

Winemaker Trial

Cap Management Options for Red Wine Development

Production winemaker Andrew Brooks looks at two different extraction methods and how those methods affect the fermentation process and the resulting wine

Stacy Briscoe



Author's note: During the time of this interview, the experiment was in the early stages. Thus, the questions and answers published here are a reflection of an in-progress trial.

PHOTOS: BRYAN AVILA

ANDREW BROOKS (second from left) has been making wine in and around Napa since 2005. He's been at Ashes & Diamonds since 2017, deeply interested in making wines of restraint and integrity.

TRIAL OBJECTIVE: To understand how the process of destemming red winegrapes, as well as destemming and then crushing red winegrapes prior to fermentation, affects the resulting wine style and quality.

TRIAL DESCRIPTION: Merlot and Cabernet Franc grapes were harvested from the same vineyard blocks in Napa's Oak Knoll District. Two lots were created from each block: one in which fruit was destemmed but not crushed, and one in which fruit was destemmed and then crushed prior to fermentation. All other fermentation variables remain constant; lots are kept separate.

Lot 1: Merlot destemmed prior to fermentation

Lot 2: Merlot destemmed and crushed prior to fermentation

Lot 3: Cabernet Franc destemmed prior to fermentation

Lot 4: Cabernet Franc destemmed and crushed prior to fermentation

CONCLUSION: In progress.

Winemaker Progress Report

Why are you interested in studying different cap management techniques for red wine?

Brooks: We're interested in cap management because it's a critical tool in crafting red wines. Red wine color and texture are shaped strongly by what we do or don't extract from the fruit during the fermentation process, so this is a critical technique for us to understand. This year, we're primarily interested in understanding the difference between fruit which has merely been destemmed, and fruit which has been destemmed and then crushed prior to fermentation. To some extent we're also looking at pump-over length and frequency and fermentation temperature.

Which varieties are you running the trial on?

Brooks: So far, we've been looking at Merlot and Cabernet Franc, mostly from the Oak Knoll District of Napa Valley. We may also experiment a bit on some other fruit. The reason is mostly programmatic/logistical: We need vineyard blocks large enough and uniform enough to be split in half so we can start from a somewhat even footing. It's always a bit of an approximation with red fruit since each vine is a little different and there's no way to make the starting material truly exactly identical, but we do our best.



Critical thinking skeptic that you are, some gimmicky ad with shiny pictures and bold slogans probably won't even get your attention. Maybe a few cold hard facts and a little math will. Let's say your winery is crushing 1,000 tons of grapes, in turn aged in 1,400 French oak barrels to achieve 50% new oak. You sell 70,000 cases of wine each year, with an operating profit of \$3,000,000. Consider this: In the field of barrel alternatives StaVin is unrivalled, with 30 years of proven experience. Tirelessly hunting down vastly superior source product and continually innovating more efficient infusion techniques. Using StaVin *will* improve your wine *and* save you upwards of 94% in oak costs. Which means 33% more profit or \$1,000,000 go into your pockets, instead of directly into the trash. Got your attention now?



CANNED WINE?



CANNING + BOTTLING

HIGH CAPACITY. LARGE VOLUMES. DEDICATED TEAM.

CRAFTCANNING.COM
971-231-5497

CRAFT IS HERE TO HELP YOU MOVE YOUR SPARKLING OR STILL WINE INTO ALUMINUM CANS IN 375ml, 250ml, AND 187ml SIZES.

- LATEST MOBILE CANNING EQUIPMENT
- VELCORIN AND NITROGEN DOSING
- OUTFEED LABELING SYSTEM – THE MOST FLEXIBLE FORM OF BRANDING!
- WE COME TO YOU WITH OUR EQUIPMENT, OR COME TO US FOR CO-PACKING SOLUTIONS.

Winemaker Trial Cap Management Options for Red Wine Development



Briefly describe how you are setting up the trial.

Brooks: As mentioned above, we are comparing our standard practice (destemmed, un-crushed fruit) with fruit from the same vineyard and block, which has been crushed after destemming. We're doing our best to hold all the other fermentation variables constant so we can see the difference that crushing the fruit makes in terms of aroma, flavor, texture and yield.

Who else on the winemaking team is involved in this experiment? Do you or your colleagues have any initial predictions or desired outcomes you'd like to see at the conclusion of the trial?

Brooks: We're a small organization, so everyone on the winemaking team is involved to some extent. Steve Matthiasson is actively involved; Diana Snowden-Seysses hasn't crushed any of the fruit for her wines, but she's watching us intently to see if this technique is one she might employ in the future. Kashy Khaledi, our owner, generally gives us a wide berth to experiment, but he's always keen to know what we're up to, and to that end, he's also interested in the outcomes of this trial. I think we're expecting a bit more tannin and extraction, a bit more color and power and maybe slightly increased yields from the crushed fruit, but we'll wait to see.

How do you plan to gather and compare data?

Brooks: We're working with Peter Salamone and Bryan Avila at Research Oenovation Collective (ROC) to help structure this experiment, along with many other wineries doing similar trials. ETS is doing the phenolic analysis, and the ROC folks are gathering and crunching all the data. So, we keep a daily eye on the ferments as we would for any other fermentation, and we send some additional samples to ETS for analysis. This ensures that our data are able to be directly compared with the results from other wineries and that measurements are taking place on the same equipment and according to the same protocols, so that the results can really be compared with some measure of confidence.

Thus far, have you encountered any complications? If so, how will you address these issues?

Brooks: Nothing specifically. We don't have a large number of small, equal-sized tanks, so just having vessels in which to ferment these lots can be a little tricky. In this case, we chose fruit that would easily fit equally in two identical tanks. If we really wanted to do a lot of permutations, we'd need to outfit our cellar to more easily accommodate that.

NAPA FERMENTATION SUPPLIES

YOUR ONE-STOP SHOP SINCE 1983!



CONTACT US TODAY!

575 Third St. Bldg. A Napa CA 94559
707-255-6372 | napafermentation@aol.com
www.napafermentation.com

The non-profit **Research Oenovation Collective** leads the advancement of practical winemaking by providing a collaborative platform for applied research and innovation.



**RESEARCH
OENOVIATION
COLLECTIVE**

Become part of the force that moves winemaking forward

Membership Has Its Privilege

- Attendance at all **ROC Regional Meetings**
- Full Access to all **ROC Reports** of Research Trial Results
- Focused Discussions on Topics of Interest with your **Grower and Vintner Peers**
- Input on Annual **Research Trial Topics** with Optional Participation
- Create **Oenovation Synergy** by Collaborating within a Critical Mass organization
- Access to **ROC Exclusive Invitation Only Events** including:

ROC Appreciation Assembly

ROC Educators Forum



Members Can See the Data, Taste the Data

ROC Reports and trial wines for the **Non-Saccharomyces Yeast Trials** and the **Hyper-Oxidation of White Juice Trials** will be presented and discussed at the ROC Members Regional Meetings April 6 – 10:

DATE	REGION	LOCATION
April 6	CA - Central Coast	Paso Robles - San Luis Obispo
April 7	CA - Santa Cruz Mountains	Los Gatos - Saratoga
April 8	CA - North Coast	Napa Valley College - North
April 9	OR - Willamette Valley	Newberg - Dundee
April 10	WA - Columbia Basin	Tri-Cities - Richland

Become a part of the growing ROC family by joining at the **Membership link** on our website

www.ROCwine.org/membership-roc/ or simply call **(707) 799-9463 (WINE)**

All this for **annual membership dues of only \$350** ...don't delay – **Join Today!**



The ROC coordinates industry resources on a platform for applied research to drive wine aesthetic, production efficiency and resource sustainability through a winemaker driven agenda. ROC fills a gap in **wine industry research** by providing an unbiased **applied research** function bridging discovery and application while integrating **oenovation** in both tools and processes.

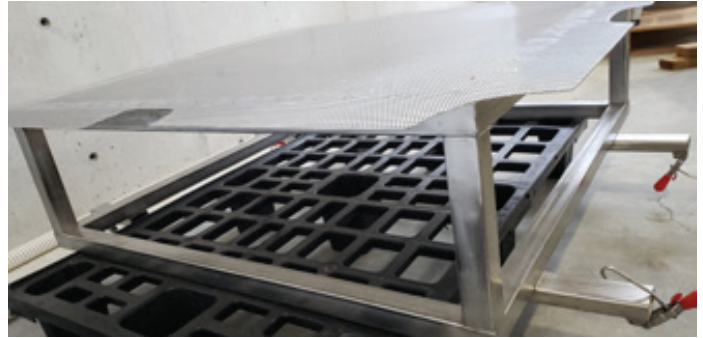
www.ROCwine.org

How far along are you in this trial? Have you been able to see any results yet?

Brooks: The first lots didn't show as much difference as we were expecting, but perhaps we were a bit too conservative with the crushing activity. One gets nervous about making the changes too extreme, and this piece of equipment was new for all of us. We'll give it another go with slightly more aggressive crusher settings and see if we see a larger difference.

Based on the outcome of the trial, do you plan to adjust any winemaking practices? Do you think certain varieties would benefit by changing the cap management routine?

Brooks: It's talked about *ad nauseam* in wine, but finding balance in structure, aroma, flavor and texture is really everything when it comes to winemaking. That "just right" spot for any given wine, from any given vineyard, in any given year is what we look for. In our specific case, because we're interested in what I tend to call "wines of restraint" (wines of moderate size and body), any specific element that's even a little bit off the mark sways the wine further than it would in a larger, more opulent wine. So, getting everything just right is all the more important. Having a deeper understanding of how to help guide a wine there and what tools can be used to help that wine best express a sense of place and time is always useful. So, yes, we may

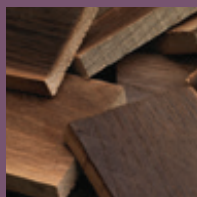
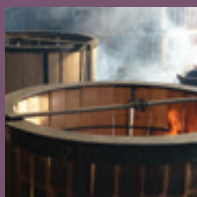
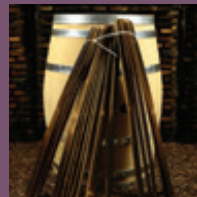


change some practices based on the outcome of this experiment. Or we may learn that this particular technique isn't a great match for the fruit we work with and the style of wine we make, and we'll try something else next year.

After this trial is complete, will you and your colleagues repeat the experiment?

Brooks: Yes, certainly! One of the central challenges of winemaking is the limited number of iterations; we only get to do this once a year, and each year produces a unique and particular set of challenges. One data point is good, but it's far from conclusive. [WBM](#)

1000 French winemakers trust VINEA oak.



INSERTS

TANK FANS

SEGMENTS

CHIPS

SQ LINE



V I N E A
Forêts et Arômes du Monde

The Inventor
of Ceramic
Toasting

The Boswell Company

145 Jordan Street • San Rafael CA 94901

(415) 457-3955 • staff@boswellcompany • www.boswellcompany.com

