West Side Wine Club

September 2014

Monthly Rant

Not moving to New Jersey.

Harvest is on. Earliest in some time, obviously. The crop is large, vineyard managers are smiling (rare in the Willamette Valley). Looks like both Eastern Oregon/Washington and the Willamette are BOTH in sync for a great vintage, which is also not so common.

Alice and I are doing some cycling in eastern Oregon in advance of picking up our first fruit order, Merlot, this Saturday. In a tasting room today we were talking to a couple from New Jersey, where they have a hard time getting Walla Walla wines due to difficult shipping restrictions. It reminds me that we are fortunate to live so close to not one but two important grape producing regions. They overhear us talking to the tasting room employee about brix levels, harvest timing, making wine, and then ask if we do so as well. "Yeah." "And about how much do you make?" is the inevitable question. "Er, well, um, we did about 3000 lb. of fruit last year." "How many bottles does that make?" "Uh, er, well, I guess its around 800-1000."

Gasping sounds.

"Well what do you do with all that wine? Give it away? You must have a lot of friends." "Yes we do…especially when it comes time to bottle." …and so on. We describe to them how much fun it is to make wine, what a challenge it is, how much its about the science and the art of it. And how we started out with just a few hundred pounds and then found ourselves in up to our necks in just few short years. Lots of work, takes over your life, etc. etc. They are entertained, but I suspect are beginning to consider us as somewhat odd. They gather up their purchases and head out.

Maybe we are swimming in the deep end without a floatation device. But on the other hand, we don't have a problem finding a bottle of Walla Walla red in the cellar whenever the urge strikes. So yeah, maybe odd but also.... incredibly lucky.

Phil Bard

Scheduled Meetings

January 11, 2014
Annual Gala – Archer Winery

January 15, 2014
Crush Talk / Planning

February 19, 2014
Bordeaux Tasting

March 19, 2014
Speaker: Andrew Beckham; amphora winemaking

April 16, 2014
2013 Barrel / Carboy Sample Tasting

April 19, 2014
Tour of Lange Winery

May 21, 2014
Speaker: Rob Landsness; A sommelier's perspective

June 18, 2014
"Best Practices of Amateur Winemakers"

July 12, 2014
Annual Picnic

August 20, 2014
All Whites Tasting

September 17, 2014
Other Reds Tasting

October 15, 2014
Pinot Noir Tasting

November
No Meeting

December 3, 2014
Planning, Tours, Speakers, Events, Elections

Information & Trivia

French vineyards hit by hail: Multiple French winegrowing regions were hit by hail in June and July, a situation one grower dubbed "a catastrophe." Hail storms wiped out more than 35,000 acres of vineyards in Bordeaux, Burgundy, Cognac and Languedoc –Roussillon. The damage comes on the heels of a problematic 2013 harvest, when growers saw fungal problems, trouble ripening fruit and low yields.

Russia considers state monopoly on wine production: The Russian Parliament a is considering proposals to introduce a state monopoly on the production of wine in Russia. The production of wine in Russia would take place only at the facilities of state-owned enterprises, and enterprises where the controlling stake is owned by the state.

How many varieties of wine grapes exist in the world today? – Over 10,000.

"**The news is good** for the wine consumer: Demand is up, supply is in good shape, and pricing is stable. For the winery, however, high grape costs and flat consumer pricing mean lower profitability. "Wineries are being squeezed and are likely to see more in the near term, being unable to pass pricing increases to consumers."
Wineries really averaged only 3.9 percent pretax profit at 2013 year end. "That's a lot less than dreamy consumers imagine who have visions of the wine business being the lifestyles of the rich and famous."

The next meeting is scheduled for Wednesday, September 17 at 7:00 p.m. at Oak Knoll Winery. Agenda : This will be member produced "Other Reds" blind tasting and scoring. This will be red varietals other than the Bordeaux varietals or Pinot Noir (e.g. Tempranillo, Syrah, Petite Sirah, Zinfandel, Sangiovese, Nebbiolo, Barbera are not Bordeaux varietals).

1.) Snacks: This will be another potluck; bring a small snack to share.
2.) Waivers will be present at the meeting. If you have not previously signed a waiver please do so at the meeting. You may also pay your 2014 dues if you have not already done so.
3.) Bring two glasses for tasting member wines.
4.) The meeting will begin at 7 pm and end by 9 pm. If you can, get there a little early to help set up. Please help put away chairs and tables at the end of the meeting.

WSWC Website: http://www.westsidewineclub.com/
Message Board: http://groups.yahoo.com/group/Westsidewineclub/

August Meeting Minutes

18 Members present

The Winemaker Magazine conference will be held in Portland, May 28-30, 2015. They have approached our club to participate in a Friday night tasting at the conference along with 15 local wineries & clubs. We would be pouring our own amateur wines to about 400 attendees. We discussed this at the meeting and decided that it would be a good opportunity for the club. There are a few unanswered questions.

Marlene Grant has reserved Archer Winery for next years Gala.

We conducted our member produced "All Whites" tasting. Below are the results in the order they were tasted.

Wine #	Name	Varietal	Gold	Silver	Bronze	None	Total Score	Medal Score	Medal	Rank
1	Rogers/Ourada	Gewurtztraminer '13	1	6	10	1	25	1.39	Bronze	5
2	Rogers/Ourada	Riesling '13			2	16	2	0.11	None	8
3	Boyechko	Pinot Gris '13	4	9	5		35	1.94	Silver	2
4	Stinger	Pinot Gris '09		6	9	3	21	1.17	Bronze	7
5	Rogers/Ourada	Niagara '13	1	4	13	0	24	1.33	Bronze	6
6	Nelson	Vionier '13	1	10	7		30	1.67	Silver	3
7	Kahrs	Chardonnay '09	4	11	3		37	2.06	Silver	1
8	Kahrs	Chardonnay '12	1	7	9	1	26	1.44	Bronze	4
9	Kipper	Chardonnay '09				18	0	0.00	None	9

For some enlightening fun the **Oregon Historical Society** has an exhibit this summer on the history of Oregon wine. There are a couple of wine tasting events and a couple lectures to complement the exhibit. It would be good entertainment for summer guests. It's called "Clink" and runs until September 20th. For more information go to http://www.ohs.org

WSWC members did quite well this year in the Oregon State Fair amateur competition winning 20 medals total including "Best of Show" for both white & red categories. Congratulations to Scott Nelson and Ted Johnson, Dennis & Marlene Grant.

Oregon State Fair

Scott Nelson	2012 Gewurztraminer	Best of Show
Ted Johnson, Dennis & Marlene Grant	2012 Zinfandel	Best of Show
Ted Johnson, Dennis & Marlene Grant	2012 Malbec	Gold
Ken & Barb Stinger	2012 Pinot Noir, Pommard	Silver
Ken & Barb Stinger	2012 Cabernet Franc	Silver
Don Hoffard & John Hooson	2010 Syrah	Silver
Paul Boyechko	2012 Cabernet Franc	Silver
Scott Nelson	2012 Primitivo	Silver
Don Hoffard & John Hooson	2010 Pinot Gris	Bronze
Don Hoffard & John Hooson	2012 Viognier	Bronze
Don Hoffard & John Hooson	2011 Syrah	Bronze
Don Hoffard & John Hooson	2012 Merlot	Bronze
Don Hoffard & John Hooson	2012 Merlot, Cabernet Sauvignon	Bronze
Ken & Barb Stinger	2012 Pinot Noir, 115/Jackson/Pommard	Bronze
Ken & Barb Stinger	2012 Merlot	Bronze
Ted Johnson, Dennis & Marlene Grant	2012 Barbera	Bronze
Scott Nelson	2011 Cabernet Sauvignon	Bronze
Scott Nelson	2011 Syrah, Viognier	Bronze
Scott Nelson	2011 Cabernet Sauvignon, Cabernet Franc, Merlot, Malbec, Petit Verdot	Bronze
Scott Nelson	2011 Malbec	Bronze

WSWC members also did well in the Willamette Valley Amateur Winemakers Society Wine Competition winning 24 medals total including "Best of Show" in the red category. Congratulations to Don Robinson & Jon Kahrs.

Willamette Valley Amateur Winemakers Society Wine Competition.

Don Robinson, Jon Kahrs	2011 Pinot Noir	Best of Show
Ken & Barb Stinger	2012 Merlot, Malbec, Cabernet Sauvignon	Gold
Ted Johnson, Dennis & Marlene Grant	2012 Barbera	Gold
Jon Kahrs	2011 Mourvedre	Gold
Scott Nelson	2012 Gewurztraminer	Silver
Scott Nelson	2010 Syrah	Silver
Scott Nelson	2011 Primitivo	Silver
Scott Nelson	2011 Cabernet Sauvignon, Cabernet Franc, Merlot	Silver

Scott Nelson	2011 Cabernet Sauvignon, Malbec, Cabernet Franc	Silver
Scott Nelson	2011 Syrah, Viognier	Silver
Scott Nelson	2011 Malbec	Silver
Jon Kahrs	2011 Pinot Noir	Silver
Ted Johnson, Dennis & Marlene Grant	2012 Zinfandel	Silver
Ted Johnson, Dennis & Marlene Grant	2012 Malbec	Silver
Viktor Tymchenko	2011 Cabernet Sauvignon	Silver
Viktor Tymchenko	2011 Syrah	Silver
Ken & Barb Stinger	2012 Cabernet Franc	Silver
Ken & Barb Stinger	2012 Pinot Noir, Pommard	Silver
Ken & Barb Stinger	2012 Cabernet Sauvignon, Merlot, Malbec	Silver
Don Robinson	2013 Gewurztraminer, Chardonnay	Bronze
Scott Nelson	2011 Cabernet Sauvignon	Bronze
Ken & Barb Stinger	2012 Merlot	Bronze
Ted Johnson, Dennis & Marlene Grant	2012 Cabernet Franc	Bronze
Ken & Barb Stinger	2012 Pinot noir 3 clone blend	Bronze

RENAISSANCE YEAST LAUNCHES MAESTOSO HYDROGEN SULFIDE-PREVENTING WINE YEAST

Maestoso joins three other hydrogen sulfide preventing wine yeasts already offered by Renaissance

VANCOUVER, BC, January 21, 2014

Renaissance Yeast Inc. is pleased to introduce Maestoso, the latest addition to its family of hydrogen sulfide-preventing wine yeasts. Maestoso joins three other Renaissance wine yeasts, Vivace, Allegro and Andante, now available for sale and use by winemakers worldwide. All were developed using traditional classical wine yeast breeding techniques.

Maestoso (pronounced mahy-stoh-soh) is a natural Rhone-style yeast that is excellent for high-sugar reds and late-harvest grapes. It is alcohol tolerant to 17 percent and is an excellent fermenter with relatively high nutrient requirements. In red wines it offers good color and structure, with aromas of black cherry and berries.

"Maestoso is a high-quality red wine yeast that will not only prevent the emergence of hydrogen sulfide in your wine, it will also open up the full expression of your vintage," said Dr. John Husnik, CEO of Renaissance Yeast. "Maestoso is an excellent addition to our family of hydrogen sulfide-preventing wine yeasts, and we will continue to add to our roster of quality yeasts in the months and years to come."

Estimated to affect more than 20 percent of wine fermentations worldwide, hydrogen sulfide [H2S] is a colorless volatile gas that imparts a distinctive unpleasant odor in fermented beverages. It has also been shown to mask or reduce positive sensory flavor attributes of wine and beer even in extremely low concentrations. Winemakers incur significant remediation costs to remove it and to counter its negative effects. The use of Renaissance Yeast H2S-preventing strains as the dominant yeast in the fermentation prevents this problem and eliminates the unnecessary costs of remediation. Winemakers already using these yeasts have also commented that the complete absence of H2S delivered by the Renaissance yeasts enables the wine to be more "open" and express its full flavor.

Not only are the four Renaissance Yeast wine yeast strains unable to form H2S during fermentation, they also have normal sulfur dioxide (SO2) production qualities, making them an ideal tool for the quality winemaker. In addition, Renaissance also offers three fully certified organic strains of these wine yeasts to provide support to organic wine growers who are unable to remediate hydrogen sulfide contamination through traditional and approved organic winemaking methods.

Role of non-*Saccharomyces* yeasts in wine production

Neil P. Jolly, ARC Infruitec-Nietvoorbij, Stellenbosch, South Africa
Cristian Varela, The Australian Wine Research Institute, Glen Osmond, Adelaide, SA, Australia
Isak S. Pretorius, Macquarie University, University, Sydney, NSW, Australia

An un-inoculated fermentation is often referred to as “natural” or “spontaneous” fermentation that involves the sequential action of different non-*Saccharomyces* and a diversity of indigenous *Saccharomyces* yeasts. The first fermentation, looking at the 7,000 years of winemaking history, was more likely the result of serendipity than design.

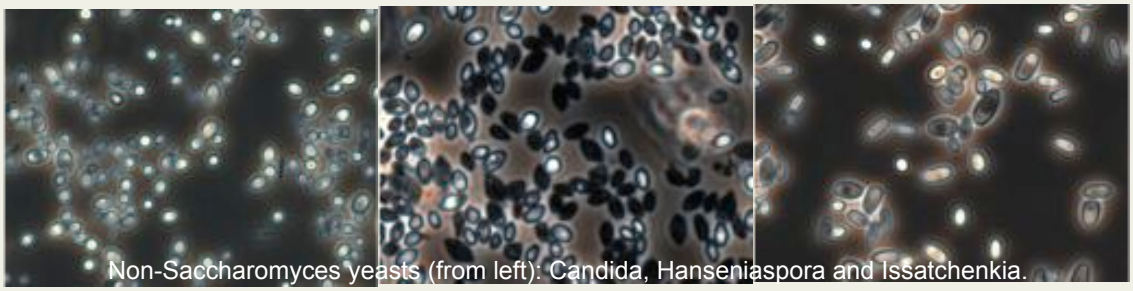
Natural yeast and natural wine: a rather unnatural tale

Spontaneously, ambient yeasts fermented damaged grapes in harvesting pots, mystifying hunter-gatherers who established agriculture and the first great civilization in Mesopotamia around the Tigris-Euphrates river system and tasted wine for the first time.

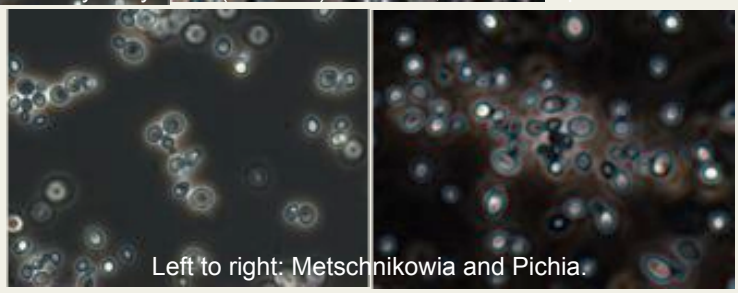
However, even during those early “vintages” it was clear that, without human intervention, the result of “naturally” fermenting grapes is variable, unreliable and can be undrinkable. It did not take long before the ancients realized that the completely “natural” end result of fermenting grapes is vinegar.

There is heated argument as to whether today’s wine is of higher quality (increased flavor profile and absence of faults and taints) due to the contribution of scientific knowledge, technology and research—or whether so-called natural wine is better. There is a new-found nostalgia for the wine of yesteryear made with a minimalist approach and variable outcomes. The reality is that winemaking is both art and science and always has been.

History taught us that the best outcome for both winemaker and consumer is achieved when the wine industry harnesses what nature, human ingenuity and cutting-edge science offer in harmony with the unique “artistic” nature of wine. Here we summarize what nature’s treasure of “wild” yeasts has to offer and how inventive winemakers can use them in a scientifically controlled manner to craft wine styles that match consumer expectations in a diverse range of market segments.



Non-Saccharomyces yeasts (from left): Candida, Hanseniaspora and Issatchenkia.



Left to right: Metschnikowia and Pichia.

Non-Saccharomyces yeasts: origin and wine flavor contribution

Non-*Saccharomyces* yeasts were originally seen as responsible for microbe-related isolation from spoiled wines. Although it was known that some non-*Saccharomyces* yeasts could form beneficial metabolites for wine quality, this was outweighed by the high levels of volatile acidity and other negative compounds produced.

At the same time, non-*Saccharomyces* yeasts were considered to be sensitive to SO2, known to be poor fermenters of grape must and intolerant to ethanol. Therefore it was accepted that those non-*Saccharomyces* yeasts, not initially inhibited by the SO2, died during fermentation due to the combined toxicity of the SO2 and alcohol.

However, research has highlighted the high numbers (106 to 108 cells/mL) and sustained presence of non-*Saccharomyces* yeasts in modern wine fermentations leading to revisiting the role of these yeasts in winemaking.

Newer research showed that concentrations between 50 and 100 ppm SO2, while effective in white wine fermentations, do not prevent growth of non-*Saccharomyces* in red wine fermentations. Generally, SO2 concentrations between 0 and 50 ppm have been successfully used for wild fermentation.

During crushing, the non-*Saccharomyces* yeasts on the grapes, on cellar equipment and in the cellar environment (air- and insect-borne) are carried over to the must. However, cellar surfaces play a smaller role than grapes as a source of non-*Saccharomyces* yeasts, as *S. cerevisiae* is the predominant yeast inhabiting such surfaces. Dominant yeasts in must after crushing should therefore be the same as those that are found on grapes.

Despite all the variables in grape harvest and wine production, the yeast species generally found on grapes and in wines are similar throughout the world. However, the proportion or yeast population profile in various regions show distinct differences.

The contribution by non-*Saccharomyces* yeasts to wine flavor will depend on the concentration of metabolites formed. This in turn is affected by how active the non-*Saccharomyces* yeasts are.

The specific environmental conditions in the must include high osmotic pressure, an equal molar mixture of glucose and fructose, presence of SO2, non-optimal growth temperature, increasing alcohol concentrations, anaerobic conditions and decreasing nutrients. All these factors play a role in determining what species can survive and grow.

The clarification of white must (centrifugation, enzyme treatments and cold settling) can reduce the initial population of yeasts.

In red must, wild yeasts are usually encouraged by cold soaking. In general, wild fermentation benefits from being initially protected from air, but once the ferment is active, aeration is advantageous for yeast activity. Similarly to inoculated fermentation, wild fermented musts containing low yeast assimilable nitrogen (YAN) will deliver wines with more complex “mineral” and “funky” styles, while nitrogen addition will produce wines with a cleaner and more fruity style.

The range of flavor compounds produced by different non-*Saccharomyces* yeasts includes terpenoids, esters, higher alcohols, glycerol, acetaldehyde, acetic acid and succinic acid. Although far less studied, wine color can also be affected by non-*Saccharomyces* yeast.

Various research articles have reported on deliberate inoculation of selected non-*Saccharomyces* yeasts for wine production. These included *Torulaspora delbrueckii, Metschnikowia pulcherrima (Candida pulcherrima), Candida zemplinina (Candida stellata), Hanseniaspora* species*, Zygosaccharomyces* species*, Schizosaccharomyces* species*, Lachancea thermotolerans (*formerly *Kluyveromyces thermotolerans), Pichia* species*, Hansenula anomala, Williopsis saturnus, Candida cantarellii, Issatchenkia orientalis* and *Saccharomycodes ludwigii.*

Combinations of more than one species of non-*Saccharomyces* yeasts have also been investigated. Most of these yeasts are poor fermenters, therefore *S. cerevisiae* (either indigenous or inoculated) is always needed to complete wine fermentation. Typically, non-*Saccharomyces* yeasts have been used in sequential fermentation where these yeasts are allowed to grow or ferment between one hour and 15 days before inoculation with *S. cerevisiae.*
Wines fermented with non-*Saccharomyces* yeast have shown different chemical composition and/or different flavor and aroma when compared to wines fermented only with *S. cerevisiae*.

Although many of these trials were conducted on a laboratory scale utilizing small volumes of grape juice, and the results may not be the same as what could be expected in larger commercial fermentations, they demonstrate the potential of non-*Saccharomyces* yeast to produce distinctive wines. As a result, a few non-*Saccharomyces* yeasts have already been commercialized.

Conclusions

The diverse array of yeast available to a winemaker through the cellar environment, in the air, on the grape or through inoculation remains a crucial element to wine production with a wide range of complex flavors and aromas. Harnessing the performance of fermentation for a desired outcome tantalizes and challenges.

Research undertaken in *S. cerevisiae* can make great contributions to understanding the role and uses of non-*Saccharomyces* yeast in spontaneous and “inoculated multi-species” ferments. The management of “mixed-ferments” is more complex than “single-species” ferments because so many things can go wrong. Therefore, a modern approach to “multispecies” wine ferments backed by frontier science and rigorous research is essential to help winemakers achieve their primary objective of a better than 98% conversion of grape sugar to alcohol and carbon dioxide at a controlled rate and without the development of off-flavors. Therein lies wine’s magic blend of art and science.

*This article is a summary of findings reported in: N. Jolly et al. “Not Your Ordinary Yeast: non-*Saccharomyces *Yeasts in Wine Production Uncovered,”* FEMS Yeast Research *(2014) .*

Adding Nitrogen to Fermentations

Yeast requires nitrogen for fermentation. If there is not enough, yeast cells are stressed and produce excess H2S—something that gives fermentations an off-odor. The H2S starts converting to mercaptans almost immediately, and fermentations without adequate nitrogen will leave you with reduced sulfur compounds and off-smells in the finished wine. This is one of the most common problems for home winemakers using real grapes.
If you want to avoid problems, you must be prepared to add nitrogen to your fermentations.

What is YAN?

YAN stands for Yeast Available Nitrogen. It is a measure of the amount of nitrogen available to the yeast in grape juice. **YAN is measured in parts per million (ppm) or milligrams per liter (mg/L), which is the same thing.**

The YAN in grapes comes in two main forms. One is the assimilable nitrogen from the alpha amino acids in the grapes (this is sometimes called alpha amino or a-amino nitrogen). The other is Free Ammonia Nitrogen (sometimes abbreviated as FAN). Both sources are important. A-amino nitrogen plays a bigger role at the start of fermentation, while ammonia (FAN) usually supplies the bulk of the nitrogen required during the latter stages of the ferment. If you have just one figure for YAN, it includes both types; if you have separate figures you add them together to get the total YAN.

The natural YAN in grapes varies widely depending on the terroir, grape variety, and season. Sometimes grapes naturally contain more than enough nitrogen for a satisfactory wine fermentation. More often they do not, especially with the higher Brix typical of today's harvests. Some grapes from some vineyards have notoriously low YAN levels almost every year. If you want a good ferment, you must be prepared to add nitrogen via Fermaid-K and DAP.

There are no general rules of thumb that help very much in deciding on the amount of the additions. The Central Coast grapes we are getting in 2008 have YAN levels that vary between 79 and 327. At 328 there is probably no need for any additions, and additions could hurt. At 79, you have an extremely low level of YAN. If you are not making heavy additions you are going to have real problems.

How much YAN do fermentations need?
As a practical rule, everyone agrees that **you have to keep your nose in the fermentation to make adjustments as the fermentation proceeds.** If you are getting a pronounced H2S smell from your ferment, your yeast is stressed from a lack of nitrogen and you need to do something right away. The best thing, however, is to know how much nitrogen to add to your fermentation and add it before problems emerge.

In general, the three things that most affect the total YAN a fermentation needs are (in order of importance):
1. Brix
2. Yeast variety
3. Fermentation temperature.

Brix
Brix (or sugar level) indicates how long and hard the yeast has to work—the higher the Brix, the more YAN required. These are the standard recommendations (which always seem to be given with no particular yeast mentioned).

Table 1: Typical YAN Levels Required for Good Fermentations

Brix	Average YAN Required	YAN Range Required
21	225	200-250
22	250	225-275
23	275	250-300
24	300	275-325
25	325	300-350

Yeast Variety
Yeast descriptions commonly provide information on their nitrogen requirements. Technically, this is measured as the amount of nitrogen (in milligrams) needed by the yeast to produce CO2 (in grams). Here is a compilation of readily available information. The suggested multipliers are my own and will be used in YAN calculations below

Obviously, the yeasts we commonly use can vary a lot! BM-45 requires twice as much YAN as 71-B. Even yeasts commonly described as "low" or "high" in nitrogen requirements can vary by 25% or more.

Table 2: Typical Nitrogen Requirements of Different Yeast

Yeast Variety	mg N2 per G CO2	Usual way of describing yeast N requirements	Suggested multiplier
71-B	0.90	Low	0.75
EC 1118	1.25	Low	1.00
K1 (V1116)	1.30	Low	1.00
Vin-13		Low	1.10
D-47		Low	1.10
D-254		Medium	1.20
D-80		Medium	1.20
RC 212	1.55	High	1.25
CY-3079	1.75	High	1.40
BM-4*4	1.80	High	1.40
VL-1	2.10	High	1.70

Fermentation temperature
The temperature of the fermentation also affects nitrogen requirements. Lower temperature fermentations (as are typical with white wines) require less nitrogen and also usually result in more efficient transformation of sugar to alcohol. For example, Vin-13 is specifically described by manufacturers as having low nitrogen requirements at low temperatures.

How to calculate your YAN requirements
Unless you are using a very high fermentation temperature (something people seldom do any more), you can largely ignore the temperature issue. Then the calculation of total YAN required for a fermentation is easy.

• Note the YAN required by your Brix level in Table 1 above and multiply by the suggested multiplication ratio for the yeast you are using. For example, if you have Brix of 25, you need 325 ppm YAN.
• Multiply this number by the suggested multiplication ratio in Table 2 for the yeast you are using. For example, if you are using BM4*4 yeast, you should multiply 325 by 1.4—this gives a total YAN requirement of 455. [This may be more generous than really necessary. BM4*4 is supposed to be an improvement over BM-45 in part to reduce the high nitrogen requirements.]
• If the grapes came in with a YAN level of 225, you need to add 230 ppm YAN during fermentation.

It probably doesn't hurt to be a bit more generous than this with your additions. But don't overdo it. Research by Bruce Zoecklein and his Virginia Tech group suggests too much nitrogen in a ferment causes some of the same problems as too little.

General terminology
You some times see YAN estimates from Brehm Vineyards and others cast only in the general language of "Low" or "Extremely Low" or such other rather vague terms. There is, as far as I know, no generally accepted language for these kinds of descriptions and obviously the interpretation of any particular YAN level depends, at the very least, on the Brix of the wine. However, Scott Labs uses these terms to describe YAN levels for musts at 22 Brix.

HIGH—225 and above [required no supplements except Go-Ferm]
MEDIUM—125-225 [add 93-104 ppm YAN]
LOW—less than 125 [add 104-167 ppm YAN]

Gusmer provides these descriptions of Risk Levels with its recommendations for nitrogen additions:

NO RISK—YAN of more than 250 (or 300 for 25+ Brix) [total added YAN=19]
LOW RISK—YAN of 200-250 (or 250-300 for 25+ Brix) [total added YAN=37]
MODERATE RISK—YAN of 150-200 (or 200-250 for 25+ Brix) [total added YAN=94]
HIGH RISK RISK—YAN of 100-150 (or 150-200 for 25+ Brix) [total added YAN=143]
VERY HIGH RISK—YAN less than 100 (or less than 150 for 25+ Brix) [total added YAN=172]

It seems to me that these recommendations from Scott and Labs and Gusmer are conservative, and don't really take yeast into account. If you follow the procedure recommend above for calculating YAN requirement, you will be adding more YAN than these people suggest, especially if you are using a yeast like BM-45.

What to add and how much?
You must have a good scale to measure the additions you require to increase your YAN level. And remember that nutrient additions should be dissolved in water before being added to your must.

The following chart shows the supplements that Nanaimo Winemakers typically use. NOTE that each contains a different proportion of nitrogen.

Table 3: Nitrogen Yields of Different Additives

Nitrogen Source	% N	Forms of N	Comment
Go-Ferm	3%	all alpha amino	Nitrogen is incidental
Superfood	7.6%	a-amino and ammonia	Contains other nutrients
Fermaid K	13%	a-amino and ammonia	Contains other nutrients
DAP	21%	all ammonia	Cost effective for nitrogen

To calculate the nitrogen yield of a product in parts per million you need to realize that 1 g/L of something is 1000 mg/L or 1000 ppm. The nitrogen component is a simple multiplication of this using the above chart. Thus:

1 g/L of Fermaid-K (13% N) adds 130 ppm of nitrogen to a liter of juice.
1 g/L of DAP (21% N) adds 210 ppm of nitrogen to a liter of juice.
If we continue with the previous example, where we wanted to add 230 ppm YAN, and we decided to roughly split the additions between Fermaid K and DAP, some calculations would show that 0.6 g/L Fermaid K and 0.75 g/L of DAP will give you about 235 ppm additional YAN which is close to your target of 230 ppm. I tend to err on the high side and to ignore the small proportion of additional YAN that come from Go-Ferm.
You might find it convenient to set up a spreadsheet in Excel or a similar program to calculate your additions. The matrix could look like this:

Possible spreadsheet setup to calculate YAN additions

	A	B	C	D	E
	N source	**g/L addition**	*** proportion N**	***1000**	**=YAN ppm/L**
	Fermaid-K	0.6	.13	1000	78
	DAP	0.75	.21	1000	157.5
			Total ppm YAN added per L		**235.5**

The YAN/L column (E) is simply the product of the three cells which precede it in the row (i.e., E2=B2*C2*D2). The total YAN addition per L is simply the product of these calculations (i.e., E4=E2+E3). You manipulate the calculations in the spreadsheet by substituting numbers for g/L in cells B2 and B3 until you can the mix of additives and the total YAN addition you want in cell E4.

REMEMBER that you still have to multiply your g/L additions by the number of liters of juice you are expecting, which is usually around 13L per 50 lbs (one pail) of red grapes.

NOTE: Willem Wyngaards has prepared an Excel spreadsheet that does the Nitrogen addition calculations for you. This spreadsheet has gone through several versions over the last few years.
The most recent version of this calculator (November 2011 revised) can be found here.

When to make your YAN additions
There is only one rule for sure here and that is: **DON'T add any nitrogen after your ferment has reached about 12 Brix or a SG of .050.**

Otherwise, people add nitrogen in different ways. Kit makers (and many wineries, who tend to use only DAP) add everything up front.

But the recommended strategy now is to make nitrogen additions in three stages. If the initial YAN level is really low, I would add a forth stage and put some DAP in even before yeast inoculation. Then I would proceed as follows:

• Stage 1: As the active fermentation gets under way (after the lag phase)
You can skip this addition if you are adding relatively little nitrogen in total, but this is an important feeding point if your must has low YAN naturally.
Typically this addition is heavy on Fermaid-K and light on DAP.

• Stage 2: At one-quarter sugar depletion (typically about 18 Brix or a SG of 0.075).
This is typically the major feeding point, with both Fermaid-K and DAP being used.

• Stage 3: Just before the half-way point of sugar depletion (before you hit 12 Brix or a SG of..050).
This stage is typically DAP dominated.

Remember, no matter what you do, the almost universal advice is no additions after the half-way point. I say "almost universal" because I have heard one professional winemaker say that if he had unexpectedly smelly fermentation he would add Fermaid-K even down to about a SG of 0.025.

To return to the example in the previous section, where we were adding 0.6 g/L Fermaid K and 0.75 g/L DAP, the schedule might be as follows:

Typical pattern of Nitrogen additions in g/L for a total YAN addition of 235.5 ppm

Stage	Fermaid-K	DAP
Stage 1 After ferment starts	0.2	0.1
Stage 2 At one-quarter sugar depletion	0.3	0.3
Stage 3 Before one-half sugar depeletion or SG 0.050	0.1	0.35
TOTAL additions	**0.6**	**0.75**

Member Phil Bard has developed a wine maker process data base called "CellarMetrics" and now it is available for a free 30 day trial.
Phil has been building custom database software for 25 years, and is just as passionate about making wine. He has long believed that good record keeping is the secret to success, and is pleased to offer a solution for small winemakers, whether professional or home based. Phil is president of the West Side Wine Club in Portland, Oregon, the oldest club in the area dating back over 40 years.
CellarMetrics was under development for 3 years before its release and has been tested and used by many experienced winemakers.
Find out all about it at http://cellarmetrics.com

Grape Purchasing Report September 2014

Grape purchases through the club concentrated at three sources in 2014, Chandler Reach, Lonesome Springs, and Momtazi. Zerba fell off the list after deciding to sell only to commercial vintners in 2014 in preparation for the sale of their vineyards—although they later changed their minds about that after most of the club had ordered elsewhere. Sagemoor fell off the list because most of the members who buy from Sagemoor decided to buy outside the club process starting in 2014. Phil Bard is coordinating pick-ups at Momtazi and Chandler Reach and I (Jonathan Brown) am (loosely!) coordinating pick-ups from Lonesome Springs.

From Chandler Reach the club is buying 1500lbs of Cab Sauv., 1300lbs of Merlot, 2000lbs of Syrah, 300lbs of Sangiovese and 250lbs of Cab. Franc. From Lonesome Springs were have ordered 1000lbs of Viognier, 450lbs of Petit Verdot, 250lbs of Counoise, and 150lbs each of Marsanne, Roussane, and Orange Muscat. From Momtazi, the buy is 2500lbs of biodynamicaly grown Pinot Noir. We were not able to increase our Momtazi amount from 2013, so few if any members could be added to the group that bought Momtazi fruit in 2013.

We failed to get access to Mourvedre and Grenache this year and I understand that Chardonnay supplies disappeared unexpectedly at Courting Hill, a Westside vineyard that does not accept a club order (it is a u-pick operation) but that many members have accessed over the years. Next year, we may want to start much earlier than the vineyard's stated deadlines to reserve some of these high-demand varieties, and expand the number of vineyards with which we work.

Any club member who is still looking for Eastside fruit might want to contact Paul Portteus, or one of the supply houses (Above the Rest, in Tigard; Main Street Home Brew, in Hillsboro; and Steinbarts in SE Portland). Portteus Vineyard is in Zillah, WA, across river from Toppenish (official address 5201 Highland Dr, Yakima, WA, http://www.portteus.com/, (509) 829-6970, portteus@bentonrea.com). Paul grows Merlot, Syrah, Cab Franc, Cab Sauv., Chardonnay (probably picked by now), Viognier, Zin., Malbec and Petite Sirah.

On the Westside, Jim Ourada suggests Stormy Morning for Pinot Noir (bill_lowblad@msn.com). Bill should be picking this week or next. He allows u-pick for 500lbs or less (37623 NW HAHN RD, BANKS, OR 97106-8311). Also, if you go to the local supply houses, they usually have posters up from the smaller vineyards around town that have grapes for sale. One of these smaller growers contacted the club on August to offer Pinot Noir and Chardonnay (Jim & Dee Saunders 503-723-6103).

When you pick up your fruit this year, remember to bring the growers a bottle of the wine you've made from their fruit, and thank them for continuing to sell grapes to us amateurs!

Jonathan Brown, Chair, Group Purchasing Committee

West Side Wine Club
Leadership Team – 2014

• President: **Phil Bard** phil@philbard.com
• Set agenda for the year
• Establish leadership team
• Assure that objectives for the year are met
• Set up agenda and run meetings

Treasurer: **Barb Thomson** bt.grapevine@frontier.com
• Collect dues and fees, update membership list with secretary
• Pay bills

Secretary: **Ken and Barb Stinger** kbstinger@frontier.com
• Communicate regularly about club activities and issues
• Monthly newsletter
• Keep updated list of members, name tags and other data

Chair of Education: **Mike Smolak** Mike@NWRetire.com
• Arrange speakers for our meetings

Chair for Tastings: **Ted Johnson**, tedj52@msn.com
• Conduct club tastings
• Review and improve club tasting procedures

Chair of Winery/Vineyard Tours: **Bill Brown** bbgoldieguy@gmail.com
• Select wineries to visit
• Arrange tours
• Cover logistics (food and money)

Chair of Group Purchases: **Jonathan Brown** jonabrown@gmail.com & Jim Ourada jim.m.ourada@intel.com
Makes the arrangements to purchase, collect, and distribute
• Grape purchases
• Supplies – These should be passed to the President for distribution.

Chair of Competitions: **Don Robinson** don_robinson_pdx@yahoo.com
• Encourage club participation in all amateur competitions available. Make information known through Newsletter, e-mail and Facebook.

Chairs for Social Events: **Marlene Grant** denmargrant@gmail.net Barbara Stinger & Mindy Bush – Helpers
• Awards Gala / Holliday parties

• Web Content Editor: **Rick Kipper** kips@lycos.com Webmaster: **David Ladd**