

Under the Hood: Barrel to bottle — A sustainable blueprint for wineries

By Tim Carl



[NAPA VALLEY FEATURES](#)

MAR 23, 2024

The Spotlight

Welcome to "Under the Hood," the exclusive Saturday series for our paid Napa Valley Features subscribers. This week our spotlight zeroes in on [LJ Crafted Wines](#), an innovative urban winery in La Jolla that is at the forefront of bottle reuse, an environmentally conscious trend gaining worldwide interest. We're also diving into the details, analyzing data from our latest readers' polls, and providing insights from our economic dashboard for both the local Napa Valley and broader U.S. and global markets.



Refillable LJ Crafted Wine Bottles - Submitted Photo

In addition, we feature "What We're Reading," a section with a handpicked list of recent articles providing a variety of viewpoints on issues important to our community. Also, don't miss exclusive offers and discounts for local events available only to Napa Valley Features subscribers.

For about 16 cents a day, a paid subscription offers complete access to all our content and supports our commitment to provide exceptional local journalism in Napa Valley. Join us and become part of a community that values thorough local storytelling.

Decanting the Data:

NAPA VALLEY, Calif. — In La Jolla, near San Diego, [LJ Crafted Wines](#) is spearheading a sustainable approach to wine retailing. Led by Lowell Jooste, this urban winery is at the forefront of bottle reuse, an environmentally conscious trend gaining worldwide interest. Jooste's winemaking heritage, tracing back four generations, is rooted in the family-owned [Klein Constantia](#) and Anwilka vineyards in South Africa. He is a graduate of the University of Cape Town with a background as a South African Chartered Accountant. Under his guidance, Klein Constantia and Anwilka achieved international acclaim, earning high ratings from Wine Advocate and featured in "[1001 Wines You Must Taste Before You Die.](#)"



Lowell Jooste, former CEO of Klein Constantia in South Africa - Submitted Photo

In 1986, at the onset of his career, Jooste traveled to California, immersing himself in viticulture studies at UC Davis and interning at Robert Mondavi Winery for a summer. There he met renowned enologist Rich Arnold and engaged with staff in discussions about various winery and vineyard practices, such as vine spacing, trellising and clonal selections. Jooste recalled being impressed by all the ongoing experiments and asked Arnold about the scope of the research.

"I often find myself wondering why this isn't more widespread in our industry," Jooste said. "It seems like such an obvious alternative."

"He [Arnold] smiled and told me, 'This whole place is an experiment,'" Jooste said. "That moment left a lasting impression on me. The entrepreneurial spirit in California, characterized by a willingness to experiment, accept failure, refine and try again, really resonated with me. It's a mindset that's rare in many parts of the world."

In 2012, Jooste and his wife, Anne, moved their family to La Jolla, where they would eventually establish LJ Crafted Wines. "I spent the first year mostly surfing," Jooste said. "But then Anne turned to me one day and suggested I should also do something else."

His expertise in the wine industry and ongoing ties to Napa Valley inspired the inception of LJ Crafted Wines. The concept was straightforward: Establish an urban winery and market wine using traditional methods. To kickstart the venture, understanding the lengthy process from winemaking to sales, they enlisted the expertise of veteran Napa Valley winemaker Alison Green-Doran and began producing wine (with mostly Napa and Sonoma grapes) at Laird, a custom-crush winery in Napa.

However, while contemplating their business model, the couple experienced an epiphany.

"We just hated throwing those huge bottles out every time we drank wine," Jooste said. "I mean that's a lot of glass, and who knows how much of it actually gets recycled."

The outcome was an urban winery/retail shop in La Jolla, where wines are sold directly from the barrel, employing their patented [Wine Steward](#) system. Priced at \$700, this

swing-top system operates by displacing the wine in the barrel with a low pressure of inert gas to preserve the wine's freshness and quality until the barrel is empty. The concept is the same as how a keg operates. The bottles, adorned with the LJ Crafted Wines brand and wine information, undergo a rigorous sanitization process before being filled or refilled. In California one must have a winery production license to sell bottles to go, according to Jooste.

"Our customers love it," Jooste said. "They bring their own bottles, and we replace them and fill the new ones straight from the barrel. For our clients – most of whom are repeat customers – this just makes sense."

While Jooste's system isn't suitable for customers seeking to ship a case of wine back home, it does offer an avenue for those aiming to enhance their "reusability" footprint when drinking wine more locally.

[A study conducted by McKinsey & Co.](#) underscores the escalating potential of reusable packaging. Nonetheless, hurdles persist. Despite a historical shift toward single-use packaging driven by convenience and cost-efficiency, interest is mounting in reusable packaging due to heightened environmental awareness and regulatory pressures.

However, even so, the study predicts that global market penetration of reusable packaging will remain limited through 2030. Key obstacles to scalability include costs, logistical intricacies, consumer acceptance and food-safety concerns.

However, the wine industry is particularly well positioned and motivated to potentially spearhead this initiative. Why? Because the costs and environmental repercussions of conventional glass wine bottles are substantial, as highlighted by [The New York Times](#).

Challenges encompass supply-chain disruptions, elevated costs stemming from tariffs and inconsistent production in pivotal manufacturing countries such as China and Ukraine. The manufacturing and transportation of glass bottles significantly contribute to greenhouse gas emissions. Moreover, the United States trails behind some European nations in glass-recycling efficiency.

In this manner, LJ Crafted Wines sets itself apart as one of the rare wineries implementing bottle reuse practices. This strategy, diverging from recycling, circumvents the challenges linked to glass recycling, including color sorting, exorbitant processing expenses and energy requirements. Unlike recycling, which necessitates melting down and remanufacturing glass, reusing bottles preserves their original state, conserves energy and minimizes waste.

The model's environmental and economic advantages are significant. Conventional wine-bottling methods have posed enduring sustainability challenges. According to the California Wine Institute, glass bottles contribute to [around 29%](#) of a winery's carbon footprint, a figure that escalates to 70% when factoring in glass production and transportation.



Submitted Photo

The practice of bottle reuse, although not novel in the global wine industry, is witnessing a revival. In Europe, areas such as Bourgogne have [embraced bottle reuse since the 1970s](#). The [Porto Protocol](#) (of which LJ wines is a member), an initiative promoting sustainable practices in the wine sector, acknowledges these historical approaches. Forward-thinking initiatives such as Sustainable Wine Solutions in London and Vignerons Associés des Monts de Bourgogne in France are leading the way in bottle reuse, demonstrating its feasibility and advantages.

In contrast, the U.S. market, heavily influenced by a [linear economic model](#) — characterized by a "take-make-dispose" approach to production and consumption — faces distinct challenges in adopting widespread bottle reuse. Nonetheless, LJ Crafted Wines serves as a beacon of potential for sustainable practices in America. The winery sells approximately 18,000 returnable 1-liter growlers annually, and with a high return rate, this substantially reduces its carbon footprint.

Growlers, a concept popularized in the craft beer industry, are reusable containers designed for transporting draft beverages. Typically crafted from glass, ceramic or stainless steel, growlers are available in various sizes. LJ Crafted Wines offers 1-liter and 12-ounce versions, each equipped with a blue airtight pull-down cap to preserve the beverage's freshness.

LJ Crafted Wines' sustainable practices also address broader global challenges, including supply-chain shortages and the exploitation of raw materials. The World Economic Forum underscores the [escalating global sand crisis](#), which directly affects glass production. Sand, vital for glass and concrete, ranks as the second-most exploited natural resource after water. Excessive sand extraction, surpassing natural replenishment rates, leads to severe ecological consequences such as erosion, biodiversity loss and increased climate hazards.

The success of bottle-reuse initiatives hinges significantly on customer involvement and education. At LJ Crafted Wines, a diverse customer base, particularly young,

college-educated women, according to Jooste, demonstrates notable enthusiasm for the winery's eco-friendly refill concept.

"Ninety-nine percent of our wine is distributed through reusable containers, boasting an impressive 93% return rate for our growlers," he said. "While some still prefer the traditional method of purchasing and disposing of a bottle, we provide a sustainable alternative for those seeking a different option."

LJ Crafted Wines is forging ahead on the frontier of wine retail, blazing a trail for the future of the industry. Their innovative strategy combines sustainability, economic viability and robust customer engagement. Jooste's approach could pave the way for a more sustainable and inventive global wine industry, but he wonders why more retailers and wineries have not embraced this alternative, which not only offers economic benefits but also aligns with sustainability goals and has the potential to attract a whole new segment of customers.

"I often find myself wondering why this isn't more widespread in our industry," he said. "It seems like such an obvious alternative."