Washington State University - VITICULTURE AND ENOLOGY EXTENSION NEWS Spring 2022

Ready for Rootstocks? Join Us for Workshops in 2022 and 2023!

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Non-vinifera rootstocks have many positive attributes, and over the last 100+ years, they have been selected for their ability to overcome multiple biotic (phylloxera, nematodes) and abiotic (environmental; e.g., salt, pH, drought) stresses. Regions around the world have guidelines for which rootstocks work best for their area, as they have had decades of practice to get things right.

Washington does not have the same depth of historical rootstock information - but there is no time like the present to start collecting it!

A WESTERN SARE PRODUCER GRANT

Modern rootstock trials are best done on-farm. This allows a region to maximize potential evaluation sites and quickly identify potential site-specific nuances in how rootstocks perform. Inland Desert Nursery in Benton City, WA, in cooperation with WSU Viticulture Extension.

Interested in your own on-farm rootstock trial?

We can help! As a part of this trial, we will be conducting workshops in 2022 and 2023, which include how to plan for your own on farm research or demonstration trial. Check out the Washington State University Events webpage:

https://wine.wsu.edu/events/

SAVE THE DATE: Our first workshop will be on Friday, July 15th 2022

developed a Western SARE Producer Grant aimed at establishing a rootstock evaluation trial. In addition to planting a small vineyard to evaluate several key rootstocks for the area (**Table 1**), the grant also includes instructional events like workshops. These workshops will include information on how others can develop their own on-farm evalation and demonstration trials.

Join us in 2022 and 2023 as we explore rootstock options in Washington state, and how these genetic tools can be used for managing abiotic stresses in vines, as well as being the foundation for sustainable pest management in vineyards!

Please see our callout box above for details on rootstock events in Washington.

Table 1 - Rootstocks selected for the trial. While phylloxera resistance was the main selection criteria, ease of propagation and general use rates were also considered in the selection process.

Rootstock	Selection Reasoning	Other Attributes*
3309 Couderc (riparia x rupestris)	Low to moderate nematode resistance. Reported crown gall resistance.	May be sensitive to water stress. Good uptake of magnesium, potentially poor uptake of potassium. Low vigor.
101-14 MGT (riparia x rupestris)	Moderate to high nematode resistance. Reported crown gall resistance.	Tends to low vigor and earlier ripening. Lower drought resistance. Medium salinity tolerance. (Not planted until 2022).
1103 Paulsen (berlandieri x rupestris)	Susceptible to dagger nematode, mod. to high root-knot nematode resistance.	Tends to high vigor, but is relatively drought resistant. Medium salinity tolerance. Tends for lower potassium and zinc absorption.
Schwarzman (riparia x rupestris)	Moderate to high nematode resistance	Moderate drought tolerance, moderate to high salt tolerance. Readily uptakes potassium. Typically prefers deeper soils.
S04 (Oppenheim #4) (berlandieri x riparia)	Moderate to high nematode resistance.	Low to moderate drought tolerance. Lower vigor. Tends to readily absorb potassium.
Own-Rooted (vinifera)	WA standard. Susceptible to nematodes and phylloxera.	Low salinity tolerance. Adapted to neutral to more alkaline soils.

*Rootstock Resources: (1) http://iv.ucdavis.edu/files/24347.pdf (2) https://www.inlanddesert.com/category/rootstock/ (3) http://www.novavine.com/media/11790/Rootstock-Chart-.pdf (4) https://www.sunridgenurseries.com/index.php/clonal-selections/rootstock-chart