Clos du Val Optimizes Irrigation and Boosts Efficiency with a Simplified Approach to In-Field Monitoring

Founded in 1972, Clos du Val is a Napa Valley wine producer with a focus on crafting fresh, elegant, and age-worthy Bordeaux-inspired wines. The winery was first recognized for its Cabernet Sauvignon at the famed Judgment of Paris in 1976, establishing its place as one of Napa Valley's most iconic winery estates. Clos du Val remains family-owned today, and the wines are distinct due to the philosophy of blending varietals together to create the best expression of the unique terroirs from their home vineyards in Stags Leap District.

THE CHALLENGE

Ryan Decker is Clos du Val's Viticulture and Grower Relations Manager. He is responsible for the winery's entire grape supply, which includes managing 220 acres of planted vines as well as sourcing fruit from more than 20 carefully selected local growers.

As a seasoned viticulturist and business leader, Ryan often looks to technology to improve decisions and optimize efficiencies. When he joined Clos du Val, he quickly identified shortcomings within the vineyard's existing monitoring systems. The three separate systems for weather and soil moisture monitoring, as well as ET for irrigation recommendations, presented a range of obstacles.

Visibility was hindered by siloed systems: With three individual data streams, identifying correlations to make confident irrigation decisions was challenging. In order to get a holistic view of the vineyards down to individual blocks, Ryan spent hours building complicated spreadsheets to consolidate and analyze disparate data, a task that took away from his more critical vineyard management responsibilities.

Data was often inadequate and unreliable: Ryan found the ET-derived irrigation recommendations to be unreliable and pressure bombs fell short of providing useful information.

Hard-to-use, unpredictable systems impeded rapid decision-making: Intermittent connectivity issues with the soil moisture monitoring solution often resulted in gaps in the data. That, combined with an unintuitive weather system impeded quick, confident actions.

"My goal is to maximize the potential of each vineyard that I manage, so I need to make the best use of available resources at each site. The high-quality data and insights I get from Arable helps me do that efficiently and effectively."

RYAN DECKER
Viticulture and Grower Relations Manager
Clos du Val

"Using Arable, I see more and know more about my vineyards. I've surfaced new insights that will fuel better future planning, and having key variables at my fingertips means I can make better decisions when I need to respond quickly to changing conditions."

RYAN DECKER
Viticulture and Grower Relations Manager, Clos du Val

THE SOLUTION

To solve these challenges, Ryan turned to Arable's crop intelligence solution. Arable's comprehensive system—spanning in-field weather, plant, soil, and irrigation data—provides Ryan the visibility and insights he needs to best manage the millions of dollars of fruit in his care.

Ryan can now make vineyard management decisions with confidence. With irrigation optimization a primary concern, having visibility into ET, soil, and applied irrigation allows him to assess each block's unique water needs and schedule irrigation accordingly. Ryan says: "Getting irrigation right is key to meeting our quality and yield objectives. Using Arable, I can strike the right balance to optimize both."

Beyond leveraging Arable as an irrigation management tool, he turns to Arable for other decision-making insights such as frost and heat alerts, sunlight hours to inform speed of ripening, calculated GDD for growth stage monitoring, and weather forecasts for harvest planning.

Ryan finds significant value in Arable's mobile app which provides access to key decision-making information when he's on the go and out inspecting the vines. For deeper analysis, Ryan turns to Arable's web-based interface, which enables him to explore complex, multi-variable correlations with a few simple clicks.

According to Ryan: "Arable is much more than a weather station. I see it as the system I use to inform my farming decisions. It gives me the data I need when I need it, so I don't have to hassle with spreadsheets or rely solely on gut feel. **With Arable, I'm able to make quick, confident decisions all throughout the season.**"

THE RESULTS

Insights from Arable's system have delivered both short and long-term gains for the vineyard, helping Ryan set a more confident course for the future.

Standout advantages include:

Irrigation Optimization: Enhanced vineyard intelligence has enabled Ryan to adopt a more strategic and finely-tuned approach to irrigation. A pivotal shift in strategy emerged when Arable's insights revealed that certain blocks retained water deep within the soil profile between irrigation events. Instead of continuing with deep watering, which would further saturate the lower profile, Ryan now opts for a surface-level irrigation approach in those blocks. These data-driven findings are instrumental in crafting block-by-block plans and optimizing the use of the vineyard's finite water resources.

Informed Planning and Enhanced Responsiveness: Arable's breadth of capabilities offer year-round utility and drive value across a wide range of viticulture practices. Proactive planning is rooted in data and more agile, with responsiveness notably improved.

Time and Cost Savings: Arable provides the path to a simplified tech stack. Arable's integrated system encompasses the functionality of three (weather, ET, and soil monitoring). This consolidation provides cost savings and greater convenience. It also delivers greater value via irrigation monitoring and advanced insights gained through an integrated view of the data.

Thanks to Arable, Ryan is no longer bogged down harmonizing disparate datasets and crafting complex spreadsheet formulas. Instead, he can focus on optimizing fruit quality and yield, enhancing grower relations, and adding value to other areas of the business.