Tackling Farming Challenges with Technology

AgSense.net Gets a New Look
Making Life Easier with BaseStation3™
Tips for Buying New Equipment
Farming has never been for the faint of heart. No matter how advanced we get, there’s always uncertainty when it comes to weather, the economy and commodity prices.

The good news is the down times always present new opportunities that can benefit growers. Savvy growers know how to make the most of any economic climate, from purchasing land at the right time, to taking the necessary measures for making their land more viable for crops, to taking advantage of favorable interest rates on equipment.

Irrigation is just one of the ways growers can invest in their operation and prepare for future success, taking some of the unpredictability out of farming, adding dependable acres and gaining higher yields.

At Valley® Irrigation, our intention is to stay ahead of the game by researching and investing in the tools and technology our customers need now and in the years to come. We’re working on ways to make the most of the water available to you while saving you time and making farming more manageable.

The world will always need the crops you grow, in the best of times and the worst. And we’ll ride it out together.

LEN ADAMS
President, Global Irrigation
It’s a “NEW DAY” for AgSense® Growers

Updated Technology
The new appearance of the AgSense logo and marketing materials isn’t the only change. Growers can also benefit from an entirely new graphically based app designed to be completely user-friendly and intuitive. The new AgSense Mobile app lets growers control and monitor pivots, check weather and soil moisture, receive preset alerts, and review historical data – all from any iOS or Android smartphone or tablet.

Growers can also opt to stick with their current WagNet® Mobile app, which hasn’t changed its functionality, just its feature graphics. In comparison with WagNet Mobile, however, AgSense Mobile is faster, uses less data, and offers enhanced graphs and a cleaner, more streamlined setup of end gun and VRI tables.

To take the new AgSense Mobile app on a test drive, growers can try the demo by downloading the free app from iTunes or Google Play.

Sveum notes that while the app itself is free, growers must have a prescription and the proper hardware to use it. The app works with Field Commander®, Precision Link, and the new CommanderVP™ devices; it also works with any pre-existing Valley TrackerSP devices in the field.

CommanderVP is designed to interact specifically with Valley digital control panels, and replaces the Valley TrackerSP. In collaboration, Valley and AgSense engineers designed the product’s telemetry, allowing for a simple plug-and-play functionality. Growers have the opportunity to either equip their new panels with CommanderVP or plug it into existing panels.

“We continue to offer Field Commander for customers who have panels from other irrigation brands,” says Sveum. “However, we are very excited to offer this product specifically to Valley growers. CommanderVP offers all the functionality of Field Commander, with even more functionality and features.”

A Renewed Commitment
With its new identity and improved technology, AgSense is showing a renewed commitment to its customers and strengthening its partnership with Valley and the farming industry.

Schiltz says it best: “Rebranding ties together the global irrigation leader, the best remote technology, and the best global distribution network to truly create a new day for our growers.”
Innovative irrigation solutions from Senninger® have led the industry since the company’s inception. The Florida-based sprinkler manufacturer shares with Valley Irrigation an ongoing focus on enhancing irrigation practices by providing growers with reliable products that offer not only water productivity, but also water efficiency. The collaborative relationship between Senninger and Valley began in the 1970s and has fostered the development of numerous game-changing products.

The new Senninger Xcel-Wobbler® UP3® TOP, LDN Bubbler Pad and LDN Shroud illustrates the company’s wide range of solutions designed to meet specific irrigation needs, from the top of the pipe to close to the crop.

**Xcel-Wobbler® UP3® TOP**

Senninger has expanded its patented Wobbler technology with a new top-of-pipe Xcel-Wobbler that uses the innovative UP3 easy-change nozzle. The new Xcel-Wobbler UP3 TOP can be mounted along the entire length of a center pivot using nozzles from #6 through #26.

This sprinkler works at low pressure to save energy while delivering wind-resistant large droplets. The product is cost-effective, as well. A sprinkler package with the Xcel-Wobbler UP3 TOP, the PSR pressure regulator, and a steel nipple can cost less than typical top-of-pipe solutions.

Xcel-Wobbler UP3 TOP provides a gentle rain-like application suitable for all soils and various terrains. Consistent with Wobbler technology, it delivers an instantaneous application over a large area. This approach minimizes the impact of the sprinkler pattern and preserves soil structure and infiltration capabilities. It also helps prevent run-off and wheel rutting.

**Close Spacing with LDN Bubbler Pads and LDN Shroud**

Technological evolution is geared toward improving performance, providing specific solutions, and addressing challenging conditions. One such irrigation technology started 30 years ago with a close partnership between Senninger and the researchers at the Texas A&M AgriLife Research and Extension Center, through which was developed the first Low Energy Precision Application (LEPA) sprinkler.

Today, LEPA has evolved into installations where the sprinkler is placed close to the crop – known as “Close Spacing.” By combining the use of Low Drift Nozzle (LDN) Bubbler Pads or LDN Shrouds with conservation tillage, growers are seeing water savings and increased yields. Close Spacing installations of LEPA sprinklers offer the following advantages over other irrigation methods:

- Reduce evaporation loss
- Prevent wind-drift losses
- Achieve a more uniform root zone coverage

Success with Close Spacing can be improved by using the right irrigation equipment and correct farming practices for various field conditions. Because Close Spacing sprinklers are mounted 18 to 24 inches above the ground to prevent wind-drift and evaporation, they are best suited for relatively flat farms. Strip-till and no-till farming methods are recommended to avoid run-off. Circle planting keeps the application centered in the furrow and is used by growers who want to prevent wetting the crop canopy.

The LDN Bubbler Pad gently deposits water directly into the furrows, creating a narrow stream that avoids wetting the foliage. This aerated stream provides a cascade of bubbling water that resists high temperatures and strong winds, allowing 20% more water to reach the soil compared with spray irrigation.

By contrast, the LDN Shroud deflects water down in a wide, dome-shaped pattern that gently delivers the water without spraying. This product is ideal for germination, low crop watering, and sensitive soils that are prone to compaction. Due to its less concentrated distribution pattern, LDN Shroud can be used on fields without furrows and on rolling terrains.

Both options can conveniently be converted back to spray irrigation with just a flip of the deflector pad.

For more information about these products, visit senninger.com
Farming has become more complicated today than ever before. Farms are larger. Growers need to conserve soil and water. Different generations have different priorities. And to top it all off, there are more options for everything, from seed to tractors to irrigation machines. How do you deal with it all?

Valley Irrigation is addressing these challenges by developing new technologies that will make farming easier for everyone involved.

"Everything we do in research and development is geared toward trying to make life easier for growers by letting them manage their farms through simpler and more effective means," says Jake LaRue, Valley director of research and development. "Today's growers have to be efficient and fast. If something isn't easy to use, they're probably not going to use it. They have plenty to think about."

While it's second nature for Millennials and Gen X to use the latest technology as part of their everyday lives and their farming operations, a large number of Baby Boomers have been early adopters, as well.

LaRue, who has been working in the irrigation industry since the 1970s, says he is sometimes surprised at the number of people who are comfortable with technology and the regularity with which they use it.

"I was recently presenting at a conference, and I noticed that a large number of older gentlemen were using tablets," he says. "I'd be explaining something and they would be looking it up on their iPads, checking out demos. I guess it shouldn't be surprising. You have to adapt to succeed, or at least have someone working for you who can use the latest technology effectively."

(Continued on page 16)
If you have Valley irrigation equipment, or you are getting ready to purchase your first irrigation machine, you are eligible for this complimentary service through your local Valley dealer.

"It’s a simple test," explains dealer Don Schoonover of Ag Systems in Larned, Kan. "Valley provides a kit for us, we take water samples, and then we send it back. The lab conducts its testing and Valley provides a thorough analysis that presents us with a reasonably accurate prediction of the lifespan of the pivot, based on the water going through it."

According to Kelly Downing, global ag specialist for Valley Irrigation, the corrosion analysis looks at five major factors:

- pH
- Sulfates
- Softness
- Chlorides
- Saltiness

"The corrosiveness of pH levels and salt are fairly well known, but people are often surprised to hear that soft water can also be bad for pipes," Downing notes. "When there is not a large presence of minerals in the water, it tends to dissolve whatever minerals it comes in contact with, including the zinc coating inside a new galvanized pipe."

Galvanized or PolySpan®?

Once the lab work is complete, you receive a report showing the predicted lifespan of a pivot with your current water conditions. The customer now has the ability to make an informed decision about what type of pivot pipe is needed – galvanized or PolySpan®.

"We are strictly looking at how long the pipes should last," says Downing. "The analysis shows the operating hours with water running through the machine. We’re not trying to sell anything specific. It’s up to the customer and his dealer to look at the analysis and decide what’s best, as the answer will be different for everyone."

David Segars of Carolina Irrigation Solutions in Hartsville, S.C., says most new irrigators want to test their water before installing their first pivots, even though they usually have a pretty good idea about what the water testing will reveal.

"Growers are usually knowledgeable about the water quality in their area, but they don’t know about their specific wells until we receive the analysis," Segars says. "Once in a while we get surprised, so testing is a good way for growers to have data predicting the longevity of their pivots based on the water that’s available. The testing is complimentary and provides great information to substantiate the composition of their water."

Schoonover agrees. "Certain parts of our service area are more prone to salts, and we know where much of the substandard, corrosive water is. But in other areas, pivots with galvanized pipes can last 30-plus years. There’s a drastic swing, so it’s best to make sure – especially if the grower is on the fence about investing in PolySpan pipes."

As a dealer, Schoonover strives to ensure that his customers get as many years of life as possible out of each machine, and accurate data about water quality helps him to achieve that goal.

"We’re here to help our customers in any way we can," he says, "and getting their water tested is simple and complimentary. It’s a smart thing to do."

Before making your next big purchase, wouldn’t it be nice to know how long it will last? Thanks to the free water testing service offered by Valley Irrigation, you can find out the expected lifespan of your center pivot before you purchase or repipe it.
Growers are always looking for ways to maximize yields. This can mean installing irrigation equipment in areas where the water supply is less than ideal.

To protect their investment, more growers are using Valley PolySpan pipe on their center pivots. PolySpan pipe resists corrosion from water with high or low pH, chlorine, sulfates, saltiness, softness, and more. Protection is provided by coating the inside of a galvanized pipe with High Density Polyethylene (HDPE), a substance that is completely inert and can last indefinitely, no matter what type of water is running through it.

**Essential Durability and Reliability**

Shan Carling of Carling Farms grows corn and alfalfa near Orem, Utah. He started replacing his galvanized center pivots with PolySpan machines about eight years ago when he began losing his battle with corrosive water.

“Our water just eats up galvanized pipe around here. I’ve seen machines fall down after six years because the water corrodes the pipe so quickly,” says Carling.

“We’d usually have to replace our pivots after about 15 years, so we decided PolySpan was worth the investment. Our PolySpan pipes should last forever,” he explains. “From all I’ve seen, they’ll probably be around longer than I will.”

Today, Carling has 14 PolySpan machines and only three galvanized pivots. “When the time comes, we’ll replace those three with PolySpan, as well,” he says.

Across the country in South Carolina, Pat Rogers and his family have been growing mostly cotton and peanuts. They’re new to irrigation and appreciative of its benefits.

“Cotton and peanuts are very management and labor intensive,” Rogers says. “We are switching to more corn and soybeans under pivots, because it takes less labor and it’s more profitable. Irrigation also allows for better crop rotation for us.”

Rogers has a stationary pivot and two towable machines that cover five pivot points. All of the pivots are equipped with PolySpan pipe.

Their land sits on a former mineral spring, and the water smells and tastes of sulfur and iron. Based on his knowledge of groundwater conditions and a family member’s recommendation, Rogers opted for PolySpan on all of his irrigation machines.

“We want the longevity and durability,” he says. “We knew right away we were going to invest in the PolySpan solution.”

PolySpan also works well for fertigation, making the investment even more attractive to Rogers.

“We believe the longer lifespan is worth the added cost. We’ll definitely get a greater payback with PolySpan,” Rogers predicts.
Ted Schroock was tired of driving on modified jackrabbit trails to check his pivots twice a day. He was weary of “torturing” his vehicles, his crops and himself. As a grower, he knew that he didn’t have time or energy to waste. Those are just some of the reasons Schroock uses BaseStation3.

“I don’t like to babysit pumps, especially when they’re miles away and hard to get to,” he says. “My morning rounds used to take forever. Some of the pivots are on roads that aren’t even developed enough to be called ‘gravel.’ Every time I go out there, I’m knocking down crops with my truck.”

Schroock Farms now has 14 pivots connected to BaseStation3, and Schroock plans to expand the system as he upgrades to Valley Pro2 panels.

Contending with the most hard-to-reach pivots, Schroock connected them first to BaseStation3. “Now I can just check my phone or computer first thing in the morning to find out what’s happening with my pivots, and I can see if there’s anything that needs my attention,” Schroock explains. “Then I can decide how to start my day. I know where I need to go first. If I can see an issue, I can stop that particular pivot right then. Good information is worth gold.”

Another benefit Schroock has seen is monitoring and controlling the pumps that supply those hard-to-reach pivots.

“We are transitioning to submersible pumps now,” he explains. “We were knocking ourselves out checking them. BaseStation3 tells us when they’re running. If one of them goes down, I know it immediately, and I often know why, too, even before I make a trip out there. That knowledge saves me an enormous amount of time.”

The Evolution of Irrigation Control on Schroock Farms

Schroock Farms began irrigating back in the 1970s, and they’ve been quick to try new technologies as they became available.

“My uncle was a Reineke dealer back then,” Schroock says, “so we started with those machines. We switched to Valley pretty quickly, though, because we started fertigating early on, and Valley’s galvanized pipes stood up to the challenge better than any of the others.”

It’s been 15 years since Schroock Farms tried their first remote control system – a radio modem link that not only kept Schroock informed, but also kept him from getting a good night’s sleep.

“We had five pivots way out west, and we had no employees out that way. It would notify me if a machine quit, but it would also send me about 20 alerts every night. It certainly wasn’t the best system.”

As soon as BaseStation became available, Schroock made the switch, and he steadily upgraded until he landed on BaseStation3.

“BaseStation is one of those things that goes beyond convenience. If we get rain, I can turn off my pivots right away, sometimes even before the rain hits,” he explains. “I don’t even have to wait for lightning to pass. It’s a good way to save water, time and labor.”

To Schroock, the value of BaseStation3 goes far beyond the tangible benefits.

“It’s a quality of life issue. I can’t quantify it or put a solid number on it,” says Schroock. “It makes life so much easier on the farm.”
Field Trips with BASESTATION3™

“BaseStation is one of those things that goes beyond convenience….It just makes life so much easier on the farm.”
— Ted Schrock

See BaseStation3 in Action!
Now you can see how BaseStation3 works without spending a dime. Take it for a test drive with the new online simulator to see if it’s the right technology for your operation. Take control of a simulated BaseStation3 farm, see the different ways to view the farm, create a program, generate reports, and more.

See for Yourself!
Go to www.valleyirrigation.com/TryBaseStation3.

— OR —

Download the FREE mobile app from iTunes or Google Play and give BaseStation3 a trial run by clicking on the Demo button.
Achieving the Impossible in Nebraska

“Our family business has been working with Central Valley for at least 30 years, and we have a really good relationship.”
— Andy Dahlgren

When Andy Dahlgren of Dahlgren Cattle Company stopped by one day to talk with Jeremiah Johnson at Central Valley Irrigation in Holdrege, Neb., he wasn’t thinking about the quarter section of land that had always been impossible to irrigate. But by the end of their conversation, the two men had not only decided that it was possible but had come up with a workable plan to accomplish it.

“Our family business has been working with Central Valley for at least 30 years, and we have a really good relationship,” says Dahlgren. “They offer good products and service. Without their input, I don’t know if we would have even tried to put a pivot on that particular quarter. The major concern is the runoff issue. It’s a combination of flatland and slopes, so we had some figuring to do.”

Johnson explained how what had started as a conversation led to taking a once impossible feat and turning it into reality.

“We had thought for years that this particular quarter was impossible to irrigate. But with today’s technology, we can go from ‘There’s no way to put a pivot on that land’ to ‘Here’s how we can do it’,” says Johnson.

Dahlgren adds, “We just got the pivot and corner installed on that quarter last week, so we haven’t run it yet. But I know that if we need any help during the startup phase or require service later on, we can call Central Valley and they’ll be out that day if at all possible. They make irrigating a lot easier.”

Johnson explained that much of the design effort takes place right in their office. With customer information on file and Google Earth available to provide views of their land, growers are comfortable doing design and talking through the business aspects of irrigation changes in the dealer’s office.

“Of course we still go out and work in the field,” says Johnson. “That won’t ever change. But it’s fun having our customers come in and sit down with us here, too. We have a vested interest in the success of each of the farms we work on. And if we need to change the way we do business to make them profitable and successful, then we’ll do it.”

Keeping in Contact in Alberta

When your Valley dealer spends his time thinking of ways to make your operation run better and make your life easier, you know you’re more than just a customer to him.

Shea Jackson has found that his Valley dealer cares about helping him succeed.

“Corey over at C&H Irrigation is a good friend,” he explains. “I farm about 3,200 irrigated acres, so we see a lot of each other. I stop in about once a week during the summertime, and he comes out and takes care of service, too.”

Corey May of C&H Irrigation says he likes to stay in constant communication with his growers, even on his busiest days.

“I spend time on their farms when they need service, but often we can handle issues through text messaging,” May says. “I can log on to BaseStation3 for customers like Shea and see exactly what’s happening with their irrigation machines.”

May says he enjoys thinking of ways to help his customers simplify their lives. For example, Jackson uses some of his pivots to fertigate, and he was making numerous trips to fertilizer pumps at the pivot point. May suggested installing a flow meter that Jackson’s BaseStation3 could read, saving many trips to the field.
Conserving Water in Three States

There’s a lot of variation in crops, water sources, terrain, and even water regulations in the tri-state area of Kansas, Colorado and Nebraska.

Ian and Michele De Waal of Tri-State Irrigation are well aware of this variety because they serve the entire area. With regional differences in mind, Ian takes time to understand a grower’s operation fully before providing any recommendations.

“Before I can offer the right solutions, I need to know the grower,” he says. “Some growers are BaseStation3 candidates, others are AgSense people, and some aren’t ready for either one. But I am always looking for ways to make things easier for the grower.”

John Deeds in southwest Kansas appreciates Tri-State’s attention to his farm. He and his son grow sugar beets, sunflowers, pinto beans, and corn. He says De Waal has helped them in many different ways.

“We had some tough times, like when a tornado hit and we had to replace several machines,” says Deeds, “but Ian was there to help.”

“He’s progressive, and he’s always thinking about ways to make our farm better,” Deeds continues. “And Ian experiments on his own a lot, so he knows what he’s doing before he ever recommends anything to us.”

De Waal maps Deeds’ fields and writes Variable Rate Irrigation (VRI) prescriptions for his pivots. He installed soil moisture probes last year to help Deeds conserve water and irrigate more efficiently.

“I have that set up on two pivots now,” Jackson says. “It’s much more convenient. I can see if my pumps and my pivots are working well without having to drive out there all the time.”

“Those little things add up,” says May. “That’s the kind of thing I like to do.”

Jackson appreciates that level of attention.

“It goes beyond a vendor relationship,” he says. “Our dads had a similar relationship and our generation has gotten to know each other better over the years. We talk about more than just pivots and work. We know each other’s families.”

“I have a better relationship with Corey at C&H than I have with any other business,” Jackson adds. “I have total faith in him.”

Roger Zweygardt raises corn and wheat and has a cow/calf herd in the northwest corner of Kansas. He has 12 pivots and farms some dryland, as well. Zweygardt began using moisture probes about three years ago at De Waal’s recommendation.

“I’d had some experience with probes before, and I was skeptical,” recalls Zweygardt, “but it’s been beneficial. Ian’s got a real passion for conserving water, and the moisture probes help us do that. They certainly changed the way I irrigate.”

De Waal tracks soil moisture and sends Zweygardt weekly reports during the growing season. Based on those reports and De Waal’s recommendations, Zweygardt waited to start his pivots last season.

“I saw my neighbors irrigating, but I held off for 30 days,” he says. “Then I shut the sprinklers off in July. It gave me heartburn to do it, but I had a great crop. I also saved on natural gas – not to mention water – which paid for the probes. I’m a believer now.”

Both Deeds and Zweygardt see the De Waals as more than suppliers of irrigation equipment, though they appreciate their knowledge and dedication.

“Ian is a friend first,” says Zweygardt. “He’ll do whatever it takes for me to succeed.”

“My relationship with Corey at C&H is a better relationship than any other business. I have total faith in him.”

— Shea Jackson
Irrigation.education offers FREE TRAINING for growers

Whether you’ve been irrigating for years or you’re just getting started, there’s always more to learn. At irrigation.education, growers have the opportunity to study at their own pace.

Irrigation.education is a free, interactive website designed specifically for growers who want to gain a greater understanding of all types of irrigation solutions. With topics that range from control panel concepts to the theory of pivot operation, along with highly specific courses such as sprinkler and tire selection, irrigation.education is an excellent source of irrigation knowledge. Each course takes about 10 to 20 minutes to complete.

Jenna Olmer, Valley global irrigation learning manager, says the website was created specifically for growers at the request of Valley dealers.

“Valley University was already in place to train dealers on all of the products and services we offer as a company, and our dealers urged us to make the information available to everybody,” Olmer says. “They felt that growers should have equal access to in-depth knowledge about irrigation solutions.”

“We started irrigation.education to help growers learn about all the different options out there – and not just Valley products,” continues Olmer. “We keep most of our courses brand agnostic.”

Dan Gage, e-learning instructional designer, says the topics are well researched and comprehensive.

“It takes four to eight weeks for us to develop each course,” says Gage.

“First we choose a topic and then we talk with experts in that particular field to develop content. After that, it’s a matter of presenting it to the grower in a way that is accurate, interactive and engaging.”

Irrigation.education currently offers more than 30 courses, and Olmer says they plan to continue adding approximately one course every quarter.

“Our registered growers will receive notification every time we launch a new course, so they can continue with their training on their own time,” Olmer explains.

The most sought-after topics have been technology related, including “Control Panel Concepts” and “AgSense Field Commander Overview.”

Although the website is designed for growers, irrigation.education also benefits students, faculty and government organizations. The site currently has more than 1,200 registered users from 43 different countries, with a vast majority located in the United States and Brazil.

“There are so many international users because minimal information on irrigation is available in some countries,” says Gage. “We’ve already translated many of our courses to Portuguese and plan to make them available in French, Spanish and Russian, as well.”

Olmer explains that irrigation.education helps growers acquire information that equips them to make informed decisions.

“We are definitely open to suggestions and will try to accommodate our growers by providing an arsenal of knowledge on topics they inquire about,” says Olmer.

Learning from the irrigation experts is FREE and EASY!

Scan the QR code or go to www.irrigation.education to get a basic overview.

To register, click “Join today – it’s free!” on the home page, or click the Learn tab and select Get Started.

Fill in your contact information and choose a password, and you’ll have access to multiple courses in all of these categories:

- Irrigation Solutions
- Technology
- Control Panel
- Sprinkler
- Water
- Drive Train
Growers who want to explore new technology, talk to other growers about what’s working for them, reconnect with their Valley dealer – or just socialize and enjoy a good meal – can benefit from attending dealer events. Open houses and field days deliver information that brings value to growers.

“We like to see our customers both during and outside of the growing season,” says Patrick Scates, general manager of Scates Valley Irrigation of Shawneetown, Ill. “Along with running additional specials on parts and providing giveaways, our goal is to supply our growers with solid education. For example, this past winter, our customers appreciated hearing about new irrigation technology from John Campbell, manager of technology advancement and adoption at Valley Irrigation.”

In fact, it was an event like this that sealed the deal for Scates Valley customer Steve Nottingham.

“I had been talking with Patrick about BaseStation3 for a while, but I was still on the fence about it,” says Nottingham. “Having an opportunity to talk with a technology expert from Valley was really helpful. I ended up making an offer and purchasing a BaseStation because of that experience.”

At Scates Valley field days, customers can see Valley equipment in action. Nottingham hosted the most recent field day and has benefited from attending past events.

“I like to attend both open houses and field days. I get to talk to our dealer, and it’s also an opportunity to talk to people who are using equipment that I might be considering,” says Nottingham. “I was happy to have people come out to my place so I could answer their questions. I know it’s been helpful in my decision making in the past.”

Scates says that’s what dealer events are all about – showing growers where they can gain acres, and discussing ways to save time, labor and water.

“There’s always new technology to explore, and people like to know what’s available... Growers can talk to each other and ask the questions on their minds. It’s hands-on and visual.”

— Steve Nottingham

‘There’s always new technology to explore, and people like to know what’s available... Growers can talk to each other and ask the questions on their minds. It’s hands-on and visual.”

— Steve Nottingham
If you’ve ever struggled to keep your lawn alive through a long, hot summer, you know how tough it can be to keep your grass looking plush and green. Now imagine the irrigation challenges involved in growing high-end grasses for athletic fields. Precision Turf in northeast Georgia faces those challenges on a daily basis. According to farm manager Brett Hall, Precision Turf uses everything from popup in-ground heads to solid-set irrigation to big guns to pivots to keep their Tifway 419 grass in perfect condition.

“We require flexibility and customization to keep our grass pristine, and that’s especially true when it comes to our water supply,” Hall says. “We can require as little as 75 gallons per minute or as much as 600 gallons per minute, depending on the time of year, the weather, and many other factors. Some plots need to be watered daily or even twice a day.”

Until recently, Precision Turf used a single 60-horsepower centrifugal pump in a river to supply all their water. The pump pulled water 25 feet up the riverbank, and it had only two settings – “on” and “off.” It also broke down frequently.

“It would pull in all kinds of debris, and the reliability was unstable. It took a lot of work just to keep it operating,” explains Hall.

To remedy the situation, Precision Turf decided to create a 15-acre reservoir that they could fill with river water to supply their watering systems. Blake Reid from Reid Brothers Irrigation stopped by to help.

“I saw what they were trying to do, and we discussed the pumps they were considering to move water out to their various irrigation machines,” says Reid. “I presented a solution with one pump location, automatic valves and simple controls, and they decided to do it.”

Reliable, Simple Pumping Solutions

Reid installed two variable frequency drive (VFD) pumps in the reservoir – one 50-horsepower unit that can move 250 to 500 gallons per minute and one 75-horsepower unit that can pump 500 to 1,000 gallons per minute. Then he brought in Tyler Fields from Valley Water Management to assist with the electrical setup and programming.

Since Precision Turf uses so many types of watering systems, various controllers are involved. To simplify the process for Precision Turf, Fields custom built a relay box with nine relays so each could communicate with the pumps.

Fields explains, “The relay box starts the correct pump and gives run commands, so when an irrigation system calls for water, it will get what it needs. If more than one system needs water at the same time, the VFD can ramp up to the necessary amount – up to 1,500 gallons per minute.”

“The system is completely automated by pressure for each zone,” he adds. “It’s a pretty complicated setup, but it’s still very simple for the grower to use.”

Hall agrees. “We have such varied requirements, and they can change by the minute. Challenges were met head on in the testing phase through trial and error.”

“But now that we’ve got it set up, everything is automated,” says Hall. “We just have to go to the control panel and start our irrigators, and the pumps work automatically. Our new system is reliable, and we don’t have to worry about it.”

No More Limits

Reid says his goal was to remove the limitations for Precision Turf.

“Now they have no more constraints,” he says. “There’s much more freedom. They can have as much or as little water as they need at any given time. The system is extremely flexible, and it all ties back to the pump. If the irrigation shuts down, the pump does, too. If irrigation calls for a certain amount of water, the pump delivers it. By delivering exactly the right amount of water, the system helps Precision Turf to be good stewards of their water resources.”

Hall says the new VFD pumps save time and labor in comparison with Precision Turf’s former pumping system. For example, the new system cuts one man’s job in half each week, freeing him up to do more productive work.

“The pumps take care of themselves,” Hall says. “It’s a different world!”

The VFD pumps take care of themselves. It’s a different world!

— Brett Hall
Whether you’re installing irrigation equipment for the first time, replacing an aging pivot or upgrading to a new machine, you’re making a substantial investment — and a significant commitment. That’s why it’s important to determine exactly what you need before you make a purchase.

There are many variables involved in center pivot irrigation and countless options that make a difference in equipment performance. Will Sheets, North American market development manager for Valley Irrigation, recommends you consider these five points before you buy.

**FIND THE RIGHT DEALER.** “The dealer can be the cog in the wheel of your irrigation success or failure,” says Sheets. So finding a reputable and well-educated dealer is essential. Ask your friends and neighbors for recommendations. Your irrigation dealer should be technically competent, have a reputation for great service and be able to match the right applications to the right situations. Be sure to find out what kind of support will be provided after the sale.

**SWEAT THE DETAILS.** Deciding on a center pivot is just the beginning. Ask about the different water application options, based on your soil types and field conditions. Find out which tires will work best in your fields. Be aware that these smaller decisions make a big difference in your bottom line. For example, think about the consequences of having the wrong tires for a heavy soil. Your machine could cause deep rutting and get stuck frequently, and that means maintenance issues and downtime. But when you work with your dealer to make sure those little choices are the best for your operation, you’ll achieve greater efficiencies and ultimately better yields.

**MAKE SURE THE EQUIPMENT WILL ADAPT TO FUTURE TECHNOLOGY.** In our industry, you can count on one thing: change. It’s important to consider compatibility with developing technology before you buy. Your pivots will last many years, so upgrading all your equipment every time you make a technology change may not be cost effective. This is a situation where buying the least expensive equipment on the market may seem smart today, but you’ll find it more difficult to make changes tomorrow. Purchase with an eye on the future so you’ll be well positioned when technology inevitably evolves.

**CONSIDER YOUR CONTROL PANEL AND MONITORING OPTIONS.** “Today you may say, ‘OK, this is good enough,’” Sheets says. “But as your operation and circumstances change, you may want to increase your ability to monitor and control. We’re seeing more and more growers expand their operations beyond what they ever imagined. Maybe that’s in the cards for you, too.” Ask yourself how much control do you want or need? Do you want full remote control and monitoring capabilities now? If not, will you want them in the future? Choose your options thoughtfully so you can seamlessly integrate changes as your operation grows.

**ASK ABOUT FINANCE PROGRAMS AND WARRANTIES.** Ask your dealer about special financing offers and keep in mind that our Valley authorized finance partner can provide you with excellent rates. When it comes to warranties, make sure you know what you’re getting. All warranties are not created equal. Be sure to find out what’s covered — is it just parts, or is labor included? What maintenance is required each year? We believe you deserve the full coverage you expect, with work done on time and with quality parts.

Doing your homework up front can save you a lot of time, money and energy through the years. Count on your Valley dealer to be a valuable resource and a partner in your operation.

That’s especially true in regard to precision farming and sustainability. The word sustainability wasn’t even part of farming vernacular back in the 1970s. Today it’s an everyday consideration, and people are highly motivated to farm responsibly.

“Fortunately, collecting data and determining what to do with it is easier than ever,” says LaRue. “Precision agriculture is the wave of the future, and just about every farm is putting at least some of it to use.”

For example, although VRI isn’t on every farm, it has become more mainstream.

“When I started in irrigation, our machines had two settings,” says LaRue. “They were either on or off.”

“Now it’s pretty common to write VRI prescriptions based on grid sampling, aerial imagery and yield monitoring,” he continues. “By using management zones, we can save water and preserve nutrients in the soil by looking at soil types, topography and yield variation, even within a single field.”

Despite these recent improvements, LaRue believes that many challenges remain to be addressed by irrigation technology.

“There’s still a lot of wasted water out there. Valley Irrigation recognizes the need to stay on top of the changes and develop solutions that focus on sustainability while making farm management easier and better,” he says.

“Our machines are built to last for many years, so it’s a long-term investment for our customers. We want to make sure they’re getting equipment that can be used for a long time while keeping up with new technology and the way future generations will use it. It’s a big job, and we’re excited to do it.”