

Chrislyn Particka: A PDF version of today's presentation is now available in the "file share" pod in the middle of the screen. Click on the file name, then the "save to my computer button" and you should be good to go!

David Popp: Middleburg Heights, OH

David Hershberger: Coventry, CT

Rick Ennen: Menoken, ND

Chuck Blethen: Chuck Blethen - Jewel of the Blue Ridge Vineyard, Marshall NC

Todd: Hello, Todd Trzaskos Vermont Wine Media ( and home winemaker sitting on Frontenac Gris Rose that needs some sweet)

Tim Rehbein: Greetings from sunny Wisconsin

Andrew Weber: Andrew Weber - Valley Falls NY

Mike Gould: Mike Gould at Old Folsom Vineyard, in the Black Hills of Dakota

Patti: Patti from Waterloo, Iowa

Penny Seifert: Penny Seifert, Wahpeton, ND -- Sound is good.

Gerry Barnhart: Gerry Barnhart at Victory View Vineyard in North Easton, New York.

Tim Martinson: Hi Randy Robinson and Randy Graham - are you the 'Randys' from Hammondsport and Northeast PA?

Nathaniel Rose: St. Ambrose Cellars, Beulah (Northern West Coast), Michigan

Rob Deignan/ Hazlitt 1852: Rob Deignan from lovely Naples, NY

Steve Sagaser: HI from Grand Forks, ND

Kim Orth: Kim Orth from Nauvoo, IL

Tim Martinson: Tim from Cornell and the Northern Grapes Project here.

dean bender 2: Dean Bender: Kalamazoo,MI

Dan Young: Suttons Bay, MI

Bonnie Hadaway: Carney, OK

Russ Funk: Hi All from Alexandria MN

Frank Schieber: Frank from South Dakota checking in...Sound is 5/5

Anna Katharine: Hello all! I'm Chris' colleague, the other extension enologist at Cornell, and I'll be monitoring this chat for any questions that come up during his presentation. I'll answer as many as I can, and post answers to any we don't get to on the webpage.

murli: Murli here, coming in loud and clear.

Anna Katharine: Murli, hop in if you want to answer questions, too!

murli: Ok Anna Katharine

Andrew Weber: what form is YAN in the juice?

Anna Katharine: Andrew, YAN is some combination of Primary Amino Acids (PAN) and Ammonium ions.

Anna Katharine: The exact ratio will vary by variety, year, vineyard site, ripeness, and so on- it's quite variable, as is the total YAN concentration.

murli: yes, here in Iowa we tend to see higher values in Frontenac and Marquette

Anna Katharine: ...and in the same cultivars in NY, we see much lower numbers. The only way to know what your YAN is is to measure it- there's no good way to estimate, unfortunately.

Andrew Weber: thanks

Tim Martinson: Murli - are you talking about higher total YAN numbers or higher Ammonium vs. PAN?

kirk jones: Can we get the name of the U

murli: total YAN

kirk jones: of the UC Davis that did the research on flavor and filtering?

Anna Katharine: Kirk, I'll look it up now.

Rob Deignan Hazlitt 1852: David Block

Russ Funk: what is the fastest way to remove yeast from the wine? Right after fermentation, the wine is always so full of yeast that it plugs the filter every 50 gallons. What pore size should I start with? Or I've also read an article that 10 ppm of isinglass followed by 45 ppm bentonite is usually enough to remove the charge in the wine and the yeast precipitate out in 5 days. Have you heard of that before?

Anna Katharine: Kirk, it's Dr. David E. Block: <http://wineserver.ucdavis.edu/people/faculty.php?id=3>

Andrew Weber: what size pore for the Depth and Surface filtration?

Anna Katharine: Looks like you can find the article here:

Anna Katharine:

<http://www.winebusiness.com/wbm/?go=getDigitalIssue&issueld=5400&dataId=99941&recentArticleRedirect=true>

Russ Funk: I usually start with an 6-5 micron pad

Andrew Weber: how big is a yeast?

Anna Katharine: Russ- I'm holding your question for the moment.

Frank Schieber: great question, Russ

Russ Funk: I would like a crossflow but i need more \$\$\$

Anna Katharine: Andrew, yeast are fairly big- 5-10 microns

Anna Katharine: bacteria are much smaller and are more likely to sneak through

Anna Katharine: surface/sterile filtration is generally 0.2 microns

Anna Katharine: for a final filtration right before bottling

Nathaniel Rose 2: my understanding is about .6um is sterile and subsequently use a .45um pore membrane surface filter

Nathaniel Rose 2: am I missing something?

Todd Trzaskos - VT/NY: Has anyone here dealt with or had access to a mobile crossflow filtration unit?

Frank Schieber: 0.45 micron was my understanding as well

Nathaniel Rose 2: ignoring bacteria, how small of a pore size would I need to use to be 100% yeast free

Nathaniel Rose 2: IE what is the smallest possible viable yeast size in microns

Anna Katharine: 0.45micron will take out lactic acid bacteria, which is the one we're most worried about (beyond yeast, of course.) 0.2 microns is considered technically 'sterile,' and serves as extra insurance.

murli: Sterile filtration will make the wine sterile however, without sterile bottling the wine is still subject to contamination prior to bottling

Anna Katharine: 1 micron is the smallest yeast particle, as far as I know, but we generally are concerned about bacteria, too.

murli: still\*

Anna Katharine: Murli has a point- and in the bottling line, the fill reservoir and the fill heads are the two areas most likely to introduce contaminants.

Kevin Durland: Sterile filtering w/o sorbate with sweet wines id a great idea, but what if the cork hopper contains some yeast cells?

Nathaniel Rose 2: That is the problem I have had, contamination from some place in the bottling line post filtration

Anna Katharine: Kevin, with appropriate sanitation and cork QC, it shouldn't.

Nathaniel Rose 2: with the level of sterilization that the bottler went through I am even suspect of the air

Anna Katharine: Looks like we need a webinar on winery sanitation!

Anna Katharine: Or at least bottling line sanitation. Tim, isn't that planned in the coming months?

murli: yes, I agree Anna katharine!

Chrislyn Particka: We're hoping to get that worked out for next month!

Tim Martinson: Have asked Randy W if he's on board for June. Awaiting response

Nathaniel Rose 2: does anyone that uses sterile filtration with out sorbate worry about yeast in the air or have any air purification

Kevin Durland: Cork hopper is not an easy area to insure sterility in my opinion. I spray it with quantanary ammonia a day before bottling and sometimes use vodka.

kirk jones: what would it take to sterilize the reservoir and heads? options?

Russ Funk: I've heard of there being a bacteria phage to kill MLB, are there some out there or are they too dangerous

Anna Katharine: Nathaniel, our operations sanitation prof, Randy Worobo, has yet to find a documented case of recontamination from the air- unless there are drains near the bottling line that have been improperly cleaned, and excessive splashing leads to aerosol formation, redistributing microbes.

Chuck Blethen: When I was living and making wine in Arizona I used to use a hepa room air filter before bottling

Chuck Blethen: never had any issues

kirk jones: what would it take to sterilize the reservoir and heads? options?

Barry St.Pierre: What are the options for a small winery to measure YAN without sending samples out to lab. Lab takes too much time.

Chuck Blethen: Do you have any experience with sugar adjustments with Muscadine wines?

David Hershberger: Do we need to be concerned about sterility of NEW bottles... what if they have sat around in a warehouse or winery for a while

Anna Katharine: Kirk, because the reservoir is hard to get into, hot water is the best option- outside of the tank needs to get to 180F.

Nathaniel Rose 2: Thourough degassing i have noticed helps yeast drop out quickly after fermentation as well

Chrislyn Particka: The PDF of today's presentation is available again in the "file share" pod over on the right side of the screen.

murli: There are kits for PAN and ammonia but you will need a spec

Chrislyn Particka: Also, PLEASE take our survey! The link is in the upper right corner.

kirk jones: Thanks Anna.....how about ozonator?

Anna Katharine: Filling spouts should be cleaned with 70% ethanol or acidulated SO2 if the spouts are inactive for at least 10 minutes.

Mike Vincent: Using cold stabilization, what is the optimum temp and for how long?

randy robinson: Tim Martinson- Thanks, Randy Robinson, from the former team of Elvin Tyler and Doctor Shaulis

Nathaniel Rose 2: anna the bottling line kirk and I use is a 6 head gravity fill milk bottle filler

Anna Katharine: Chuck, sugar adjustments with muscadines will be the same as for any other species.

Nathaniel Rose 2: the resevoir is quite accessable

murli: Mike 22-24 degrees for 2-4 weeks assuming you have 12% alcohol in your wine

Frank Schieber: I prefer to backsweeten with reserve juice or concentrate but this introduces problems for protein and cold stabilization (before and after sweetening). Any recommendations here?

Nathaniel Rose 2: Chriss-- you eluded to earlier that in wines with no residual sugar you should leave yeast present, can you elaborate on that?

Nathaniel Rose 2: Frank-enzymes

Chuck Blethen: Anna, we have some special pH issues here... at harvest last year we had pH of 2.5 in our muscadine must

Nathaniel Rose 2: or light bentonite

Anna Katharine: Nathaniel and Kirk- you're lucky that you have good access! Hot water is still best, but since you can get in there you can visually inspect for both residue and nooks and crannies where bugs can hide.

David Hershberger: What would you recommend for corker sanitation, both before and during bottling?

David Hershberger: i mean sterilization

Anna Katharine: Chuck, sugar additions won't affect your pH. You may just get faster hydrolysis if you add sucrose.

Nathaniel Rose 2: anna- i take the entire bottling line apart before bottling, wash with sodium percarbonate, then 95% ethanol, then put back together set up filtration run SO2 citric acid solution thorough the system and bottleing

Nathaniel Rose 2: still have problems

Anna Katharine: I'll save this question and run it by Randy Worobo.

Nathaniel Rose 2: thanks

Dan Young: what options do organic winemakers have for achieving sweet wine stability?

Anna Katharine: One thing I can tell you is that 70% ethanol is a better choice than 95%. At concentrations higher than 70%, you're just dehydrating some microorganisms can then rehydrate and cause problems. 70% will kill them.

Nathaniel Rose 2: I can't scroll all the way up

Lynita Docken: Thank you! Great webinar!

murli: Thanks, another great webinar.

David Popp: thank you !

kirk jones: Thank you Chris!!!

Anna Katharine: Use the slider bar on the right to scroll up.

Nathaniel Rose 2: is there a way to look at the beginning of the discussion?

Nathaniel Rose 2: Thanks you guys

Todd Trzaskos - VT/NY: Thanks very much!

Barry St.Pierre: Thx, good job

Anna Katharine: THanks! Please fill out the evaluationf orm!

kirk jones: Awesome

Devin Maurer: Thanks