

**VALLEY** 

# pivotpoint

SPRING 2008

IRRIGATION  
NEWS, TRENDS,  
PEOPLE AND  
PRODUCTS



**Precision Irrigation  
Made Easy** page 6



**3 Why Upgrade  
Sprinklers**



**4 Water Quality  
Tests**



**5 Southern Style  
Service**



## Precisely Positive

Precision has quickly become the popular buzzword in agriculture. We have “precision farming” with GPS technology to thank for auto steering, prescription mapping software and so on. In the irrigation industry, we’ve come a long way from the flood system to today’s programmable pulsing sprinklers. It’s a positive move we’re proud to make.

Even in the past decade, advancements in design have resulted in more-precise application options that take into account your input costs, agronomic advantages and environmental benefits. At Valley, we believe precision is critical to your management effectiveness and operation’s success.

In this issue, we highlight our focus on precise water application. We know that having irrigation equipment that’s durable, reliable, easy-to-use and is supported by responsive dealers isn’t quite enough. We also need to give you precise application solutions — or the rest just isn’t as effective.

Accuracy is always a goal that we strive toward with every new technological development. By partnering with industry leaders like Senninger and Nelson, we ensure you have the best sprinklers in the business to match the high-quality performance Valley equipment provides.

Also in this issue, we shed some light on a topic that is becoming a bigger problem in some parts of the country — corrosion from poor water quality. Learn what we understand about the way water quality is changing and what can be done when it does. We’re determined to offer alternative pipeline solutions that better suit specific situations based on your water’s chemistry.

Check with your local Valley dealer for the latest upgrades in precise water application technology. Find out whether it would be a wise investment to convert your older sprinklers to a newer style for maximum savings and optimal effectiveness. Then you’ll see my point...precisely!

Thank you!

JIM BROWN

Vice President, Sales & Marketing

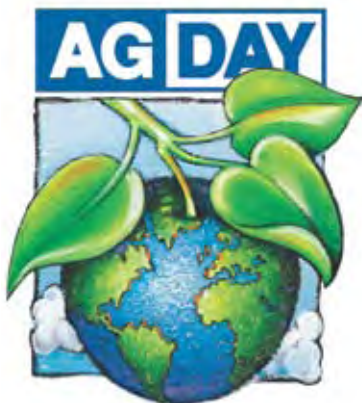
## CONTENTS

- 3 Water Application
- 4 Water Quality
- 5 Export Boom Here at Last
- 6 Precisely Profitable
- 8 2008 Performance Plus Dealers

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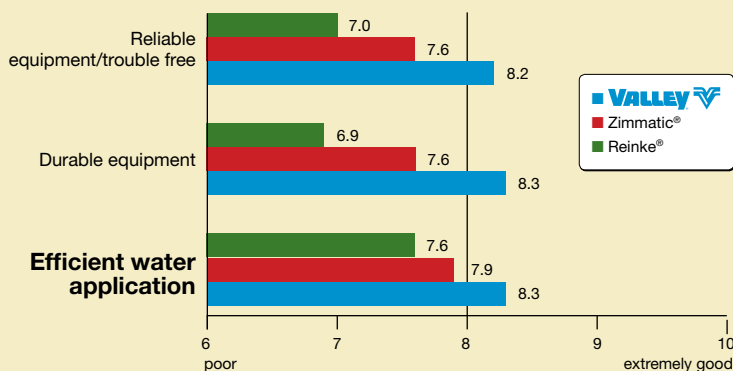


## NATIONAL AG DAY

Join Valley as we support and honor agriculture. National Agriculture Day occurs every year on the first day of Spring.

### Equipment Performance Ratings

Valley spends considerable time asking growers about product performance. Learning directly from growers is critical to drive product enhancement. In a recent study among irrigation equipment owners Valley was rated as the clear leader in the critical areas of control technology, efficient water application, drive train technology and durable equipment.



**Source:** BUYING BEHAVIOR OF USERS OF MECHANIZED IRRIGATION EQUIPMENT - The 2007 Snapshot by Jefferson Davis Associates Inc. Zimmatic is a registered trademark of Lindsay Manufacturing and Reinke is a registered trademark of Reinke Manufacturing. **Qualifications of survey participants:** They were a decision-maker regarding the brand of center pivot or linear irrigation equipment that would be purchased for the operation. They must have purchased new center pivot or linear irrigation equipment within the past 48 months and are able to cite the brand of equipment purchased. This graph represents the views of 455 growers found through EDA, a subset of the full 562 irrigators, from the U.S. and Canada, interviewed all of whom are familiar with Valley and were available to complete the interview.

# WATER APPLICATION: WHY IT'S "WORTH IT" TO UPGRADE SPRINKLER PACKAGES

INTERVIEWS WITH JERRY GERDES, JUSTIN WILKERSON & TRENT ANGELL

Today's growers understand the advantages of scheduling irrigation to maximize production efficiency. This means putting down water, fertilizer and other chemicals at the best time for the crop. But many growers haven't fully realized the importance of uniformity, which is the other critical factor, explains Jerry Gerdes, Valley's product manager for water application.

With the average age of existing center pivots ranging from 10 to 30 years, growers need to consider upgrading their sprinkler package to take advantage of updated technology and replace worn-out parts. "Sprinklers do wear out just like other components on the machine. The wear may not necessarily be highly visible but it's still costing you yield potential, wasting inputs and stealing from your bottom line," states Gerdes.

"It is worth spending the money to upgrade your sprinkler packages not only from a crop yield standpoint but from an operating cost standpoint. For example, if you have worn-out pressure regulators and you're pumping more water than you need, you're wasting energy and water," notes Gerdes.

"As a rule of thumb, if your sprinkler package has 10,000 hours of use, it's time to start looking at replacing pressure regulators and sprinklers," he advises. "That figure may equate to 10 years in Nebraska or 5 years in Idaho, depending on the demand for irrigation and the value of the crop grown under it. The higher the crop value, the quicker the payback," he adds.

"With \$4 corn and \$10 wheat, it makes growers take a closer look at upgrading their sprinkler package," admits Gerdes. "And it's definitely worth the investment because it can boost crop yields and lower operating costs, both of which benefit the bottom line," he says.

"An irrigation system is only as good as the sprinkler package on it. We feel you do an injustice to the farmer if you put an improper sprinkler package out there," admits Justin Wilkerson of J&B Irrigation of Morgan, Georgia.

"A few customers have seen tremendous yield increases and they solely believe it's because of the sprinkler packages," he shares.

"Sprinkler packages have been a large part of our business in the past few years," Wilkerson admits. He points out that a University of Georgia study from the early 1990s "really started opening people's eyes around here to see how the drops with iwobs and rotators are about 20% more efficient," he admits.

J&B Irrigation builds all of its sprinkler packages in house. "We use Valley's V-Chart software system to design it, print it out, and put it together right here, so turnaround can be really quick...like a matter of hours if need be," he points out.

V-Chart software helps every Valley dealer build a sprinkler package with computer-generated spacing and sizing for optimal uniformity. Its extensive database of Valley equipment also includes other brands and older models.

"We use the system to determine the desired application per outlet," tells Trent Angell of Golden West Irrigation in Rexburg, Idaho. "If a sprinkler package isn't right, it doesn't matter what the brand of the pivot, it defeats the purpose," he states.

"In our area, sandy soils take all you can apply and wind is the enemy of irrigation," explains Angell, whose customers have been converting from high-pressure impacts on top of the pipe. "Those systems can lose 10-15% of your water on a warm day. If you go one month of 90° weather with no rain, 10% is huge!" exclaims Angell.

"For example, potato growers apply fertilizer and chemicals through their pivots. If they want to apply four gallons per minute but are putting on 4.8 instead, that's a huge problem," Angell admits. "Many think it's a problem with their pump, but it could be their sprinkler package."



Trent Angell, Golden West Irrigation, Rexburg, ID



Justin Wilkerson, J&B Irrigation, Morgan, GA



Jerry Gerdes – Valley product manager/water application



Valley dealers offer a free water quality test kit.

# WATER QUALITY:

## *Valley dealers offering thorough and advanced water analysis test.*

While some areas of the country are already facing challenging water quality issues, many others are undergoing subtle yet significant changes that are likely to lead to shorter equipment life in years to come.

“When water chemistry changes, the variables interact with each other and affect the life expectancy of your irrigation equipment,” explains Steel Maloney, President of Cascade Earth Sciences/CES, a wholly owned subsidiary of Valmont Industries specializing in water quality and its management.

According to Maloney, water quality changes over time can be attributed to both natural and manmade influences. Surface water is primarily affected by pollution and land use. Groundwater quality can be modified as the elevation of the aquifer changes, exposing or saturating different minerals. The flow velocity through an aquifer or surface water system can cause erosion and change the contact time with various minerals. Land use changes influence water recharge and runoff systems and on-site chemical usage, potentially impacting surface and groundwater quality.

Because water quality varies greatly by geography and source, Maloney recommends growers check out the online data from the United States Geological Survey (USGS) with basic water quality information for most regions of the U.S. at <http://water.usgs.gov/>.

“You cannot assume water quality will stay consistent. Even if you aren’t seeing observable changes, you should have your water analyzed every 3-5 years,” says Maloney. He suggests growers take advantage of the available water quality tests from a local Valley dealer. “Those trends can help forecast the expected life of existing equipment and also help determine if re-piping with an alternative pipeline solution will be a wise, longer-term investment.”

Valley dealers offer a free water quality test kit that is sent to an independent lab for a thorough analysis. Then Valley engineers enter

the data into a proprietary computer software program to predict expected hours of life for galvanized pipe as well as alternatives such as PolySpan®, weathering steel, and stainless steel.

“We interpret the chemistry analysis to provide fact-based recommendations of alternative pipeline solutions for growers facing tough water,” says Jake LaRue, Valley application engineer. “The report will show the potential impact of water chemistry on pipeline life and ranks the choices according to the best value for the grower’s specific situation.”

According to LaRue, “We can forecast approximately how many hours of life you can expect to get out of your equipment based on what’s in your water. For new equipment purchases, we can make a solution recommendation based on the years and hours of life you expect. When re-piping, the same software can be used to ensure you also get the life expectancy you want.”

LaRue advises growers that not just any standard water quality test is sufficient. “The Valley water analysis is more detailed and uses advanced chemistry modeling to study how everything interacts together. You can’t just look at one number like the pH level and make an overall decision,” he explains.

“You can’t know your water quality just by looking at it and guessing,” says Jim Mikula, Valley product manager. “Testing it is the only way you really know for sure.”

“The industry standard galvanized pipe is still in the best choice for most applications,” states Mikula. “But more areas of the country are beginning to notice changes in water quality conditions that lend themselves to other options. While PolySpan is impervious to anything, the others have an optimal condition, such as weathering steel works well in soft water,” he explains. “Valley offers a full range of solutions for growers facing changing water quality so they can get maximum pipeline life.”

## SOUTHERN-STYLE SERVICE

The Valley distribution center in Tifton, Georgia serves much of the Southeastern U.S. Despite the vast geographic area, the commitment to responsive service is of high importance.

Manager Danny Hester explains why this facility consistently ranks very high in customer satisfaction. "Valmont told us from day one to run this DC like we owned it. We're able to give much more personalized service that way because I'll do what it takes to keep my customers happy," he says.

Since parts of the Southeast suffered a drought this past season, Hester admits response time was even more critical, yet his dedication to "same day service if humanly possible" came through for customers and dealers alike. In fact, he tells of a delivery he personally made on Easter Sunday driving a load of pipe 500 miles to Mississippi because the customer needed to run on Monday.

"Our role is to rapidly move parts to dealers. We have great trucking companies and a UPS terminal here that allow us to have late pickups. We can reach anywhere in our territory within two days without any special handling," tells Hester. "And to deliver 45-foot pipe, we keep a 48-foot gooseneck trailer just for that reason. We often load late one afternoon and we're at the dealership waiting for them to open the next morning. That's not an unusual thing for us. It's just our regular way of doing business," Hester says.



"What most people call 'above and beyond' is our standard method of operation. People tell us we offer extraordinary service, but to us it's just our everyday service. It has to really get extraordinary for us to think we're going out of our way," shares Hester.



Valmont's Georgia distribution center has a staff of four with a fifth employee added during the standard busy season of April to August. Shown left to right - Manager Danny Hester, Derick Snow, Jody Mitchell, Henry Griner.

# Is the Export Boom Here At Last?

*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.

As far back as the 1970s, farmers and others in the agriculture industry have been told of a coming boom in exports, but until now that boom has not developed. That could be changing this year with strong exports of most crops even as crop prices soar to record or near-record highs and biofuels production expands.

Year-to-date corn export sales are far above last year's level, forcing USDA to raise the forecast for corn exports up to the latest figure of 2.45 billion bushels for 2007-08, making it the highest level of U.S. corn exports ever. But realize that the foreign corn deficit is more than 2.8 billion bushels so foreign corn stocks will continue to fall, as they have virtually every year since 1999-00.

USDA also recently boosted the U.S. wheat export forecast to 1.175 billion bushels. While this isn't a new record, it is the highest figure in more than a decade. And that's with record high U.S. wheat prices. With almost half of the wheat crop year still ahead, we've already sold 1.06 billion bushels so the export forecast may need to be raised further. All this while wheat supplies outside the U.S. continue to shrink.

The soybean export forecast was raised by 20 million bushels in December, but USDA expects exports to fall 123 million bushels below 2006-07 levels. So far export sales are AHEAD of last year by 55 million bushels. The strong sales come even as domestic U.S. prices are near \$11 per bushel and world freight rates are high. Even with record or near-record crops in Brazil and Argentina, it may be difficult to cut U.S. exports substantially.

It may be too soon to declare that we have entered a new era in U.S. crop exports, but the data so far for this year is extremely bullish. World grain stocks continue to fall while U.S. and world demand for grain for biofuels production is expanding. This combination of demand factors suggests that crop production capacity will be stretched over the next several years, keeping crop prices and farm incomes at very high levels. The good times for the agriculture sector may be just beginning.

# PRECISELY PROFITABLE

## Water application solutions benefit bottom line

When **Wesley Webb of Leary, Georgia**, first decided to upgrade a sprinkler package, he was hoping to improve his production and his profitability. He quickly realized both would benefit by converting from a high-pressure system to achieve a more-uniform application. He and his brother have now completed a total of 10 retrofits and Webb hopes to keep upgrading more of his 32 Valley pivots to see the positive results on 3500 acres of cotton, peanuts and corn.



Wesley Webb –  
Leary, GA

“The biggest thing to me is being able to maximize my efficiency and my bottom line. On my farm, precision application has really increased my potential,” admits Webb.

“As far as I’m concerned, they’ve increased my yields and they’ve increased my bottom line by basically allowing me to cut back on my inputs as far as my diesel fuel for pumping and my water use,” shares Webb. “While it took me 40 inches to grow a crop in 1998, I’m able to do it with 25-30 inches now because I’m using low pressure and a more-precise method of application to put water on the crop.”

His low-pressure system with hose drops helps him avoid drift on a windy day. “You can literally see the difference side-by-side with some of my neighbors who are still using the old sprinklers. Mine seems to be on target more than theirs does,” claims Webb.

Webb admits he’s seen yield increases of up to 10% since his sprinkler upgrades. “I do attribute the minor yield increases to a more-uniform crop. And that comes back to my ability to put the water out there and not have it run off.”

Webb told of a University of Georgia county extension service study comparing a high-pressure system to a low-pressure one with drops on a hot, humid day in his area. The study estimated a high-pressure system lost .2 - .4 of an inch per day. With bigger drops closer to the ground and bigger water droplets, low-pressure rotators were estimated to lose as little as .04 - .15 of an inch of water per day. “Those two or three tenths going across the field makes a tremendous difference,” says Webb.

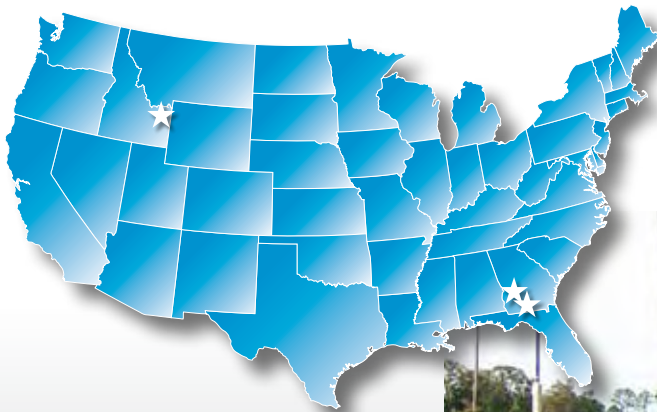
After coming through a challenging season of drought with no rain for 11 weeks, Webb is even more grateful for the efficiency and reliability of his irrigation equipment. “Everything we did down here this year we had to do through the Valley systems!” he concludes.



Eric Blaser –  
Rexburg, ID

Sprinkler conversions for the sake of precision application are also proving worthwhile for **Eric Blaser of Blaser’s Sandy Sage Farms, Inc. in Rexburg, Idaho.**

“If you are more uniform in your watering, you have a more uniform stand on wheat. That gives you more uniform growth and it always equates into higher yields,” estimates Blaser, who farms with his dad and two brothers in a family business that’s been operating since the mid-1950s.



Now more than ever, growers across North America realize the value in upgrading sprinkler technology

Justin Wilkerson (center) serves irrigation customers such as Graham Ginn (left) and Wesley Webb (right) with durable Valley equipment and precise sprinkler packages.





They raise potatoes, soft white wheat and alfalfa on 1200 acres, using 5 Valley pivots and 5 Valley corner machines to irrigate on their flat, sandy ground. Over the past few years, he's upgraded sprinkler packages on all but one of his units, which will be done next season.

"The wind blows almost every day out here. It's just a matter of how fast or how hard it's going to blow," laughs Blaser. "When we went to the rotators, we had more uniformity of the droplets and less evaporation. On a given day, if you looked at the old packages, you could see how the water wasn't even hitting the ground sometimes. With the way the rotators put the water out, we're getting more water on the ground where it needs to be."

That's what Blaser likes best about his low-pressure drops. "Wind doesn't affect the water pattern like it did with our previous sprinkler packages. Before we went to the rotators, if you dug in a line, you'd find dry spots and wet spots," he admits. "With rotators, you don't have that."

Blaser also appreciates the efficiency advantages of the rotators. "Over the course of the year, you use less water. That's less power. Less time around. Fewer revolutions. It adds up to savings on power, usage of electricity and also on parts and equipment wear," he adds.

Blaser also uses his Valley pivots to spoon-feed fertilizer to his potato crop while watering so the low-pressure system's improved efficiency further affects his input costs. "You're able to be more efficient with your fertilizer because you're putting it on as the crop needs it rather than putting it on pre-plant. You're most efficient because when the plant picks the water up, it picks up the nutrients too," he explains.

**Graham Ginn of Ginn Farms in Morgan, Georgia,**

already knew the value of precision application from working for the Natural Resources Conservation Service (NRCS) in testing the efficiency and uniformity of pivots across Southwest Georgia as part of the Environmental Quality Incentives Program (EQIP). He's personally seen the gains that could be achieved from increased accuracy of water application. So Ginn has been upgrading sprinklers on his 15 Valley pivots for a few years with seven done to date and plans for three more this season. Ginn and his family farm more than 1500 acres of cotton, peanuts, and corn.



Graham Ginn – Morgan, GA

"One of the biggest things that I've seen is that you can take half an inch with a low-pressure drop nozzle and get the same effect as an inch with a higher-pressure impact," states Ginn.

He shares a story about the first pivot his father-in-law ever retrofitted. "Instead of putting out an inch or an inch and two tenths like I've been having to do with the impacts, I'll speed the pivots up and put out six tenths twice. What we figured out was that a lot of times the six tenths would do it and that's just because of the uniformity increase and the efficiency of getting down closer to the crop with the hose drops," shares Ginn.

"An irrigation drop nozzle package is only as good as the dealer laying it out and J&B Irrigation [Morgan, GA] is second to none. Most of the time they check out in the 90s [coefficient of uniformity]. I attribute that to the software that Valley has and putting the numbers in right. They do it right and they do it right the first time," he concludes.

*Trent Angell of Golden West Irrigation, Rexburg, Idaho enjoys selling and installing the reliable Valley brand of equipment within the great scenery of Idaho.*



# 2008 Performance Plus Dealers



## Colorado

Hitchcock, Inc.	Burlington, CO
Valley Irrigation of Greeley	Greeley, CO
Wiggins Electric	Wiggins, CO
Quality Irrigation	Yuma, CO

## Florida

Tri-County Irrigation, Inc.	Live Oak, FL
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## Georgia

Reid Brothers Irrigation & Equipment, LLC	Americus, GA
Rentz Irrigation, Inc.	Brinson, GA
Chaney Bush Irrigation, Inc.	Fitzgerald, GA
J & B Irrigation	Morgan, GA
Medders Irrigation, LLC	Sylvester, GA
Reid Brothers Irrigation & Equip.	Unadilla, GA
BAS, Inc.	Waynesboro, GA

## Idaho

Knudsen Irrigation, Inc.	Aberdeen, ID
Valley Equipment & Irrigation	Blackfoot, ID
Valley Irrigation Service & Supply	Caldwell, ID
JTS Farmstore	Glenns Ferry, ID
Golden West Irrigation & Equip.	Idaho Falls, ID
Sprinkler Shop Valley of Jerome	Jerome, ID
Sprinkler Shop Valley of Paul	Paul, ID
Golden West Irrigation & Equip.	Rexburg, ID

## Indiana

Chester, Inc.	Francesville, IN
MAISCO, Inc.	Middlebury, IN

## Kansas

Western Sprinklers, Inc.	Colby, KS
Hitchcock, Inc. of Goodland	Goodland, KS
Cimarron Valley Irrigation, LLC	Hugoton, KS
Inman Irrigation, Inc.	Inman, KS
Ag Systems, Inc.	Larned, KS
Western Kansas Valley, Inc.	Sharon Springs, KS
Western Sprinklers, Inc.	St. Francis, KS

## Michigan

Finnerman's Farm & Garden Service, Inc.	Centreville, MI
Michigan Valley Irrigation, Inc.	Vassar, MI

## Minnesota

Grand Irrigation, Inc.	Clear Lake, MN
West Central Irrigation	Starbuck, MN
MN Valley Irrigation, LLC	Wadena, MN

## Mississippi

Circle S Irrigation, Inc.	Clarksdale, MS
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## Missouri

Mid-Valley Irrigation	Charleston, MO
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## Montana

AquaTech, Inc.	Belgrade, MT
Pivots Plus, LLC	Dillon, MT
Agri Industries, Inc.	Miles City, MT
Agri Industries, Inc.	Sidney, MT

## Nebraska

Western Valley Irrigation, Inc.	Alliance, NE
Green Valley Irrigation	Atkinson, NE
Perfect Valley Irrigation, Inc.	Bassett, NE
Southeast Valley Irrigation, LLC	Bruning, NE
Stoltenberg Irrigation Inc.	Cairo, NE
Vavrina, Inc.	Clarkson, NE
Mid-Continent Irrigation	Fremont, NE
Horizon Ag, LLC	Gothenburg, NE
Plains Irrigation	Grand Island, NE
Valley Pro Irrigation, Inc	Grant, NE
Heine Electric & Irrigation, Inc.	Hartington, NE
Central Valley Irrigation, Inc.	Holdrege, NE
CVI Inc.	Kearney, NE
Central Valley Irrigation	Lexington, NE
Agland Electric & Irrigation, Inc.	Ord, NE

## New Mexico

Levacy Sprinkler, Inc.	Portales, NM
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## North Carolina

Benchmark Buildings & Irrigation, Inc.	Murfreesboro, NC
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## North Dakota

Agri Industries, Inc.	Williston, ND
K & T Irrigation, Inc.	West Fargo, ND

## Oklahoma

Gigot Agra Products	Guymon, OK
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## Oregon

Valmont Northwest, Inc.	Hermiston, OR
J.W. Kerns, Inc. - Klamath Falls	Klamath Falls, OR
PGG, Island City	La Grande, OR

## Texas

Leonard Water Services	Abilene, TX
Valley Irr & Pump Service, Inc.	Brownfield, TX
Valley Irrigation & Pump	Lamesa, TX
South Plains Valley Irrigation	Lubbock, TX
Valley Ag Electric, Inc.	Olton, TX
Peerless Equipment Company	Pearsall, TX
Peerless Equipment Company	San Antonio, TX
Valley Irrigation & Pump	Seminole, TX
Gigot Agra Products	Spearman, TX
Leonard Water Services, Ltd	Vernon, TX

## Utah

Harward Irrigation	Sandy, UT
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## Washington

Lad Irrigation of Moses Lake	Moses Lake, WA
Lad Irrigation of Othello	Othello, WA
Valmont Northwest	Pasco, WA
Lad Irrigation of George	Quincy, WA

## Wisconsin

North Central Irrigation	Beloit, WI
North Central Irrigation	Plainfield, WI

## Alberta

Academy Services, Inc .	Brooks, AB
Oliver Irrigation	Lethbridge, AB
C & H Irrigation	Medicine Hat, AB
Oliver Irrigation	Taber, AB

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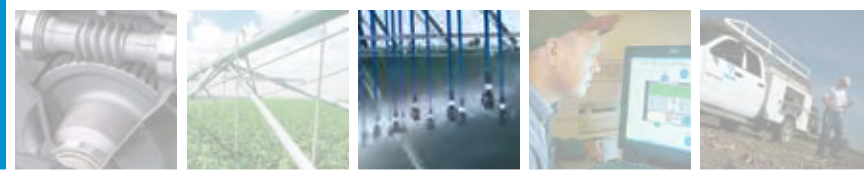


Precision Irrigation Made Easy®



# Valley Water Application

SPECIAL PRODUCT INSERT



## Return on Investment

Investing in a sprinkler package can return significant revenue by lowering energy requirements and ensuring maximum yield for every inch of water applied.

\$\$\$

\$

Investment

Return

## Investment vs. Expense

Investing in a new sprinkler package or updating specific items is more important than ever. With today's high energy prices, and an increasing awareness of water conservation it is vitally important to ensure you have a precise, uniform and efficient sprinkler package installed on all of your irrigation machines. Now more than ever, the time is right to invest in new sprinkler technology that ensures you have the right tools to make the most beneficial use out of the water you apply to your crops.

With the high value of irrigated crops in your fields, making sure that you get the most return for every inch of water you apply is very important. Consider some of the following questions:

- How old are the sprinkler packages on my machines?
- Do I need to add pressure regulators and how would that benefit me?
- If I have pressure regulators, are they more than 10 years old?

- Do I currently have the appropriate sprinkler technology for my field?
- Are my sprinklers at the appropriate height and are they spaced correctly?
- Am I operating the sprinklers at pressures that makes sense?
- Could I improve the uniformity of water being applied?

By considering these questions with your local Valley dealer, you can determine if a new sprinkler package is right for you and a good investment.

You want to make sure that every inch of water applied on your field is done so in a manner that is "uniform across the field" and "efficient". Uniformity ensures that you get the most yield for every inch of water applied, which is very important given the value of your crops. Efficiency is also extremely important because of our challenge to use the resource wisely and appropriately.

# How to Choose your Sprinkler Package

Deciding on the correct water application solution is vital to your pivot's performance. The first set of questions you need to answer include:

**1**

## **Soil type (and texture)**

Proper sprinkler design and selection helps reduce soil sealing with medium to heavy soils

**2**

## **Crops to be raised**

A significant issue with sprinkler head design is its ability to penetrate the crop canopy

**3**

## **Terrain of field**

The slope of your field must be considered when choosing sprinklers to minimize runoff, keeping water where it does the crop the most good

Using those answers you will be able to discuss options with the water application experts from Valley to determine how to reduce energy cost and save water. In addition, you will know that you have selected the best water application solution to increase your productivity and profitability.

## Correct Spacing

Each sprinkler head must be positioned correctly to maximize the delivery of water. The overlap of the sprinkler pattern is a critical factor. Valley accomplishes the optimum spacing through computerized models that ensure uniform application once the sprinklers are installed in your field.



## Low Pressure Sprinklers Conserve Energy

Low pressure sprinkler technology provides solutions that lower your energy bill, because you irrigate at lower water pressure. You can effectively operate sprinklers at 10-20 psi which is significantly lower than previous generation sprinklers. Your Valley dealer can help you select the correct sprinkler to use to reduce soil compaction, reduce sealing and create excellent infiltration of the water into the soil profile.

## Design and Support for the Right Solution

Valley Dealers are highly trained experts in water application and conservation. They also have the Valley V-Chart design program which is an industry exclusive. This program allows them to customize your sprinkler package specifically for your field.

Valley Irrigation supports their dealers with our own staff of sprinkler engineers and application specialists to assist in the design of sprinkler packages specifically for mechanized irrigation equipment. The water application staff is qualified as Certified Irrigation Designers (CID) by the Irrigation Association. They can quickly certify a sprinkler package design for EQIP approval.

# Sprinkler Choices

Your Valley dealer will help you select the proper sprinkler package based on the soil type, crops being raised and terrain. Among your choices are solutions from Valley, Senniger and Nelson.

- Choose from:
- Rotating Pad
  - Fixed Pad
  - Impact
  - Low Energy Precision Application (LEPA)
  - Directional Sprays

## Valley® Sprinklers

### Valley All-Range Pressure Regulator

- Use one model for the entire sprinkler package
- Six models available, 6-30 psi
- Precise water application in hilly terrain



### Valley® Low-Energy Nozzle (LEN)

- Wide variety of available pads
- Unique shape for movement through the crop
- Chemigation and Part Circle pads
- Large diameter of coverage, low application intensity
- Low pressure operation

- Single, double or triple deflector pads divide the nozzle flow into larger number of streams



## Nelson Sprinklers

### 3000 Series Pivot Sprinklers

- High performance products take into account the variety of soils and their differing content of sand, silt and clay
- Water droplet size and energy affect both wind-fighting ability and the integrity of the soil structure
- Choose the product that best fits your soil type and maximizes efficiency
- Features modular design because no one sprinkler is right for all conditions
- Other Nelson 3000 Series sprinklers include: S3000 Spinner, N3000 Nutator®, D3000 Sprayhead, A3000 Accelerator, T3000 Trashbuster

### R3000 Rotator®

- Features the greatest throw distance available on drop tubes
- The wide water pattern from rotating streams equates to lower average application rates, longer soak time and reduced runoff
- More overlap with adjacent sprinklers improves uniformity



## Senniger® Sprinklers



### i-Wob®

- Off-center action delivers uniform pattern
- Large diameter coverage, ultra low application intensity
- Low pressure operation
- Three groove/angle models



### LDN® (Low Drift Nozzle)

- Single, double or triple deflector pads divide the nozzle flow into a larger number of streams
- Large diameter of coverage, low application intensity
- Chemigation and Part-Circle pads
- Low pressure operation

# Valley® Industry Exclusive Sprinkler Chart

Sprinkler packages designed with the exclusive V-Chart software makes your Valley dealer the best choice for a new or replacement package. Uniformity and efficiency of water application are critical to your irrigating needs. V-Chart, in combination with Valley dealer training, will match up sprinkler technology to the soil type, crop(s) being raised and terrain of your fields. The result is improved soil infiltration, less wind drift, increased water savings and reduced water runoff.

V-Chart can also be used to design sprinkler packages for all past and present pivot, corner and linear manufacturers. In addition, we inventory a full range of sprinklers and provide package assembly at five locations throughout the country for fast service to our dealer network.

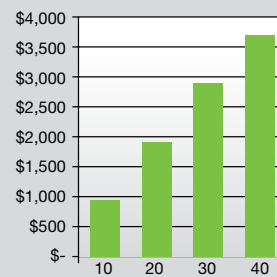


## Upgrade an Existing Machine with Valley Water Application Technology

Low Pressure Sprinklers Conserve Energy

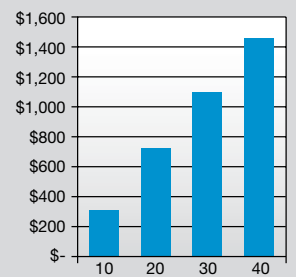
Effectively operate sprinklers at 10-20 psi to reduce your energy bill

**Potential Savings per 1000 Hours of Operation with Diesel**



**Drop in Operating Pressure (psi)**

**Potential Savings per 1000 Hours of Operation with Electricity**



**Drop in Operating Pressure (psi)**

Based on 850 gpm, 80% pump efficiency, \$2.50/gallon diesel fuel or \$0.07/kW-hr electricity. Savings will also vary on how well the pump and engine fit the lower operating pressure.

\*All dollar amounts in \$USD



Conserving Resources. Improving Life.

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See your local authorized Valley Dealer for complete details.

Valmont® Irrigation has a policy of continuous product improvement and development. As a result, certain changes in standard equipment, options, price, etc. may have occurred after the publication of this brochure. Some photographs and specifications may not be identical to current production. Your local Valley® dealer is your best source for up-to-date information. Valmont Irrigation reserves the right to change product design and specifications at any time without incurring obligations.

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