



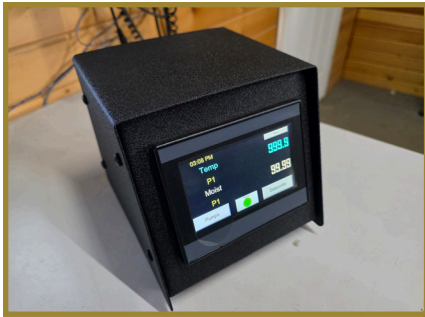
Optimizing the Cranberry Industry

Lord Electric & Control and
Horner's OCS360 with Multiple All-in-One Controllers



Cranberry Farm Projects

Wisconsin, New Jersey and Michigan



X5 System



XL10 Prime System



Cranberry farm pump system



BACKGROUND

Lord Electric & Control has been providing automation solutions for the cranberry growing industry in Wisconsin, for nearly 20 years. Prior to implementing Horner automation systems, cranberry farmers faced significant operational challenges with their bog irrigation and frost protection systems. Monitoring and controlling pumps at individual bogs required manual operation, with personnel physically visiting each location to activate and monitor equipment. This traditional approach was labor-intensive, time-consuming, and inefficient, especially during critical periods when frost protection or irrigation was needed across multiple bog locations simultaneously.

Cranberry growers needed a reliable, user-friendly automation solution that could handle the harsh environmental conditions of cranberry marshes, while providing remote monitoring and control capabilities.

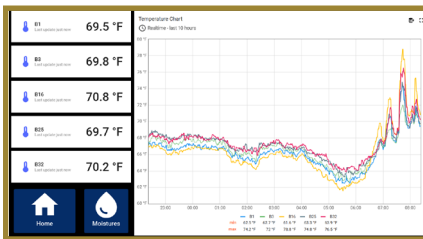
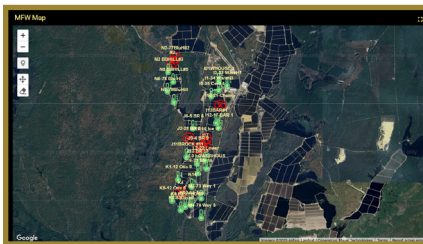
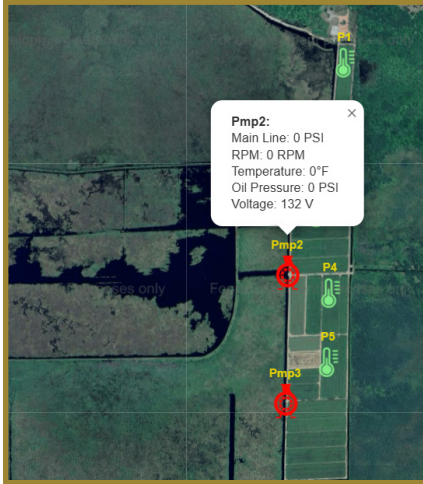
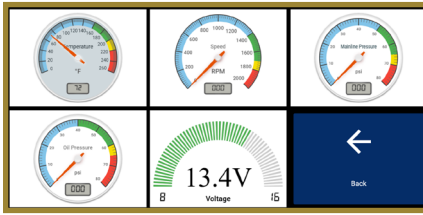
CHALLENGE

Cranberry marshes have a long growing season faced with extreme temperatures. The primary challenge was maintaining optimal moisture and temperature levels across multiple bogs to ensure crop health and protection.

Specific requirements included:

- Automating irrigation systems to activate when instructed
- Implementing frost protection by activating pumps when temperatures drop to prevent plants from freezing
- Eliminating the need for personnel to physically visit each bog location
- Managing multiple diesel pumps across distributed bog locations
- Reducing labor hours and transportation fuel costs
- Providing remote monitoring capabilities
- Creating a scalable system that could grow as clients expand
- Implementing reliable data logging to track system performance

The solution needed to be robust enough to handle extreme temperature swings, moisture, and outdoor environmental conditions while being intuitive enough for farm personnel to operate effectively.



OCS360 real-time screenshots

SOLUTION & BENEFITS

Products Deployed: (usually determined by number of devices)

- Horner X5 Prime controllers (most commonly used)
- Horner XL10 Prime controllers
- Horner XL15 Prime controllers (used for Pine Island project)
- Horner XLEe controllers (pump control)
- Horner X7 controllers (dedicated monitor boxes)
- OCS360 data logging system
- WebMI remote access technology
- Cscape programming software

Quantifiable Improvements:

- Saves up to 100 man-hours per day on a large marsh
- 75% reduction in transportation time and fuel costs
- Higher ROI on diesel pumps through optimized runtime
- Pumps operate based on actual conditions rather than schedules

Large-Scale Implementation: Pine Island Cranberry, New Jersey

- 109 automated pumps managed through XL15 Prime controllers
- Over 150 temperature probes monitoring conditions
- 5 weather stations providing real-time environmental data
- 3 pond level monitoring systems
- Complete OCS360 data logging integration
- WebMI remote access, enabling farm management from anywhere

Operational Improvements:

- Remote monitoring and control from any internet-connected device via WebMI
- Real-time visibility of all pump operations, probe readings, and weather data
- Automated frost protection and irrigation, based on sensor data
- Data-driven decision making with historical analysis
- Alarm notifications and remote troubleshooting
- Scalable processing power through Prime controller series (X5, XL10, XL15)

Technical Advantages:

- Intuitive Cscape software for quick programming and customization
- Excellent technical support from Horner during implementation
- Reliable performance in harsh outdoor conditions with extreme temperatures
- Unified monitoring system integrating probes, weather stations, and pump status
- System flexibility allowing continuous adaptation as operations grow
- Secure remote access from smartphones, tablets, and computers



CLIENT REACH

Joe Lord originally created these solutions, and now his sons, Evan and Anthony, are following in his footsteps, and are a big part of this family-owned business. Together, they have successfully deployed automated systems throughout Wisconsin's cranberry growing region and has expanded to serve growers in New Jersey and Michigan. Notable installations include Whiskey Creek Cranberry and Cranberry Creek Cranberry in Wisconsin, and Pine Island Cranberry in New Jersey.

The combination of Prime controllers, OCS360 data logging, and Web-MI remote access has transformed cranberry farming from a labor-intensive operation requiring constant on-site presence to a modern, data-driven enterprise where informed decisions can be made from anywhere in the world.

TESTIMONIAL

"We've been partnering with Horner for nearly 20 years, and they've made tremendous strides over that time. In the beginning, we didn't have WebMI, but once they introduced it, it transformed everything—giving customers seamless remote access to their farms and operations. Now, with the addition of OCS360, which stores all the data on the same unified platform, the possibilities are enormous. This is going to be a game-changer."

~ Joe Lord, Lord Electric & Control, Warrens, Wisconsin

