

Potato Breeding Report 2022

University of Wisconsin-Madison



Jeffrey Endelman¹, Becky Eddy²

¹Department of Horticulture

²Rhineland Agricultural Research Station

<http://potatobreeding.cals.wisc.edu/>

Certified Seed Acreage

Figure 1 shows the 2019–2022 certified seed acreage for UW-Madison varieties released in the past 10 years. Hodag showed a steep decline from 2021, which reflects strong competition from other new chip varieties. Red Endeavor and W8893-1R showed significant gains over 2021 due to the interest of a grower in the Red River Valley.

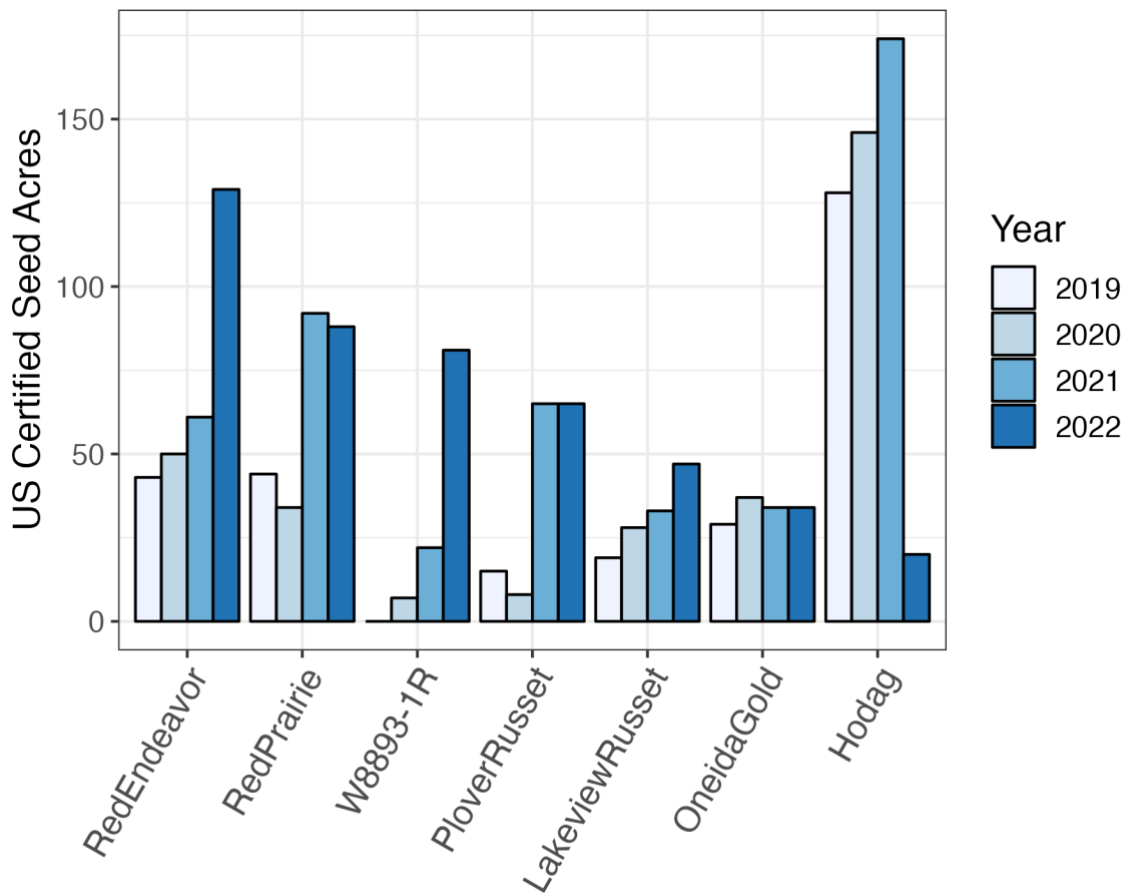
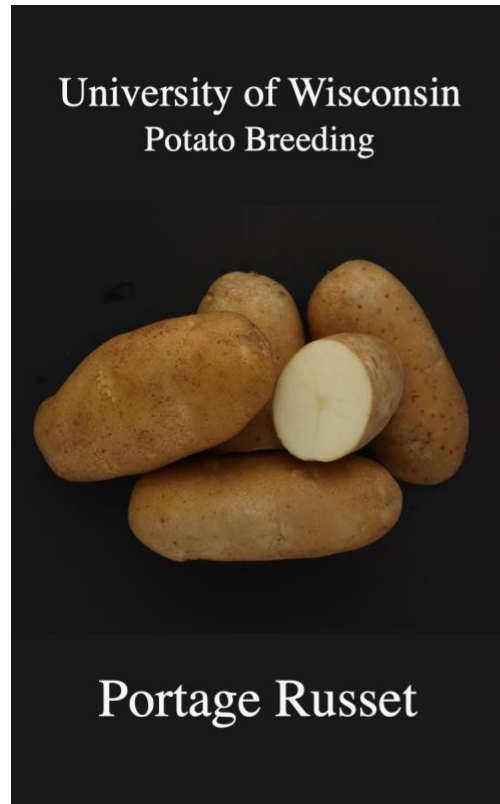


Figure 1. US Certified Seed Acreage for UW-Madison varieties released in the past 10 years.

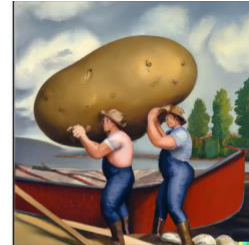
Portage Russet

In November 2022, the SpudPro committee selected the name 'Portage Russet' for W13A11229-1rus. The name honors Portage County and has additional significance because 'portage' means carrying a boat between two bodies of water. Similarly, Portage Russet is a dual-purpose variety, able to meet the needs of both the fresh and frozen processing markets. FY2 seed is available from the UW Elite Foundation Seed Farm for the 2023 season.



Portage Russet (W13A11229-1rus)

Parentage:
A01325-1 x A06131-19



- Dual-purpose variety for processing and fresh market
- High marketable yields
- Nice shape and length/width ratio, similar to Burbank
- Lighter russetting, similar to Silverton
- Specific gravity between Burbank and Ranger
- Long dormancy and resistance to cold sweetening, good for storage

W13103-2Y

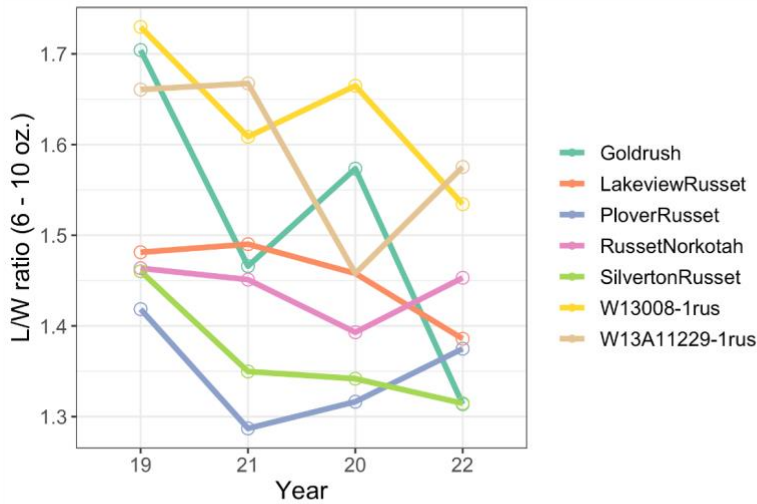
Yield and internal quality continue to look promising for this new yellow variety in multiple locations. FY1 seed was produced at the UW Elite Foundation Seed Farm in 2022.



Multi-year Russet Comparison

Hancock Ag Research Station (11–12” spacing, Vine kill 105–115 DAP)

Tuber Shape



W13008 and W13A11229 were longest
Plover and Silverton were shortest

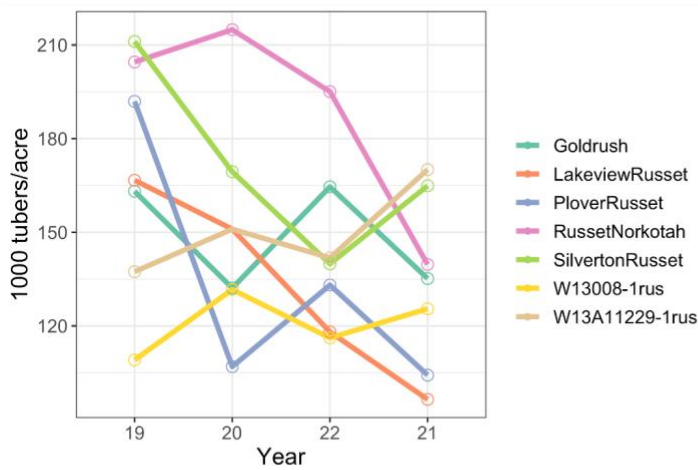
W13A11229



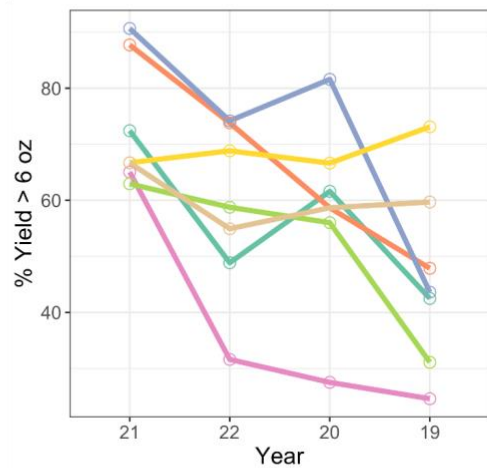
W13008

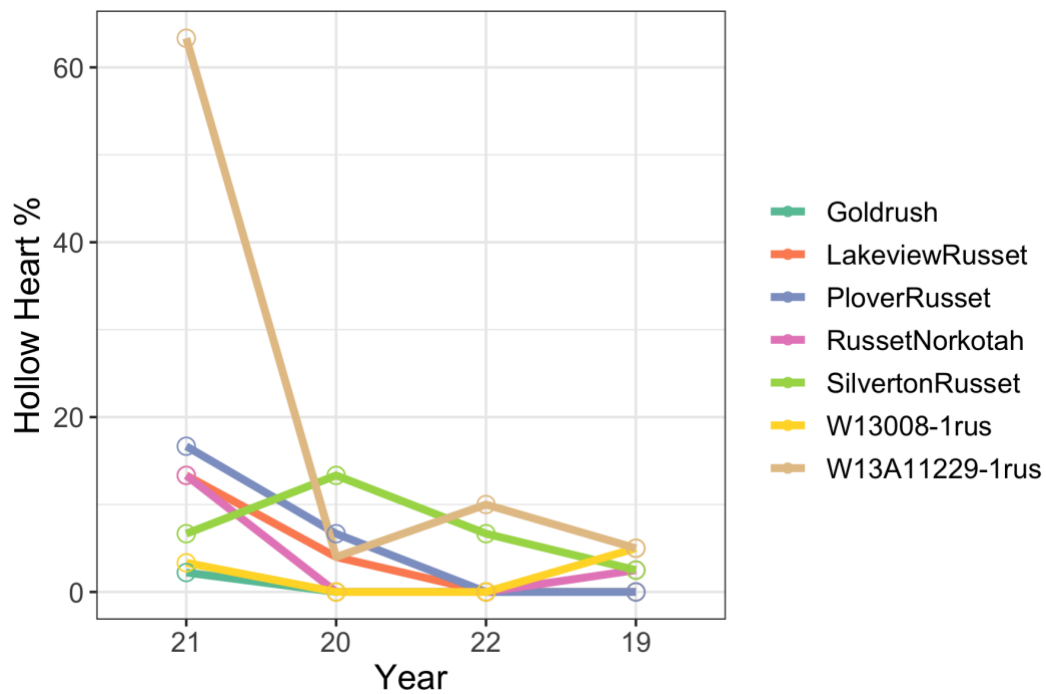
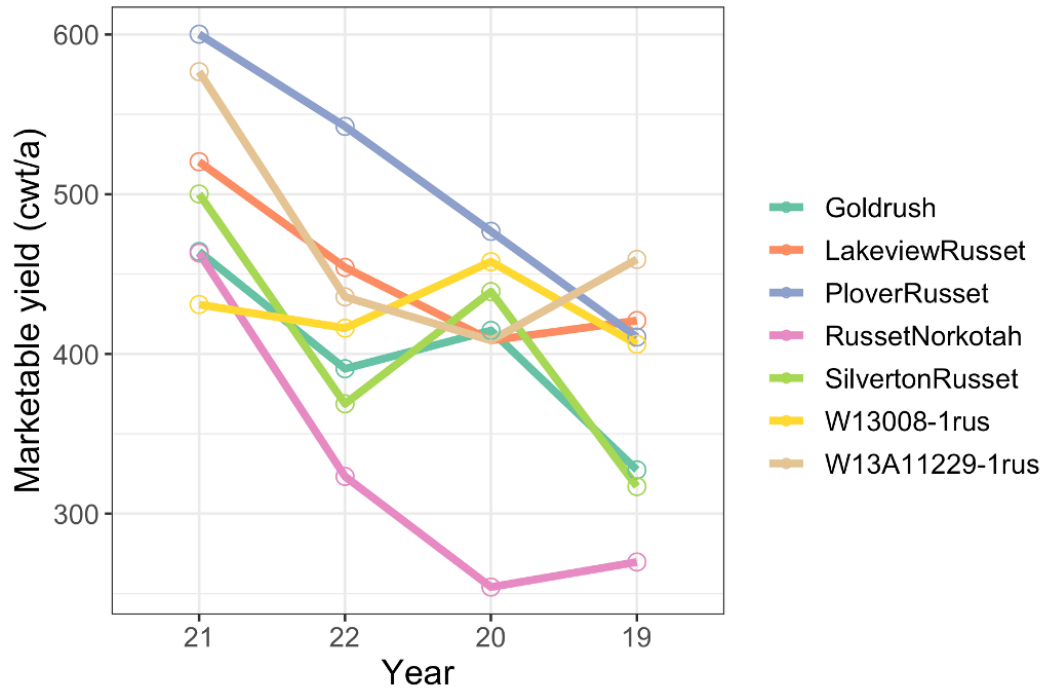


Tuber Set and Size



W13008 was most similar to Lakeview and Plover
W13A11229 was most similar to Goldrush

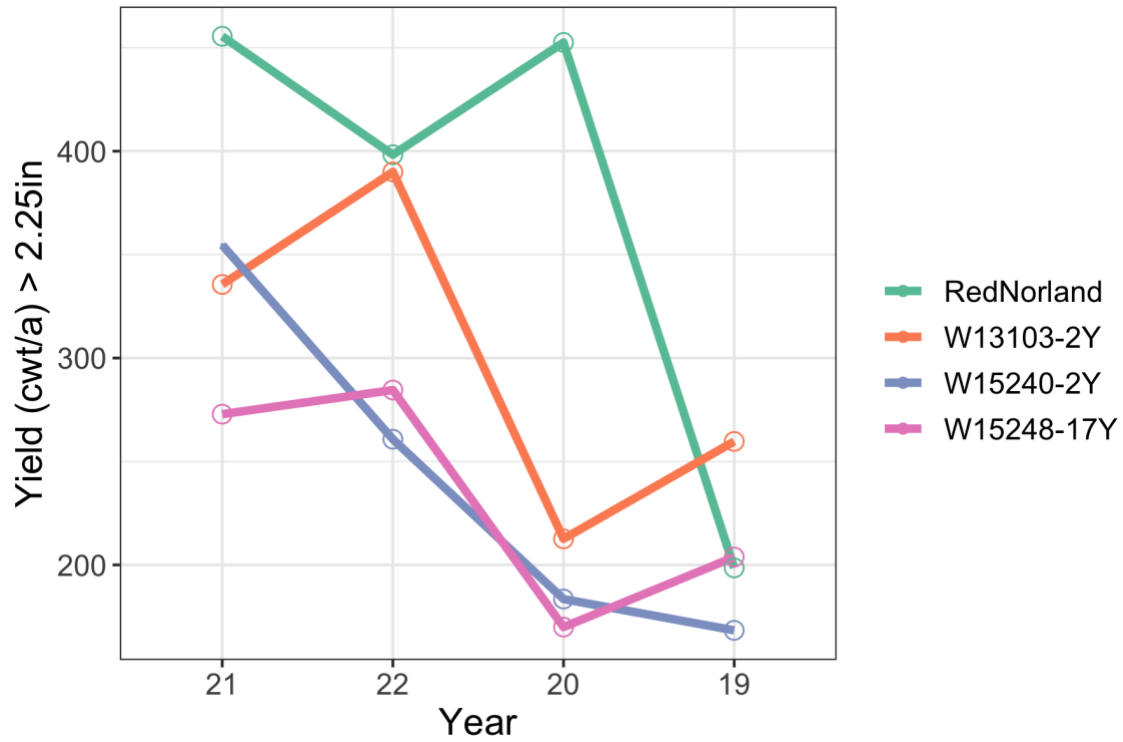
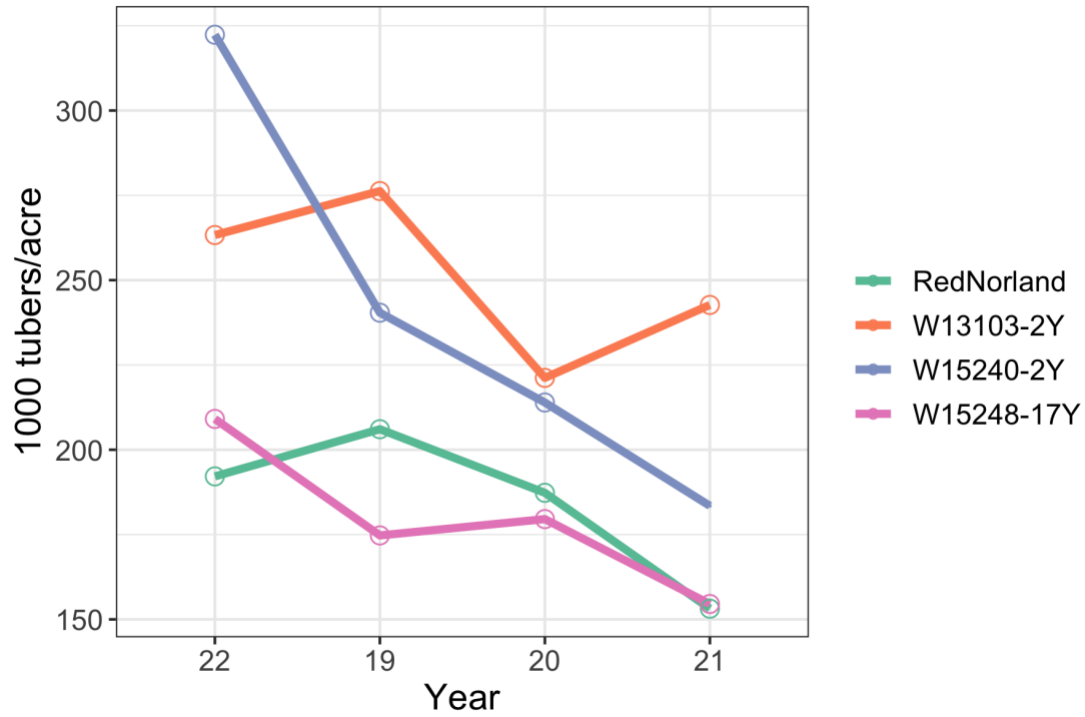


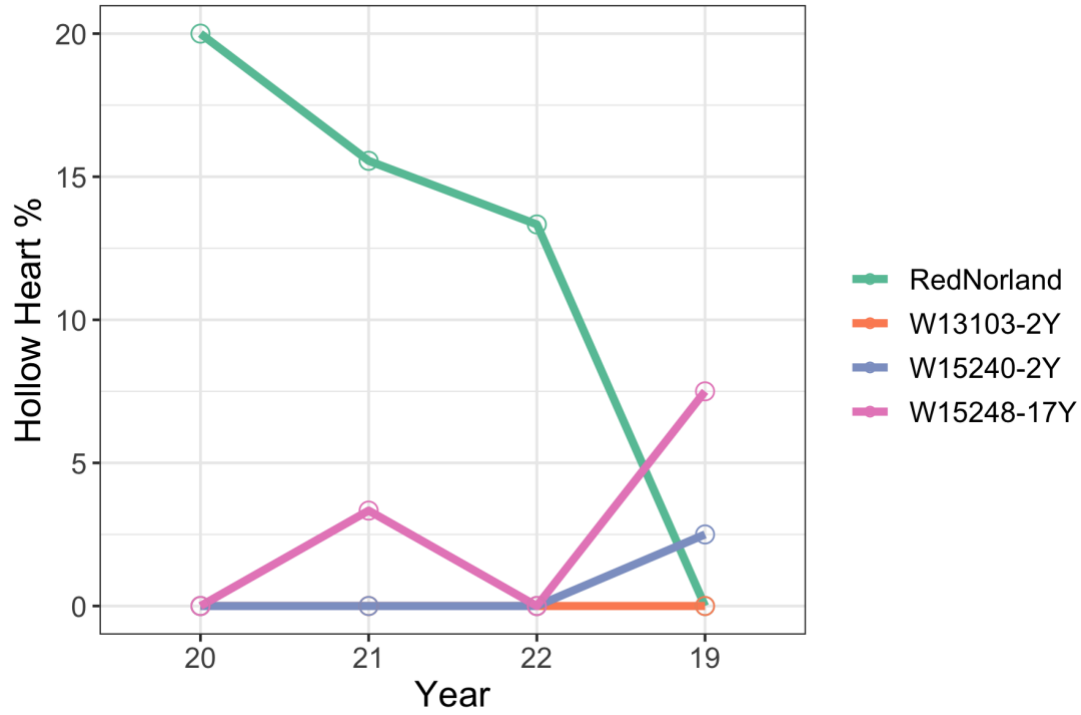


W13008 has excellent resistance to HH
W13A11229 shows some susceptibility

Multi-year Yellow Comparison

Hancock Ag Research Station (11–12” spacing, Vine kill 100–110 DAP)





Acknowledgments

The breeding program is supported by students and staff at the Madison campus (Grace Christensen, Maria Caraza-Harter), the Rhinelander Research Station, and the Hancock Research Station. Financial support comes from the College of Agricultural and Life Sciences (CALs), the WPVGA, Potatoes USA, and the USDA National Institute of Food and Agriculture (NIFA).