



Nebraska VineLines

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University of Nebraska Viticulture Program

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Stephen J. Gamet, Department of Agronomy & Horticulture**

MECHANICAL GRAPE HARVESTER FIELD DAY
RESCHEDULED!



The Machine Harvester Field Day originally scheduled for August 27th has been postponed to September 19, 2011 at Ida's Vitas Vineyard near Roscoe, Nebraska.

Registration will begin at 9:30am and the program and demonstration will begin at 10:00am. The western Nebraska growers associated with 5 Trails Winery have taken delivery of a machine harvester and will be discussing and demonstrating its merits at this field day. The equipment to be demonstrated is a Korvan over the row grape harvester, Model 3616, which just removes the berries. It has already demonstrated its usefulness with a successful harvest of Edelweiss last week. For details of registration and directions to IdaVitar's Vineyard, see the UNVP web site <http://agronomy.unl.edu/viticulture> or contact Paul Read (402-472-5136, pread@unl.edu) or Steve Gamet (sgamet@unl.edu). The registration fee of \$15.00 includes lunch and handouts. ♦

SUMMER VINEYARD MANAGEMENT FIELD DAY
– HOT, but GREAT DISCUSSIONS!

Petiole sampling, crop estimation and summer vineyard management were the topics for focus at the July 30 Field Day held at Prairie Creek Vineyards near Central City, Nebraska. Procedures for petiole sampling were demonstrated and a lively discussion followed with regard to interpretation of results and recommendations for subsequent nutrient applications. A general rule of thumb is to use soil fertilizer applications for macronutrients and foliar sprays for micro-nutrients, if analyses indicate the need for micronutrients, if analyses indicate the need for additional nutrients. Crop estimation approaches were demonstrated and discussed, including reasons for the importance of crop estimation (valuable information for both the grower and for winery personnel). Further discussions about recommended summer vineyard management tasks ensued, with special attention to disease and weed management. Despite the very hot weather, attendees were a lively bunch, asking great questions and networking with each other, so it was a most successful Field Day.

We appreciate Nick Ryan and family hosting the participants at Prairie Creek Vineyards. ♦



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DISEASE MANAGEMENT SUGGESTIONS FROM DR. TONY K. WOLF

Although published by Dr. Tony K. Wolf* from Virginia Tech for Virginia grape growers, the following are a synopsis of advice that can be taken to heart by Nebraska grape growers.

- Late Season Fungicides
 - Phosphorous Acid (downy mildew)
 - 0 day PHI; 4 hour re-entry
 - Elevate (botrytis)
 - 0 day PHI; 12 hour re-entry
 - Captan (downy mildew; non-botrytis bunch rots)
 - 0 day PHI; 72 hour re-entry
 - Control
 - Picked w/phos acid treatment

- What have others learned? Phosphorous Acid
 - Australian vineyards refrain from use in grapes for wines intended for export (MRLs in some nations)
 - Compound is stable, persistent
 - Found in grapevines after season when sprayed on foliage
 - No indication of impacts on fermentation, flavors

- What have others learned? Captan
 - Captan has little impact on production (Acree et al., 1972)
 - Maneb, mancozeb, dinocap and captan are toxic to *S. cerevisiae* (Conner, 1983).
 - Only Dithane (mancozeb) and Captan/Captec labeled in NY
 - Dithane PHI = 66 days

- What have others learned? Elevate
 - Fenhexamide did not affect alcoholic or malolactic fermentation (similar results with Vanguard and Scala)
 - Fenhexamide residues in wine decreased by fermentation on skins
 - Fermentation did not degrade fungicide and later paper (2003) suggested yeast wall components (chitin and glucans) adsorbed residue

Cabras et al, 2001. Food additives and Contaminants 18:625-629)

Cabras et al., 2003. J.Agric. Food Chem. 51-5022-5015

Information from T. Wolf, Late-season disease control options to manage diseases.

*Dr. Tony K. Wolf was a featured speaker at the 5th Annual Nebraska Winery and Grape Growers Forum & Trade Show in Kearney, Nebraska, March, 2002. ♦



Variety and storage time affect the compositional changes that occur in grape samples after frozen storage

by S. GARCÍA, L.G. SANTESTEBAN, C. MIRANDA, J.B. ROYO

I am often asked what effect does placing harvested grapes in frozen storage have on wine made from such grapes. The article by Garcia, et al. shows that changes may occur; some could be positive, some negative.

Quality parameters were assessed in fresh Cabernet Sauvignon (CS), Grenache (GA) and Tempranillo (TE) grapes and after 1, 3 and 6 months of frozen storage. Soluble solid concentration remained unchanged. Freezing decreased titratable and tartaric acidity. pH increased after 1 and 3 months of storage, but decreased after 6 months. Freezing increased malic acid concentration only in GA. Yeast assimilable nitrogen diminished with freezing time, with each variety behaving differently. A significant colour enhancement was found, whereas degradative reactions for polyphenols occurred at any storage time for GA, and for all varieties after 6 months.

Conclusions: Variety and storage time play a large role in the changes occurring in stored frozen grape samples. Not considering these factors may lead to misinterpretation of results obtained through subsequent use of these grapes. ♦



Effects of Fruit-Zone Leaf Removal, Training Systems, and Irrigation on the Development of Grapevine Powdery Mildew

Craig N. Austin^{1,*} and Wayne F. Wilcox¹

Abstract: Removing basal leaves 2 weeks postbloom significantly reduced powdery mildew severity on clusters in each year of a study in a New York Chardonnay vineyard. In contrast, removing leaves 5 weeks postbloom had no effect. The effect was not significantly different whether one leaf or two above and below each cluster was removed. Shoot density of vertical shoot-positioned (VSP) vines was lower than that of Umbrella-Kniffen vines and was associated with a significant reduction in disease development in one year of the study. When VSP-training was combined with early leaf removal in the absence of fungicide sprays, it reduced mean disease severity by 32% relative to untreated clusters on Umbrella-Kniffen-trained vines. However, there was no effect of training system in the second year of the study. In South Australia, doubling the volume of irrigation water supplied to vines that received a standard reduced deficit irrigation program resulted in two- and seven-fold increases in foliar powdery mildew severity in two consecutive seasons. Results highlight that viticultural practices targeted primarily at controlling vine growth and crop quantity and quality can also significantly affect the development of powdery mildew.

Important Conclusions were that basal leaf removal consistently reduced disease severity on fruit when performed two weeks postbloom, while berries were still highly susceptible to infection. In contrast, leaf removal five weeks postbloom, had no effect on disease severity. ♦

¹ Department of Plant Pathology and Plant-Microbe Biology, Cornell University, New York State Agricultural Experiment Station, Geneva, NY 14456.

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SAVE THE DATE!

· September 19 – Mechanical Harvester Field Day
Ida's Vitas Vineyard, Ogallala, NE.

The western Nebraska growers associated with 5 Trails Winery have taken delivery of a machine harvester and will be discussing and demonstrating its merits at this field day.

More details about this Field Day will be available soon.
Watch our web sites <http://agronomy.unl.edu/viticulture>, the
NWGGA Growers Council emails and future mailings. ♦

For more information about these events and other
important updates, visit us on the Web at:
<http://agronomy.unl.edu/viticulture>.

Nebraska VineLines Calendar of Events

- 27th Annual Midwest Grape & Wine
Conference and Trade Show
Thursday, February 9 to Sunday, February 12, 2012
St. Charles Convention Center, St. Charles, MO
Rozanna Benz, Conference Director
Phone: 573-236-4629, email: rbenz@vwm-online.com
- September 19, 2011 – Mechanical Harvester Field Day
Ida's Vitas Vineyard, Ogallala, NE. ♦

Future Nebraska Winery & Grape Growers Forums

- 2012 – March 1-3, Holiday Inn, Kearney
- 2013 – February 28, March 1 & 2, Holiday Inn, Kearney
- 2014 – February 27-28, March 1, Holiday Inn, Kearney

