

# C

## MAGAZINE



### Growing Expertise

Preparing the next generation of ag professionals

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CHS Foundation  
Celebrates 75 Years



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FALL 2022

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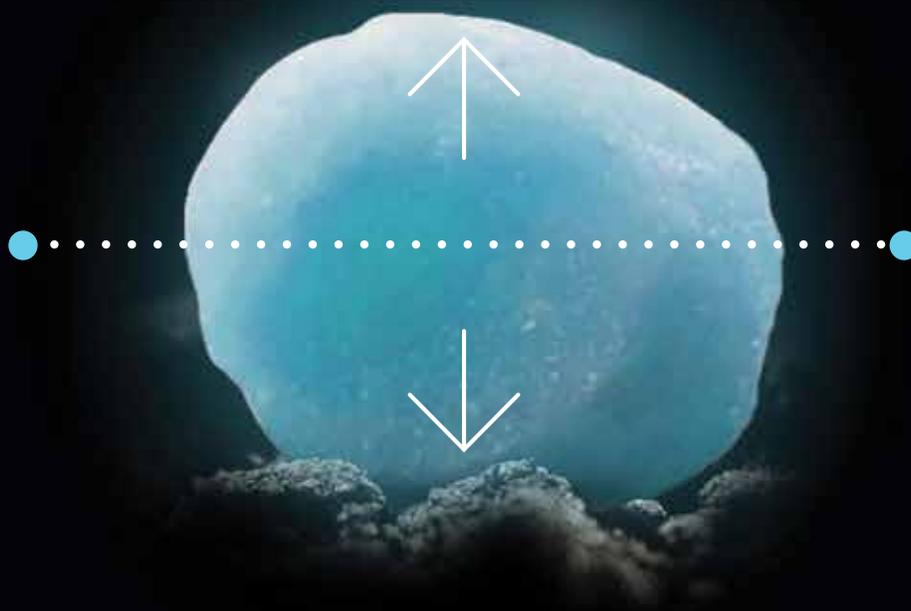
**ON THE COVER:** Hands-on learning is part of the ag programs offered at Mitchell Technical College, where students can earn scholarships in return for work commitments at participating businesses within the state. Precision ag technology students, front to back, Hunter Janish, Jacob Dold and Blake Larson replace parts and grease a combine header.

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*Jay Debertin, president and CEO, CHS*

## Learning Together, Growing Together

What got us here won't get us where we need to go.

In agriculture, we have a tradition of learning from each other, passing along knowledge gained over the years. We know the value of doing things a bit better every day — those incremental improvements add up to something big.

While we will continue to build on that legacy, it's not enough to propel agriculture and cooperatives into the future.

We need more ideas, more energy and more passion about feeding the world. Our industry is hungry for fresh thinking that will come from those who are new to agriculture. We need their clear view of what drives consumer decisions and how we can address challenges in creative ways.

Frayne Olson, who leads the Quentin Burdick Center for Cooperatives at North Dakota State University (NDSU), says it well: "Our challenge is in connecting with people. We have a great story to tell, but many talented people don't fully understand what sets agriculture and cooperatives apart."

CHS is working to bridge that gap in multiple ways. Here are a few:

- For 75 years, the CHS Foundation has helped develop the next generation of ag leaders through scholarships, grants for teachers, funding for ag-related curricula and more.
- We cast a broader net for interns, looking for young people with a passion for data analytics, artificial intelligence and finance, as well as more traditional interests in agronomy and grain marketing. Many of them will join CHS as permanent employees and all will gain a deeper understanding of agriculture.
- We partner with organizations like the Quentin Burdick Center to introduce college students to the cooperative difference and we partner with NDSU on continuing education for co-op leaders.

Attracting new talent and welcoming diverse thinking will help CHS grow, providing owners and customers with solutions we have yet to imagine. Our future is bright.

A handwritten signature in black ink that reads "Jay D. Debertin". The signature is written in a cursive, slightly slanted style.

Have a question or feedback for the CHS management team? Get in touch with us at [feedback@chsinc.com](mailto:feedback@chsinc.com).

# Cultivating

Creative approaches to attracting and training the next generation of professionals are changing the face of agriculture



*Mitchell Tech students Carter Robertson, Jay Storm, Hunter Janish and Jacob Dold learn about the capabilities of an infrared drone for tracking crop progress throughout the growing season.*

# ag's future



By Peg Zenk

Over the past two years, the pandemic caused a major disruption in the U.S. labor force. It's not a new challenge — most ag businesses have been dealing with a dwindling pool of potential employees for more than a decade — but the pandemic seems to have compounded the problem.

Shrinking rural populations are a major factor, but it has become even more challenging to fill jobs that demand long hours and can involve work with higher risk and liability than the average desk job, says Amanda Jackson, a

talent acquisition specialist with CHS. “I’ve worked as a recruiter for 20 years and the last two years have definitely been the most challenging.”

For many cooperatives, filling operations positions, such as truck drivers and applicators, is the most difficult, she says. “But it can also be a challenge to fill sales and precision ag jobs because those roles require very specific skill sets.”

Finding solutions has required a more proactive approach to recruiting and some out-of-the-box thinking. Here are a few >



*Mark Van Dyke, left, an agronomy sales manager with CHS based in Mitchell, S.D., discusses adjuvants with agronomy sales representative Lindsey Berg, who interned with CHS as a college student through the Build Dakota scholarship program.*

➤ examples of how ag organizations are finding and training the employees they need.

### Two-way Commitment

For Mark Van Dyke, an agronomy sales manager for CHS, based in Mitchell, S.D., staying fully staffed at the cooperative's nine agronomy locations around southeastern South Dakota can be a challenge. Early recruiting of college students for internships is one of the most effective strategies he and other cooperative managers have implemented. "We're trying to create a pipeline of graduates and potential hires for high-demand jobs, including agronomy operations and sales," he says.

"Finding interns has gotten very competitive. Every fall, we go to college career fairs around the state and in neighboring states, and we find about one-third of students already have

summer internships lined up," he says. "When you identify good candidates at a fair, you usually need to make them an offer within days."

A few years ago, the cooperative began participating in a statewide program that helps match students to potential careers even earlier — in high school. The Build Dakota scholarship fund was created in South Dakota in 2015 with philanthropic donations and legislative funds to address the state's workforce shortage by training and retaining highly skilled workers.

The scholarships cover half the cost of tuition for certain two-year programs that fill positions of greatest need in the state, while sponsoring businesses pay the other half. Originally, the only agricultural program that qualified was precision ag technology, but, beginning in 2023, agronomy

and ag production will qualify, too. Van Dyke, who serves on boards for Mitchell Technical College and the South Dakota Agri-Business Association, lobbied for the latest additions.

The catch? High school seniors need to commit to working at the sponsoring business as interns during two years of college and full-time for three years after graduation.

"The first year we were a little nervous about participating, since it requires paying half a year's tuition up-front for each student," recalls Van Dyke, "but we've seen good results and feel it's a reasonable investment for the co-op to get motivated employees who we can help train. We are sponsoring four students in the 2022 class, but would love to have 10."

He points to Lindsey Berg as one of the program's success stories. The Emery, S.D., native grew up on a farm that raised

cattle, corn and soybeans, and her father worked in the agronomy business.

“I originally wanted to be an ag teacher,” she says, “but after shadowing an agronomist and touring Lake Area Technical College in Watertown, S.D., I decided to enroll in the precision agriculture program there.”

Signing on to a five-year commitment to the cooperative was a little daunting, Berg admits, “but I’m a planner, so getting a full ride for tuition and having a guaranteed job at the end was a great deal.”

After completing her spring and summer college internships at CHS Farmers Alliance, Berg started full-time at the cooperative in May 2020, beginning as an agronomy trainee and then moving into a permanent sales position a few months later when a long-time employee retired.

“Lindsey is a very driven person who has exceeded her goals every year and is always willing to do extra things around here, just to learn more and be helpful,” says Van Dyke. “For us, Lindsey’s a rock star.”

## Strong Bench

Another South Dakota cooperative has taken advantage of the Build Dakota program to entice promising young people to get practical work experience in agriculture and within the cooperative system. The CHS retail business based in Brandon has taken it a step further, says seed manager Bob Goodroad, who also oversees intern recruitment.

“We’ve added a layer to our full-time positions called agronomy sales trainee (AST) for new employees who don’t have as much experience in sales,” he says. “An employee will typically work in that position six to 18 months to get fully up to speed and then move into a sales position. This allows us to train new employees for areas where we want to grow our business, as well as build a strong bench.”

Not all ASTs are fresh out of college, he notes. “One current AST is closer to middle age and is getting into agriculture after working in another

industry. This program allows him to work with one of our top sellers and begin building relationships.”

Sales Agronomist Jackson Kerr worked his way through the Build Dakota program as an intern at the cooperative, then spent six months as an AST before moving into his current position in January 2022.

“Through my internships and trainee time, I’ve gotten to work in many areas within the cooperative, from scouting fields and working with farmers to handling grain,” Kerr says. “I’ve really enjoyed the diversity and look forward to continuing to grow our sales.”

## Tapping Urban Schools

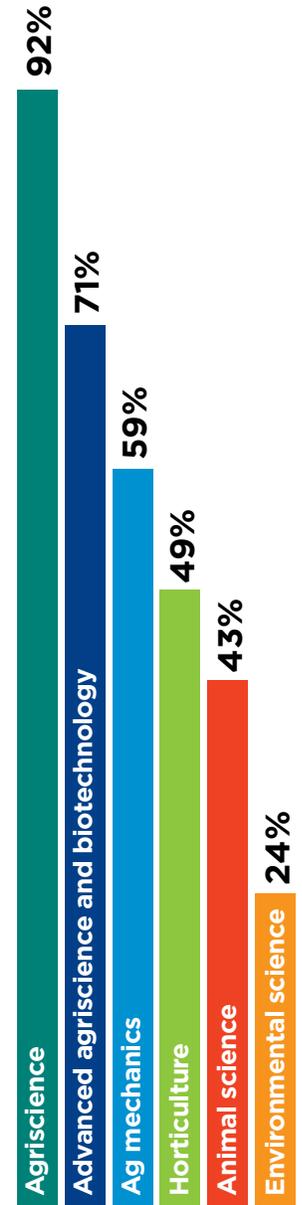
Creating more awareness of agricultural careers and CHS is why Goodroad contacted administrators at the Career and Technical Education Academy working with Sioux Falls, S.D., area high schools. “Last year, the academy launched an agriculture program and I wanted us to be involved.” >

*Sprayer technologies and nozzle adjustment are included in the ag chemical equipment course required for students in the precision ag technology program at Mitchell Technical College.*



## MORE THAN CROPS AND CATTLE

Today’s high school ag programs are offering more diverse classes that not only meet science requirements, but also attract urban students.



**Ag programs offering these classes**

Source: National FFA Organization

➤ As an exclusive sponsor of the new program, CHS gets naming rights and commits to class time that allows CHS employees to share their expertise and in-field experience with students. “We’ll be able to promote opportunities in agronomy and in all our business units, including energy and grain,” says Goodroad. “We’re becoming a real-world part of the curriculum.”

Ag teacher and FFA advisor Andrew Jensen says he is grateful for the support and excited to tap into the resources the cooperative offers as he grows the program, now in its first year.

“Most of our students know very little about agriculture. I’m looking forward to taking them on tours of local agri-businesses and having more guest speakers. We’re working on a collaborative farm safety presentation this fall.

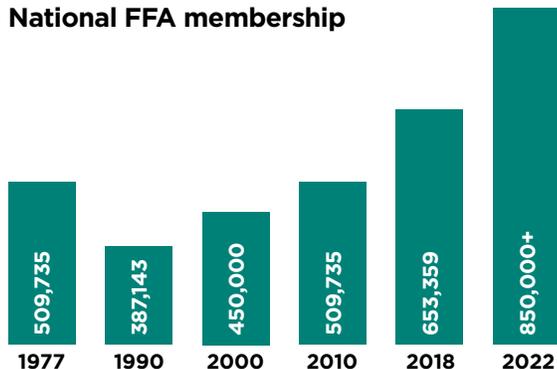
“We’re also starting a new FFA chapter here, and I appreciate that the CHS Foundation is a National FFA sponsor,” Jensen notes. “The financial support is great, but they’re also here in person to provide students with the practical advice they need to have successful careers. Our program is all about providing the hands-on component to education.” ■

## FFA BOOMS

Along with the growth in high school ag programs, FFA membership reached an all-time high in 2022, with more than 850,000 members in nearly 9,000 chapters across the U.S., Puerto Rico and the U.S. Virgin Islands.



### National FFA membership



Source: Journal of Agricultural Education

# Highway to Success

Sometimes it’s the simplest ideas that make the biggest impact. The high school commercial driver’s license (CDL) preparatory class at Connell High School, Connell, Wash., began as a dream for Charlie Dansie, Connell High School agricultural education instructor, following a phone call from a relative.

“My wife’s uncle and his two sons own and operate a sod farm,” says Dansie. “They had a load of sod that needed to get to Seattle, but there were no CDL drivers to haul it.”

The seed was planted. And then the COVID-19 pandemic swept over the country.

“Charlie’s dream of offering a CDL preparatory class to his students stayed alive during COVID,” says Jim Jacobs, superintendent of North Franklin School District. “During that time, he continued to work on standards and curriculum for the class.”

Step by step, Dansie moved his proposed high school CDL preparatory curriculum through local, state and federal education channels. All approvals were granted in November 2021. The first class started in January 2022 with 30 students.

## Meeting the Need

“We live in a predominantly agriculture-based community,” says Keeley Gant, director for career and technical education at Educational Service District 123 based in Pasco, Wash. “There is a huge employment gap for CDL drivers. Charlie developed a high school course curriculum that is responsive to

our community’s need.”

The CDL preparatory class not only offers an avenue to train more drivers, but also provides stepping stones for students who are seeking jobs with livable salaries.

“The majority of our students have ties to agriculture,” says Bill Walker, principal of Connell High School. “Not all students want to go on to receive higher education. We need to ensure that our students are ready for their next steps in life, whether that is further education or seeking well-paying employment.”

Connell High School CDL students pose with the program’s donated truck and trailer. The equipment allows students to practice pre-trip inspections and get real-life experience behind the wheel.



## Bright Future

For Levi Danz, a 2022 graduate of Connell High School, participating in the CDL preparatory class opened his eyes to a new, exciting career path.

"I wasn't thinking about getting my CDL until I heard about Mr. Dansie's class," says Danz. "It was the number one class on my list for the spring semester."

The CDL class consists of safety videos, guest speakers, pre-trip inspection practice and opportunities for students to get behind the wheel of a big rig. For

many, this is their first time sitting in the driver's seat of an 18-wheeler. "Mr. Dansie has students drive a truck at least once to make sure it is actually something we want to do," says Danz.

Following high school graduation, Danz earned his CDL instruction permit and spent the summer driving and studying. He passed his CDL driving test in September.

The future looks bright for Danz. He joined the National Guard, where he will be driving a truck. After his military service, he wants to pursue a mechanical

engineering degree while using his CDL to do custom hauling for local agricultural producers.

"Mr. Dansie taught me everything I needed to know," says Danz. "I don't know how I could ever show enough appreciation for his help."

## Community Strength

"The community has been generous in supporting this program," says Walker. "Trucking companies and ag-related businesses recognize the importance of this program and have been quick to respond with

financial support and resources."

The CDL preparatory class is a recent recipient of the CHS Seeds for Stewardship grant through the CHS retail business based in Quincy, Wash.

"Our Seeds for Stewardship grant to North Franklin School District provides funding for in-school CDL training primarily for high school seniors," says Tyson Chick, general manager, CHS SunBasin Growers. "This program is actively addressing the local need for licensed CDL drivers."

— Kindra Plumb





*Jackie Li turned his computer science skills into ag solutions through a CHS internship.*

## Seeing Agriculture in a Different Light

Jackie Li didn't know much about CHS when he applied for a summer internship in November 2021, but he knew he wanted to apply his University of Minnesota computer science degree to a hands-on work environment.

The internship has been even more valuable than he expected, Li says. As part of the company's digital form management team, he spent the summer updating a seed management website to give farmers more flexibility in the ordering process.

"I knew it would impact people's lives, so I worked hard to make the site look good and run well," says Li, who's now working toward his computer science master's degree at the University of Minnesota and has

extended his CHS internship through the school year.

Like Li, many CHS interns choose to come back — 39% are hired at the company full-time and 19% take on another internship at CHS. This year, more than 170 interns worked across the company in a variety of areas, including IT, finance, marketing, human resources and legal/compliance.

Li says he appreciates his team's willingness to provide help and guidance, while also trusting him to get his work done. "When you go through the struggle of doing something on the job, you learn so much more than reading about it in a textbook," he says.

Growing up in a small town

## High School Ag Programs on the Rise

High schools in many states have added agriculture, food and natural resources (AFNR) programs over the last decade. In Minnesota, the number of AFNR programs grew from 180 in 2005 to 215 in 2022 and enrollment jumped by nearly 10,000 students, according to the Minnesota Department of Education.

A significant number of those new programs have been established in urban high schools, including five in St. Paul, the state capital, notes Lavyne Rada, interim state FFA executive director. "Other programs have been restarted in communities where they were closed down by the farm crisis in the 1980s."

One reemerging program is in Mankato, Minn., a community of

about 45,000 located 70 miles southwest of the Twin Cities. Surrounded by farmland and home to many ag- and food-based businesses, the city's two major high schools closed a shared ag program in the early 1990s. But several years ago, a groundswell of support from local agribusiness and education leaders convinced the school board and superintendent to start a new AFNR program.

From his start in the fall of 2019 with just 40 students, first-year ag teacher Ethan Dado has grown program enrollment to more than 380 students across nine courses. Last year, thanks to a generous private donation from a regional livestock production company, a second teacher was hired.

"Nearly all our students have urban backgrounds, with just a handful knowing much about farming or production agriculture," says Dado. "We try to expose students to AFNR-related careers they might not have known existed.

"We've created class names that connect with our students, including an introduction to animal science class called 'Pets and Paws' and an intro to plant science course titled 'Leaves, Lettuce and Lights.'" The horticulture class is taught in a new greenhouse built with funding from grants and donations. Dado says they're nurturing a small orchard on school property and hope to soon add a flock of chickens.

"One of our main goals is

to create authentic, hands-on experiences for students that help them to develop career-ready skills," he adds. "To do that, and build our program, we've gotten a lot of support from the community, both of money and time," he adds. "CHS,



in southeastern Minnesota, Li was surrounded by agriculture, but it wasn't a career path he considered. Now, he says, he sees how many opportunities there are for computer science, machine learning, data analytics and other high-tech skills in agriculture.

His biggest takeaway from the internship will be knowing when to ask for help, Li says. In his academic studies, he usually works alone, sometimes spending six or seven hours on a project only to realize he's stuck. "At CHS, I learned that you need to know when to stop and ask for help. I will keep that lesson with me forever."

— Amy Sitze

with a soy processing facility in Mankato, donated \$350,000 to the program and \$5,000 of that went toward our greenhouse. Crystal Valley Cooperative, based in Mankato, is always willing to host tours for our students."

— Peg Zenk

*Creative approaches to hands-on training are helping to prepare new ag workers.*



## 'Ag Is Tied into Everything'

Harrison Goode will never forget the day he found his life's calling.

He was about 10 years old and had finally given in to his mother's insistence that he try a horseback riding lesson — even though he'd repeatedly told her he would never ride a horse "because it was boring and dumb," he recalls, laughing.

"I went once and fell in love with it, and I was immersed in everything horse starting then," says Goode, who grew up in Winston-Salem, N.C.

In exchange for weekly riding lessons, he cleaned stalls, groomed horses, taught lessons and did other barn chores. He also got to know the trainers, who talked to him about their jobs and deepened his interest in working with horses.

Now a junior at the University of Kentucky, Goode is vice president of the university's chapter of Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS), an organization supported by the CHS Foundation. He received the MANRRS CHS Gold Scholarship his freshman year and immediately became involved in the campus chapter, where he found "people that look like me and have similar interests," he says. "People in MANRRS have many different majors, but we all come together because ag is tied into everything."

Like Goode, many MANRRS members grew up in a city or suburb and discovered an interest in agriculture later in life.

Goode sees diversity as one way to make the ag industry better and stronger. "Sometimes there's that one person who's different and whose mind is immediately seeing something new that you may have skipped over a hundred times because you're not thinking that way," he says. "You need people who think differently, and they may not look like you. Change like that can be scary, but it's necessary."

In addition to his leadership role in MANRRS, Goode has continued riding as part of the university's saddle seat equestrian team. His love of horses — and animals in general — has led him to consider equine law as a career option.

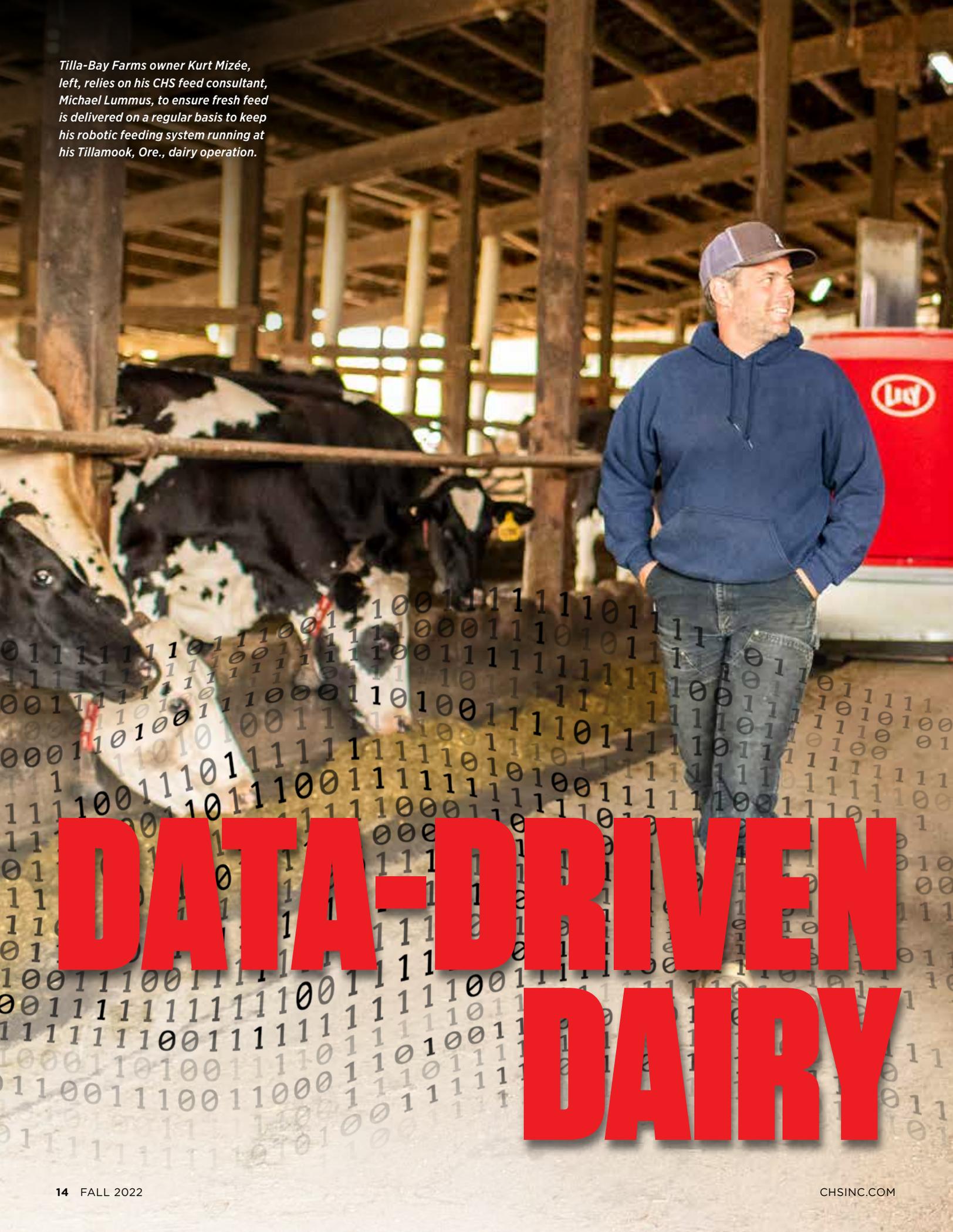
"I want to be an advocate for horses because they can't speak for themselves," he says. "We have to do a better job of taking care of our animals."

— Amy Sitze

*Harrison Goode is vice president of the University of Kentucky chapter of Minorities in Agriculture, Natural Resources, and Related Sciences and a member of the university's saddle seat equestrian team. (Photo: Blakley Releford)*



*Tilla-Bay Farms owner Kurt Mizée, left, relies on his CHS feed consultant, Michael Lummus, to ensure fresh feed is delivered on a regular basis to keep his robotic feeding system running at his Tillamook, Ore., dairy operation.*



# DATA-DRIVEN DAIRY



By Jennifer Chick

## Technology and cow comfort combine on this high-performing Oregon farm

If Kurt Mizée's dairy barn were stripped down to digital code, each of his Holsteins would be made up of thousands of data points — 127 new ones every day, to be exact, collected by each cow's neck transponder.

Every point has a story to tell about that cow, including her bloodline, current production and future potential. Mizée analyzes that data to help him manage and optimize his Tilla-Bay Farms dairy operation near Tillamook, Ore.

Mizée's farm has been part of the fertile, temperate Tillamook Valley for 104 years. But much has changed since his great-grandfather started the operation with 24 dairy cows, mostly Guernseys.

"My mom will tell you pretty quick about how stubborn the calves were back when she used to feed them," Mizée says.

As the industry has changed, Mizée has sought out ways to keep operating his dairy in the face of changing dynamics, from challenges

in recruiting employees to shifts in consumer needs. He turned to technology and data to shine a light on the best way forward.

### Work-life Balance

In 2010, Mizée and his dad, Bart, were looking for a way to balance work and personal demands as their operation had outgrown their milking parlor. They were investigating a robotic milking system where cows decided when to be milked, rather than being milked on a rigid schedule.

Then in 2011, Mizée's wife, Wendy, and 8-year-old daughter, Shelby, were killed in a car accident and he was left to raise his son, Ryan, then 5. The need for work-life balance suddenly became even more pressing.

"I was able to stay in dairy farming because of robotics," Mizée says.

First, they installed Lely robotic milking machines, the first robotic dairy milking system in the western >



*Robotics at Tilla-Bay Farms have allowed dairy owner Kurt Mizée, below, to maintain the size of his herd while reducing labor demands. He installed robotic milking machines in 2011. Robotic calf feeders, right, satisfy hungry calves on a self-serve schedule.*



➤ U.S. As other dairies adopted robotic technology and Mizée noticed the need for a team to service the units and help farmers transition to the new system, he launched a business to install and service Lely robotic systems. He also kept testing and adding new technology to his operation: a robotic feeding system, then robotic calf feeders

followed by a computer feeder system for close-up dry cows. The next addition, planned for this winter, will be a vacuum robot to clean the barn.

### Managing by Phone

All the robotics run from a cellphone. The Lely Vector Roundtable, a mini mixer wagon,

mixes, distributes and pushes feed to cows.

Mizée gets much of his feed from the CHS feed mill in Tillamook. Several times a week, a CHS semi delivers TMG (total mixed grain) to the farm. A silage block cutter portions out forage and distributes it into sections in the farm's feed kitchen, where feed is stored and selected for mixing. A robot feed grabber on an overhead track selects feed and forage from specific spots in the feed kitchen and drops it into a mixing and feeding robot, a self-contained battery-operated vehicle that prepares and delivers feed to cows according to a predetermined plan.

The robot delivers 18 to 20 loads per day of four rations for far-off dry cows, close-up dry cows, lactating cows and cows with special needs. Cows are sorted into pens based on their needs and software relays the pen information to the robot, which adjusts ration delivery

based on how many cows are in the pen.

"Once you've run with a robotic herd, you will never go back," Mizée says. "Still, when using robots, you don't want to run out of feed because that has a way of happening in the middle of the night and then the system calls you. So I tell my CHS rep, 'Don't run me out.' I love that we can count on really great service to make sure that doesn't happen. And feed is always fresh, so it flows well through the system."

While he continues to promote the use of robotics, Mizée sold his Lely installation business in 2021. He says the business was set to double in size and he didn't have the capacity to keep that going while also managing his own operation.

Robotics have become a recruiting tool for Mizée, who manages the operation with two full-time employees. His newest

team member, Es Santiago, began working at the farm about 10 months ago. Santiago says what excited him about the opportunity was the technology associated with Tilla-Bay Farms. He had worked on dairy operations for five years, putting in up to 20 hours per day for operations as large as 35,000 head, and was looking for something more sustainable.

"It definitely has made a huge difference," Santiago says. "I finally feel like I have a life outside of my job."

With the monitoring and automation that comes from Tilla-Bay Farms robotics, Santiago says he now works seven to eight hours per day and has the flexibility to leave for a family appointment, knowing an app will alert him if something needs attention.

## Data Guides Decisions

The data points produced through Mizée's operation help guide his farm management decisions. Even before a calf is born, data is an important part of the equation, helping Mizée determine which heifer calves will be kept to build the herd and which will be sold as beef calves.

"The goal is to use the data we get from the mother and the genomics we add through artificial insemination to only breed the types of calves we need to maintain our herd," Mizée says.

The data also helps him gauge cow comfort, which is important to Tillamook County Creamery Association, where Mizée sells his milk. Tillamook is committed to thriving farms and healthy, comfortable and productive cows.

Mizée is dedicated to providing the best environment for his cows, too. "You can't make milk if cows aren't comfortable." ■

## It Starts with the Milk

Kurt Mizée and most dairy producers in Tillamook County are members of the Tillamook County Creamery Association (TCCA). Their high-quality milk goes into exceptional dairy products that have helped the cooperative build a solid reputation and growing brand presence since it was founded in 1909 by small creameries that wanted to ensure all cheese made in the Tillamook area would be the same high quality. TCCA is one of the oldest continuously operating dairy cooperatives in the world.

The focus on quality is evident in TCCA's commitment to stewardship, ensuring the milk used in Tillamook products comes from healthy, comfortable, productive cows. TCCA supports its farmer-owners with generous milk prices, premiums for quality and on-farm support.

"At TCCA, our heritage and commitment to exceptional cow care started the day the first dairy farmers arrived in Tillamook County," says Kate Lott, a veterinarian and director of farm services and engagement, TCCA. "Farmers are using the latest tools and technology to improve cow care and enable more efficiencies on farm. I'm excited about what the future holds, from cow health trackers to new

vaccines to advanced equipment."

Most consumers of Tillamook dairy products are far removed from farms, so TCCA invests in educating consumers about increasingly tech-driven dairy farms. Tillamook Creamery was rebuilt in 2018 to create a better educational experience for visitors.

Jersey cows have been the face of TCCA since 1958, when Tillie of Tillamook popped up in ads as the creamery's spokesperson. Jerseys are a popular dairy breed there, and the velvet-brown herds dot valley pastures. The breed is known to produce milk exceptionally rich in butterfat, and *Jersey Journal* reported in 2020 that Jersey milk is becoming more nutrient-dense every year, especially in protein.

That milk, and all the milk TCCA receives from its members and other suppliers, drives the popularity of Tillamook cheeses and extra creamy ice cream and butter as consumers enjoy what the cooperative touts as "downright delicious" products.

**SEE MORE:** Learn about the Tillamook brand experience at [tillamook.com](https://tillamook.com).



The Tillamook County Creamery Association store welcomes visitors. (Photo: Carly Diaz)

# CRAWLING IN CRANBERRIES

When you start your workday by stepping into a pair of hip waders, there's a good chance you enjoy your job. That's the case for Shannon Forster as she spends fall mornings knee-deep in frigid waters, raking in bobbing crimson cranberries. Forster efficiently runs a soybean and cranberry operation in north-central Minnesota with her mom, Billie Jo, and dad, Randy. They love sharing their brilliant cranberries with local wineries and restaurants throughout Minnesota.

Many of the farm chores fall to the capable 20-year-old as her parents continue second jobs driving commercial trucks. The family has been part of the Ocean Spray cooperative for 18 years and purchases farm inputs from CHS based in Herman, Minn.

— Adam Hester



*Shannon Forster plays a key role  
in her family's cranberry operation.*



Crop protection expert Steve Wolfe, right, helps Illinois grower and agronomy manager Kyle Meece improve his fertilizer return on investment.



# NITROGEN PROTECTOR

## Stabilizing nitrogen above and below ground helps deliver optimal return on fertilizer investments

By Cynthia Clanton

In today's high-stakes crop production environment, every molecule of nitrogen matters. About the time a corn plant reaches maximum height, its nitrogen needs are soaring — and that may be weeks or months after fertilizer hit the field.

"The only way a grower makes money is by growing bushels, and nitrogen is the driving factor in growing those bushels," says Kyle Meece, a central Illinois grower and agronomy manager at United Prairie, LLC, based in Tolono, Ill.

"We can only invest so much in the crop, so what makes the most sense?"

One proactive and proven answer, he says, is using a nitrogen stabilizer to help hold nitrogen in place until the developing crop is ready to use it.

### Risks All Around

Nitrogen loss can happen in nearly all environmental conditions, says Alissa Geske, an Illinois CHS

crop protection technical specialist. "As soon as you apply fertilizer, losses will start to occur. When granular urea hits the ground, it is immediately exposed to the risk of volatilization. And when liquid fertilizer is applied below ground, it's susceptible to denitrification and leaching."

Waterlogged soils speed nitrogen loss, she says, but it doesn't take much moisture to start the process. "When you put on nitrogen in any form, whether it be ammonia, UAN or urea, the minute you put it out there, you're susceptible to loss. Considering how variable the environment is, why wouldn't you want to protect your investment?"

"One of our biggest focuses for the industry is managing nitrogen better," says Meece. "How do we keep it in a form that is plant-available and not lost in the soil profile?"

"When you look at nitrogen stabilization, the goal is above-

and below-ground protection. For us, having both those attributes is important," he adds. "That's something N-Edge® Pro offers, with both NBPT and DCD compounds for dual protection."

### Dual Protection

The ability to apply both NBPT and DCD in one pass is the real game-changer, says Steve Wolfe, crop protection account manager for CHS in northern Illinois. "N-Edge Pro gives you the ability to protect nitrogen both above and below ground, so you're protected regardless of what the weather does."

NBPT (N-[n-butyl]-thiophosphoric triamide), a urease inhibitor, and DCD (cicyandiamide), a nitrification inhibitor, are time-tested, effective nitrogen protectors, says Wolfe. He and Geske cite global research with NBPT showing an average reduction in nitrogen loss of 53% when applied to urea. Research >

➤ in multiple states shows DCD performs as well as another inhibitor, nitrapyrin, but with less corrosive characteristics.

“While some nitrogen stabilizers don’t really tell you what’s in them, we can clearly say N-Edge Pro contains 17% NBPT and 23% DCD,” says Geske. “That should give growers confidence because they know what they are getting and they know it will work.”

### Soil Study

“We’re working to better understand nitrogen protection,” says Meece. “I’m always looking at it from the soil aspect, trying to measure nitrogen movement within the soil profile. Is it in the 12-inch range or has it moved to the 12- to 24-inch range? At the

end of the day, growers want to see yield performance and monitoring nitrogen movement helps us manage for that.

“If we have ideal growing conditions, we may not have any nitrogen loss, but a nitrification inhibitor is like an insurance policy,” he adds. “Some years it may not pay for itself, but other years it pays for itself many times over.”

United Prairie research conducted in multiple locations across its trade territory and at the cooperative’s own research farm proves the value of strategies like nitrogen stabilization over time and across different soil types and environmental conditions. “Our goal is to continue to bring new technologies and ideas to our customers and to stay open-

“The only way a grower makes money is by growing bushels, and nitrogen is the driving factor in growing those bushels.”

— Kyle Meece

mind to everything that’s available in this ever-changing industry,” says Meece.

The United Prairie agronomy team is also using other strategies to ensure nitrogen is available

*Kyle Meece puts new products to the test, requiring consistent results before recommending them for his agronomy clients.*



when the crop needs it most.

“We’re splitting nitrogen applications to spread them out through the whole growing season,” says Meece. “A corn plant has the greatest nitrogen uptake from V8 to VT (tassel), so it doesn’t make sense to think we’d put all the fertilizer on in the fall, six months before the plant needs it, or in the spring, a month and a half before it really needs most of the nitrogen. We’ve seen multiple applications throughout the growing season provide some very nice returns.

“When the corn crop is doing its hardest work — filling the ear — if it’s lacking any critical input, including nitrogen, it’s not going to perform at its optimal level and that equates to lower yield.”

## Prepared for Uncertainty

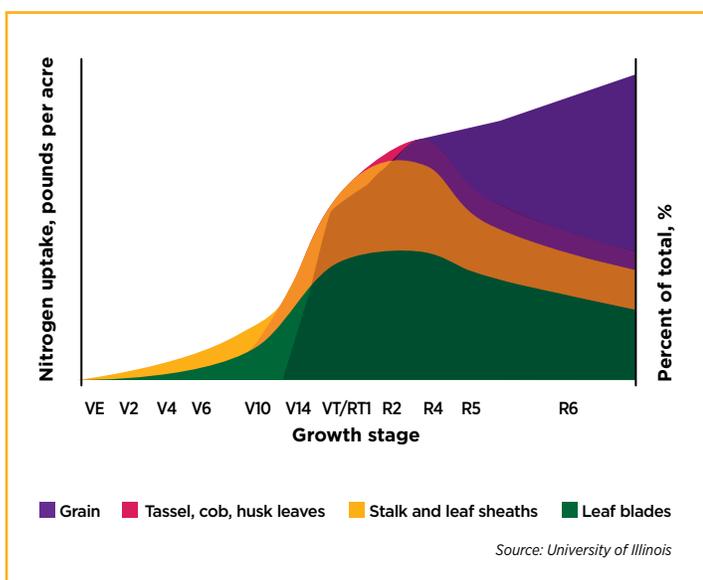
Flexibility in application rate is another advantage with N-Edge Pro, says Meece. “The rate N-Edge Pro is applied is

based on the rate of nitrogen being applied. We’re putting out the amount of active ingredient that will help protect the actual nitrogen we’re applying. That’s another way we help manage the economic side of fertilizer application.”

Being prepared for whatever the season brings is the best strategy, Meece says.

“When it comes to nitrogen loss, nobody can tell whether it’s going to be from loss to the air or from nitrification or leaching. When you lay 32% fertilizer on the ground, how soon before we get it incorporated or we get rainfall?”

“Mother Nature holds the trump card, and whether we get enough rain or an excessive amount of rain, we need to keep nitrogen in the zone where roots can access it.” ■



Corn nitrogen uptake is greatest from V8 to VT (tassel), long after most fertilizer has been applied.

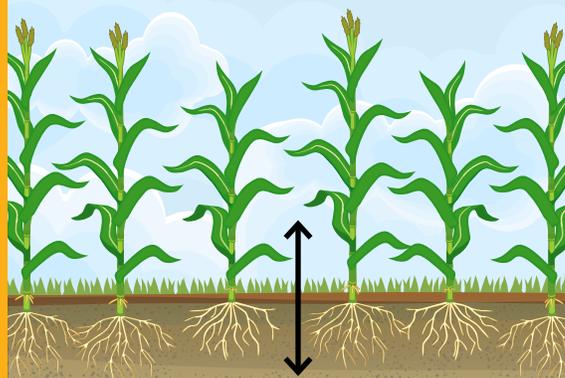
## PROTECTION ABOVE AND BELOW

N-Edge® Pro nitrogen stabilizer combines proven active ingredients NBPT and DCD to prevent nitrogen loss in both above- and below-ground applications. Protecting nitrogen above and below ground helps ensure a better supply of nutrients to fuel early growth, ear fill and overall plant health.

N-Edge Pro provides dual protection by including 17% NBPT and 23% DCD, plus a proven solvent for enhanced mixing and handling under a wide range of conditions.

### Above Ground

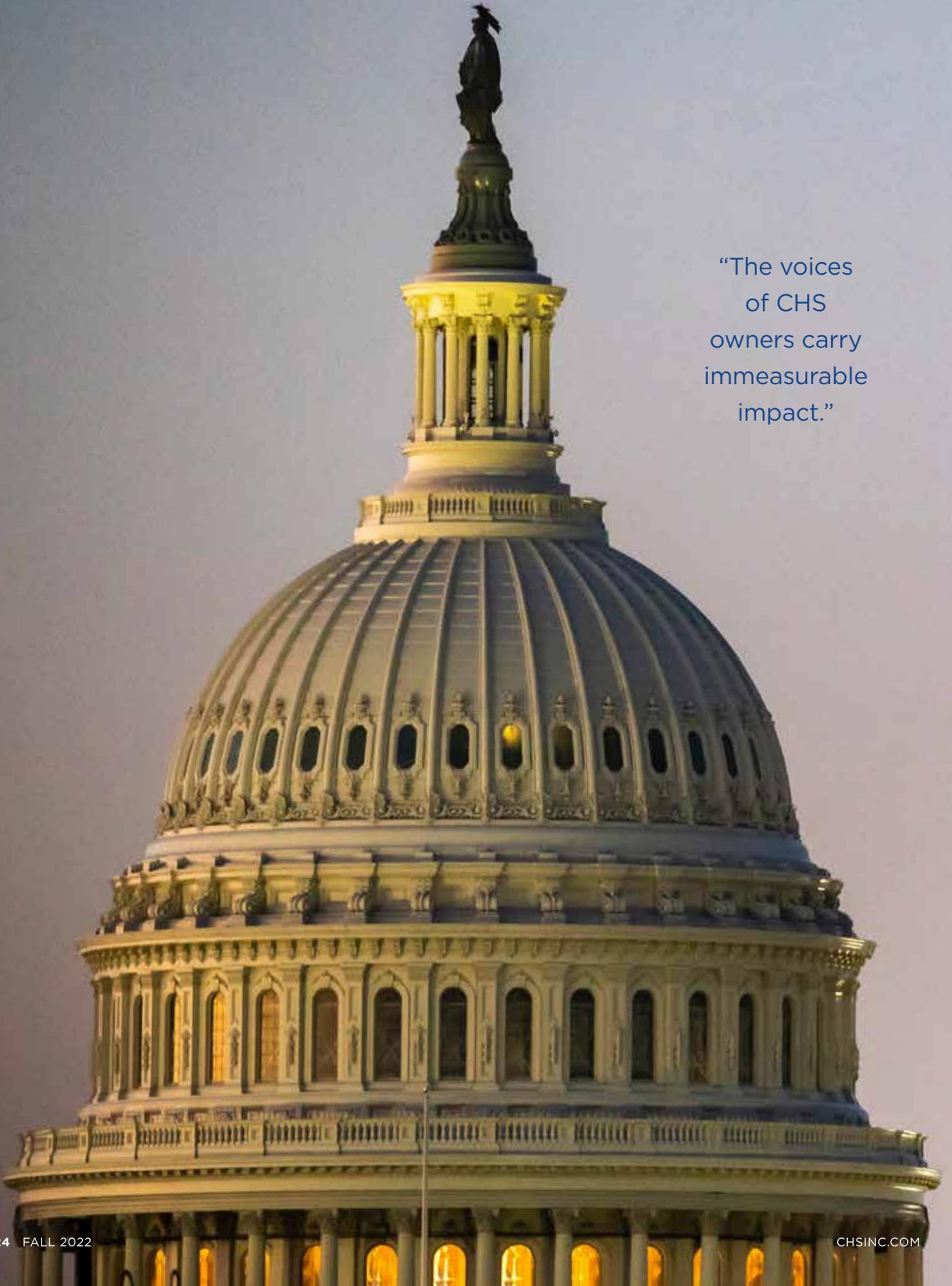
NBPT urease inhibitor prevents ammonia volatilization by blocking enzyme activity that breaks down urea-based nitrogen fertilizers. Breakdown begins as soon as fertilizer touches soil, even with relatively dry conditions and moderate temperatures.



### Below Ground

DCD nitrification inhibitor blocks the activity of bacteria that turn ammonium into nitrate, which is susceptible to leaching and denitrification. Leaching moves nitrogen out of the root zone and denitrification changes the form of nitrogen, making it less available for crop uptake.

**LEARN MORE:** Get details on nitrogen stabilization options at [chsagronomy.com/nedgepro](https://chsagronomy.com/nedgepro).



“The voices  
of CHS  
owners carry  
immeasurable  
impact.”

# CHARTING A COURSE

By the CHS government affairs team



In collaboration with CHS business leaders, the company's government affairs team is developing a comprehensive 2023 state and federal agriculture and energy policy agenda that helps support the future of how cooperatives do business.

The team is also working to engage more owners as we address the turnover of legislators at the state and federal level following midterm elections, solidify cooperative relationships and expand interaction with lawmakers beyond the CHS trade territory, since their actions affect CHS stakeholders.

A long list of variables — midterm elections, the economy, labor availability, climate initiatives and more — requires course corrections for cooperative business continuity. Members of the experienced CHS government affairs team use its individual and collective expertise to identify efficient and effective routes for change. Options include policy solutions, rulemaking comments, partnering with facility leaders to host elected officials and contributing to federal candidates through the CHSPAC (CHS political action committee).

One example of those creative solutions was government affairs team assistance on license renewals for seasonal commercial driver's license (CDL) applicants when state offices were closed during the pandemic, as the team partnered with the Agricultural Retailers Association to address labor availability. Through a provision in the Infrastructure Investment and Jobs Act, the Federal Motor Carrier Safety Administration now allows annual renewals on a calendar year basis and has extended the length of the license from 180 days to 270 days.

## Redistricting

Every 10 years, after completion of the U.S. census, states propose new districts for state and federal legislators, incorporating shifts in population density. As a result, every decade there are waves of new members in state legislatures and Congress.

Prior to the start of the congressional and state legislative sessions, and throughout the year, the government affairs team meets with newly elected officials to make introductions and begin the process of informing policymakers about the cooperative system and core policy issues that impact CHS and its owners.

## Inflation Reduction Act

Passed in August 2022, the Inflation Reduction Act (IRA) extended energy incentive programs and increased funding for agriculture while reinstating fees. The federal funds put wind in the sails of existing energy businesses that support agriculture and rural communities:

- Biodiesel, renewable diesel and biodiesel mixture credits, as well as the alternative fuel tax credit, were extended through 2024.
- A clean fuel production tax credit was established and starts in 2025. Frequently requested biofuel infrastructure funds were passed, which included a boost of \$500 million.
- Expansion of the 45Q tax credit increases momentum for carbon capture and sequestration.

Despite those positive developments, reinstatement of their Superfund tax on crude oil received at U.S. refineries will increase their cost of doing business.

## Farm Bill

While it pops up less frequently than El Niño, the Farm Bill is similar to El Niño with its unpredictability and significant influence on the day-to-day operations of agriculture.

The IRA included \$19.9 billion in additional funds for conservation >

➤ programs that will also increase the budget baseline within the Conservation title of the next farm bill. CHS expects the next farm bill will need to be budget-neutral, meaning any additional funding to programs in the bill will have to be paid for by decreasing funding elsewhere. An increase in the budget baseline for conservation programs now may help save other programs from receiving less funding in the next farm bill. The 2018 Farm Bill invested about \$60 billion in conservation funding over the entire five-year span of the bill, so this would represent a significant increase.

## Low Carbon Fuel Standard

Like the flow of the California Current — a perennial cold-water current moving along the U.S. Pacific Coast — policy proposals to reduce fuel emissions in California and Oregon are being pushed to adjacent states, including Washington and New Mexico.

A low-carbon fuel standard (LCFS) uses a standard model to develop a carbon intensity (CI) score for a particular fuel. A lower CI score means that fuel produces less greenhouse gas emissions than other fuels.

In 2023, the CHS government affairs team will use the following points as a framework for future low carbon or clean fuels policy proposals:

- CHS supports incentive- or market-based policy versus mandates.
- CHS supports economic and scientific analysis of proposed LCFS legislation provisions including, but not limited to, compliance timeline, impact to rural communities, off-ramp mechanisms and updated



fuel pathway modeling for current and future commodities (canola, corn, soybeans, renewable diesel).

- CHS supports voluntary grower participation in the decarbonization value stream, such as practices that reduce carbon intensity through fuel and crop applications.

CHS recently formed an executive- and government affairs-led liquid fuels group across energy, grain, processing and government affairs to inform policymakers about the importance of liquid fuels in an effort to influence policy that is migrating to the Midwest from West Coast states.

## Infrastructure

The type and construction of a vessel to ship grain depends on the body of water in which it operates. In the same way, there are vast differences in the age and type of infrastructure CHS and its owners depend on to move commodities in local, regional and global markets.

An unprecedented wave of federal funding was passed during and after the pandemic through the IRA and the Infrastructure Investment and Jobs Act, also called the Bipartisan Infrastructure Bill. Federal and state agencies are requesting applications for eligible infrastructure projects.

The CHS government affairs team is assisting with letters of support for eligible projects and facilitating solutions to help move projects forward despite programmatic barriers, funding needs and labor availability.

One example of that work is our efforts to support the CHS investment at the export terminal in Superior, Wis. CHS leaders are participating in planning modernization of the Blatnik Bridge through careful consideration of the new bridge alignment, the existing bridge footprint and features that will enable CHS business continuity.

## Owner Engagement

An effective government affairs program must engage internal and external stakeholders. A primary objective of the government affairs grassroots advocacy program is to connect people with policy,

providing more opportunities for CHS leaders and owners to engage with federal and state policymakers, regulators and policy influencers. The voices of CHS owners carry immeasurable impact, making CHS one of the leading advocates for the cooperative system.

CHSPAC, the political action committee of CHS, has been an effective pathway for assisting with these efforts and will continue to become more visible and viable with future growth and individual engagement. As an owner- and employee-supported committee, the work of CHSPAC provides clear and transparent opportunities to the government affairs team, enhancing grassroots initiatives and communications with legislators. By fostering a collaborative path for policy development, the work and impact of the government affairs team can provide even more

**LEARN MORE:** The CHS government affairs team is committed to representing CHS and its owners to promote the interests of agriculture and cooperatives. Angela Tangen leads CHSPAC efforts. Dan Mauer and Will Stafford staff the Washington, D.C., office. Jake Hamlin focuses on state legislative and policy issues. Jim Zappa leads the team. Learn more at [chsinc.com/advocacy](https://chsinc.com/advocacy).

# Celebrating 75 Years

## of giving back to agriculture

### As it celebrates this significant milestone, the CHS Foundation looks back on decades of supporting future ag leaders

Cassandra Valdez was unsure about her future when she joined the Leader Fellowship program through Agriculture Future of America (AFA).

"I started the program in 2020, when I was hopeless and clueless," says the Merced Community College and California State University, Fresno student. "The pandemic had just started, and I needed something to help me continue to grow professionally as we all stood still from home, but I didn't know how to do that. As an ag major, I didn't really know what I wanted to do, but I knew I wanted to get involved in the industry side while still being connected to my ag education roots."

Through the fellowship program, Valdez started to see other career opportunities in agriculture. "All I had known from college was that there was a classroom route, so exposure

to other options through the AFA fellowship is something that I'm grateful for," she says.

Supporting Valdez and other emerging ag leaders is the mission of the CHS Foundation, which was established in 1947 by the founding members of CHS to support rural communities and the future of agriculture. Since then, the CHS Foundation has been devoted to developing the next generation of ag leaders through cooperative education, university partnerships and ag leadership programs.

#### Providing Opportunities

Throughout the CHS Foundation's first 75 years, strong partnerships have emerged to give all young people the opportunity to become leaders in agriculture and further their ag education.

Starting almost 20 years ago, the CHS Foundation and AFA have shared a goal of educating the next generation of agricultural leaders. Since 2004, the CHS Foundation has been the largest supporter of AFA, funding programming, encouraging AFA board members and providing meeting space.

Funded by the CHS Foundation, the AFA Leader Fellowship program pairs AFA student teachers like Valdez with trained industry professionals to coach them through personal development and career exploration.

"Through the fellowship program, I chose a mentor who would guide me in this two-year journey of developing a series of leadership competencies," says Valdez. "They helped me see ➤

*The CHS Foundation supports ag leadership organizations for students of all ages. FFA engages students in grades 7 to 12, while AFA provides leadership development opportunities for college students.*





Youth engaged in 4-H and FFA are making a big impact in their local communities, teaching young learners about animal safety and other ag-related topics.

“With the CHS Foundation, it goes much deeper than just financial support. It’s about having conversations about what communities and agriculture need, then building our programs around those goals and needs.”

— Val Aarsvold

➤ areas of growth where I could develop as a young professional and agriculturalist and create a development plan that would commit me to my goals.”

The CHS Foundation also partners with organizations focused on cultivating learning and career opportunities that value diverse thinking, voices and backgrounds. That commitment was the driving force behind the Foundation’s relationship with Minorities in Agriculture, Natural Resources, and Related Sciences (MANRRS) that began in 2010.

“It’s beneficial for students to see multiple career paths in agriculture,” says Ebony Webber, MANRRS chief operations officer. “Being able to travel to attend a national conference is transformative. Having the financial support to go to college and major in these careers is equally transformative.”

As the primary supporter of the

Junior MANRRS Gold program, the CHS Foundation provides funding for the Going for Gold scholarship, which supports high school students who plan to pursue ag-related or STEM (science, technology, engineering and mathematics) fields of study.

### Building the Future of Ag

FFA and 4-H are synonymous with the future of agriculture, and the CHS Foundation has supported both organizations for nearly six decades.

Currently, 40% of Minnesota FFA students come from economically challenged households. With financial support from the CHS Foundation, Minnesota FFA has been able to offer more scholarships to create opportunities for these students, including helping them attend the Minnesota State FFA Convention. Each year, the convention hosts

more than 5,000 students, teachers and supporters from around the state.

“With the CHS Foundation, it goes much deeper than just financial support,” says Val Aarsvold, executive director of the Minnesota FFA Foundation. “It’s about having conversations about what communities and agriculture need, then building our programs around those goals and needs.”

The CHS Foundation brings the same mission of providing equal opportunity into its partnership with 4-H, which serves 6 million youth annually, including youth participating in 5.6 million STEM projects and 3.1 million ag projects each year. “Those are huge numbers of young people who are finding their spark and pursuing that all the way through their 4-H career,” says Heather Elliott, National 4-H Council chief development officer. “It builds



The CHS Foundation has supported innovative projects at colleges and universities since 1952. Today, students at SDSU are developing precision agriculture technology for the future.

a pipeline of workforce-ready young people who have skills like teamwork, communication and leadership.”

The CHS Foundation has committed \$1 million to the National 4-H Council to support the 4-H True Leaders in Equity Program and What I Wish People Knew (WIWPK) storytelling platform. The 4-H True Leaders in Equity program will create more than 1,000 youth-led equity and inclusion projects in local communities. The WIWPK platform empowers youth to lift their voices and share their stories and passion for diversity, equity and inclusion.

### Boost for Innovation

At universities around the country, students and educators are engaging with new technologies and practices that will impact the future of

agriculture. “The CHS Foundation supports this important work because new thinking will be the engine that drives agriculture forward,” says Nanci Lilja, president of the CHS Foundation.

Among other higher-education support, the CHS Foundation has:

- Helped North Dakota State University establish the Center for Trading and Risk Management to prepare students for the complex world of agricultural commodity trading
  - Supported the Raven Precision Ag Center at South Dakota State University, the first university to offer a B.S. degree in precision agriculture
  - Partnered with the University of Minnesota to create the Minnesota Model program, which helps modernize K-12 agriculture education
- “We’re helping students see that if they’re interested in

technology, education, agriculture or food production, this is a field that allows them to use technology,” says Steven Corkery, associate vice president of the Corporate Engagement Center at the University of Minnesota.

### It Starts with Teachers

The CHS Foundation supports teachers who are committed to bringing ag-related lessons to their students. Through National Agriculture in the Classroom (NAITC), for example, the Foundation provides scholarships for teachers to attend a national conference, resources to bring ag literacy into the classroom and the chance to experience agriculture in a specific region.

“Our relationship with the CHS Foundation has been really important for increasing the number of teachers we’re able to bring to the conference and providing classroom grants,” says ➤

“They helped me see areas of growth where I could develop as a young professional and agriculturalist.”

— Cassandra Valdez

“Ag education is different now. We have hands-on labs and experiences that make our students think about how they can help solve world problems.”

— Rachel Sauvola

Andy Guffey, NAITC executive director. “Those hundreds of teachers are influencing thousands of students.”

The CHS Foundation also provides support to the National Teach Ag Campaign, which provides an avenue for new and aspiring educators to make a difference in the classroom.

Rachel Sauvola, a high school teacher in New Richmond, Wis., has been an ag educator for 24 years. Her passion, she says, is mentoring teachers and pre-

service teachers to help them be the best educators they can be — and the Future Agriscience Teacher Symposium (part of the National Teach Ag Campaign) enables her to do that.

“We train college students who are studying to be teachers to think about how they can encourage students, ask important and challenging questions, and move away from the textbook,” Sauvola says. “Ag education is different now. We have hands-on labs

and experiences that make our students think about how they can help solve world problems.”

### Focus on Cooperatives

As the charitable arm of the largest farmer-owned cooperative in the U.S., the CHS Foundation is driven to keep the cooperative system strong and thriving.

First supported in 1959, North Dakota Farmers Union (NDFU) was one of the first entities to offer cooperative education.

In 2020, the CHS Foundation supported development of the new Jamestown Camp facility,

“We train our summer staff counselors on the cooperative business model,” says NDFU Director Miranda Letherman. “They in turn teach campers the basics of how a cooperative works, and campers put that knowledge to work operating

their own cooperative store. Campers take those skills home and share them in communities throughout North Dakota.”

The CHS Foundation also partnered with Discovery Education to build the Cooperative Minds platform, an online portal that features free videos, curricula, career profiles and other resources to educate students about the cooperative business model and careers.

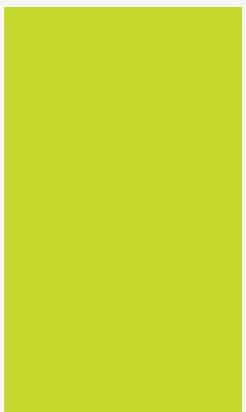
“We’re thankful to farmers, ranchers and cooperatives for being part of the CHS family and helping the CHS Foundation continue its mission,” says Lilija of the CHS Foundation. “We are looking forward to the next 75 years of working together to drive growth and development among students and teachers who are helping shape the future of the agriculture industry.” ■

**LEARN MORE:** Find more examples at [chsinc.com/stewardship](https://chsinc.com/stewardship).

Ag teachers like Rachel Sauvola and Desi Severance, pictured, help spark students' passion for agriculture through hands-on experiences in their classrooms.



**WHEN YOU'RE  
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EVERY DAY.**



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## CHS REPORTS STRONG FISCAL YEAR 2022 EARNINGS

CHS Inc. has reported net income of \$1.7 billion for the fiscal year that ended Aug. 31, 2022, compared to \$554.0 million for fiscal year 2021.

Key financial drivers for fiscal year 2022 were:

- Consolidated revenues of \$47.8 billion for fiscal year 2022 compared to \$38.4 billion for fiscal year 2021, a year-over-year increase of 24%.
- Refining margins in the company Energy segment were higher and drove improved earnings due to the tightening global supply and demand landscape.
- CHS global grain and processing and wholesale agronomy businesses within its Ag segment benefited from strong global demand and increased margins.
- Equity method investments performed well, with increased CF Nitrogen earnings resulting from strong global demand for urea and urea ammonium nitrate (UAN), coupled with decreased global supply.

“We appreciate the support of our member cooperatives and farmer-owners, which enabled us to deliver a substantial increase in earnings for the fiscal year, while also helping feed people around the world,” says Jay Debertin, president and CEO of CHS Inc. “Additionally, our employees demonstrated their dedication to helping our owners and customers succeed in a turbulent year for agriculture.

“As a result of these collective efforts, CHS intends to return \$1 billion in cash patronage and equity redemptions to our member cooperatives and farmer-owners in fiscal year 2023, reflecting the company’s financial strength and demonstrating the value of cooperative ownership.

“We are proud of our role in the cooperative system. We will continue to make investments that strengthen rural America and help our farmer-owners and customers meet the growing demand for agricultural products. Our investments in infrastructure, supply chain capabilities, people and innovation are driving operational and efficiency gains throughout our expansive network,” Debertin adds.

“Although economic uncertainty, logistical challenges and inflationary pressures remain, CHS is well-positioned to maximize value for our member cooperatives and farmer-owners.”

**Energy:** Pretax earnings of \$616.6 million represent a \$627.1 million increase versus the prior year and reflect higher refining margins and increased discounts on heavy Canadian crude oil processed by our refineries contributed to a significant increase in our refined fuels business income. These increases were partially offset by higher renewable energy credit costs and higher natural gas costs, as well as lower margins in our propane business.

**Ag:** Pretax earnings of \$657.6 million represent a

\$359.5 million increase versus the prior year and reflect increased margins across all our Ag segment product categories, due to strong global market demand and global supply disruptions, plus continued favorable markets for oilseed processing, which were bolstered by robust meal and oil demand. Increased revenues from feed and farm supplies were recorded, despite less favorable weather during spring planting and application season.

**Nitrogen Production:** Pretax earnings of \$478.0 million represent a \$357.0

million increase versus the prior year and reflect increased earnings from our strategic investment in CF Nitrogen, primarily due to market conditions and strong demand for urea and UAN, factors that were partially offset by higher natural gas costs.

**Corporate and Other:** Pretax earnings of \$57.9 million represent a \$48.9 million decrease versus the prior year and reflect lower earnings primarily from our Ventura Foods joint venture, which experienced less favorable market conditions for edible oils.

### CHS INC. EARNINGS\* BY SEGMENT (in thousands \$)

	Years Ended August 31	
	2022	2021
Energy	\$616,551	(\$10,596)
Ag	657,586	298,096
Nitrogen Production	477,985	121,035
Corporate and Other	57,895	106,785
Income before income taxes	1,810,017	515,320
Income tax expense (benefit)	132,116	(38,249)
Net income	1,677,901	553,569
Net loss attributable to noncontrolling interests	(861)	(383)
<b>Net income attributable to CHS Inc.</b>	<b>\$1,678,762</b>	<b>\$553,952</b>

\*Earnings is defined as income (loss) before income taxes.

## CHS INTENDS TO RETURN \$1 BILLION IN CASH TO OWNERS

CHS intends to return a total of \$1 billion in cash patronage and equity redemptions to its owners in calendar year 2023, delivering on its objectives to share profits with owners and contribute to building strength in rural America.

The total amount of cash to be returned to owners is a decision made by the CHS

Board of Directors at the close of each fiscal year. The CHS Board has elected to return \$500 million in cash patronage based on business done with CHS in fiscal year 2022, which ended on Aug. 31, 2022. Additionally, the CHS Board has elected to return up to \$500 million in cash to its owners through equity redemptions.

The total of \$1 billion distributed in cash would be the largest annual distribution to owners in CHS history and would bring the total amount returned to owners over the last 10 years to more than \$3.1 billion.

“The opportunity for owners to receive cash patronage and equity is a fundamental difference

between the cooperative model and other businesses,” says Dan Schurr, chair, CHS Board of Directors. “This critical difference means CHS owners share in the financial success of the company and can leverage that success to fuel strength and growth for their own businesses, their families and the communities we share.”

## STAY SAFE WHEN DIGGING

Do your plans include any digging like laying down drainage tile or building a fence? Before you break ground, call 811 or visit call811.com to make sure there are no utilities below. The free service marks underground

utilities and pipelines, which can be less than a foot below the soil surface.

Always call 811 before digging, even if you think you know where utility lines are located. “An underground utility is hit every nine

minutes in the U.S. and the consequences can be disastrous,” says Tina Beach, public awareness specialist for CHS. “It takes a lifetime to build a farm; just one free call helps keep it safe.”



## PLENISH® SOYBEAN PRODUCTION CONTRACTS NOW AVAILABLE FOR 2023



Production contracts for 2023 are now available for Pioneer® brand Plenish® high-oleic soybeans. Developed for southern Minnesota and northern Iowa growing conditions, Plenish high-oleic soybeans help enhance soybean market opportunities and provide direct benefits to the food industry, consumers and growers.

Contact Rick Steinberg at 507-345-2226 or Joe Zingrone or Luke Johnston at 800-642-0046 for additional information.

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**GET MORE:** Sign up to receive CHS press releases by email or RSS feed at [chsinc.com/news](https://chsinc.com/news).



*Stan Hanson, right, pictured with his son, Ross, was inducted this year into the South Dakota Cooperative Hall of Fame in honor of his legacy of cooperative and board service.*



# LIFE LESSONS

In 2015, Stan Hanson started taking a photo of the sunrise every morning.

Though he enjoyed the changing colors, that wasn't why he brought his camera outside to capture the moment each day began. "I just wanted to see it," he says. "Every day is a good day when I wake up."

After a fall from a trailer that year left him hospitalized for more than 70 days — with injuries that still affect him today — Hanson traded 1,400 acres of corn and soybeans in Garretson, S.D., for a small yard and two tomato plants in the nearby city of Sioux Falls, where he lives with his wife, Gail. His son, Ross, took the reins as the fourth generation on the family farm.

Despite the challenges he's faced, Hanson approaches his life the same way he looks at farming. "My mom always said you have to have faith," he says. "You can only control the things you can control and the rest you can't worry about, so don't let it get you down."

That attitude served Hanson well through 24 years of leadership roles at local ag co-ops (including Garretson Cooperative, which is now part of the CHS retail business based in Brandon, S.D.), the United Soybean Board and the South Dakota Soybean Research and Promotion Council. His service took him to 12 countries and various parts of the U.S., where he learned about different farming techniques, shared his knowledge with other farmers and became an advocate for the many uses of soybeans.

To honor his legacy of cooperative and board service, Hanson was inducted this year into the South Dakota Cooperative Hall of Fame. In their nomination letters, his neighbors and fellow co-op members wrote about Hanson's integrity, extensive knowledge, openness to new farming practices, strong work ethic and encouragement of the next generation of co-op leaders.

They also noted that despite his long list of accomplishments, he remains humble and focused on service to his community.

"I get great joy from serving others, whether it's helping a neighbor do something or being on a board," says Hanson. "I've been very lucky to have these opportunities."

— Amy Sitze



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## C TOMORROW

### Bringing Autonomous Technology to Ag

One year after announcing Cooperative Ventures, a corporate venture capital fund between CHS and Growmark aimed at investing in emerging technologies that can positively impact farming, the joint venture has made its first investment.

The group announced its commitment to Sabanto, a hardware and software company at the forefront of developing autonomous tractor capabilities.

“While many autonomous equipment startups are focused on specialty crops, we believe Sabanto’s focus on row crops presents a tremendous opportunity for farmers and our member-owners,” says Ben Van Straten, director of innovation and sustainability for CHS. “This truly is an evolution of agriculture with the potential to lower equipment and labor costs by using smaller tractors that are more fuel-efficient, while improving sustainability through reduced soil compaction.”

Using a Sabanto retrofit kit, owners of 60- to 200-horsepower tractors could automate planting, application, mowing, tillage and other operations.

The first investment reinforces CHS commitment to innovation and aligns with the capital fund’s core investment areas: crop production, supply chain efficiency, farm business enablement and sustainability.

— Patrick Stumpf

