WASHINGTON STATE GRAPE SOCIETY
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www.grapesociety.org

## Links to Articles:



# April 2010 Newsletter

## Are you a Nozzle Head!

The idea behind any spraying is to *get every drop to the crop*. From our work this summer, we saw that more than half the nozzles on airblast sprayers were clogged and giving too little (up to -43%) or worn and giving too much (up to +45%). There are clear obvious things we can do to improve this.
While ceramic nozzles are more expensive initially, they do not need to be replaced as frequently and there is cost savings in not over applying chemicals.

The majority of clogged nozzles were from clogged screens. Washing or replacing screens is an expensive task that can be done every 2-5 sprays. Needless to say the applying less chemical (intentional or not) can lead to more costly outbreaks.

For a quick and easy way to test nozzle output, attach a hose to each nozzle and measure the output in a measuring cup. Check that the flow over time is correct. Alternatively, attach a flow meter to each nozzle, then divide the output by 128 (# oz/gallon) to get GPM. For example if you have 40 oz from the flow meter, divided by 128 = 0.31 GPM. Is this the value recommended by the manufacturer for your disc and spinner combination? Check a nozzle catalog if you are unsure. Replace or clean any nozzles that are more than 10-20% off.

For more tips on how to improve your sprayers go to the Pesticide Application Technology site. http://www.nysaes.cornell.edu/ent/faculty/landers/pestapp/.

## Optimizing Plant Spacing for Concord Grapes

Concord vines were planted at WSU-IAREC (Roza Unit) in 2003 at varying planting distances.
Dr. Markus Keller and his team at WSU have used this experimental vineyard to identify the optimal planting distance for mechanized Concord production with the aim of maximizing profits for growers through balanced vegetative and reproductive growth while minimizing labor costs.

***The Vineyard***
Concord grapevines were planted at two row spacings (8 and 9 ft) and four vine spacings within the row (3, 6, 9, and 12 ft). Yield, fruit composition, canopy size, and light penetration are measured to estimate the influence of plant spacing on vineyard productivity.

All vines are drip-irrigated and are grown with a permanent mid-row cover of resident vegetation with a 3 to 4-ft herbicide strip under the vines. In 2008 the vines were machine-pruned followed by manual adjustment to about 22 buds per foot of row (130 buds per 'standard' 6-ft vine). This was followed by machine pruning with only minimal manual touch-up in 2009, and the vines are currently being transitioned to minimal pruning (skirting only).

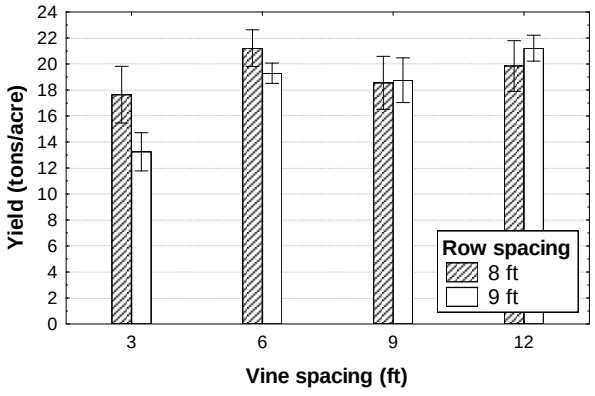
***The Outcomes***
Results over the past few years have been similar. The row spacing (8 or 9 feet) had little effect on growth and fruit quality, but vine spacing greatly affected shoot vigor and canopy size, light penetration into the canopy, yield, and fruit quality.

Higher planting distance was associated with more clusters per vine (91 at 3-ft compared to 428 at 12-ft) and heavier clusters (91 g at 3-ft compared to 103 g at 6, 9, and 12 ft). This was likely caused by fewer flowers/cluster and lower fruit set in vines planted at higher densities.

The 3-ft vines compensated for their lower bud and shoot numbers by growing more vigorously: by veraison their shoots grew to 72" compared with 57" on all other vines, regardless of row distance. These differences were caused by large differences in canopy density among within-row planting distances. The canopy surface:volume ratio of the 3-ft vines was 21% lower than that of all other vines. Although the 3-ft vines had a 27% larger exposed canopy surface area compared with other vines, their higher number of leaf layers (i.e. higher canopy density) prevented the light from reaching the fruiting zone. In 2009, only 2% of the above-canopy light reached the fruit zone of 3-ft vines, whereas the remaining vines on average received 10% of ambient light.

In 2009, average yields (18.7 tons/acre) were 67% higher than in 2008 (11.2 tons/acre) and 82% higher than in 2007 (10.3 tons/acre). Vine but not row spacing continued to influence yield: the crop of the vines planted to 3 ft in the row was only 78% (15.4 tons/acre) of those planted to 6, 9, or 12 ft (19.8 tons/acre; Fig. 1).

Despite the differences in yield (Fig. 1), planting distance did not impact soluble solids and color, but the juice from 3-ft vines had higher titratable acidity, pH, and potassium than juice from vines spaced further apart.



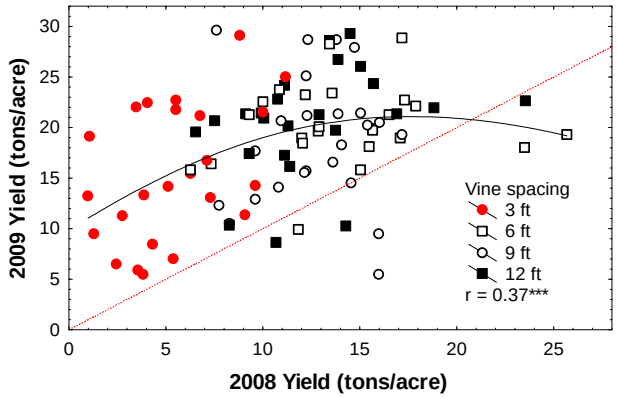




**Fig. 1:** Seventh-year yield (left) and association between current and last year yield (right) of Concord grapes in the WSU-IAREC research vineyard as affected by row and vine spacing in 2009.

Overall, these results show that the high canopy density and associated poor light penetration into the fruit zone of 3-ft vines led to low budbreak (fewer shoots/ft of row), impaired cluster development (fewer flowers/cluster) and poor fruit set (fewer berries/cluster). This suggests that there is no benefit in terms of cropping potential when vines are planted at high density within rows (except in the first cropping season). On the contrary, the yield potential of these vines was compromised by their high canopy density and poor light microclimate. Clearly, these vines did not compete for water and nutrients below ground; instead they competed for light above ground.

## Reach the Grape Industry

There is a an opportunity for businesses to purchase a banner to be placed on a rotating basis on our website. The fee is $300/yr and requires a high resolution jpg file of the company's logo to be used as a link. If you are interested in this cost effective way to reach the grape industry market, please email deb@grapesociety.org

Check it out our website at www.grapesociety.org

## Farmers and Workers should make a skin check a priority

Farming has plenty of challenges, but probably one of the hazards that farmers worry about the least are the dangers from working in the sun year-round. As the harvest concludes and winter sets in, farmers should pay attention to the condition of their skin.

"More than 11,000 Americans die each year from skin cancer," says Dr. David M. Pariser, a dermatologist and president of the American Academy of Dermatology. "But when detected early, skin cancer has a cure rate of 99 percent. Since research shows farmers are among the least likely workers to receive a skin examination by a physician, it's important that farmers perform regular skin self-examinations, which could mean the difference between life and death."

It's as easy as "ABC" to remember how you can identify a mole or lesion that needs the attention of a dermatologist:
Asymmetry (one half is unlike the other)
Border (irregular, scalloped or poorly defined)
Color (varies from one area to another)
Diameter (the size of a pencil eraser or larger)
Evolving (changing in size, shape or color)

To help farmers minimize their risk of skin cancer, the American Academy of Dermatology recommends that everyone Be Sun Smart:

* Use water-resistant sunscreen with a sun protection factor (SPF) of at least 30 on all exposed skin, before heading out to the field or pasture. Re-apply approximately every two hours, even on cloudy days.
* Wear long-sleeved shirts, pants, a wide-brimmed hat and sunglasses.
* Stay in the shade when possible, and make sure your tractor has a sun umbrella. The sun's rays are strongest between 10 a.m. and 4 p.m.
* If working near water, snow or sand, seek extra shade because these surfaces reflect the sun's rays and increase your chance of sunburn.
* Look at your skin after each harvest. Ask a partner to help. If you notice any moles or spots changing, growing or bleeding, make an appointment to see a dermatologist.

The Academy offers a downloadable Body Mole Map with information on how to perform a skin exam and images of the ABCDEs of melanoma. The mole map is available at www.aad.org/checkspot. The site also has information on how to find a free cancer screening from a dermatologist in your area.

Performing a skin self-exam requires regularly looking over the entire body, including the back, scalp, soles of the feet and between the toes, and on the palms. It is important to use both a full-length mirror and a hand-held mirror to see the scalp, back and buttocks.

For more information about skin cancer, visit the SkinCancerNet section of www.SkinCarePhysicians.com.

*From The American Academy of Dermatology*

## Educational Opportunities

**Microscope Workshop: Identification of Wine Microbes**
May 15 • YVCC Grandview • Cost $150.00
Vinquiry's microbiologist Neil Brown, Ph.D. will conduct this 2½ hour seminar on microscope techniques. Topics will include general microscope maintenance, Kohler illumination, identification of wine bacteria, identification of common yeast on culture plates and under the microscope, and yeast viability staining. This hands-on class will be limited to 10 people in order for each participant to receive individual attention to further their knowledge of microbiological techniques and microscope maintenance. If possible, please bring your own microscope to the class.
Contact (509)882-7015 to register. Hosted by YVCC Vineyard & Winery Technology Program and Vinquiry, Inc.

**Vineyard Pest Scouting & Monitoring Workshop**
**Wednesday, May 5, 2010**

Botany & Plant Pathology Farm, Corvallis, OR

Choose from one of two session offerings:
Session 1: 8 AM – NOON

Session 2: 1 PM – 5 PM

Join us for a hands-on instructional workshop on various components of disease and insect pest monitoring. Four modules are designed to give you practical information and help you hone your skills for economically important and emerging pests.

Module 1: Early Season Powdery Mildew Scouting

Module 2: Insect Scouting for Key Pest and Beneficial Insects

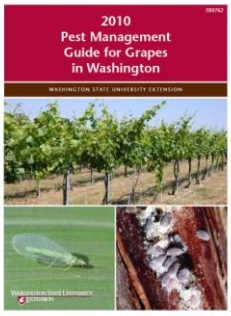
Module 3: Invasive Pest Monitoring and Prevention

Module 4: Scouting for Viruses and Nematodes

**Registration –*REQUIRED IN ADVANCE*!**
**http://hort.oregonstate.edu/ViticultureWorkshops**
Registration is $50. Space for registration is limited!
Registration deadline is 12:00 PM (NOON), April 30.
**No late registrations or on-site registration will be allowed!**

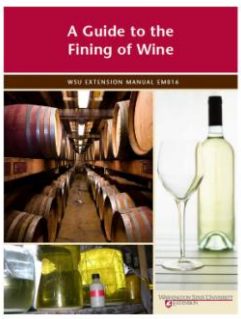
## *New Extension Publications*

*Pubs.wsu.edu*




2010 Pest Management Guide for Grapes in Washington (EB0762)

A Guide to the Fining of Wine (EM016)




## Passing of a Dear Friend and Great Grower

Lonnie Conner, 84, died February 19 at home in Pasco. He was born in Kellogg, Idaho and lived in Paso since 1953. He was a retired grape grower and an active life member of the Washington State Grape Society. Lonnie received the Lloyd H. Porter Grower of the Year award in 2000, the Walter J. Clore Award in 1992 and participated in the monthly fieldsman's breakfasts in Prosser. Lonnie's wealth of grape growing knowledge as well as his gentle and kind character will be sorely missed.

The Washington State Grape Society Board of Directors expresses their heartfelt condolences to his family and friends.

## *Dates to Remember and Things to Look Forward To:*

1st Thursday of every month
Grape Fieldman's Breakfast at the Barn in Prosser – 7: 30am

July 17 Art Walk and Wine Gala, Prosser

August 14 Prosser Wine and Food Fair at WSU-IAREC from 2-8pm

## *Washington State Grape Society*

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*Treasurer* – Ken Lewis
*Executive Secretary* – Debbi Heintz
*Newsletter Editor* – Gwen-Alyn Hoheisel
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Arthur den Hoed
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## WASHINGTON STATE GRAPE SOCIETY ACTIVITIES:

- Organizes annual Grape Seminar and Trade Show
- Posts annual Proceedings on Grape Society web page
- Provides website at www.grapesociety.org : Newsletter, Proceedings and grape resources, along with other vital information.
- Publishes Grapevine Newsletter
- Participates in the Northwest Minor Crops Field Symposium to help education EPA officials on chemical usage in grapes.
- Provides representation on WSDA Plant Improvement Committee.
- Provides free subscription to Good Fruit Grower magazine
- Serves as a unified voice on important issues
- Sponsors annual pruning strategies and demonstrations
- Supports legislative activities
- Awards annual Memorial Scholarship
- Recognizes outstanding Grower of the Year with the Lloyd H. Porter Award
- Recognizes outstanding contributions to the grape industry with the Walter J. Clore Award

**BOARD OF DIRECTORS**

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**WASHINGTON STATE GRAPE SOCIETY**
**MEMBERSHIP REGISTRATION FORM**
**Renewal Date from *: November 1, 2009 to October 31, 2010***

**Please complete this form and return with your payment to:**
**(PLEASE NOTE CHANGE OF ADDRESS)**
**Washington State Grape Society, P. O. Box 1221, Prosser, WA 99350**

Specify: _____ $ 35 Annual Membership
_____ $350 Life Membership (Ten Years)

PLEASE NOTE: Membership Fee is paid for you if you are a Milne Fruit or Smucker's Grower.

Name:_____

(please print)

Company:_____

Address:_____

Street City State Zip

Phone:_____ Fax:_____

Email:_____

**Please print clearly** – your email address is confidential and is required to receive future WSGS newsletters and e-bulletins. One address per paid membership, please.
As an ***existing*** Member, you are entitled to a Good Fruit Grower subscription. If you have not been receiving, please check here . Are you a NEW member of the Grape Society?
**PO Box 1221 Prosser, WA 99350 509.786.7888 www.grapesociety.org**