The Washington Post

Carbon farming, one of the oldest agricultural practices, is growing on winemakers

Sheep, often used as part of carbon farming, roam freely at Tablas Creek Vineyard in Paso Robles, Calif. (Heather Daenitz/Tablas Creek Vineyard)

By Dave McIntyre

October 15, 2021 at 12:00 p.m. EDT

Last week, I wrote about Robin Lail experiencing Napa Valley's modern wine history through boom and bust, and how she was addressing the current challenge of climate change as an ambassador for the Porto Protocol, an international effort to rally the global wine industry to grapple with the existential crisis of today. I mentioned she was practicing carbon farming in her vineyards, but I didn't explain in detail what carbon farming entails. Several commenters suggested — some even politely — that a fuller explanation of this enticing-sounding concept would be in order. Others raised additional methods for wineries to reduce their environmental impacts, most of which I've written about before.

So this week, I'd like to summarize some of the ways wineries are tackling the climate crisis. This will be a high-level discussion, perhaps meriting more detailed coverage in future columns. Some wine regions are reconsidering the grape varieties that define them, while others are taking a more literal down-to-earth approach.

So what is carbon farming? (No, you're not growing carbon.) The idea is to capture more carbon from the atmosphere than you release into it. It's also called carbon sequestration (which sounds like an unfortunate jury in a celebrity murder trial) or regenerative farming, though adherents of each term might argue some nuances. It means composting biomass and growing cover crops between vine rows. You don't want to till those cover crops,

because tilling the soil releases carbon into the atmosphere, so "no till" or "minimal till" are key concepts. You also want to minimize use of tractors or other machinery that can compact the soil. That means employing animals, including sheep to graze on the cover crops during the winter, when the vines will not entice them with fresh food. The resulting manure helps fertilize the vineyard without synthetic chemicals. Tablas Creek winery in California's Paso Robles region employs a full-time shepherd to tend its flock. Sheep among the dormant vine rows are also quite photogenic and ideal for marketing.

Carbon farming may sound trendy, but it's really old-school agriculture backed up by modern data on carbon capture and reducing our carbon footprint. Skeptics argue that it doesn't capture enough carbon to make a difference against climate change, which is why carbon farming goes hand-in-hand with efforts to reduce greenhouse gas emissions.

Winemaking is power-intensive. You need temperature control to manage fermentation and ensure proper storage so your wine doesn't spoil. Solar power arrays are now a familiar sight at wineries — they thrive on abundant sunshine, after all. Jackson Family Wines, which has been an industry leader in sustainability and climate change, boasts more than 23,000 solar panels at 12 of its wineries in California and Oregon, accounting for 30 percent of

its electricity needs. Electric vehicles are also in play. Some California wineries are employing electric tractors in their vineyards and electric forklifts in their wineries. We will undoubtedly see more electric farm equipment in years to come.

Wineries can also ease their environmental footprint through water management, especially crucial in California, where an extended years-long drought is predicted. Carbon farming can theoretically help by increasing the soil's capacity to hold water and feed the vines, reducing the need for irrigation.

Bottles might start weighing less. About half of the wine industry's carbon footprint stems from bottles, from manufacturing to transport (empty) and transport again (when full). Bottles range from about a pound at the light end to more than two pounds for those pretentious behemoths. Some winemakers like heavy bottles for aesthetic reasons, while others say heavier bottles are necessary for wines meant to age. That point strikes me as nonsense, because most Bordeaux chateaus don't use ridiculously heavy bottles for their age-worthy wines. (Protection from light could be a benefit of thicker glass, as wine, unlike democracy, thrives in darkness. So keep the lights off in your cellar.) Progress on this front is likely to be slow. But in addition to lighter-weight bottles, you'll see more wines in clear glass, which is easier to

recycle than green or amber. Fewer bottles will be topped with foil, paper or plastic capsules, which are traditional but purely decorative. And even though glass will almost certainly remain the packaging of choice, we may see more boxes and cans, especially for wines not intended for cellaring.

Social responsibility has also become part of the climate action agenda. Wineries that achieve Regenerative Organic Certification or become Certified B Corporations — designations not exclusively for the wine industry — pledge to pay their vineyard workers fair wages and benefits and to support local businesses and charities. It's an acknowledgment that while wine is acutely feeling the early effects of climate change, we're all in this together.

The Washington Post
15 October 2021