A recent Wine Opinions survey of consumers indicated that the alcohol level in wine is not a factor when choosing wine. Most wine drinkers don’t even realize that the alcohol percentage in the bottle is written in small print on the front label. The vast majority of buyers have no clue what the alcohol level is in the wine they drink and don’t realize that there are differences in alcohol content among wines. Consumers have generally supported high-alcohol wines and seem oblivious to the enhanced intoxicating effect that results.

Alcohol contains carbon, hydrogen and oxygen atoms. The alcohol in wine is in the form of ethyl alcohol or ethanol (yes that same ethanol that makes up about 10% of gasoline). Ethyl alcohol is created when yeasts ferment the sugars in grape juice producing alcohol and carbon dioxide. Grapes picked at 22 brix will yield a wine with approximately 12% alcohol and no residual sugar (Brix x .55 = alcohol %). Cultured yeasts can boost the alcohol even higher.

Alcohol has no taste per se, but at higher concentrations it creates a sensation of bitterness and “hotness” in the aftertaste and an impression that the wine is more full-bodied. Generally speaking, a majority of the population is largely unfazed by higher alcohols and this is determined genetically. 50% of the population have one dominant and one recessive gene for taste and are termed “regular” tasters. They choose moderate flavors and are only mildly sensitive to tannins, sugars, and high alcohol. 25% of people are recessive for both genes and are called “nontasters.” They prefer intense tastes, sweet wines and heavy alcohol. The remaining 25% of the population have two dominant genes for taste and are termed “supertasters” or “hypertasters.” These hypertasters prefer softer flavors in wine, disdaining sweet wines, heavy tannins and high alcohol. There are greater numbers of women and Asians who are hypertasters.

Don Baumhefner of Pfendler Vineyards has been studying the effect of alcohol concentration in wines on taste preferences, what he terms “sweet spot tasting”. He has asked a broad section of wine drinkers from novices to wine professionals to sample eight bottles of the same wine from the same vineyard, differing only by a tenth of a percent in alcohol. For example, alcohol from 13.2% to 13.9%. He asked them to choose a preferred sample from the series of eight wines. Amazingly, in 98% of the people tested, the conclusion was always the same:

The average alcohol of all California wines has risen from an average of 12.7% in 1971 to 14.8% in 2001. This is a result of the average level of brix at harvest rising from 20.5 in 1971 to 24.2 in 2001.
the drinkers preferred the wine with 13.4% alcohol for Pinot Noir, 12.9% alcohol for Chardonnay, and 13.9% alcohol for Meritage. In addition, the testing was carried out for three vintages and the preferred level for each variety was exactly the same each year. Don has theorized that there is a “sweet spot” for alcohol concentration that is unique to each vineyard. Each wine variety has a different tolerance level above which its flavors are compromised by alcohol. It will require considerably more data over the years to prove this theory.

Everyone absorbs alcohol in wine at different rates dependent on many factors such as sex, age, weight, metabolism, medications, and food. Women drinking an equal amount of alcohol over the same period of time as a man of equivalent weight may have a higher alcohol level. One drink of wine fully enters the blood in one hour and takes one hour to be filtered out by the liver, but again, this varies with many factors such as height and weight. In most states, 0.08 - 1.0 percent blood alcohol is the definition of legal intoxication. There are Blood Alcohol Concentration (BAC) charts available published by the US Department of Health and Human Services and others that give an approximation of the blood alcohol level after consuming alcoholic beverages. For example, a 180 lb person drinking 4oz of liquid containing 12% alcohol over 1/4 hour will have a blood alcohol of 0.016, 13% alcohol 0.018, 14% alcohol 0.02, 15% alcohol 0.029, and 16% alcohol 0.023 according to tables posted on the internet.

I was curious enough about how different wine alcohol levels translated to blood alcohol levels that I did a little research using myself as a guinea pig. Five wines were tested at alcohol levels ranging from 12.5% to 15.8%. A 4 oz pour was drunk over 10 minutes and the blood alcohol tested using a breathalyzer (pictured) 20 minutes later. I then drank a second 4 oz over 10 minutes and retested the blood alcohol level after 20 more minutes (a total of 60 minutes after the first sip). Each individual wine was sampled on a different day, on an empty stomach. My height is 5’9” and I weigh 170 lbs. I take no medications. The breathalyzer readings:

- **1999 Claude Dugat Bourgogne** 12.5%  4oz at 30 min: 0.03, 8oz at 60 min 0.05
- **2003 Belle Glos Clark & Telegraph Vnyd Pinot Noir** 13.9%  4 oz at 30 min: 0.04, 8 oz at 60 min 0.07
- **2003 Loring Wine Co Clos Pepe Vnyd Pinot Noir** 14.5%  4 oz at 30 min 0.04, 8 oz at 60 min 0.05
- **2002 Sean Thackrey Andromeda Pinot Noir** 15.1%  4 oz at 30 min 0.05, 8oz at 60 min 0.08
- **2002 Williams Selyem Allen Vnyd Chardonnay** 15.8%  4 oz at 30 min 0.06, 8 oz at 60 min 0.10

The results indicate a significant increase in blood alcohol level when imbibing wine with more than 15% alcohol with legal intoxication occurring after two drinks within one hour. 8 oz of the 12.5% wine supplies 1.0 oz of alcohol, while 8 oz of the 15.8% wine supplies 1.30 oz or 25% more alcohol.

The indicator of alcohol percentage on wine labels is almost always on the low side of the actual alcohol percentage. If the labeled alcohol is less than 14%, there can be 1.5% variance in the alcohol content, but it cannot be greater than 14% (ie, 13.9% can be labeled as 12.4% - 13.9%). If the alcohol level in the wine is greater than 14%, there can be 1% variance (ie, 15% can be labeled as low as 14%). The point is wines can have significantly more alcohol than the stated percentage.

Do alcohol levels in wine matter? Well, higher alcohol wines will sure get you shit faced a lot quicker. Do they provide more pleasure? I don’t know for sure but when I checked some old dead horses that I have kept over the years to remind me of wines that were incredible, I discovered the range of alcohol was 10.5% to 13.0%.
Better Wine Through Chemistry?

Through modern chemical technology, winemakers have the capability of creating so-called “Stepford Wife Wines” or “Frankenstein Wines” - manufactured wines designed to achieve a desired taste and score. Enologix is now the largest wine consultant firm in the United States. Basically the company has analyzed the chemistry of high-scoring (read Robert Parker, Jr.) wines and can assist wineries in duplicating the same wine chemistry to achieve a similar result. A horror story, maybe, but a fact of life in the competitive wine business. “There is a galactic struggle between those who believe in terroir and those who believe in manufactured wines,” says Littorai winemaker Ted Lemon. Here are some of the dirty little secrets used to fabricate the most shapely manufactured wines.

1 Alcohol manipulation. Using a reverse osmosis concentrator or spinning cone, the alcohol level in wine can be adjusted up or down. Alternatively, adding water plumps the grapes when they arrive at the winery and can reduce finished alcohol levels. Water can also be extracted using an entopy evaporator and this results in increased sugars and increased alcohol potential.

2 Acidity manipulation. Acidity can be increased by adding various acids such as tartaric acid to counteract the flabbiness that comes with too much alcohol.

3 Addition of various compounds. Powdered oak and grape tannins, flavorings, sweeteners, flavonoids, anthrocyanins, etc.

4 Enhancing the color. It is legal to add small amounts of other wines such as Syrah to deepen the color of Pinot Noir. Federal law only requires that wine with a varietal name consist of 75% of that varietal. It is also legal to add grape concentrates to enhance the color of wines.

5 Micro-oxygenation. This technology involves the use of a machine developed in France that exposes the wine to tiny amounts of oxygen. This process is tricky, for if used judiciously it can stabilize color and soften the wine, but employed recklessly can produce an oxidized and awkward wine. Racking, the process of transferring wine from barrels to other barrels or tanks, can accomplish the same result and clarify the wine in the process.

6 Filtration, cold stabilization, pasteurization.

7 Use of Velcorin (dimethyldicarbonate - DMDC) to eliminate Brettanomyces infections without sterile filtering a wine. Velcorin dosing can fight bacteria and mold as well and reduce the amount of sulfur dioxide used.
In studying the DNA markers of hundreds of French wines, researchers at the University of California, Davis, found that some of France’s most prized varietals are the result of the union of Pinot Noir and the humble Gouais Blanc, a mediocre variety banned in France as unworthy. French winemakers have for centuries tried to kill off Gouais Blanc, but its progenies have flourished. The sixteen varieties of offspring that resulted include Chardonnay, Gamay Noir, Aligote, Muscadet, and Auxerrois. Gouais Blanc is thought to have originated in Croatia and possibly was brought to France by the Romans. It is probable that the Pinot Noir-Gouais Blanc union occurred centuries ago and was a result of the promiscuity of Pinot Noir. Pinot Noir and Gouais Blanc were close together in the vineyard and exchanged pollen a number of times. Hybrid grapes then sprouted producing the different varieties through the random mix of genes from the two parents.

A Brief Pinot Noir Clone Lesson - PN101

All American Pinot Noir is descended from France as Vitis vinifera is not indigenous to the North American continent. Those arrogant Frenchmen love to remind us of this fact. A simple way to organize Pinot Noir clones is to divide them into three classes: “Mother Clones,” “Suitcase Clones,” and “Dijon Clones.”

The true history and source of many of the mother clones is shrouded in mystery. These clones were brought to California as early as 1895 and became the progenitors of modern California Pinot Noir viticulture. The Mt Eden clone is the old Martin Ray clone. One story goes that Louis Latour’s father was close to Paul Masson and gave him cuttings from Corton and Corton Charlemagne. Masson in turn gave some cuttings to Martin Ray. Chalone purchased grape scion from Martin Ray as did Dr Stanley Hoffman for the HMR Vineyard in the Paso Robles area and Dr. David Bruce in the Santa Cruz Mountains. Kistler Estate Vineyard is the Mt Eden Clone. The Wente clone is probably many clonal selections. Very early plantings of the Wente clone were in Arroyo Seco. The Joseph Swan clone is a Pommard selection probably sourced from Burgundy. It was planted by Joseph Swan in the early 1970s. Most of Dehlinger’s Estate Vineyard is Swan clone. The Pommard clone (now named UCD 4, 5, or 6) originated from cuttings Harold Olmo imported from Chateau de Pommard in the 1940s. This clone is known for its structure, tannins and density. The Wadenswil clone (UCD 1A, 2A, or 3A) was imported from Switzerland in the 1950s. Wadenswil provides more red fruit flavors and notes of violets and blueberries. It can be blended with Pommard grapes to soften the wine as it texturally has less density and tannins than Pommard.

Suitcase clones are cuttings that have been smuggled into the United States literally in suitcases. There are many stories of the illicit importation of cuttings from Domaine Romanee Conti and some are undoubtedly true. Joe Rochioli, Jr. says that he has some in one area of his vineyard but they have not performed particularly well. The Pisoni clone is rumored to be from DRC.

Dijon clones have gained popularity in California and Oregon in the last ten years. These clones were developed at the Dijon Experimental Station in France and most of the original budwood came from Domaine Ponsot in Morey-St-Denis. They are distinguished by a smaller berry size resulting in more intense colors and tannins and darker tones in their aromatics and flavors. The most widely planted are 113, 114, 115, 667, 777, and 828. 113, 114, and 115 tend toward the red fruit profile such as raspberry and cherry. 667 and 777 feature more black fruits in their flavor profile such as black raspberry, black cherry, cola and spice. Some wineries such as WillaKenzie Estate are producing Dijon clone-designated Pinot Noirs.
A Stellar California Pinot Noir You Never Heard Of

Vineyard owner Peter Pfendler and winegrower/winemaker Don Baumhefner formed a partnership a number of years ago to grow and produce unique wines from the Sonoma Coast appellation. They planted the first Pfendler Ranch Vineyard (Cabernet Franc, Merlot, Cabernet Sauvignon) on a warm site above the fog on Sonoma Mountain in 1992, a 6-acre Pinot Noir vineyard, Copeland Creek, in a cool location on the lower slopes along Copeland Creek, and a 1 1/2-acre adjacent vineyard planted to Chardonnay. Some additional Pinot Noir acreage will be added this year. All of the wines produced from these vineyards have now been consolidated under the label Copeland Creek Vineyards.

The Copeland Creek Pinot Noir Vineyard has an ideal terroir for this fussy grape, featuring rocky, well-drained soils, morning fog and afternoon breezes that drift in from the Pacific Ocean to cool down the grapes for extended maturation. The vineyard is located close to the town of Penngrove, near Petaluma, and is directly in the path of the fog that flows in from the Pacific Ocean through the “Petaluma Gap.” This vineyard is planted exclusively to Dijon clones 114, 115, 777, and 828, as well as the Joseph Swan clone. Don believes that clonal selection is, by far, the most important factor in the elevation of Pinot Noir “from the status of Cabernet’s weak stepsister to its rightful place as the king of wine.” It is critical, however, to match the clones with the terroir (as Don has done in this vineyard) for even the most favored clones will not succeed on a poor site.

Don has been making wine for almost thirty years. He worked many years ago with legendary winemaker Joseph Swan in his Forestville vineyard and winery. He was the sommelier when John Ash & Co opened in Santa Rosa in 1980, and pioneered the practice of offering many fine wines by the glass. Since then he has made a number of award-winning wines including a unique California sparkling wine from 100% Pinot Meunier grapes that was placed on the Chez Panisse restaurant wine list.

The 2002 Copeland Creek Vineyards Sonoma Coast Pinot Noir ($30, 450 cases) is a beautiful example of the elegance and finesse that Pinot Noir can offer, but in its many forms fails to deliver. If you like Frankenstein Pinot Noirs (overripe, manipulated, tannic, high alcohol) you won’t like this wine. If you are looking for 100% new oak, a marquee label, a shapely heavy glass bottle, a wax closure, a celebrity winemaker or a titillating logo, you won’t want this wine. If you like barnyard, rotting leaves, sweaty horse aromas, you won’t find them here. If you don’t care about “trendy” wines and like wine that actually complements food and doesn’t need decanting for two hours to “open up,” you will enjoy this Pinot. If you prefer a Pinot Noir that has the color of fine red lingerie rather than Jimi Hendrix purple, you will be happy with this wine. If you don’t want to be shit faced after two glasses, drink this wine (13.5% alcohol by volume - the “sweet spot” that Don has touted). This Pinot is great when you pull the cork and equally fine an hour or two later (always a sign of quality and balance). The wine has all of the features that we have come to associate with Pinot Noir but it is the magic Chambolle-like spice in the aftertaste that is so appealing to me. I have never tasted anything quite like it from California. To sum up this Pinot Noir: “Boo-Yah!” Call Don at 707-765-5997 or visit the website, www.copelandcreekvineyards.com.
George Wine Company was previously profiled in the PinotFile, Volume 4, Issue #21. George Leukoff moved from the east coast to Los Angeles several years ago and had his wine epiphany at Joe’s Restaurant in Venice when he drank the 1991 and 1992 Williams Selyem Rochioli Vineyard Pinot Noirs. Four years later, he sold his house, quit a fourteen year career and moved to Healdsburg in Sonoma County. He took a number of courses on winemaking and landed a job working the 1999 crush at Williams Selyem. He also helped out at Brogan Cellars. Soon he struck up a friendship with David Hirsch of Hirsch Vineyards. When Hirsch built a winery on his property, he invited George to share his facility and the George Wine Company was launched.

George is happy to announce vintage II (2004 vintage), the second release of George Wine Company Pinot Noirs. His philosophy of winemaking can best be described by what he doesn’t do: unfined, unfiltered, unpumped, unpushed, unadulterated, unblended and unracked. What he does do is tend the vineyards, sort the fruit, ferment the grapes, bottle the wine directly from barrel, clean the floor and barrels, pay the bills, and sell his wine. His official title is “Chief Everything Officer.”

The inaugural vintage, 2003, quickly became popular among sommeliers and showed up at all of the top restaurants in Las Vegas, such as La Cirque, Olives, Prime Steakhouse, Spago, Palms, and Postrio. Production is extremely small. An order form is available on the website, www.georgewine.com and is retailed at ackerstore.com. The “winery” phone number is 707-495-7783. All wines are $50 with magnums available at $100.

2004 George Wine Company Hirsch Block 3A Sonoma Coast Pinot Noir (62 cases). Block 3A is the Pommard clone. 13% alcohol. The wine is said to be earthy with notes of white pepper, herbs and plum.

2004 George Wine Company Hirsch Block 4A Sonoma Coast Pinot Noir (63 cases). Block 4A is the Mt Eden clone. 13% alcohol. A relatively big wine for low alcohol, it features flavors of black cherry and bright plum.

2004 George Wine Company Martinelli Nuptial Vineyard Russian River Valley Pinot Noir (126 cases). This wine was a big hit at a wine event in Sonoma when George poured it for the first time in public (he sold 20 cases on the spot). Classic Russian River Valley wine with bright strawberry and cherry fruits.
W.H. Smith Pinot Noir Scores Big

William Howard (Bill) Smith founded La Jota Vineyard Co. in 1982 after he bought the property on Howell Mountain for $82,000 in 1974. Smith, who is now 75, began making wine with the help of Randy Dunn and Helen Turley. In 2001 he sold La Jota to the Mercian Corporation of Japan and purchased a small property with a house and winery close by the original property (named Piedra Hill). Then recently he sold 360 acres on the Sonoma Coast to Dave Del Dotto. He now plans to produce about 1,200 cases a year of Piedra Hill Cabernet Sauvignon (actually a Meritage with 76% Cabernet) and continue his Pinot Noir program from vineyards on the Sonoma Coast (purchased grapes).

The 2003 W.H. Smith Pinot Noirs have created quite a stir with the 2003 Maritime Ridge Pinot Noir receiving an startling score of 97 and the 2003 Hellenthal Vineyard Pinot Noir a 96 from the Wine Spectator. Certainly all of the wine publications seem to be more generous of late in handing out high scores, but this still remains a badge of success for California Pinot Noir and particularly the Sonoma Coast appellation.

**2003 W.H. Smith Sonoma Coast Pinot Noir** (13.9% alcohol, $144/6 pack, 1,467 cases). A cuvee of three vineyards - Keller and Ceja Vineyards near Sonoma's historic Lakeville Wine District and the Piner Road Vineyard west of Santa Rosa. Average vine age is 10-20 years.

**2003 W.H. Smith Hellenthal Vineyard Sonoma Coast Pinot Noir** (14.5% alcohol, $216/6 pack, 285 cases). In the early 1990s, Helen Turley and John Wetlaufer introduced Smith to this vineyard located 4 miles from the Pacific Ocean and down the road from Marcassin Vineyard. The name means “bright value” in German. Smith and a number of other producers have made delicious Pinot Noirs from this vineyard for several years.

**2003 W.H. Smith Maritime Ridge Vineyard Sonoma Coast Pinot Noir** (14.5% alcohol, $276/6 pack, 581 cases). This is the second release from this vineyard, which is located just 5 miles from the Pacific Ocean on a ridge above the town of Cazadero. The vineyard is a neighbor of Marcassin, Flowers, Hirsch and Hellenthal Vineyards. 7 clones are planted here.

The wines are distributed through a mailing list. Go to the website at www.whsmithwines.com to join the list and to order. The phone contact is 707-965-9726.
Dain Wines - A Dream Come True

David Dain resides in Missouri but his heart is in California. Along with a group of California wine enthusiasts, he is releasing his inaugural vintage of Pinot Noirs. He has been able to source grapes from superior vineyards and makes his wines at his “virtual winery”, Crushpad, in San Francisco. Crushpad is a winery that supports wine lovers, small scale professional winemakers, and others who want to create as little as one barrel (25 cases) of premium wine. Crushpad provides the equipment, winemakers and premium fruit from some of California’s noted vineyards. Dain has called on several avant garde California Pinot Noir producers for support and assistance, including Brian Loring (Loring Wine Cellars), Andrew Vingiello (A.P. Vin), Peter Cargassacchi (Point Conception), and Scott Shapley (formerly Siduri, now at Crushpad). For the 2004 vintage, Dain is offering four vineyard-designate Pinot Noirs and a Syrah. New producer, great vineyards, experienced support.

The fascinating side to wine is the myriad of approaches that each owner and winemaker takes to project his persona and philosophy into his wines. Dain has tried to link his family heritage with the characteristics found in each of his wines. Just as family members have a unique personality, wines from the Dain “family” have personalities also. The result is an attempt to honor those in the family tree by naming each wine after a family member.

All wines are priced at $42 which includes shipping. To join the mailing list or order visit the website at www.dainwines.com or phone 417-860-2715. Quantities are limited.

2004 Dain American Beauty Amber Ridge Russian River Valley Pinot Noir
Amber Ridge Vineyard is creating considerable buzz among the Pinot community. This is a new hillside vineyard in the eastern portion of the Russian River Valley planted in 2000 with clones 115, 667, and 777. The vineyard is farmed by seasoned veteran Frank Darien. Other notable wineries bottling Amber Ridge-designate Pinot Noirs are Siduri, Kosta Browne, and Sonnet. This wine utilizes clones 115 and 667. Winemaking is typical for California Pinot Noir: cold soak, inoculation with yeast, 100% destemmed (small amount of whole cluster was used in the Amber Ridge wine), 2-3 weeks on the skins, aging in one-year old oak barrels (the Amber Ridge was treated to 50% new barrels only). This offering is dedicated to Dain’s maternal grandmother, Cora Whitley Duffer (pictured in her younger days). “The wine fits her, beautiful and elegant, understated and graceful.”

2004 Dain Rebel Rancho Ontiveros Santa Maria Valley Pinot Noir
This vineyard is farmed by James Ontiveros, whose family is associated with Bien Nacido Vineyard. Close to Bien Nacido Vineyard, it is planted to Dijon clones 113, 114, 155, 1A and the Swan clone. The wine is named after Uncle Bob whose nickname was “Lightning.” The wine is a little wild, a little exotic.

2004 Dain Anticipation Alder Springs Vineyard Mendocino Pinot Noir
This vineyard is located three hours north of San Francisco at a cool elevation of 2,700 feet. The planting is high-density on steep hillsides. This offering is a blend of 114, 115, and 667 clones of Pinot Noir. The wine is named after Dain’s wife’s paternal grandparents. The photo shows them on their wedding day, full of anticipation. This wine also shows signs of great things to come. Very complex and needs some time.

2004 Dain Dandy Brosseau Vineyard Chalone (Monterey) Pinot Noir
This vineyard is located in the Gavilan Mountain Range and the vines are planted in very heavy limestone soil. The vines are up to 23 years old and are planted with Chalone, Pommard and Dijon clones. The wine is named after Clarence Wesley Duffer, Dain’s grandfather. The wine is masculine, dark and brooding.
I came across a newer wine magazine, *The World of Fine Wine*, published in England. Single copies sell for $25 (a yearly subscription of 6 issues is $119) but the periodical is printed on nice paper and is 145 pages long. The wine writing is very sophisticated and headed by chief editors, Hugh Johnson and Andrew Jeffard. The illustrations and photography are beautifully presented. The tasting panel includes Michael Bettane, Oz Clarke, Jancis Robinson, Tom Stevenson and others. A tasting panel scores the wines on a 20-point scale. A specialist and two experienced generalists make up the panel for each type of wine evaluated. Subscriptions are available at finewinemag.com. I found my copy at Barnes & Noble bookstore.

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**The Real GOVERNMENT WARNINGS**

On the back label of every bottle of wine there is an admonisher: GOVERNMENT WARNING: (1) According to the Surgeon General, women should not drink alcoholic beverages during pregnancy because of the risk of birth defects, (2) Consumption of alcoholic beverages impairs your ability to drive a car or operate machinery, and may cause health problems.

It is a little-known fact that there were a number of alternative warnings proposed to the government that were rejected for various reasons. I was able to dig up these rejects:

**WARNING:** The consumption of alcohol may leave you wondering what the hell happened to your bra and panties.

**WARNING:** The consumption of alcohol may create the illusion that you are tougher, smarter, faster and better looking than most people.

**WARNING:** The consumption of alcohol may lead you to think people are laughing WITH you.

**WARNING:** The consumption of alcohol may cause you to think you can sing.

**WARNING:** The consumption of alcohol may cause pregnancy.

**WARNING:** The consumption of alcohol may cause you to tell your friends over and over again that you love them.

**WARNING:** The consumption of alcohol may make you think you are whispering when you are not.