

## Variable Rate Irrigation Gets Even Better



Variable Frequency Drive  
& Drive Connect™

AgSense® Joins Valley®

Google Maps™ & BaseStation3™



# Letter from the PRESIDENT



Innovation and technology...synonymous? No, but they do work hand in hand. Some may think these are interchangeable terms, however, in manufacturing we adhere to the strict definition of each word. Innovation is a new method, new idea, new process, and a state of mind – our engineers. Technology is the application of research-based knowledge for practical purposes – our products.

As Apple creator Steve Jobs said, "Innovation distinguishes between a leader and a follower." He certainly had it right, and that's why Valley® is always assessing new ways to help our customers grow – and I don't just mean crops.

We innovate by not thinking like others, and that leads to new technology applications in the field that yield greater results. After all, growers have lives beyond the farm too. At Valley, we figure it's our job to help you save time, energy, and water all while providing better knowledge and control for your pivots.

Innovation for innovation's sake is pointless. We make our technology relevant, simple to use, and just plain useful. As Jobs said, "Design is not just what it looks like and feels like. Design is how it works."

We'll keep designing, so you can keep working... more simply.

## LEN ADAMS

*President, Global Irrigation*

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**"... from the power company's point of view, using a VFD allows more people to have more power available to them."**

**Doug Muscott**  
Lad Irrigation Sales Manager

# GROWERS POWER UP ENERGY SAVINGS!



## Variable Frequency Drive and Drive Connect

If you're a trend watcher, then you know that trends tend to travel from east to west. With variable frequency drives, it's the other way around. And what an energy-conserving, money-saving trend it is!

As the name indicates, a variable frequency drive (VFD) allows the motor speed to change as water pressure needs vary. According to Tyler Fields, Valley Water Management product sales manager, VFDs have been used pretty heavily in the hills of the West and Northwest United States for quite some time.

"That's where growers really needed consistent water pressure, and they quickly saw the benefits of power savings, too," he says. "Now, we're offering an additional money-saver, Drive Connect™. It communicates from the end of the pivot to the pump, so the VFD can maintain pressure at the end of the pivot."

Ryan Christensen can attest to that. Though he's been using variable frequency drives for just a couple of years in Washington, where he grows alfalfa, timothy, hay, wheat, corn, beans, and cherries, he already has six VFDs. Four of those have Drive Connect.

"The first one I bought sold me on the value of VFDs," says Christensen. "I have a pivot that's on a very steep elevation – the end of the pivot goes from way uphill to way downhill, so knowing what the pressure is at the end of that pivot makes a real difference."

"I switched from a 100 horsepower pump that ran all the time to a 50 horsepower that runs at half speed about half the time. So not only are my crops getting watered evenly now, but my power savings should be phenomenal on that one pump alone."

Power conservation is a big factor when it comes to VFDs, according to Lad Irrigation Sales Manager Doug Muscott.

"Power providers in Washington are very interested in variable frequency drives," Muscott says. "They help offset the capital cost for the irrigator, while conserving power. Basically, from the power company's point of view, using a VFD allows more people to have more power available to them. It's great green technology."

Christensen says power incentives really help offset the cost of installing VFDs too.

In Alabama, Lee Sublett is pretty new to VFDs. He has two separate pump stations with VFDs. One is on a creek and fills his reservoir. The other floats in a reservoir and supplies six pivots.

Sublett says it takes \$2,500 worth of electricity to fill the reservoir, which holds 200 acre-feet. That's enough water capacity to supply 6 inches of water per acre on 400 irrigated acres.

"I can honestly say that this particular situation would not work with anything other than an electric VFD," says Sublett. "When the reservoir is full, the pump floats on about 25 feet of water, about 65 feet out."

"It works perfectly. Powering it on and off is as easy as using a light switch. The motor builds up slowly to a preset pressure and then shuts down slowly, too. Also, I can shut down one or two – maybe even more – of my irrigation machines on the pump, and the VFD will adjust and slow itself down to adjust the pressure to those preset settings. The options are practically endless."

"I really prefer the electric motor, and I love my VFD," adds Sublett. "My next project will definitely include both."



# More Technology. Mo

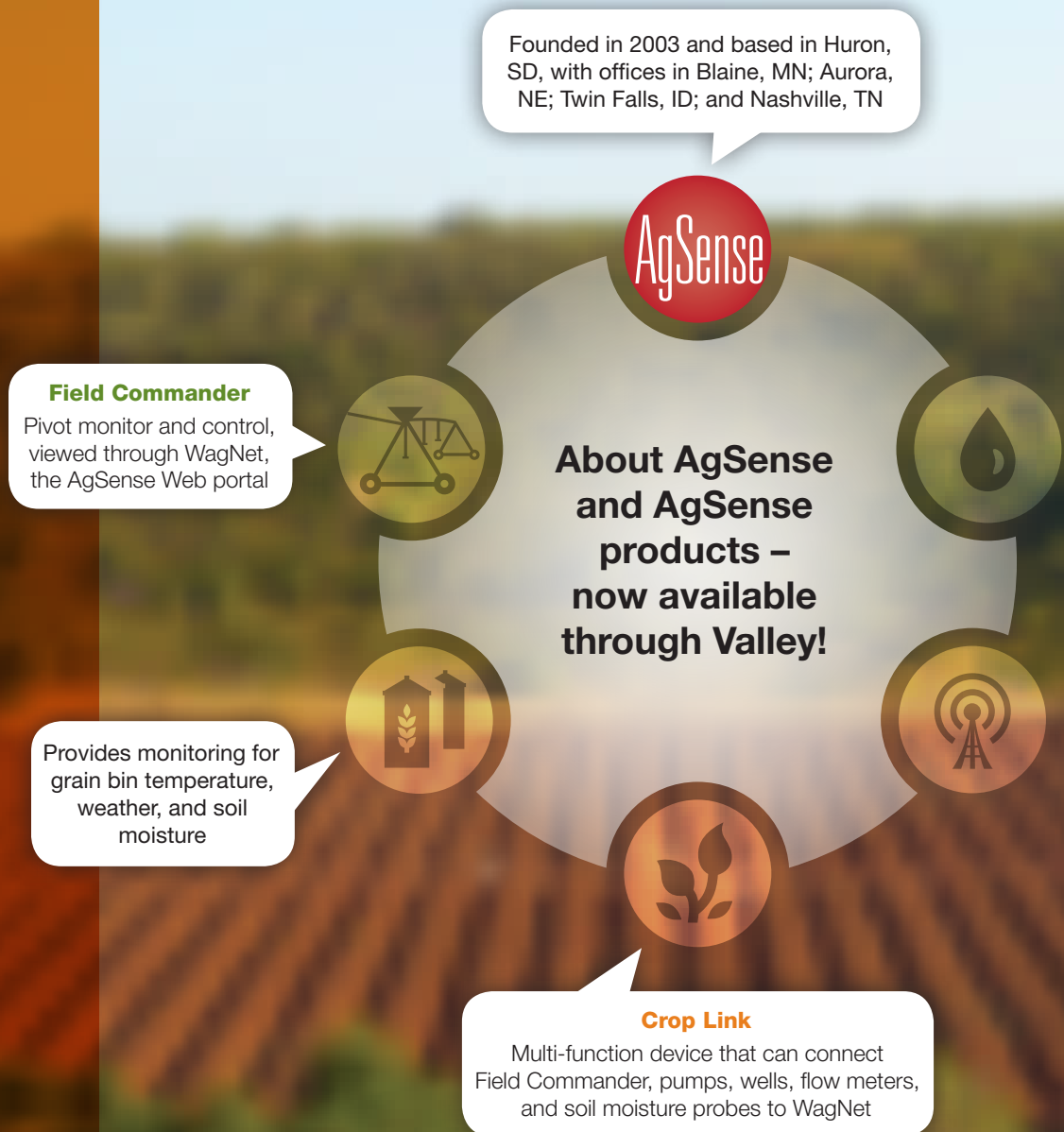
From the family farm to the multi-state operation, Valley can provide precision technology for irrigators to remotely manage and control just about any kind and any number of irrigation pivots.

You already know the BaseStation family of products, which provides growers with an amazing amount of control and convenience. Now, Valley is pleased to announce the purchase of a majority interest in South Dakota-based AgSense® – a company that provides growers with even more monitoring and control technology options.

Matt Ondrejko, Valley Irrigation vice president of global marketing, says the acquisition gives Valley an interest in another leading remote management product in the United States.

"We see it as the perfect partnership," Ondrejko says. "We believe Field Commander® from AgSense is a very beneficial product that gives growers an option in addition to Valley BaseStation3™. The two technologies complement one another, and which is best for any particular application depends on circumstances and the customer's personal preference. We're excited to give our growers the options they need."

"Growers use more technology than ever," says Valley Vice President of North American Sales Rich Panowicz, "and we're very pleased to be the ones to offer it to them. These remote management systems are such a timesaver. They provide growers more time to spend on other aspects of their businesses – and their everyday lives."



# re Control. More Life.

"It's the goal of both Valley and AgSense to make technology easier to obtain and use."

Terry Schiltz – AgSense president



AgSense products and applications are able to interface with any brand of pivot. So Valley customers who also have other brands of pivots can still gather and view their information all in one place.

That place is called WagNet®, short for Wireless Agriculture Network, a cloud-based dashboard where growers can view and manage their machines in real time. According to Steve Sveum, AgSense vice president of sales and marketing, WagNet is very intuitive and it works with multiple products, including Field Commander and Crop Link®.

"Not only can growers control their pivots and pumps, flow and pressure, but they can also read their soil moisture probes and even see what the weather is doing in their fields," Sveum explains. "All of their information is in one place, so farmers can make better decisions, faster."

"Comprehensive historical reporting for all the equipment being monitored is also available through WagNet."

## Aqua Trac

Device designed to read several brands of moisture probes, with data available on WagNet

Leader in integrating digital cellular technology to remotely monitor, start, and stop a pivot

## Changes for Valley growers?

The most obvious change growers will see is access to even more technology throughout the Valley dealer network. Current users of Tracker™ products will be upgraded to the WagNet Website. This will be a virtually seamless transition and will allow current Tracker customers to experience the latest technology offered through the industry-leading provider – AgSense.

Valued Tracker customers will be contacted about the transition and benefits of the update. Current customers will have the unmatched support they need and expect from their Valley dealers and from AgSense. Most importantly, the changes will be at no cost to current Tracker users.

## The partnership

According to AgSense President Terry Schiltz, Valley and AgSense have had a great competitive relationship for years, and with this acquisition it transfers into a great working relationship.

"We share a similar corporate culture, and many Valley dealers are already working with AgSense products," Schiltz says. "Those dealers who aren't yet familiar with our product line will have the opportunity to become AgSense dealers now, too."

"It's the goal of both Valley and AgSense to make technology easier to obtain and use. It's a good fit for both of us, and I think the growers will benefit from the partnership. We will continue to listen to our customers as we improve and develop our technology. We want to provide growers with the kind of technology they need to make their lives on the farm as easy and productive as possible."

For more information on products and applications, go to [agsense.net](http://agsense.net).



# Google Maps makes **BaseStation3** even more USER FRIENDLY

Irrigators who use Valley BaseStation3™ to remotely monitor and control their pivots are thrilled with how easy it is to use and the time it saves. However, Valley isn't resting on its laurels. Instead, Valley is already making updates to further simplify life for growers by integrating Google Maps™ into BaseStation3.

John Campbell, Valley advanced technology product manager, says BaseStation3 will now come equipped with the software for Google Maps. Existing BaseStation3 users only need a simple software update to take advantage of this new feature, available in December.

Campbell says Google Maps is a natural fit for BaseStation3 and is very easy to use. Growers no longer have to draw their maps, which saves time during the initial setup.

"All the grower has to do is enter the latitude and longitude of the machines, along with their lengths, and this software will place the machines on a map for easy viewing," Campbell explains. "This is especially helpful for growers who have larger operations that are spread out. They can see as much or as little as they want – the broader view or the details."

Growers can view their machines on any Web browser and can zoom in and out of the high-resolution image, showing smaller areas or entire operations. As the image zooms out, machines are grouped into pins. Go out even farther, and colored circles show the number of machines in an area.

"Google Maps is updated constantly, so growers are getting information that's up-to-date," says Campbell. "And the grower can edit or tweak the location of the machines on the map, if they aren't in exactly the correct spot."

Campbell says Valley developed this software update because customers asked for it.

"We also think we'll be able to integrate other features down the road, conceivably topographical information and weather," he says. "This integration gives us more options for the long-term."



# IRRIGATION EXCHANGE™

## streamlines AG TECHNOLOGY



Technology has changed the way farmers operate. There's no question about it. Most would agree that it's made a positive impact, but sometimes too much technology can be overwhelming. Yet now more than ever, with rising land prices and increasing fertilizer and fuel costs, using precision ag data to make correct decisions about irrigation management is critical.

Collecting, analyzing, and using all the available data is similar to watching 10 different shows on 10 televisions at the same time, while trying to understand everything that's going on. Wouldn't it be nice if all this information could all come together to make farm management – and life – easier?

Valley has a solution with the development of Irrigation Exchange™. Irrigation Exchange is a new feature within BaseStation3 that allows growers to easily share information, simplifying decision making and irrigation management. Working with major agriculture equipment, seed, fertilizer, and agronomy service companies, Valley created Irrigation Exchange to provide the next level of integrated farm management.

Valley Director of Industry Relations Andy Smith says irrigation is only one spoke in the complex wheel of farm management.

"With Irrigation Exchange, growers can consolidate and integrate irrigation management information into other farm management programs," Smith says. "This allows the grower to manage overall operations without logging into another system or switching between multiple software programs and Internet sites."

Smith says, "Making informed decisions to actively manage irrigation certainly doesn't happen in a vacuum. When and how much to irrigate depends on soil and crop type, moisture levels, weather, fertility, satellite and drone imagery, water availability, energy management, and more. Irrigation Exchange makes precision ag data available for growers, farm managers, agronomists, or whoever is assisting in the decision-making process."

Project Manager Brett Sears says Valley believes all information captured by BaseStation3 belongs to the growers. Those growers can share selected irrigation data with the software programs and partners they choose right from the BaseStation3 interface. Shared information can be as simple as irrigation machine status or as complex as Variable Rate Irrigation zones and prescriptions.

### BENEFITS OF IRRIGATION EXCHANGE

- Integrates irrigation information into complementary software systems
- Provides a comprehensive approach to irrigation management
- Makes irrigation management tools available across multiple platforms
- Synchronizes irrigation with other critical farm operations
- Provides precision ag data for better irrigation recommendations
- Shares information with chosen partners for management, accounting, and compliance
- Puts growers in control of their information

"Irrigation Exchange is the first software that's this open. The grower controls who sees the information, and how much of it they can see," Sears says. "They just have to supply the third party with a shared ID and set permissions."

It's all about easy decision making.

"That's the key," Sears says. "Our goal is just to make life easier for the growers and help them be more productive, efficient, and profitable."

innovation in irrigation™



When a savvy, successful farming operation requests a specific sprinkler, people tend to take notice. So when Jeremy Walther of Walther Farms called Guess Irrigation and requested Nelson Orbitors, the dealer listened.

The Walther family has been farming for three generations and irrigating since the 1970s, working land in areas from Michigan to Florida. Walther Farms primarily grows potatoes and employs more than 150 people in 14 communities.

Jeremy Walther – along with three brothers and five cousins – is one of the owners of Walther Farms. He is the field manager and operations manager for Indiana, Georgia, Florida, and the Wiley Fork farm outside of Aiken, SC.

A photograph showing a Nelson Orbitor sprinkler head in operation, spraying water in a wide arc over a field. The water is captured in mid-air, creating a dynamic, misty effect.

# NELSON Sprinklers help farms **grow**

Irrigation management is crucial to growing a good potato crop, and Walther says his family has found that Orbitors work well under just about any condition.

Walther says they use Orbitor nozzles on pivots all over the country.

"Even on land we lease, we change out the nozzles to Orbitors, so installing them on the Wiley Fork farm in South Carolina was a given," he says.

The irrigation design at the Wiley Fork farm was a combined effort of Walther Farms and Guess Irrigation.

Nelson Irrigation Eastern Regional Manager Scott Harn says, "The Walthers installed low pressure O3000 Orbitors with Uni-flow regulators that provide high uniformity and a clean water pattern as a result of its revolutionary bracketless design. It was an outstanding choice for them."

Shay Hane of Guess Irrigation agrees, "They're some of the most knowledgeable customers I've ever encountered, and we had a couple of 'firsts' with this project because of that. Orbitors are not common in South Carolina. These were the first ones we've installed, and they're a very good sprinkler."

"We also installed R55 End of Pivot Sprinklers for the first time. They've worked well for adding irrigated acres."

According to Harn, Nelson Irrigation tested the R55 End of Pivot Sprinklers, which use proven Rotator technology, for several years before putting them on the market at the end of 2013.

"It's a low pressure, secondary sprinkler to the SR100," Harn explains. "It's used to help fill in under the end gun and/or pick up additional acreage after the end gun is shut off. The 800 series valve is used to precisely turn the SR100 and R55 on or off in order to maximize irrigated acres. It depends on the application."

Walther says it's working well in his situation, and he's impressed with the advances in irrigation technology in the 16 years he's been farming.

"We need to do everything possible to conserve water and focus on sustainability, while we provide our potato crops with the proper irrigation," he says. "These sprinklers help us do all of that effectively."



# INTRODUCING

# Revolution Airless Tires from Valley

Available Spring 2015

## Don't Let Flat Tires Slow You Down

Could flat tires really be a thing of the past? With new airless tires for Valley machines and gearboxes, it's possible.

Available in limited quantities in spring of 2015, Revolution Airless Tires are the result of years of deliberation and investigation. According to Valley Equipment Product Manager John Kastl, Valley monitored the industry and considered plastic and steel tires before deciding on aperture tires.

Why? Plastic tires tend to slip on rocky ground and have poor self-cleaning, Kastl says, while steel has no give and can quickly corrode in some field conditions.

"Revolution Airless Tires from Valley are thick, rubber tires with holes in the side, between the tread and the wheel, to give it softness and flexibility," explains Kastl. "They're attached to special wheels designed specifically for this application."

Kastl says the new airless tires are the same size as the most popular 14.9-24 tire. The compliant, rubber tire provides cushioning over rocks, ridges, and other obstacles, which prevents gearbox overloading.

The airless tire also has a larger footprint than a hard plastic or steel wheel. The non-directional tread provides excellent traction while reducing track depth by keeping mud in the wheel track, rather than pushing it out of the track like standard tractor tires tread.

"It's a proven design, similar to the tires on man lifts and forklifts, but sized up to fit our machines," Kastl explains. "With these airless tires, irrigators should benefit from longer tire life, while virtually eliminating flats in their fields."



# Staying in Control with the Right Control Panels

Growers who program their pivots for precise water application are opinionated about the control panels they use. Some just like the basics. Others want all the bells and whistles, and even more are somewhere in between. Fortunately, there's a Valley control panel to meet everyone's requirements.

Often, the difference in selection is relative to geographical location. Seth Kircher of MaKen Irrigation in York, NE, says a lot of his customers use the more basic computerized panel, Valley Select2.

"The Select2 has the functions and capabilities many of our customers need," says Kircher. "It's very user friendly and easy to operate. Of course, some of our customers want the newest and best technology available."

Bill Brown is one of those customers. He's been using two TouchPro™ control panels for two seasons, and he installed another one this growing season. He says the touch screen makes programming much easier for him.

"I can just hit the program I want, set it, and go back to the main page," Brown says. "It's really fast, and it's especially nice for setting stops on end guns. The other control panels are fine for turning the pivots on and off, but setting stops is just so much simpler with the TouchPro."

Dan Duffin, owner of the Sprinkler Shop, a Valley dealer in Paul, ID, says the Pro2 is the most popular control panel in his area.

"Our customers were early adopters," he said. "Right when the Pro2 came out, we sold a lot of them."

In fact, Duffin says there's an 80 percent adoption rate of Pro2 panels on the approximately 3,000 pivots the Sprinkler Shop services.

"We grow high dollar crops around here, like sugar beets and potatoes, so it's important that the grower can easily see what's happening with their pivots, with controls for end guns, chemigation, VRI, the whole works," Duffin says.

Jordan Funk is a young dairy farmer who grows mostly corn silage, alfalfa, and barley to feed his cattle. His farm uses more than 60 pivots, and a majority of those have Pro2 panels on them.

**"We're adding new features that will allow our customers to better manage their irrigation."**

John Rasmus  
Valley Controls Product Manager

"I like the Pro2," he says. "It's really user friendly, and I can get in and out quickly. We're organic dairy farmers, so we don't use chemigation, but we do want a high level of control over our pivots."

It's about to get even better for both TouchPro and Pro2 customers, according to John Rasmus, controls product manager for Valley.

"We're adding new features that will allow our customers to better manage their irrigation," Rasmus says. Those features will include a built-in over-watering timer for the Pro2, the ability to program up to 20 sectors, and programming based on specific weather conditions such as rain, temperature, and wind speed.

"The new features are additional ways to make irrigating even more precise while making life a bit easier for our growers."



Select2



Pro2



TouchPro™





# Valley VRI – More Applications than Ever

## VRI for Linears

- Maximizes water-use efficiency
- Applies more water where it's needed most; less where not as much is needed
- Can reduce water and energy usage
- Allows growers to adjust water in individual management zones
- Valley VRI Prescription software creates a customized application plan
- Allows for easy adjustment of water application

Precise water application, water savings, and, of course, increased yields, are just a few of the advantages of Variable Rate Irrigation (VRI). Growers everywhere are benefiting from it, and now Valley is making VRI even better.

Valley VRI Product Manager Cole Fredrick says VRI is already offered with Pro2 and Select2 control panels. Now it is being added to the TouchPro.

“Our TouchPro customers requested that we make VRI available through their control panels, so that’s what we did. It just made sense,” he says. “To use VRI Speed Control on their TouchPro panels, irrigators simply need a quick panel update and a prescription. For VRI Zone Control, they need to update both the software and hardware.”

Drex Gauntt farms about 2,000 acres in southeastern Washington. He has been so impressed with the results he has seen with VRI – maximized production, minimized runoff, and crop uniformity – that he is adding Zone Control to six more pivots.

“Any farmer who isn’t using VRI is making a big mistake,” Gauntt said. “It’s easy to use.”

### VRI available for linears, too

Now growers who use linears also can benefit from VRI. According to Fredrick, VRI Zone Control technology for linears is completely different from any other offering, so extensive research went into getting it right.

“We worked with the University of Nebraska-Lincoln (UNL) to test the hardware and software,” he says.

UNL Agricultural Research Technician Perry Ridgway says the university worked with the beta version of VRI Zone Control for linears the entire 2014 growing season. Once it was programmed, it worked extremely well.

“I could let it run through the night, and I knew the water was being applied exactly where it was needed,” Ridgway says. “It’s a really great concept.”

The UNL testing helped Valley make adjustments to its programming, so end users will have the best product possible.

“Sending UNL test software and assessing its needs helped us develop the software to be more robust for all situations and users,” Fredrick explains.

VRI Zone Control is compatible with the AutoPilot Linear control panel, but growers will need software updates to their control panel and hardware updates to their linear machines.

“It’s a pretty simple process,” Fredrick says, “but the payoff is really amazing. Given the right field conditions, VRI has the ability to pay for itself quickly by maximizing yield potential and, in some cases, reducing water and energy use. It gives growers greater control over their irrigation application.”