

FALL 2008

IRRIGATION
NEWS, TRENDS,
PEOPLE AND
PRODUCTS



3 Gearing Up For More Choices



4 New GPS Control Panels



7 Safeguard Your Investments with CableGuard



Focus: Innovation

From the invention of the cotton gin more than 200 years ago to the GPS technology that allows growers to map today's fields with razor precision, innovation has long been the cornerstone of agribusiness.

When Valmont Irrigation was founded more than 50 years ago, we focused on keeping our customers on the cutting edge of innovation by providing solutions that meet their operational needs. We changed the face of irrigation when we introduced the first center pivot in 1954, but our focus on advanced technology didn't stop there. That remains a priority today.

Today, we offer a number of advanced technologies that help you increase yields while minimizing labor and maximizing profitability. You can read about some of those innovations in this issue of PivotPoint. For instance, you'll find an article about our new line of GPS Ready control panels, which help you correlate production techniques with land variability. This issue also spotlights the BaseStation PanelLink and introduces a new line of products to help deter copper wiring theft.

No matter how big or small your operation, we want you to know Valmont Irrigation is dedicated to continuous research and rigorous product testing, two traits that allow us to bring innovative products to market that help you manage your operation.

While we can't predict what agricultural technologies in the next 50 years will bring, we can predict that innovation and advanced technology will continue to be essential to the viability of agribusiness. And we plan to be there with you, every step of the way.

JIM BROWN

Vice President, Sales & Marketing

CONTENTS

- **3** Gearing Up for More Choices
- 4 Get GPS Ready
- **6** The State of the Agricultural Economy
- 7 Supplier Spotlight: Diversified Financial Services
- 7 Safeguard Your Investments with CableGuard
- 8 Introducing BaseStation PanelLink

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As more and more customers are turning to Valley, the company is responding to this increase in demand by expanding key facilities, stepping up production and increasing efficiencies. First, as a result of increased orders, production facilities for the Valley gearbox will soon double its current capabilities.

An additional angle machine will be installed as well as another extension on the fabrication building. A new brake press will reside in that building once expansion is complete. According to Steve LeGrand, Vice President of Operations at Valmont Irrigation, this will add much needed capacity. Along with this, pipe welding upgrades and new auto metal equipment is being installed as part of Valley's blue print for growth. Expansion plans are estimated to be completed by second quarter 2009.

Increasing the size of the facilities is not the only way Valley is meeting customers' needs. By focusing on improving processes through lean manufacturing and advanced automation, Valley is committed to providing the highest quality products and the most efficient price possible for customers now and well into the future.

"Product leadership does not occur only on the outside where people see our products," offered LeGrand. "It occurs on the inside as well. When processes are efficient and the plant is clean and organized, it says good things about the people, company culture, quality and our products."





The Industry's Best Gearbox

The Valley gearbox is designed and built to perform under extremely demanding field conditions. Years of research, development and dedicated engineering have resulted in exclusive features that makes it far superior to competitive gearboxes. Based on independent testing, its superior design features work together to give it three times the life of competitive gearboxes.

Several features of the Valley gearbox contribute to its long life and well-earned reputation as a trouble-free, economical choice. The gearbox's expansion chamber features a cap made of non-corrosive cast aluminum and utilizes a rubber diaphragm that minimizes internal pressure changes. The patented shaft seals keep oil in and contaminants out.

Finally, the longer output shaft, exclusive to the Valley gearbox, increases mud and crop clearance, minimizing the chance of seal damage. For producers with especially challenging growing conditions, a heavy-duty bronze bull gear is an available option for severe applications.

A Cost Effective New Choice

The VS-7000 gearbox, available as an option on 7000 series irrigation equipment, was developed in response to requests from dealers and customers for a high quality, durable gearbox option at a lower price point. While an outside company manufactures the VS-7000 gearbox, all technical specifications were defined by Valley engineers. In addition, Valley engineers conducted extensive quality testing to ensure the new product met Valley's stringent performance requirements. The VS-7000 gearbox is interchangeable with the standard Valley gearbox.

Rick McGee, one of the engineers who worked on developing the new VS-7000, explained that a unique and important design feature of the Valley gearbox has been carried over to the VS-7000 gearbox. "One reason this gearbox is superior to the competition lies in the materials used to make the worm gear. Typically, competitors used steel for the worm gear and cast iron for the bull gear. Both the new VS-7000 and the Valley gearbox use cast iron for the bull gear but ductile iron

for the worm gear. Under load, the ductile worm exhibits significantly less wear then a steel worm against cast iron."

Overall, the development work on the VS-7000 has resulted in a product McGee believes is an excellent option for growers seeking a dependable gearbox with a lower investment. "I am very pleased with the outcome. We have really created a gearbox that has tested to be as good as or better than any of the competitors' offerings."

The VS-7000 does have some limitations on span weight and diameters compared to the Valley gearbox. Its life is about 80% of the standard box. However, this makes the new gearbox an excellent choice for those producers who have less demanding requirements. Jim Mikula, Product Manager – Special Projects at Valmont Irrigation, commented, "Valley wanted to offer a lower cost option that would still go into the marketplace as a superior product. This is exactly what we have been able to deliver."

Doug Dale, N.A. Dealer Sales Manager at Valmont Irrigation reported that the company is excited about having two excellent offerings for customers when it comes to gearboxes. "We're very proud to be able to provide another option for customers in addition to the Valley gearbox. The new VS-7000, like the Valley gearbox, is high quality and durable, but at a lower price point, it will allow even more growers to depend on the trusted Valley name."



Valley gearbox

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IRRIGATION >> **ADVANCEMENT**



Here are some quick facts about GPS Ready irrigation control panels from Valley Irrigation.

- The GPS Ready PRO2 Pivot Control Panel and the GPS Ready AutoPilot Linear Control Panel are currently available from Valley dealers. The GPS Ready Select2 Pivot Control Panel will be available in January of 2009.
- The GPS Ready control panels perform all of the necessary GPS position calculations right in the control panel, eliminating the need for external computers on the machine.
- The panels are compatible with different types of GPS receivers, including WAAS-enabled receivers.



Get GPS Ready

New Control Panels from Valley Irrigation

The city of Pasco and its surroundings in eastern Washington are places for coming together. It is in this region where the Snake, Columbia and Yakima rivers meet. And on a day in early September, it was also the area where a group gathered to see a GPS Ready control panel from Valley Irrigation installed.

The location was Dan and Clayton Voss' property. They were among those at the installation, as was grower James Alford who takes care of the potato crop on that section of land.

He is a third-generation grower in his family's organization, getting positioned to take on his father Bryan's responsibilities as manager. The family business started in the 1950s with James' grandfather, a Korean War veteran who got a farm unit through the veterans' lottery.

James expressed that, among other benefits of the system, he liked the accuracy advantage of setting on and off points for the end gun. He also liked that with GPS Ready, multiple end guns can be accurately operated on a single machine and that stop/ start points can be accurately handled.



Alford's center pivot, which has a Garmin™ GPS receiver on end tower that connects via the existing span cable to a control panel on the opposite end, is an example of how technology is changing agriculture.

"All of our computerized control panels are GPS Ready, which means producers will be able to easily take advantage of the benefits of GPS technology," said Rich Panowicz, manager of aftermarket sales and product management at Valley.

>> **FYI**

WITH HISTORICAL SALES OF MORE **THAN 175,000 CENTER** PIVOTS AND LINEARS. **VALMONT-BUILT EQUIPMENT ANNUALLY** IRRIGATES ABOUT 17 MILLION ACRES (6.9 MILLION HECTARES) AROUND THE WORLD.

"The GPS Ready control panels from Valley Irrigation differ from other control panels on the market because they perform all of the necessary GPS position calculations right in the control panel, therefore eliminating the need for external computers on the machine," according to the company.

Valley offers the industry's first line of GPS Ready control panels, which includes the Pro2 and Select2 Pivot panels and the AutoPilot Linear panel.

According to Valley, "instead of applying the same amount of water, fertilizer and other inputs to an entire field, producers can program the panel to apply different levels of inputs within the same field, based on data the GPS receiver collects and feeds to the control panel."





AutoPilot



Select2





Functionality with GPS receivers of various models is one of the pluses of the GPS Ready equipment. WAAS (Wide Area Augmentation System)-enabled Garmin receivers provide for accuracies to within 10 feet.

"Producers need to be able to manage precision application of water and fertilizers. GPS Ready control panels for center pivots and linears can help producers do just that. With the high costs of fuel, fertilizer, water and other inputs, it's important for producers to incorporate these tools that will help their bottom line," Panowicz said.

>>talking**points**

"All of our computerized control panels will be GPS Ready, which means producers will be able to easily take advantage of the benefits of GPS technology."

"Producers need to be able to manage precision application of water and fertilizers. GPS Ready control panels for center pivots and linears can help producers do just that."

-RICH PANOWICZ

MANAGER, VALMONT IRRIGATION AFTERMARKET SALES AND PRODUCT MANAGEMENT

With the GPS Ready control panel, there is the capability of monitoring the position at the end of the machine, therefore increasing accuracy. Irrigation controls that are not GPS may use devices at the pivots and may only be able to monitor the position of the first span in relation to the pivot point.

One area of focus for the company is the retrofitting of control panels to accept GPS Ready technology. Most Valley computerized control panels installed after 1992 are upgradable. "Leave no panel behind" has been used as somewhat of a catch phrase to communicate this movement.

Such a movement is an example of how technological changes continue to advance agriculture and how Valley Irrigation is part of that advancement.

"This is a very exciting time for technology in agribusiness," Panowicz said.

"GPS technology allows irrigators to correlate production techniques with land variability, ultimately minimizing costs and maximizing yields."

Editor's note: William T. Cobb of Cobb Consulting Services in Kennewick, Wash., contributed to this article.

Select2: GPS Made Easy

GPS technology gives producers an entirely new level of control over the application of water, fertilizers and crop inputs. Valmont Irrigation's GPS Ready Select2 Pivot Control Panel gives producers an easy, connect-and-go way to leverage all the benefits this advanced technology has to offer.

Launching in January 2009, the GPS Ready Select2 will be added to the Valley line up of GPS ready irrigation control panels. By simply connecting the GPS receiver directly to the Select2, users can quickly incorporate GPS technology into their operation. This gives producers a simple way to adopt GPS technology and start capitalizing on the benefits.

With Select2, GPS position calculations are performed right in the control panel, eliminating the need for external computers on the machine. Producers can then apply different levels of water, fertilizers or other inputs within the same field based on data the GPS receiver collects and feeds directly to the panel. The Select2 can be programmed to react to this data automatically, saving producers countless hours and dollars.

The Select2 control panel was first released in July 2008. The introduction of the Select2 provided growers even more features and benefits over the previous Select panel. Growers now enjoy both a backlit keypad and display for easy operation in dark conditions. Additional programming features have also been added and the hardware has been upgraded to provide expanded memory capabilities for the future.

Rich Panowicz, Manager of Aftermarket Sales and Product Management at Valmont Irrigation, believes the Select2 can make a major contribution to overall operational efficiencies and drive profit for producers. "This is a very exciting time for technology in agribusiness," he said. "GPS technology allows irrigators to correlate production techniques with land variability, ultimately minimizing costs and maximizing yields. With the high costs of fuel, fertilizer, water and other inputs, it's important for producers to incorporate these tools that will increase their bottom line."



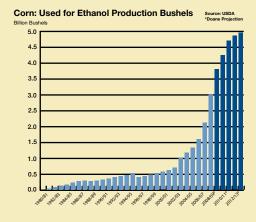


The State of the Agricultural Economy

Rich Pottorff, Vice President, Chief Economist, Doane Agricultural Services

RICH POTTORFF ANALYZES DEVELOPMENTS IN U.S. AND WORLDWIDE AGRICULTURE AND DEVELOPS FORECASTS, BRINGING PRODUCERS INSIGHTFUL COMMENTARY ABOUT THE AG ECONOMY.

HE RECEIVED HIS DEGREES IN AGRICULTURAL ECONOMICS FROM COLORADO STATE UNIVERSITY.



What an amazing year for agriculture! Over the past six months we have seen crop prices soar to record high levels, and then plummet faster and farther than anyone can remember. Suddenly what looked like a new era in agriculture now looks like another year with tight margins as crop prices fall and input costs continue to rise.

Six months ago, and even a year ago, the future looked very bright for farmers. Crop exports were booming and ethanol provided a very solid source of demand growth. Just a few months ago, the news was filled with stories about food shortages and poor people being unable to buy the basic grains they need for survival. Has all of that changed? Not really. Ethanol is still a strong source of demand growth. Ethanol plants used a total of 3 billion bushels of corn in the last Sept. to Aug. crop year. Weakening crude oil, gasoline and ethanol prices may reduce the increase for 2008-09 – but ethanol use is still expected to grow by 33% this year, to near 4 billion bushels. A total of 178 plants are currently producing more than 10 billion gallons of ethanol with 26 more plants still under construction. With the government mandate requiring the use of 10.5 billion gallons of ethanol in 2009, there will be a solid increase in domestic corn demand almost no matter what energy prices do.



Over the last few years, world grain production has consistently fallen short of use, resulting in significant declines in carryover stocks. Grain production bounced sharply higher in 2008 due to what was probably exceptional weather. Many major grain producing countries, including Canada, Australia, the EU, Ukraine, Russia, China and India, harvested very large or record large crops. Grain yields for countries outside the U.S. were well above trend levels and the U.S. will face significantly more competition for exports this year. If yields return to "trend" levels next year – or the year after, the tight world grain stock situation could return quickly.

challenging future now than they expected to in early summer. Depending on how farmers figure the cost of land, there is little or no margin with corn prices near \$3.50 per bushel and soybean prices near \$8.50. Production costs soared in 2008 and only limited relief is expected for 2009. Diesel fuel prices are falling, but are so far only about even with last year. Wholesale fertilizer prices are plunging with the price for urea down nearly 50% over the past month. They are still about the same as they were last fall and last spring, but the decline is probably not over yet. Prices for other inputs, especially seed, will probably continue to climb.

Whatever the reason, farmers face a more

Foreign wheat and coarse grain yields are record high Tonnes Per Hectare

Above trend yields added about 25 million tonnes to production

Wheat

Coarse Grains

If the underlying fundamentals of the market remain strong – why are prices so weak? Commodity markets have been battered by the problems of the overall U.S. economy. With the credit crisis and the collapse in the stock market, speculators in commodities have been exiting the markets in droves. At the end of June, commodity speculators held net long positions of nearly 220,000 corn contracts and almost 100,000 net long soybean contracts. As of November, these speculators had liquidated (sold) all of these long contracts and are now net short both corn and soy-beans. This has been the principle cause of the crop price collapse.

The overall outlook for farmers is mixed. We could clearly see a return to high crop prices if next year's crops turn out to be poor, or we could see prices stabilize near current levels. We need more corn acreage for 2009, but net returns for corn relative to soybeans will have to improve to get it. If the condition of the overall economy doesn't get worse, we should be near a bottom for crop prices, but a rebound to last summer's highs is a remote possibility.

3.0

2.8



Supplier Spotlight:



Diversified **Financial** Services, **LLC**

Nearly 40 years ago, Valmont Industries created a company to serve the finance and insurance needs of its customers. Since 1969, that company has grown into **Diversified Financial Services (DFS)**, a Valley authorized provider that has

financed well over 30,000 pivots. Today, DFS helps growers acquire the Valley irrigation equipment and technology they require for their operation with a full array of loan and lease financing and insurance products. Their claim service, according to Jeff Focht, Sr. Vice President of Credit/Portfolio Administration at DFS, is known as the best in the industry.

"We are dedicated to providing a very personal level of service to Valley dealers and customers. Since we grew out of Valmont and we focus specifically on this market, we believe we really understand

we grew out of Valmont and we focus specifically on this market, we believe we really understand what Valley irrigation customers need and that they expect a high level of trust in their business relationships," Focht explained.

This insight into Valley customers inspired DFS to strive to build long-term, lasting relationships with growers who use their services. These efforts start before end-users are even involved, as DFS focuses on understanding each Valley dealer and building that relationship first. For Focht, this connection to dealers is key to DFS's decades-long success in serving Valley irrigation customers. "This allows us to really stay aware of how customer needs change over time, and gives us the opportunity to offer a very comprehensive menu of products and services to meet those needs."

"Each dealer is served by a specific DFS Relationship Manager in the office and a specific Regional Sales Manager in the field. They get to know the dealer and when credit applications are submitted from the dealer, these professionals strive to ensure that the customer receives the best possible service," Focht continued.

A large portion of DFS business is repeat business – customers who have previously financed or leased a Valley pivot using DFS, or who use one of DFS's irrigation equipment insurance products. "Customers believe in buying Valley pivots because they've proven themselves over and over. They believe in using DFS because we have also proven ourselves over and over," Focht said. "This is how our dealer and customer relationships grow stronger. At DFS, this is how we measure success."

Valley customers interested in learning more about how DFS can assist them in purchasing and/or insuring irrigation equipment can request more information from their local Valley dealer. They can also receive information directly from DFS by calling **1-800-648-8026**.

Safeguard your Investments with

CableGuard

Copper cable theft is unfortunately a crime more owners and users of irrigation equipment are dealing with. Valley offers a full line of products aimed to deter and help prevent the theft of copper cable.

Products ranging from making it extremely difficult to remove the cable

to alerting you when a theft may be occurring, we provide you with a wide range of options to protect your investment. Working together with your Valley dealer, you can mix and match products to apply the best solution to fit your budget and still provide theft deterrence.







CableGuard Products include:

- GSM CableGuard Monitor
- Cable Armor
- Span Cable Clamps
- Stainless Steel Banding
- Flexible Steel Conduit
- Steel Mesh with Steel Conduit

Introducing: BaseStation PanelLink



For growers who want to maximize the benefits of their BaseStation2, Valley has recently introduced PanelLink. PanelLink allows non-Valley control panels and non-computerized Valley control panels to interface with the BaseStation2 computer.

Controlling and checking the status of all pivots in your operation is now made easy with PanelLink, regardless of the type of control panels installed. Mounted to the center pivot with wired connections to any control panel, PanelLink uses data radio technology to communicate back to BaseStation2. Unifying all control

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panels by connecting them to the BaseStation2 gives growers the ability to monitor and control important functions across the entire irrigation operation.

When a change in status arises, a real time update message can be sent from the PanelLink to the BaseStation2 computer. The grower is then notified at this computer or by an alarm message on their cell phone. The BaseStation2 software interprets the messages and responds automatically, based on the configurations previously set. Growers can then quickly assess and address any issue that arises on any pivot.

Saving time and money is the final result of this innovative application of technology from Valley. "PanelLink really allows farmers to incorporate all of their center pivots and linears into the BaseStation2 remote communication system," said Mark Ringenburg, Product Application Manager-Controls at Valmont Irrigation. "This is especially helpful for lease-land farmers that do not have a Valley irrigation machine. They can still use the BaseStation2 technology, which gives them the power to make better management decisions because they know what is going on at all times. This eliminates unnecessary visits to pivots in the field, saving labor dollars, time, fuel and water."

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