Ag Leader®

Insights

Spring 2014 - Precision Farming Magazine

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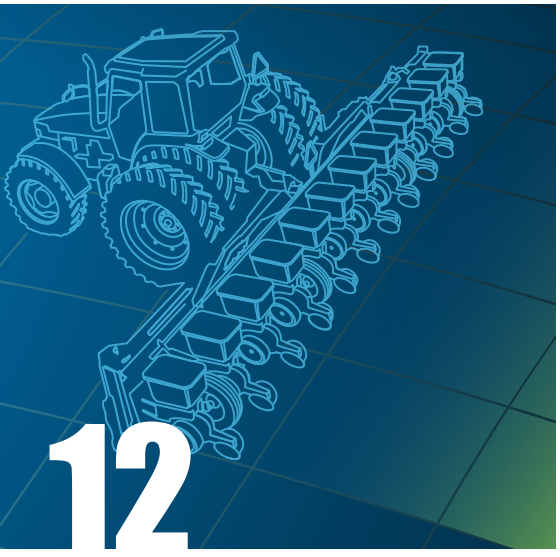

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What's the R$I?

PRECISION'S RETURN ON INVESTMENT

Return on investment. On Wall Street, it's a measure of the amount of money earned on the (hopefully) sound investments made. It's easy to measure – even on a daily basis – as stock and bond prices are available by the minute.

Return on investment in agriculture isn't always quite as easy to calculate. What is the return on your investment of a new tractor? A different hybrid? An additional 200 acres of land? Without more information, these are impossible to calculate.

Ag Leader® products are designed for two things: 1) To help provide the data you need to make decisions that maximize your return on investment; and 2) To make it easier to control the things that maximize your investment.

Take our first product, for example – the yield monitor. Without a yield monitor, you wouldn't be able to accurately calculate the impact of changing seed or applying more or less fertilizer on your field. It would be very difficult to accurately calculate the return on your investment in a new seed technology.

Using the data you can collect in the field to improve your operation is even more powerful. Tools like SeedCommand™ and DirectCommand™ allow you to plant or apply inputs based on variations in your field. OptRx® crop sensors allow you to apply fertilizer based on plant vigor. Intellislope® allows you to install drainage tile in your field easily based on your field topography – without the need for complex surveying. Recent studies show all of these tools have a very good return on investment when used with good data.

And we've introduced a new tool – AgFiniti® – which allows you to easily manage, access and share your data as you want with the partners you want. I think you'll see great value in how it makes it easier to work with your dealer, agronomist and other advisors.

Best of all, while others are using tools and data to learn more about you and your operation for marketing purposes, we've taken a different approach. We want any investment you make in precision products to be 100 percent to YOUR benefit ... not somebody else's. So Ag Leader continues to invest in research and development of more great tools that work with the equipment and practices of our customers. We've found that's where we get our best return on investment.

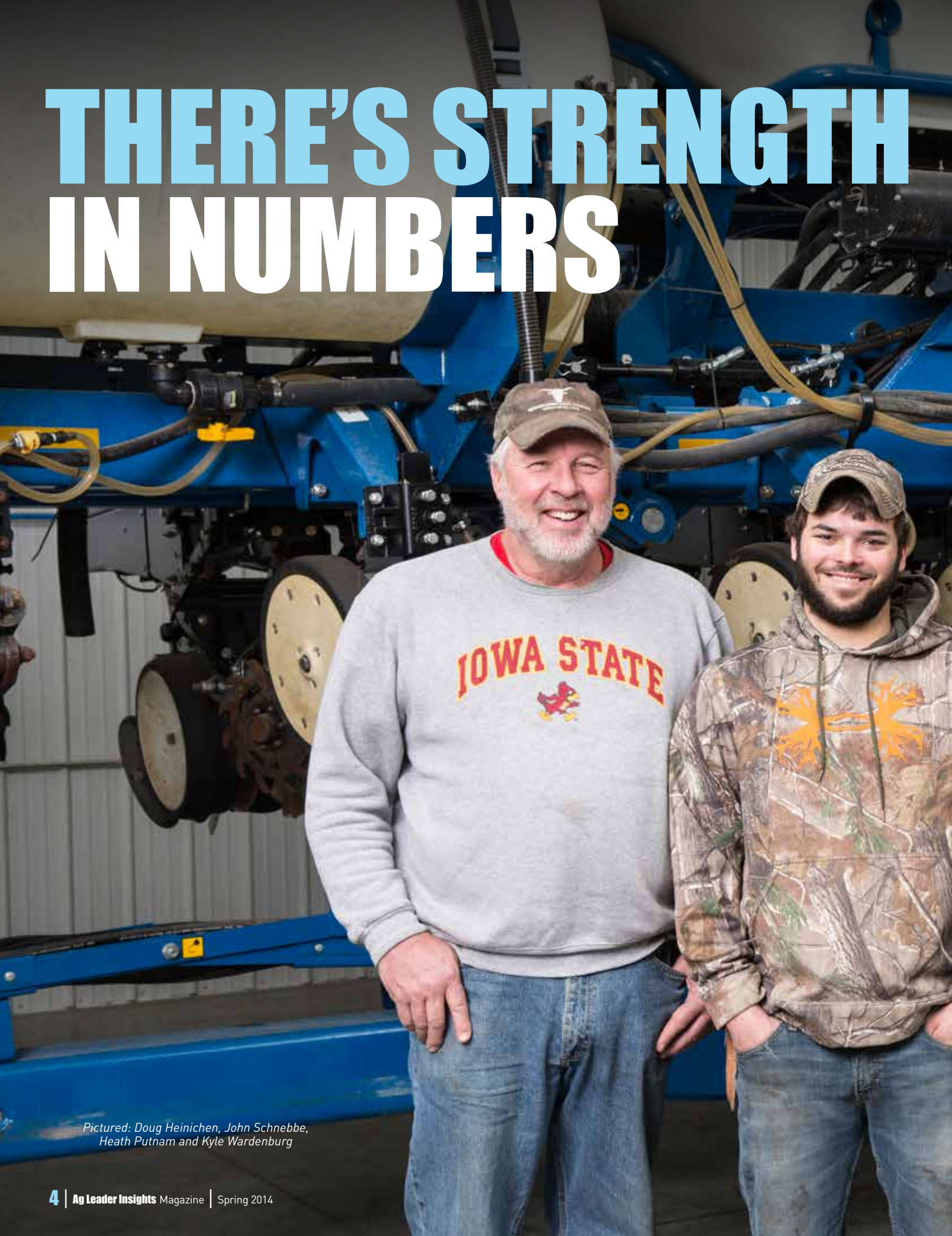
Best Regards,

Al Myers

Al Myers

"We want any investment you make in precision products to be 100% to YOUR benefit ... not somebody else's. So Ag Leader continues to invest in research and development of more great tools that work with the equipment and practices of our customers."

THERE'S STRENGTH IN NUMBERS



Pictured: Doug Heinichen, John Schnebbe, Heath Putnam and Kyle Wardenburg

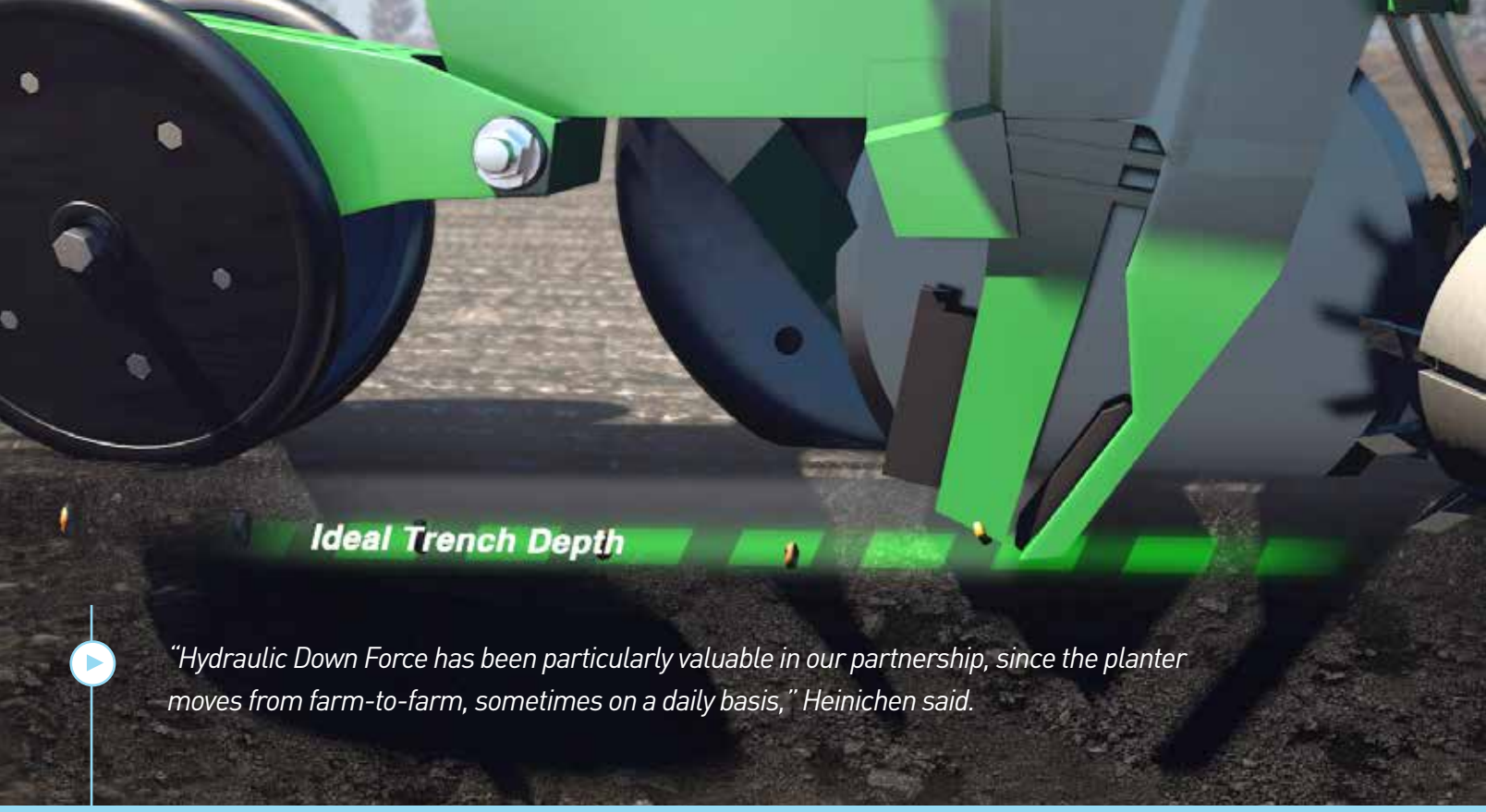
By sharing equipment and Ag Leader technology between four different farms, these Iowa friends/neighbors/associates all benefit.

There was a time, especially in the early days of farm mechanization, when it was quite common for neighbors or friends to buy and share a piece of equipment. Generally, it involved an occasionally used, yet costly machine like a thresher, combine, baler or forage harvester. However, as farms became larger and fewer, that practice has largely disappeared.

The concept is still alive and well, though, near Marengo, Iowa, where Doug Heinichen and friends John Schnebbe, Heath Putnam and Kyle Wardenburg share a unique relationship on approximately 1,600 acres of corn and soybeans. Not only do they split the use and ownership of two planters, a combine and a self-propelled crop sprayer, but they also share agronomist Steve Streeper, W Group Seed Solutions, and the technology available via a plethora of Ag Leader® products.

"We each have our own separate operation and we each have our own tractors," said Doug Heinichen, noting that his portion of the property totals around 600 acres. "However, we share most all of the planting, crop care and harvesting equipment."

As Heinichen explained, that includes a new Kinze® 12-row Model 3660 central-fill corn planter equipped with liquid fertilizer tanks, automatic row clutches, variable-rate seeding capabilities and a new Ag Leader Hydraulic Down Force system. A second eight-row Kinze planter, equipped with interplant row units, is used for planting soybeans. In the meantime, Ag Leader® Integra



"Hydraulic Down Force has been particularly valuable in our partnership, since the planter moves from farm-to-farm, sometimes on a daily basis," Heinichen said.

Illustration of ideal trench depth achieved with Hydraulic Down Force .

displays control all aspects of planting and spraying, including down pressure settings, row shutoff, seed rates, mapping and fertilizer rates.

"We've been using variable-rate plant populations for about five years now," Heinichen added. "But last year was the first season for the Hydraulic Down Force system. We looked at just upgrading our previous planter, but we found it was easier to just trade planters and set the new one up the way we wanted from the beginning," he continued, noting that the four of them assembled the planter and added the down force system themselves under the direction of the local Kinze and Ag Leader dealer, Stanerson Implement.

"The planter we had before this one had a manual down force system that used air bags," he said. "But it was always a guess as to where to set it and we knew there was something to be gained by setting it right. So when our dealer was given the opportunity to sell a limited number of Ag Leader Hydraulic Down Force units, we jumped at the chance."

"The pressure changes with the Ag Leader system were almost instantaneous," Heinichen said.

Heinichen said the Hydraulic Down Force has been particularly valuable in their partnership, since the planter moves from farm-to-farm, sometimes on a daily basis. The planting process starts with their agronomist selecting the recommended hybrids and varieties for each farm and soil type. At that point, two of the partners run the corn planter, another operates the soybean planter and a fourth runs the sprayer over all the acres.

"This past spring, Kyle and I were mainly running the corn planter, with Kyle doing most of the actual planting," Heinichen explained. "We'd generally try and follow the roadmap provided by the agronomist, taking into account the field location and conditions, and the sequence of the hybrids to be planted. As a result, there were times we were on one farm in the morning, another with different conditions, that afternoon and yet another the next day."

Heinichen notes that, at the very least, their old manual down-pressure system required getting out of the tractor to check the setting each time they changed fields or major soil types. For full effect, though, it should be checked more often than that. Considering the time involved for each pressure check, it's little wonder manual systems are only partially effective.

"The old pneumatic system would allow us to make changes from the cab," he admitted. "But there was no feedback. So the only thing you could do was set it where you thought it should be; stop and go back behind the planter to check it and go from there.

"In comparison, the pressure changes with the Ag

Leader system were almost instantaneous," he continued. "Once you got it set, it automatically maintained the correct amount of down force to plant the seed at a consistent depth. In our case, we were aiming for 1¾ inches."

Despite their past experience with a down-pressure system, Heinichen said he was still surprised at the amount of pressure variation the Ag Leader Hydraulic Down Force system exhibited going through the field — describing it as "a lot." Since the new planter is a center-fill model with dual hoppers, they also saw a lot of variation between the middle rows and those on the outer ends of the unit, as well as a difference on the center rows as the hoppers emptied.

"We were extremely pleased with the way it worked," Heinichen added. "Virtually every leaf broke through the ground at the same time and once you saw a row come up, you saw the whole row. We had some rough conditions last spring, with all the rains and delays; and we had some fields that were no-till, while others were conventional till. Yet, we saw better emergence than we've ever seen before."

Thanks to an Ag Leader satellite-guided steering system on his New Holland 8020 tractor, those rows were also straight as an arrow.

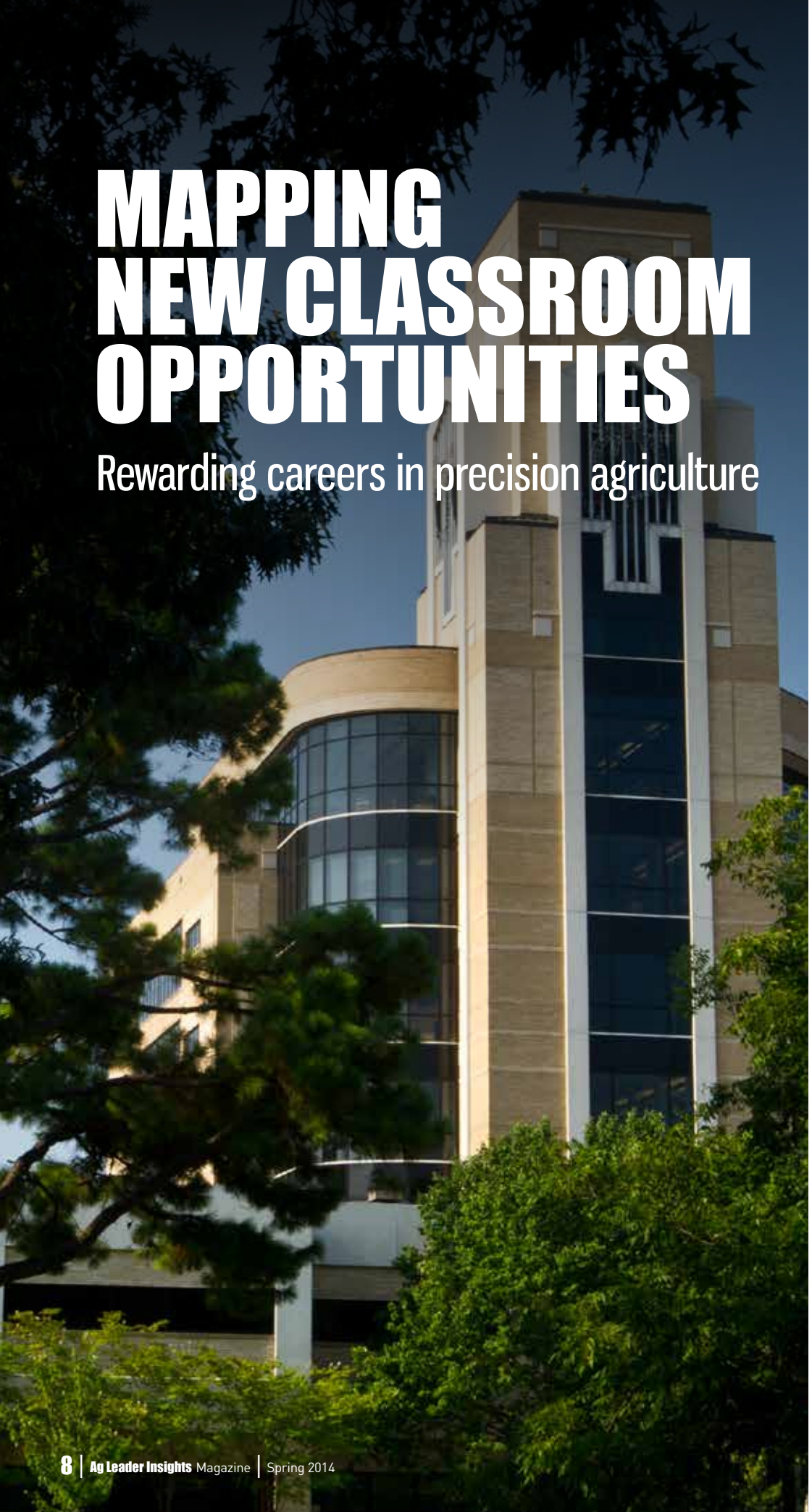
"I'm spoiled to the point I wouldn't want to plant without an automated steering system anymore," he related. "It used to be that all we had in the way of electronics was an alarm that told us if a row wasn't planting. Now, in addition to variable-rate seed, we are putting on 30 units of nitrogen, plus insecticide; mapping the location of each hybrid, watching the point rows, etc. In effect, we have so much going on that it's hard to focus on just driving the tractor. Now, the tractor can take care of itself."

With all the point rows associated with their hilly ground and terraces, Heinichen said he could never be talked out of row clutches and automatic row shutoff on a planter, either.

"Even if I mess up, the Ag Leader Integra display knows where I've been and puts me right back on line to fill in the gap," he stressed. "Between all our tractors, the planters, sprayer and combine, I think we have at least three Ag Leader Integra displays floating around the farms, plus the Ag Leader InSight™ display. We use Ag Leader on everything," he added, pointing out that he once had version 1.0 of the SMS™ precision farming software. "But we also put out a lot of test plots with different hybrids and different populations. So the Ag Leader SMS™ Software gives us and our agronomist a tool for maintaining and measuring all that data, and deciding whether to make changes.

"We're just trying to take advantage of all the new ag technology that is out there," Heinichen concludes. "And sharing it between four of us who have a common goal is one way we can do that."

Heinichen and friends share a Kinze planter for each of their operations.



MAPPING NEW CLASSROOM OPPORTUNITIES

Rewarding careers in precision agriculture

When precision agriculture began to take root on farms nearly two decades ago, options for career seekers were limited. One of the most significant impediments to adoption of precision agriculture at that time was the lack of understanding and absence of education and training opportunities. But the crop production landscape has changed dramatically as adoption of precision farming technology has grown at a brisk and steady pace since those early days. Presently, more than 80 percent of 500-plus acre farms in the U.S. now embrace precision agriculture — and the future looks bright.

According to the 2012 Precision Farming Technology Report issued by Research and Markets, precision farming is on track to increase at a remarkable rate. The report projects the industry will reach $3.72 billion by 2018, representing an unprecedented 13.36 percent compound annual growth rate (CAGR), and demand for new equipment is expected to increase by 10 percent annually during the same period.

Fields of Precision Career Opportunities

The U.S. Bureau of Labor Statistics projects employment opportunities in precision agriculture will increase by more than 29 percent and create more than 100,000 new jobs by 2020. Consequently, interest and career demand for

individuals with technical and related equipment knowledge of the many specialized facets of precision agriculture is at an all-time high.

The growth projections have also produced a bountiful new crop of classroom and educational offerings. Working in partnerships with precision farming equipment manufacturers, colleges, universities and vocational schools are continually adding new classes — and refining existing course offerings — in response to demand for realizing a rewarding career in precision agriculture. Most land-grant colleges, and dozens of vocational schools in the U.S. now offer courses specific to precision agriculture — many with entire curricula devoted to the study.

Dr. Morris, associate professor of agriculture/spatial technologies, teaching at Arkansas State University.

Manufacturer Contributions

To assist in efforts to expand precision agriculture education, equipment manufacturers including Ag Leader® are making significant contributions ranging from equipment training to technical expertise about the operational components of various precision agriculture-related equipment. Educators are recognizing the value of manufacturer partnerships in developing and refining class content and providing in-field experience.

Such is the case for Dr. D. Keith Morris, associate professor of agriculture/spatial technologies at Arkansas State University, who teamed up with Ag Leader through the Ag Leader Educational Solutions Program in 2011.

"The support we receive from Ag Leader has been extremely helpful in developing classes that provide our students with in-field and real-world experiences, and has been instrumental in enhancing learning," Dr. Morris said. "We've progressed from the adoption cycle to the implementation phase in precision agriculture, and as educators, we are continually challenged with the responsibility to adjust course offerings and class content to reflect current needs. New technology is being introduced continuously and enhancements to existing equipment are ongoing. Educators need to stay on top of it, and our partnership with Ag Leader has allowed us to do that more effectively."

Ag Leader established an educational program several years ago to assist educators in developing classroom and curriculum offerings specific to precision agriculture. The program exposes students to precision technology mapping and data collection and analysis software and helps educators stay up-to-date with the latest precision technologies. The program also includes resources to assist instructors in presenting the information in different formats. Ag Leader also provides access to precision equipment useful for demonstrating features and functionality in a real-world remote computer lab setting using real equipment. Students gain additional experience with hands-on opportunities to operate the equipment.

"The objective of the Ag Leader Educational Solutions Program is to serve as a resource for educators by providing technical information they can incorporate into classes," said Tyler Anderson, software support specialist with Ag Leader. "Our role as a manufacturer is not to write or in any way influence curriculum content ... but we can provide beneficial technology expertise and training tools. The program provides examples of how to present technical information in a number of different ways. Instructors can pick and choose specific components to enhance content for a particular class. The information is available in a variety of formats — including several demonstrational videos — that make the information easier for students to grasp."

Arkansas State University College of Agriculture & Technology Campus

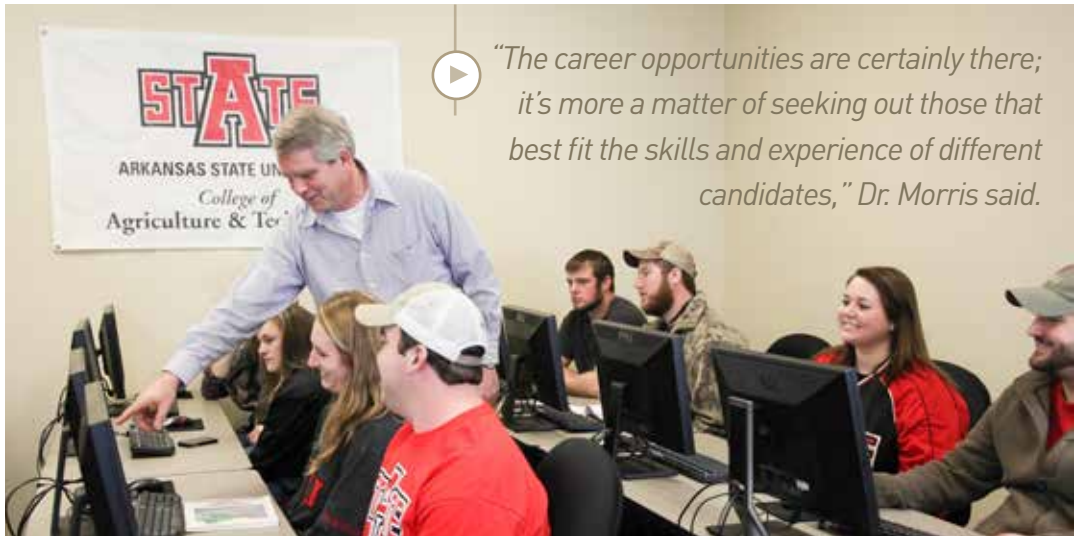
To demonstrate the evolution of the curriculum offered by Arkansas State, Dr. Morris cited a new Spatial Technology minor recently added to the curriculum which includes an advanced level class focusing on the concept of "From Data to Decisions." The upper division class provides students with insights for evaluating, analyzing and hence, transcribing the data into valuable recommendations for farmers. The content reflects the present adoption cycle of the industry and offers actionable skills for students. Access to information from the Ag Leader's Educational Solutions Program was beneficial to Morris in assembling content that would be relevant for the class.

Charting a Successful Course

Mapping an effective route on the road to a rewarding career destination in precision agriculture involves several important steps. To be successful requires a combination of skills and basic knowledge of primary crop production practices and technology. In addition to understanding equipment — including controlling devices (flow and moisture meters) and planters, sprayers and combines — basic knowledge of computer software mapping, spreadsheet and analytical programs and database/user interface and query software will be necessary.

Also since a career in precision agriculture involves constant interaction with farmers, the ability to communicate and establish rapport and trust will be important to be successful. And finally, precision agriculture professionals need to be flexible and have a desire for learning.

Dan Frieberg, CEO of Premier Crop Systems, based in West Des Moines, Iowa, has been involved in precision agriculture since the inception of the technology. He founded Premier Crop Systems in 1999 to help growers maximize the potential of all agronomic data collected by precision equipment. "We often describe precision agriculture as a collision of agronomy and technology," Frieberg said. "Precision technology has



"The career opportunities are certainly there; it's more a matter of seeking out those that best fit the skills and experience of different candidates," Dr. Morris said.

Hands-on teaching in his Dr. Morris' classroom.

greatly altered how growers now manage crop production and agronomic input decisions. In addition to having a general understanding of both agronomy and technology, the most important attribute for individuals interested in pursuing a career in precision farming — from our perspective — is a passion for learning. The technology is continuously evolving and changing. The willingness to stay informed of the 'latest and greatest' will be important to succeed."

Real World Application

Once aspiring precision agriculture professionals have completed a thorough — and objective — evaluation of their skills, aptitudes and personality traits, the next step in the career planning journey involves research. Precision agriculture hopefuls will likely be able to augment some gaps in college offerings with additional opportunities available from related sources including precision equipment manufacturers, associations, university extension programs, etc.

"The career opportunities are certainly there; it's more a matter of seeking out those that best fit the skills and experience of different candidates," Dr. Morris said. "And the demand for precision technology specialists will only increase in the coming years. Working together with manufacturers, we hope to continue providing classroom solutions that will position students with the skills and knowledge required to be successful. But just like technology itself, education involves the continuous monitoring and evaluation of data, and adjusting input and content based on recent variations. It's an ongoing process ... but we've certainly come a long way."

THE AG LEADER EDUCATIONAL SOLUTIONS PROGRAM

The Ag Leader Educational Solutions Program provides educators with many valuable tools for enhancing lab-based classroom learning. The program provides students with basic knowledge of mapping and data collection activities, and how to use the information to maximize crop production efficiencies and enhance yields for farmers.

The program also provides educators access to the latest precision technologies, so instructors can update class content to reflect the most recent technology. Also included are resources including training manuals, video tutorials and documentation to assist instructors in presenting the sometimes complex information in ways that are easier for students to grasp and retain. Participating schools are also invited to attend the annual Ag Leader Educator Training event where they can learn more about hardware and software solutions and interact with peers to learn about effective teaching methods.

"The program provides educators with valuable learning tools about how the various precision equipment components function, and instructions on how users can get the most from the data," said Tyler Anderson, software support specialist with Ag Leader. "One of the components educators find most valuable are the demonstration videos included in the program. The video format offers an effective alternative to operator manuals and is proving effective in establishing better retention and understanding."

For more information regarding the Educational Solutions Program, contact Ag Leader at education@agleader.com or 515-232-5363 ext. 4428.

14 TIPS FOR YOUR PLANTER IN 2014

The following is a look at 14 areas of your planter that you can focus on for the 2014 planting season. This is where everything starts. A planter that is not in tip-top shape equates to yields that are not in tip-top shape.

1 BEGIN WITH THE FRONT OF THE PLANTER

Is the tool bar level with the ground? Adjust hitch or 2pt as needed to ensure tool bar is level. An uneven toolbar means coulters will not run at the intended depth and closing wheel will not run at the intended angle, which will not close the seed trench as effectively. In extreme cases, the seed tube will be pitched back, which can allow soil to fall back into the trench before the seed has been placed. Be sure to perform dig checks to ensure each row is consistently planting at proper depth.

2 CHECK PARALLEL ARM BUSHINGS

With planter raised, lift up on the rear of the row unit to observe free play at both ends of all parallel arms. Excessive free play will cause the row unit to nose dive while planting, which will have similar consequences as listed above.

3 CHECK HEX SHAFT BEARINGS

First you'll need to be able to run the hex shaft while the planter is stationary. If you have hydraulic drives, this task is easy, otherwise you may need to invest in an electric motor (spinner) that can be attached to the hex shaft. Using a mechanic's stethoscope (or touching the bearing hanger with a screwdriver, and placing the handle against your ear) listen for any bad or failing bearings. A failing bearing can cause vibration or jumps in the shaft, which will lower seed spacing consistency and increase skips. Ask your Ag Leader dealer about Advanced Seed Tube Monitoring through an Ag Leader® Integra display to identify when poor spacing and/or skips occur.

4 CHECK OR REPLACE CHAINS

Rusty or sticky chains can cause jumps within the meter. These jumps will lower seed spacing consistency and increase skips. Advanced Seed Tube Monitoring from Ag Leader can identify this problem when it occurs.

5 CHECK ALIGNMENT OF HEX SHAFTS AT THE FOLD POINTS

Misalignment of the hex shaft at the fold points on a planter can cause the meters towards the outside of the fold point to vary RPM within each revolution. Variation in RPM will cause variation in seed spacing. Advanced Seed Tube Monitoring from Ag Leader can identify this problem when it occurs.

6 CHECK CONDITIONS OF SEALS IN VACUUM METERS

Stiff, torn or worn seals within vacuum meters can cause a leak within the meter. Since planters typically only have 1 or 2 vacuum sensors for the entire planter, this may go unnoticed. A vacuum leak is often accompanied by the row having more skips than neighboring rows. In addition to adjusting a double eliminator, increase vacuum levels when the planter is suffering from too many skips or decrease vacuum when too many doubles are occurring. Inspect rows that do not follow the trend of the rest of the planter.

7 CHECK CONDITION OF SEED DISK WITHIN THE VACUUM METER

Older or improperly stored plates can deform, which will lead to inconsistent seed pickup and release. The planter operator's manual contains recommended storage methods.

8 CHECK CONDITION OF BACKING PLATE ON FINGER PICKUP METERS

Worn, rusty or dirty (seed treatment buildup) backing plates can cause inconsistent seed singulation.

9 CHECK TENSION OF FINGERS WITHIN THE MECHANICAL METER

Improper finger tension will result in inconsistent seed singulation. Consult operator's manual for proper adjustment.

10 USE SEED LUBRICANT

Especially with treated seeds, the proper type and amount of lubricant will help maintain meter performance. Remember to increase the amount of seed lubricant when planting in high humidity conditions. Use the suggested seed lubricant for your type of planter.

11 CHECK THE OPENING DISKS

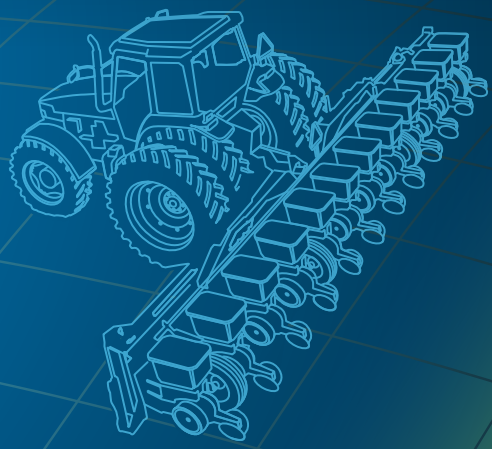
Typically, these are replaced after approximately 1" wear has occurred when compared to the original diameter. Check to ensure the openers are contacting one another the appropriate amount, which can be found in the planter operator's manual. Left unchecked, opener wear will no longer create a V trench and will become more of a W. Once this happens, inconsistent seed to soil contact can occur, which will cause variability in emergence. If replacing the opening disks, replace the seed tube guard at the same time.

12 ENSURE VERY SLIGHT CONTACT BETWEEN THE GAUGE WHEELS AND THE OPENERS

Lift wheel to planting depth and pull out on the wheel to account for wear in the gauge wheel arm bushings. A gap between the opening disk and gauge wheel can allow loose soil to fall into the trench before the seed is placed. In wet conditions like 2013 planting season, this gap is where mud was allowed into the gauge wheel, eventually interfering with rotation.

13 CHECK SEED TUBE FOR WEAR AT THE OPENING WHERE THE SEED EXITS

If the tube has contacted the opening disk, burs can occur which may deflect the seed, affecting consistent spacing, or even deflecting the seed out of the trench.



14 CHECK TO ENSURE CLOSING WHEELS ARE RUNNING CENTERED OVER THE TRENCH

As wear occurs on the bushings of the closing wheel assemblies, the spring tension can often pull the closing wheels to one side of the trench or the other. Closing wheels that do not trail correctly can cause inconsistent seed to soil contact, which negatively affects even emergence.

AG LEADER AROUND THE WORLD: EUROPE

Today, Ag Leader Europe has seven team members serving growers, distributors and agricultural professionals throughout Europe, Africa and the Middle East.

By now many people have likely heard the story of how Al Myers began developing a yield monitor in the garage of his Iowa home back in 1986. Over a quarter century later, in the summer of 2012, Ag Leader Europe added to the legacy of interesting startup locations when it opened a facility in the former post office of a Dutch village near the Netherlands-Germany border.

Of course, it's not always where something starts - but where it can go.

Today, Ag Leader Europe has seven team members serving growers, distributors and agricultural professionals throughout Europe, Africa and the Middle East. Traces of the signature orange color scheme of the old Dutch post office can still be found in parts of the interior, serving as a warm accent to the Ag Leader blue that abounds throughout the roughly 3,200 sq. ft. (300 sq. meters) building.

The open space where postal workers once busily sorted mail now serves as a state-of-the-art training center where as many as 15 distributors can receive hands-on instruction for Ag Leader products and other agricultural machinery.

Ag Leader Europe employee, Paul Rose, showing six foot row spacing in a corn field.

Renovated offices and storage space complete the ground level of the complex.

Altogether, the facility gives general manager Hans Stiekema and his team of precision ag specialists the tools, resources and space to provide advanced training to distributors and ultimately grow Ag Leader Europe into the leading precision farming technology company in the region.

Founder Al Myers traveled overseas last summer to check out his company's new Euro hub and came away very impressed with how far along the operation had come in a short time. He also visited several European countries – including Italy and the Ukraine - to further his knowledge of their agricultural practices and to evaluate the adoption of Ag Leader's products.

Today, the prevalence of precision farming technologies continues to vary throughout the region. For example, in eastern European countries like the Ukraine, growers have only just recently begun to adopt guidance systems. One operation Myers visited was a well-developed farm of 123,000 acres (50,000 hectares) equipped with some of the latest, largest machinery. Precision farming tools, however, had just begun to be adopted and installed.

There is considerable potential, however, for adoption throughout the region, particularly on larger farms in Eastern Europe. The hot discussion topics among the more innovative growers include sophisticated systems like farm management, fleet management, remote control and service, and data transfer. Not to mention the use of the ISOBUS standard.

Team members for the Louis Nagel Company, the Ag Leader distributor for the Netherlands and Belgium, discussed with Myers how the precision farming needs

Five OptRx Crop Sensors mounted on the front of a tractor in Europe.

First ParaDyme ever installed in South Africa in 2010.

of most American growers differed with those in northwest Europe where the average-size farm is 148 acres (60 hectares).

Small fields of high-value crops, like potatoes, onions, carrots and other vegetables, make farming practices in Europe highly intensive. With such valuable crops being planted on small areas of land, there's a growing interest in precision farming tools that can help growers maximize yield.

There's a 500-acre (200 hectare) lettuce farm in the Netherlands that has been particularly aggressive in pursuing new precision farming tools. Owner Frans Nouws employs up to 60 people during peak times, some of which are dedicated GPS users who help run the nine RTK ParaDyme® systems on the farm. used for planting, weeding, fertilizing and controlled traffic farming. As small as this country is, growers like Nouws make the Netherlands the second largest exporter of ag products worldwide. This would be impossible without an extreme high level of precision farming.

In many cases, the ParaDyme systems aren't fitted to shiny new tractors but older Steyr models that at first glance look like they belong in an agriculture museum. Nouws added hydraulic steering to two of the oldest tractors so ParaDyme could be installed on them. When asked why he did this, he said that, "Tractors do not make me money, ParaDyme does. Why spend 100,000 euros on a new tractor when mine do exactly the same job and are easy to repair and maintain?"

"Tractors do not make me money, ParaDyme does," said Frans Nouws.

Nouws has also implemented five OptRx® Crop Sensors on a Deutz AgroXtra 3.57 to variably apply fertilizer to his different varities of lettuce. He has already observed the added value of the OptRx sensors for scanning, monitoring and variable rate applications, and said that the five sensors are only the starting point for what his operation can achieve in terms of variable rate application. Indeed, it's not where something starts – but where it can go. ■

Ag Leader Europe employee, Sergey Ryzhov, and Ag Leader president, Al Myers, look at tractors commonly used in the Ukraine.

Inspection of a Claas Tucano sold primarily in Eastern Europe.

THE DATA REVOLUTION

In this, the age of information, it's possible to check the weather forecast, pay bills, and see what 500 of your closest friends are up to with the click of a mouse. While it's tough to complain about the convenience of modern technology, it is easy to wonder about the safety and security of personal information. Recent buzz has brought up privacy concerns as agriculture giants monopolize the industry.

With cloud-based platforms being the latest craze in precision agriculture, growers have been wondering how to ensure their information is secure.

John McGuire, an agriculture technology specialist and owner of Simplified Technology Services explains there are steps growers can take to protect their data. Understanding the user agreement is the first step.

"First of all, they (growers) should thoroughly look through any user agreement that they may have to accept to use a service," McGuire said. "Look for things that suggest the service provider may have access to their information."

Not only is it important for growers to understand their user agreement, it's critical to know what the data is being used for, and who has access to it.

McGuire adds, "Next, know where your data is going. Whose server is it being transferred to and from? What rights does the farmer have to revoke access to entities that they share data with?"

Then, McGuire suggests you take a more direct approach. "Put the data on the server for transfer reasons then remove it to a local copy of SMS. Be sure to ask if they do remove it from the server that it is actually deleted and

Although Ag Leader is not the only to introduce this type of platform for storing and sharing of data; it has revolutionized the industry with its stance on data privacy.

With AgFiniti, the user maintains ownership of his or her data after it is uploaded.

no residual copies remain in the service providers system unless specifically stated it is for backup purposes only and it will not be part of an active database. Overall you have to be a detail hound – that is carefully reading the fine print," stresses McGuire.

He goes on to say there are countless reasons companies are interested in your farming data. Some of the reasons include: marketing, agronomy and real-time yields.

Marketing

If they know your yield, they know how much money you are making and what they can charge for their product. If you are accurate with your data records they know your practices and they can target market to you.

Agronomy

Again, if you are religious about recording all your practices they can look over your shoulder and know what you are doing well and what you are not. They basically can learn to farm your ground from you.

Real-time Yield

If they know in real-time what the yields are doing in the Midwest, can they sell this information to those that can get a market advantage from it? If they can, will they share the sale of that data with you? Will their conglomerated data work against your market position?

The list goes on and on. Let your mind wander and it gets scary in a hurry.

The best way to ensure your data is not being stored, analyzed and used by the company that is storing it for you is to maintain ownership. "If you control it, you stand the best chance to gain maximum value from it. The farmer has spent the money and put in the effort to collect the data so they should be the ones reaping the reward," McGuire concludes.

AgFiniti is Different

Ag Leader understands and shares these concerns, which is one of the reasons it introduced AgFiniti, its cloud-based data management platform. Although Ag Leader is not the only to introduce this type of platform for storing and sharing of data; it has revolutionized the industry with its stance on data privacy.

What's revolutionary about it? The user maintains ownership of his or her data after it's uploaded. Luke James, Software Sales Manager, says it's because, "Ag Leader is independent, just like you. We are not in the seed, fertilizer or any other type of business. We're here for the growers and value their privacy." ■

PARADYME POWER

Mississippi producer brings nine Ag Leader systems to his large operation.

Berry purchased nine ParaDyme Automated Steering Systems — one for each of his Challenger® tractors.

Remember the last time you lost your wireless connection on your home computer or your cell phone? The wait to reconnect — even if it's just minutes — can be agonizing. Imagine, then, the frustration Mississippi farmer Curtis Berry experienced each time he lost the signal to the auto-steer technology on his combines and tractors while working his fields.

Berry farms 7,000 acres in Robinsonville, Mississippi, just 30 miles south of Memphis. A second-generation producer, Berry has about 4,500 acres devoted to rice, while the remaining acreage is divided among beans, corn and wheat. With such a large operation, a large inventory of equipment is critical to Berry's bottom line. So, too, is efficiency.

"With my former automated steering system brand, I was constantly losing the signal," Berry said. "The goal is to be as efficient as possible. In farming, time is money. When you lose time in the field and spend time on the phone trying to get service, it affects your business. You just can't operate like that."

Berry was searching for a better solution, which eventually led him to Ag Leader® and the ParaDyme® Automated Steering System. As Berry soon discovered, ParaDyme is at the heart of a full-featured precision agriculture product and a vital element of an agriculture data management system. Its

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precision control and ease-of-use is a vital part of an integrated farm management system.

With the help of his longtime Clarksdale, Mississippi, dealer Delta Precision Systems, a ParaDyme demonstration immediately captured Berry's attention and prompted a sizeable investment. Berry purchased nine ParaDyme Automated Steering Systems — one for each of his Challenger® tractors and one for his White planter, as well as two Ag Leader® Integra displays and seven Versa™ displays.

"Curtis was sold on the ParaDyme the minute he saw the demo," said Delta Precision Systems Sales Technician Jeffery Gaston. "He bought nine of them that day — and that is a chunk of change."

Berry uses the new Ag Leader products primarily for the steering accuracy, but also uses the Ag Leader Integra and Versa displays for yield monitoring, rate control and planter control, thanks to hydraulic planter drives and electronic monitoring. The investment was worth it, Berry said, as it allowed him to improve his efficiency by 50 percent.

"I was impressed by how quickly the ParaDyme was able to catch a satellite signal, as well as its accuracy," Berry said.

Fact is, accuracy is one of the many selling points of Ag Leader's ParaDyme GPS and automated steering control system. Specifically, ParaDyme offers sub-inch, pass-to-pass accuracy and year-to-year repeatability. Leveraging Logic 7D™ technology, ParaDyme tracks pitch, roll and yaw as well as vehicle position and heading at all times, even when the vehicle is not moving. ParaDyme also offers rapid line acquisition and faster response in forward or reverse start-stop situations. Plus, its dual-antenna GNSS steering solution provides accuracy within one-tenth of a degree. The ability to follow advance guidance patterns, including contours, also makes ParaDyme the perfect solution for Berry's many rice fields and the convoluted pattern of dikes that often accompany rice farming.

In terms of simple functionality, the ParaDyme is designed to steer the tractor left and right. However, a further look into the innovative design of the ParaDyme reveals a number of sought-after features, including intuitive operation, scalable GPS accuracies that cover North America, Australia and Europe, hassle-free local corrections (for repeatability), a differential correction solution to maintain steering by transitioning to a lower accuracy mode when the higher accuracy mode is lost, affordable

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performance steering, higher-end configurations that offer a competitive menu of precision agriculture for auto steering, and reliable, two-way communication for diagnostics and software updates via cellular modem, or USB storage device (user preference).

For growers, the primary advantage is increased running time without losing coverage due to interruptions or low GPS signal availability, since it also supports the GLONASS satellites. The system can be controlled through the Ag Leader Integra or Versa displays, and features remote service and the ability to receive RTK differential corrections via cellular networks.

For Berry, another selling point was the level of service Ag Leader dealers provide. Delta Precision Systems not only installed Berry's base station, but because he often uses his ParaDyme systems on his combines as well, Gaston provides the onsite swap each time. In fact, auto-calibration through the Ag Leader Integra, Versa and Compass™ displays makes installation simple — even when moving from vehicle to vehicle.

"It's a very simple system to learn and teach others," Berry said

"It's a very simple system to learn and teach others," Berry said of how easily his 10 employees have adapted to the technology. "Younger employees are more tech savvy, so they get it pretty quickly. But even my older guys catch on fast."

ParaDyme also features remote technical service, which can be accessed from any field, and problems can be diagnosed and corrected in real-time for maximum efficiency, Gaston said. That, too, has become a key selling point for Berry and many other Delta Precision Systems customers, he explained.

"What I like about the Ag Leader system is the simple fact that you can use it for steering, as a yield monitor, for rate control and so much more. Anything you want to do on a farm, Ag Leader and ParaDyme can do it," Gaston said.

THE INNOVATION UPDATE

LATEST:

Ag Leader Opens New Distribution Center

Ag Leader has opened a new distribution center in Ames, Iowa. A growing line of precision farming products and expansion into more overseas markets led to the company outgrowing its fulfillment facilities. The new distribution center gives Ag Leader more space for fulfillment and storage of finished goods.

"In order to meet demand and deliver our line of products across the world, we have opened a new distribution center located just down the road from our corporate headquarters," said Al Meyers, Ag Leader President.

What's New for Dealer Training?

Five new courses providing dealers new and advanced skill sets to stay on the cutting edge of technology and customer service have been added to Ag Leader's dealer training. This winter a new four-day electrical and hydraulic course was offered to dealers. In addition to the course, Ag Leader is trying something new by offering three new half-day courses. The first half-day course will be for AgFiniti, Ag Leader's all new cloud-based platform. Attendees will learn everything there is to know about AgFiniti® - from the cab to the office. The last two half-day courses; GPS & Steering Refresher, and Hardware Refresher offer advanced diagnostic troubleshooting experience in the GPS & Steering, DirectCommand™, and SeedCommand™ product lines. SMS™ Software is also adding a new course to their lineup; Water Management, which uses SMS Advanced Software with the Water Management Module to assist users in visualizing their field's topography, and creating a tile installation plan for their field.

For more information, visit **www.agleader.com/support/training/.**

Connect with Ag Leader

Social media is a common way people are communicating today. Not only can Ag Leader fans interact with the company on Facebook, Twitter, LinkedIn and YouTube, but also on Ag Leader's blog – Precision Point. These platforms allow Ag Leader to inform and educate, and also have a conversation with those interested in precision farming technology. Connect with us today!

Don't Go Through Another Planting Season Without Hydraulic Down Force

The spring of 2014 will be Ag Leader's second season providing Hydraulic Down Force. Controlled by the Ag Leader® Integra display, Ag Leader dealers and end users are quickly seeing the benefits this system can provide. Supported planter row units for Hydraulic Down Force for Spring 2014 are John Deere MaxEmerge® 2, MaxEmerge® Plus, MaxEmerge®XP, XP Pro, Kinze® 3000 (non-Interplants), Kinze® 4900 and White™ 8000 (limited release).