Nebraska VineLines

University of Nebraska Lincoln EXTENSION

University of Nebraska Viticulture Program

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NOTES FROM NE2220

I recently attended the annual meeting of the NE2220 regional project, Multi-state Evaluation of Winegrape Cultivars and Clones, held November 9 and 10 in Traverse City, Michigan. This project, initially a program pertaining to northeastern and north-central states' grape and wine research, has expanded to include many of the grape and wine industries east of the Rocky Mountains. The attendance was somewhat limited because of a conflict with another wine-related meeting in St. Louis. However, there was some really great information shared, so I'll pass along some of the highlights.

It should be noted that the region of Michigan surrounding Traverse City is known for its fruit production, including grapes (more on this later, see field trip notes). A few general observations from the state reports:

- Iowa State University. Aude Watrelot, the ISU enologist, reported on timing of harvest. She noted that La Crescent and Lacrosse were harvested at the ISU research plantings (Ames, central Iowa) in early August, Edelweiss and Briana in mid-August, with Itasca harvest in mid-September and Petite Pearl in mid-October. A trellis system study has been initiated comparing High Wire, VSP and Watson (instead of GDC). Results of a growth regulator study in which Marquette was sprayed with ProCa and phenylalanine resulted in increased phenolic content of the wines, but anthocyanins were not checked. In another study, results similar to those reported earlier by Anna-Katherine Mansfield (Cornell), indicated that wine tannin levels of Petite Pearl, Crimson Pearl, Marquette and Frontenac were lower than those found in Pinot Noir wine from Michigan.
- Kansas (Highland Community College) – Candace Fitch-Dietze and Scott Kohl via Zoom. Much of their earlier plantings have been removed following herbicide damage, but they have initiated plantings of numerous experimental genotypes, including MN 1332, 1369, 1311, 1419, ND 213 and 05-247 and several others. They intend to add Petite Pearl and Crimson Pearl in 2024. Severe problems with Japanese beetles caused significant damage to their plantings, in addition to the herbicide damage. They indicated that appropriate insecticide spray could not be applied because of the planting's proximity to a school.
- Michigan State University. Michael Rienke is the replacement for Tom Zabadal and has significant experience in IPM programs and autonomous technologies. Esmaiel Nasrollahiazar, Viticulture Educator and Paolo Sabbatini, Professor of Horticulture rounded out the MSU presenters. The following Michigan wine statistics were noted: 175+ wineries, 10,000 acres planted, five American Viticultural Areas (AVAs), economic impact is over 6.33 billion dollars (2022 WineAmerica study). Ongoing projects include a study of the role of the

ASR (VvMSA) gene in grapevine cold hardiness, sustainable canopy management to enhance fruit metabolites and fruit quality, and early leaf removal to enhance color accumulation and grape quality. Eight Extension Programs were presented during the year, including the Michigan grape Scouting Report, a program called "Grape Sense" and Laser bird control studies. Their laser bird control results mirrored those contributed from other attendees: starling control can be good, but very bad results were experienced **with robins, essentially no control achieved.** They have also initiated a sap analysis study to determine grapevine nutritional needs (Editor's Note: this could be of interest to Nebraska growers that employ a similar commercially available system.).

- University of Minnesota. Matt Clark, U of M geneticist and Director of the grape breeding program. Matt suggested that all NE2220 participants should follow first year screening program and 4 locations in the second year (24 vines per site). Data could include bud break (EL 5), 10-cluster weight, 50-berry weight and pounds of fruit per foot of row. Matt also listed the following U of M grapes available for testing: Clarion (newly released and named), MN 1311, MN 1332 (a red-fruited full sibling to Itasca), 1347, 1394 (a light red), MN1419 and MN1421. He also listed three table grapes that they have selected: MN 1296 (a seedless pink similar to Somerset Seedless, but with larger clusters), MN 1369 (white with tropical flavors) and MN 1325 (dark red). Dr. Soon Li Teh was introduced as the recently hired UMN grape breeder.
- Montana State University – Dr. Andre Svyantek, via Zoom. Central and eastern Montana are difficult areas in which to grow grapes, but a "banana belt" exists in the western part of the state near Corvallis, MT where plantings initiated in 2022 have no vine death, diseases or insects. Two grapes that have shown promise are 'Harbinger' and 'Hasansky Sladky' (aka 'Baltica'), although the former can exhibit intense shrivel in some seasons. ND 213 and ND 054.27 also show promise.
- North Dakota State University – Harlene Hatterman Valenti. They lost their nursery because NDSU built a new building on that plot of ground, which resulted in the available plant material for testing of ND 213 and ND 054.27 to be limited at this time. Their breeding program also has two additional whites and two reds that look good. Ripening of Marquette and Petite Pearl was hastened by protection with plastic pulled over a hoop frame. More study is planned (Editor's Note: a somewhat similar approach was observed at Mari Vineyards on the next day's field trip– see photos below).
- South Dakota State University – Anne Fennel. An interesting approach to temperature monitoring in the vineyard was displayed using QR codes. Anne is continuing with the Objectives of the NE2220 project. An emphasis on the second objective has involved comparisons involving Itasca, MN1280 and commercial wine evaluations of Brianna from distinct locations. Her research with DNA related to cold hardiness is ongoing, but significant data have been recorded.
- University of Vermont – Terence Bradshaw. Terry summarized the Vermont industry: 175 acres of wine grapes and 29 wineries; location near Lake Champlain (100 feet above sea level) provides moderation of temperatures that helps with winter survival. Shelburne Vineyard bought Lincoln Peak in 2021 and merged with Eden Cidery in 2022 making it the largest winery/cidery in Vermont. The Vermont industry suffered very bad freeze damage on May 18, 2023, followed by severe summer flooding (the capitol, Burlington had flooding four feet deep in July.)
- **FIELD TRIP** on the second day of the conference. First stop was Boathouse Vineyards. We observed their program of sustainable grape production with no machines and no-eradicating pest control. Their goal is to transform the viticulture for Boathouse Vineyards to organic and possibly Biodynamic in the future. They showed us Cabernet Franc grapes still hanging on the vines with a goal of making a Cab Franc ice wine.

- The second stop for the field trip was at Sirena Vineyard where Paolo Sabattini is working with a privately funded rootstock study. Two Italian cultivars and four rootstocks were planted late in the season (July 1), so the vine growth was minimal. Sandy soil that is typical for much of the Leelanau and Old Mission Peninsula's vineyard plantings prevails here, so special concepts for monitoring moisture levels and controlling drip irrigation are being tested (DP Computing Concepts).

- The third stop was at Mari Vineyards, a third-generation winery and vineyard, with an impressive Tuscany-style winery building and tasting room. This vineyard is a cooperating site for cold hardiness sampling research and showcased a large-scale high tunnel project.

Because of the northern latitude and lack of sunshine due to frequently cloudy conditions, in many years Mari Vineyards found it difficult to fully ripen Cabernet Franc, Malbec and several Italian cultivars. As a result, they have employed extensive (and expensive!) high tunnels to accelerate ripening. The tunnels are deployed in mid-summer and removed just before harvest (they don't leave them on as we have done in our high tunnel research – our goal is for protection from cold, not to advance ripening).

As usual, when I travel, I take examples of Nebraska wines with me and also as usual, they were really well-received by very wine-knowledgeable professionals. This conference was especially valuable to me because of the above information that will prove useful in my teaching and as the UNVP pursues its research objectives.

Cheers, Paul and the UNVP team.

Items for your Calendar:

May 17-18, **2024**, TOAST Nebraska, Stinson Park, Omaha, NE