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THE NEWSLETTER FOR THE MICHIGAN AG INDUSTRY

Welcome to the winter edition of the Michigan Valley Irrigation newsletter.

The past few months have seen exciting changes for Michigan Valley. We have added full time service technicians to all three offices, reorganized and concentrated overhead to McBride, and adopted new software and training curriculums to improve our daily operations.

Michigan Valley will continue to be the premier technology resource for farms in Michigan. This requires a constant evaluation of new technologies and the ability to learn highly technical skills. Our pride is in our Service Technicians who must be experts at high voltage trouble shooting, hydraulics, surveying, variable frequency drives, and cell phone telemetry. It can be intimidating to dwell on what skill sets will be required in the future, however, Michigan Valley will rise to the task and invest in education and training to maintain the cutting edge.

PERFORMANCE PLUS DEALER 

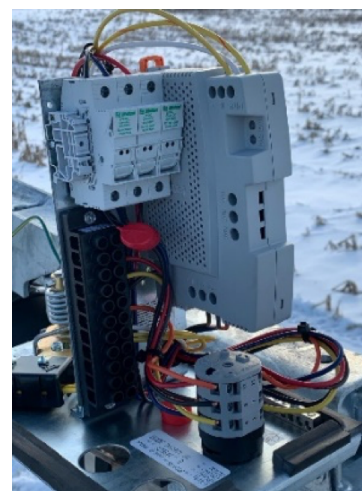
Did you know? All Michigan Valley Service Technicians complete 40 hours of factory training every year and attend a technical troubleshooting class every two years.

Field service is, by nature, a reactive business. We must anticipate service demand based on weather, time of year, and geographic area to maximize our efficiency and minimize your down time. New technologies will soon be available to help us predict failures before they happen. Until we have the luxury of our cell phones notifying us that a component is about to fail, we must mitigate our down time through pro-active means.

Consider calling us to do a spring start up on your pivots. Ninety percent of field service calls are related to the drive train. These are easily identifiable failure points such as contactors, u-joints, motors and gear boxes. While Valley pivots unquestionably have the longest lasting and most reliable drive train system, there are tens of thousands of drive units in our service area, each with the potential to fail during peak growing season.

As you prepare for this next growing season, we will be honing our skills to be ready for all of your service demands. We service all brands, and no job is too big or too small.

JOHN M. MCGEE, PRESIDENT



New solid state tower box contactor: This contactor has no moving parts, and is not susceptible to failure due to insects and dust. It also has a DC injection brake system to limit slippage and provide more accurate run time.

WATER APPLICATION

Sprinklers and application devices are perhaps the most important part of an irrigation system. In today's technology driven mechanized irrigation market, sprinklers have become a standard part in a center pivot system much like drivetrain or structure. Arguably, there are two main reasons for this. First, the identified need to increase operational efficiency has put technology such as remote monitoring and control at the forefront of the center pivot market. Second, sprinkler technology today has achieved a relatively high efficiency standard in general for center pivot irrigation thus making it "good enough" for most applications. Drivetrain, structure, and controls are paramount in ensuring proper function and longevity in an irrigation system, however the sprinklers are ultimately the final stop before water is delivered to the crop. With abundant sprinkler and sprinkler components as well as configuration options, the solutions to the 'best fit' sprinkler package on a given center pivot application are limitless.

Maintaining a high application efficiency is the primary focus of our sprinkler design applications. This is ratio of irrigation water made readily available to the crop to the amount of water supplied by the irrigation system. There are many factors that play into this besides the sprinkler system, such as soil types, soil conditions, and atmospheric conditions like wind and humidity. In Michigan, we generally have forgiving environmental conditions that allow us to utilize relatively inexpensive sprinkler packages to achieve higher application efficiencies, whereas in the western US many growers must utilize LEPA (Low Energy Precision Application) style sprinklers systems due to high inefficiencies created by wind drift and evaporative losses. These packages can cost up to five to ten the times the price of a typical package we would use on an irrigator in Michigan due to the increased quantity of sprinklers with 30 inch spacing and the excessive amount of drop material with two foot crop clearance. That being said, are the sprinkler packages in the supplemental irrigation Midwestern states just "good enough" or can we make improvements to optimize the way in which water is delivered to our crops?

Sprinkler manufacturers have gone so far as to create crop-specific components that play into the architecture of a certain type of plant. They also offer application specific



Neal Krieger and John Honsinger of Michigan Valley evaluating sprinkler performance in the field with Bart Nelson of Nelson Irrigation.

emitters for more specialized irrigating such as chemical injection or wastewater discharge. The modular design of an individual sprinkler assembly can allow for quick, inexpensive solutions to upgrade an existing sprinkler package. There is also the option to swap components depending on the application during the growing season. For example, a spray plate designed specifically for chemical application may be installed for chemigation cycles, and then back to the watering plate for a regular irrigation cycle. Beyond the sprinklers themselves there are a multitude of options for altering an irrigation pattern to best fit soils or crop types. Sprinklers can be installed perpendicular to the machine pipeline to increase the area of instantaneous application and reduce the application

intensity. This can be done on an entire machine where the crop type does not respond well to high application intensities or the soil type creates low application efficiencies due to high leaching losses or ponding. Individual sets of sprinklers can also be adjusted to mitigate issues like erosion that only occur in isolated spots in a field. With the improving technology and products, there are many options for bringing a sprinkler package from “good enough” to best fit.

Combine a highly effective sprinkler package with an efficient water delivery system and you will get the benefit of lower operational costs as well as yield increase. With innovation and new technologies entering the agricultural world, we can look forward to new developments in the most critical aspect of mechanized irrigation; the application of the water to the plants.

JOSH WOLTER
CERTIFIED IRRIGATION DESIGNER

PLAN AND START EARLY ON SPRING PROJECTS

Whether you are working on your taxes, pricing out inputs, or reading about market projections, you probably have enough stress to meet your annual quota. We certainly do not want to add to this condition. If you are considering a spring pivot project, we recommend not waiting to start this process. While we could order you a pivot today and have it delivered to your field in a couple weeks, there are many moving parts to projects that are out of our control.

Here are a few key examples:

- **DEQ (EGLE) Water Withdraw Approval**
- **Drilling a well**
- **Getting a service drop from your power company**
- **Having favorable field conditions to pour a pivot pad**
- **Working around spring frost laws on rural roads**
- **Coordinating pipe and wire burial**
- **Finding generally favorable weather conditions**
- **Timely financing approvals**

Even the best planned and managed projects often encounter minor setbacks, so starting early can reduce stress.

We look forward to working with you through the entire project and will do our best to get you water where you want it and when you want it, so please help us out by starting early.

PETE PHILLIPS
SALES

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Preventative Maintenance Early Order Kit

- 1 Contactor, 25 AMP / 120v
- 1 Pressure Switch - Booster Box
- 2 Micro-Switch Electric (Tan)
- 1 68 RPM US Motor / Gearbox
- 1 Universal Gearbox - Blue
- 4 Flex Joint / HD Non-Towable
- 1 Overwatering Delay Timer

for only \$1500!

Save
over \$275 off
list price!

**Contact us now and
order yours today!**

UPCOMING EVENTS

March 4 ————— Exhibiting Herbrucks Organic Seminar

March 10 ————— Attending Van Buren Conservation District

Aug 11-12 ————— Exhibiting Agro Expo