

PivotPoint®

Fall 2019

**Washington Dairy Uses
Technology to Meet
Requirements**

**Super-Sod Gains Control
Over Sensitive Crops with
AgSense® and ICON Link**

**Canadian Farm Relies
on BaseStation3™ to
Deal with Drought**



**Own Your Tomorrow
with Valley 365™**



LETTER FROM THE PRESIDENT

Have you ever stopped to think about how many individual pieces of technology you utilize in any given day? Just within your farming operation alone, you most likely have several different programs or apps you retrieve information from daily, yet they all operate independently from each other.

Now, if you know anything about Valley, and our network of dealers, you know we are all about interacting, working together and learning from each other to operate at our highest level of efficiency. So shouldn't your equipment and technology do the same?

We constantly look for new ways to simplify the lives of our growers and find ways to do more with less. Functioning as a unit as opposed to several independent parts makes for one well-oiled machine, and is sure to help you make the most of your time. After all, if there's one thing we can be sure of, it's that the presence of technology within the world of agriculture is here to stay.

No matter how you begin integrating your operation, you can expect our solutions are powered by proven technologies and driven by conversations with growers just like you.

LEN ADAMS

President, Global Irrigation



Valley 365™

From smartphones to online shopping to GPS in tractors, technology is now a part of everyday life, and the pace of technological change is getting even faster.

But one thing hasn't changed since 1954: Valley is still the irrigation leader. That's why we're proud to announce that Valley 365™, a revolutionary step in connected crop management, is coming in early 2020.

The AgTech Innovator

Valley 365 is an intuitive, cloud-based platform for growers to access Valley technology solutions with a single sign-on.

"To harness the power of data points growers already utilize through connected devices," says Andy Carritt, Vice President of Product Development for Valley Irrigation, "we are integrating our solutions, including remote management (AgSense, a smart irrigation solution from Valley), Valley Scheduling™, Valley Insights™ and Valley Variable Rate Irrigation (VRI). This end-to-end integration will benefit growers through greater efficiency, improved accessibility and smarter business decisions."

To produce more with less, the growers of tomorrow need advanced solutions that transform the way they farm today – a challenge that Valley is uniquely positioned to handle.

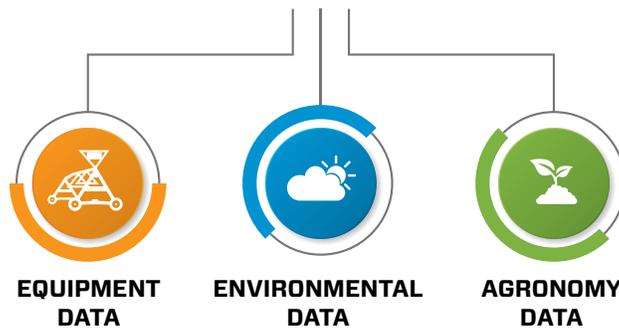
"At Valley Irrigation, we're invested in technology because we're invested in our growers," says Len Adams, President of Global Irrigation. "As The Leader in Precision Irrigation®, we continue to develop and implement cutting-edge crop management technology that harnesses the power and efficiency of the trusted equipment in their fields."

VALLEY 365™

CONNECTED CROP MANAGEMENT

COMING
2020

THE AG ECOSYSTEM



Forecasting & Planning
Optimize seed & chemical orders

Predictive Scheduling
Scheduled planting based on weather, crop growth & market trends

The Growing Season
Improve crop health through solutions for crop nutrition and pest control

The Harvest Season
Optimize harvest operations

Market Delivery
Drive profitability

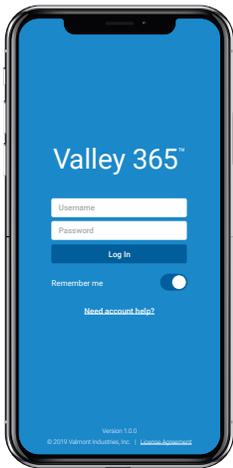
Data Collection
Capture your in-field sensor and satellite data

Environment
Predict crop conditions & take action to ensure crop health



“ IRRIGATION INFRASTRUCTURE HAS ALWAYS BEEN THE CENTER POINT OF FARM INTEGRATION, AND VALLEY EQUIPMENT HAS BEEN IN GROWER FIELDS YEAR-ROUND FOR AN AVERAGE OF 20 YEARS. THAT LONG-STANDING PRESENCE ENABLES VALLEY TECHNOLOGY TO HELP GROWERS SEE THE FULL STORY OF THEIR FARM.

ANDY CARRITT



Three core areas within the ag ecosystem provide data to make up that story – Equipment, Environmental and Agronomy. Valley 365 provides real-time data when and where growers want it. As a single sign-on platform, we organize data from the Ag Ecosystem and arrange it into intuitive categories within Valley 365:



EQUIPMENT



ENVIRONMENTAL



AGRONOMY

Forecast & Plan

- Valley Scheduling
- Weather Station
- Soil Moisture

Monitor & Control

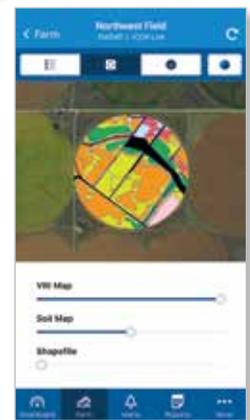
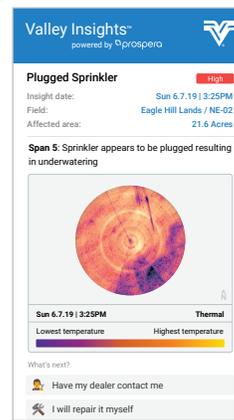
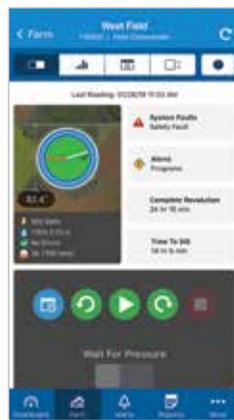
- Remote management
- Pumping
- Alerts
- Grain temperature

Insights & Analysis

- Valley Insights
- Reporting functions

Optimize & Apply

- Valley Variable Rate Irrigation (VRI)



Connecting the ecosystem allows our growers to identify a problem, determine which areas of the operation are affected, and execute the necessary changes to ensure maximum yield with minimum resource investment.



Valley 365 Benefits

- **Efficiency** – You need to do more with less every day. The solutions within Valley 365 can result in more efficient operations, higher profits and less downtime.
- **One Platform** – Existing Valley technology will seamlessly integrate into Valley 365, allowing end-to-end access from a single sign-on.
- **Simple and Accessible** – Sometimes you have to be in multiple places at once. Valley 365 provides accessibility and ease of use with a simpler, more intuitive user experience, when and where you want it.
- **Smarter Decisions** – Valley 365 provides organized analytics and insights that allow for smarter decisions so growers can harness the power of their ag data.
- **Real-Time Data** – Growers can leverage equipment, environmental and agronomy data more effectively, in real time.
- **Scalability** – You deserve the most up-to-date tools. Valley 365 utilizes the most current technology, so your crop management is “future proof,” meaning features can be added seamlessly with little to no work on your part.

AgSense Growers

Many growers use and trust AgSense as their provider of remote management hardware and software. AgSense growers will have the option to migrate to Valley 365, keeping the monitor and control solutions they know – in the enhanced Valley 365 platform. They will not be required to switch.

AgSense devices and software functionality are being brought directly into Valley 365, making the transition seamless. Migrating from AgSense also allows growers to integrate their operation further, by leveraging additional technology such as Valley Scheduling, Valley Insights and VRI that will be available in Valley 365.

We value these customers and will continue providing superior service and the most intuitive user experience.

What About BaseStation3?

BaseStation3 brought revolutionary technology to growers and remains the industry’s best on-premises solution. We value all BaseStation3 customers and will continue to support its existing functionality.

Growers who rely on BaseStation3 do not need to switch to Valley 365, but as features are added to Valley 365 that BaseStation3 customers want, we will provide a clear transition path for them.

Flexibility for Changing Needs

“We’re not just part of the center pivot industry; we founded it,” says Carritt. “And we’re going to continue innovating, taking precision irrigation further while making it accessible and profitable for more and more growers.”

Advancements in technology have contributed to the evolution of agriculture and will continue to do so, says Adams. “Growers can trust Valley to provide flexible options that meet their changing needs.”

STAYED TUNED FOR EXCITING
NEWS AND UPDATES ABOUT
THE LAUNCH OF VALLEY 365.

COMING 2020



GOT COMPLIANCE?

Washington Dairy Uses Technology to Meet Requirements

Dairies everywhere face intense scrutiny by the public and the government, and the state of Washington is certainly no exception. Dairy farms must comply with strict regulations and maintain their reputations as good stewards of their resources.



J&K Dairy is a family dairy and farming operation in the Yakima Valley in Washington. They milk about 3,000 cows and grow 1,000 acres of silage for feed. Jason Sheehan, the owner and operator of J&K Dairy, irrigates with 16 Valley pivots and some corners. He controls and manages them with BaseStation3 (BS3), and he recently started using Valley Scheduling.

Valley Scheduling is an advanced irrigation management software that gathers data regarding crop development, soil types, soil moisture, updated weather information and more to provide better-informed irrigation scheduling recommendations. It can be used alone or in conjunction with BS3. Data and recommendations can be viewed online, via the Valley Scheduling app, or on the BS3 app.

“I use it on my phone with BaseStation3,” says Sheehan. “It’s all on one simple app, and I don’t have to spend time looking other places for the information. Having that data for record keeping is a huge benefit for us. We can make sure we’re following what’s going on in the fields and irrigate correctly. Along with BaseStation3 and moisture monitors, Valley Scheduling is a huge timesaver.”

Sheehan uses soil moisture monitors in two ways: Two are in cost-share fields and two are in fields with varying soil types. The farm has everything from silty loam and clay to sandy, rocky soil, and even high ash from the Mt. St. Helens eruption in the 1980s. One of his probes lies in a field with a combination of clay and sandy soil, and another in the sandiest field on the farm. Sheehan found that weather extremes made a real and immediate difference in how he applied water in both fields.

“Watering needs to go down very quickly when the temperature drops,” he says. “Using Valley Scheduling helps us see and prevent overwatering, while letting us keep up with water needs when temps go up.”



USING RESOURCES WISELY

Sheehan says they are doing all they can to ensure good stewardship of resources to maintain – and even improve – the environment for the next generation. But with the tight regulations, they also need to be able to prove it. Valley Scheduling, used in conjunction with soil moisture monitors, helps Sheehan do just that, and he can even track weekly water usage through an Excel® spreadsheet that BS3 emails him every week.

“It’s important to us to conserve resources and the environment,” he says, “and we’re using technology to help us improve farming practices and make sure we’re doing things right. I can see everything right on my phone, including the soil’s moisture holding capacity. It’s also a bonus that we have the data to back us up.”

J&K Dairy participates in a cost-share program through the Groundwater Management Advisory Council, part of the Government-wide Acquisition Contracts. This government program is dedicated to lowering nitrates in the soil and keeping nutrients at the root zone.

“By using our probes and Valley Scheduling, we can avoid overwatering, so we can keep our soil profile full enough to keep the plants healthy, but we’re not pushing nitrates out of the root zone,” he explains. “Nutrients are affected by the amount and the timing of application, and how hard water is pushed through the soil.”

Sheehan says using all of his technology together has made a real difference in the way they apply water.

“There are some real advantages,” he says. “We follow the recommendations from Valley Scheduling very closely, which allows us to water correctly. And data is the biggest benefit, because we are able to follow exactly what’s happening in the fields.”



IT'S ALL ON ONE SIMPLE APP, AND I DON'T HAVE TO SPEND TIME LOOKING OTHER PLACES FOR THE INFORMATION... VALLEY SCHEDULING IS A HUGE TIMESAVER.

JASON SHEEHAN

Super-Sod Gains Super Control and Precision Over Sensitive Crop

Imagine keeping 900 acres of grass looking perfect. Consider how much water and care that would take. Brandon Chambley doesn't have to imagine it, because that's everyday life for him at Super-Sod.

Super-Sod is one of the largest turf producers in the South, with farms and retail locations in Georgia, North Carolina and South Carolina. It's a subsidiary of Patten Seed Company and is a family and employee-owned business that's been supplying seed and sod for more than 100 years.

Chambley manages two Super-Sod farms in northwest Georgia, near Cartersville. He takes care of 900 acres and is involved in everything from sales to planting, mowing and cultivating. He also operates 20 pivots.

Chambley tested AgSense from demo to deployment and is very happy with the results! Until recently, they used FieldNet® to control and manage their pivots. But when they couldn't integrate the data into their company

software, they decided to change one of their panels to the Valley ICONX smart panels with ICON Link, to test whether AgSense software would be compatible.

"Once we tried it on one, we immediately ordered ICONX panels for all of our pivots and connected to the AgSense API, allowing us to integrate our irrigation data into AgChimp.com which aggregates all of our inputs to see real time, accurate costs of our operation. It was a large investment, and we replaced panels that weren't very old, but we are very confident in its stability, and AgSense always works on my mobile device."

Super-Sod is developing this database to take the guesswork out of the equation.

"Our goal is to always know how much each square foot of sod cost," he says. "Knowing our costs is the key to managing our operation and challenges us to do better. It may even change the varieties we grow."





ONCE WE TRIED IT ON ONE, WE IMMEDIATELY ORDERED ICONX PANELS FOR ALL OF OUR PIVOTS . . . WITH AGSENSE, I DON'T HAVE TO GO OUT TO THE FIELD TO START AND STOP MY PIVOTS MULTIPLE TIMES PER DAY, SO I CAN SPEND MORE TIME AT HOME

BRANDON CHAMBLEY

A simpler way to keep the grass greener

Making the switch benefited Chambley in other ways, as well. As you'd expect, sod and seed require precise amounts of water – on average about 0.15 to 0.25 inches per day, which Chambley says is approximately one pass per pivot every day. Younger plants tend to need more attention, however, and during the hot summer season, pivots may have to run up to four times per day to keep the surface wet until grass sprouts.

“With AgSense, I don't have to go out to the field to start and stop my pivots multiple times per day, so I can spend more time at home,” he says. “We also have rain buckets (weather stations) recording rainfall at each

pivot point, so I can see what's happening in every field right on my AgSense app through ICON Link.”

Because Chambley can manage all of the pivots from his phone, the company saves money by avoiding another hire to stop and start the pivots all day.

Peace of mind on pumps

Chambley also controls three pumps with Crop Link®, which gives him the ability to manage multiple wells through his AgSense app.

One of his farms uses two tandem pumps, and there's a single well on the other location. He says the main advantage of using Crop Link is that he doesn't have to drive out to the pumps to turn them on and off, because it's controlled by the panel at the pivot point.

“Also, if there's a problem with a pivot, it turns the pump off automatically and lets me know through my app,” he says. “That's a huge benefit, especially when I'm irrigating at night. I don't have to worry that I'm going to go out to the field to see a flood in the morning.”

Future goals: total, automated precision

Chambley's goal is to have a fully automated irrigation system.

“That will be a real game changer,” he says. “If I can automate my irrigation so the pivot can do everything on its own, I'll be able to provide very specific amounts of water whenever it's needed. For example, if I have three pivots on one farm, I want to set a prescription to start one pivot at a certain time, and when it stops, turn off that valve at the water source, which is the river in our case. Then, the prescription will automatically turn open the next valve to start another pivot right away. Once we get that going, I'll be able to irrigate at night and save even more time and money.”



Canadian Farm Relies on **BaseStation3™** to Deal with Drought

Drought is a way of life at Dale Thacker Specialty Crops.

The operation is a 6,900-acre farm near Bow Island, Alberta, Canada. They grow a wide variety of crops, such as spearmint, dill, wheat, hemp, seed canola, yellow peas and fava beans. They also distill mint and dill oils on the farm.

The Thackers irrigate more than 4,000 acres, using 19 pivots on both owned and rented land, which brothers Kyle and Gavin Thacker and their team run. Because their land is spread out, with some fields 25 miles away, they rely on BaseStation3 to easily manage and control their pivots remotely.

"We've got three 500-acre pivots and 16 standard quarter-section pivots," says Gavin. "The three 500-acre pivots are located about 20 miles north of our main operation, which is one of the biggest reasons we decided to install BaseStation3 in 2008."

IRRIGATING WITH LIMITED WATER

The Thackers' water situation is complex even in the best of times. They pull water from a combination of sources, including spillways, ditches, a pressure pipeline and their own reservoirs, and they work with two separate irrigation districts.

But since they received only about three inches of rain each year over the last two years, it presents even more challenges. Due to limited water, they were allotted 15 inches of water per acre to cover the entire growing season last year. This year, they're down to 12 inches of water per acre.

"We can pull it off because dill only needs about half of that, so we can use the water we don't use on those fields to irrigate the crops that require more water," he explains. "Still, I don't know how we could do it without BaseStation3."

There are up to four different crops under individual pivots, so Gavin says they use Valley VRI Speed Control to make sure each crop gets the right amount of water.

The Thackers have some additional help to know whether to change the rate, or turn their pivots on or off through the placement of a weather station near the more distant pivots. BaseStation3 allows them to speed up over the sloughs so they have efficient use of their water.



REMOTE CONNECTIONS SAVE TIME AND MONEY

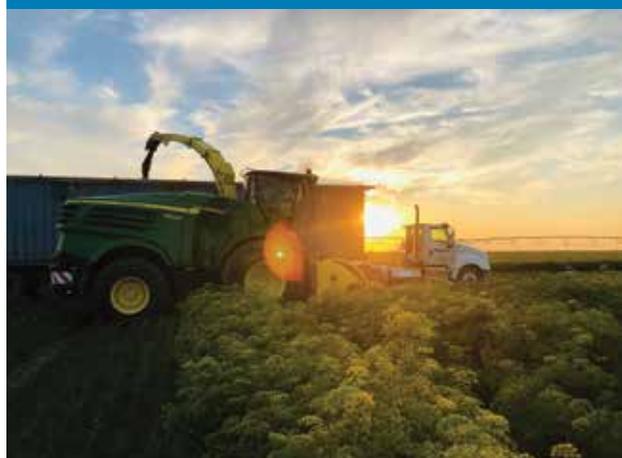
The Thackers use the internet to connect to their BaseStation3-controlled pivots.

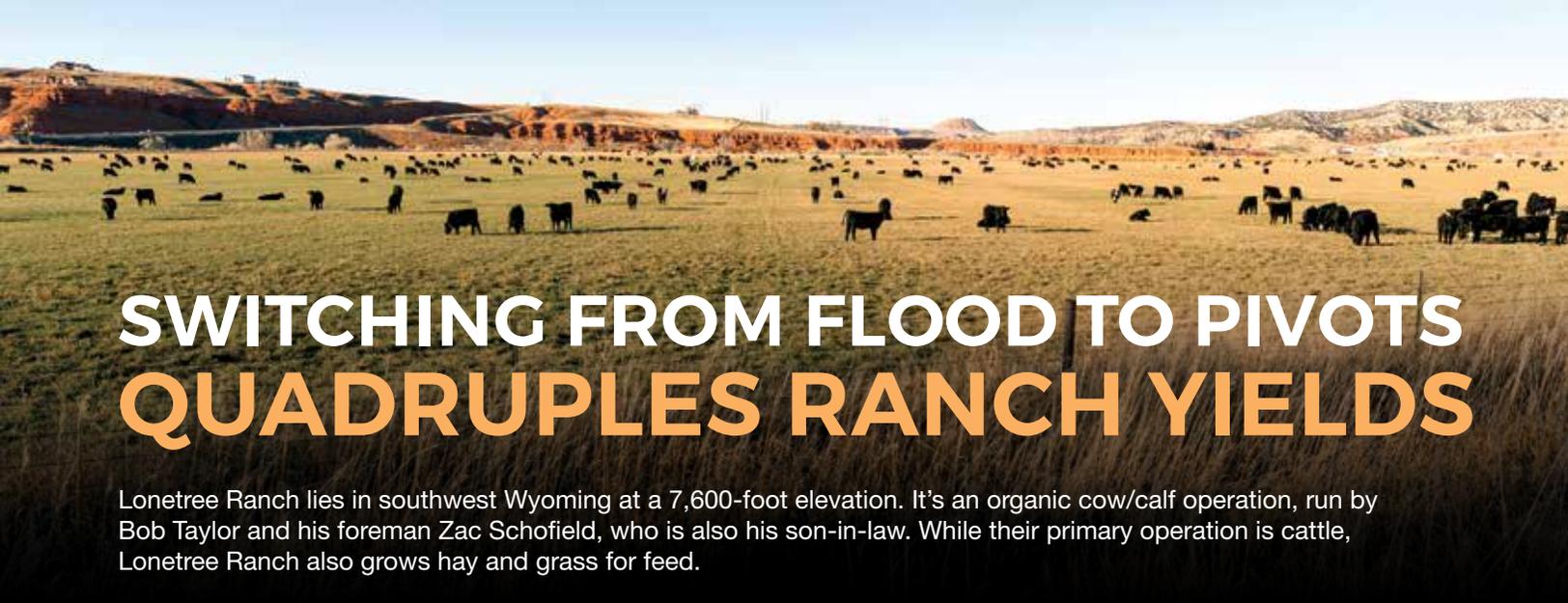
"We're about two miles from a town that has cable internet," says Gavin, "so we send it out here with two antennas. We have a fairly fast connection with about 50 MB per second downloads."

About 10 people in the operation log into BaseStation3: five on the management side, four full-time employees and one part-time worker.

"It allows you to monitor everything so much faster," Gavin explains. "Before, you'd start a pivot and it seemed like you would just get over the hill and it would quit, but you wouldn't realize it had quit until you went back there to check it again. But with BaseStation3, you don't have to be watching all the time. You get a text message or an email on your phone and you can see what's happening immediately and deal with it."

Gavin says the main reason for remote pivot management is to change programs quickly and easily. "The more spread out you are, the more important that is."





SWITCHING FROM FLOOD TO PIVOTS QUADRUPLES RANCH YIELDS

Lonetree Ranch lies in southwest Wyoming at a 7,600-foot elevation. It's an organic cow/calf operation, run by Bob Taylor and his foreman Zac Schofield, who is also his son-in-law. While their primary operation is cattle, Lonetree Ranch also grows hay and grass for feed.

Taylor used flood irrigation his entire life, until his NRCS (Natural Resources Conservation Service) representative persuaded him to try a pivot.

Taylor said he was never going to try a pivot and now he says that his NRCS representative can't retire until he's able to get all of them installed.

Why the change of heart? Taylor installed his first Valley pivot – a six-tower machine that irrigates nearly 30 acres – about four years ago, and he saw the yield for that field quadruple.

"It went from 1,500 pounds of hay per acre to 6,000 pounds per acre, just by using the pivot," he says. "Irrigating with the pivot is much more effective, and it saves me tremendous labor costs."

Saving money and adding efficiency

Setting up for effective flood irrigation is a huge undertaking on the ranch's sloped fields, requiring hours of manpower. Taylor estimates that his one pivot saves the operation \$12,000-\$15,000 per year on labor alone.

When he saw the increase in yield and the decrease in labor costs, Taylor decided to add more pivots. This year, he's having one installed on 160 acres, and he plans to add three more to cover 450 total acres.

"Once I have all my pivots installed, we should be able to take care of all our hay needs to feed our cattle," he says.

That's especially impressive because as a certified organic operation, Lonetree Ranch cannot use any pesticides, herbicides or fertilizer. Only cow manure can be used for natural nitrates.

Seeing results at the roots

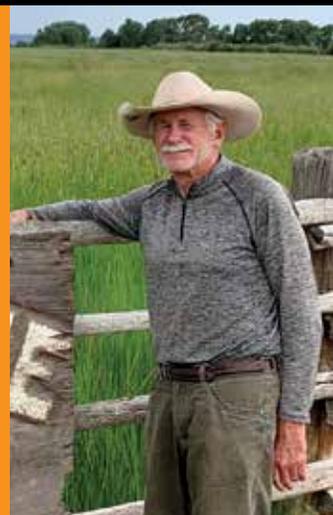
Lonetree Ranch has done a great amount of soil sampling over the years, and they sponsor a soil health study each year. Last season, they used the field under his pivot to test.

"Even though it about killed me to do it, we dug a four-foot deep ditch to measure moisture, microbes and root depth," he says. "It was very impressive. The roots went down three feet."



YOU LOSE LESS WATER
TO EVAPORATION
WITH PIVOTS THAN
WITH FLOOD...AND
WE HAVE SO MUCH
MORE CONTROL OVER
WHERE IT GOES.

BOB TAYLOR



Dealing with water rights

Water rights issues are always at the forefront of Taylor's mind. Their rights go back as early as 1876 on some of their land.

"Wyoming water rights were established using seniority," he explains. "During last year's drought, if a (person's) land didn't have water rights established before 1901, they didn't get any water for irrigation."

Taylor says he probably spends more time on water rights issues than on pivots. "We have to work with a water engineer to co-mingle water rights with all the different ages of our fields, and then have the state approve our water usage."

Even though they have a river running right through their ranch, they are unable to pull directly from it. Instead, they divert water from Beaver Creek and Henry's Fork, using a ditch that travels three miles to get to their pivot. Every drop counts – and that's just another reason Taylor prefers pivot irrigation.

"You lose less water to evaporation with pivots than with flood," he says, "and we have so much more control over where it goes. I never would have thought it would make such a difference."



MORE PRECISE IRRIGATION FOR CHALLENGING CROPS

COTTON AND PEANUTS ARE SENSITIVE CROPS THAT REQUIRE PRECISE MANAGEMENT OF SOIL MOISTURE DURING THE CRITICAL PERIODS OF THEIR GROWTH CYCLE. SINCE THEY BOTH GROW BEST IN HOT CLIMATES, IRRIGATION MUST BE MANAGED VERY CLOSELY, WHICH CAN PROVE TO BE AN EXTRA CHALLENGE WHEN GROWING THESE CROPS FOR HORNE FARM FAMILY.

Adam Horne farms 1,250 acres with his father Bill and brother Rich in Dooly County, Georgia. About 90 percent of it is irrigated by Valley pivots. They got their first pivot in 1994, and added more every year until they reached their capacity.

Their land is a bit rolling, with loamy, fertile soil. Although their farms are spread out, Horne says the fields all have similar water holding capacities. That doesn't mean they don't need differing amounts of water, though. Even in the same field, rainfall can vary.

"In our large rectangular field, we often have one side of the field that's wet and the other is basically dry," he says. "We have rain buckets (connected to the ICON Panel) on our pivots, and having 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."

That's just one reason Horne is glad they were introduced to AgSense a few years ago when they replaced an older control panel with a Valley ICON10 smart panel with ICON Link. They received a trial AgSense subscription with their ICON10, quickly saw the benefits and soon added AgSense to half of their pivots.

Applying the proper water at the right time

Horne 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," Horne 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."

Heading off issues

The Hornes are still running their original pivots from the '90s, and those older tires sometimes go flat. Horne says being alerted to any issues 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."



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.”

Control from the edge of the field

The Hornes also have some pivots just outside their shop. They opted to change their panels on those machines to ICON1 smart panels. Now they can control the pivot via their tablet and take advantage of the integrated Wi-Fi connection in their ICON panels.



“The pivots next to our shop are smaller, just 15 to 16 acre pivots,” Horne 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.”

Horne says both AgSense and the Wi-Fi access save him time and money.

“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,” Horne 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.”



VALLEY GPS

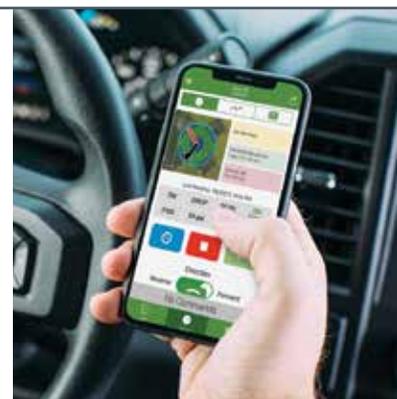
Valley now offers a GPS solution for pivot position and end-of-machine pressure feedback. This product features a proprietary Valley-manufactured GPS (position) that comes standard with all aftermarket ICONX orders and as an option with all Valley ICON® panels. A separate kit is available that provides end-of-machine pressure to ensure the machine is operating at the designed pressure for maximum water uniformity and precise application amounts.

Valley GPS Features

- Valley-designed GPS for position on most machines
- Adds analog input for end-of-machine pressure transducer
- Adds two (2) 120V outputs (configured for EG 3 and 4) in Valley ICON panels.

ICON LINK LICENSING

Valley offers one-, three-, five- and 10-year licensing plans for ICON Link devices, enabling users to access AgSense cloud-based irrigation management software to stay up-to-date with the latest advanced features, plus:



- A connectivity guarantee for three, five and 10 years, so changes in cellular technology and service providers do not affect performance over the length of the license
- The ability to monitor and control irrigation machines from any smartphone, tablet or desktop computer
- Integration of pumps and gensets
- Year-round cable theft detection and alerts
- Real-time notifications
- Comprehensive reports

i-Wob2



Senninger's New Standard for Pivot Irrigation



Senninger® has improved on the i-Wob's design with the latest generation of patented Wobblers® technology for pivots: the i-Wob2. Featuring a protective shroud that doubles as a nozzle carrier, the new i-Wob2 is capable of better withstanding poor water quality and harsh operating conditions that can cause premature wear on components.

With the i-Wob2, growers will not need to invest in a sprinkler package replacement as often. The i-Wob2 features a protective shroud that guards the sprinkler's wear surfaces against the splashing of adjacent sprinklers, grit and the effects of direct UV. Plus, the wear surfaces themselves have been improved to enhance the sprinkler's longevity. Senninger is so confident in the i-Wob2, the sprinkler is backed by an unprecedented three-year warranty on materials, workmanship and performance.

The i-Wob2's shroud isn't just for protection. It also doubles as a nozzle carrier that holds two extra UP3 nozzles. Growers who experience frequent drops in well capacity, who need an extra nozzle to irrigate winter crops, or those who just prefer to tailor-manage their resources, will now find it easier to change their flow as needed. This makes renozzling during the season a tool-free experience.

4 Models. 4 Different Applications

The i-Wob2 can be used in virtually any field or situation thanks to its four different deflector options, each of which produces a different droplet size and trajectory:

- **Black Deflector** – Ideal for most soil types and applications with its medium-sized droplets and standard-angle trajectory.
- **Blue Deflector** – Ideal for most soil types and crops but recommended for windy conditions, thanks to its low-angle trajectory.
- **Grey Deflector** – Ideal for tighter soils, small-seeded crops and germination, due to its smaller droplet size and standard-angle trajectory.
- **White Deflector** – Ideal for very windy conditions and harsher weather thanks to its larger droplet size and low-angle trajectory.

In addition to its four deflector options, the i-Wob2 operates at a wide range of flows. You can tailor the droplet size to the needs of the soil while adjusting the flow rate for specific crop and climatic needs.

When Choosing Sprinklers, Don't Forget the Soil

There's a lot to think about when choosing sprinklers. To get the highest yield and make the most of your water and energy use, you should always look beyond crop and take your field's soil type and texture into consideration before making a final decision.

You can adjust the sprinkler application rate to a specific crop and growth stage. But considering only the needs of the crop – while neglecting the soil – could result in lower yields.

A sprinkler's application rate must match the soil's infiltration rate to prevent runoff and over- or under-watered areas. Typically, sandy soils absorb water quickly, so you need a higher application rate. Tighter soils require a lower rate.

Sprinklers like the i-Wob2 are available with various deflectors so you can choose the model with the droplet size and trajectory that best matches your soil's characteristics. This results in better infiltration and maintains a good soil structure. Ideally, droplets should be large enough to combat the effects of strong winds, but not so large as to disrupt the soil. Larger droplets resist wind and evaporation, but their higher kinetic energy can lead to surface sealing and erosion on tighter soils.

