

# THE TRUE COST OF WINE

L.M. Archer speaks to two Oregon producers who calculate the cost of viticulture's environmental impact when they make their wines.

Mimi Casteel, Hope Well Wine and Vineyard, Oregon



no bank money involved," says Casteel. "That's something we've always been reluctant to take on – either a third-party partner, or a bank, having a big bank note or lien."

Initially, Casteel focused on regenerating the soil, damaged by tree farming. She rejected conventional pesticides and herbicides, installing ground cover between rows, and introducing a no-till philosophy. Over time, micronutrients rebounded. "And that facilitates a true communication of the vines themselves," she explains, "Which make all of the organisms that make the micronutrients that the grapevines need, available in real time."

Beneficial microorganisms, insects and wildlife returned. After removing broken, pre-existing irrigation tiles, so did natural underground springs. "One of the problems with the way that we manage agricultural lands is that we're changing the hydrology of these watersheds, and these landscapes, by putting in artificial drain tiles, and then drip irrigation," says Casteel. "You're draining the land, so that you can then put water on it in whatever amount you think is necessary, which then changes everything for your watershed in one fell swoop."

Casteel filled native buffer zones with bargain nursery shrubs and trees and initiated her own organic grass and cover crop seed propagation. Today, Casteel continues to use minimally invasive cost-saving methods. For example, she experiments with animals like goats, pigs, chickens, ducks and sheep for grazing, which not only drop natural fertilizers as they move through the vineyard but bring down the cost of equipment. She also greatly reduces labour costs by using the same full-time crews employed at her family's

According to a recent study from Oregon State University, most commercial vineyards don't make money until year five, when the vines achieve maturity and produce viable fruit. Even then, most vine growers barely break even for several years. This can mean that pursuing unconventional farming practices can be risky for financial health. One winemaker in Oregon begs to differ: Mimi Casteel of Hope Well Wine contends her nonconventional, regenerative farming practices not only cut her costs, but help the environment.

"The reason I make wine, is that I do believe that wine has the capacity to start a conversation that kale does not have," says Casteel, whose wines have attracted a worldwide cult following. At \$75 a bottle, the boutique's wines cater to consumers able to afford such a conversation. Yet, it's these "intentional moments at table" that allow Casteel the opportunity to talk about her non-standard farming methods, methods she believes yield the "most robust expression of what a landscape actually has to offer".

## Regenerative farming

"The idea with regenerative practices is that you want to be feeding the soil, and the soil microbiology, every day of the year," says Casteel. She learned farming early – she's the scion of Willamette Valley pioneers Ted Casteel and Pat Dudley, co-founders of Bethel Heights Vineyard in Oregon.

"The property and the vineyard, Hope Well, was originally going to be part of my family's estate, Bethel Heights Vineyard," she explains. Trained in forest science and biology, Casteel took on her family's Hope Well project in 2015 with a caveat. "My one insistence in that effort was that we would not remove habitat for agriculture," she says, "and that we would find a very degraded piece of agricultural land to try to rehabilitate through regenerative and biological farming practices."

Financed with seed money from her nuclear family, the 32ha site began as a 'vines in the ground' backstop, so they could replace old vines that died off at Bethel Heights Vineyards as necessary. "There was

Bethel Heights Vineyard and neighboring Temperance Hill Vineyard – most of them for 25 to 30 years.

Casteel gains further savings because she lives on premise, opts out of a large salary, performs much of the manual labor herself, and grows most of her own food. “Our pest pressures are lower, our disease pressure tends to be lower, so we save a lot of passes, and we save a lot of equipment costs, because we don’t use a lot of the equipment that other vineyards would have to invest in,” she says. “I think that’s where this all gets very confusing for people, because they expect that this type of agriculture costs more.”

## Cost of doing business

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Casteel still grapples with pricing. “I make less than 1,000 cases of wine. This is a choice, and a very personal and intentional one,” she says. “I make the wine for the farm – she is my only real judge, and what lives in those bottles is a covenant between us. It is impossible for me to think about a scale that would require me to change that motivation in the winemaking.”

On a practical level, Casteel’s micro-production translates into higher packaging costs. “I try to combine orders with others to mitigate that but communicating via the artistry of presentation is part of getting the message out.”

Casteel believes her wine pricing reflects not only the true cost of goods, but of her uncompensated time “in service of the mission” through farm visits by people purchasing her wine, speaking engagements, and other outreach. “Hope Well is about changing the way we act upon this earth. It is an urgent and immediate mission and is absolutely egalitarian. I have great concerns about the classism in wine, and I try to be very forthcoming about that when people ask.”

To better help quantify actual costs, Casteel refers to fellow organic farmer Jason Lett, second-generation proprietor and winemaker of The Eyrie Vineyards. “I know what our costs are as a vineyard, because we’ve been tracking them really closely since 1994. So, I know exactly what it costs us to do jobs in the vineyard,” he says.

Lett recently shared his findings in a 2019

Oregon Wine Symposium presentation. Lett’s study compares his costs against conventional costs using two studies: Vineyard economics: establishing and producing Pinot Noir wine grapes in the Willamette Valley, Oregon by Beau Olen and Patty Skinkis, and Oregon Viticulture by Edward Hellmann, both which looked at typical vineyard costs.

Adjusting for inflation, Lett analysed labour, tractor, and chemical costs for 2018. However, instead of comparing the cost of labour, he focused on hours spent to do the labour. In addition, to control for Eyrie’s lower vine density compared to more recently planted vineyards, Lett considered hours per vine, rather than hours per hectare.

Lett broke out line items within those costs, such as pruning, brush pulling, cane tying and rodent control. This format better illustrates variables to fixed costs. For example, rodent control proved especially problematic for Lett. “In 2018, we spent a lot of time and effort on rodents,” he admits. “And that is one of the arguments against no-till. Because if you’re not disturbing their little holes, they can have big families, and come out and eat your vines.”

Lett’s total tractor, labour and vine costs are approximately three quarters of those tabled in Olen and Skinkus, while Hellman’s costs average approximately two thirds less than either. “I honestly think that not everyone can do that,” admits Lett. “The fact that we have our own in-house crew, who know what they’re doing, and we’re not dealing with contractors, who are trying to train people who maybe just came out of picking cherries...that makes a big difference.”

Like Casteel, he spends the most time spraying. “That’s because we’re using super-soft stuff,” explains Lett, “whereas with a conventional program, you might only be spraying once every 21 days, at the same part of the year, we’re spraying every seven days.” Again, despite variables, Eyrie tractor hour costs per vine hover midpoint, about the same as Hellman, but more than Olen and Skinkis.

The final cost comparative – spraying – proves most definitive. Many conventional vineyards employ herbicides and fungicides, in conjunction with foliar nutrition and sticker spreader (to increase the effectiveness of sprays and reduce applications.) However,



Jason Lett, Eyrie Vineyards

Lett’s organic program uses no herbicides, and only organic fungicides, foliar nutrition, and sticker spreaders. All are derived from readily accessible, natural ingredients like milk whey, cinnamon oil for fungicide, and pinesap for sticker spreader. In the end, the chemicals he uses cost less. Citing agricultural supplier OVS’s recommended commercial vineyard spray program in Oregon, Lett determines that his spraying costs run \$242 per acre annually, versus \$353-\$535 per acre for OVS’s commercial spray programs.

“A lot of people look at that as being a costly affair,” he says. “My philosophy would be it’s not a zero-sum game. If you’re leaving things growing on the ground, and forming these deep networks, and creating complex cover around the vines, and upping diversity on the soil surface, you’re creating conditions for increased fertility biologically.”

## Continuing the conversation

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Lett cautions that regenerative farming isn’t the same as ‘organic.’ “Organic only refers to the source of ingredients used in farming,” he says, “not how well they are used.”

Ultimately, Casteel hopes the conversation about regenerative farming pivots not just around cost, but around living well. “People think I work too much. But it is what makes me feel best in life,” she concludes. “This work that I do, is so healing, and so fulfilling, that it doesn’t feel like that. Those are the things that I think are part and parcel to where this goes in the future – making community, building healthy lifestyles, building resilient watersheds, and resilient landscapes. Those are all just benefits from doing things this way.” ■