

Smoke-tainted grapes explained

by Greg Paneitz

Smoke affects grapevines and grapes in a couple of ways.

First, because smoke particles block ultraviolet light, grapes, like tomatoes and other fruits, don't ripen as fast as usual. That's a bad thing if there is not enough time for fruits to ripen, but it's a good thing if you want to leave grapes on the vine longer because you have procrastinated about getting ready for harvest.

Second, there is smoke taint, a well understood, documented, and researched interaction between the smoke and berry. Incredibly small, volatile compounds in the smoke are absorbed into the skin of the grapes at veraison, when the grapes are turning red, and again at harvest, when the skins are soft. Tests verify their presence.

One common misconception about smoke compounds is that you can taste or smell them. In the grape the compounds are bound to sugar and have no volatility at all. You can't taste them, just as you can't taste smoke in the apples or anything else from your garden. It's the fermentation process that cleaves that bond so that the compounds become volatile and detectable by smell. We can also look for smoke compounds, pre-fermentation, in the juice.

The smoke does not affect our rosés or whites because we separate the juice from the skin, and the compounds are present in the skin. The issue is with the reds. The smell is not particularly good in grapes affected by smoke taint, but generally we find the compounds at low levels. Most of the red wine goes into barrels. These barrels are toasted on the inside, so they have



Barrel room at Wooldridge Creek Winery.

a nice toasty smell and taste, which the wine-taster describes as “smoky.” The pleasant smoky characteristics originate from these toasted barrels and not the smoke taint.

For the most part, smoke compounds are at such a low level that the influence of the oak in the barrels dominates, and the smoke doesn't make a difference. So, in years of lots of smoke we buy new barrels. The wine can be diluted with another lot of wine that doesn't have a lot of smoke to get it below threshold, but mainly we buy newer barrels and let the influence of the barrel dominate the smoke-tainted flavor. This practice isn't new; we have been doing it for a long time. The good news for the consumer is years where there is lots of smoke we make a substantial investment in new barrels that impart hedonistic oak flavors into the wine.

We have had smoke in the Applegate for the last five years.

Before that it was in 2002 with the Biscuit fire.

Detecting smoke taint isn't a matter of subjectivity. We can determine the potential impact of smoke by sending the juice sample into a certified lab for analysis. If the levels are low, we don't do anything differently. If the levels are high, we try various methods to get them below threshold.

There is no evidence of smoke damage to the actual plant. Plants have adapted to smoke over the last several million years. The real story is that smoke is horribly bad for business. Not just for the wine industry, but for the Britt, Shakespeare, jet boats, etc.

If this keeps happening, we will have to move inside. It is a good thing that Wooldridge has opened a new indoor tasting room in Grants Pass! [See BizBits on page 9 for more information.]

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