-1 | MSM246-B | 21.7 |
| B0718-3 | 1.2 | | | MSM288-2Y | 22.0 |
| MSR041-5 | 1.3 | Liberator (A091-1) | MSJ461-1 | AOTX95265-2ARUS | 22.3 |
| A97066-42LB | 1.4 | | | Atlantic | 22.3 |
| MSM182-1 | 1.5 | Stirling | NY121 | NY139 | 23.0 |
| MSJ461-1 | 2.0 | Tollocan | NY88 | Snowden | 23.3 |
| B2460-23 | 3.1 | | | ND98459-1RY | 23.8 |
| AOND95249-1RUS | 3.8 | | | A0008-1TE | 25.4 |
| W5015-5 | 4.3 | | | MSR219-2R | 25.9 |
| MSN251-1Y | 4.7 | Torridon | MSG227-2 | CO96141-4W | 25.9 |
| MSR061-1 | 4.9 | W1201 | NY121 | CO99053-4RUS | 26.6 |
| MSN105-1 | 5.0 | MSG141-3 | J. Lee | Michigan Purple | 26.7 |
| AF2574-1 | 5.6 | | | RioColorado | 27.2 |
| B2430-4 | 5.9 | | | MSS544-1R | 28.3 |
| B0692-4 | 6.0 | | | FL2053 | 28.4 |
| OR03029-2 | 7.5 | | | CO99100-1RUS | 28.7 |
| W3160-5LBrus | 7.6 | | | W2609-1R | 29.7 |
| B2432-33 | 7.9 | | | CO98368-2RUS | 31.0 |
| MSM171-A | 8.3 | Stirling | MSE221-1 | Onaway | 44.4 |
| LSD _{0.05} | 8.0 | | | | |

¹ Ratings indicate the average plot RAUDPC (Relative Area Under the Disease Progress Curve).

² 138 potato varieties and advanced breeding lines were tested in all. For brevity purposes, only selected varieties and breeding lines are listed.

Phytophthora infestans isolates US-1 (Pi 95-3); US-6 (Pi 95-2); US-8 (Pi 02-007, Pi 06-01, Pi 06-02); US-10 (Pi Banam); US-11 (Pi 96-1); US-14 (Pi 98-1, Pi 99-2) were inoculated on 7/30/08.

Planted as a randomized complete block design consisting of 3 replications of 4 hill plots on 6/5/2008.

Table 13

MICHIGAN STATE UNIVERSITY
POTATO BREEDING and GENETICS

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | |
|--|---------------------------|----------|----------|----------|----------|----------|-------------|---------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | AVERAGE SPOTS/TUBER |
| DATE OF HARVEST: LATE HARVEST | | | | | | | | |
| MSM246-B | 18 | 5 | 2 | | | | 72 | 0.4 |
| MSL268-D | 17 | 4 | 4 | | | | 68 | 0.5 |
| MSN105-1 | 16 | 6 | 3 | | | | 64 | 0.5 |
| MSM070-1 | 15 | 7 | 2 | 1 | | | 60 | 0.6 |
| MSN170-A | 16 | 4 | 3 | 1 | 1 | | 64 | 0.7 |
| MSM171-A | 13 | 8 | 1 | 2 | 1 | | 52 | 0.8 |
| Pike | 11 | 8 | 4 | 2 | | | 44 | 0.9 |
| MSP459-5 | 7 | 9 | 5 | 3 | 1 | | 28 | 1.3 |
| FL1879 | 7 | 6 | 7 | 3 | 1 | 1 | 28 | 1.5 |
| Atlantic | 6 | 7 | 4 | 4 | 2 | 2 | 24 | 1.8 |
| Snowden | 5 | 5 | 7 | 4 | 2 | 2 | 20 | 2.0 |
| ADVANCED TRIAL | | | | | | | | |
| MSJ126-9Y | 21 | 4 | | | | | 84 | 0.2 |
| MSR061-1 | 16 | 8 | 1 | | | | 64 | 0.4 |
| MSK061-4 | 16 | 5 | 4 | | | | 64 | 0.5 |
| Pike | 15 | 7 | 1 | 1 | 1 | | 60 | 0.6 |
| MSQ176-5 | 13 | 8 | 4 | | | | 52 | 0.6 |
| MSI005-20Y | 11 | 12 | 1 | 1 | | | 44 | 0.7 |
| MSJ147-1 | 13 | 8 | 3 | 0 | 1 | | 52 | 0.7 |
| MSN238-A | 11 | 8 | 5 | 0 | 0 | 1 | 44 | 0.9 |
| MSH228-6 | 10 | 9 | 3 | 3 | | | 40 | 1.0 |
| MSN191-2Y | 12 | 8 | 1 | 1 | 2 | 1 | 48 | 1.0 |
| MSJ036-A | 8 | 10 | 3 | 4 | | | 32 | 1.1 |
| FL1879 | 7 | 10 | 5 | 2 | | 1 | 28 | 1.2 |
| MSK409-1 | 8 | 7 | 6 | 2 | 1 | 1 | 32 | 1.4 |
| Beacon Chipper | 9 | 5 | 6 | 3 | 1 | 1 | 36 | 1.4 |
| MegaChip | 5 | 7 | 9 | 3 | 1 | | 20 | 1.5 |
| MSQ070-1 | 5 | 8 | 5 | 2 | 5 | | 20 | 1.8 |
| Snowden | 4 | 4 | 7 | 8 | 2 | | 16 | 2.0 |
| ROUND-WHITE TRIAL (+North Central Regional Entries) | | | | | | | | |
| ND8304-2 | 21 | 2 | 1 | 1 | | | 84 | 0.3 |
| MSJ316-A | 19 | 4 | 2 | | | | 76 | 0.3 |
| ND8307C-3 | 17 | 5 | 3 | | | | 68 | 0.4 |
| MSM171-A | 13 | 9 | 3 | | | | 52 | 0.6 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|--------------------------------------|---------------------------|----------|----------|----------|----------|----------|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| Norvalley | 11 | 9 | 2 | 3 | | | 44 | 0.9 |
| MSJ461-1 | 9 | 10 | 4 | 2 | | | 36 | 1.0 |
| Atlantic | 8 | 4 | 8 | 4 | 1 | | 32 | 1.4 |
| W2310-3 | 6 | 7 | 7 | 4 | 1 | | 24 | 1.5 |
| MSI005-20Y | 2 | 9 | 3 | 4 | 1 | | 11 | 1.6 |
| Snowden | 6 | 3 | 9 | 4 | 2 | 1 | 24 | 1.8 |
| W2133-1 | 1 | 4 | 10 | 7 | 2 | 1 | 4 | 2.3 |
| RUSSET TRIAL | | | | | | | | |
| Russet Norkotah^{NCR} | 23 | 2 | | | | | 92 | 0.1 |
| W2253-5RUS | 23 | 2 | | | | | 92 | 0.1 |
| CO98067-7RUS | 22 | 3 | | | | | 88 | 0.1 |
| CO99053-4RUS | 22 | 3 | | | | | 88 | 0.1 |
| CO98368-2RUS | 20 | 5 | | | | | 80 | 0.2 |
| A0008-1TE | 19 | 6 | | | | | 76 | 0.2 |
| AOTX95265-4Ru | 20 | 4 | 1 | | | | 80 | 0.2 |
| W7012-1RUS | 19 | 6 | | | | | 76 | 0.2 |
| AOTX95265-2ARu | 19 | 5 | 1 | | | | 76 | 0.3 |
| AOTX95265-3Ru | 18 | 7 | | | | | 72 | 0.3 |
| CO99100-1RUS | 19 | 5 | 1 | | | | 76 | 0.3 |
| CORN #8 | 15 | 9 | 1 | | | | 60 | 0.4 |
| CO99053-3RUS | 13 | 10 | 2 | | | | 52 | 0.6 |
| A95109-1 | 14 | 8 | 2 | 0 | 1 | | 56 | 0.6 |
| CORN #3 | 14 | 6 | 4 | 1 | | | 56 | 0.7 |
| AOND95292-3RUS ^{NCR} | 10 | 10 | 5 | | | | 40 | 0.8 |
| W3666-2RUS | 12 | 7 | 5 | 0 | 1 | | 48 | 0.8 |
| W6234-4RUS | 15 | 4 | 2 | 3 | 1 | | 60 | 0.8 |
| Silverton Russet | 13 | 5 | 4 | 2 | 1 | | 52 | 0.9 |
| A98298-1 | 15 | 5 | 1 | 1 | 0 | 3 | 60 | 1.0 |
| W3328-1RUS | 9 | 7 | 8 | 1 | | | 36 | 1.0 |
| CO95172-3RUS | 10 | 5 | 6 | 3 | 1 | | 40 | 1.2 |
| Russet Burbank^{NCR} | 9 | 9 | 2 | 4 | 0 | 1 | 36 | 1.2 |
| W6968-2RUS | 6 | 10 | 6 | 2 | 0 | 1 | 24 | 1.3 |
| AC96052-1RUS | 7 | 7 | 8 | 2 | 0 | 1 | 28 | 1.4 |
| A8254-2BRUS | 5 | 7 | 10 | 3 | | | 20 | 1.4 |
| W5716-1RUS ^{NCR} | 4 | 8 | 9 | 3 | 1 | | 16 | 1.6 |
| W8206-1RUS | 8 | 4 | 6 | 4 | 2 | 1 | 32 | 1.6 |
| W5716-1RUS | 4 | 8 | 7 | 4 | 1 | 1 | 16 | 1.7 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|---------------------------|---------------------------|---|----|---|---|----|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| Canela Russet | 4 | 9 | 5 | 3 | 3 | 1 | 16 | 1.8 |
| W2683-2RUS ^{NCR} | 3 | 8 | 8 | 3 | 3 | | 12 | 1.8 |
| AC99375-1RUS | 4 | 7 | 5 | 7 | 2 | | 16 | 1.8 |
| A00727-1 | 4 | 5 | 10 | 3 | 0 | 3 | 16 | 2.0 |

ADAPTATION TRIAL, CHIP-PROCESSING LINES

| | | | | | | | | |
|-----------------|-----------|----------|----------|----------|----------|---|-----------|------------|
| MSP292-7 | 25 | 0 | | | | | 100 | 0.0 |
| MSM037-3 | 24 | 1 | | | | | 96 | 0.0 |
| MSQ432-2PP | 21 | 4 | | | | | 84 | 0.2 |
| MSL292-A | 20 | 5 | | | | | 80 | 0.2 |
| Pike | 19 | 5 | 1 | | | | 76 | 0.3 |
| MSQ089-1 | 20 | 2 | 3 | | | | 80 | 0.3 |
| MSR169-8Y | 17 | 7 | 1 | | | | 68 | 0.4 |
| MSQ492-2 | 16 | 8 | 1 | | | | 64 | 0.4 |
| FL1879 | 16 | 7 | 2 | | | | 64 | 0.4 |
| MSQ289-5 | 17 | 7 | 0 | 0 | 1 | | 68 | 0.4 |
| MSR041-3 | 14 | 9 | 2 | | | | 56 | 0.5 |
| MSQ279-1 | 16 | 5 | 3 | 1 | | | 64 | 0.6 |
| Boulder | 16 | 4 | 4 | 1 | | | 64 | 0.6 |
| MSQ558-2RR | 13 | 7 | 3 | 2 | | | 52 | 0.8 |
| CO95051-7W | 13 | 5 | 6 | 1 | | | 52 | 0.8 |
| NY139 | 12 | 9 | 1 | 3 | | | 48 | 0.8 |
| Atlantic | 12 | 6 | 4 | 3 | | | 48 | 0.9 |
| MSR160-2Y | 10 | 10 | 2 | 3 | | | 40 | 0.9 |
| W2717-5 | 15 | 5 | 2 | 0 | 1 | 2 | 60 | 0.9 |
| W4013-1 | 7 | 7 | 9 | 2 | | | 28 | 1.2 |
| Snowden | 8 | 8 | 2 | 6 | 1 | | 32 | 1.4 |
| MSR036-5 | 8 | 7 | 5 | 2 | 3 | | 32 | 1.4 |
| MSP368-1 | 7 | 6 | 6 | 5 | 1 | | 28 | 1.5 |
| MSN148-A | 6 | 2 | 8 | 5 | 3 | 1 | 24 | 2.0 |

ADAPTATION TRIAL, TABLESTOCK LINES

| | | | | | | | | |
|----------------------------|-----------|----------|---|---|--|--|-----------|------------|
| AND00272-1R ^{NCR} | 23 | 2 | | | | | 92 | 0.1 |
| Red Norland ^{NCR} | 23 | 2 | | | | | 92 | 0.1 |
| Yukon Gold | 22 | 3 | | | | | 88 | 0.1 |
| MSM288-2Y | 21 | 4 | | | | | 84 | 0.2 |
| MSQ086-3 | 20 | 4 | 1 | | | | 80 | 0.2 |
| MSL228-1SPL | 19 | 5 | 0 | 1 | | | 76 | 0.3 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|------------------------------|---------------------------|----------|----------|----------|---|----|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| Red Pontiac ^{NCR} | 18 | 6 | 1 | | | | 72 | 0.3 |
| Rio Colorado | 18 | 5 | 2 | | | | 72 | 0.4 |
| CO98012-5R | 17 | 5 | 3 | | | | 68 | 0.4 |
| MSN215-2P | 16 | 7 | 2 | | | | 64 | 0.4 |
| Eva | 16 | 6 | 3 | | | | 64 | 0.5 |
| MI Purple | 14 | 10 | 0 | 1 | | | 56 | 0.5 |
| Reba | 15 | 7 | 3 | | | | 60 | 0.5 |
| ATND98459-1RY ^{NCR} | 15 | 5 | 2 | 0 | 1 | | 65 | 0.6 |
| MSQ461-2PP | 14 | 8 | 2 | 1 | | | 56 | 0.6 |
| Onaway | 14 | 6 | 3 | 2 | | | 56 | 0.7 |
| MSM182-1 | 12 | 8 | 2 | 2 | 1 | | 48 | 0.9 |
| MSQ134-5 | 13 | 4 | 5 | 3 | | | 52 | 0.9 |
| MSQ425-4Y | 9 | 10 | 4 | 1 | 1 | | 36 | 1.0 |
| ND7132-1R ^{NCR} | 12 | 4 | 3 | 5 | 1 | | 48 | 1.2 |
| MSR157-1Y | 14 | 1 | 5 | 3 | 1 | 1 | 56 | 1.2 |
| Jacqueline Lee | 8 | 6 | 6 | 5 | | | 32 | 1.3 |
| W5767-1R ^{NCR} | 7 | 6 | 6 | 3 | 1 | 2 | 28 | 1.6 |
| MSN251-1Y | 4 | 4 | 7 | 4 | 4 | 2 | 16 | 2.2 |

PRELIMINARY TRIAL, CHIP-PROCESSING LINES

| | | | | | | | | |
|-------------|-----------|----------|----------|---|---|---|-----------|------------|
| MSQ130-4 | 21 | 4 | | | | | 84 | 0.2 |
| MSQ029-1 | 20 | 4 | 1 | | | | 80 | 0.2 |
| MSS199-2 | 20 | 3 | 2 | | | | 80 | 0.3 |
| MSQ035-3 | 19 | 3 | 3 | | | | 76 | 0.4 |
| Pike | 16 | 7 | 2 | | | | 64 | 0.4 |
| MSS306-4Y | 16 | 5 | 4 | | | | 64 | 0.5 |
| MSQ089-1 | 15 | 5 | 4 | 1 | | | 60 | 0.6 |
| MSR128-4Y | 12 | 10 | 3 | | | | 48 | 0.6 |
| MSS915-1 | 16 | 4 | 3 | 2 | | | 64 | 0.6 |
| MSS927-1 | 12 | 10 | 2 | 1 | | | 48 | 0.7 |
| MSR102-3 | 11 | 7 | 6 | 1 | | | 44 | 0.9 |
| MSS514-1PP | 9 | 11 | 4 | 1 | | | 36 | 0.9 |
| MSS303-02 | 8 | 10 | 3 | 4 | | | 32 | 1.1 |
| MSM060-3 | 7 | 9 | 7 | 2 | | | 28 | 1.2 |
| MSS108-1 | 9 | 7 | 5 | 4 | | | 36 | 1.2 |
| MSS165-2Y | 8 | 6 | 7 | 4 | | | 32 | 1.3 |
| FL1879 | 8 | 5 | 7 | 4 | 1 | | 32 | 1.4 |
| MSR161-2 | 5 | 6 | 7 | 5 | 1 | 1 | 20 | 1.8 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|-----------------|---------------------------|----------|----------|----------|-----------|----------|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| MSS428-2 | 3 | 10 | 6 | 3 | 2 | 1 | 12 | 1.8 |
| MSR226-1RR | 2 | 11 | 3 | 6 | 3 | | 8 | 1.9 |
| MSR058-2 | 3 | 6 | 6 | 7 | 2 | 1 | 12 | 2.1 |
| Atlantic | 2 | 2 | 7 | 5 | 8 | 1 | 8 | 2.7 |
| MSS026-2Y | 2 | 5 | 4 | 4 | 6 | 4 | 8 | 2.8 |
| Snowden | 1 | 5 | 5 | 3 | 10 | 1 | 4 | 2.8 |

PRELIMINARY TRIAL, TABLESTOCK LINES

| | | | | | | | | |
|---------------|-----------|-----------|----------|---|---|---|-----------|------------|
| MSQ131-A | 23 | 2 | | | | | 92 | 0.1 |
| MSS526-1 | 18 | 4 | 3 | | | | 72 | 0.4 |
| MSS582-1SPL | 17 | 7 | 0 | 1 | | | 68 | 0.4 |
| MSR297-A | 17 | 4 | 4 | | | | 68 | 0.5 |
| MSS206-2 | 15 | 8 | 2 | | | | 60 | 0.5 |
| MSR159-02 | 15 | 8 | 1 | 1 | | | 60 | 0.5 |
| MSS576-05SPL | 15 | 7 | 3 | | | | 60 | 0.5 |
| MSN111-4PP | 14 | 7 | 4 | | | | 56 | 0.6 |
| MSS544-1R | 14 | 7 | 4 | | | | 56 | 0.6 |
| MSR219-2R | 13 | 8 | 3 | 1 | | | 52 | 0.7 |
| MSS442-2 | 12 | 10 | 2 | 1 | | | 48 | 0.7 |
| Onaway | 10 | 10 | 3 | | | | 43 | 0.7 |
| Reba | 12 | 8 | 4 | 1 | | | 48 | 0.8 |
| MSS483-1 | 13 | 5 | 6 | 1 | | | 52 | 0.8 |
| MSR218-AR | 8 | 14 | 2 | 1 | | | 32 | 0.8 |
| MSS917-3 | 12 | 7 | 4 | 2 | | | 48 | 0.8 |
| MSS097-3 | 9 | 12 | 2 | 1 | 1 | | 36 | 0.9 |
| MSR241-4RY | 8 | 8 | 9 | | | | 32 | 1.0 |
| MSS164-6 | 11 | 8 | 3 | 1 | 1 | 1 | 44 | 1.0 |
| MSS737-1 | 7 | 11 | 3 | 2 | 2 | | 28 | 1.2 |
| MSR176-4P | 7 | 6 | 7 | 5 | | | 28 | 1.4 |
| MSS411-3Y | 4 | 7 | 7 | 6 | 1 | | 16 | 1.7 |
| MSS176-1 | 6 | 4 | 9 | 2 | 3 | 1 | 24 | 1.8 |

TRANSGENIC TRIAL

| | | | | | | | | |
|-------------|----|---|---|---|---|---|----|-----|
| ATL Newleaf | 11 | 9 | 4 | 1 | | | 44 | 0.8 |
| E69.6 | 20 | 2 | 2 | 1 | | | 80 | 0.4 |
| E75.26 | 11 | 8 | 4 | 1 | 1 | | 44 | 0.9 |
| E75.7 | 22 | 3 | | | | | 88 | 0.1 |
| ND75.3 | 9 | 5 | 4 | 5 | 1 | 1 | 36 | 1.5 |
| ND75.6 | 4 | 9 | 6 | 2 | 2 | 2 | 16 | 1.8 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|---|---------------------------|----------|----------|---|---|----|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| NO8.28 | 20 | 4 | 1 | | | | 80 | 0.2 |
| NO8.8 | 19 | 4 | 1 | 1 | | | 76 | 0.4 |
| Norwis | 10 | 10 | 3 | 1 | 1 | | 40 | 0.9 |
| ONAGP.1 | 6 | 1 | 7 | 8 | 3 | | 24 | 2.0 |
| ONAGP.2 | 0 | 6 | 8 | 7 | 3 | 2 | 0 | 2.5 |
| R605-10 | 15 | 4 | 4 | 1 | 1 | | 60 | 0.8 |
| R605-2 | 22 | 3 | | | | | 88 | 0.1 |
| R605-5 | 16 | 7 | 1 | 1 | | | 64 | 0.5 |
| R605-7 | 19 | 5 | 1 | | | | 76 | 0.3 |
| R605-8 | 22 | 2 | 0 | 1 | | | 88 | 0.2 |
| R606-2 | 16 | 5 | 4 | | | | 64 | 0.5 |
| R606-7 | 18 | 5 | 2 | | | | 72 | 0.4 |
| RB Spunta CSPAG.13 | 13 | 11 | 1 | | | | 52 | 0.5 |
| SPA69.13 | 20 | 4 | 1 | | | | 80 | 0.2 |
| SP15.5 | 20 | 5 | | | | | 80 | 0.2 |
| SP15.8 | 23 | 2 | | | | | 92 | 0.1 |
| SPHPPD.13 | 20 | 4 | 1 | | | | 80 | 0.2 |
| SPHPPD.15 | 22 | 2 | 0 | 1 | | | 88 | 0.2 |
| SPHPT.3 | 25 | 0 | | | | | 100 | 0.0 |
| Spunta | 16 | 8 | 1 | | | | 64 | 0.4 |
| SpuntaG2 | 18 | 7 | | | | | 72 | 0.3 |
| Yukon Gold | 22 | 2 | 1 | | | | 88 | 0.2 |
| YG8.12 | 23 | 2 | | | | | 92 | 0.1 |
| YG8.8 | 20 | 4 | 1 | | | | 80 | 0.2 |
| USPB/SFA TRIAL CHECK SAMPLES (Not bruised) | | | | | | | | |
| CO96141-4W | 25 | 0 | | | | | 100 | 0.0 |
| NY138 | 24 | 1 | | | | | 96 | 0.0 |
| ND7519-1 | 23 | 2 | | | | | 92 | 0.1 |
| CO95051-7W | 22 | 2 | 1 | | | | 88 | 0.2 |
| AF2291-10 | 21 | 3 | 1 | | | | 84 | 0.2 |
| CO97043-14W | 21 | 3 | 1 | | | | 84 | 0.2 |
| W2717-5 | 19 | 4 | 1 | 1 | | | 76 | 0.4 |
| CO97065-7W | 19 | 3 | 2 | 1 | | | 76 | 0.4 |
| MSJ147-1 | 17 | 4 | 3 | 1 | | | 68 | 0.5 |
| W2310-1 | 16 | 5 | 3 | 1 | | | 64 | 0.6 |
| Kalkaska (MSJ036-A) | 15 | 6 | 4 | | | | 60 | 0.6 |
| Beacon Chipper | 16 | 4 | 3 | 1 | 1 | | 64 | 0.7 |
| Atlantic | 12 | 9 | 4 | | | | 48 | 0.7 |

**2008 BLACKSPOT BRUISE SUSCEPTIBILITY TEST
SIMULATED BRUISE SAMPLES***

| ENTRY | NUMBER OF SPOTS PER TUBER | | | | | | PERCENT (%) | AVERAGE SPOTS/TUBER |
|--------------------------------------|---------------------------|----------|----------|----------|----------|----------|----------------|------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5+ | BRUISE FREE | |
| Snowden | 13 | 7 | 4 | 1 | | | 52 | 0.7 |
| NY139 | 12 | 9 | 2 | 2 | | | 48 | 0.8 |
| W2324-1 | 12 | 4 | 6 | 3 | | | 48 | 1.0 |
| USPB/SFA TRIAL BRUISE SAMPLES | | | | | | | | |
| NY138 | 24 | 1 | | | | | 96 | 0.0 |
| CO95051-7W | 21 | 3 | 1 | | | | 84 | 0.2 |
| CO96141-4W | 20 | 4 | 1 | | | | 80 | 0.2 |
| CO97043-14W | 17 | 5 | 3 | | | | 68 | 0.4 |
| ND7519-1 | 13 | 10 | 2 | | | | 52 | 0.6 |
| Atlantic | 13 | 7 | 4 | 0 | 0 | 1 | 52 | 0.8 |
| AF2291-10 | 13 | 7 | 1 | 3 | 1 | | 52 | 0.9 |
| W2717-5 | 12 | 7 | 2 | 4 | | | 48 | 0.9 |
| CO97065-7W | 14 | 2 | 3 | 4 | 1 | 1 | 56 | 1.2 |
| MSJ147-1 | 9 | 6 | 7 | 1 | 2 | | 36 | 1.2 |
| Kalkaska (MSJ036-A) | 9 | 8 | 4 | 2 | 1 | 1 | 36 | 1.2 |
| W2310-1 | 8 | 7 | 2 | 3 | 4 | 1 | 32 | 1.6 |
| Beacon Chipper | 8 | 4 | 4 | 6 | 2 | 1 | 32 | 1.7 |
| W2324-1 | 7 | 3 | 6 | 4 | 4 | 1 | 28 | 1.9 |
| Snowden | 4 | 6 | 4 | 7 | 1 | 3 | 16 | 2.2 |
| NY139 | 3 | 3 | 4 | 7 | 3 | 5 | 12 | 2.8 |

* Twenty or twenty-five A-size tuber samples were collected at harvest, held at 50 F at least 12 hours, and placed in a six-side plywood drum and rotated ten times to produce simulated bruising. Samples were abrasive-peeled and scored 10/30/08. The table is presented in ascending order of average number of spots per tuber.