

The Oregonian

Oregon pinot grapes: heart-healthy

Tuesday, July 24, 2007

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Doubtless you've heard: Wine, particularly red wine, can be beneficial for health if consumed in moderation. Ever since "60 Minutes" aired a segment on the "French paradox" back in 1991, Americans have been aware that red-wine drinkers enjoy lower rates of cardiovascular disease than their peers.

In addition, countless scientific studies in recent years have concluded that moderate wine drinkers live longer and experience significantly lower rates of stroke, cancer and osteoporosis than nonwine drinkers. Tiplers may even enjoy greater cognitive abilities than teetotalers.

But you may not have heard that, of all the red wine produced around the world, Oregon pinot noir might just be one of the most healthful.

That's thanks to an antioxidant called resveratrol. Grapes, berries, peanuts and other plants produce this so-called phytoalexin to defend themselves against threats such as infection or fungi. Scientists believe that when resveratrol is ingested by humans, it performs much the same defensive function in the body, protecting against or even inhibiting the growth of cancer cells and other pathogens.

Resveratrol: A boon

A decade ago, Cornell researcher Leroy Creasy analyzed various wine grapes and wines for their resveratrol content. He found concentrations of the antioxidant to be greatest in the thin-skinned pinot noir grape, which thrives in cool, moist environments and is thus susceptible to rot.

Creasy found the highest amount of resveratrol in a pinot from Benton-Lane Winery in Monroe. These results pointed to Willamette Valley pinot noirs as a strong source for this salubrious molecule.

Problem is, resveratrol concentration can vary in a grapevine throughout the growing season. "It's not normally present in the grape unless it's attacked by a microorganism," Creasy says. "The grape skin develops it as a protection against the pathogen. Once the pathogen is no longer on the grape, the plant actually breaks down the resveratrol. So the amount goes up and down all season."

For Oregon pinot producers to bottle the most healthful wines possible, they would have to hold back harvesting their grapes until the arrival of the autumn rains, and with them, the destructive mold known as *Botrytis cinerea* -- a chance most grape growers would be unwilling to take.

"It is an interesting irony that this botrytis that we fight and fear as winegrowers has this wonderful side effect," says Jim Bernau, president of Willamette Valley Vineyards in Salem. "In really dry falls, our resveratrol levels have been lower. In years when there was moisture out in the vineyard closer to harvest, the resveratrol levels were higher."

Alas, Bernau adds, global warming most likely will lead to an overall reduction of resveratrol levels, as autumn temperatures rise and moisture levels decline.

Pinot labels boast

For now, Bernau has taken the unusual step of publishing the resveratrol content of his pinot noirs. Turn around a bottle of Willamette Valley Vineyards pinot and you'll see a measure of resveratrol as well as this explanatory statement: "Pinot noir, a thin skinned winegrape, develops a natural defense against botrytis (mold) in our moist, cool climate -- the antioxidant resveratrol."

Bernau grappled with regulators at the Alcohol and Tobacco Tax and Trade Bureau for permission to publish this information; the feds normally nix any official statement that might link alcohol -- which can be harmful and even lethal when imbibed excessively -- to good health.

When Willamette Valley Vineyards finally got the green light to publish resveratrol amounts in late 2004, wine lovers all across the country celebrated this as a signal the federal government might be open to admitting what we all already know: that wine can be good for our health.

Interestingly, if you pick up a currently available bottle of 2005 Willamette Valley Vineyards Oregon Pinot Noir, you'll see that the resveratrol content is only 3.5 micromolar, an inconsequential number in comparison to the winery's 2004 whole-cluster fermented pinot, which clocked in at an astounding 71 micromolar. (According to Creasy, any amount over 50 micromolar is extraordinary for a red wine.)

Bernau believes in publishing the number no matter what it is, simply to educate consumers about the existence of resveratrol. "I think people are paying a lot more attention to what they are putting in their bodies and are looking at wine as a way of contributing to a healthy lifestyle," says Bernau.

But before you begin guzzling local pinot noir in the name of good health, know this: The scientific research that has generated the most excitement about resveratrol over the past couple of years has utilized concentrations of the antioxidant that are thousands of times more potent than the amount you'd ingest by sipping that nightly glass of red wine.

Still, there's no disputing the so-called "French paradox": The wine-loving French, despite their love of high-fat foods like triple-creme cheese and foie gras, enjoy lower rates of heart disease than Americans. Could this be due to resveratrol alone, or a combination of factors?

Check back in with this column next week to read about last year's most sensational scientific study on resveratrol. We'll also hear about one couple's remarkable recovery from arthritis symptoms, which they attribute to their consumption of red wine.

In the meantime, here's to your health.