

The Lazy Winemakers

creators of GOfermentor® and the SmartBarrel®

In 2013, we decided to build a winery in NJ. It was almost not to be. My wife was horrified by photos of people cleaning tanks; punching down at odd hours of the night; cleaning presses, and other rituals of small-scale winemaking. “We’re retired”, she says. Next, the zoning officer said that a license was impossible. “You are in a rural zone – no waste water can be discharged. No treatment plant will be authorized ..yadda ..yadda”. So I got to thinking – why is winemaking so messy and water intensive. It’s because of the cleaning! This was the same problem I experienced in pharmaceuticals. That led me in 1999 to invent a machine—the Wave Bioreactor - it manufactured biopharmaceuticals in single-use bags, eliminating the whole cleaning/sterility/water issue. My company – Wave Biotech, which I sold in 2007, made thousands of these. Why not apply disposable technology to winemaking ?



Meera and Vijay Singh, the lazy winemakers.

Fermentation solved!

Eliminating cleaning is pretty easy – just use a throw-away bag instead of cleaning a macrobin. But I wanted to eliminate the manual punch-down. I was not going to get up at 2am to punch the cap down. And what about going away for the weekend? It took a few years, but I invented the GOfermentor – it has a chamber that inflates at periodic intervals to squeeze the fermenting *must* which is held in an adjacent bag. This motion disperses the cap and keeps it wet. Automatically. On any schedule you want. At harvest, it works as a press. We built a winery that has no tanks, no press, no water usage, and is run by two people in their spare time. I called the zoning officer again and said – “Hey I don’t use any water – how about that !” He mutters and grumbles, looks at the technology, and gives me a license. Which, as far I know, is the only winery license in Somerset County NJ. The punching mechanism in the GOfermentor, massages the fermenting grapes, similar to foot stomping, and makes really fine wine. We started winning many awards, which

was gratifying to the winemaker (wife). To be fair, she is a WSET Level 3 sommelier.

After several years of trials in Spain, Italy, Australia, and the USA, in 2017 we launched it as a commercial product. Check it out – www.GOfermentor.com.

Barrels and all that ...

The next problem was storage and aging. Wine degrades when exposed to oxygen, so the only way to keep it from going bad is to eliminate air. This is done by filling tanks and barrels to the brim so that there is no headspace. But samples are taken, wine evaporates, and barrels leak. You have to “top-off”. Check each barrel and top it off. With what ? Oh, all the extra wine that you keep in carboys all over the winery. Hmm. Talked to friends – “You have to top off. If you are not diligent and the levels drop, all that wonderful wine you made is now garbage. Gone”. Well, I am not diligent. Also lazy. Time for another invention.

The SmartBarrel...

It took three years of trial and error to get US patent 9,802,805. No more “topping off”. I can keep wine in partially full containers for years without any oxidation or spoilage. My wife “oaks” using wood products such as cubes, chips, and staves. For a winemaker, these are really handy because you can get any oak you want, French, American, etc, and any toast level.

The SmartBarrel, like everything I do, uses single-use liners. These liners use inexpensive old wood barrels. These retain a traditional look while eliminating “topping off”, cleaning, and provide the amazing ability to store partially full barrels indefinitely. We make a kit with reusable diptube, a plexiglass cover, and some knobs/inserts. You need to provide an old barrel and cut a 8x8 inch opening. Your old barrel gets a brain transplant and becomes a SmartBarrel! A single-use liner is inserted into the barrel. Filling, sampling, and emptying are done using the diptube. When empty, take the liner out and discard. Just put in a new liner.

Today...

Our technology works beautifully. The winery and cellar are not much work. The operation is sustainable – we use no water, and power is from solar panels. Our wines (www.SkyAcresWinery.com) consistently win awards (just won Best in Class in SF Chronicle competition for our 2017 Black River Red). We have helped many winemakers all over the world start new wineries and streamline their operations with our GOfermentor and SmartBarrel (www.GOfermentor.com). Stay lazy.