



Nebraska VineLines

UNIVERSITY OF
Nebraska
Lincoln® | EXTENSION

June 2012
Volume: XIV — Issue: 2

University of Nebraska Viticulture Program

**Editors: Dr. Paul Read, Professor of Horticulture & Viticulture and
Stephen J. Gamet, Department of Agronomy & Horticulture**

15th Forum and Show Highly Regarded

Now that the 15th Annual Nebraska Winery and Grape Growers Forum and Trade Show are history, perhaps a few notes are worth mentioning. Based on the participant evaluations, the vast majority of attendees were satisfied with the organization and quality of the conference. A few comments included, “Loved the speakers this year – A-plus! Best in years!” “I liked the information and interacting with others,” “After 11 years of attendance, we still learn something every year,” and “Will attend next year for more information.” Specific comments about the speakers will be shared with them, but the evaluations clearly were highly positive.

Suggestions for improving the conference were received and will be considered by the Organizing Committee for the 16th Annual Nebraska Winery and Grape Growers Forum and Trade Show to be held at the Kearney Holiday Inn, February 28th–March 2nd, 2013. Additional comments and advice will be gratefully received and given serious consideration as we strive to make the Forum of value to the Nebraska grape and wine industry.

What a Wacky Growing Year!

With one of the mildest winters on record, and early, warm spring weather, an early bud break seemed to be a recipe for disaster; that is, early bud break and shoot growth that would be vulnerable to damage by late freezes or frosts. However, for most vineyards in Nebraska, the “other shoe” didn’t fall – that is, late cold temperature events were few or

See page 2, Wacky

One special note: There will be an increased “Nebraska Flavor” for the 16th Forum program. Ideas or suggestions for speakers or topics will be helpful as the Organizing Committee pursues this focus.

Please send your suggestions and comments to:
16th Forum Organizing Committee
c/o University of Nebraska Viticulture Program
University of Nebraska
Lincoln, NE 68583-0724

VineLines Goes Electronic

The Nebraska VineLines, from this issue forward, will be provided electronically via email to those for whom we have email addresses. **If you receive this issue by email and wish to receive future issues by email, you do not need to do anything further.**

If you only received a hard copy but would like to be added to the list of those receiving the Nebraska VineLines via email, please send your email address to Kathy Schindler at kschindler1@unl.edu. The Nebraska VineLines will continue to be archived on the University of Nebraska–Lincoln Viticulture Program website at <http://agronomy.unl.edu/viticulture>. If you wish to continue to receive the Nebraska VineLines as a hard copy through the U.S. mail, please send a note (see below) indicating that you wish to continue receiving the Nebraska VineLines in the mail. **If we**

See page 2, Electronic



Extension is a division of the Institute of Agriculture and Natural Resources at the University of Nebraska–Lincoln cooperating with the counties and the United States Department of Agriculture.

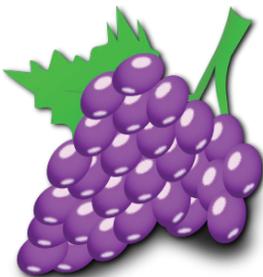
University of Nebraska–Lincoln Extension educational programs abide with the nondiscrimination policies of the University of Nebraska–Lincoln and the United States Department of Agriculture.

Wacky, from page 1

of little consequence. Then for many areas, good to excellent fruit-setting weather was experienced, to the point that I was cautiously anticipating the best, or at least one of the best, grape harvests ever experienced in the modern grape-growing era in Nebraska.

However, reports have come in that severe damage from herbicide drift has caused extreme crop reduction on a number of vineyards. It is heart-breaking to see the damage that I have seen in several vineyards. Add to that problem, serious hail damage occurred in central Nebraska on Saturday, May 19, essentially eliminating some grape crops in that locale.

For those whose crops have so far escaped significant damage from cold temperatures, herbicides, hail, or other problems, a good harvest is still anticipated for the Nebraska industry. Nebraskans are resilient folks, so we'll keep growing great grapes and making wonderful, award-winning wines as our industry continues to grow and prosper.



Electronic, From Page 1

do not receive your written response, we will discontinue sending the Nebraska VineLines by mail to you.

Why are we making this change? Timeliness and money. By sending information by email, we can send timely tips without waiting to compile, print and mail hard copies of the Nebraska VineLines. There also will be significant savings in printing and mailing costs. We hope you enjoy this new approach to communicating with you, our valued clientele.

_____ Yes, I wish to continue to receive a printed copy of the Nebraska VineLines via U.S. mail. My mailing address is:

Name: _____

Street, road or other address: _____

City, State, Zip: _____

Please also include your telephone number:
_____ (optional)

Please clip out this form and mail to Kathy Schindler, University of Nebraska-Lincoln, Agronomy & Horticulture Department, 279 PLSH, Lincoln, NE 68583-0915.

Plan to Complete Early Summer Vineyard Tasks

As spring moves into summer, it is important to remain vigilant and persevering with vineyard management tasks. Although it might be tempting to sit on the veranda and sip one or more of those great Nebraska summer wines (Edelweiss, one the many lovely “blushes,” Lacrosse, Traminette and Brianna, to name a few) and contemplate the meaning of life (it’s a great life here in this paradise we call Nebraska!), it is critical to follow your vines as carefully as at other times of the year. In particular:

1. Walk your vineyard rows and monitor for insect and disease problems. Remember, a hornworm can strip a cane of all green vegetation overnight.
2. If insect or disease problems are apparent, follow recommendations found in the Midwest Commercial Small Fruit and Grape Spray Guide (available from the UNL Viticulture Program, call 402-472-5136 or email pread@unl.edu).
3. Provide irrigation as needed, especially in dryer areas of the state. Avoid excessive irrigation.
4. Discontinue fertilization with nitrogen and potassium. Excess vegetative growth is encouraged by excess nitrogen and excess moisture.
5. Evaluate your vines for obvious symptoms of micronutrient deficiencies, especially if your vineyard site is on soils of high pH. Correct by application of appropriate foliar micronutrient sprays.
6. Continue weed control measures. Weeds compete with the vines for water and nutrients.
7. Canopy management: Remember Richard Smart’s admonition that our goal is to turn the light energy of the sun into chemical energy via photosynthesis, that is, turn “Sunlight into Wine.” This requires good fruit and leaf exposure. When leaves shade each other, very little light strikes the lower (shaded) leaf, so minimal photosynthesis takes place. Ideally, the flower/fruit clusters have been exposed to light since fruit set, thus avoiding sunscald problems.
8. Consider taking petiole samples at veraison for tissue analysis by an appropriate laboratory.
9. Evaluate potential crop load. Is it predicted to be at or near desired yield levels? Count clusters on several vines for a given cultivar, multiply the average cluster number by the number of vines per acre and then multiply that number by the average weight per cluster for that cultivar based upon records for that vineyard.
10. **Keep good records.** As you approach harvest, be sure that you have all necessary harvest equipment clean and ready, including a scale to determine cluster weights.

Tips on Grape Fertilization and Nutrition

There have been many questions raised regarding the “care and feeding” of grapevines in Nebraska vineyards in the past few years. There has been considerable attention given to these subjects in the press, by the workshops held previously and at a variety of conferences and other educational programs. A few key observations emerge as worthy of remembering.

1. Too much is worse than none at all. Adequate levels of nutrients already exist in many Nebraska vineyard soils. Adding more fertilizers, especially nitrogen (N) can lead to excessive vine growth and unbalanced vines. Excessive levels of nutrients cause reduced wine quality and may cause reduced vine quality and yields.
2. Do your homework – Soil tests before planting can greatly assist one in determining fertilizer needs, if any. Foliar analysis, or tissue testing, is useful after the vineyard has become established – young vines seldom exhibit the true nutritional condition, but as vines mature and enter the fruiting period, stresses will begin to emerge if nutrient deficiencies begin to appear.
3. Foliar versus soil application? In general, it is best to apply macronutrients (N, P, K, Ca, Mg, S) as soil applications and micronutrients (Fe, Zn, Mn, Cu, B, Mo) as foliar applications. Countless studies have shown that little uptake of macronutrients takes place when applied as foliar ap-

plications, but it is generally agreed that micronutrients applied as foliar applications are indeed effective, probably because they are needed in such small quantities (“micro”).

4. Because phosphorus is very immobile in the soil, if soil tests show a need for additions, it is very helpful to apply phosphorus before planting and working it into the soil, preferably to a depth of at least 10 to 12 inches (25-30 cm).
5. Most Nebraska soils are relatively high in potassium, so application of potassium (“potash”) is rarely necessary. Overfertilization with potassium can cause high levels in the fruit and may lead to high pH levels in wines. Australian work has shown that high levels of K can also alter the color of red wines in a negative fashion, causing lower levels of anthocyanins in the fruit and thus in the wine (Walker, Read and Blackmore, Australian J. Grape and Wine Research 6:227-239).
6. Application of macronutrients through the irrigation systems will make the fertilizer available more rapidly than application of dry fertilizer to the soil surface. Soluble nutrients such as N and K can be easily leached into the root zone when applied to the soil surface if followed by rain or irrigation.
7. Application of fertilizers late in the season is extremely undesirable. Late-season applications may stimulate excessive vegetative growth and lead to poorly hardened vines that are vulnerable to winter damage. In addition, little uptake occurs after the leaves begin to senesce, or shut down, so application of fertilizers in the fall is usually of little use.

More on this subject will be discussed in future issues.

What does your Crop “Mine” from the Soil?

The accompanying table gives a rough estimate of nutrients removed by various crop yields. Note that none

of the numbers are very large. Petiole and soil tests should be conducted before planning additions of fertilizer. Also, observe visual symptoms, especially to evaluate micronutrient deficiencies such as iron, zinc and boron. Remember that a significant amount of nitrogen is released by mineralization of the organic matter in the soil, so modify your nitrogen applications accordingly.

Pounds per acre of nutrients removed with harvest					
Tons/acre of grapes	N	P	K	Ca	Mg
1.0	2.9	0.6	4.9	1.0	0.2
1.5	4.4	0.8	7.4	1.5	0.3
2.0	5.8	1.1	9.9	2.0	0.4
2.5	7.3	1.4	12.4	2.5	0.5
3.0	8.8	1.7	14.8	3.0	0.6
3.5	10.2	2.0	17.3	3.5	0.7
4.0	11.7	2.2	19.8	4.0	0.8
4.5	13.1	2.2	22.2	4.5	0.9
5.0	14.6	2.8	24.7	5.0	1.0
5.5	16.1	3.1	27.2	5.5	1.1
6.0	17.5	3.4	29.6	6.0	1.2
6.5	19.0	3.7	32.0	6.5	1.3
7.0	20.5	4.0	34.4	7.0	1.4
7.5	21.90	4.3	36.8	7.5	1.5
8.0	23.4	4.6	39.2	8.0	1.6
8.5	24.9	4.9	41.6	8.5	1.7
9.0	26.4	5.2	44.0	9.0	1.8
9.5	27.8	5.5	46.4	9.5	1.9
10.0	29.3	5.8	48.8	10.0	2.0

Cellar 426 is Newest Winery

Visitors have begun to discover Nebraska’s newest winery, Cellar 426. Located near Ashland, the imposing winery and tasting room is easily accessed by exiting Interstate Highway 80 at Exit 426, and travelling north a few short miles, hence the name.

There is an excellent view to the north from the tasting room where their wines can be tasted. More wine selections will be forthcoming as Rich and Amy Hilske develop their winery enterprise. As their grapes become more mature, we can hardly wait to taste their future offerings. Why not “exit at 426” and visit Nebraska’s newest winery in the near future?



Nebraska VineLines Calendar of Events

The Northern Grapes Project Webinar Series
Winery Sanitation Basics
Tuesday, June 12, 2012

11:00 a.m. Central or 6:00 p.m. Central

Randy Worobo, an Associate Professor in the Department of Food Science at Cornell University, is a well-known food safety expert. He has presented many winery sanitation workshops for the wine industry in California, and will cover the basics of winery sanitation in this webinar.

Registration is free, but required. To register, fill out the online form posted at: https://cornell.qualtrics.com/SE/?SID=SV_bDhUgisTebHHmQc. Registration is open through Friday, June 8th.

Future Nebraska Winery & Grape Growers Forums

2013: February 28, March 1 & 2, Holiday Inn, Kearney
2014 February 27-28, March 1, Holiday Inn, Kearney

Please be sure to visit us on the Web for information
and updates at:

<http://agronomy.unl.edu/viticulture>.

