

The Okanagan's **wine climate**



FROM HOTTER SUMMERS TO COLDER WINTERS AND THE
CONSTANT THREAT OF WILDFIRE, THE OKANAGAN'S WINERIES
ARE BEING FORCED TO ADAPT TO CLIMATE CHANGE

BY JANE MUNDY

Blasted Church Vineyards is experimenting with new grape varieties to adapt to extreme temperatures.

In response to climate change, Okanagan winemakers and shakers are advising consumers to be open-minded with new grape varieties and styles. They suggest stocking up on your favourite wines for the next two years, particularly if you're fond of the big reds. But it's not all bad news for consumers. Although last winter's cold snap left winemakers with fewer grapes, we won't have to pay more for BC wine, according to Miles Prodan, president and CEO of Wine Growers British Columbia (WGBC).

WINERIES HARDEST HIT with last winter's extreme cold are located mainly north and south of Lake Okanagan, such as Oliver and Osoyoos (stock up on Osoyoos Larose now). Those wineries further south saw primary bud damage (that holds the fruit) and even vine death, while the Naramata Bench and Summerland were relatively unscathed. So, depending upon where they are located, some vintners are experimenting with new grape varieties that are more resistant to cold, heat or drought conditions. "Extreme weather events are definitely hurting our industry. We are considering planting cold-hardy vines and possibly vines more adapted to summer heat," says Evan Saunders, winemaker at Blast Church. "We are exploring the Austrian reds. This spring we planted cabernet franc because last winter it proved



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to be more cold-hardy, and we planted nebbiolo, which is grown in Northern Italy, into the Alps. It produces gorgeous perfumed wines but doesn't love the cold so it's a gamble, fingers crossed.”

Saunders is ripping up pinot noir and pinot gris vines that got baked on a steep and rocky western-facing slope. Malbec was also damaged but it might be able to survive the winter

because last year Blast Church only hit -21°C. Lake Skaha saved it, like Lake Okanagan protected Summerland and Naramata.

Another silver lining for the consumer: 2022 produced high-quality and higher volume whites so there's ample to go around, at least for this year. "The true impact of last winter will be seen next year when the 2022 reds hit the market; maybe we won't have syrah or malbec and the Rhone-associated varieties seem to have suffered the worst. But cabernet sauvignon and merlot are survivors." Saunders says a whole block

of syrah died, which translates to 560 cases.

Winemakers are discussing the possibility of bringing in grapes from Ontario and Washington State but that will be tricky because the wine won't be VQA. (BC Vintners Quality Assurance wines are made from 100 percent BC-grown grapes, which must be approved through a strict quality assurance program.) "We are just trying to farm responsibly and sustainably; we are not spraying and building up biodiversity so when cold events do happen, vines will have the strength to go

it alone," adds Saunders. "There's a lot of doom and gloom right now but we have to carry on."

Winemaker David Patterson has experienced consistently lower temperatures and damage for the past five years at Tantalus Winery in Kelowna. "Vines are really hardy but a drastic climate swing (-27° C last year and further south it was -31° C) damages primary buds," he explains. "Vines can survive the heat dome but cold also damages connective tissue in the trunk and cane, which resulted in an overall 50 percent loss in our vineyards." Thankfully, a ▶

large crop in 2022 means supply won't be impacted right away, and the 2020 to 2022 vintages are selling now, but Patterson predicts Tantalus will have a shortage in a few years if extreme cold continues. If we have more extreme winters, old vines, particularly the classic European *vitis vinifera* varieties—considered to make the best wines but are frost-prone—may get pulled out and replaced with some French hybrids that are more drought-tolerant and winter-hardy but lower quality.

BESIDES RIPPING OUT the vines there are all sorts of agricultural solutions. A free yet labour-intensive solution is to arrange the canopy, ie, the leaves, to protect grapes from direct sunlight. And there are high-tech solutions, including highly calibrated ways of misting the vines to cool them and targeted irrigations that manage water much better in times of drought. “There are steps farmers can take but the question is how long will it be effective and how quickly will govern-

ment and society work with us to mitigate the long-term effects of climate change,” says Patterson.

Add to the fray smoke damage from wild fires. Smoke can coat the skins with chemicals, and these particles can make wine “taste like an ashtray,” according to a National Geographic article. Skin is crucial to making red wine, and the longer you soak the juice with the skins, the more the chemicals from the smoke are extracted into the wine. In 2020, far less red wine was made in

California and Oregon due to smoke taint.

“I’m looking outside my kitchen window at 10 acres of pinot noir and gamay we planted two years ago—they are thriving and loving life,” says Christine Coletta, co-founder of Okanagan Crush Pad Winery, a family-run winery in Summerland and home to their Haywire label. “Some bushes got hit hard so I pruned them back but with another hard winter they might give up the ghost.” While Coletta is cautiously



David Paterson, Tantalus general manager and winemaker.

optimistic, she admits that help and support from the government is needed. For instance, cash injections for replanting helped blueberry farmers who lost thousands of acres of crops due to flooding, but it's more of a dire situation with the wine industry because they both grow and process grapes, like a blueberry grower making and selling jam.

“Seeing the overall impact of the damage now, we're discussing what to

plant,” adds Coletta, but it's not simply black and white, or north and south of the lake. “For instance, sauvignon blanc is fine here but the vines across the road are in a bit of a dip with a cold spot and they are not OK. And a massive hailstorm or locusts could hit Summerland so we're never smug: Farmers know that one day we will get hit, whether growing grapes or cherries—it comes with the territory.”

THE WGBC RECENTLY reported that last December's freeze caused significant damage to grapevines, resulting in devastating short-term and long-term effects on BC's wine grape crops. "Following budbreak, our industry-wide research concluded that our worst fears were realized with a 54 percent reduction in 2023 and 45 percent of total planted acreage suffering long-term irreparable damage," said Miles Prodan, president and CEO of WGBC.

Insurance coverage is falling short for many growers. For instance, one insurer will pay \$7 per plant that is destroyed but a replant costs \$15. While there are provincial support programs in place, most everyone agrees that both provincial and federal government help is needed to sustain not only the wineries but local businesses, from bottle and cardboard makers to tax revenues paid to the government. And of course, the tourism industry—an estimated 1.2 million tourists visit Okanagan wineries yearly.

The report found the following:

- 45 percent of total plant acreage suffered long-term damage.
- 29 percent of total acreage needs to be replanted.
- \$133 million in direct winery revenue loss.
- More than \$200 million in indirect economic revenue loss to suppliers, BC Liquor Stores, restaurants, and so on.
- A 20 percent reduction in full-time vineyard and winery employment—381 full-time jobs will be lost. Tasting rooms could close.

While the projected losses are widespread throughout the province, wineries in the south Okanagan Valley, Kelowna and Similkameen Valley can potentially lose 60 percent or more in grape and wine production for the 2023 vintage. As for variety, syrah, merlot and cabernet sauvignon have suffered the most with losses over 65 percent.

“Some studies suggest that if BC experiences a warmer climate, it could dictate a shift to warmer grape varieties

BUT AS EVAN Saunders says, it's not all doom and gloom. Some studies suggest that if BC experiences a warmer climate, it could dictate a shift to warmer grape varieties. While some countries "need to pivot their wine-growing strategies to mitigate heat damage, it also means that other cooler climates are seeing longer, hotter summers and therefore an increased capacity for wine produc-

tion," wrote Elizabeth Yu for an economic report at McGill University. While these changes do not bode well for the imported wines Canadians like, there may be a new opportunity of growth for Canada's wine industry. For instance, if Vancouver Island becomes warmer and drier, the region would be well suited for a major expansion in wine production, like how southern England now produces de-

cent chardonnay.

Saunders refers to himself as a cockeyed optimist. "The future in BC is positive—if we put our heads together and fund research to mitigate challenges we are facing. We could collect data from weather stations placed in vineyards that will show where damage occurred, what is working where: basic information when planting a vineyard," he says. "Over the next 10

years we can take steps to understand our region—the WGBC is already working on this. We are all in with one crop a year, and we get one shot at it."

Wine growing is tough, and farmers are tough. It's not like making beer—batch after batch. While they are working hard to craft premium wines, they need help not only from the government but from consumers, so let's all stock up on BC wines, now. 🍷

Tantalus Winery in Kelowna expects shortages if extreme cold weather continues.

