

**IQ** 2018

# INNOVATION+QUALITY Awards

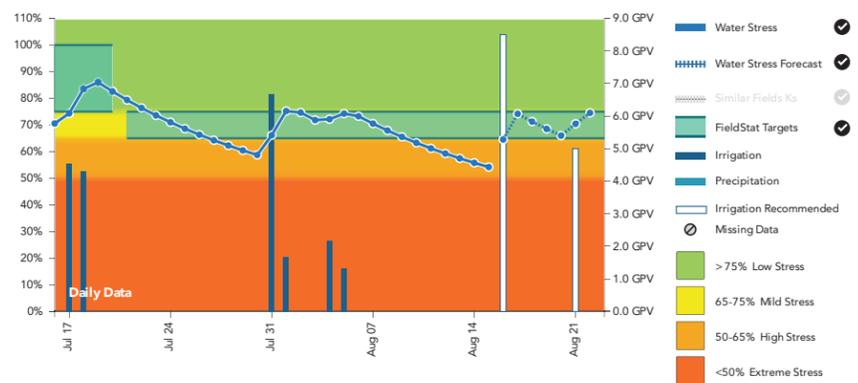
Fourth Annual Innovation + Quality Award Winners Announced

**WINE BUSINESS MONTHLY'S** editorial mission is to help wineries and growers evaluate and successfully deploy innovative new products. Throughout the year, we write about new product categories that are advancing quality in the wine industry. From these, submissions from winemakers around the world, and with help from the 2018 **Innovation + Quality Advisory Board**, the winners of the fourth annual Innovation + Quality Awards were chosen based on innovation relevant to ultra-premium wineries.

## FieldStat Water Stress Forecasts Tule Technologies



**Tule Technologies'** FieldStat Water Stress Forecasts provide grape growers and winemakers the ability to see the number of days until they need to irrigate and the influence of future irrigation applications on the water stress of the plants. It is a significant step closer to connecting the dots between each irrigation decision and the final grape yield and quality. The technology learns from the site-specific water relations of each vineyard block using the data from Tule sensors. Every day, Tule sensors measure the most recent evapotranspiration, irrigation and water stress data from the block. The FieldStat Water Stress Forecast is a model that is re-trained every day to infer the response of the plant water status to irrigation, rainfall and evapotranspiration. It then uses this mechanistic understanding of the site-specific water relations to forecast how the upcoming weather will translate to an increase in water stress, as well as how future irrigation amounts will translate to a decrease in water stress.



## STARS-XF Oenodia

STARS-XF builds on **Oenodia's** existing STARS technology and is an evolution in its wine filtration process. It provides continuous crossflow filtration, tartrate stabilization and pH adjustment in a single pass. The two units can be operated individually, however, when connected, one operator can control two machines from one split-screen. By coupling these technologies, STARS-XF combines all the advantages of both technologies in a single package, eliminating diatomaceous earth, intermediate storage tanks, KHT seeding, cold stabilization and wine loss by up to 3 percent. Furthermore, it increases operational flexibility, saves time, water and 96 percent energy.



## Wine Grenade Wine Grenade

The **Wine Grenade** offers a micro-oxygenation solution for small-to-medium wine producers. The cloud-connected devices allow controlled amounts of oxygen to diffuse through a pressurized length of permeable tubing, recreating the natural diffusion process that happens in a barrel, but with a greater level of control. Each platinum-cured silicone tube is fitted with an Active Float System which moves around the tank, resulting in a more even distribution of oxygen across a greater cross-section of wine. Sensors built into the device provide on-demand insights to winemakers in real time. The Wine Grenade system is a fitting solution for Phase 2 harmonization in wine volumes from 50 to 10,000 gallons.



## VinWizard Multi-Level-Probe Wine Technology Solutions

Pump-overs affect temperature throughout the tank, but frequency and duration are commonly based on assumptions of what is happening. In reality, every tank has different points of stratification and ferment activity



depending on refrigeration effectiveness and tank design. This solution lets winemakers review each level over the entire ferment and refine pump-overs to achieve optimum results for the wine. The VinWizard Multi-Level-Probe (MLP) can have 5 to 30 sensors linked in a chain from the top to bottom of the tank. This chain slides inside a stainless tube fitted at the top. Each MLP has a control box with communication back to the server via ethernet or Modbus RS485. The software displays a vertical thermal bar on-screen and graphs each sensor level over the life of the ferment. Winemakers can dynamically select which sensor will be the control point or control by average temperature, cap temperature or high/low point. Pump-overs can be automatically started when stratification reaches predetermined trigger points.

## Crush Cart Wine Tank Mixer Pulsair Systems

The **Pulsair** Crush Cart is a small cart-mounted, single Pulsair system for quickly mixing fermenting musts or mixing blending tanks. For fermentations, the Crush Cart is best suited for wineries using fermenters around 10,000 gallons in capacity or smaller, although it's the tank width, rather than its volume, that is the real limiting factor. A Pulsair system can mix a stratified tank, mix a blend, mix in additives or turn over a fermentation in ridiculously short times. Tanks of wine as large as 55,000 gallons can be mixed to specification in under 10 minutes. By mounting the powerful TM-2002W on a stainless steel mobile car with hose reels, the winemaker can quickly move from tank to tank and turn the caps quickly and gently, further streamlining cap management processes. Open-top and side racking port probes are available depending on the tank setup. **WBM**

