

Remote telemetry provides better irrigation control for sensitive crops



- LOCATION:** Horne Farm Family
Pinehurst, GA, in Dooly County
- SITUATION:**
 - Father and two sons growing on 1,250 acres
 - 90 percent of land is irrigated
 - Grow cotton and peanuts, small amounts of beans, wheat and canola
 - 17 Valley® pivots
- CHALLENGE:**
 - Ensure sensitive crops have proper water
 - Manage and control pivots and pumps that are farther away
 - Gather all information to make informed decisions
 - Gain control over end guns
- DEPLOYMENT:**
 - Install one Valley ICON10 and two ICON1 control panels
 - Use AgSense® to remotely control and manage about half of the pivots and pumps
 - Take advantage of Wi-Fi access with ICON1 panel
- EFFECT:**
 - Improved data and control for better irrigation
 - Alerts save hours of irregular irrigation
 - Time saved with remote management
 - Fine-tuned end guns

The Horne family farm lies in central Georgia, just outside of Pinehurst. It's a true family operation, run by Bill Horne and his two sons, Adam and Rich. Together, they farm 1,250 acres of fertile, flat soil, growing mostly cotton and peanuts.

The Horne family got their first Valley pivot in 1994, adding two or three a year until 90 percent of their land was under 17 pivots. A few years ago, they replaced an older control panel on one of their pivots with a Valley® ICON10 smart panel with ICON Link and received a trial subscription to AgSense®.

"That pivot sits on a big field, so before AgSense, we'd have to go to the middle to access the control panel," Adam explains. "With AgSense, we could move the pivot from anywhere, which was especially handy when we were spraying."

The Hornes quickly saw the benefits of using AgSense. They now use it on about half of their pivots. Adam says they run on load management with their utility company and knowing when their pivots stop and start saves them time, even as they keep track of their energy and water use.

Even more important, however, is knowing when there's a problem in the field. The Hornes are still running their original pivots from the '90s, and those older tires sometimes go flat. Adam says being alerted to any issue is critical.

"When there's a problem, I can fix it right away and get right back to irrigating," he explains. "Our largest pivot is farther away, so if that stops and I don't know it, it's a problem. I could miss an entire night of watering. Because the crop is sensitive, that pivot runs most of the time."



Ensuring proper water

Adam says both cotton and peanuts have specific times when precise irrigation is crucial, and he and his Valley dealer, Blake Reid of Reid Brothers Irrigation, set up programs on his AgSense app to make sure they stay on schedule.

“When I plant, I turn all of the pivots on for coverage to get the seed wet. With cotton, there’s a window to get plants started, there’s a lull when we don’t irrigate as much, and then once it starts blooming, that’s peak time,” Adam says. That peak time is six to eight weeks in July and August when it’s hottest in Georgia. “Peanuts take a little longer but have close to the same timing.”

AgSense also provides end gun control. “That’s always been difficult for us. We used to go to Google Earth and other places to figure out when to stop and start them. Now we have settings right there on the app and we can fine-tune where and when to turn them on and off.”

Getting data and gaining savings

“In our large rectangular field, we often have one side of the field that’s wet and the other is basically dry,” he says. “AgSense is worth it to see what’s happening. I know if I should shut my pivots off or keep them going. It saves us time, water and money.”

On two pivots that are closer to the office, the Hornes take advantage of the Wi-Fi access through ICON1 panels.

“They’re smaller, 15- to 16-acre pivots,” Adam explains. “I can just step outside and control those with my tablet. It works just like AgSense on my phone. It’s very easy. As our older panels wear out on pivots that are nearby, we’ll probably replace those with ICON1 panels and control those pivots from the edge of the field.”

Another advantage of using both Wi-Fi and AgSense is time savings.

“Before we started using remote management, I’d have to make at least two trips a day to each field to run the pivots and check on them,” Adam says. “Then, we’d have to make a circle every night to every farm to make sure they were running right. Those hours cost money, so it’s definitely been worth the investment.”