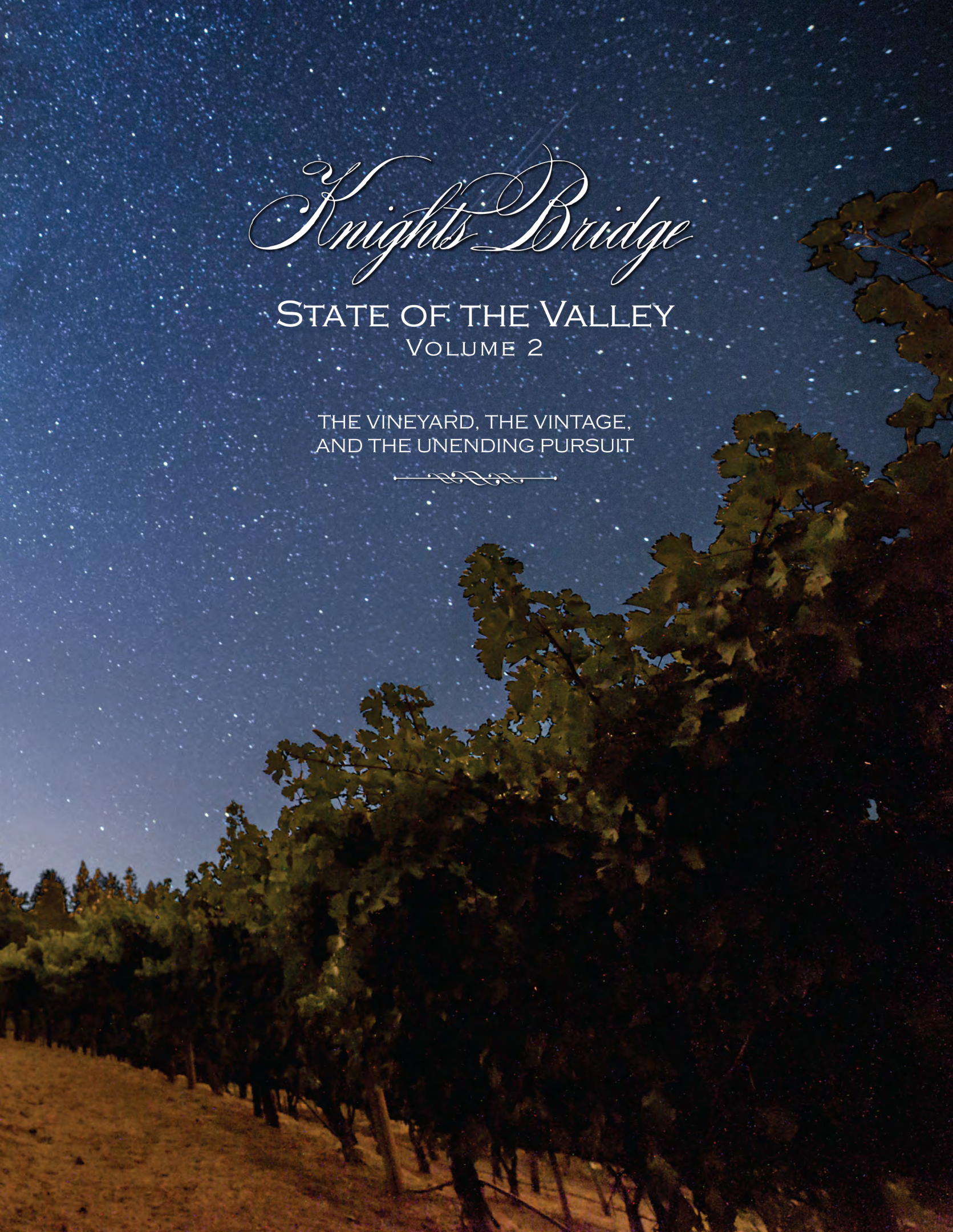

Knights Bridge

State of the Valley

Volume 2

THE VINEYARD, THE VINTAGE,
AND THE UNENDING PURSUIT

I am delighted to share our second annual "State of the Valley" with you. It is meant to serve as a portrait of the work behind us and a promise of the pursuit ahead of us. The year 2013 was stellar. Our newest releases were met with rave reviews, our wines in cellar continued to age beautifully and Mother Nature delivered a remarkable growing season. We are incredibly thankful for the recognition of our efforts and we are very enthused as this new year begins. We are especially inspired by the gatherings we hosted this past year, giving us the opportunity to share our wines with new folks and longtime friends alike. The highlight was having friends and family come together at Jim and RoAnn Bailey's spectacular home to celebrate Knights Bridge's fall release complete with the music of the masterful Yo Yo Ma. Whether this is an introduction to Knights Bridge or you have been on this journey with us for some time, each vintage is a new discovery and each shared bottle is an unique experience.

The Vietnamese philosopher Thich Nhat Hanh said, "Drink your tea slowly and reverently, as if it is the axis on which the world revolves — slowly, evenly, without rushing toward the future. Live the actual moment." For me, one of the most astounding gifts that wine bestows is the opportunity to celebrate, purely and fully, *the now*. As we look back on the year behind us and dream of the accomplishments in the months ahead, may we pause. Let us sip our wine slowly and reverently, reflecting on the immense intricacies within the glass — the miracle of nature that affords it and the unending passion that realizes it.

Tim Carl, Managing Director

Photography by Lori Eanes, Tim Carl, and Tyler Carl
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Creative by Christine Komons, crucreative.com

Table of Contents

Yo Yo Ma plays with his Silk Road Ensemble.

We shared our latest releases.

When world-renowned cellist Yo Yo Ma agreed to play at our Knights Bridge Release Gathering, we jumped at the chance. Mr. Ma is a friend and a fan of our wines, and we were honored that he shared his immense talent at the occasion where we shared our most recent cellar offerings.

The Two-Part Harmony of wine & music

It was a transcendent evening as we celebrated our latest wines amid the serenade of master musicians.

"There are many similarities between making music and making fine wine: the locality, the talent, the flexibility, the time it takes for vines to grow, the accidents that happen... and most of all the passion."

Yo Yo Ma

Yo Yo Ma with his Silk Road Ensemble

The evening was hosted in the beautiful gardens of Jim and RoAnn Bailey in Cambridge, Massachusetts. Mr. Ma performed for our guests and spoke briefly about the parallels between crafting wine and creating music. "It is most of all the passion," he explained, that allows artists to succeed at their art.

The musicians enjoy Knights Bridge after the concert.

The Knights Bridge Partners share a glass with Yo Yo. (left to right): Essel Bailey, Jim Bailey, Yo Yo Ma, Tim Carl, and Tom Costin

RoAnn and Jim Bailey thank Yo Yo Ma for celebrating with them at their home.

A Beautiful Study of Three Vineyards...

More than ever before, our most recent releases offer a spectacular survey of vineyard pedigree.

KNIGHTS BRIDGE
KNIGHTS VALLEY

Rising from 300 to 1,000 feet in elevation on the rocky slopes of the Mayacamas Mountain Range, the Knights Bridge Vineyard overlooks a spectacular display of rolling hills, steep mountains, and gentle valleys. The majestic Mt. St. Helena sits on the western horizon, an influential caretaker.

Blessed with a combination of iron-rich and white-ash tufa (calcium carbonate) soils, the terroir of Knights Bridge is the perfect blend of climate and location, providing an ideal environment for the 20+-year-old Chardonnay, Cabernet Sauvignon, and Sauvignon Blanc vines to thrive. Cool wind from the Pacific blows through the gap in these mountains, providing the grapes with extended hang time to develop richer flavors. Knights Valley possesses the rare conditions of both Bordeaux and Burgundy; diverse micro-climates within a single parcel allow us to produce stunning fruit from all three of these varietals. Our Cabernet Sauvignon is grown on a hillside block that enjoys bountiful sunshine and long, warm days interposed by early morning fog and cool late afternoon breezes.

BECKSTOFFER DR. CRANE
ST. HELENA

One of the top vineyards in California, Beckstoffer's Dr. Crane Vineyard was originally planted by Napa pioneer Dr. George Beldon Crane in 1858. This historic 25-acre vineyard property is located west of Route 29 in the city of St. Helena, within the St. Helena American Viticulture Area. This AVA is one of the warmest within the Napa Valley due to its distance from the cooling effects of the San Francisco and San Pablo bays. St. Helena fruit enjoys long, warm summer days and cool Pacific breezes that gently pour down over the Mayacamas Mountains in the late afternoon.

Owner and vineyard manager Andy Beckstoffer acquired the vineyard in 1997 and replanted the vines a year later to multiple clones of Cabernet Sauvignon, Petit Verdot, and Cabernet Franc. The well-drained gravelly loam soils of this St. Helena valley-floor vineyard produce fruit with trademark notes of sweet cassis, flinty mineral, and scorched earth. The wines from this vineyard are rich and intense, possessing a depth of supple red fruit flavors that are unmatched.

BECKSTOFFER TO KALON
OAKVILLE

One of the most esteemed growing sites in California, To Kalon Vineyard (Greek for "highest beauty") produces legendary wines of extraordinary terroir. First planted in 1868 by Napa pioneer Hamilton Crabb, this renowned vineyard makes up part of an alluvial fan originating in the western hills of Oakville. It is arguably the best location for Cabernet Sauvignon in the Napa Valley; situated a few miles from the cooling influence and fog rising from San Francisco Bay, it remains bathed in sunshine and enjoys moderate temperatures throughout the summer days. In 2007, the property was placed under a land conservation easement that categorically prohibits future non-agricultural development.

Owner and vineyard manager Andy Beckstoffer acquired the 98-acre property from Beaulieu Vineyard in 1993. He replanted the vines in 1994 with modern trellising and close spacing. Yielding small, intensely concentrated berries, the quintessential To Kalon pedigree reveals itself on the palate with complex layers of crème de cassis, briar fruit, and spice box framed by well-integrated tannins.

BUILDING HOMES IN THE VINEYARD

Promoting a Healthy Ecosystem Through Wildlife

Tom poses with several of the bird boxes he built for Knights Bridge.

Our remote Knights Valley site is an ideal home for a variety of winged creatures. To further support our thriving bird and bat population, we commissioned Tom Clark to build a series of unique shelters throughout the property.

In the vineyard, everything matters. Beyond soil types and farming techniques, the entire interconnection of all the living organisms that dwell within our beautiful site helps to determine the ultimate quality of our fruit. There is a delicate and ever-vital balance that we strive to maintain — a desire to preserve and enrich the natural resources of our land to allow future generations the same opportunity to farm the precious land we farm today.

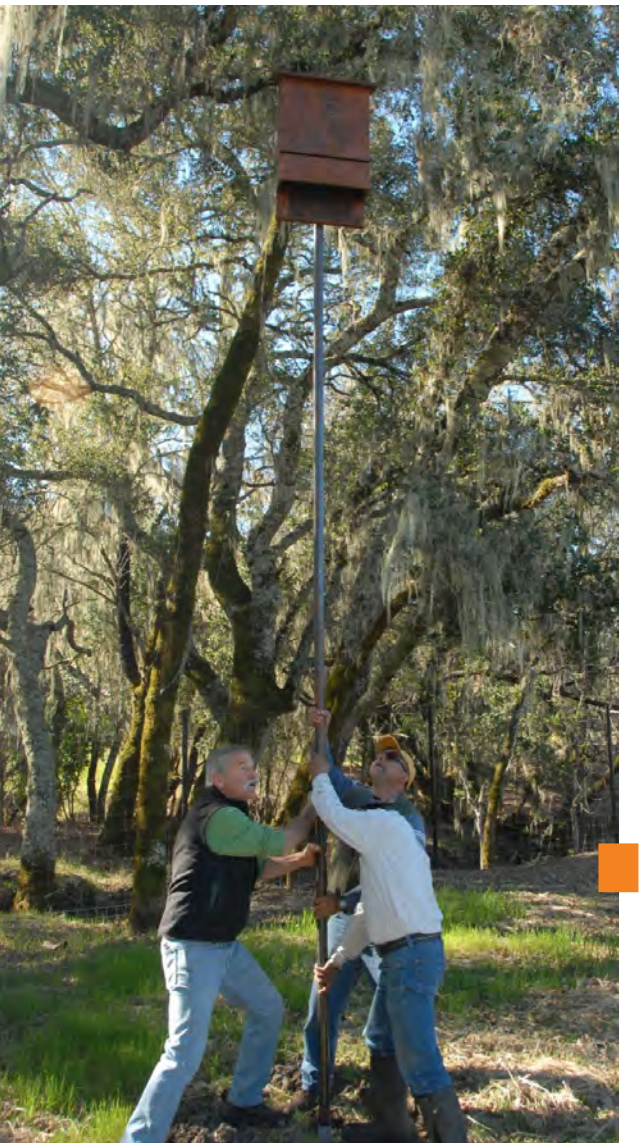
A healthy vineyard hosts a thriving kingdom of creatures, and many of them exist hidden from human view. Birds, however, tend to make their presence known: hawks sail through the bold blue swath of sky in graceful spirals. Eagles scream from treetops, owls hoot from the shadows and bluebirds serenade with their signature chirp and kew. A symphony of birdsong and aerial acts overhead are excellent indicators that our vineyard is in balance.

Our birds are important actors in the care and well-being of our vines. They are natural guards against pestilence. Hawks and owls prey on larger pests such as mice and rabbits, while songbirds hunt down destructive insects. It is imperative that they thrive — and they do so in our estate vineyard. Still, we asked ourselves what we could do to further support their population. What better way to make them feel at home than to build houses for them?

In January 2013, we hired Tom Clark, founder of Aloft Clark's Sustainable Systems to help us develop bird-friendly habitats throughout the vineyard. Dozens of bird boxes later, he is just getting started. Tom has a long history in viticulture, having founded Clark Vineyard Management Co. in 1978. After 23 years, he passed the day-to-day management of the vineyard business on to his son Josh, and Tom is now able to focus on what he loves most, birds.

Tom's love for birds started as a hobby. He was involved in several wildlife rescue projects and has rehabilitated everything from raptors to Grey Horned Owls. His most recent rehabilitation involved a Red Tail Hawk that could not fly. Tom nursed the bird back to health and released it on his own birthday.

Like the wine business, working with birds takes passion and dedication. Clark explains: "The more you learn, the more you realize what you don't know. They are amazing creatures. Did you know birds can see ultraviolet lights? They can see urine trails and use that special vision to hunt down prey."



Erecting a house near our West Block

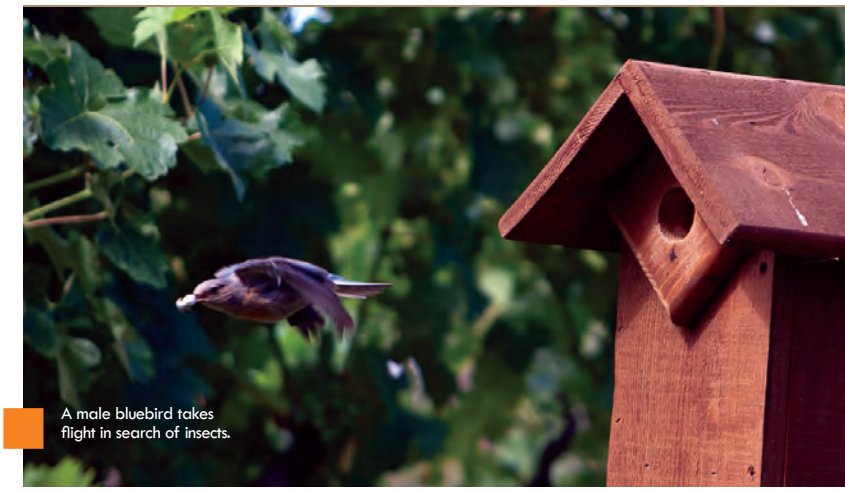
> "The more you learn, the more you realize what you don't know. They are amazing creatures.

There is a boy-like excitement in his kind eyes as he continues, "It is a joy to get wounded birds healthy and return them to nature."

Tom has installed five types of vineyard boxes on our estate vineyard. These boxes are optimized to promote maximum occupancy and custom-designed to accommodate both day birds and nocturnal animals in the night — all harmoniously coexisting in a kind of wildlife hostel.

By placing several varieties of boxes on the property, we can promote an increased population of natural predators. Each bird and bat plays a unique role and leaves a unique imprint on this majestic vineyard. It is even more striking to consider that the life-span of most of these birds is only one year. Over the next decade we will be able to host thousands of birds, providing them with welcoming shelters and a healthy array of prey.

The serenity and beauty of the Knights Bridge vineyards make our site an ideal retreat and hunting ground for all types of birds. The bucolic character of Knights Valley makes this a perfect sanctuary. With few people and minimal traffic, the resident birds can pursue an organic, unrestrained life — and our vines can enjoy balanced, unthreatened growth. ■



A male bluebird takes flight in search of insects.

Barn Owl youngsters make themselves at home. We likely won't see them at all until harvest when we pick at 3 a.m. These owls mostly eat gophers and vols. They can go through 400 gophers in a season and have more than one clutch per season as well.

“

The bucolic character of Knights Valley makes this a perfect sanctuary. With few people and minimal traffic, the resident birds can pursue an organic, unrestrained life — and our vines can enjoy balanced, unthreatened growth.

This box is a combination or hotel format, with 24-hour occupancy. The upper box is for an American Kestrel *(Falco sparverius)* or Western Screech Owls *(Otus kennicottii)*, and the lower box is for Barn Owls *(Tyto alba)*. The top perches are for raptors and Red Tail Hawks.

Once erected, the bat box (the large box on the left) will be occupied during the day. The boxes have four chambers, which allows for a nursery chamber where bats can raise their young. The 13 species of bat on our site eat copious flying insects, particularly mosquitos, and are a good source of fertilizer.

A CENTURY IN THE MAKING

by Danielle Freschet

Selecting the precise oak pedigree, barrel cooper, and toasting style is a vital step in the winemaking process and has a significant effect on the finished wine.

When the Romans started using oak barrels more than 2,000 years ago to store and transport wine, the idea of "Medium Plus" toasting was yet to be discovered. Initially the use of oak barrels was merely a practical one. It was a durable, malleable, and slightly air-permeable vessel that was perfect for keeping wine. Many other popular wood types, such as pine and rubber, possess intense volatile compounds that can overwhelm the liquid stored inside. Oak is free of such influences and delivers only subtle nuances to the liquid it contains.

It wasn't until the late 1960s that the concept of "oak influence" was fully explored. Winemakers began experimenting with different coopers (barrel-makers) who toasted the barrels to various levels to impart desired flavors and aromatic extractives. Like every other aspect of wine production, the growing of the oak, the crafting of the barrels, the barrel selection, and the duration of aging are strategic and exact.

There are over 250 species of the genus *Quercus*, but just three species are predominately used by barrel-makers: American white oak *(Quercus alba)*, European sessile oak *(Quercus petraea)*, and European pedunculate oak *(Quercus robur)*. Each species has particular tannin and aroma qualities, and preferences are a matter of style and taste.

We use French oak barrels from various coopers such as Francois

Frere, Taransaud, Saury, Ermitage, Darnajou, and Alain Fouquet sourced from Nevers, Tronçais, Allier, Vosges, Bertrange, Centre, and Jupilles forests. Just as terroir affects the character of fruit in the vineyard, the terroir of the forest influences the nature of the oak.

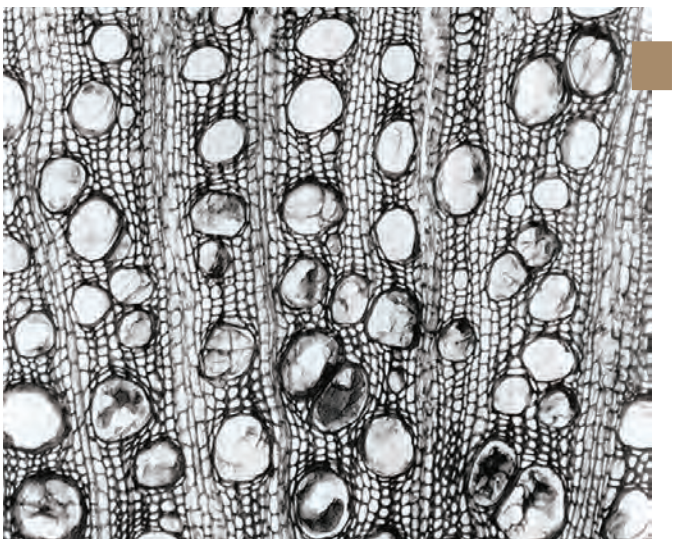
When oak trees are planted ideally in cool climates, they grow slowly and they form tighter grains. The tighter the wood grain, the slower the diffusion of compounds into the wine. The grains contain hollow tubes known as rays that act as barriers to water and air. These rays "breathe," allowing for swelling of the wood and helping to seal the joints of the barrels once it is assembled. The rays are also what account for the flexibility of the wood, allowing it to be curved into the iconic bilage barrel shape without cracking or splitting.

When first cut, more than half the weight of the stave is from water content. The milled wood is stacked and left to dry outdoors for 24-36 months, a process known as "seasoning." Over time, the chemical composition of the wood is affected by the locale's rain, oxygen, and UV radiation. Seasoning mellows the wood, eliminating the bitter hydrolyzable tannins that are present in the oak heartwood. Compounds in the oak such as phenolics, lignins, and sugars also slowly break down and meld to form the telltale aromatic compounds we desire in a complex, balanced wine.

After the staves have been properly seasoned, they are ready for assembly. Typically 33 staves are positioned upright in a tempo-

The quartered wood is cut into staves in a very efficient manner.

A microscopic look at the rays throughout oak heartwood .



Bending the staves to assemble a Knights Bridge barrel at Deptos Cooperage

Hammering down the hoops to keep the barrel's shape

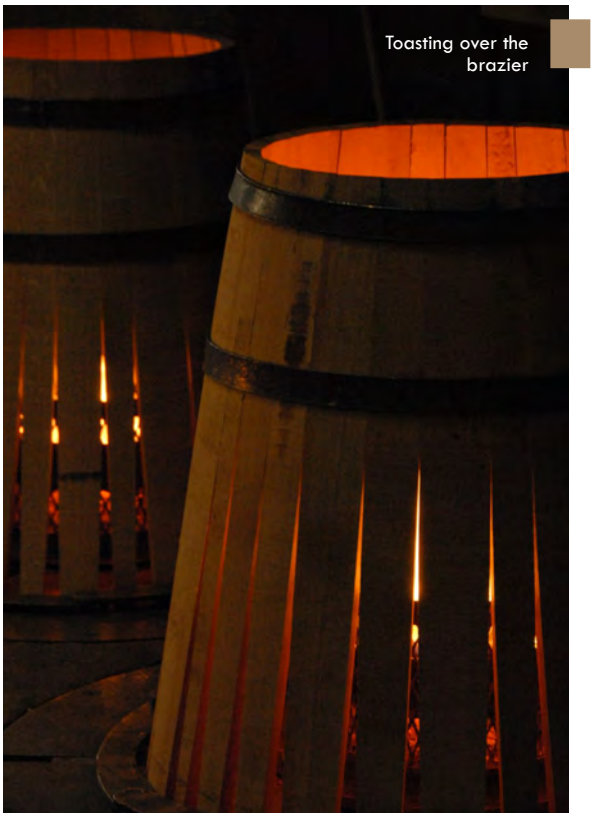
rary hoop (see photo above left). They are joined at one end and inverted over a brazier. When heated, the wood fibers shrink and bend, a transformation known as setting.

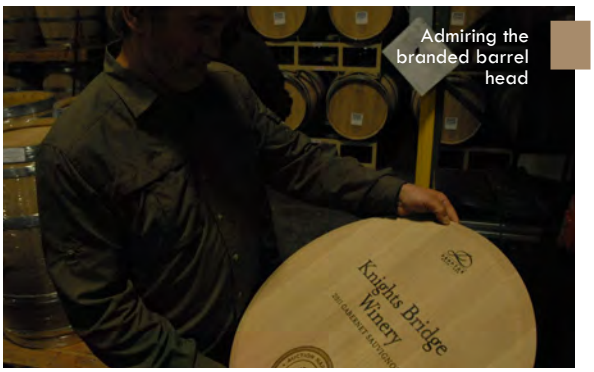
While on the brazier, the wood is also toasted. The heat transforms the lignin in the wood into vanillin which results in "vanilla" aromas that are typical in oak-aged wine. Heat also creates furfural and maltol, the compounds responsible for the toasty and caramel nuances in the barrel. A cooper controls the level of heat used on the barrel in order to toast according to their toast specifications. Coopers typically designate their barrels as light, medium, medium plus, or heavy toast. Each toast level imparts a different spectrum of character into the wine. A winemaker may choose to age his wine in a combination of toast levels to create greater complexity and nuance in the finished wine.

Once wines are in barrel their chemical composition changes even more due to being encased in the oak. New barrels have the most obvious effect on wine and their level of influence diminishes after each year of use. When we choose to impart less oak influence in a finished wine, we will adjust the percentage of new versus previously used barrels to achieve the exact balance we desire. After three to five years of use, a barrel is usually considered to be neutral and no longer imparts flavors and aromas.

As wine ages, its anthocyanins (colored pigments from grape skins) and tannins bind with the hydrolyzable tannins in the wood to form colored polymers. The controlled oxygenation that occurs from the slight porosity of the wood helps in this process. Once these polymers are formed, the wine will remain more color-stable with additional bottle aging. The larger polymers that form while the wine is in barrel translate on the palate to a softer and less astringent mouthfeel.

It is fascinating to consider the terroir, growth time and artisan precision required to produce an ideal wine barrel. After years of sampling and experimenting with different toast levels and coopers, we have achieved the precise oak character we wish to influence our Knights Bridge wines. ■


Toasting over the brazier



Admiring the branded barrel head

Toast	Temp. (°C)	Time	Impact	Flavors
Light	100-150	~ 5 minutes	Minimal change to chemical makeup.	Fresh oak, coconut and fruit flavors.
Medium	> 150	~10 minutes	Yields phenolic aldehydes, furanilic aldehydes.	Less tannins but more bouquet, imparts more aroma than flavor: a warm, sweet character with strong vanilla overtones.
Medium+	> 150	~15-20 minutes	Starts to destroy phenolic and furanilic aldehydes.	Aromas of honey, roasted nuts, and a hint of coffee and spices.
Heavy	> 200	~25 minutes	Phenolic and furanilic aldehydes are either limited or destroyed and instead volatile phenols are produced.	Pronounced caramelized, carbonized and toast flavors.

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WEATHER: IT MATTERS

Discovering Climate's Impact on Winegrape Quality

by Richard Brockmeyer

The convergence of sunshine and rainfall casts a rainbow over the vineyard.

Over the last 150 years, California winegrowers have greatly evolved their planting decisions. As we have become more aware of the myriad factors that result in optimum fruit, we find that we are also chasing a moving target as our climate changes. It is a far different process than what it was at the start of California's winegrowing industry, but even then, the pursuit for quality drove exploration, innovation, and change.

In the 1850s, one of the first wine grape farmers on record, Colonel Agoston Haraszthy, decided to ignore the fertile valley floor east of the town of Sonoma. Instead, he planted 140 acres on a hillside in what was thought to be intolerable conditions without irrigation capabilities. Nearly a decade later, his unexpected success prompted the newly formed state of California to appoint him to a committee to "inquire into, and report upon, the best means of promoting and improving the growth of the vine in California." Haraszthy was given a special assignment: investigate the winegrowing regions of Europe. With numerous visits to the continent, he imported "over 300 different varieties of grapes, including near 200,000 rooted vines and cuttings." Haraszthy's ongoing investigations and importations were tragically halted in 1869 when he mysteriously disappeared while visiting his Nicaragua plantation. "His footsteps were traced to a river. It is supposed that he endeavored to cross the river by climbing the branch of a tree, and the branch broke, letting him fall into the water, where he was devoured by an alligator." [1]

Haraszthy's son carried on with his father's work. In the January 1872 issue of *Overland Monthly,* Arpad Haraszthy discussed the advantages of California as

a wine-growing region: "California has one advantage over any wine-producing country on the globe, and that is the certainty, constancy, and duration of her dry season. The sure and uninterrupted duration of this dry weather secures a crop without a chance of failure, and ripens the grape to perfection. Owing, on the contrary, to the wet season of Europe, the vine-dressers are constantly kept among the vines, trying to give them a clean appearance; but in spite of all their efforts, they but imperfectly succeed, and their vineyards never possess that appearance of high and perfect cultivation that is so apparent in our own." [2]

There is certainly some "home town pride" in the framing of Arpad's 1872 article, but the focus on the weather's importance to winegrape quality and success has been notable for 140 years.

In the late 1800s, one of California's pioneering winegrape researchers, Dean Hilgard (Professor of Agriculture, University of California), broached the topic of growing-season temperature in relation to grape varietal selection. In his 1879 report to the President of the University he states, "The industry was improving because of the introduction of varieties better than the previously used Mission," alluding to the emerging impact of the European grape varieties brought from Europe by Colonel Haraszthy. In 1886, Hilgard's report mandates, "The industry must adopt the grape varieties and treatments of Europe." This led to an early classification system devised by Hilgard, an arrangement of varieties according to the district abroad where they were best known (Pinot Noir in Burgundy, France; Cabernet Sauvignon and Merlot in Bordeaux, France, etc.).

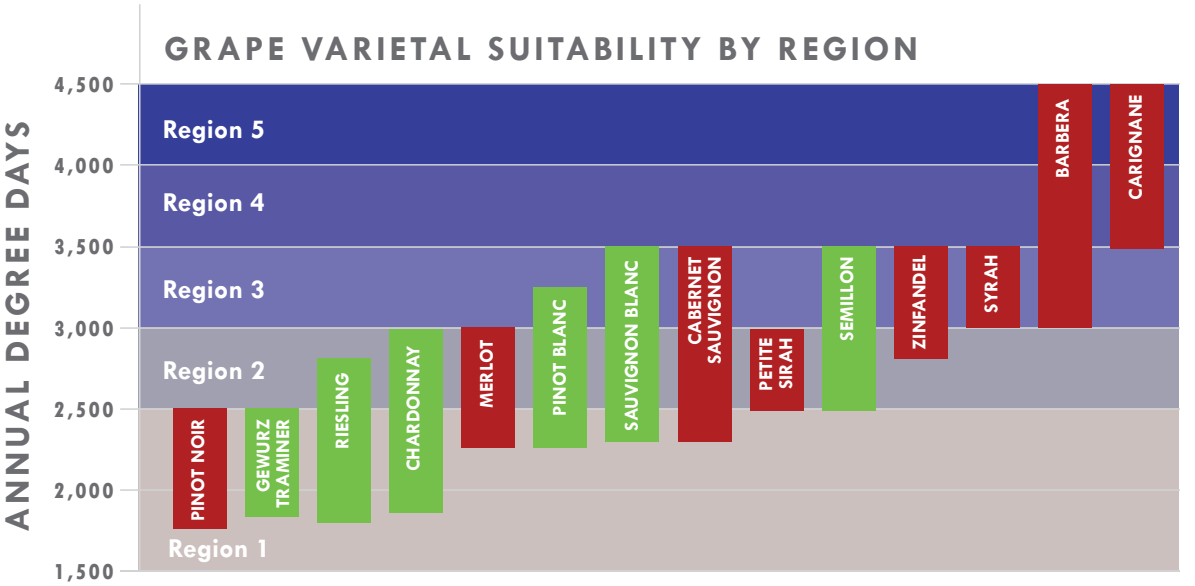
> "California has one advantage over any wine-producing country on the globe, and that is the certainty, constancy, and duration of her dry season. The sure and uninterrupted duration of this dry weather secures a crop without a chance of failure, and ripens the grape to perfection.
> Arpad Haraszthy in an 1872 issue of *Overland Monthly*

In 1907, another University of California researcher, F.T. Bioletti, reported on experimental station work he was conducting with numerous winegrape varieties. He divided the state into two winegrape climate classifications: "coast counties and interior valleys." This was the first formal, researched step in defining specific growing areas according to climatic influence during the growing season.

It took 37 years for Bioletti's crude categories to be further expanded to the current industry standard of five "Regional" classifications. In 1944, a new generation of University of California researchers, Professors Amerine and Winkler, devised the new classification system and, most notably, provided a scientific, quantifiable definition for each region. This was done based on temperature patterns throughout the growing season deemed "Degree Days." Amerine and Winkler explained the current classification system in their February 1944 publication, "Composition and Quality of Musts and Wines of California Grapes." They state in their introduction, "The significance of variety in European types indicates the great importance of choosing grapes adapted to the particular environment."

Their 1944 publication presented the results of years of scientific sensory evaluations of wine samples from numerous growing sites throughout California. An impressive 122 grape varieties were included. The varietals were classified by the regions in which they were most successful, and it was noted in which regions they were least successful. The classifications were based on sensory evaluations of thousands of small batches of wine produced by the researchers specifically for this project. They went on to define the five climatic regions into which they divided the grape districts of California according to the cumulative Degree Days during the growing season.

The chart on the next page presents the suggested Region preferences for 14 of the 122 varietals Amerine and Winkler classified.[3]



Included are most of the "surviving" varietals that have evolved into California's primary commercial winegrape varieties. In looking back at their work 70 years ago, their climate/variety classifications still provide excellent initial guidance for planting decisions. Presently, for some varieties, better viticultural practices and a greater array of clone options have allowed some leeway in the recommended 1944 varietal zones. Also, the number of pre-planting considerations have increased greatly over the past 69 years. Thirty years ago, the key decision would have been which variety to plant. Today the key issue may be which clone to plant of the "obvious" variety for the site.

For the purpose of cultivating winegrapes, Amerine and Winkler assumed that heat units above 50°F advanced the maturation of the growing crop. Below 50°F, it is assumed the vine is inactive. The cumulative sum of time and extent above 50°F results in the growing season totals used to determine the five climactic regions, a specific site's Degree Days over the growing season.

Degree Days have been calculated in a number of ways over the years. With our present system, Degree Days are calculated by adding, for each day between April 1 and October 31, the number of degrees by which the average temperature is greater than 50°F. For example, a day that had a high of 90°F and a low of 56°F has an average temperature of 73°F, which translates into 23 Degree Days.

At Knights Bridge, there are two weather stations installed representing higher and lower elevations in the vineyard. Readings from each station vary greatly, proving quantifiably that the vineyard is able to successfully cross regional zones, depending on where the varietal is grown in the vineyard.

While the wine industry has advanced over the last 150 years in matching a specific site's climate characteristics with the best winegrape varietal/clonal fit for quality, we are also seeing a notable change in temperature patterns.

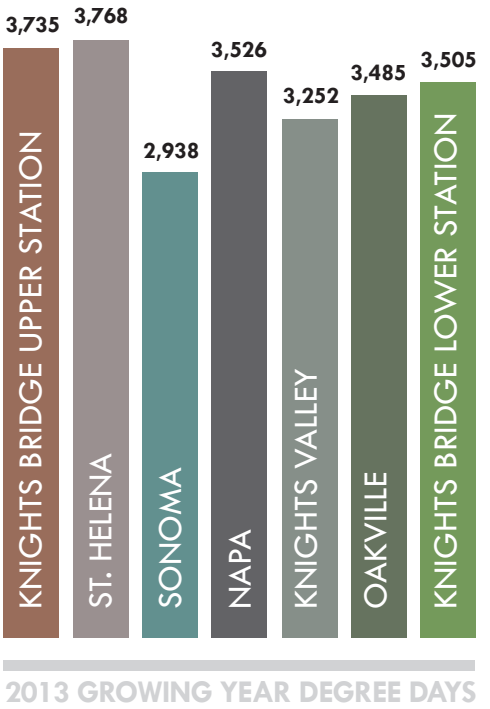
A June 2011 Stanford Report suggests that temperature increases "could affect growing conditions in four premium wine-producing counties by 2040 ... Planting different varietals could be costly for winegrowers, ... but in areas where less drastic temperature change is likely, growers may be able to maintain the quality of their grapes by using existing cultivation and winemaking techniques. Possible strategies include special trellis systems that shade vines, using irrigation to cool plants and adjusting fermentation processes in the winery."[4]

Our Knights Bridge Vineyard is intimately tied to our weather readings, and we are making strategic farming decisions based on both current and future climate expectations. Being acutely aware of the many variables that result in prime fruit and reacting to the distinct conditions within each vineyard block will allow us to produce the best wines from our site. ■

Sources
1. *Historical and Descriptive Sketchbook of Napa, Sonoma, Lake and Mendocino*; C. A. Menefee, 1873.
2. *Overland Monthly*, January 1872 (as reported by source #1).
3. Chart by Richard Brockmeyer, *Wine Industry Investment Consulting from results presented in Composition and Quality of Musts and Wines of California Grapes*, 1944 by Amerine and Winkler.
4. *Stanford Report*, June 30, 2011.

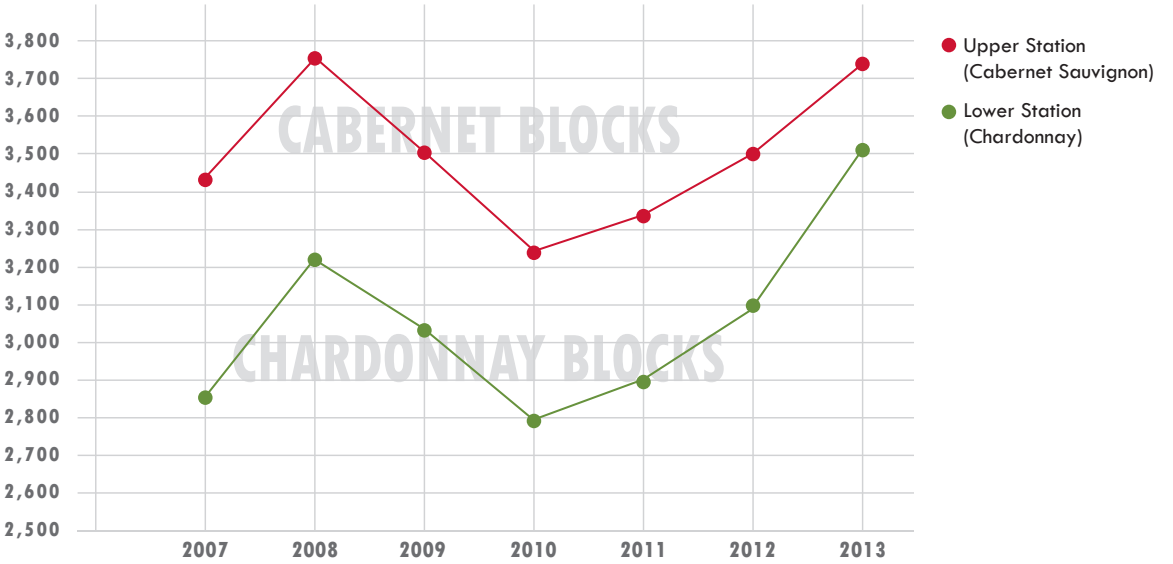
Richard Brockmeyer is an independent wine industry consultant based in the Napa Valley with 35+ years' experience in the coastal wine regions. "Brock" has been assisting Knights Bridge since our early days in numerous areas, including financial planning and implementing our long-term, quality-based sustainable growth plan. A key area of his practice is identifying world-class vineyard development sites. A site's climate is a critical component of that evaluation. Over the last 10 years he has identified and acquired 33 vineyard development properties for clients, reaching from the Santa Rita Hills in the south, through the North Bay counties, and up to Oregon and Washington in the north.

Total degree days for various Napa/Sonoma AVAs and Knights Bridge Vineyard Microclimates in 2013



Data shows most areas to be in Region III which allows for optimum ripening for red varietals. Sonoma was significantly lower which is most likely due to coastal cooling influence.

A Snapshot of Degree Days Measured at the Upper and Lower Weather Stations of our Knights Bridge Vineyard 2007 - 2013

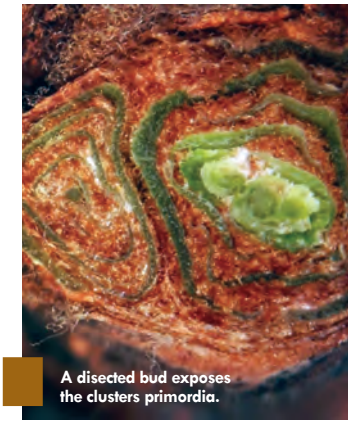


The Birth of a BERRY

Controlling Each Stage of Berry Development to Yield the Finest Fruit

by Garrett Buckland

A vital aspect of vineyard management is meticulous quantity control throughout each stage of berry development. We carefully track the potential fruit yield vine by vine to ensure the highest quality harvest possible. Our job includes a great amount of counting and recording. The more information we know about the potential crop load, the better we can fine-tune vineyard operations to optimize quality and yield.

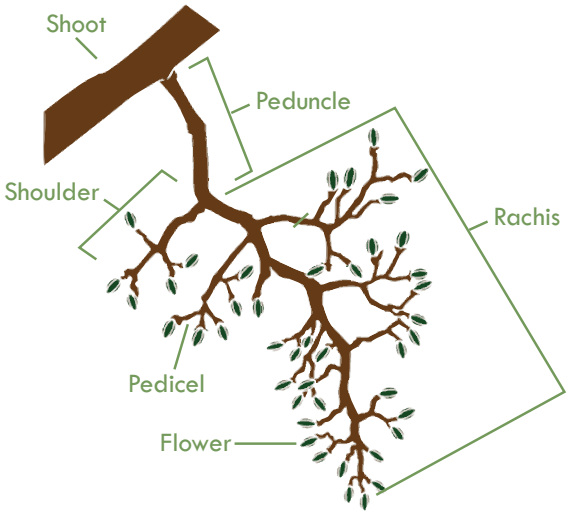


A disected bud exposes the clusters primordia.

Our data analysis starts well before our vines wake from dormancy. In the winter months, we dissect buds to measure the number of "clusters primordia," or the fruit-producing potential for the next season. These clusters are categorized into three different size ranges — small, medium, and large — which gives us an idea of next year's crop load a full eight to nine months in advance. If the cluster number is very low or sizes are exceptionally small, we can adjust the winter pruning to leave more buds on the vine, which in turn allows for more clusters to be produced. If the cluster size or number is overly high, we reduce the number of clusters per vine prior to bud break during our spring pruning. Our winter pruning decisions are the first step in balancing the fruit-to-canopy (leaf coverage) ratio, which is important for multiple reasons. Too much canopy can result in under-ripe flavor characteristics (e.g., vegetal aromas) in the finished wine, while too little canopy won't allow for the fruit to ripen at all. This perfect balance point will always produce the best quality while maintaining quantity.

After bud break — typically in the first half of April — clusters are visible on the emerging shoots, and we count the total number of clusters the vines will bear. At this stage, the architecture of the cluster is determined, and we can observe whether the cluster has "shoulders" (ancillary bunches growing away from the spine of the main bunch at the top of the cluster) or appears large or small, long or short. We can also calculate the approximate number of clusters per shoot. With this knowledge, we determine whether any shoots should be removed. Ideally a healthy shoot will be at least the thickness of a pencil and reach at least 24 inches in length.

ANATOMY OF A GRAPE CLUSTER



After bud break

Prior to flowering

Flowering

As cluster elongation occurs, approximately two to three weeks after bud break, we look for loose clusters that will give adequate space for all of the berries to hang on their own and not be shaded or buried inside the interior of the cluster. If the berries are too close together as they develop and swell, they can rupture and eventually lead to mold issues. We are able to influence cluster elongation and allow for ideal spacing between berries.

Flowering typically occurs sometime between mid-May and mid-June or 40-80 days after bud break. During bloom, we are able to determine the "berry set," the number of berries on a cluster. Optimally we strive for 120-170 berries per cluster, depending on its length. Berry set is determined by a variety of factors, both intrinsic and external. The vine determines an optimal amount of fruit to produce, while weather conditions play a vital role in the ultimate outcome. Extreme cold, hail, and high winds can damage the flowers, which inhibits fertilization.

Berry size and, ultimately, berry weight is all determined within the first 35-45 days post-fertilization. This is when the number of cells that a berry is going to have is determined. The lower the number of cells, the smaller the berry will be at harvest, and conversely the higher the number of cells, the larger the berry will be at harvest. After veraison, these cells will swell during the second and third phase of growth (for details on berry ripening see the following pages), causing the berry to double in size. Excessive fertilization, watering, or general lack of stress will cause an increase in cells during this stage that will result in an increased crop after veraison. To produce grapes that have good balance and concentration of flavors, fertilization and watering should not occur after veraison. Stressing rather than feeding the vines will ensure an ideal berry size.

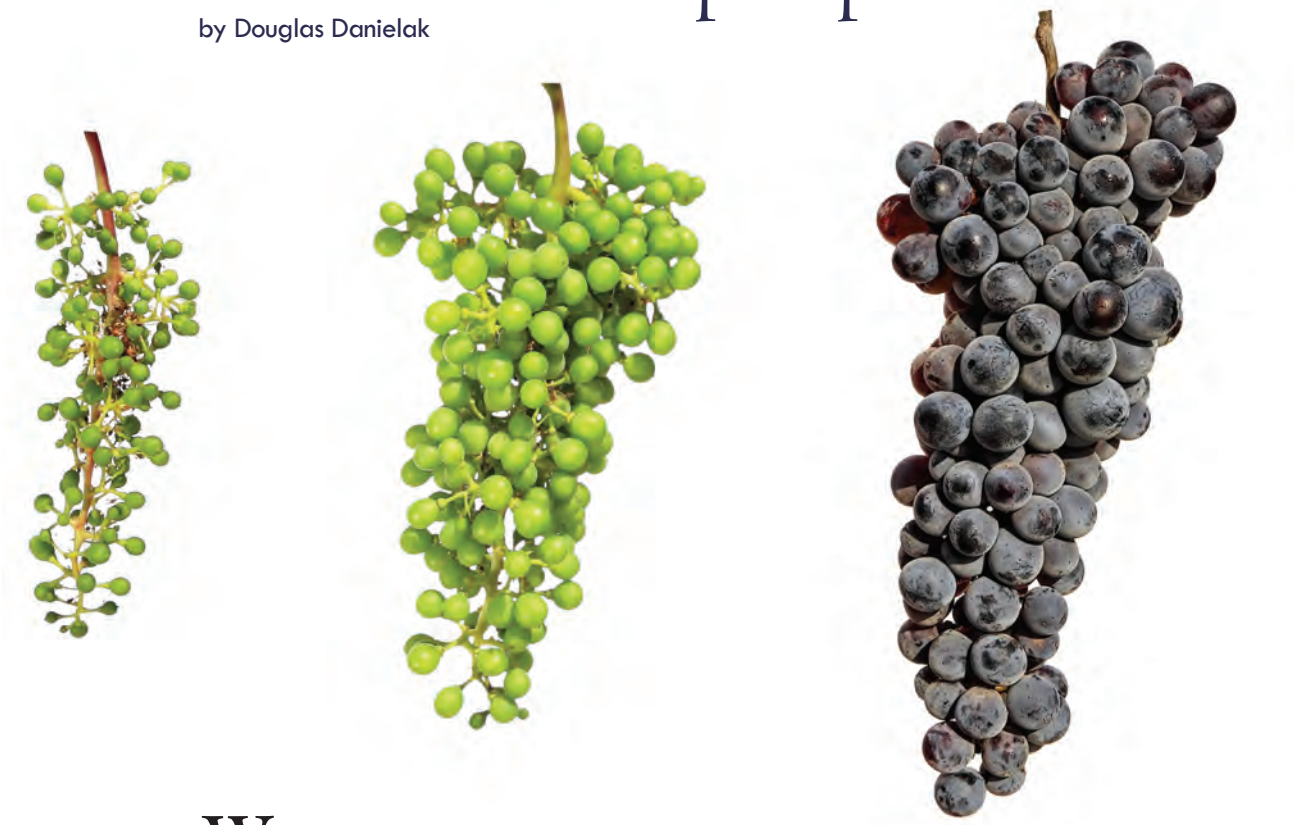
Nutrition plays an important role in bud and cluster differentiation for the next year's crop. Too many or too few nutrients can cause structural defects in the clusters primordia of the vintage to follow. Nutrient toxicities can decrease the number of potential berries. To help offset potential nutrient deficiencies, trace quantities of micronutrients can be sprayed in the vineyard two weeks before bloom. These nutrients ensure that proper fertilization occurs and maximizes the number of viable seeds.

These are just a few of the many factors that affect crop levels and cluster numbers. Beyond assuring the vine's ideal fertility, we must be on guard to answer any imbalances that may occur due to weather conditions. We are continually watching for and responding to the needs of the vine. We have developed a signature strategy for the Knights Bridge Vineyard that combats any potential vigor problems; our vines are balanced and properly stressed to produce ripe concentrated fruit. ■

Garrett Buckland owns and operates Premiere Viticultural Services. He has decades of experience in every aspect of farming ultra-premium winegrapes. Garrett's expertise has helped us optimize our farming. He lends his invaluable guidance in the evolution of our vineyard.

defining ripeness:
a winemaker's perspective

by Douglas Danielak



When winemakers use expressions like "hang time," "ripe tannins," or " brown seeds," they are trying to identify those seasonal cues that grapes have reached optimum maturity. But what do we really mean when we use the term "ripe" and how do we measure perfect grape maturity ?

Looking at the definition for "ripe," Merriam Webster states:
1. fully grown and developed (of fruit, grain, etc.)
2. having mature knowledge, understanding, or judgment.

The first definition of ripe begins on the vine. The second definition deserves close scrutiny as our understanding of grape maturity remains incomplete.

> It is only recently that viticulturists and winemakers have come to a more profound understanding and precise definition of grape ripeness.

Berry Growth and Development

It is normal for us to think of the grapevine as a unit of production destined to yield a crop of grapes that is lovingly, patiently transformed into wine. It is easy to forget, from the grapevine's perspective, that its primary role is reproduction.

In Northern California, grapevines bud out in early spring (March-April) and extend canes that carry flower clusters (inflorescence). Grapevines have hermaphroditic flowers, meaning they carry both male and female organs. Also called "perfect" flowers, this makes grapevines self-pollinating and consequently they do not rely heavily — if at all — on insects or wind for pollination.

Grape flowering or anthesis normally occurs five to eight weeks after the beginning of shoot growth. During the flowering period or "bloom," mild weather favors optimal fruit set. Cold, adverse weather conditions create uneven flowering and set, which in turn lead to uneven ripening later in the season. To assure uniform ripening, best vineyard practice calls for an early thinning pass to remove young clusters that lag behind. Winemakers like to measure days from bloom to harvest as a seasonal data point. Depending on climate region, seasonal variation, and variety, bloom to harvest dates range from 100-130 days.

Grape Set and Berry Expansion

Once the grapes are fully pollinated or "set" on the cluster, how do they grow to maturity since they start off the size of a pencil tip, only 1/16 -1/8" in diameter? As we follow vine physiology into the summer months, we observe that grapes ripen in three distinct stages.

STAGE 1: The first phase involves rapid berry growth. This period lasts three to four weeks and is defined by both cell division and cell expansion. A large accumulation of principal grape acids, tartaric and malic, are accompanied by modest increases in sugar content. Grape skins remain firm and bright green due to the presence of chlorophyll.

STAGE 2: From the graph on the following page, we can see that this is a brief period during grape ripening known as the lag phase. At this point, accumulations of organic acids reach their peak. The xylem or water conducting tissue ceases to function as grape ripening enters its final stage. Grapes remain firm and green.

STAGE 3: The third phase includes another period of berry expansion accompanied by final fruit ripening to harvest. The beginning of this phase is known as veraison, when berries start to soften and color changes in the skins. Acids start to decline and sugar begins to accumulate. The final portion, referred to as engustment, represents the export of aroma and flavor compounds from leaves to grapes.

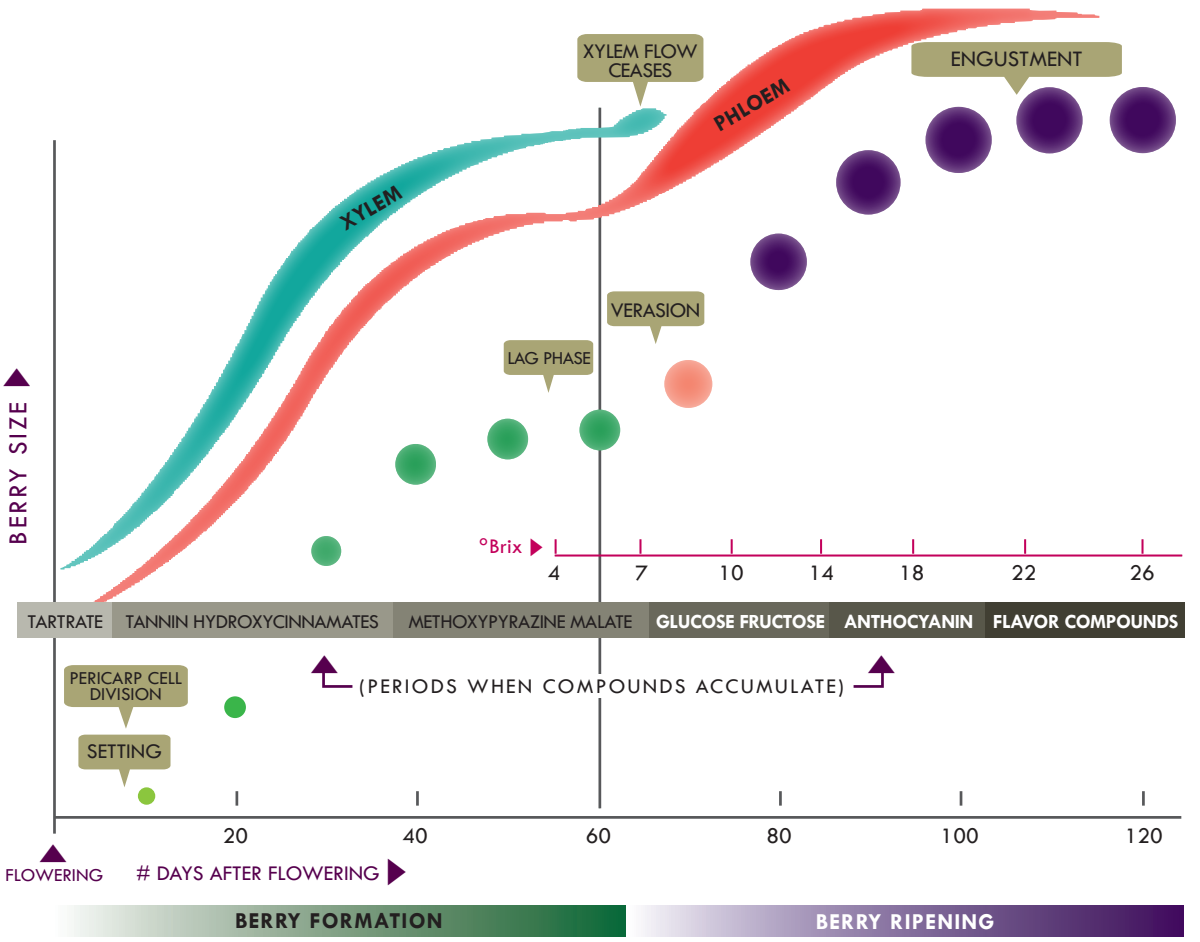


Diagram above shows relative size and color of berries at 10-day intervals after flowering to include: major developmental events, periods when compounds accumulate, the level of brix in the juice, and the rate of inflow of xylem and phloem vascular saps into the berry. *Adapted from a diagram by Jordan Koutroumanidis of Wintitles.*

Having had the good fortune to study with great European winemakers and enologists, I took away a strong message from my first day of class in France: "Young winemakers, the key is to grow grapes attentively and with passion with the end goal of having grapes that are perfectly and uniformly ripe, that is to say, not under-ripe, showing the green, immature flavors and tannins common in poor years. Equally harmful to wine quality, however, is fruit that is over-ripe. Such wines may impress early in their evolution, but they will show their underlying weakness and lack varietal identity over time."

Across Europe, grape maturity is defined by sugar accumulation. Continental Europe enjoys a temperate climate where sugar accumulation or degrees brix remains a primary determinant of harvest in the face of inclement weather. In California and much of the New World, it is only recently that viticulturists and winemakers have come to a more profound understanding and precise definition of grape ripeness. After all, if great wines are counted by sugar accumulation alone, then our best wines would be harvested early in our warmest inland (Region V) climates. (For a discussion of climate regions based on degree days, see pages 18-21.)

Therefore we winemakers must take into consideration all the compositional details of ripeness — sugar, acids, color, and aroma compounds — to truly make wines of distinction. It's the role of the winemaker and grape grower to discern and orchestrate these elements through the end of the growing season.

Grape Composition: A Winemaker's Perspective

SUGARS

The most common yet inaccurate measure of sugar accumulation uses a scale of degrees measured in brix. One degree Brix (1°Bx) is defined as 1 gram of sucrose in 100 grams of aqueous solution. The typical range for table wine is 21-26°Bx corresponding to roughly to 210-260 grams of sugar per liter. We aim to achieve 23-25°Bx in our white wines and 25-27°Bx in our reds.

This is a gross predictive measure for estimating finished alcohol. More meaningful measures can be derived by measuring glucose and fructose, informing winemakers what yeast strains will be most viable during fermentation. For example, the yeast strain *S. cerevisiea byanus* is fructophilic and best suited for fruit with high fructose levels. Save the extrapolation of sugar to alcohol, sugar levels alone remain a weak metric by which to gauge wine quality.

ACIDS

The types of acids, their concentration, and their ratios play a major role in wine quality. By the time grapes are harvested, grape acidity is predominately tartaric, followed by malic and a small amount of citric acid. In many juices a tartaric:malic ratio of 4:1 is considered ideal since tartaric represents the strongest and most stable acid while malic acid may disappear completely if metabolized during a secondary, malo-lactic fermentation. Vine trellising and fruit shading can play important roles in acid metabolism. The type of acids present and their relative stability play important roles in predicting and managing wine pH. We strive for pH levels to be 3.6-3.8 in our red wines and 3.3-3.6 in our whites. These particular pH ranges allow our wines to possess optimal balance and structure.

PHENOLIC COMPOUNDS

In describing harvest parameters, winemakers cite "ripe tannins" and "brown seeds" as important criteria. These expressions refer to phenols, a class of compounds that includes tannins, flavanols, and anthocyanins, the agent responsible for grape color. Red grapes contain high levels of phenols when compared to white grapes, which do not contain anthocyanin. Winemakers are just beginning to elucidate the importance of phenolic compounds and their complex interaction during the fermentation and aging process. To further complicate the quest for optimal maturity, the winemaker does not seek out elevated concentrations of a single phenol compound, but a delicate ratio of phenols. Farming grapes to arrive at ideal maturity requires a complex organic matrix.

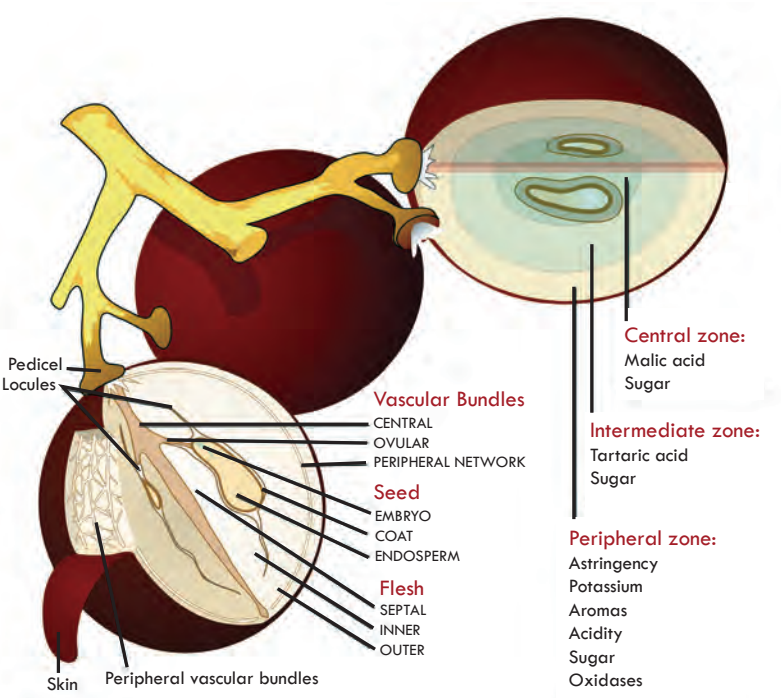


Diagram above shows the anatomy of the berry and the regions in which various compounds develop as the fruit ripens.
Adapted from a diagram by Mariana Ruiz Villareal.

AROMA AND FLAVOR COMPOUNDS

In the later stages of ripening, the carbon skeleton donated from sugars and glucosides can form secondary metabolites that are responsible for wines' complex aromas and flavors. Simply put, once the berry has ripened, the newly formed sugars and glucosides contribute the key ingredient needed to create intricate aromatic compounds. Environmental conditions, vine

> We winemakers must take into consideration all the compositional details of ripeness—sugar, acids, color, and aroma compounds—to truly make wines of distinction.

nutritional status and grape variety all play a role in the vine's ability to produce these compounds. Certain classes of flavor and aroma compounds may exist only as precursors that emerge over time in the aging process and have to be brought to the fore through careful winemaking techniques. For example, aromatic compounds that emulate blackberry can be typical in well ripened Cabernet Sauvignon. In a young wine, these compounds will display themselves in a very pure, concentrated way. As a wine ages, these compounds evolve into more of a baked or dried blackberry character with hints of spice. Hallmark aromas such as earth and moss transform into tobacco and leather with time.

Douglas Danielak

THE HUMAN ELEMENT: WORKING IN CONCERT WITH NATURE

Today's winemakers define perfectly mature fruit as uniformly ripe, full of varietal flavor and void of aroma flaws such as pronounced green or vegetative notes. At every stage of the vintage growing season, strategic decisions are made on a weekly basis that, cumulatively, will lead to perfectly ripe fruit if performed with precision and timeliness: pruning, trellising, leaf removal, disease prevention, vine nutrition, canopy light management and air circulation, and, ultimately, harvest dates make up but a few of the vital choices in the pursuit of perfectly ripe fruit. Not surprisingly, most of these human inputs require little or no specialized equipment or far-reaching technology, but sensitivity and attentive care to what nature proffers each growing season. ■

New Plantings in 2013

Grapes are the ultimate expression of a vineyard site: soil chemistry, water availability, micro-climates, and even minor changes in elevation and orientation to the sun will impact quality. Knights Bridge's estate vineyard has many specific topographic and sun exposure combinations. These physical aspects, combined with the Knights Valley climate, are why it was chosen as the vineyard estate foundation for Knights Bridge's wine programs.

Over our eight years of winemaking experience on the property, each vineyard block has showcased special elements that have become the backbone of our wines. Our vineyard and winemaking teams' analyses highlighted certain aspects that could be enhanced if new rootstocks and clones were planted. The industry's understanding of site matching, combined with the availability of a broader array of rootstocks and clones, has evolved mightily over the years.

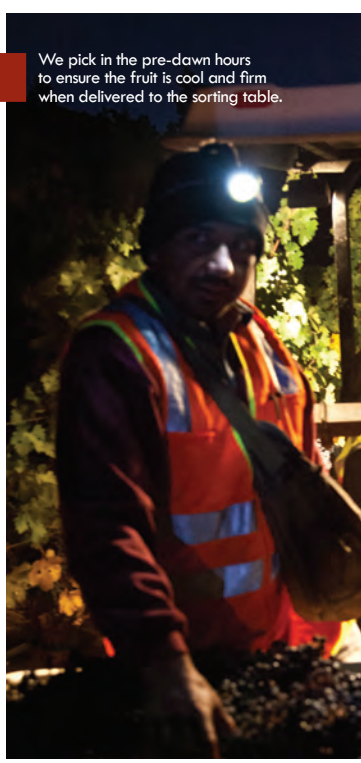
In 2012 an extensive, multi-year plan was implemented to replant all of the older vineyard blocks and plant areas previously not in the vineyard. The "master plan" is divided into 28 distinct vineyard blocks. The three-to-four-year lead time, before significant production from the new vines, required careful timing of old vine removal so the flow of highest quality fruit to Knights Bridge's two brands was not interrupted. The replanting of the older vines also provides the opportunity to incorporate modern viticultural practices (tighter vine spacing, more appropriate trellising, and ideal row direction for sun exposure). Our viticulturalists and winemakers are confident the replantings will exceed the older vines' fruit quality levels — even for the current stars.

The first new plantings were completed early in 2013, following vine removal after the 2012 harvest. The varietal and clonal selections are a collaboration of: (1) those that have excelled in the vineyard from the older vines (this retains our wine styles) and, (2) the expertise of our viticulturists and winemakers regarding what vines they have seen excel in similar sites. This latter component has been most valuable for the blocks that previously were not meeting their quality potential, as well as the unplanted areas receiving their first vines. It is with great anticipation that we look forward to the bottled results of our new, modern plantings — and sharing those with you. ■

Young vines in Block 10 will be harvested in 2015.

HARVEST 2013

The fruit is gathered in 60-pound picking bins and transferred to half-ton bins for transportation to the winery.



We pick in the pre-dawn hours to ensure the fruit is cool and firm when delivered to the sorting table.

A member of our harvest team picks a cluster of Cabernet Sauvignon.

Warm, steady weather and no threat of early autumn rains capped off a near-ideal, uneventful growing season that brought the earliest harvest in a quarter-century. Knights Bridge winemakers Jeff Ames and Meredith Leahy offer a retrospective.

The 2013 harvest was the earliest I have seen in a very long time, more than two weeks sooner than what is typical. It all started with a dry, mild winter that prompted an early bud break. Berry development was incredibly smooth with steady, predictable weather.

The warm summer, with minimal high-heat days (greater than 95°F) continued the optimal growing conditions. Veraison occurred in mid-July rather than early to mid-August as we experienced the previous five years. Autumn brought us more dry, temperate weather that allowed the grapes to ripen slowly and evenly without threat of mildew due to early rains.

This was the first "drought" vintage we have seen in a long time. It's not unusual to confront late October rains, but this last harvest occurred with no precipitation to contend with during our picks.

The vineyard really produced in spades; the fruit was copious and well ripened. The large crop in 2012 initially had me thinking the vines would hold back a bit in 2013. Obviously, the weather was simply ideal for a plentiful crop.

The finished wines are truly intense — not as fruit driven as the 2012 wines, but they possess massive structure and more than enough fruit to match it. They are incredibly dark in color, nearly bordering on black. The wonderful fruit extraction will certainly translate into great concentration and complexity as the wines evolve.

These are big wines that may want additional barrel time to allow their structure to integrate. We will carefully monitor each barrel to see how each segregated block evolves in the months ahead. I expect the finished wine to be muscular and beautiful. This is an exciting start to the evolution of this extraordinary vintage. ■

Ready to be *Shared*

A Guide to
Our Current Releases

2011 KNIGHTS BRIDGE WEST BLOCK CHARDONNAY

Our Estate Chardonnay is planted on alluvial soils in the bench land of Knights Valley. The West Block sits in the path of steady cooling winds funneled through a gap in the Mayacamas Mountains and enjoys moderating afternoon shade. The fruit ripens slowly and steadily with rich, nuanced character.

We harvested the 20-year-old vines in the early hours of September 30, 2011. Winemaker Jeff Ames cold-pressed the clusters and allowed the juice to settle in tank for 24 hours. The juice was transferred to 100 percent new French oak — a combination of Francois Frere, Saury, and Remond barrels — where it underwent both native primary and malolactic fermentations. The wine was aged with weekly lees stirring for 17 months before being bottled unfined and unfiltered on March 8, 2013.

This 100 percent Chardonnay possesses a profound balance and wholeness. The 2011 vintage offers the opulence and energy of a vintage like 2007 while maintaining a refreshing brightness. The resulting profile is complete and delicious with aromas of sweet cream, spiced pear, and honeysuckle that sail on through the supple palate which crescendos into a wash of citrus and stone.

445 cases produced

2011 PONT DE CHEVALIER ESTATE CHARDONNAY

Our Pont de Chevalier Estate Chardonnay is crafted from fruit grown in the coolest section of our Knights Bridge Chardonnay vineyard. We farm these vines to ensure a careful balance of sun exposure and moisture influence. This section of our Chardonnay vineyard yields fruit of particular finesse, complexity, and vibrance. We harvested on September 30, 2011.

Following a gentle pressing, the juice was chilled in tanks and allowed to settle until fragrant, nearly clear juice was obtained — a process that took several days. Winemaker Douglas Danielak then transferred the juice to French barrels — Francois Frere, Remond, and Alain Fouquet — where fermentation occurred. This 2011 vintage completed 20 percent malolactic fermentation, which allows it to maintain the Knights Valley signature brightness and pure, focused varietal expression. The wine was bottled on August 16, 2012.

This elegant wine exhibits a graceful melding of linden flower, Asian pear, fresh mint, and river rocks. There is an energy on the palate that drives beautiful notes of citrus through its poignant finish.

435 cases produced

2011 PONT DE CHEVALIER ESTATE SAUVIGNON BLANC

We harvested the Sauvignon Blanc in the pre-dawn hours of September 27, 2011 from 15-year-old vines located on a gentle north-facing slope of our Knights Bridge vineyard. The 2011 vintage was characterized by a long growing season, allowing complex flavors to develop on the vine.

Winemaker Douglas Danielak cold-pressed the fruit and allowed the juice to settle in tank for four days. We then racked off the lees to start fermentation. The wine fermented in tank until 3° brix before we transferred it to stainless steel barrels and 20 percent French oak. We inhibited malolactic fermentation and aged the wine for seven months on the lees to develop a fine, layered texture. The wines was bottled on May 10, 2012.

This classic Sauvignon Blanc displays aromas of pineapple, pink grapefruit, key lime, guava, and floral lychee. The palate is bright and full with an exquisite texture and underscoring minerality. The finish endures with refreshing citrus and sea stone salinity.

192 cases produced

2010 KNIGHTS BRIDGE KNIGHTS VALLEY ESTATE CABERNET SAUVIGNON

Winemaker Jeff Ames draws emphasis on this vineyard's dense, rich fruit and impeccable balance. Harvested from our Knights Bridge estate's 20-year-old vines on October 20, 2010, the berries were fermented on their skins for 19 days to fully extract fruit, color, and tannin before being pressed off sweet to barrel where they completed fermentation. The wine was aged for 21 months in 70 percent new French Taransaud, Darnajou, and Sylvain barrels before being bottled unfined and unfiltered.

The hallmark notes of our Knights Valley vineyard — blackberry, dried lavender, and cocoa powder — immediately present themselves on the nose while baking spice, macerated blueberry, dried mint, and wet stone offer a layered underscore. On the palate, this wine is incredibly rich and weighty, a broad-shouldered wine with deep, plush flavors of dark fruit, cassis, and earthy chocolate. The structure is seamless: the sweet tannins are balanced and well integrated, lending grip and frame while bright red fruit and brown spices wash through the long finish.

This is a serious wine that commands attention and rewards with its finesse, focus, and complexity. Decanting is recommended when drunk in its younger years, and 3-5 years of aging will allow this wine's intricacies to fully emerge.

328 cases produced

2009 PONT DE CHEVALIER KNIGHTS VALLEY ESTATE CABERNET SAUVIGNON

Douglas Danielak crafted this wine from the fruit of Block 13 on our Knights Bridge estate vineyard, harvested on October 12, 2009 from 19-year-old vines. The gently crushed berries were fermented on their skins for 10 days before aging for 17 months in 80 percent new Francois Frere oak from the Nevers forest. This wine has been afforded 30 months of bottle aging prior to release to allow its fine-grained tannins to integrate and its aromatics to evolve.

On the nose, this wine delivers a perfectly harmonious, sweet perfume of espresso, wild plum, and saddle leather, along with the telltale Knights Valley lavender, blackberry, and cocoa. The wine unfolds slowly in the mouth, revealing dense briery fruit, dark chocolate, and mocha interwoven with intriguing notes of licorice, toasted walnuts, and forest floor. Our Block 13 fruit is known for its large tannic profile and the wine's chewy tannins bring a delightful grip and length to this incredibly rich, nuanced wine and lead effortlessly on to a smoky candied cherry finish. This wine is striking now and will only improve over a decade or more of cellaring.

73 cases produced

2010 KNIGHTS BRIDGE BECKSTOFFER DR. CRANE CABERNET SAUVIGNON

We harvested our select blocks of Beckstoffer Dr. Crane fruit on October 19, 2010. Hailing from 13-year-old vines in prime alluvial rocky soil, the berries were fermented on their skins for 14 days prior to pressing and barrel fermentation. The wine was aged for 21 months in 70 percent new oak from Darnajou and Taransaud. We bottle this 100 percent Cabernet Sauvignon unfined and unfiltered.

Aromatically, this wine bounds with ripe red raspberry, cassis, and peppermint with savory base notes of cedar embers and sweet sausage. On the palate, it is lush and well-defined with gripping tannins and a lifting wash of dark fruit and flowers. The finish echoes with chocolate, cedar, baking spice, and scorched earth.

This is a beautifully balanced, multifaceted wine that deserves an hour or more to breathe in the decanter or glass so that its tightly woven nuances can be fully enjoyed. Likewise, this wine will easily age for 12 or more years, becoming even more revealing and graceful with time.

90 cases produced

2009 PONT DE CHEVALIER BECKSTOFFER DR. CRANE "LE CHEVALIER" RED WINE

"Le Chevalier" is winemaker Douglas Danielak's opportunity to blend Bordeaux varietals to create a sumptuous, symphonic cuvée. The fruit for this bottling hails from 13-year-old vines in the Beckstoffer Dr. Crane Oakville Vineyard, harvested on October 20, 2009. The berries were fermented on their skins over seven days before aging for 22 months in 75 percent new Taransaud barrels.

This Cabernet Franc-dominated blend vividly illustrates the generous ripeness of the 2009 vintage. The nose is full and heady with notes of raspberry coulis, cocoa, pencil shavings, and Christmas spice. The palate is ample and whole; Cabernet Sauvignon provides ripe, rounded mid-palate fruit and sturdy tannins while Petit Verdot contributes an interweaving of black fruit and violets. The finish resonates with macerated sweet cherry, caramel, dark chocolate covered espresso bean, and freshly tilled earth. The interplay of spice, fruit, and French oak make for a complete and textural wine.

The blend is in an excellent state for immediate enjoyment but will only improve with cellaring over the next 3-7 years.

60 cases produced

2010 KNIGHTS BRIDGE BECKSTOFFER TO KALON CABERNET SAUVIGNON

We harvested our select block of 15-year-old vines on October 21, 2010. Jeff Ames soaked the gently macerated berries on their skins for 15 days before pressing to barrel to finish fermentation. The 100 percent Cabernet Sauvignon aged for 21 months in 80 percent new Darnajou and Taransaud barrels before being bottled unfined and unfiltered.

There is a distinct air of nobility in To Kalon fruit, a palpable element of gravitas. This wine is utterly majestic in its depth of flavors, bold stature, and profuse complexity. Aromatics of cassis, damp earth, violets, cool stone, mint, and clove radiate from the glass. The earthy minerality and savory nuances interplay with the deep, focused fruit core. The palate is concentrated and serious: plush, juicy blue fruits, crème de cassis, smoked meats, baking spice, and forest floor unfurl within a gorgeous frame of ample tannin. The wine's acidity ensures a perfect balance, a buoyancy that extends the tapestry of flavors straight on through to a ringing finish.

This is an exciting wine that begs to be drunk now but will only gain greater beauty over the next 5-15 years of aging.

167 cases produced

2009 PONT DE CHEVALIER BECKSTOFFER TO KALON CABERNET SAUVIGNON

After harvesting on October 12, 2009, the gently crushed berries were cold soaked for 72 hours and fermented on skins for 14 days before pressing. The wine aged for 17 months in 70 percent new Taransaud barrels and 30 months in bottle.

This wine is a leather-bound, gold-gilded textbook style of Cabernet Sauvignon, truly quintessential and delicious. The effusive aromatics include lead pencil and cedar embellishing a core of blackberry and raspberry fruit with a suggestion of dark, earthy cocoa. The palate presents itself in a First Growth Bordeaux style with graphite, black plum, roasted meats, and leather. The gripping tannins serve as a grand corridor for layer upon layer of intricate flavor notes all riding on a balancing and uplifting acidity. With time in the glass, more and more elements arise, including red fruit, incense, gravel, and dried herbs.

A signet of To Kalon Cabernet Sauvignon is its ability to seamlessly integrate nuanced aromas and flavors; it remains a refined and undeniably zenith expression of the varietal. Drink this wine now, allowing an hour or more for it to bloom in the glass. It will continue to gain elegance and intrigue over the next decade or more, its tannins softening and even more evocative aromas emerging.

95 cases produced

The *Art* & Science of TASTING

by Tim Carl

Beyond being a delicious beverage, wine is an excellent metaphor for our lives. Like each of us, a wine changes over time. It can be profound at times and then go through difficult stages. Each bottle is a capsule of time that contains within it the entire history that created it, and within the life of each wine are moments that speak volumes about where it came from, how it was made and the quality of its ingredients.

To truly understand wine, you must approach tasting it like any other serious craft. Understanding a wine deeply will take time and effort, and the results can be wonderful, frustrating, enlightening, and challenging. Starting out with knowledge of the science behind it can lead to even greater appreciation and enjoyment.

WHERE DO WE START?

When I give wine tasting presentations, I am often asked where some of the flavors come from. On one hand, as winemakers, we combine grape juice and yeast. On the other hand, because grapes are complex and have so many flavor profiles packed within them, in essence, it is true that flavors like blackberry or lavender were "added" to the wine — but by the grape itself.

Aromatic and flavor compounds fall into three categories: primary,

> We are all "super tasters" for something. The trick is to figure out your own sensitivity.

secondary, and tertiary. Primary compounds come from the grape itself, secondary are produced during fermentation, and tertiary develop during the aging process. Within each category are two broad chemical groups called esters and phenols, which account for the smells and tastes we encounter. Although these chemical groups have similar properties, the molecules that make up each odor or taste are unique. The odor of blackberry comes from an ester called ethyl leucate. This ester is found in blackberries themselves, but it is also found in wine. So essentially, "blackberry" is actually in some wines.

Another common aroma in many wines is ethyl vanillate (the smell of vanilla), a slightly larger molecule with a different vapor point from blackberry that requires different conditions for your senses to have access to it. So each smell and taste in a wine are only accessible within certain conditions. Beyond the differences in the chemicals themselves, each person perceives compounds in different ways. Human senses need exposure to a minimum quantity of any one chemical molecule before they trigger a response, their threshold. The amount needed varies with each person.

"Super tasters" are individuals said to have either special or extra taste buds that can discern wine "better" than the rest of us. The truth, however, is more nuanced. We are all "super tasters" for something. The trick is to figure out your own sensitivity or, as I like to call it, your talent. You can train your senses to better distinguish smells and flavors over time.

When I first started tasting wine, I would carry a small piece of oak in my pocket and bring it out every once in a while to give it a sniff. After a few weeks, I had a much better sense of what oak smelled like. Exercising your sense of smell — practicing it and consciously recording what the world around you smells like — will help you identify the aromas in wine.

Because chemicals respond differently in various conditions, and each person has different abilities to sense various flavors and aromatics, tasting wine is incredibly subjective. Nevertheless, expert tasters who know the science and history of wine can be a wonderful resource. But I can guarantee that as you hone your own wine-tasting craft, you'll find there's no single expert with whom you'll agree even most of the time.

THE PROPER SETTING

Before you start examining a particular wine, first consider both your state of being and your environment. If you plan to get to know a wine deeply, how you approach the tasting process is important. Are you stressed out? Have you already had a glass or two of wine? Have you had a big meal or rich food? If any of your answers are yes, it might be best to start with a fresh palate another day.

Find a room that has modest light (think library, not doctor's office). If possible, sit at a table with

a white tablecloth or use a sheet of white paper as a background against which to judge the wine color. Make sure there are no distracting odors such as heavy perfumes or intense cooking aromas.

Take a deep, slow breath. Are your sinuses open? Do you have lingering flavors from an earlier meal or coffee on your palate? If so, drink some warm water with a squeeze of lemon in it. Assemble some water, a few water crackers, and a notepad and pen to jot down notes. You are ready.

FIRST IMPRESSIONS

It is helpful to have several bottles of the wine you wish to explore so that you can revisit it over time. The temperature of your wine should be around 65°F for red and 55°F for white. Start by examining the packaging. Consider the heaviness of the glass, the depth of the punt and any printing or design. Is the capsule metal, lead or synthetic? Does it have a design printed on it or is it unadorned? What about the label: Is the paper thin or thick, textured or smooth? Each one of these elements has been thoughtfully considered by the vintner and is trying to tell you something about the wine inside. What is your impression, based solely on the exterior presentation?

A lot of information is captured on both the front and back labels of the bottle. On the front, you normally learn about the producer, varietal and vintage. You might also find out about the appellation or subappellation, which will provide information into exactly where this wine was grown.

The front label also provides the level of alcohol, but labels are created when winemakers may not yet know the finished alcohol of the wine. Legally, level of alcohol can have a range of 1 percent, so take the stated alcohol level with a grain of salt.

On the back label you might find a story and some information about the varietal, blend, winemaking techniques, or the vintner's philosophy. Sometimes the stories can be interesting and entertaining, but often they do not provide much insight. When I taste a wine for the first time, I sometimes avoid reading the back label to make sure it does not influence my opinion.

Next, consider the closure. Is it a natural cork, synthetic cork, or screwcap? Each winemaker has his or her reasons why one is preferred over the other. Cork closures are controversial, but I prefer them. Cork is a natural, sustainable product. It has also been time-tested, is naturally porous, and allows for a certain amount of gas flow between the bottle and the environment, which seems to have an impact on the way the wine ages.

The issues with cork include the dreaded cork taint. This is a term that refers to a fault in wine that results in off aromas and muted flavors mainly caused by the presence of 2,4,6-trichloroanisole (TCA) and/or 2,4,6-tribromoanisole (TBA). Wines containing these chemicals have a characteristic odor often described as resembling a moldy newspaper, wet dog, or damp basement. When present in levels above a person's threshold, the wine is unpalatable — although harmless.

TAKE A LOOK

It is time to get the wine into your glass and let it start opening up. A lot of people profess that you should decant or aerate the wine to get it to present its "true" potential. Almost every aspect of tasting wine is controversial, and decanting is no exception. Does it help improve a wine's taste and aroma? Perhaps, but for your first tasting, pour the wine directly into a glass. Later, once you understand the wine, you may decide to decant.

Pour only about an inch of wine into a glass that has been cleaned properly without soap residue. Give the glass a quick swirl and place it on the table. Note its color: Does the color seem to hang from the glass? What is the density? Are there any aromatics you can smell without sticking your nose too close to it? Once you have made your observations, swirl it more and see how it interacts with the sides of the glass. Tilt the glass so you can see an elongated oval of wine. This is when you really get a clear sense of color density.

Peer through the wine to see if you can clearly make out the tablecloth detail on the other side. Red wine is often so dense you'll be unable to see through it. This tells you about the varietal and how much extraction has occurred during the winemaking process. It also gives you some idea of the wine's age.

For example, Sauvignon Blanc is normally light in color, whereas a Chardonnay will have varying levels of gold, often a reflection of the type and/or amount of oak used during winemaking. A brown-golden color can indicate age — a slight brownness to Chardonnay will often indicate it's more than 10 years old. A red wine like Malbec, on the other hand, will have a purple tinge when young and shift to an almost black-purple over time. For most reds, a ruby-colored wine

is typically young, where as a brick-colored wine is typically older. The color is influenced by both the skin of the grape and vinification techniques, including the length of skin contact in a process called maceration. Ultimately many things will influence color, including flaws like excessive oxidation, which can cause browning.

While you still have the wine slightly tilted against a white background, examine whether or not its color goes out to its very edge. This, again, is going to give you insight into the wine's intensity or density and a hint to its personality.

GET NOSY

Swirl the wine in the glass. Give it a lot of air to release the aromatics trapped within the liquid. Wine is a very complicated beverage, and its aromatic profile is probably the most complex part. Wine is a mass collection of different-sized molecules, each volatilizing at a particular temperature and agitation. If you could see aroma as different-colored smoke, you would see one color of smoke floating up out of the glass and another hovering near the surface of the wine.

When you swirl your glass, you are activating these various molecules with both air and temperature. Breathe in slowly through your nose. Breathe out slowly. Open your mouth slightly when you smell to help create flow. Now, position your nose about an inch or two above the glass and sniff lightly.

Take your time. Tilt the glass toward you as if you are ready to take a drink, but hold off. The angling of the glass lets the heavier molecules settle toward the bottom, whereas the lighter molecules will rise to the top. Now you can start to explore the range of aromas. Make different patterns with your nose above the tilted glass, and look for subtleties. You might be amazed at what you find at the top of the glass compared to what you find at the bottom. For example, in many Cabernets, I find floral aromatics such as dried lavender and violets at the top of the glass, while at the bottom I might smell things like chocolate and dark cherry. Even the middle will provide some interesting nuances; you might be able to find some oak influences, such as vanilla, spice, or smoke.

In white wines, I follow the same pattern of smelling often finding a wide range of floral aromas at the top of the glass. Some Chardonnays, for example, will show the beautiful linden flower element at the top of the glass, smoky sweet crème caramel at the center, and rich, ripe tropical flavors at the bottom. You might be amazed at

> “Each of these elements has been thoughtfully considered by the vintner and is trying to tell you something about the wine inside.

> You are defining the aspects that speak to you, finding valued elements.

the number and subtlety of smells you can find while using this method. You are truly building a relationship with the wine. You are starting to understand the nuances of its aromatics and some of the key elements you'll be able to explore more deeply when you actually taste the wine.

While smelling the wine, try to detect any flaws (unappealing aromas). These could include TCA, vinegar, sulfur, chemical, or other unattractive qualities. Some people enjoy modest amounts of some of these aromatics, but anything that revolts you is considered a flaw. Don't be afraid to dislike an element of any wine that does not appeal to you.

Put your nose deep into the glass and take a big whiff. What you will find, most likely, is that a lot of the subtlety has disappeared and some of the more dominant aromatics have taken over. This is why I encourage everyone to start smelling outside the glass and work their way in. When you drop your nose directly into the glass, the dominant elements take over and it is difficult to go back and gain the subtlety.

After you breathe in, take the glass away from your nose and think about the aromatics.

What do the aromatics tell you about the wine? Is it young? Was it grown in a warm or cool region? A cooler region might produce aromatics of a slightly greener nature. In a hot region, you might get elements of fruitcake, prune, or canned fruit in syrup. Some Chardonnays that come from warm to hot regions might give off elements of canned lychee nuts or canned pineapple, whereas Chardonnays grown in cooler regions might give more crisp green apple and fresh citrus elements. Work to untangle the aromas.

EXPLORE THE TASTE

Swirl the glass again, lift the wine to your lips and take a small sip. Bring it into your mouth and swish it around. At this point, do not think too much about it. Just let it coat your mouth and then trickle down your throat. Think about how the wine came into your palate. What was the first sensation you had? Did it feel sharp or soft? Did it coat your mouth and tongue? Or is this a wine that really cleans your palate?

Take another sip and try to bring some aeration into the wine by sucking a little through your lips. This can be a little bit tricky and will take some practice. Just like in the glass, getting the aromatic molecules moving in your mouth will help them gain access retronasally. Holding the wine in your mouth also warms it up, releasing even more aromatics and flavor.

An attractive wine enters your front palate, spreads over the midpalate and then finishes in a long tail of lingering flavors and aromas as it slips down your throat.

Through each phase of tasting, ask questions and look for the wine to give you some answers. Intriguing wines likely have something hidden below the initial impression, providing an aspect of mystery, too, that will make you want to learn more.

Focus on the sensations at the front of your palate. When the wine enters your mouth, what's the first thing you taste, feel and smell? Then, when it passes over your mid-palate, pay attention to how it spreads across your entire mouth and tongue. Does it seem to linger? Does it feel smooth or rough? Is there a flavor or sensation that seems to stand out above the others, or is this wine seamlessly integrated? Is it balanced?

The three goals at this stage are to further assess aromatics and flavors, evaluate the balance, and explore the texture. Think about the elements you already detected from smelling the wine. Do any new flavors become apparent? Are any particular aromatic components heightened or lessened?

When a wine is said to be "in balance," the acid blends smoothly with sweetness and structure to form a melodic whole without any sharp or flat notes. If the wine is acidic — displaying bright, tart, and sour elements — it might result in a sensation that makes your mouth water. The right amount of acidity will "lift" the wine's flavors much like a spritz of lemon in a recipe helps to make the dish more vibrant.

Is the wine sweet? Alcohol can cause a sweet sensation as can residual sugar. Does it create other sensations? Some wines can make your tongue tingle as if there are bubbles on it. Some are sharp or bitter on the edge of the tongue. Explore texture. Is it bitter or astringent? Is it drying in your mouth? If so, you are noticing tannins.

What elements are you curious about? Perhaps there's the pungent smell of nail polish remover (a common ester called ethyl acetate). Or maybe there's a bitter catechin element. As in any relationship, there are going to be some things you like and some you do not. A great wine is one you want to continue to explore, sip after sip.

REFLECT ON WHAT YOU'VE LEARNED

It is time to put all the pieces together. Ask yourself what elements you enjoyed. What aromatic was most prominent? How about the key flavors? How would you describe this wine to a person who has not had it before? Write your tasting notes. You may have been jotting down a few descriptor words along the way, but it is useful to really get your head around the wine before you start taking detailed notes on it.

Once you have a clear understanding of how this wine tastes just out of the bottle, you will also want to explore how it changes over time in the glass. Consider buying some scientific watch glasses, which are concave glass disks that can go over the top of glassware to keep out dust and other debris. Put one over a glass of wine and let it sit. Come back to it over the course of the next few hours — or even days — to get a sense of how it's changing. Once you know your wine well and have a relationship with it, you will know how long to wait to drink it after it has been opened.

Using the watch-glass technique, you will also know if you should be decanting this wine the next time you serve it. Play around with different temperatures to get insight into what would be best for this wine. Think about what foods might go well with it. You know the aromatic and flavor elements that are prominent and those that are subtle, allowing you to better pair this wine with food. You also know if this is a wine you would be comfortable sharing with others and how it should be shared. You know it might have a flaw that could be bottle-specific or it may be indicative of the wine itself. You will need to have another bottle to find out if you are interested in exploring this one further.

EXTEND THE RELATIONSHIP

The logical next step is to learn more about the wine's style, varietal, region and producer. If it is one you truly love, then it is worth exploring those who are producing similar wines nearby. The ultimate way to understand a wine is to contact the vintner or winemaker and go to the vineyard to see where the grapes are grown and to better understand the soil profiles, vineyard practices, aspect, grape clones used, and vine spacing. Of course you can not do this with every wine, but it is a good path to take if there is one that strikes you as particularly profound. It will give you a deep understanding of why it has spoken to you, and that is the entire point of this exercise. You are defining the aspects that speak to you, finding valued elements. You are opening yourself up to the mysteries of wine and taking the time to build a deep relationship with it. ■

PERFECT PAIRINGS

Tim Carl offers his thoughts on how best to enjoy our new releases at your table in the months ahead, along with a signature recipe.

With each new release, we give great thought to which foods will pair best, which ingredients will help showcase the distinctive qualities in the wine. They truly are crafted for gatherings around the table. Our current portfolio offers some beautiful pairing opportunities. The suggestions below are simply a starting place from which you can experiment with your own combinations. That's the magic of it, after all, hitting upon a magnificent melding of aromas, textures, and flavors. It is only that much better when you can share the experience with your favorite people.

2011 Knights Bridge West Block Chardonnay: The complexity and balance of this wine make it an excellent match with a variety of dishes. We especially recommend grilled wild salmon with pear lemon beurre blanc.

2011 Pont de Chevalier Estate Chardonnay: This food-friendly wine is an excellent match with pan-seared sea scallops with mustard caviar, or braised pork belly.

2011 Pont de Chevalier Estate Sauvignon Blanc: An ideal aperitif, this wine will pair with a variety of dishes, especially shellfish. We recommend matching it with fresh dungeness crab with sorrel pesto. It is also an excellent accompaniment to farmstead goat cheese.

2010 Knights Bridge Knights Valley Estate Cabernet Sauvignon: Consider pairing this serious, sumptuous wine with braised beef short ribs and a rich cream sauce.

2009 Pont de Chevalier Knights Valley Estate Cabernet Sauvignon: This elegant, layered wine with its dusty earth and leather will sing with a grilled rib eye with rosemary garlic butter and grilled wild mushrooms.

2010 Knights Bridge Beckstoffer Dr. Crane Cabernet Sauvignon: We find the wild berry and savory notes in this wine make it an excellent match for roasted pork loin with wild berry compote.

2009 Pont de Chevalier "Le Chevalier" Dr. Crane Red Wine: This earthy, Cabernet Franc-dominated blend shows beautifully with grilled quail with wild rice stuffing and truffles.

2010 Knights Bridge Beckstoffer To Kalon Cabernet Sauvignon: A classic filet mignon with demi-glace is the perfect, simple complement to this stunning Cabernet Sauvignon.

2009 Pont de Chevalier Beckstoffer To Kalon Cabernet Sauvignon: The red fruit, minerals, and dried herbs in this wine make it a stellar companion to a mustard and herb-encrusted roasted lamb shoulder. ■

HERB-CRUSTED LAMB WITH REDUCTION SAUCE

INGREDIENTS

For the Lamb:
2 "Frenched" racks of lamb (7-8 chops each, approx. 2 lbs.)
1 tablespoon of vegetable oil
1 teaspoon butter

For the Rub:
2 tablespoons whole grain mustard
1/4 cup each chopped fresh parsley, basil, mint, rosemary, and thyme, mixed together
6 chopped black olives
½ teaspoon cracked black pepper
1 teaspoon sea salt
2 tablespoons breadcrumbs

For the Reduction Sauce:
2 lbs. veal bones
2 onions, peeled and chopped in 1 inch pieces
3 carrots, peeled and chopped in 1 inch pieces
2 celery stalks, peeled and chopped in 1 inch pieces
2 cups red wine
At least 3 quarts water
1 bay leaf
6 sprigs of thyme
8 peppercorns
3 peeled and seeded tomatoes

You are welcome to buy some pre-made veal stock and skip a few steps. Don't worry with the ingredients above and start the sauce referring to the paragraph in the column to the right. ➔

METHOD

ENCRUSTING THE LAMB: Remove meat from the rack and remove any silver skin and excess fat or, better yet, have your butcher do this for you. Combine the chopped herbs, olives, salt, pepper, and breadcrumbs in a large bowl. Rub each loin with 1 tablespoon of whole grain mustard and press it into the herb mixture until well coated on all sides. Tightly wrap each seasoned loin in plastic wrap and let stand in the refrigerator for at least 4 hours.

MAKING THE SAUCE: Rub the bones with canola oil and roast in a preheated 450°F oven for 90 minutes, turning often so that they brown but do not burn. In a heavy sauté pan, heat a small amount of oil over medium heat. Add the onions, celery, and carrots (mirepoix), stirring gently until lightly browned. Place roasted bones in a stock pot and add enough water to cover. Bring to a boil over moderately high heat. Skim off the scum and reduce heat to a simmer. Add the sautéed onions, carrots, and celery along with the wine and tomatoes. Add the thyme, bay leaf, and peppercorns in the form of a bouquet garni or sachet. Simmer for 6 hours. Strain stock and chill overnight in the refrigerator or by setting the pot in an ice water bath. Skim fat once stock is cooled.

[If you purchased stock, jump to here after encrusting the lamb...] Return stock to medium-high heat and allow it to simmer until liquid is reduced by at least half. Reduced stock should have a thick, spoon-coating consistency. Reserve enough reduction for two servings. (Any leftover reduction sauce can be frozen in an ice cube tray and then stored as cubes in a freezer bag.) Just prior to serving, whisk in 1 tablespoon butter.

COOKING THE LAMB: Remove racks from refrigerator and bring to room temperature. Heat a heavy sauté pan to medium-high heat. When the pan is hot, add 1 tablespoon of vegetable oil and 1 teaspoon of butter. Quickly add the racks. Sear each side (including the ends) for 1-2 minutes until nicely browned, 6-8 minutes in all. Once racks are browned, remove the pan from the heat and tightly cover with tinfoil. Let covered meat rest 10-15 minutes for rare doneness. Alternatively, place the covered meat in a 350°F oven for 5-7 minutes to achieve a medium rare temperature, or longer for increased doneness. Allow meat to rest before serving.

PLATING AND SERVING: Season racks with salt and pepper to taste. Plate and drizzle with reduction sauce. Serve with Tim's decadent Roasted "Silk" Potatoes and Local Radish and Haricot Vert Salad. Find recipes for these side dishes on www.knightsbridgewinery.com. Pair with 2010 Knights Bridge Knights Valley Estate Cabernet Sauvignon.

THE ROAD *less traveled*

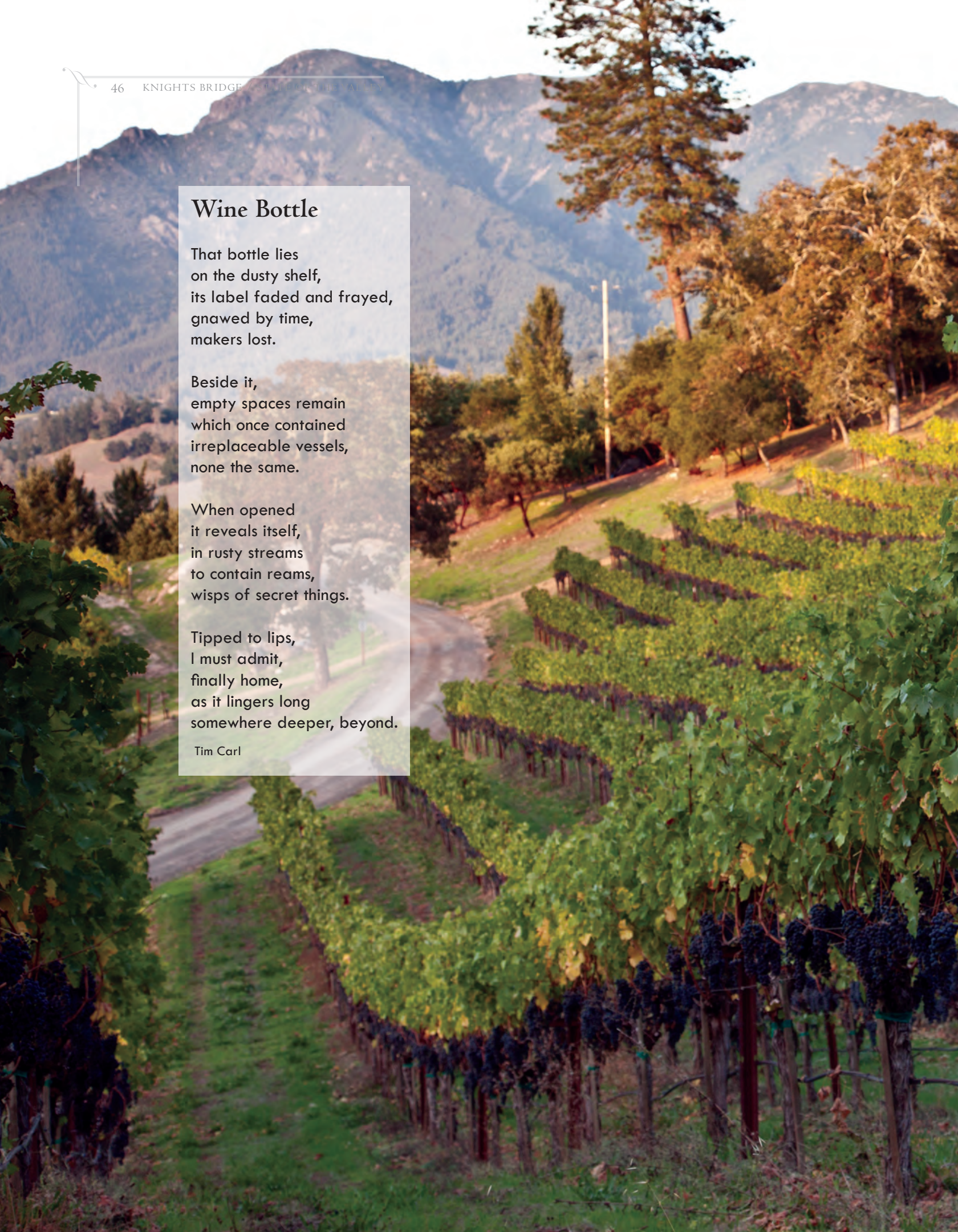
We will spend 2014 sharing our wines where they are best enjoyed, at the table among friends.

Knights Bridge Allocation Members enjoy a multicourse dinner complete with Knights Bridge wine pairings at Solage in Calistoga, CA.

In this era of electronic communication and virtual interaction, we felt compelled to return to the most personal method of sharing, a gathering of friends. Tim Carl is packing up his chef coat and kitchen knives, and taking the Knights Bridge experience on the road, cooking in the homes of wine-lovers who have included our wines in their personal cellars.

The plan is to genuinely connect with passionate wine-lovers, to share Knights Bridge in an extraordinary way. "We want to thank our wine buyers for discovering us and bringing our wines into their homes," Tim explains. "Why shouldn't we help them introduce Knights Bridge to their wine-loving friends? Why not personally tell our story and pour our wines in the setting they are intended to be?"

Tim's calendar is booked with dinners and wine tastings in the homes of our most passionate Knights Bridge buyers around the country. For additional information on our "Road Less Traveled" effort, please contact our Director of Direct Sales, Tiffany Olson, by phone at 707-968-9308 or via email at tjolson@knightsbridgewinery.com.



Wine Bottle

That bottle lies
on the dusty shelf,
its label faded and frayed,
gnawed by time,
makers lost.

Beside it,
empty spaces remain
which once contained
irreplaceable vessels,
none the same.

When opened
it reveals itself,
in rusty streams
to contain reams,
wisps of secret things.

Tipped to lips,
I must admit,
finally home,
as it lingers long
somewhere deeper, beyond.

Tim Carl

The Knights Bridge Family: BACK ROW (left to right): Santiago Torres, Rosa Torres, David Aten, Sean Grinnell, Chris Drake, Garrett Buckland, Tim Carl, Richard Brockmeyer, Suzanna Avina, Josh Clark, Pete Velleno, Lynn Carl FRONT ROW (left to right): Cheryl Kamifuji, Katie Migliavacca, Tiffany Olson, Meredith Leahy, Cindy Brockmeyer, Charlene Ragatz, Raoul Avina, Lauren Velleno NOT SHOWN: Danielle Freschet, Leslie Alspach, Douglas Danielak, Jeff Ames, Donovan Hudson, Matt Rhodes.

With gratitude...

Putting this publication together reminds us how many talented, committed individuals make up the Knights Bridge team.

Coming to the close of another growing year and, now, coming to the close of our second annual "State of the Valley," we can't help but be grateful for all the wonderful individuals who make up our Knights Bridge family. We all share a passion and a purpose — to deliver an awe-inspiring bottle of wine, vintage after vintage. Everyone plays a vital part, whether in the vineyard, the cellar, or the office.

We thank each and every one for giving their all every step of the way. We look forward to sharing our latest work with you in the year ahead. May you discover beautiful wines and extraordinary moments in the months to come.

Essel Bailey
Vice-Chairman

Jim Bailey
Chairman

Tim Carl
Managing Director

Tom Costin
Vice-Chairman

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