

# PureSense® Irrigation Manager™

## Case Study: The Wine Group

"Thanks to PureSense, we have been able to adopt a genuine irrigation management strategy. We now have a better understanding how to achieve optimal soil moisture conditions, which helps us save time, lower operating costs and increase yield. Knowing exactly when to irrigate also reduces disease pressure from saturated ground and helps us in our quest to create the perfect growing environment for grapes."

- Kevin Cantrelle, The Wine Group



## A Leading Wine Producer

The Wine Group is a San Francisco-based, management-owned company that produces such well known brands as Franzia, Concannon, Glen Ellen, Corbett Canyon, Gray Fox, Mogen David and Tribuno. Founded in 1981 by a management buy-out of the wine assets of The Coca-Cola Bottling Company of New York, The Wine Group is currently the nation's and the world's third largest wine producer.

## Challenges Faced

"If you can't measure, you can't manage." - Kevin Cantrelle



For some time The Wine Group was looking for a means to **increase transparency** in irrigation management to help **solve problems** with crop yield and plant disease. The Wine Group was facing the following challenges:

- Operating with **limited knowledge** of current soil moisture content
- Using **labor intensive**, out-dated methods to make poor quality irrigation decisions
- Significant **yield reduction** caused by poor irrigation management
- Increased **disease pressure** caused by over- or under-irrigation.

## Strategy Followed

The Wine Group has initially enjoyed success using the PureSense Irrigation Manager Application to improve irrigation management and provide crop canopy infestation control.

To meet this need, PureSense provided web-based access to a best-of-breed blend of soil moisture probes, weather stations, temperature, and in- and out-of canopy relative humidity sensors in all seven Wine Group properties with the following requirements:

- Increased crop yield through **balanced water delivery** and an **optimized water bank**
- Real-time monitoring and analysis of water and air conditions in the field to support efforts to create a "**perfect growing environment**"
- **Reduce time spent** on irrigation management
- Help **prevent diseases** such as powdery mildew through real-time monitoring of canopy conditions
- Reduction in operating costs through optimizing crop inputs.

# PureSense® Irrigation Manager™

## Case Study: The Wine Group, Continued...

The Wine Group's main consideration in choosing the PureSense Irrigation Manager solution were:

- Limited knowledge of current soil moisture levels
- Simplicity of use
- Integrated end-to-end solution
- Reliable, cost effective, real-time monitoring solution
- Multi-dimensional analysis

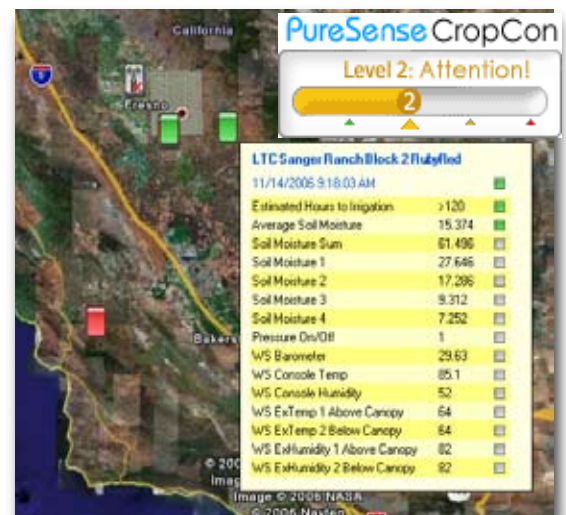
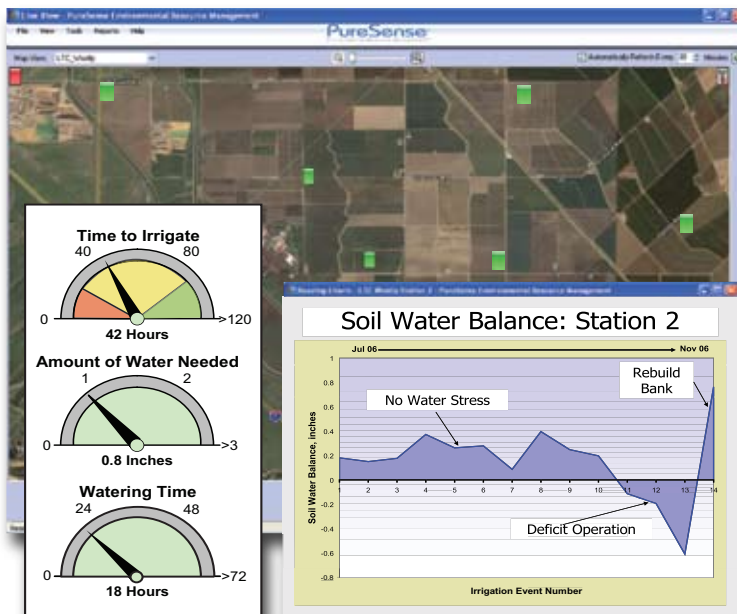
Planned future product upgrades include the introduction of two-way control of irrigation systems and nutrient and disease management capabilities.



## Benefits Realized

The Wine Group has already seen significant benefits from using Irrigation Manager. These include:

- **Substantial increase in crop yield:** more effective irrigation management has led to crop yield improvements of 20% to 60% for significant business performance improvements. Yield increases of up to 3 tons per acre have led to a bottom line improvement of 20% on operating margins.
- **Optimization of crop irrigation:** real-time indicators used for tracking growing conditions allow The Wine Group to make informed irrigation decisions and review the effectiveness of its irrigation strategy.
- **Reduction of operating costs:** optimization of irrigation and disease management operations leads to savings of up to 15% in water, energy, fertilizer, pesticide and other operating costs.
- **Save valuable time:** the time needed to analyze irrigation requirements has fallen by over 80%, freeing up time to focus on optimizing business management.
- **Knowledge on demand:** using our Web interface in a hosted environment, The Wine Group achieves 24/7 access to critical field conditions in the knowledge that all data is carefully screened to avoid false positives and real-time analysis results in immediate delivery to users of alerts on critical conditions.



Screen captures from the PureSense Irrigation Manager Application