OREGON PINOT NOIR

The Multiple Personalities of Oregon Pinot Noir

AN INTERACTIVE TASTING AND DISCUSSION WITH OREGON WINEMAKERS TO EXPLORE THE INFLUENCES OF VINTAGE, PLACE, AND PHILOSOPHY ON OREGON PINOT NOIR. TASTE HOW THE WINEMAKER’S VISION, PLACE, AND VINTAGE IMPACT THIS HIGHLY EXPRESSIVE GRAPE.

Of all the wine grape varieties, Pinot noir is considered to be the most responsive to the conditions in which it is grown and the way the grapes are made into wine. Pinot noir vines grown in geographically diverse areas, with different regional climates, prevailing weather conditions, and soils produce wines that are distinctively different. Pinot noir achieves its highest quality in marginal climates where seasonal conditions can vary significantly from vintage to vintage. These variations affect the way Pinot noir matures. Within the same region and the same vintage, vineyard location and viticultural practices affect the way Pinot noir plants grow and mature. The grapes will reflect those differences. These variations affect the composition, tannins, acidity, sugar, flavor profile, and balance of the grapes, and when made into wine, will create different wines.

This responsiveness does not end when the grapes are harvested. Winemakers have diverse backgrounds, experiences, and philosophic viewpoints. Ripeness is subjective, and the time of harvest establishes the specific balance of flavor, acid, sugar, and phenolics (tannin and color) that become the raw material for wine made from those grapes. The winemaking process extracts those compounds from the grapes during fermentation, which can be managed in a wide variety of ways, each creating a fundamentally different wine. Once the fermentation is complete, the wine is pressed, aged, and bottled. Each of those steps further defines the flavor, balance, and texture of the wine. Together these create the unique personality of Pinot noir.

It is beyond the scope of this seminar, and perhaps human knowledge, to explain Pinot noir. Our goals are to examine the range of Pinot noir produced in Oregon and allow workshop participants to experience the wines we produce from this grape in this region and in this climate. The experience of each taster can then place Oregon Pinot noir into the broader framework of Pinot noir produced in other regions of the world.

We will refine this broad geographic view by specifically looking at how seasonal variations and the vintage affect the nature of Oregon wines. To reduce the influence of other variables, we will taste pairs of wines produced by the same winemaker from the same vineyard site with only the vintage changing. By controlling the variables of winemaker and site, the effect of vintage can be tasted and understood.
At its essence, the art of the winemaker has a fundamental impact on the wines produced. Pinot noir is a very sensitive (and sometimes unforgiving) grape, and every decision and attitude of the winemaker can be reflected in the wine. Three winemakers will present their basic philosophic tenets—their mission statements—and discuss how this influences specific winemaking choices. You will taste their wines and see how that philosophy is reflected in the wines they make. We have selected three winemakers with diverse wine styles so you can glimpse how different personalities, mission statements, and winemaking techniques affect their wines.

Points to Investigate:

- What is Oregon Pinot noir’s regional personality? How diverse is the range of Oregon Pinot noir and how does your perception of Oregon Pinot noir compare with your experience of Pinot noir from other regions of the world?
- Vintage differences in a cool climate like Oregon affect the basic nature of Pinot noir produced in a specific vintage. These differences are not fundamentally one of quality, but rather are structural differences in fruit, tannins, and extract that affect food compatibility and ageability. How does vintage affect Oregon Pinot noir?
- Oregon’s Pinot noir winemakers represent a diverse group of personalities and philosophies. How do their attitudes and decisions affect the wines they produce?

Moderators:
Josh Bergström, Bergström Wines
Rollin Soles, ROCO Winery

Panelists:
Maggie Harrison, Antica Terra
Jim Prosser, J.K. Carriere
Véronique Drouhin-Boss, Domaine Drouhin Oregon
Adam Campbell, Elk Cove Vineyards

Facilitators:
Thibaud Mandet, WillaKenzie Estate
Andrew Rich, Andrew Rich Wines
Bryan Wilson, Foris Vineyards
Stewart Boedecker, Boedecker Cellars
Tony Rynders, Panther Creek Cellars
Rob Stuart, R. Stuart & Co.
In order to understand how Pinot noir is affected by the region in which it is grown, the details of a specific site, the vintage, and the winemaker, a basic understanding is required of how growing conditions affect grape vines and how winemaking decisions affect finished wine. We will begin with very broad concepts and then focus on the details.

**Wine and Winegrapes: an Overview**

Stripped to its essential elements, wine is a fruit-derived beverage that has been fermented to convert sugar to ethanol. The presence of alcohol serves to inhibit the growth of organisms that make humans ill. Historically, this natural conversion of sugar to alcohol by yeast meant fruit juice could be preserved for later consumption in a safe manner. The celebratory and cultural aspects of wine consumption are added benefits. Once you move past this simple concept of wine, the spectrum of this beverage becomes very complex. Understanding and appreciating the diversity of wine has occupied the thoughts and writings of humans for centuries.

A multitude of fruits are made into wine, and the production of wine from grapes has existed in temperate climates throughout the globe for hundreds of years. The characteristics and qualities of various grape-growing regions, grape varieties, vineyard sites, and winemakers have been discussed and debated at great length. That wine is capable of reflecting the grape variety from which it is made, the region in which it is grown, the conditions under which the vine is grown, the specific ripeness at harvest, and the way the winemaker converts the grape into wine is one of the few things accepted as fact.

The practice of viticulture is focused on understanding specific vine management techniques required to propagate, cultivate, manage disease, and optimize the maturity of grapes. It is both a blessing and a curse that wine grapes are very sensitive to all techniques under which they are grown. The ability of the grape grower to manage a specific site is critical to producing top-quality wine grapes.

The location of the vineyard provides the most basic requirements to the vine. Controlling access to sunlight, heat, rainfall, and nutrients from the ground, the vineyard location determines how light falls on the leaves, how warm the growing conditions will be, how much rain will fall, and how humid the site will be.

Winegrapes vary widely in their requirements for sunlight and heat. At one end of the spectrum, Pinot gris and Gewürztraminer can ripen in fairly cool conditions. Pinot noir requires only slightly more heat to ripen than Pinot gris. Zinfandel and Nebbiolo require a substantially longer and warmer growing season—an accumulation of 60% more heat to bring the grapes to the same stage of ripeness. In real terms, the warmer varieties require the growing season to begin a month and a half earlier, have much warmer springs, and sunnier and warmer falls. In terms of optimally ripening specific winegrapes, Napa and the Willamette Valley are worlds apart. Given the relatively short growing season for Pinot noir, the effects of small seasonal variations are amplified both in the vineyard and in the wine. Moderation is key for Pinot noir; the plant needs ample sun, but not excess heat throughout its growing season.

The roots receive nutrition and water from the ground in which they are planted as well as provide support for the plant above. The soil type, structure, porosity, water-retaining capacity, nutrient status, depth, fertility, acidity, and a host of other factors all affect how the vine will grow and hopefully mature the crop above. In an ideal environment with deep, fertile soils and
ample water, the vine chooses to grow vegetatively, creating a full canopy of shoots and leaves, but has little incentive to propagate itself by creating fruit (the vine’s progeny). The vine is happy and spends its energy making itself stronger and healthier. Creating mature and flavorful grape clusters for us to make wine from is a low priority. Those vines produce few clusters that are high in acid, low in sugar, and are relatively flavorless.

Low fertility creates stress, encouraging the vine to produce fruit. The vine struggles to stay alive and focuses its available energy on the continuation of the species—grapes. If the stress level is very high, the vine will have trouble developing enough shoots and leaves to meet its nutritional needs. The grapes require a significant mass of leaves to provide enough energy to ripen each cluster. If the fertility is too low, the plant cannot grow and support enough leaves to mature the fruit. The berries cannot accumulate enough sugar, develop optimal flavor, or mature their tannins, and will fail to ripen. The belief that vines must suffer to produce the best wine is not accurate. A high level of vine stress is not the goal of the winemaker or viticulturist. There is a critical balance between meeting the nutritional needs of the vine to propagate enough leaves to provide energy throughout the growing season, but not so much that it fails to produce fully ripe grape clusters. Leaves are the vine’s “energy factory”. During the summer they build a healthy plant and in the fall they create the flavors we use to make wine.

Water is a basic requirement for any plant to grow. The perception that rain, especially in the fall, is always a negative factor for grape quality is false. The vine’s basic metabolic product, sugar, is created by combining two raw ingredients, carbon dioxide and water. The required energy to complete this reaction is provided by the sun. Drought conditions deprive the plant of water, a basic requirement for growth and photosynthesis, causing the plant to halt metabolic activity and stopping the ripening process until water again becomes available. The problem with rain is not the water, but the lack of heat and sun that can accompany the weather pattern that produces the rain. The key to ripening grapes is adequate sunlight. This is especially important at the end of the growing season when the flavors are developing and the softening berry is more susceptible to disease. Having water available, but not too much, at key phenological points during the growing season is key to vine health, wine quality, and wine’s age-ability.

A dizzying variety of grapes are cultivated in warm and cool regions. Optimal sites to grow warm-region varieties are geographically discrete from those suited to cool-season varieties. The growing conditions in a particular place are matched with needs of a specific group of varieties. Specific varieties are chosen for their ability to optimally ripen in the climate of a particular region. The goal is to find the conditions that allow that variety to achieve the maximum balance and complexity of flavors while retaining a balance of acidity and tannins. This goal is subjective, allowing the wine consumer a broad range of wines produced from a wide array of grape varieties. An example is Syrah grown in Côte-Rôtie and that grown in Barossa Valley.

Within any grape growing region, variations of geography—different villages or hills—result in different vine microclimates, different responses to seasonal variations by the plant and different profiles of maturity in the grapes the vine produces. Even in the same geographic area with the same microclimate, seemingly small changes in vineyard site will have very significant effects on the way the vine matures its fruit. A vineyard facing southeast will warm up sooner in the day but be cooler in the afternoon. A vineyard facing southwest will be hotter in the afternoon but take longer to warm up in the morning. In a hot year, the southeast vineyard may provide less stressful conditions because the sun is at a low angle late in the afternoon when the conditions are the
hottest. The clusters are relatively cooler and less prone to sunburn. Those grapes will produce a
wine with softer tannins and a better backbone of acidity.

In a cool year, the southwest site’s extra afternoon sun and heat may be the key to ripening the
crop. Because the canopy and grape clusters directly face the sun during the warmest time of the
day, the plant is more active metabolically and can continue the ripening process late into the
afternoon. This wine will have riper tannins and more developed flavors. In a dry year, a vineyard
in a protected valley lower on the slope may experience less water stress, less berry dehydration,
and more even maturity. In a wet year, the site higher on the hill will dry out sooner, have lower
humidity and lower disease pressure, increasing the opportunity to pick clean, ripe fruit.

There is no perfect location. Each site has strengths and weaknesses. Depending on the specifics of
the climate and weather patterns, two closely matched sites can produce very different fruit. And a
single site can produce very different fruit in different vintages.

Selecting an appropriate site climatically suited to a specific variety, planting in soils that provide
the right balance of nutrients and moisture, siting the vineyard to intercept the sun optimally, and
managing the specifics of vine cultivation to balance the vegetative and fruit phases of
development are just the first steps in growing wine grapes. Each subsequent viticultural decision
affects the way the vine grows and responds to specific conditions within a vintage. The grapes
reflect those differences, producing wines that vary from vintage to vintage.

Even the best vineyard locations, planted with compatible varieties, and grown meticulously, can
produce grapes that do not produce inspirational wines. This is a well-known fact in Burgundy,
and there is no reason that it does not apply to other Pinot noir locations throughout the globe.
Only a small part of Burgundy—about 16% of the planted acres—achieves Premier or Grand Cru
status. Grapes grown in lesser sites can produce lovely wines, but they are incomplete. The simple
resolution is to blend wines from different sites together to produce a more complete wine. This is
widely practiced both in Burgundy and in other regions. Different sites produce wines with
different strengths (and weaknesses). Vintage adds another variable, making the art of blending an
important, if not critical skill, for Pinot noir producers.

Regional Growing Conditions
In Oregon’s Willamette Valley the red vinifera grape, Pinot noir, is considered to be an excellent
match for the climate. Pinot noir is a short-season variety thriving in regions with moderate
accumulation of heat during the growing season. Given the required cooler and shorter growing
season, it blooms relatively late, often in mid- to late-June. Maturing about 100 to 110 days after
mid-bloom, Pinot noir achieves optimal ripeness in early to mid-October.

The Willamette Valley is located in the northwest corner of Oregon and is centered 50 miles east
of the Pacific coast. It is situated between two mountain ranges, the Coast Range to the west and
the Cascade Mountains to the east. The northern border is the hills surrounding the Columbia
River Valley and the southern boundary is the hills just south of Eugene. It is an oval about 100
miles long by 35 miles wide. The 2,000-3,000 foot mountains in the Coast Range provide a barrier
protecting the WV from cool marine air during daytime hours. The valley heats up during the day
with expanding air preventing an incursion of cool air from the coast.

In the evening, cool breezes begin blowing over the coast range eastward into the valley. This
rapidly cools the warm valley air, and the temperature often drops 30ºF over a span of one to two
hours in the early evening. These cool evenings and nights slow the vine’s metabolism, retaining acidity. This higher acidity is a fundamental characteristic of Willamette Valley Pinot noir.

The most direct and rapid diurnal change of temperature is around the Van Duzer Corridor, a natural pass through the Coast Range 20 miles west of Amity. The McMinnville AVA (American Viticultural Area) forms the northern mouth of the Van Duzer and experiences the most rapid temperature drop. The Eola-Amity Hills lie directly east of the Van Duzer mouth and experience a similar effect. Although the other sub-AVAs of the Willamette Valley cool significantly in the evening, the temperature change is less abrupt.

The Willamette Valley is essentially arid after bloom until the return of the rains in mid to late fall. Coastal weather patterns come from the Pacific and the Gulf of Alaska. The jet stream forces those fronts far to the north during the summer and early fall. It is not unusual for there to be less than one inch of precipitation between early July and late August, which reduces disease pressure.

Sited at or slightly above the 45th parallel, the day length in Oregon is significantly longer than in California around the time of bloom, in mid-June. Compared to California Pinot noir-growing regions, like Russian River and the Sonoma Coast, Oregon in early summer experiences an additional 75 minutes of sun each day. This provides a boost during the grapes’ vegetative phase. However, Oregon’s day length is significantly shorter in October compared to Sonoma. In the fall season, vineyards farther north intercept the sun at a lower position in the sky, with the resulting reduction in the intensity of the solar radiation. This slows down the vine during the ripening phase (post veraison or color change) allowing longer period for flavor development. The temperatures are often cool, especially at night, allowing the grape to retain more of its natural acidity. This provides a natural advantage for ripening Pinot noir in Oregon.

The accumulation of sugar in the berry is caused by sun and heat. The development of flavor requires time.

Rapidly decreasing day length in the fall sends a strong “message” to the vine to shift its hormonal regulation from vegetative growth to fruit ripening and seed hardening. The cooler, shorter days with a lower angle of incidence to the sun slow down the plant’s metabolic cycle. This allows the flavor to mature before the sugar level becomes excessive. These cool, short, and usually sunny days allow Pinot noir to develop a complex flavor profile while maintaining a good balance of sugar and acid. The combination of cool temperatures, shortening day length, and low-intensity sunlight provides the perfect ripening conditions for Pinot noir. In most years, the cycle of fall rains does not begin until after Pinot noir is harvested in October.

From July to September, the Willamette Valley has low humidity and warm daytime temperatures with few clouds and no fog. The region is essentially protected from the Pacific Ocean. Areas in California where Pinot noir is cultivated use the ocean influence and elevation to moderate what would otherwise be a much warmer climate. Those growing areas are sited close to the Pacific Ocean in order to capitalize on the cooling influence of the fog to lower daytime temperatures and reduce total heat accumulation.

Burgundy’s continental climate is also fundamentally different from Oregon’s. Located far from the ocean, Burgundy has a less abrupt pattern of evening cooling and more consistent rainfall throughout the summer. Burgundy’s rainfall is evenly dispersed through the year. Vineyards experience more frequent hail in the summer, potentially with devastating results to the fruit and
canopy. The lack of drought compared to Oregon means the plants are not exposed to water stress but do experience higher disease pressure, especially mildew. For a comparative rainfall chart and more discussion, see *The Oregon Story* chapter.

*The climatic influences in Oregon, the California coast, and Burgundy have fundamental effects on how grapes ripen in each region. Although subtle and susceptible to significant seasonal variations, these regional conditions help shape the personality of each region’s wines.*

Farthest to the north, Burgundy has the largest variation in day length, more soil moisture, and less heat in the fall. The short, cooler days late in the season mean the grapes ripen with lower sugars, moderate acidity, and ripe, but usually not overripe flavors at harvest. California has longer and sunnier days in the fall allowing for intense flavor ripening, but at lower acidity and higher sugars. Oregon’s day length falls in the middle, allowing the grapes to ripen at moderate sugar levels. Late season ripening provides an extra backbone of acidity.

Each region has distinct seasonal and intra-seasonal climate and weather patterns that differ from each other and create fundamentally different conditions for Pinot noir to grow and ripen fruit. The way these climatic and geographic conditions affect vine growth and berry maturity results in real differences in the Pinot noir grapes grown in Oregon, Burgundy, and California.

**Oregon Pinot Noir**

Pinot noirs made in Oregon are different from those made in other areas in the world. The basic geography, the balance of climatic influences from continental and marine weather patterns, and the seasonal variations are different. If we accept that Pinot noir is reflective of its place, and there is a broad consensus that this is a valid assumption, then the real question is how to describe Pinot noir’s response to being in Oregon. One method of understanding the regional characteristics of Oregon Pinot noir is to evaluate a large group of Oregon wines and compare them to large groups of wines produced elsewhere in the world. This is both easy and immensely complicated. Which groups do you choose? If vintage is a factor, which vintages do you compare? How do you choose the sites? Do you compare wines of similar price points? Do you only look at the most highly rated wines? What about winemaker choices? How many wines do you taste? How do you quantify “different”? What order in the flight will give each wine a fair assessment?

Another method is to taste the wines of a single region to see if there are common threads that unite them. This method examines how the wines respond to a region and looks for broad similarities across the spectrum of that region’s wines. You can compare your conclusions about one region to those of another. The inherent difference in these approaches is that you do not compare externally imposed constraints on both regions. One region’s unifying factors might center on textural elements, perhaps a common mouth feel. Another region might have a common aromatic profile. While other regions might have those aromas, they do not provide a unifying factor, and it is not used to define their wines. An example is the fusel oil aromatics of Rieslings from central Alsace. This is a common and unique factor to a large group of wines of that region. The level of fusel oil would not be a unifying factor to describe the commonality of German Rieslings. You might however describe a balance of fruit/acidity and alcohol in German wines. This respects what is unique about a region and allows for a more accurate description of each region’s wines.

By gaining an overview of the aromatic, textural, and flavor spectrums of Oregon Pinot noir and then comparing your mental picture of those wines to the Pinot noirs of another region, you can
identify and describe regional differences. One of the fundamental questions posed by Oregon winemakers in the early years was whether Oregon Pinot noirs indeed had a distinct personality. It was possible that the range of Oregon Pinot noir might mimic the range of Burgundy or California. As more wines were produced and tasting experience increased, a consensus developed that there was indeed a distinct personality to Oregon Pinot noir when taken as a group. It is crucial to understand that a specific wine from a specific producer might be very different than the average of the group and be perceived as actually similar in style to another region. These individual distinctions do not invalidate the general perceptions of a region. Rather, they validate the powerful influence of vine microclimate, vintage, and winemaker.

Pinot noir has been made in Oregon for 47 vintages. Pinot noir is the most important variety produced in Oregon and is accepted as an important regional wine by sommeliers and wine merchants throughout the world.

Oregon was the first place in the New World to establish a singular reputation for Pinot noir, but it is not the only place. Carneros, Central Coast, Russian River, and now Martinborough, Central Otago, Tasmania, and even Okanagan and Anderson Valley are all places that have built their reputations, at least in part, on Pinot noir. Additionally Italy, Austria, Germany and Switzerland are Old World locations, but new producers of Pinot noir.

Burgundy, a region that has produced Pinot noir for more than 1,000 years, has a wide variety of Pinot noirs based on the villages of the region, the specific vineyard sites within each village, the style of each winery, and the vintage.

We commonly refer to “Burgundian style,” “California style,” and “Oregon style,” but what does that really mean, and what are the differences between the regions? There is now a general agreement about what “Oregon style” encompasses and how Oregon Pinot noirs differ from wines made in other parts of the world.

**Limits in Defining Oregon Style**

1. **What do we mean by “Oregon?”** Oregon is a large state with seven major growing regions and 16 approved American Viticultural Areas. Pinot noir is the most important variety in the Willamette Valley. There are plantings in the Umpqua and Rogue Valleys, and Columbia Gorge and Walla Walla Valley, but Pinot noir is not the dominant variety in those other areas. Approximately 88% of Oregon’s Pinot noir comes from the Willamette Valley. Further, 86% of the state’s Pinot noir comes from the 40-mile-long, half-moon-shaped region stretching from west of Portland to the hills just south of Salem, the North Willamette Valley. Those who try Pinot noir from Oregon most likely will be drinking a wine from this small area. Those of us in that area use the term “Oregon” when we really mean this small area. In doing so, we ignore the very different range of Pinot noirs produced from other regions of the state. For the purposes of this discussion, however, we will adopt the common usage “Oregon,” even as we recognize that we are speaking of a much smaller area.
2. **How can we speak of defining characteristics for the more than 1,000 Pinot noirs made in Oregon each year?** Even after admitting that Oregon has many different places—and climates and soils—it also has many winemakers with their own ideas about style. Yet if we were to taste enough wines from enough vintages, we could arrive at characteristics that are fundamental to Oregon. The range of those characteristics might be illustrated, as in Figure 1 below.

![Figure 1](image)

We could compare that range of characteristics to those that define “Burgundian style” and “California style” (and admittedly, the ranges in those regions could be even larger). Some aspects of the three styles may overlap, and not every Pinot from Oregon would have the whole range of defining characteristics. But we would begin to have an experiential basis against which we could compare all Pinots, both from Oregon and from the other regions of the world.
**Personality Attributes of Oregon Pinot Noir**

**An Aroma Wheel for Pinot Noir**

Using this guide, you can find descriptors for the aromas in any Pinot noir wine. When we first taught this workshop in Oregon Pinot Camp, we tasted wines to demonstrate “red fruits,” “black fruits,” even “blue fruits.” The descriptors on the Pinot noir Aroma Wheel are not exclusive to Oregon Pinot noir. Specific aromas have been shown to help differentiate basalt from sedimentary soils in Oregon, riper vintages from less ripe, and certainly illustrate specific “house” styles (such as decisions about oak usage) associated with Oregon wineries. The aroma wheel, however, has not turned out to be helpful in defining the regional personality of Oregon Pinot noir.

There are two broad descriptors that have emerged as keys to describing Oregon Pinot noir. The first is “fruit.” Fruit can be perceived by smell (aroma) or by taste (but “fruit” can only be tasted if you are not holding your nose). “Fruity” is an area on the aroma wheel, but we are not describing specific fruit aromas. Rather, we think of fruit quality in a wine in two general ways:

1. By “freshness” (versus “jamminess”)
2. By general “fruitiness” i.e. the intensity of that fruit

As we taste a range of Oregon Pinot noirs, focus on your impression of fruit quality, often referred to as “freshness” that is used to describe Oregon wine. After tasting the wines in the flight, contemplate where your impression of Burgundy (taken from your mental library of such wines) might fall in relationship to the Oregon wines. Do the same for your impression of California Pinot noir. Is the Burgundy more or less about fresh fruit than the Oregon examples (or roughly the same)? Where would it fall on the “jammy” scale? What about the California Pinot?

The second category is “Texture.” Here we are talking about how you perceive a wine in your mouth, as distinct from the wines aromatics.

1. Acidity (grapes have acid and wines need acid for freshness and ageability)
2. Tannin (grape skins and oak have tannins; tannin can be bitter, astringent, or mouth-filling)
3. Richness (this refers to a range of wine components that make a wine feel “big”—alcohol, complex sugars called polysaccharides, oak sugars, etc.)

After several years of doing this workshop, a consensus has developed that these general attributes can be used to identify what is unique in Oregon Pinot noir:

- On the “freshness” scale, Oregon Pinots are likely to be fresher than their generally jammier California counterparts.

- On the “intensity” scale, Oregon Pinots are going to be more intensely fruity (as a general statement) than Burgundies.

- On the “acidity” scale, Oregon Pinots are going to seem as if they have a little more acidity than California Pinots.

- On the “tannin” scale, Oregon Pinots are generally between the less tannic Burgundies and more tannic Californians.

- On the “richness” scale, Oregon Pinots have a similar middle position between Burgundy and California.

**The Effect of Vintage**

Wine grapes grown in marginal conditions will inherently have vintages in which that ripening is more complete or less so. Small changes in average nighttime temperature can significantly change the acidity level and balance in the wines. The date of flowering significantly affects the timing and expected weather conditions at harvest. More or less sun will impact the quality and intensity of the fruit. Warmer or cooler conditions at the end of ripening can have a dramatic effect on sugar and the resulting alcohol levels in the wine. How Oregon’s vintages affect the way Pinot noir ripens creates structural differences in acidity, tannin, sugar levels, and flavor profile. These small differences in the fruit at harvest impact the basic personality of the wines we produce. It is clear to both Oregon winemakers and consumers that our wines are influenced by vintage, both specifically and in general.

*The vintage effect is not simple. It can affect wines in their youth differently from the way it affects wines that have been aged. We know that some vintages produce wines that are showy as young wines. Other vintages produce tight and awkward wines when young that blossom beautifully with age. Although often dismissed as simply better or worse vintages, the way Pinot noir responds to vintage can defy such simple analysis.*

The vintage effect is a complex series of interactions between the vine and the climatic conditions throughout a growing season. The effect actually begins the season before, when the amount of sunlight on the new growing shoot determines the size and number of flower clusters developing at the bud at the base of each leaf for the next growing season. In the following year those microscopic clusters emerge from the bud and will become fruit. If the weather was cloudy and cool the season before, then the clusters will be smaller in size and number per shoot will be reduced. This will limit the size of the potential crop.

The weather during bloom affects how many of the self-pollinating flowers fertilize. Sun and moderate heat provide the best conditions. Good weather means large, compact clusters, with even
berry size and potentially good yields. If the bloom phase occurs over a short period of good weather, the fruit will mature very evenly, ripening at the same time. The compact clusters will be tighter, with less space to dry out if it rains repeatedly, increasing the risk of rot.

Poor weather can result in clusters with few berries, berries of varying size (“hens and chicks”), and sometimes very low yields. In poor weather, bloom can take place over a long time period, up to a couple of weeks. The berries will mature at different times in the fall creating more diversity in maturity at picking. The clusters are often loose with large gaps for ventilation and are less prone to disease if the weather deteriorates. Vines with very low yields will mature earlier in the fall. Small variations in the weather during bloom can result in very different crop sizes and affect the amount of thinning required, and the timing of harvest.

The timing of bloom varies significantly in Oregon, from late May through early July. The time from bloom to harvest is fairly consistent, from 100 to 110 days. Early bloom means the grapes will usually be harvested in September and late bloom can delay harvest well into October. The later the harvest, the shorter the day length, the cooler the conditions during the final ripening phase, and the greater the risk of rain. Unfortunately none of this is predictable. July blooms resulted in many of the best Oregon vintages (1993, 1996, 1999, 2008, and 2010).

Conditions during the summer mainly affect the vegetative phase of the vine, the growth and development of the canopy. The pace of development is very steady and is only minimally affected by sun, heat, clouds, and rain. The major effect of weather is the risk of disease, mainly mildew. Mildew damages both the leaves and developing clusters, reducing the ability of the canopy to provide energy to the vine. Clusters with significant mildew will not ripen properly or at all. Controlling disease is a major task of the grapegrower. Heat over 90°F destroys mildew, while moderate temperatures encourage its growth. The berries during this phase have no color and no real flavor.

At the midpoint of the 100-day season for the berry comes “seed hardening” or “lag phase.” The size of the crop is about 50% of that at harvest and this is the time when decisions about thinning to adjust the final vineyard yield can most accurately be made.Winemakers and viticulturists vary in how they thin, when they thin, and how much they thin, but all agree that this is the last time that thinning will affect the way the crop matures. The goal of thinning is to find a crop level that will allow the fruit to fully ripen before the growing season ends. A large crop needs more thinning. A late season is less likely to have adequate sun and heat to ripen a large crop and the thinning is more severe. Later thinning does not appear to alter ways the flavors develop in the fruit or the acid/sugar/pH balance in the berries.

The real action begins at veraison, when the Pinot noir clusters change color. This is the time when the berries begin to soften, the acids drop, the sugar rises, and the skins begin developing the complex phenolic compounds that create the color and flavor of Pinot noir. It takes one to two weeks for complete coloring to occur. At this point the final ripening stage begins. Photosyntate transport focuses on the fruit maturity and carbohydrate storage, not vine growth. This is the time flavors develop. The way this occurs in each site and growing season creates balance of sugar, flavor, and acidity that defines the vintage.

The interaction of site, farming practices, and variations in temperature and rainfall create such a complex pattern of grape maturity that labeling a vintage as good or bad and either condemning or lauding all of the wines of a region is absurd. In reality, the vintage provides an opportunity to
create wines that either reflect or do not reflect the particular nature of the grapes as they matured in that vintage.

This becomes even more complex because winemakers have different goals. These goals are often based on picking grapes with a specific level of maturity and flavor profile. There is not one “perfect” level of Pinot noir maturity. In fact, winemakers vary widely in what they consider optimal maturity. Vineyards are often picked over two or three weeks, not so much because of varying maturity within the vineyard, but rather because winemakers look at ripeness differently. If your goal is to make a rich, fruit-dominated wine with a high level of concentration, then a low-yielding vineyard picked at a high level of ripeness will provide the material you seek. Warm, sunny conditions during the final ripening phase, more common in an early season, will make it more likely to achieve that goal.

Another winemaker makes wines with a solid backbone of acidity, more nuanced flavors, less intense color and a desire for slow, steady evolution of their wines over many years. A low yielding, hot, early vintage will mature the fruit too quickly, the acids will drop precipitously, and the flavors will be relatively simple, making it difficult to pick the fruit that winemaker seeks. A cooler, cloudier fall with a more moderate crop level can provide that winemaker with nuanced flavors and a better backbone of acidity to achieve those goals. Given identical seasons, these two winemakers will experience the vintage very differently.

The conditions in which Pinot noir ripens in a specific vintage are not consistent within the Willamette Valley. There is no uniform maturity that describes the grapes picked in a specific vintage. “Vintage” is not a homogeneous concept. Over the decades some patterns of maturity or seasonal similarities, however, have emerged. We can describe the conditions at harvest and make some generalizations about how Pinot noir matured that are helpful in gaining an overview of the wines and how they evolve over time. While the range of wines made in a particular vintage is broad, a great deal of the variation is dependent on the quality of the site and the skill of the winemaker.

“Great” vineyard sites are great mostly because they produce the best grapes in the most challenging vintages. “Great” winemakers are great because they make the best and most consistent wines when the fruit is less than perfect. They say that if you cannot make good wine in a great vintage, you should get another job. In a more difficult vintage, the best winemakers make the best wines.

Oregon Vintage Descriptions
There are some identifiable patterns that have emerged over the 40-plus years Pinot noir has been made in Oregon. The descriptions are presented from the viewpoint of the winemaker, rather than the grapegrower. These patterns are primarily based on similarities in the development of flavors and the balance of acid and sugar in the grapes at harvest. Because of this, the weather after veraison and during the harvest window becomes an important determining factor in unifying these vintages. A commonality exists in the way grapes transform into wine and the way the wines evolve over time.

• “Great” Oregon Vintages
The first vintage we will describe is the “great” Oregon vintage. Bloom might be early, normal, or late. The timing of bloom does not seem to be an important factor in quality. Usually, but not always, the weather at bloom is less than perfect. Cool and cloudy, the fertilization of the flowers
is poor, creating clusters that have a reduced number of berries and are often loose with plenty of room for sun to penetrate. Because they are more open, they are less prone to rot. Examples are 1985, 1994, 1998, and 2008. The yields are naturally low, often less than two tons per acre, and thinning at “lag phase” is minimal. The exception is 2002, which had a good fruit set and normal yields.

What unites all of these vintages is moderate rainfall at or just after veraison (usually September), giving the vines just enough moisture to ripen the fruit and avoid dehydration, but not so much to increase the risk of disease. Combined with sunny, but relatively cool weather during the final ripening phase, the grapes in all these years were allowed to ripen as fully as the winemaker desired. Specifically these vintages do not have periods of high heat, which would raise sugar levels (and alcohol in the wines). The cool temperatures, especially at night, retain acidity in the grapes, and the resulting wines have a strong and fresh acid backbone that is critical to great Pinot noir. This combination of cool, sunny weather allows the flavor and tannin components to achieve whatever level of ripeness the winemaker desires.

The wines from these vintages often have fully developed tannins, good color, and a wide range of ripe flavors. Given the flexibility in picking, the wines reflect the winemaker’s personality and stylistic intent. This can pose a challenge to young winemakers, uncertain of exactly what they want, but also provide the rare chance to understand exactly what can be made from grapes at a specific level of ripeness.

Because the grapes are fully ripe, site-specific flavors also have a chance to completely develop, and the wines can reflect their terroir with great accuracy. If picked before the acidity drops, the added acidity will increase the ability of these wines to evolve over a long period. Given their ripe tannins and well-matured flavors, the wines from these vintages show well in barrel and in the bottle shortly after bottling. Wine reviewers often want to taste wines at a young stage, shortly after release. These wines have lovely flavors and balance, show well, and receive good-to-excellent reviews. They sell well, customers are happy, and the wineries can pay their bills. In a very real way, we thank Mother Nature for these wines.

- **“Warm” Oregon Vintages**

The next vintage type is the “warm” (read “hot”) vintage. In general these are years with early to normal blooms. The fruit set can range from low to relatively high. Summer temperatures can vary widely, but these are usually not vintages with a lot of rain during the growing season. Thinning crop may be required to target a normal yield of 1.7 to 2.5 tons per acre. Disease pressure is usually low in these seasons, due to drier weather and warmer temperatures.

September usually experiences some (but not much) rain, and ripening seems to be on target for a mid-September to early October harvest. The unifying factor in the hot vintage is warm to hot temperatures during the final ripening stage. In a year like 1992, bloom was very early and final ripening took place in early to mid-September. Temperatures are normally warmer in September and the dry, warm conditions accelerated the grapes’ maturity. In vintages like 2003 and 2006, September began more moderately, but became much warmer as the month progressed. The nights are often much warmer in these vintages, prompting the vines to metabolize acid for energy and reducing the total acidity in the grapes at harvest.

Winemakers are faced with a difficult challenge in these vintages. If they pick at normal sugar levels, the tannins are often not fully developed, may taste green, and the berries have relatively
simple flavors. The wines made at this stage of maturity may have immature flavors, slightly green tannins, and acids that are out of balance. If they choose to wait, the heat causes the sugars to rapidly rise while they wait for flavor maturity. This is compounded by rapidly dropping acid levels, rising pH and concerns about microbiologic problems during fermentation. Picking at flavor maturity may yield grapes in excess of 26° Brix with natural alcohols above 16%. The choice many make is to “rehydrate” the must to a more normal level and add acidity to make up for what is lost during the warm nights. The advantage of this choice is that the flavors have developed fully and the wines have beautifully expressed fruit.

What Oregon produces in warm vintages are Pinot noirs that have very vibrant fruit with relatively soft acidity. These vintages are very popular; they are easy to drink in their youth and easy to understand for the novice consumer. Restaurants love to serve them because they show well in their youth. They receive good reviews and sell well at retail. They are not classic “Burgundy” and can be described as more “California” in style. They are often not the favorites of Oregon winemakers. The higher alcohols and lower acidity combined with less complex flavors are less likely to age well. Their level of nuance is low. The more “Burgundian” Pinot noir customers avoid these vintages, but it doesn’t matter because they sell out anyway.

- **“Classic” Oregon Vintages**

The “classic” Oregon vintage is one marked by moderation. These are a favorite of Oregon winemakers, not because they are easy, but because they are revealing. The timing of bloom is more normal, mid- to late-June. Usually fruit set is good. The summers are variable, often with higher disease pressure due to moderate temperatures and episodes of rain. The skill of the grower is critical in these vintages, both to manage problems in the summer and to produce the healthiest fruit going into the fall. Because of this, these vintages are thinned carefully to limit the crop and maximize the chance that it will ripen and be disease-free.

Again the weather in September and October becomes the critical factor in these vintages. There is often some rain in late August and September, stoking winemakers’ fears that the fruit will never ripen. Temperatures are moderate with a mixture of sun and cloudy days. The net effect of this weather pattern is to extend the final ripening phase under conditions that retain the natural acidity, maximize the complexity of the flavor compounds, and moderate the accumulation of sugar. The keys to success in the “classic” Oregon vintage are sites that are well managed and have the opportunity to ripen fully with minimal or no rot.

Balance is the hallmark of the “classic” Oregon vintage. The grapes are never overripe and are not dominated by big fruit; they are rather exceptionally nuanced. The tannins are past the green phase and are detailed and focused on the palate, but rarely massive. The backbone of acidity adds a distinct freshness to the wine and provides the basis for long-term aging. These are exceptional food wines and are especially good with a few years in the cellar. They are reviewed with more restraint, do not instantly sell off the shelves, and require a bit more work to market. These are the wines the “Burgundy” fan waits for: all the enjoyment at half the price. Forgotten in ten years, they are the wines we pull from our cellar to wow visitors and enjoy with friends. “Classic” Oregon vintages are 1988, 1990, 1993, 2000, and 2004.

- **“Cool” Oregon Vintages**

Finally, we have the “cool” (read “wet”) vintages. Degraded by certain wine publications on the basis of broad generalizations about moisture during the harvest, there is nothing simple about
growing grapes or making wine in these years. In many ways, these reveal the greatest sites, the best grapegrowers, and the most skilled winemakers. When nothing is easy, the most tenacious thrive and produce the real gems: the wines that deserve, but rarely get, the biggest prize. If achievement in the face of adversity were rewarded, all of the awards would go to wines made in these vintages.

Cool vintages begin innocuously. Bloom may be normal, even early. Set is good and the growing season may be quite uneventful luring the unsuspecting grapegrower or winemaker into complacency. It is only late into the season that the shit hits the proverbial fan. It has not been the history in Oregon that the really late vintages, when you suspect that the rains will make it impossible to pick ripe fruit, turn out to be the cool vintages. The late vintages—1993, 1999, and 2008—have all turned out very well. Rather, things seem to be going rather nicely until the clouds come, the temperature drops, the sun disappears, and you realize you are in deep shit.

The challenge for the winemaker is to understand that the rain is not the real enemy. Although the rain increases the risk of rot, and rot is a very bad thing in Pinot noir, what the grapes need is sun. Without sun, the grapes stall out, ripening slows dramatically, and the time to maturity lengthens at the most inopportune time. It is here that the diligent work of the grapegrower provides the margin of error that makes it possible to hold out for ripe, flavorful fruit. Picking dry fruit that has unripe flavors and tannins to avoid a rainstorm is not the key to success in the cool vintage.

Thus the waiting game begins. Warmer, earlier, and drier sites have a distinct advantage in cool vintages. The goal is to protect the integrity of the fruit long enough to achieve enough ripeness to make Pinot noir. Often there are repeated rain fronts with sunny gaps in between. These provide the opportunity for the grapes to ripen. At some point the fruit will soften and the risk of further rain and rot may make it impossible to delay harvest. It is just as likely that the grapes will obtain the desired maturity during a sunny period and be harvested. The demands on the winemaker become critical. If the skins are just on the edge of ripeness, over-extraction can create green and unripe flavors that may be impossible to eliminate later. Too much wood can cover up delicate fruit. Experience and a careful hand are often rewarded. There is nothing easy about making wine in cool vintages, but it is possible to make excellent wine in a cool vintage.

One thing that is required in cool vintages is time in the bottle. Wines picked on the edge of ripeness are often highly complex, detailed with good acid backbones. “Obvious” is not an accurate descriptor. These wines develop on their own time frame and reward the patient. It is very common for the wines to taste much better after 12 or 18 months of bottle age. The best wines produced in cool vintages have demonstrated an exceptional ability to age for long periods, developing finesse and grace. 1995, 1997, and 2007 were all considered to be cool vintages.

Customers are often surprised by how much they enjoy the wines and how well they go with food after even a short period of development. An impossible sell becomes an easy sale once the wines have opened up. Ignored or maligned by reviewers, many exceptional wines are passed over. There are often wonderful values, and the skilled retailer or sommelier can provide a very high quality wine at a low price to their customer from these vintages (there are no deals in the great vintages).

If you look at the quality range between the best wines in a great vintage and the best wines made in the most challenging vintages, you see that the difference is very small. The separation between the best wines in a cool vintage and mid-range wines in the same vintage is actually greater. Irrespective of your opinion of scores, we all have an idea of relative quality.
That an average wine from a “great” vintage should sell so much easier than a wonderful wine from a lesser vintage makes little, if any sense. What is really different is the style the vintage presents: the nature of the fruit, the balance of tannins, the backbone of acidity, and the way the wines will develop over time.

The ability of Pinot noir to age is a source of controversy and confusion. It is clear that once you get beyond the most basic Oregon Pinot noirs, they all benefit from four to six years of bottle age. The fruit develops more complexity, the acids soften, and the oak becomes more integrated. The situation becomes more muddled when you move beyond eight to ten years when secondary bottle characters become more dominant.

It is also clear that the highest-rated vintages do not necessarily make the longest-aging wines. What seems to result in the best wines for long-term aging is balance. A wine that is very fruit forward, with lots of sweet oak and low acidity can show very well in its youth. It may receive a high score and sell for a high price. It may not be very interesting to drink in a decade. Likewise a wine that was picked with lots of acidity, big tannin extraction and little fruit may never integrate its fruit and tannins. However a wine with lovely fruit, full tannins, good acidity, and moderate alcohol that shows beautifully in its youth may also age beautifully over 10 or 15 years. Another wine that is lean and tight, with balanced tannin and solid acidity that is not so showy in its youth, may also blossom with time. The key is a balance of ripe tannins and enough acidity to support the wine as it ages. Green tannins rarely resolve and huge tannins may never integrate with the wine. Different vintages provide very different levels of maturity and skin tannins to the winemakers. Their job is to take the fruit of the vine and turn it into wine.

The “great,” “warm,” “classic,” and “cool” Oregon vintage descriptions above are helpful in understanding how vintages vary in Oregon. Many Oregon vintages do not fit into one of these categories. They may be amalgamations of two or more of the above or may be discrete entities. What they do express is a feeling for the growing cycle and the way the details of maturing the Pinot noir grapes are revealed in the wines we make. Our goal is for you to understand how vintage differences affect Oregon Pinot noir. We want you to see that these differences are more of personality. Each vintage reveals a different balance of fruit, tannin, texture, and acidity. Often these differences are less obvious than we expect and reveal the nuances of site and winemaker.

To examine the impact of vintage on the personality of Oregon Pinot noir, we will taste three pairs of wines each from two distinct Oregon vintages. To control for the effect of site differences and winemaker style, we will use pairs of wine in which the winemaker and the vineyard are identical, only the vintage changes. By comparing three wines made in a specific year with three wines made in a different year, we can see if and how the wines differ. Those differences will primarily come from the variations in vintage. A description of Oregon vintages from 1985 to 2013 is included in the appendix.

Selling By the Vintage

It is important when discussing vintage variation in Oregon to look beyond the simplifications of absolute quality. Our job at Oregon Pinot Camp is to give you tools that allow you to give your customers a more complete understanding of why Oregon vintages differ, how they differ, and how the wines will fit or not fit your customer’s individual needs.
Our cool growing climate amplifies the differences between our vintages. Pinot noir’s varietal character is most fully expressed when it ripens at the end of its season. By maturing just as the seasons shift, the fruit is better able to express the vintage variations caused by the specific weather conditions that prevailed during the critical last weeks of ripening. These flavor components appear a few weeks after veraison, when the grapes are fully colored. Conditions during this final ripening phase will all affect the composition of the fruit, and consequently the character of the wines.

Oregon’s vintages present winemakers with different maturity patterns. We believe these differences affect the personality, balance of fruit, acidity and tannin structure, degree of “forwardness,” and food compatibility of each individual vintage. Although there are quality differences, they are routinely exaggerated in the press, which does a disservice to the winemakers whose job it is to make the best wine in every vintage. Many Pinot noirs from the 1995 vintage are extraordinary now, although this was reviewed as one of Oregon’s lowest ranked vintages.

Understanding Oregon’s vintage variations is critical to appreciating the range of wine we produce in this region. It is also key to understanding Pinot noir in general. Knowledge of the intricacies of vintage also allows the retailer or sommelier to provide clarity and advice to their customers. It is more than an intellectual exercise. The dividends are increased wine sales and customer loyalty. Your customers look to your knowledge to help them make sound buying decisions and to more completely understand what they are reading in the press.

**Winemakers and Pinot Noir**

A major influence on the personality of Pinot noir is the winemaker. Given the responsiveness of Pinot noir as a grape to the region, site, and vintage, it is not surprising that the personality of the winemaker plays a role in the wines they make. Winemakers make a wide range of decisions, affecting the way grapes are grown and the way wine is produced. Each decision moves the wine in one direction or another, subtly or dramatically affecting its evolution into finished wine. These decisions, individually and as a group, evolve out of a winemaking philosophy. Sometimes that philosophy is carefully considered and rigorously analyzed, and sometimes it is instinctual. It is always a reflection of the personality of the winemaker.

**Style Influences**

Winemakers vary widely in their background, training, cultural traditions, and basic personality. A European transplant coming from a family of vignerons will have a different approach to the winemaking process than someone with a graduate degree in enology from UC Davis. Someone with a Type A personality approaches fermentation decisions differently than an ex-theology student. Life experiences and palate differences, even genetics, can play a strong role in how a winemaker approaches the decision process, even if their philosophies are very similar. Each of us has taste buds that are wired differently, and we do not perceive the same aromatic compounds in the same way. There are a significant number of compounds that a sub-set of the population cannot taste or smell. This is specifically true for compounds that are associated with reduction in wine. What may be a noxious odor indicative of a major wine flaw for some is imperceptible to others.

Basic approaches to controlling the winemaking process vary. It is not uncommon for winemakers to want to control each step and intervene if things deviate from the path they see as optimal. They may want grapes to be picked at specific sugar levels, acids, and pH. If they are not within those parameters, they may make adjustments. They control fermentation temperatures; they control the microbiology by adding sulfur dioxide, yeast, or other microorganisms. They may decide to adjust
tannins, acidity, and use varying amounts of new oak to modify the wine’s flavor profile. Other winemakers will pick grapes when they are ripe, let the fermentation proceed at will, and rarely intervene at any stage of the process. Both can make excellent Pinot noir—they are just different in personality.

Some winemakers are very focused in the vineyard. They are, at heart, farmers who make wine. Nurturing vines, watching the seasonal patterns, and responding to Mother Nature are their primary concentrations. The details of winemaking are less important to them. They believe that if the fruit is grown correctly, the wine will be good.

Others focus on the winemaking process. While they have specific ideas on crop level, fruit exposure, and picking parameters, they relinquish the growing of the grapes to viticulturists. Once they decide to pick, they go into high gear, examining the fruit in all its nuances and visioning the process of transforming the grapes into wine. They care about the details of fermentation, how the tannins and color compounds will make the transition into wine. By using all their skills, they balance the level of tannin and flavor with the ripeness of the fruit and have a specific vision about how they will guide the winemaking process. These approaches produce different types of wines, and both have an important place in the world of Pinot noir.

Size is an important factor. Making 1,000 cases of small-lot, handmade wine is very different from making 100,000 cases of price-point-sensitive Pinot noir. A winemaker/owner with a day job making very small amounts of wine sold direct to consumers has a different focus and strategy from a winemaking team charged with producing tens of thousands of cases of Pinot noir sold nationally.

Regardless of their background, winemakers make choices at various stages of the winemaking process. They make decisions about yield, fruit exposure, leaf pulling, and harvest timing. They decide whether to delay fermentation by cooling the must or letting it proceed naturally. They may leave the wine in barrel for many months or bottle it early. Each decision is made to achieve a certain goal or effect. The choice may have a dramatic effect or be very subtle. In the end, the finished wine is guided by the sum of all the decisions made by the winemaker.

In the Winemaking Deconstructed chapter, a wide variety of winemaking choices are presented. The impact of some of those choices is discussed to demonstrate how a specific choice affects a wine at specific stage in the winemaking process. The choices they make are based on their individual philosophies. These decisions direct the transformation of grapes into wine in very specific ways. The end result is presented in a bottle that reflects their hopes, aspirations, and personality.

What follows is a discussion of how specific winemaking choices can be used to achieve different philosophic goals. We will look at the choices presented at four different stages of the winemaking process: vineyard, harvest and reception, fermentation, and aging and finishing. We will see how selecting a specific option directs the wine towards a specific goal. The sum of all these decisions produces a wine that reflects the personality of the winemaker. Because the options are almost endless, we will focus on some specific examples at each stage to illustrate how a simple choice moves the wine in one direction or another.
## Vineyard

The way winemakers work with nature says a great deal about who they are. The basic selection of site moves the wine style in a specific direction. Grapes from Volnay vineyards are stylistically different from Nuits-St. Georges, just as Dundee Hills grapes are different from those grown in McMinnville. The choice of site and, if blended, the balance of the blends produce wines with intrinsically different structural profiles.

If the desire is to make a wine with lots of perfume, a delicacy on the palate, and round tannins, one way is to use grapes that reflect that profile; in this example from Volnay or the Dundee Hills. Wines intended to be more structured, with darker flavors, more spice, and a stronger backbone of tannin, are more easily created from vineyards producing that type of fruit: Nuits-St. Georges or McMinnville. Wineries with estate vineyards in one location make wines that reflect that terroir. Wineries using multiple vineyard sites in a variety of different terroirs will create wines that reflect the variations of those sources and the stylistic opportunities they create.

Vineyard location has a significant effect on style of wine in Oregon. Geographical and geological elements such as elevation, proximity to the Van Duzer’s windy corridor, aspect to the rising sun, parent rock, soil type and depth, as well as water holding capacity are just some of the elements that vary from site to site. These attributes contribute to the differences winemakers in Oregon note in the various AVAs and within an AVA.

Within a region, the way a vineyard is planted, pruned, and thinned changes the character of the grapes. Older vineyards in Oregon are generally planted at lower densities, because the “state-of-the-art” was different 30 years ago. Originally, Oregon vineyards were often planted with wide spaces between the rows and between the plants in the rows (low density). The vines were not grafted to phylloxera-resistant rootstocks. These layouts inherently have less canopy surface area to support the maturing clusters. They also limit the total number of clusters per acre because of the relatively small number of plants and shoots per acre. If the clusters are very small, it can be impossible to achieve a reasonable yield in some vintages. Wider vine rows do allow individual vines to explore more soil and may help them be more drought-hardy. These old vines are capable of ripening a moderate crop in most vintages. Winemakers know that older vines are very good at producing the nuances associated with site and soil variation, often referred to as “terroir”—the complex balance of fruit, secondary flavors (spice, flowers, mushrooms, and earth), texture, and tannin. Although newer planting systems offer numerous advantages, these old vines are valued for the quality of fruit they can produce. Unfortunately, many are infected with phylloxera and are dying.

In general, new Pinot noir plantings are planted to tighter row widths (3.5’ to 7’), closer intra-plant spacing, and on devigorating and phylloxera-resistant rootstocks. A vertical canopy trellis system maximizes the exposure of the leaves to the sun while controlling fruit exposure during mid-day. Higher density systems also make the most efficient use of sunlight throughout the day. As tighter spaced vineyards have gained age, they demonstrate consistent high quality year after year. Closer spaced rows can bring more vine-to-vine competition, driving the roots deeper and helping control vigor. Very closely spaced rows have more leaf surface area per cluster of fruit. Leaves are the vines “factory”, so increasing the leaf surface area for the same crop load ensures that the vine has the best chance to mature the fruit, even in a marginal season. Closer spacing in the rows means that each plant has a shorter fruiting cane length, so variations in shoot fertility are minimized. This creates a more uniform crop and cluster morphology. These changes in vineyard layout result in higher quality, more consistent, and healthier fruit at harvest.
Clonal selection can influence the style of the wine as well. A larger selection of clonal material is now available so the viticulturist and winemaker can select one or multiple clones to plant at a specific site. One clone may be known for emphasizing red fruit flavors, while another may generally bring out the blacker fruits associated with Pinot noir. This can add complexity to wine and can be used to enhance stylistic goals of the winery.

Crop control has proven to be one of the major factors in improvement of quality vintage after vintage in Oregon. Prior to 1991, an accurate system to estimate yield did not exist. In much of California, variation in yield does not create a quality problem because the fruit will ripen every year over a wide range of yields. Because Oregon is a marginal climate, small differences in yield can be the determining factor between never achieving ripeness and making good wine. Being able to control your final crop weight per acre is critical to controlling quality in Oregon, especially for Pinot noir. It is also important economically because low yields make little wine that is expensive to put in the bottle. If the result is exceptional quality, this might be justified, but we know that below a certain point, quality is not improved by lower yields, in fact quality may suffer.

Winemakers will set different goals for yield based on site, the growing season, and stylistic goals. A higher crop may take longer to ripen and may be conducive to balancing a vigorous site. The wine made may have higher acidity and display more apparent tannin in flavor. Higher yields control bottle cost and are important for producing wines at lower price points.

Higher crop levels can be used to delay maturity in early vintages with warm summers by increasing the time from veraison to harvest. If the weather becomes very hot and sunny shortly after veraison, the sugars can increase rapidly and the acids drop precipitously while the flavors are still green. This will not produce a balanced wine. The winemaker can wait for flavor, but may need to add large amounts of acid and rehydrate the must to compensate for the desiccation of the berries. By cropping at a higher level, the maturity phase post-veraison can be lengthened, slowing down the accumulation of sugar and minimizing the loss of acidity. The vine can mature its fruit later in cooler weather conditions. This allows the vine more time to fully develop a complex flavor profile. With lower sugars comes less alcohol at a higher acidity that creates a better balance in the wine and more developed flavors.

Conversely, in a late, cool season, dropping yields to a low level will accelerate the ripening. If the fall weather deteriorates, even advancing maturity by a few days can make the difference between making balanced, flavorful wine from sound fruit and a significant problem. In vineyards with very poor soil and low vigor, low yields can be critical to ripening the grapes even in a good vintage.

Winemakers in Oregon understand that Pinot noir must be, first and foremost, grown in the vineyard. Balance in the vines is achieved by varying farming choices specific to the needs of each block. Modifications to the spray program, cover crop manipulation, pruning levels, nutrient supplements, fruit exposure, and thinning programs are techniques that allow the grape grower and winemaker to grow healthy fruit and pick that fruit at the flavor profile they desire.

**Harvest and Reception**
The goal of the winemaker at harvest is to pick the fruit at the exact level of ripeness that will produce the wine they want to make. Sometimes that is easy and sometimes it is very difficult.
The time of picking and the balance of flavor, sugar, and acid have a profound impact on the personality of the wine. Fruit ripens in a continuum, but the balance of flavor, tannins, and acid differs from site to site and vintage to vintage. The winemaker decides that a specific moment is correct for one site, as well as for the balance they hope to achieve over all the sites picked that vintage. The target is constantly moving. The more clones, vineyard locations, and variations in potential maturity given the expected weather patterns, the more important each decision becomes in bringing in the best fruit to achieve their goals. What is ripe? What flavors do you want from each site? If the weather is bad, how close can you come to those flavors? How important is the balance of acidity? Is a specific level of acidity or flavor more important for this lot? Will this be a vineyard designated wine or a blending tool? Each choice will result in a fundamentally different wine that can be used for a different end result. In reality, there is not just one goal, and the relative balance is just as important as the individual choices.

Once the fruit is picked, the way it is handled before entering the fermenter can affect the balance of flavor in the wine. For example, a high proportion of whole clusters will alter the fruit flavor profile. Stems that are ripe (lignified and brown) will taste different in the wine than stems that are greener. The cedar component varies with the percentage of whole clusters, the temperature of the fermentation, and the amount of time before pressing. Using no stems, but a high percentage of whole berries, also influences the balance of fruit flavors.

The temperature of the must controls the onset of fermentation. Pre-fermentation maceration at low alcohol will extract skin tannin differently than seed tannin. Very cold musts result in long cold soaks. Long cold soaks extract most of the skin tannin and color compounds prior to fermentation. Short cold soak, or no cold soak creates a different balance of skin and seed tannin in the mouth and different textures. The way tannins are extracted into the must depends on the level of alcohol.

All Oregon winemakers have some method of sorting the fruit to ensure that only ripe, healthy grapes enter the fermenter. This can be done at the time of picking or with simple or elaborate sorting lines in the winery. The era of poor quality destemmers that grind up stems is thankfully in the past. Wineries have machines that allow winemakers to select the percentage of whole berries they want for each lot and decide on the percentage of whole clusters that suits their style.

**Fermentation**

Once the fruit is picked and prepared for fermentation, the winemaker decides how to extract the flavors and tannins by fermentation. The goal is to extract exactly what you want and nothing more. The balance of flavor and tannin can be radically altered by fermentation choices.

*At the center of extraction decisions is a simple fact: skin tannins extract preferentially at low alcohol levels. The amount of skin tannins is limited and most is extracted within five to six days at normal temperatures. Seed tannins preferentially extract at high alcohol levels. There is much more potential seed tannin, and seed tannin levels can increase for weeks. The way fermentations are managed is aimed at managing the balance of these tannins. You must have seed tannin to make wine; the question is how much.*

Fermenter choices affect the volume of the must, the ratio of surface area to volume, the thickness of the cap, and the temperature profile of the fermentation. The fermenter size and construction determines how much heat is retained in the must, how quickly it heats up, and how long it stays warm. It also affects the way the fermentation cap is managed. Small, half-ton bin fermenters heat
up quickly, are easy to thoroughly punch down, and cool quickly. They do not get as warm as larger fermenters. Tanks holding five to nine tons begin fermenting more slowly, achieve higher peak temperatures, and stay warm longer. The bigger they are, the harder they are to punch and the less thorough the mixing. Many wineries choose fermenters between two and four tons to balance these characters.

The speed of the fermentation determines how fast alcohol levels rise and the time at each alcohol level. Winemakers can control this by altering the temperature as the fermentation progresses. A short, cool extraction creates brighter wines with softer tannins. Warmer ferments create a broader tannin structure in the wine, with more mid-palate intensity.

A cool fermentation retains more fruit character, much like cool fermentations in white wines. Warmer temperatures emphasize more secondary flavors and extract tannins that are more rustic, earthy, and with more weight. Pinot ferments always get warm relative to white wine ferments. This is important to extract color and flavor from the black grapes. It is the relative number of days at cool versus warm temperatures that creates a balance of tannins that the winemaker manipulates to achieve a specific stylistic result.

The addition of SO$_2$ and yeast controls the microbiology of the fermentation. Grapes are coated with a multitude of organisms, which are incapable of fermenting grape juice into wine. SO$_2$ is added to control the growth of these organisms and is quite effective. SO$_2$ can also delay the growth of wine yeast, slowing the onset of fermentation. At very high levels, it can also assist in the extraction of tannins (Guy Accad method). Winemakers add SO$_2$ to modify what grows and how fast it grows. Some use a significant amount (80+ ppm) and can usually both delay the onset of fermentation and prevent bad things (spoilage bacteria) from growing in their wine. This helps them obtain a longer cold soak and the extraction profile that goes along it. SO$_2$ inhibits enzymatic oxidation of the must when the grapes are affected by botrytis in more difficult vintages.

Others use very little or no SO$_2$. A wide range of organisms is allowed to grow, but eventually the wine yeasts take over. The complex microbiology may create a wider range of flavors; it also entails greater risk of problems, especially if the fruit is not perfect. These fermentations usually begin earlier, changing the way the tannins are extracted. The winemaker can create broader mid-mouth textures with a larger proportion of the fermentation at warm temperatures.

Detailed studies indicate that most wine yeasts (the ones that can do the job) actually reside in the winery and on winery equipment. They do not come from the vineyard. These are organisms that have evolved and essentially dominate the winery environment. Many times this is a good thing. Sometimes it is not, and problematic yeasts can take over a winery. “Indigenous” yeasts then cause bad things to happen, mostly reduction problems. The winery must use SO$_2$ and commercial yeast strains to take control.

The way winemakers use SO$_2$ and yeast influences the complexity and character of their wines. If there is indigenous yeast they like that grows well, they need to do little. If there is no active strain or a problematic strain, they may need to control things more carefully. Fermentation is the growth of yeast in wine, so the way winemakers manage that growth is fundamental to the transformation of juice to wine. The amount of yeast growing and the temperature of the must affect how fast the sugar is changed into alcohol, affecting the balance of skin and seed tannins.
Pressing is used to stop the process of extraction. If there is sugar left the fermentation will continue, but by separating the skins and seeds from the juice, tannin extractions stops. The timing and method of pressing determine the amount and type of tannin in the young wine. Pressing earlier gives less and smaller sized tannin molecules and can change the proportion of skin to seed tannin. The harder the pressing and the longer the pressing, the more tannin is extracted from the must. Some winemakers separate the final press fractions and treat that wine to reduce the tannin level. They may also reserve that wine to add back to other lots needing a boost of tannin.

Finally, the pressed wine can be settled before racking to barrel. This allows the solids, yeast, and large tannin molecules to settle out before the wine begins the aging process. Some winemakers like this yeast component to go into barrel and use it to add texture to their wines. These yeasts can increase the risk of reduction and require that the wines be racked at a later time. Others want the wines to be clean in order to avoid the need to rack later.

**Aging and Bottling**

Once the grapes have been transformed into wine by fermentation, the young wine must be allowed to evolve and mature over a period of months or years before it is ready to be bottled. This usually involves the use of small oak barrels. There is a large variation in how winemakers use oak, the percentage of new oak, and the amount of time Pinot noir spends in oak barrels. Although less important than the vineyard and fermentation techniques, oak plays a powerful role in the personality of wine.

The evolution of wine after fermentation is complete involves the incorporation of small amounts of oxygen into the wine. At some point, determined by the winemaker, the wine is no longer young and immature and is ready for bottling. The shorter the period of aging, the more the fruit and primary flavors are captured at bottling. Longer aging periods allow more incorporation of oxygen, allowing more evolution of those primary flavors and aromas.

It is not uncommon for the aging period to be determined by practical circumstances. Many wineries have limited space and limited budgets. They have one set of barrels, and the new vintage must go into the last vintage’s barrels. This means the time in barrel is limited to 11 months. Reserve level wines may be left in barrel longer, but there is no consensus. The winemaker decides how the wine is evolving and how much of the fruit they want to capture versus the level of secondary characters.

Oak can be an important flavor component in Pinot noir. Some love it and some hate it. For many, the role of new oak is to support and balance tannins and flavor in the wine. It is not to add another flavor component. Some believe that their wines do not need any new oak and age in wine entirely in used barrels. Others love the sweetness of new oak and use it to balance the sometimes very intense fruit extracted from fermenting very ripe grapes. In any case, the flavor of new oak changes over time.

Barrels vary widely in the flavor profile they offer and the way those flavors integrate or fail to integrate into wine. The origin of the oak can be very important, and winemakers often have favorite regions and forests from which they source the oak. Coopers produce barrels using different techniques, and what they do significantly affects the way Pinot noir develops and interacts in that barrel. Selecting the optimal barrels depends entirely on the winemaker’s vision for that wine. The amount of oak, the time in oak, and the type of oak is determined by their winemaking goals.
The Tasting
We will examine the role of the winemaker by having three winemakers present what they do and why they do it. Each winemaker will begin with their mission statement and then discuss how that philosophy is reflected in decisions they make at four key stages of the winemaking process: vineyard, harvest and reception, fermentation, and aging and finishing. An in-depth discussion of various options at each of these stages is examined in the vineyard chapters and in the Winemaking Deconstructed chapter.

**Moderators**

**Josh Bergström**
Josh Bergström is General Manager, Winemaker and Vineyard Manager for his family’s eponymous winery, Bergström Wines, which he helped to found in 1999. As a college undergraduate, Josh worked for three Pioneering Oregon Wineries before doing his post-graduate studies to become a winegrower in France’s Burgundy region at the C.F.P.P.A., a branch of the famed “Lycée Viticole.” During his 16-year tenure at the helm of Bergstrom Wines, Josh has also served as a consultant to several upstart Oregon labels which afforded him the opportunity to design wineries, plant and manage multiple vineyard sites and work with fruit from over 85 unique vineyards in all six AVAs of the Northern Willamette Valley. Josh believes that Oregon is a world-class and unique winegrowing region whose promise for classically structured, authentic Pinot noir and Chardonnay is unparalleled in America. Josh lovingly co-manages his family’s winery with his wife Caroline Bergström, and his father and mother John and Karen Bergström, all business partners and founders of Bergström Wines.

**Rollin Soles**
Rollin Soles has survived a Texas childhood, an undergraduate degree in microbiology from Texas A&M, and a master’s degree in enology from UC Davis. His early industry experience was spent working for top wineries in Northern California, Northern Switzerland, Northern France, and South Australia. After roaming the world, Rollin founded Argyle Winery in 1987 and is fortunate to continue to enjoy the collaboration of a global network of fine wineries. In 2013, he retired from full time management of Argyle to devote more attention to his ROCO winery that he owns with wife Corby. Roco's wines are sought out for their consistency of high quality and imagination. Soles is the only Oregon winemaker whose wines have been ranked in Wine Spectator’s Top 100 Wines of the World 13 times.

**Panelists**

**Adam Campbell**
A fourth-generation Oregon farmer, Adam grew up on a 40-acre vineyard and winery in the foothills of the coast range in Yamhill County. He joined the family business full time in 1994, heading up a new vineyard development project that has grown the Elk Cove vineyard holdings to over 300 planted acres. Extremely low yields from meticulously farmed Estate grown fruit give him excellent raw material, natural winemaking methods provide the rest. Adam also has a passion for sustainability including a solar energy project at the winery, bio-diesel for all farm vehicles & use of organic farming methods.

Adam has served on the Board of Directors for the International Pinot Noir Celebration (IPNC), Oregon Pinot Camp (OPC), Oregon League of Conservation Voters (OLCV) and the Salud Pinot Noir Auction. He also has a Political Science degree from Lewis and Clark College.

**Véronique Drouhin-Boss**
Fourth-generation winemaker Véronique Drouhin-Boss is widely admired for her work in Burgundy (Maison Joseph Drouhin) and Oregon (Domaine Drouhin Oregon). She has been designated by her family as keeper of the family style, the person responsible for making sure that all Drouhin wines emphasize elegance, balance and sense of place. Véronique was awarded her
oenology degree from the University of Dijon in 1985. The following year she took her advanced
degree, also from Dijon, and subsequently worked stages in Oregon at Adelsheim, Eyrie, and
Bethel Heights wineries. In 1987, her father, Robert, purchased land in the Dundee Hills of
Oregon, established Domaine Drouhin Oregon and named Véronique as winemaker. This began
the Drouhin Family’s commitment to Oregon, which is an important and active part of their lives.
Véronique continues to handcraft all of our wines, as she has from the beginning.

Maggie Harrison
Maggie’s unlikely story begins in the midst of a nervous breakdown, after a bout with Malaria, on
a small island off the coast of Kenya. It is in this moment, facing the piercing questions of her
traveling companion that Maggie reaches into her heart and the epiphany comes. She states simply
“I want to learn how to make wine”. Usually such statements, impetuously thrown about in our
youth, have little bearing on what happens next, but not this time. The simple declaration, and her
own tenacity, sent Maggie directly to Ventura County, where she apprenticed for eight wonderful
and life-changing harvests with Elaine and Manfred Krankl at Sine Qua Non. In 2004 Maggie
made plans to strike out on her own and started a small Syrah project named Lillian. These plans
also included settling down in Santa Barbara where she intended to stay for the rest of her life.
Nonetheless, as is usually the case, most plans are in fact inaccurate predictions. One year after
making these plans, three friends of Manfred’s purchased a vineyard in Oregon called Antica
Terra. They asked Maggie if she would make the wine, but having plans of her own, she
emphatically refused. They asked Maggie if she would simply take a look at the vineyard and offer
her opinion about the qualities of the site. She reluctantly agreed. Twenty six seconds after arriving
among the oaks, fossils, and stunted vines she found herself hunched beneath one of the trees,
phone in hand, explaining to her husband that they would be moving to Oregon.

Jim Prosser
Since 1999 at J.K. Carriere, owner/winemaker Jim Prosser has been recognized as a winemaker
who builds precise wines that evolve and reveal great complexity, at the highest end of the acid
spectrum. His absolute belief is that wine is made in the vineyard, a vineyard is potential, and it
doesn’t mean anything if you don’t execute. Jim is the guy farming the estate (organic), whose
hands are in the winemaking (natural), and walking some of Oregon’s finest vineyards from which
he’s sourced fruit for more than a decade (Temperance Hill, Shea, Gemini, Anderson Family),
thereby ensuring that potential. In 2009 Jim built a new winery on a hill. There you’ll find a barn
of this century, with caves dug into the red cobble, flanked by vineyard, surrounded by forest, with
a view that looks towards the Cascade Range. Jim’s boots are still on the ground, telling stories in
bottle, that you’ll be able to remember years from now, by pulling a cork.

Facilitators
Stewart Boedecker
Stewart is the winemaker and owner of Boedecker Cellars. His interest in winemaking began
during his graduate studies at Cornell University in the Applied and Engineering Physics program.
While his career led him away from his home in the Pacific Northwest for a while, Stewart's love
for Oregon Pinot Noir lingered. His ‘aha’ moment came during his first hands-on harvest in 1996
when he shared in the experience of creating Pinot Noir grown in Oregon. So, Stewart volunteered
his services as free cellar help, studied at UC Davis and Chemeketa, and devoured winemaking
literature, finally starting his own winery in 2003. With a focus on terroir, he sources Pinot Noir
from a variety of sites, soils and microclimates within the Willamette Valley. Boedecker Cellars
Pinot Noirs are hand picked and hand sorted. Ferments are small, a mix of whole berry and partial
whole cluster lots, utilizing native yeasts, and natural malolactic fermentation. Elevage is 18-20 month, 10 months sur-lie, and bottles rest another 6-12 months before release.

**Thibaud Mandet**
Thibaud was born in Auvergne, France, a land of mostly extinct volcanoes, great cheeses, world famous rubber treads (Michelin tires) but not much local wine. He earned a degree in chemistry, then moved on to study the more interesting field of wine chemistry in Bordeaux where he completed his graduate diploma from University of Enology of Bordeaux. He then moved on for more chemistry and postgraduate degree in bubbly wine making from Reims in Champagne. So he learned how to make red wine, sparkling wine, then traveled to Corsica and Texas before landing at Willakenzie in the spring of 2000. Thibaud is passionate about Pinot Noir and he shares the Willakenzie commitment to top quality in the vineyard and the winery and gentle nurturing of the wines.

**Andrew Rich**
Andrew Rich is not from around here. Not originally, anyway. He grew up in the scenic Berkshire Hills of Western Massachusetts, where, early on, maple syrup graced the family table more often than wine. But a fortuitous teenage encounter with a Bâtard-Montrachet, like a seed dropped by a migrating bird—if birds migrated from the great wine regions of France to the eastern United States—instilled a passion for wine that grew and flowered over the coming years.

But first a detour: the liberal arts major, concentrating in French literature (France=Wine); a four-year stint in New York City at a travel and leisure magazine ("Hey, Andrew likes wine. He can edit the wine column."); and a brief holiday gig at the famed Sherry-Lehmann ("I'm selling as fast as I can!"). Finally, in 1987 Andrew enrolled at the C.F.P.P.A. in Beaune, where he learned the fine art of pruning in the freezing rain (brandy helps) and how to perform a titration in French (think about it). The only other Americans in the program were from Oregon, and they crucially expanded his knowledge of geography. Nonetheless, due to a chronic infatuation with Rhône wines (prior to Beaune he "helped" pick grapes chez Chave), Andrew went to work as a cellar rat at Bonny Doon Vineyard, then just six years old. He stayed for six vintages before leaving for the promised land of the Willamette Valley.

Andrew Rich Wines began as a trial balloon in 1995, first specializing in Columbia Valley Rhône-style wines and soon adding Pinot noir to take advantage of the unique juxtaposition of a cool and a warm climate. The rest, as they say, is history, and as the winery anticipates its 18th harvest, it's still being written.

**Tony Rynders**
Tony Rynders began working in the wine business in 1989 at Mirassou Vineyards in San Jose, CA. This experience convinced him that this was his calling. He attended the University of California at Davis and obtained a Master's degree in Enology and Viticulture in 1992. Rynders continued to obtain winemaking experience with harvests in Napa (Acacia Winery), northern Italy (Friuli), South Australia (Petaluma Winery), and Tuscany (Col d'Orcia). He has held permanent winemaking positions at Argyle Winery (two years) as assistant winemaker, Hogue Cellars (3 years) red winemaker, and Domaine Serene Winery/Rockblock Cellars (10 years) as head winemaker.

During his tenure at Domaine Serene, Rynders' wines have received and continue to receive wide acclaim. Over 10 years, Rynders developed more than 25 different products for Domaine Serene
and Rockblock. In 2008, he developed and launched his own label, Tendril Wine Cellars, with focus exclusively on small lot Oregon Pinot Noir and Chardonnay. Also in 2008, Rynders launched his own wine consulting business, Tony Rynders Consulting. He has since consulted on custom wines, winery design, vineyard design, wine quality improvement, brand establishment. In 2010 he established Tour de Force Wine Company, which provides a custom winemaking home for his core clients. Rynders’ primary focus is developing wines for luxury wine projects.

Rob Stuart
Rob Stuart has been making wine in the Northwest for 33 vintages. He and his partners founded R. Stuart & Co. in early 2002. With a degree in biochemistry from Rensselear Polytechnic Institute in New York, and a short but eye-opening career in the labs at Baylor University in Texas, Rob started his winemaking journey on the bottling line at Hans Kornell in Napa, California. From there he went on to work in the cellar at Valley View Vineyards and then to Staton Hills in Yakima, Washington, where he was Winemaker for ten years. Finally Rob managed to get back to Oregon in 1994 as Winemaker at Erath Vineyards, his home away from home until his current adventure. Now he makes only the wines he loves: Pinot noir, Pinot gris, and sparkling wine. Life is good.

Bryan Wilson
Bryan first became fascinated with wine while his family lived in Europe in the early 1970s at the age of 12. Another significant milestone was his leaving Oregon in 1980 with a degree in Economics from the University of Oregon to begin his winemaking career as an apprentice in California (lacking the vision to stay in Oregon). After too many years of making wine in Sonoma and Napa, Bryan finally saw the light and returned to Oregon in 1995, adopting the phrase “keeping my nose in the glass, not in the air” on his departure from Napa. Bryan has pursued winemaking in Oregon’s Willamette, Umpqua and Rogue Valleys and landed at Foris in the fall of 2006 working with Ted Gerber, Foris owner and one of Oregon’s wine pioneers.
APPENDIX:
Oregon Weather and Harvests: *A Vintage Review*

**1985:** The vintage was hot and dry from beginning to end. Harvest was in late September, under ideal conditions. Crop was a bit short. Also noteworthy was frost on May 11th and 12th, which affected many locations near the valley floor. Quality was good to excellent.

**1986:** The year started early, with buds bursting around March 20th. Bloom was somewhat early. The summer was hot, with the year tracking very close to 85°F until 3” of rain fell in September. Good weather returned at the end of the month, but the poor weather during fruit maturation diminished the quality of the Pinot noir vintage somewhat. Some excellent Chardonnays were made. Quality was average to good.

**1987:** Very hot, dry vintage with a September harvest. Grapes harvested in hot conditions. Sugars sometimes reached maximums before flavors developed. Quality was poor to very good.

**1988:** The lack of rain in the fall and early winter of 1987 led to a peculiar malady in 1988 called “late fall drought-induced Boron deficiency.” The result was a very poor set and resulting small crop. Nonetheless, 1988 was a classic Oregon Pinot noir vintage, with cool temperatures and a long, dry fall. Quality was good to excellent.

**1989:** In the late winter of 1989, Oregon suffered a severe freeze with temperatures at below -5°F. The consequence was moderate to serious vine damage and bud damage in the spring of 1989. Crops were significantly reduced. The vintage was characterized by a late bud break, but a hot summer and fall. Harvest was in September. Quality was good to very good and the quantity was short.

**1990:** Very cold conditions in December of 1989 caused bud damage, which led to the third straight year of short crops in Oregon. The vintage resembled 1988, with a long cool year and a dry fall. Quality was very good to excellent.

**1991:** A long, cool spring pushed bloom into late June and early July. The rest of the season was, however, ideal with an extraordinary, long, warm fall. The crop was good. Because of the late harvest, quality was enhanced by severe thinning. Quality ranged from average to very good, depending on cultural practices.

**1992:** This was the hottest year in Oregon’s brief modern viticultural history. The harvest ranged from early to mid-September. Fortunately, the heat relent somewhat at the end of maturity, allowing many producers to make wines of outstanding quality. The experience of 1987 may have aided producers in making their cultural and picking decisions. Crop was good. Thinning was required to be successful. (The earliest harvest to date.) Very fruit-forward, many did not age well.

**1993:** This may become another classic Oregon vintage. Bloom was in late June. Harvest was relatively late, but the fall was warm and relatively dry. The crop was average. Thinning generally enhanced wine quality. The wines developed slowly, but are some of Oregon’s best after a decade or more of aging.

**1994:** A highly ballyhooed vintage, this was a short, dry, and warm harvest. Thinning was unnecessary, with most vineyards having crop loads under two tons per acre. Alcohols are moderately high, extraction huge and the reception by press predictably strong. Seen as the best vintage released to date by some, with 1998 rivaling it. Ageability was variable, wines with better acidity have stood up well. Those picked very ripe with lower acids were better consumed in their youth (which most were). The very small yields and production made both these vintages financially challenging for wineries and growers. (The driest growing season to date.)
1995: A vintage with rain at harvest ending a good growing season shy of full maturity at many sites. A moderate to good yield and heavy rains for a week or more in the middle of harvest meant many wines lack the depth of fruit and color that others have. The vintage made some very elegant-styled wines at the single vineyard and reserve levels. Unfortunately, following on the heels of 1994, it was reviewed poorly by many critics. It also has evolved well over the long term.

1996: The second rain-affected harvest in a row, fruit in this year was closer to fully ripe when a few days of rain arrived, resulting in almost normal size and richness in the Pinot noirs. The vintage yields were slightly below normal levels but not as low as 1994 and 1998, plus in all years since 1994 more winemakers are choosing to crop-thin to achieve intensity. A fat, rich vintage considered the best of the rain years by critics.

1997: The last of the three rain vintages, this year showed great promise until the skies opened. Crop loads promised the largest harvest yet and they were almost ripe when rains came. Unlike the prior two vintages when the rains stopped for post-rain ripening, 1997 remained wet. Botrytis pressure was high and earlier-picked vineyards and those who sorted and crop-thinned fared better. Very good structures bordering on tannic, plus slow-to-evolve fruit have made this vintage unpopular with critics, although excellent producers made stellar wines that have aged well.

1998: Glorious wines, just not many of them. A large 1997 crop sapped vine energy and damp, cool weather at bloom doomed this vintage to short crops. But, that meant with a normal ripening season and no early rains, deeply extracted and highly structured wines could be produced. Crop loads were even smaller than 1994 and the wines were big, but would require time in bottle to regain their lushness and finesse. Possibly the best vintage to date.

1999: Bloom was very late and was followed by a very cool growing season. There was much concern about whether the crop would ever ripen, and a full crop load hung in most vineyards. We would need two months of almost perfect weather to fully ripen the fruit. Many vineyards were severely crop-thinned as a precaution, but the weather was perfect through early November. If growers and winemakers were patient, the fruit was perfect. Many of the best wines are as good as 1998, some claiming to be better. Some variability can be expected, as some panicked and picked early, not trusting Mother Nature. An almost Burgundian level of acidity will make this vintage ageworthy.

2000: The 2000 growing season was almost perfect, starting early in both bud break and bloom, setting a full crop in vineyards and thus giving a chance to precisely choose optimum yields with crop thinning. During harvest, which started the last week of September and lasted until the last week of October, only 1.1” of rain fell, with very good ripeness and moderate to good acids. Colors and extractions on the Pinot noir cuvees were excellent, acids good, but not as firm as 1999, and fruit totally ripe without disease pressure. Third-in-a-row, 2000 was an average of the prior two vintages’ characteristics. In a word, a “pretty” vintage.

2001: This year produced a soft, big vintage. It saw almost ideal growing and ripening weather and less than an inch of rain during harvest. This is not a typical cool climate vintage since acids are as low and ripeness as full, despite above average yields before crop thinning, as we’ve seen since perhaps 1987. The Pinot noirs will be soft, fleshy and early appealing, with moderate colors. Whites will be full and broad, and early maturing. The alcohols are restrained slightly by yields that didn’t force extreme extraction. The wines were lighter, slightly harder, and not as well reviewed by critics. Perhaps the weakest vintage of the excellent 1998–2003 string.

2002: An extended, dry, and moderately warm harvest put the finishing touches to what may be one of the best two or three vintages Oregon has seen—perhaps best ever for whites, close to best for reds. A slightly early bud break ushered in a warm, dry growing season with excellent heat summations, but not heat spikes. An inch of rain in mid-late September corrected imbalanced high sugars and low pH and set the stage for an extended harvest of well over a month for Pinot noir. Harvests of young fruit prior to this only rain event
may give some elevated alcohols. Crop loads were full, requiring precise green harvesting for full ripeness and extraction. Excellent acidities due to moderate temperatures throughout the growing and harvest period make this a richly ripe but structured vintage, both for whites and reds.

2003: This is an excellent vintage, albeit unusual in the fiery nature of the growing season. The same dry and warm growing and ripening seasons held for 2003, with Region II (not cool climate!) heat accumulations of 2,500 units, average highs of 78°F July-October, and half the normal rainfall with 2.75”.

Fruit was disease free, crop set was generous enough for easy honing to desired levels, and soil moisture was adequate due to good pre-season winter rains. Concerns regarding this vintage center on high sugars, resultant high alcohols, and low acids. Most comparable past vintages, like the excellent 1992, may urge us not to worry.

2004: This vintage started out as a carbon copy of 2003, but thankfully cooled off and got needed rains in late August and then again in mid-September before most vineyards’ final ripening phase. What a difference some rain makes! Young and early vineyards that were almost ready to harvest the first week of September could have done without the rain, but the rest thought it a blessed relief and assured nutrient mobility in the vines. A short crop due to poor weather at set, extreme temperatures the prior vintage, and vineyard growth irregularities, plus growing season heat (2004’s Degree Day 2404 compared to 2003’s 2535 in McMinnville) make 2004 properly plump and extracted, but with restraint—average Brix down 1%. An interesting vintage—almost an average of 2001, 2002, and 2003, with perhaps a little more variability in reds and more structured, brighter whites similar to 2002.

2005: Although moderate in temperature, this was the coolest vintage of the last six years. It got off to a very early start (March bud break), but the weather turned cool and rainy in late May and June, leading to a late bloom and reduced crop due to poor set. A warm and dry July and August followed. Fall was cool and it rained significantly late in September. Although most winemakers fear rain just prior to harvest, in Burgundy they say a good rainstorm in early September is a basic ingredient of a great vintage. 2005 was a classic example of fall rains providing balance to the fruit after a dry summer. There was almost no damage to the fruit from splitting or rot, and harvest followed in dry conditions over the next few weeks. There is significant excitement and pleasure over the quality of wines produced in this unusual vintage. The wines are well balanced and have moderate alcohol, good acidity, and supple tannins.

2006: Thanks to favorable weather at bloom and an extended growing season, Oregon’s 2006 vintage was characterized by that rare combination of plentiful crop, a warm and dry growing season with little precipitation, and modest disease pressure. A hot, dry, eastern wind just prior to harvest caused dehydration at many sites, boosting acid and sugar levels. Some panicked at the high sugar levels and picked before the grapes developed full physiological maturity. The resulting wines were rich and hedonistic. Higher than average alcohols were common. 2003 was the only vintage in recent times warmer than 2006, as measured by heat unit accumulation.

2007: This was a challenging Oregon vintage. Bud break and bloom occurred “on time,” followed by a summer of above normal temperatures (over 100°F). September was slightly below normal, setting up the possibility of long hang times. A series of rain fronts progressed weekly across Oregon’s vineyards, delaying harvest by two weeks or more. As flocks of migratory birds invaded the vineyards with each successive storm front, growers used bird netting for the first time. Harvest went in spurts in the dry windows between weekly weather events. Growers who thinned to lower-yields and rigorously maintained spray schedules were rewarded with balanced and elegantly ripened fruit. It was possible, but not easy to pick with ripe tannins, layers of complex and subtle flavors, and a solid backbone of acidity. Many of the white wines achieved significant critical acclaim; the best of the Pinot noir wines have benefited from bottle age and are expected to age very well.

2008: Hailed by many as the “best vintage of the last 20 years,” Oregon’s 2008 started with a very late bud break—almost a full month late. It rained just enough in September to keep the vines working steadily. The weather throughout October was perfect: moderate temperatures during the day and cool nights
allowed fruit to ripen slowly and evenly, with no real disease pressure. Surprisingly, the vintage ended with very low accumulated Degree Days—a mere 1976. Extremely well-balanced wines were produced with complex fruit flavors, excellent acidity, well-developed tannins, and moderate alcohols. The downside was very low yields and small quantities of wine.

2009: Excellent weather during bloom created unusually large clusters with very high berry counts. Vineyards thinned to one cluster per shoot still achieved record yields. Weather during harvest was warm and dry. There was a distinct difference between vineyards located above McMinnville where there was significant dehydration and loss of acidity. Vineyards below McMinnville had little dehydration, normal acidity, and a later harvest window. High yields and good quality fruit will help wineries recover from the small volume of 2008.

2010: Overall, this was the coolest growing season in the past 30 years. After a brief period into the 70’s in mid-May, there was no real warmth until mid- and late-June. There were a few brief bouts of heat into the 90’s in August, but September and October were mostly in the 60’s and 70’s. Our saving grace was an extended period of sun in October, 13 days, which allowed the skins to mature their tannins. Low sugars at harvest resulted in moderate alcohols. The wines have good acidity and the vintage also produced very good white wines. The Pinot noirs have well-developed flavors, especially given the relative coolness of the growing season. They are very textural in the mouth, unusually so, are capable of clear expressions of site, and will be great food wines. Bird predation was a huge issue near harvest time.

2011: A very cold spring resulted in delayed bud break and the latest bloom in Oregon’s history, occurring in early July. The summer was warmer than normal producing a good canopy and lower than normal disease pressure. Veraison occurred in September and at some sites, the grapes were not fully colored until early October. Cloudy and wet weather in early October increased the disease pressure, but then the weather cleared and was sunny into early November. For most Willamette Valley sites, this was the latest harvest on record. Low sugar, solid acidity, and decent flavor development produced surprisingly generous wines from the better sites, especially if picked late in October and early into November.

2012: A cool spring with record moisture in June resulted in a slightly delayed bloom that was interrupted by cool, wet weather. This resulted in an extended period of flowering, diminished berry fertilization, and some bunch stem necrosis. Consequently, the clusters had reduction both in absolute number and in the number of berries per cluster, significantly reducing the crop. Spring was followed by a beautiful sunny, warm, and dry summer, with the longest dry period in the Willamette Valley’s history, over 100 days. The lovely weather continued into October with harvest occurring in mid-month. The grapes achieved ideal ripeness and wines have lovely ripe tannins, moderate alcohols and nice acidity. This is potentially one of Oregon’s best harvests.

2013: A Tale of Two Harvests—one very early and one normal, with rain in-between. They started as one very early harvest thanks to a very consistent, warm growing season, the warmest on record up to final ripening mid-September. An unanticipated 30-year rain event of 5” then appeared the last days of September, made of remnants from a typhoon that had hit Japan days before, ushering in a spate of cool weather, interrupting the season, slowing ripening and turning it into two discrete picks, with early Pinot noir ferments already in barrel before remaining grapes were ripe and picked! Although grapes ripe during the rain were vulnerable to botrytis, earlier and later picks showed very good quality, with many considering the coolness and longer hang-time a big benefit, preserving acidity and flavors, while minimizing alcohol. Color, texture, balance, and acidity on the whole were good for the vintage. Croploads were moderate to high, except for blocks and varieties lost to the rain.

Vintage notes provided with significant assistance from Ted Casteel, Bethel Heights Vineyard, Harry Peterson-Nedry, Chehalem, Scott Shull, Raptor Ridge Winery, and Mark Vlossak, St. Innocent Winery. Heat accumulation data provided by Harry Peterson-Nedry, Chehalem.
## Temperature Mean and Extremes, Plus Rainfall

**McMinnville, OR Airport**

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McMinnville, OR Airport

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100 Yr Mean in Inches: 5.98 4.74 4.15 2.48 2.02 1.35 0.45 0.54 1.55 3.15 5.97 6.63
TOTAL Mean: 39.01

### Heat Accumulation in Recent Vintages Compared to Average
McMinnville, Oregon Station

![Heat Accumulation Graph]

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Oregon Pinot Camp 2014