

## **A Vintage to Remember ... or Forget!**

Agriculture is profoundly influenced by weather and climate, with growers watching the forecast and hoping for conditions that lead to high yields and quality. This is never more evident than with viticulture and wine production where the climate or individual weather factors can make or break a vintage. And especially here in Oregon where cool vintages might barely ripen the fruit or where rains during harvest may bring on disease or dilute the flavors.

The 2020 vintage in Oregon started with much promise, even within the backdrop of the pandemic and national politics. However, early season swings between heat events and then rain during flowering resulted in many growers seeing what is called 'shatter' or incomplete setting of the berries due to cool, wet conditions. At that time, we knew it was going to be a light crop. But as the summer progressed conditions improved with nearly ideal temperatures and dry conditions that raised expectations for a quality harvest.

During the first couple of days of September, with what appeared to be just a couple of weeks from harvest, the forecast was pointing to a warm and dry month ... something almost unheard of in Oregon. Then everything turned quickly with the forecast flipping to indications for a dangerously high wind event.

The weather conditions leading up to and causing the Labor Day event in Oregon were unprecedented and likely a once in generation event. A very large high-pressure area stretching from northern Mexico to Alaska brought extreme heat and very dry conditions to the western US. The dome of high pressure pushed the jet stream into northern Canada and forced cold air and snow southward into the Rockies and the central US. This outflow of air brought strong winds from the north and east toward the west coast. These winds moved over numerous mountainous areas, warming, drying, and increasing in wind speed as it headed west. The result was a dramatic drop in moisture levels, lowering relative humidity to desert-like conditions even to the coast.



Photo: Carolyn Wells-Kramer, CWK Photography.

In addition, the Labor Day wind, heat, and drop in moisture levels arrived at the worst possible time for fires; woody material west of the Cascades and Sierra Nevada mountains was only a spark from a conflagration. Up and down the western US fires that had been smoldering from a lightning event in mid-August exploded while new fires erupted around them from numerous trees and power lines being toppled. These catastrophic fires continued unabated and smoke hung around for weeks, until rain fell across the state mid-month.

While few vineyards were directly impacted by the fires, unfortunately we did lose one winery in the Rogue Valley to the Almeda Fire. However, like the long-lived smoke, the lingering question on the minds of growers, producers, and consumers would be how would the smoke affect the wines?

First, it is important to note that a smoky wine is not a fire-smoky wine and not all smoke produces smoke impacted wines ... its complicated.

There are some things we know and many things we do not know about this issue. What is clear is that the historical use of the term 'smoky' with wine has been tied to red wines that have spent some time aging in oak barrels which in turn often imparts an aroma of 'smokiness' to the wine. This is considered a good characteristic.

From Australia to Portugal to California to Washington to Oregon, fires have occurred in and near wine regions in recent years with numerous reports of smoke 'tainted' or 'impacted' wines. Aspects of how far the smoke travels, the smoke's composition, the level of the smoke in the air, the timing during the vintage, and how long it lasts all play a role in whether any smoke impact might occur to the wines.

Once smoke is in a vineyard, volatile compounds in the smoke can get onto grapevines and leaves, and depending upon the phase of the growing season, the grapes, where the largest impacts lie. Grapes can act like a sponge absorbing volatile compounds into the pulp but determining whether the smoke influence is present in grapes is not simply a matter of tasting them. Once in a grape, a chemical reaction takes place with the volatile compounds adhering to sugars and it is not until fermentation that these compounds are released, producing what has been described as an 'ashtray' flavor or aroma. This is considered a bad characteristic.

Growers and producers responded rapidly to the event, using various tools to assess the potential smoke impact. These included analytic testing, small scale fermentations, and sensory evaluation. However, all of this is still a relatively unknown area and science is only now beginning to examine how to best protect a vineyard from smoke, detect potential smoke impacts early, or find methods of remedying the impact when it is found.

While the 2020 vintage threw many curveballs at the Oregon wine industry, I am confident that the resolve to produce the best wines possible will shine through.

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January 2020