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Nebraska
Lincoln | EXTENSION

University of Nebraska Viticulture Program

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August 2016
Issue XIX – 5

HARVEST EDITION

Mechanization and More Vineyard Field Day Highly Regarded

More than 40 people from Nebraska, Kansas and South Dakota attended the “Mechanization and More” Field Day held at Old Cellar Vineyards on July 16 in Arapahoe, Nebraska. Owner Gary Thompson and his staff were the consummate hosts, facilitating a program that led to many positive comments on the evaluations: “Great – Thanks”, “Great Demonstrations, Great Host”, “Excellent job, guys, Thanks again”. All attendees indicated that they had increased their knowledge in various viticulture categories when comparing their knowledge “After” with “Before” attending the field day. Also, over 70% indicated that they plan to implement one or more vineyard practices differently as a result of attending the Field Day.

University of Nebraska Viticulture Program (UNVP) director, Paul Read, welcomed the participants and presented an overview of the day’s program, followed by Gary Thompson discussing Old Cellar Vineyard’s history and special features. He also commented on the rationale and implementation of several aspects of mechanization and its benefits to the practical grape grower. Field Day attendees also learned about sap sampling, fertigation and the Old Cellar Vineyards foliar feeding program, ably discussed by Melinda Eichenberger, Old Cellar Vineyards Assistant Manager. Attendees were then treated to a walking tour of the vineyards and were impressed by the excellent fruit set and relatively disease-free vines and clusters, which Gary and Melinda attributed in part to their use of the ozone sprays, along with their nutrition program. A Braud Harvester was on display, along with the “netter-getter”, leaf puller and other equipment

intended to reduce the need for labor. Posts made from recycled plastic were also on display. The program concluded with a discussion, “Mechanization: Challenges and Opportunities”, led by Gary Thompson and Steve Gamet (UNVP), followed by lots of grower questions and lively discussion. It was generally agreed that this was one the best field days many had attended and that more of the same should be contemplated for the future.

IT’S

HARVEST TIME!

The time that we’ve all been waiting for and working toward is either rapidly approaching or now upon us. Many Nebraska vineyard managers are looking at a good-to-great crop. Unfortunately, a few have vineyards that have been decimated or destroyed by hail or wayward herbicide drift, and to those we offer condolences with hopes for a better year in 2017. If you experienced hail damage, please see Dr. Annamiek Schilder’s excellent write-up prescribing appropriate measures to consider following a serious hail event (elsewhere in this issue of the Nebraska VineLines).

By now most of you probably have your bird deterrents in place, including netting, but following are some other pre-harvest guidelines to consider:

- Avoid applying copper sulfur, captan or some other fungicides within 30 to 45 days of your anticipated harvest date. Sulfur and copper can cause off-tastes in wine, while captan (and possibly other fungicides) may interfere with fermentation.
- Maintain a functional canopy for long enough to fully ripen the grapes; this may require

application of fungicides to control downy and/or powdery mildew.

- Scout for late-season bunch rots. Some bunch rot-prone cultivars such as 'Vignoles' can be particularly affected by *Botrytis* and other rots. Some bunch rots are especially aggressive if berries have been damaged by birds, hail, insects or powdery mildew.
- Be alert to potential problems that may be caused by opportunistic insects such as multi-colored Asian lady beetles (MALB), stink bugs, spotted winged drosophila, Japanese beetles, and of course wasps such as yellow jackets. If a particularly significant infestation occurs, please alert us at the University of Nebraska Viticulture Program (pread@unl.edu, sgamet@unl.edu).
- When using any fungicides or insecticides, be sure to be aware of and follow pre-harvest intervals and re-entry times for crop quality and for you and your workers' protection.

FALL WORKSHOP TO FOCUS ON HERBICIDE DRIFT

This year's Fall Workshop will be held on November 5, 2016 at the Southern Heights Presbyterian Church, corner of Old Cheney Road and South 40th streets, Lincoln, Nebraska. Problems associated with herbicide drift and volatilization and the impact on Nebraska and Midwest vineyards will be the primary focus of this workshop. Sponsored jointly by the University of Nebraska Viticulture Program (UNVP) and the Nebraska Winery and Grape Growers Association (NWGGA), topics will include discussions of steps to take if a drift event has impacted your vines, possible remedial measures and other weed management issues. More details, including speakers, additional topics and times will be available in the near future on the UNVP web site (<http://viticulture.unl.edu>) and in future issues of the Nebraska VineLines. This is an especially timely event – be sure to put it on your calendar!

Protect hail-damaged grape clusters from *Botrytis* infection

Annemiek Schilder, Michigan State University Extension Plant Pathologist, recently reiterated her reminder regarding appropriate measures to protect hail-damaged grapes. She points out that "it is advisable to apply fungicides to hail-damaged grape clusters as soon as possible to control bunch rot." Her posting of August 4, 2015 is right on target and worth reviewing in case you've experienced hail damage to grapes, now or at some future time (I hope you don't.)



Hail and high wind injury to grape fruit and foliage in the variety trial vineyard at the Northwest Michigan Horticulture Research Center.

Recent hail storms have caused serious damage to grapes in northwest Michigan. Canes have been gouged and blown off the trellis, leaves are tattered and berries have been split open. Wounds on leaves and canes will probably not have any major further consequences unless crown gall bacteria present on the vines take advantage of the wounds to enter canes, therefore keep an eye out for possible crown gall development. However, injured berries are easy prey for rot organisms, particularly the fungus *Botrytis cinerea*, which causes *Botrytis* bunch rot.

While the injured berries themselves may not be salvageable and will eventually shrivel up, we don't want to invite *Botrytis* to establish itself in the cluster as it may cause problems later during fruit ripening. *Botrytis* is somewhat of an opportunistic pathogen, invading weakened, damaged or senescent plant tissues. The spores are ubiquitous in the air as the fungus is capable of abundant sporulation on dying plant tissues under humid conditions and the spores are easily windborne. The fungus may also already be present in the clusters as latent infections since bloom. It is therefore advisable to apply fungicides to damaged clusters as soon as possible, especially if rain or humid weather is in the forecast.

The following fungicides are registered for bunch rot control on grapes. Systemic fungicides are recommended for better coverage and some "back action" in damaged grapes. Of the fungicides listed below, Luna Tranquility is probably the strongest material at this time with two active ingredients with *Botrytis*-specific activity. Use the highest labeled rate for curative activity and alternate

fungicides in different chemical groups for fungicide resistance management. Remember that the biologicals are protectants only and have moderate activity against Botrytis while the conventional fungicides have good to excellent activity against Botrytis. Read the label for tank-

mix compatibilities, recommendations for adjuvants and restrictions on the number of sprays per season. For efficacy ratings and additional information, see the “[2015 Michigan Fruit Management Guide](#)” ([Michigan State University Extension](#) Bulletin E0154).

Fungicides registered for bunch rot control on grapes					
Fungicide	Chemical group	Active ingredients	Rate per acre for Botrytis	Pre-harvest interval (days)	Comments
Rovral	2	iprodione	1.5-2 pounds	7	Add a non-ionic spreader
Elevate	17	fenhexamid	1 pounds	0	No comments
Endura	7	boscalid	8 ounces	14	No comments
Pristine	7+11	Pyraclostrobin + boscalid	18.5-23 ounces	14	No comments
Luna Tranquility	7+9	fluopyram + pyrimethanil	16-24 fluid ounces	7	Add a light rate of a non-ionic spreader; for wine grapes only
Scala	9	pyrimethanil	18 fluid ounces	7	Use 9 fl oz in tank mixes
Vanguard	9	cyprodinil	5-10 ounces	7	No comments
Inspire Super	3 + 9	difenoconazole + cyprodinil	16-20 fluid ounces	14	Do not apply to Concord or Thomcord grapes; only the cyprodinil component is effective against Botrytis
Switch	9+12	cyprodinil + fludioxonil	11-14 ounces	7	No comments
Serenade Max	44	<i>Bacillus subtilis</i>	1-3 pounds	0	Biofungicide, for organic grapes; Add Nu-Film P
Botector	NC	<i>Aureobasidium pullulans</i>	5-10 ounces	0	Biofungicide, for organic grapes
Regalia	NC	Giant knotweed extract	1-4 quarts	0	Plant extract, for organic grapes

Harvest Time is Upon Us!

If using a machine harvester, here are some tips for safe grape harvest machinery operations.

Here is some of the advice offered by presenters at a Fresno program on safety when operating mechanical harvesters for wine and raisin grapes.

- Fasten your seat belt if you are operating a tractor that has a rollover protection structure. It can prevent injury by avoiding being jostled about within the device or thrown from it.
- Avoid operating tractors near ditches, embankments, and holes. And stay off sloped that are too steep.
- Keep guards and shields on harvesters at all times. Always shut off the engine and wait for all movement to stop before removing guards and shields.
- Keep hands, feet, and clothing away from power-driven parts, including the picking mechanism, blowers, and conveyors while the engine is running.
- Do not clean, lubricate, or adjust the harvester when it is running.
- Before leaving the harvester unattended, engage the parking brake, shut off the engine, and remove the keys. Never leave a harvester in an area accessible by children.
- Sound the horn twice to warn others before starting a harvester’s engine.

- Survey the area to be harvested for low hanging limbs, wires, or other obstacles that will obstruct the path of the harvester or gondola.
- To avoid electrocution and machine damage, do not operate harvesters or gondolas within 15 feet of electrical wires.
- With continuous paper tray machines, it's better to load or unload the paper in a cradle outside of the machine.
- It's best to use eye protection and possibly a respirator because of dust created in some harvesting operations.
- If you see an electrical wire on the ground, call 911 or the utility company.
- If a vehicle hits a power wire, jump from it and do not touch it once outside of the vehicle. If

you dig up a piece of cable, call for help and either remain on the tractor or jump clear of it.

- When operating over-sized, slow-moving equipment on roadways, try to pull over to let drivers pass, but be aware of clearances from ditches or canals.

Source: Western Farm Press

National Food Entrepreneur Program Seminar

The University of Nebraska Food Processing Center is offering a one-day seminar for all individuals interested in exploring the idea of starting a food manufacturing business. "Recipe to Reality" seminar will be offered on October 8, 2016. Pre-registration is required and space is limited. Registration deadline is September 20, 2016. Contact Jill Gifford at 402-472-2819 or jgifford1@unl.edu for an information packet.

Reminder Calendar:

October 8, 2016 "Recipe to Reality" seminar, University of Nebraska Food Processing Center, Pre-registration required, space is limited. Registration deadline is September 20, 2016. Contact Jill Gifford at 402-472-2819 or jgifford1@unl.edu for an information packet.

November 5, 2016 Fall Workshop, Lincoln, Nebraska

March 2-4, 2017 Annual Nebraska Winery and Grape Grower Forum and Trade Show. Details will be announced soon in the Nebraska VineLines and on the University of Nebraska Viticulture Program web site. Mark your calendars for what will be an exciting and landmark conference.



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