

# Open-Top Fermentors at

DE LOACH  
VINEYARDS

## The "Cap" in the Fermentor:

During fermentation, grape juice, skins and seeds are all placed in the fermentation tank. This mixture is called *must*. The juice settles to the bottom of the tank, while the skins float to the top. This cap is beneficial because it can help prevent oxidation; however, in order to maximize the contact between the juice and the skins, the cap is mixed in using a device resembling a long ski pole.

## Pigeage:

In Burgundy, grapes are gently crushed and the cap is punched down using a process called *pigeage*. Traditional Burgundian producers perform *pigeage* by actually jumping in the tank and treading down on the cap. This process is more gentle than using tools or machines, which results in a much more approachable, balanced wine.

*Vitis vinifera*  
-Pinot Noir-



## Heat Retention:

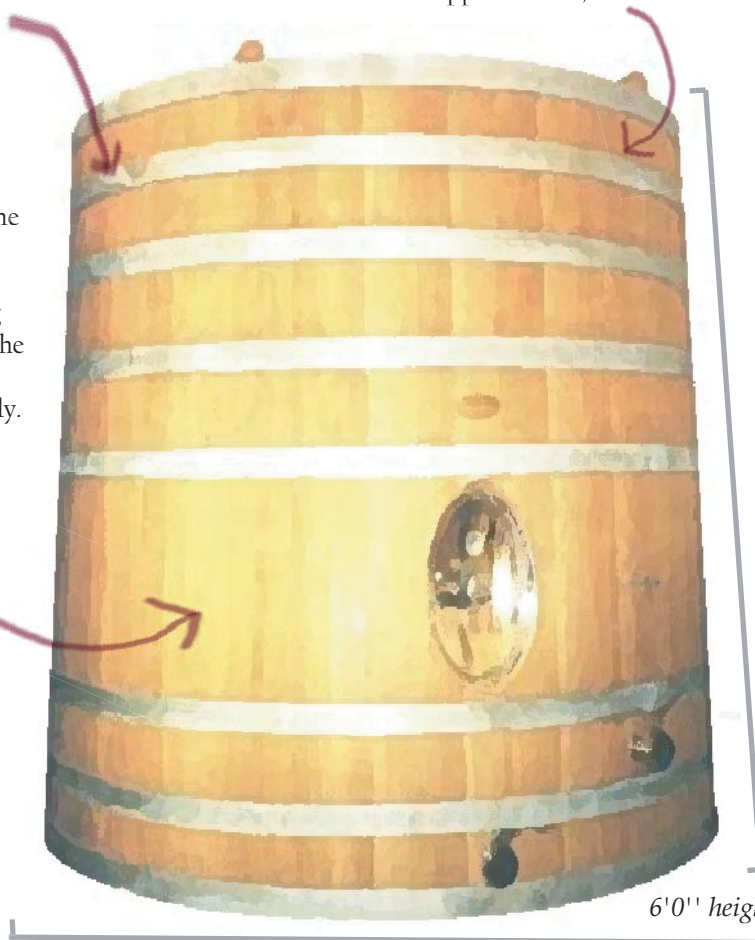
The 2 1/4" thick wooden staves of the fermentation tank act as a natural insulator for the wine. As a result, cool grapes stay cold longer during pre-fermentation maceration and the increase in temperature during fermentation is slowed considerably. The long, controlled fermentation leads to greater flavor and color extraction, which is crucial when making a typically lighter colored wine like Pinot Noir.

## Red Wines Only:

Only red wines are fermented using the open-top fermentors because white wines oxidize easily when exposed to air (much like apple slices brown after being left out). The juice is fermented in closed-top stainless steel vessels.

## Tannins:

Tannins are the bitter-tasting, mouth coating compounds present in many red wines. If they are found in low concentrations, tannins are an integral component of wines, highlighting flavors and adding body. The open-top fermentors help soften and round out tannins, which results in velvety, balanced wines.



A sketch of one of the fifteen Rousseau open top fermentors located in the DeLoach Vineyards winery.

## The Aesthetic Appeal

Although stainless steel tanks do their job well, traditional oak open-top fermentors are one of the most beautiful parts of the winemaking process. Their grandiose girth, golden staves and burgundy-stained inside are a beautiful testimony to the hard work it takes to make handcrafted wines

## Height-to-Diameter Ratio:

The tanks are approximately 6' tall and 7'4" in diameter. This ratio allows the juice to have more direct contact with the skins, which results in deeper color and flavor extraction.



*Vitis vinifera*  
-Zinfandel-

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## *What is the history of open-top wood fermentors at DeLoach?*

Interestingly, open-top wood fermentors-although fairly new to Sonoma-have been used in France for centuries. However, California winemakers have traditionally abandoned open-top fermentors in favor of stainless-steel tanks on the belief that they would facilitate easy-to-control fermentations and predictable results. Greg LaFollette, the DeLoach Vineyards winemaker, prefers to live dangerously: "I don't practice safe winemaking," he says, choosing open-top fermentors and wild yeasts for his delicate Pinot Noirs, "so [the wine] goes to the limit of what it can be." By pushing the envelope, DeLoach Vineyards crafts terroir-driven, delicious wines that are a true expression of our vineyards, passion and expertise.

In 2004, DeLoach Vineyards purchased 15 French oak open-top fermentors specifically for Pinot Noir production. As Russian River Valley winemaking pioneers, DeLoach Vineyards is often the first in the area to employ innovative winemaking techniques like the use of oak open-top fermentors. This innovative step has helped catalyze a movement of winemakers across the region that are employing traditional winemaking techniques like hand-punchdowns (pigeage) and gravity-flow systems. During the 2004 vintage, all DeLoach Vineyards Russian River Valley, Vineyard Designate and OFS Pinot Noir were vinified using the open-top fermentors and were punched-down by hand.

## *Why are oak open top fermentors crucial for Pinot Noir vinification?*

Some varietals, like Cabernet Sauvignon and Zinfandel, prefer a "tough love" winemaking style in which the grapes undergo a fair amount of abuse in order to create vibrant, extracted wines. Although these processes can produce classic wines, they are much too rough for the delicate Pinot Noir grape. Since Pinot inherently has few anthocyanins (coloring agents) and polyphenols (tannins, flavor and aroma agents) in its skin, it requires a certain amount of finesse and creativity to produce truly exceptional Pinot Noir. Open-top fermentors help this process for several reasons:

**1. Temperature maintenance:** Probably the largest advantage open-top fermentors have over stainless steel tanks is their ability to retain heat (or cold) efficiently. Pre-fermentation cold soaks aid in the extraction of flavor and color compounds, while post-fermentation maceration at warmer temperatures continues the extraction process.

**2. Slow fermentation:** The fermentation mechanism (in which sugar is transformed into alcohol and carbon dioxide) creates heat. If left unchecked, fermentations can "run away" from winemakers by heating up too quickly, resulting in a very quick and poor quality fermentation. By using oak open-top fermentors, heat produced by the yeast is quickly absorbed by the tank, which helps slow the fermentation process. As a result, most of our Pinot Noir fermentations are extended over several weeks.

**3. Pigeage:** In order to increase the contact between juice, skins, seeds and sometimes, stems, the fermenting grapes must be punched-down within the fermentor. In the case of Pinot Noir, punch downs are performed by hand-a much gentler method than mechanized pump overs-resulting in wines with more flavor and aroma. For more information, see diagram on other side.

**4. Extraction:** A high ratio of skin to juice is crucial for deep colors, aromas and flavors in Pinot Noir. Thus, the fermentor's low height-to-diameter ratio allows the maximum amount of juice to have contact with the skins, seeds and at times, stems, within the fermentor.

**5. Small Lot Size:** Our fermentors are fairly small, with a maximum capacity of four tons of fruit; however, many of our lots are much smaller. Although small-lot production is more labor-intensive, it allows our winemaking team to have greater control over the final product. At DeLoach, most lots are determined by vineyard blocks, harvest date, vine clones, vine age and vineyard management styles. For example, some lots of our old-vine Zinfandels are vinified in open-top fermentors in order to produce the best wine possible from 110-year-old vines.

## The Russian River Original