

# Mackinaw (MSX540-4)

**Pedigree:** Saginaw Chipper x Lamoka

**Developers:** Michigan State University

**PVP:** In progress

## MORPHOLOGY

**Plant:** Intermediate vine size, white flowers

**Tubers:** Round to oval tubers with lightly netted skin

## AGRONOMICS

**Maturity:** Mid to late-season

**Yield Potential (US#1) cwt/A\*:** 455 (99 - 825)

**Specific Gravity\*:** 1.087 (1.072 - 1.106)

**Seed Spacing:** 10"

**Dormancy:** Full season

**Strengths:** Resistant to PVY and late blight; tolerance to common scab; low incidence of internal defects; high specific gravity; resistance to Rhizoctonia

**Weaknesses:** Lamoka is a parent; blackspot bruise susceptibility is comparable to Snowden

## UTILIZATION

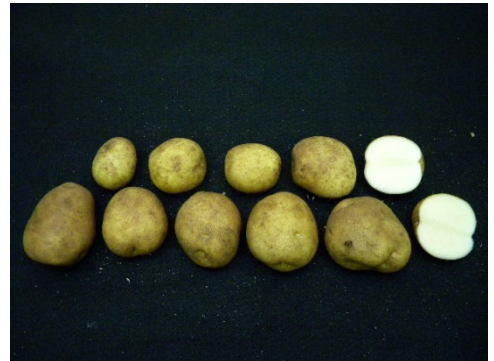
Mackinaw can tolerate common scab pressure, and is resistant to PVP and late blight. While research is ongoing in potential fungicide reduction practices, growers should continue standard fungicide applications. This variety has fertility requirements similar to Snowden, with 250 to 300 lbs/A applied over four applications between late May and early June. Mackinaw maintains good chip quality though June from 50°F, with a storage airflow of 1.5 to 2.0 cfm/cwt. In storage, it can be managed like Lamoka.

\*Data reflects the mean with range in parenthesis from 83 trials in seven years.

Prepared by Trina Zavislan, Chris Long, and Damen Kurzer, MSU Potato Outreach Program ([canr.msu.edu/potatooutreach](http://canr.msu.edu/potatooutreach)) to inform Michigan growers on variety performance.



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Mackinaw tubers grown in 2017



2017 Bulk Planting at Crooks Farms.  
NY152 (left) and Mackinaw (right)



Chips processed June 10<sup>th</sup>, 2020 from  
48°F

# Mackinaw Data Summary

| Category                         | # Trials | Average | Range         |
|----------------------------------|----------|---------|---------------|
| US # 1 Yield (Cwt/A)             | 83       | 455     | 99 - 825      |
| Total Yield (Cwt/A)              | 83       | 517     | 162 - 928     |
| % US No. 1                       | 83       | 87      | 53 - 98       |
| % B Size <sup>1</sup>            | 83       | 10      | 1 - 29        |
| % A Size <sup>1</sup>            | 83       | 84      | 61 - 97       |
| % Oversize <sup>1</sup>          | 83       | 3       | 0 - 20        |
| % Pickouts                       | 83       | 3       | 0 - 26        |
| Specific Gravity                 | 83       | 1.087   | 1.072 - 1.106 |
| SNAC Chip Color OTF <sup>2</sup> | 83       | 1.4     | 1.0 - 3.0     |
| Common Scab <sup>3</sup>         | 83       | 0.9     | 0 - 2.5       |
| Vine Vigor <sup>4</sup>          | 81       | 2.9     | 1 - 4.5       |
| Vine Maturity <sup>5</sup>       | 82       | 3.1     | 1.5 - 4.5     |
| % Hollow Heart                   | 83       | 1       | 0 - 20        |
| % Vascular Discoloration         | 83       | 5       | 0 - 50        |
| % Internal Brown Spot            | 83       | 1       | 0 - 30        |
| % Brown Center                   | 83       | 0       | 0 - 10        |

<sup>1</sup>B size < 1 7/8", A size 1 7/8" - 3 1/4", Oversize > 3 1/4"

<sup>2</sup>Out of the Field Rating from 1 (excellent) to 5 (very poor), values < 2 are acceptable

<sup>3</sup>Common Scab Rating Scale from 0 (no scab) to 5 (severe scab)

<sup>4</sup>Vine Vigor Rating Scale from 1 (slow emergence) to 5 (early emergence)

<sup>5</sup>Vine Maturity Rating Scale from 1 (dead vines) to 5 (vigourous, flowering vines)

This variety was evaluated between 2015 and 2021