CORN TALK

February / March 2015

A Publication for North Dakota Corn Growers Association Members

NORTH DAKOTA CORN GROWERS ASSOCIATION

You're Invited!

CornVention 2015 ››› Harvesting Technologies
Wednesday, February 18, 2015
Holiday Inn ››› Fargo, N.D.

Learn more at www.ndcorn.org/CornVention2015

CALENDAR OF EVENTS

FEBRUARY 3, 2015
Risk Management Training
Carrington, N.D. - NDSU Research Center

FEBRUARY 4, 2015
Risk Management Training
Minot, N.D. - Holiday Inn

FEBRUARY 5, 2015
Risk Management Training
Bismarck, N.D. - Kelly Inn

FEBRUARY 6, 2015
Risk Management Training
Fargo, N.D. - Hilton Garden Inn

FEBRUARY 10-11, 2015
Bismarck Living Ag Classroom
Bismarck, N.D. - Civic Center

FEBRUARY 17, 2015
ND PAC Auction & Social
6 - 9:30 p.m.
Fargo, N.D. - Holiday Inn

FEBRUARY 18, 2015
CornVention - Harvesting Technologies
Fargo, N.D. - Holiday Inn

FEBRUARY 24, 2015
Board Meeting
Phoenix, A.Z. - Sheraton

FEBRUARY 25-28, 2015
Commodity Classic
Phoenix, A.Z.

MARCH 3 - 6, 2015
Living Ag Classroom
West Fargo, N.D. - RRVF Fairgrounds

MARCH 17, 2015
Go Green with E15
Legislative Social
Bismarck, N.D.

MARCH 19-20 & 23-24, 2015
Risk Management Training
Fargo - NDSU Barry Hall

CORNVENTION 2015 ››› FEBRUARY 18 ››› TURN THE PAGE FOR COMPLETE DETAILS

EXECUTIVE DIRECTOR'S COMMENTS

2015 LEGISLATIVE SESSION - TOM LILJA

The 2015 North Dakota Legislative Session is underway. NOBODY knows what the price of commodities is going to be over the next two years and it leaves legislators in a tough predicament. If they spend too much, future sessions will be problematic as they would be dealing with shortfalls. On the other hand, if the treasury is relatively strong in two years they could be perceived as not investing enough in infrastructure. So what are some of the main issues affecting North Dakota agriculture? I'll sum it up in three terms: Infrastructure, Water and Livestock.

Infrastructure: Two bills - Senate Bill (SB) 2103 also known as the Surge Bill and SB2126 crafted as part of Governor Jack Dalrymple's budget were heard the second week of the session. SB2103 contains $845 million in spending to come from the Strategic Investment and Improvements Fund. $300 million would be set aside to the top 10 oil producing counties. $140.8 million would go to non-oil producing counties for infrastructure. The balance would go to cities in both oil and non-oil counties. SB2126 consists of $873 million with $450 million for road expansions and bypass projects. Both of these bills were modeled after $720 million in Department of Transportation funding that was fast tracked in the early weeks of the 2013 session. That approach worked as it allowed the bid process to proceed prior to the spring construction season.

Water: Our champions in each chamber are fighting the overreach of the federal government on water related regulations. House Bill (HB) 1197 provides for a prohibition on the purchase of conservation easements with public funds. House Concurrent Resolution (HCR) 3009 urges Congress to pass H.R. 5078 or otherwise address the concerns of the agriculture industry in defining the "Waters of the United States" in the Clean Water Act. The 2011 Legislative Assembly brought clarity to laws addressing a landowner's ability to manage water. Ever since that time, the agricultural community has received significant pushback in our ability to manage water on productive farmland. A couple other bills that have yet to be filed will strengthen agricultural producers' ability to manage water.

Livestock: HB1238 provides for a $1.00 per head increase in the beef check off. Currently Federal law assesses a $1.00 per head check off. HB1238 would allow North Dakota to be one of 12 states that have additional livestock check off funding. The last time these check off laws were addressed was in the mid 1980's. We are down to less than 16,000 head of dairy cattle on around 91 farms in state and are at risk of losing fluid milk and cheese processing plants. The North Dakota Department of Agriculture (DOA) has recently hired additional livestock specialists to address this crisis. Open dialogues have been initiated by the DOA to look into what other states have in policy to retain and grow livestock herds. We need to have a constructive and open debate as our current policies and practices clearly are not working. The North Dakota Corn Growers Association is closely monitoring this issue as the livestock industry is so crucial to corn demand.

We will keep you informed on these and other issues that will come up during the 2015 Legislative Assembly.

INSIDE THIS ISSUE

We are excited to bring our members CornVention 2015 - Harvesting Technologies - on Wednesday, February 18! The morning panel discussion will focus on the National Agricultural Genotyping Center and the afternoon panel will discuss technology at work and how growers can grow, learn and earn more!

New for CornVention 2015, is the ND Corn PAC Auction and Social that will be held the evening before CornVention. Please join us for Hors d'oeuvres and Cash Bar in Harvest Hall at the Holiday Inn. This event is a fundraiser for the ND Corn PAC. Donated items will be auctioned off by Pifer Auctioneering. If you would like to donate items to this event, please contact Tom Lilja at 701-364-2250 or by email tom@ndcorn.org. We look forward to seeing you at CornVention 2015!

CORNVENTION 2015 - HARVESTING TECHNOLOGIES

Tuesday, February 17, 2015

6 - 8:30 p.m. — ND Corn PAC Auction and Social

Wednesday, February 18, 2015

7 - 8 a.m. — Enjoy Breakfast and Visit Vendors

8 - 8:15 a.m. — Welcome
Kim Swenson, NDCGA President

8:15 - 9:15 a.m. — Market Update
Eugene Graner, Heartland Investor Services

9:15 - 10:15 a.m. — Visit Vendors

10:15 - 10:30 a.m. — GREET Survey
Dr. Richard Vierling, National Corn Growers Association Director of Research and New Uses

10:30 - 11:45 a.m.
Panel Discussion: The National Agricultural Genotyping Center Cutting-Edge Agricultural Technology in North Dakota

Moderator: Tom Lilja, NDCGA Exeuctive Director

Panelists: Dr. Richard Vierling, National Corn Growers Association Director of Research and New Uses

Wednesday, February 18, 2015 - CONTINUED

Dr. Robert Dye, Los Alamos National Laboratory Lead for Business Development of Technologies

Pete Nelson, Ag Innovation Development LLC, President/CEO

11:45 - 1:15 p.m. — Lunch
Announcement of Scholarship recipients
Annual Corn Growers Meeting

1:15 - 2:15 p.m. — Visit Vendors

2:15-3:15 p.m. — Forecasting the 2015 Growing Season
Leon Osborne, Meteorologist

3:15 - 4:45 p.m.
Panel Discussion: Technology at Work: Grow, Learn and Earn More!

Moderator: Greg Tehven, Co-Founder of Emerging Prairie

Panelists: Carl Peterson, President CCA Peterson Farm Seed

Alex Warner, Founder & CEO; Chairman of the Board Pedigree Technologies

Gary Inman, President of the ND IT Council

4:45 p.m. — Drawing for Grand Prize: **Must be a member of the NDCGA and present to win!**

MEET THE 2015 CORNVENTION MORNING SPEAKERS

EUGENE GRANER - MARKET UPDATE

Eugene Graner, president of Heartland Services, Inc. will give the Market Update at our 2015 CornVention.

Graner is also president of Heartland Investor Capital Mgmt. Inc. a CTA established in 2007 as a publisher and money management in commodity markets.

Graner is featured daily on KFYR 550 AM radio and KHND along with weekly appearances on the Country Morning West Dakota NBC TV network and KX West Dakota Network.

Heartland Investor Services Inc., Bismarck, was established in 1995 with branch offices in N.D. and Minn.

DR. ROBERT DYE - PANELIST

Dr. Robert Dye has planned, organized and managed several technical efforts at the Los Alamos National Laboratory and in Industry. His technical work ranges from the development of nanomaterials to applying material science to product development. He has contributed significantly in these areas with 92 publications and 12 patents. Many of his research efforts have produced commercial products as well as government use systems. Dr. Dye is currently the Los Alamos National Laboratory lead for Business Development of Technologies in the Richard P. Feynman Center for Innovation. He has been the CTO of a successful start-up and a paid consultant for Venture Capital. Dr. Dye has served on several advisory boards including ones for Georgia Institute of Technology, University of New Mexico, New Mexico Tech University, Oklahoma Experimental Program to Stimulate Competitive Research, Louisiana Experimental Program to Stimulate Competitive Research and the Advanced Research Projects Agency-Energy. He received a Bachelor of Science with Honors in Chemistry from the University of Central Missouri in 1983 and Doctor of Philosophy in Physical Chemistry from the University of Nebraska – Lincoln in 1989.

DR. RICHARD VIERLING - PANELIST

Dr. Rick Vierling became the National Corn Growers Association's director of research and new uses in December 2010. In this role, he serves as lead staff for the Research and Business Development Action Team, which is part of the Production & Utilization Department.

Maize trait and new product development, corn processing technologies, functional genomics and federal research spending will be among Dr. Vierling's areas of program responsibility.

Prior to joining NCGA, Dr. Vierling worked as director of the Indiana Crop Improvement Association's Genetics Program at Purdue University. ICIA is a non-governmental organization composed of agricultural and biotechnology firms interested in seed production and crop improvement.

In addition to providing services to the seed industry, Dr. Vierling served as an adjunct professor in Purdue University's Department of Agronomy.

Among the many accomplishments Dr. Vierling has achieved as an administrator and scientist, his research literally reached new heights when he led a team of industry and university scientists that designed three soybean gene transfer experiments conducted on the space shuttle, the first by astronaut John Glenn during his return to space. Dr. Vierling also is the developer of several patented technologies for plant disease and pest resistance that have been licensed to industry.

PETE NELSON - PANELIST

Pete Nelson has been actively involved in building the support ecosystem for new agricultural enterprises for over 10 years working with a variety of public and private sector partners. He has helped launch multiple startup companies, as well as develop sector specific initiatives to fund, incubate, and accelerate agricultural companies with high growth potential.

MEET THE 2015 CORNVENTION AFTERNOON SPEAKERS

LEON F. OSBORNE, JR. - METEOROLGIST

Leon Osborne is a Chester Fritz Distinguished Professor of Atmospheric Sciences and Director of the Regional Weather Information Center at the University of North Dakota. During his thirty-six years at UND, Professor Osborne has been actively involved in research that applies weather information technology to solve everyday problems. Leon's areas of expertise are in surface weather applications, climate analysis, numerical weather prediction, synoptic/dynamic meteorology, and the adaptation of advanced spatial technologies for practical applications. He presently instructs the only dedicated university undergraduate and graduate courses in surface transportation weather, which emphasize the various impacts and challenges weather places on road, rail, and transit operations. Leon has participated and lead various research programs at the regional and national level that have explored ways to improve the efficiency and effectiveness of weather applications supporting decision making in the disciplines of agriculture, transportation, and emergency management. He is frequently invited to provide educational outreach and awareness in a wide area of weather applications with special emphasis on weather and climate impacts on agriculture. Professor Osborne also serves as the graduate director of the university's M.S. and Ph.D. programs in atmospheric science.

Osborne has received the National Governors' Association's Distinguished Service to State Government Award and was selected as a finalist in the 1995 Innovations in American Government Awards Program sponsored by the Ford Foundation and the Harvard Kennedy School of Government. He has been recognized for his exemplary academic and research efforts by receiving the UND Foundation Thomas J. Clifford Faculty Achievement Award for "Excellence in Research" at the University of North Dakota, and the Burlington Northern Award for "Outstanding Teaching and Development" at the University of North Dakota. Governor Ed Schafer appointed Leon in 1996 as North Dakota's representative to the Science and Technology Council of the States.

Osborne was founder, President and CEO of Meridian Environmental Technology, Inc. from 1997 until its acquisition by Iteris, Inc. in 2011. Meridian was the premier advanced-technology road weather analysis and 511 traveler information providers in the nation and the private sector leader in the national development and deployment of winter maintenance decision support system technologies.

Osborne is a member of American Meteorological Society, Sigma Xi Scientific Research Society, Sigma Pi Sigma Physics Honor Society, Chi Epsilon Pi Atmospheric Sciences Honor Society, and Epsilon Pi Tau International Honor Society for Professions in Technology.

CARL PETERSON - PANELIST

Carl Peterson is a founder and CEO of Peterson Farms Seed in Harwood, ND. The Peterson Farms Seed brand of corn and soybeans is sold in North Dakota, Minnesota and eastern South Dakota through a network of qualified seed dealers. Over the past 19 years, Peterson has led the company to become the largest independent seed company in the region. He prides himself on building a company where team members enjoy coming to work – and where each member can be challenged to continue to grow.

Peterson earned his B.A. in Ag Production from Iowa State University. He holds a master's degree in agricultural economics from Purdue University and a MBA from Indiana University. He is also a Certified Crop Consultant. He is most proud of his "World's Best Dad" cup, however the provenance of that award is somewhat suspect.

Peterson is married to company co-founder, Julie, with whom he shares three objectively wonderful adult children. When not in the office, Carl enjoys wind-surfing and snow-skiing as well as playing keyboard and singing on his church's worship team.

MEET THE 2015 CORNVENTION AFTERNOON SPEAKERS

GREG TEHVEN - MODERATOR

Greg Tehven has spent much of his life believing he can "Create the Community You Want To Live In." He is the Co-Founder of Emerging Prairie, an organization dedicated to fostering the entrepreneurial community in the upper Midwest. He is also the Co-Founder of Dinnerties.com and Students Today Leaders Forever. He teaches as an Adjunct Professor at Concordia College. Tehven's current activities include co-organizing 1 Million Cups Fargo, Startup Weekend Fargo and curating TEDxFargo. He loves Settlers of Catan, coffee, hosting dinner parties and ND Class "B" state champs. You can track him down at gregfromfargo@gmail.com or on twitter @gregfromfargo.

ALEX WARNER - PANELIST

Alex Warner is 15 year veteran in Machine-to-Machine, Internet-of-Things & Telematics Technologies, having designed, built and delivered systems from end to end for the Department of Defense as well as numerous organizations in the Commercial Sector. He is also the Founder and Chairman of Pedigree Technologies, a ten year award winning company enabling "Intelligent Operations" helping organizations streamline their operations by connecting their equipment & assets to their people in the field and to the people in the back office, via "OneView" their suite of Enterprise Resource Management & Machine-to-Machine Applications.

Warner was raised on a farm outside of Hillsboro ND. He is a graduate of NDSU in Plant Sciences (Agronomy) as well as St Cloud State in Computer Information Systems.

He lives in Fargo with his wife Leah and their two sons Luke and Elias.

GARY INMAN - PANELIST

Gary Inman is currently the Senior Vice President of Information Technology for Bell State Bank & Trust. He also serves as the President of the Information Technology Council of North Dakota, an organization dedicated to advancing the development, use and advancement of information technology throughout the state.

Originally from Worthington, Minn., Inman holds a Computer Information Systems degree from Moorhead State University and a Master's degree in Management with an Information Technology emphasis from University of Mary. He has held positions as the Director of Services for Echelon Corporation and also various positions over 18 years with Microsoft and Great Plains Software, including the Director of Information Technology. He lives in West Fargo with his wife and two daughters.

USE #CORNVENTION15 TO SHARE YOUR EXPERIENCE AT CORNVENTION ON TWITTER AND FACEBOOK!

WHY JOIN THE NORTH DAKOTA CORN GROWERS ASSOCIATION?

GROWER MEMBERS REALIZE NEW OPPORTUNITIES THROUGH:

PROMOTION
CONSUMPTION AND USAGE
OF CORN PRODUCTS

INFORMATION
AND EDUCATION
ON THE LATEST CORN PRODUCTION
PRACTICES SPECIFIC TO ND

SUPPORT FOR
RESEARCH ON
CORN HYBRIDS
BRED FOR GROWTH
IN OUR NORTHERN CLIMATE

LOUD POLITICAL VOICE
VIA AFFILIATIONS WITH ORGANIZATIONS
IN 48 STATES REPRESENTING MORE THAN 40,000 CORN GROWERS

NORTH DAKOTA CORN GROWERS ASSOCIATION

Membership Form

ND Corn Growers Association
1411 32nd St South, Ste 2 – Fargo, ND 58103
Phone: (701) 364-2250 Fax: (701) 298-7810

To become a member of the ND Corn Growers Association, complete the following and mail to the above address.

Name: _____ Farm/Company_____

I want membership in Farm/Company name: Yes No

Address: _____ City/State/Zip: _____

County _____ **E-Mail:**_____

Phone Number (Home): _____ Phone Number (Cell/Business) _____

Spouse's Name: _____ Recruiter Name: _____

This partial refund form enables ND Corn Producers to use their corn promotional check-off to pay NDCGA membership dues only.

____ I have paid the promotional check-off for at least 12,000 bushels of corn entitling me to a free 1-year membership.
____ I have paid the promotional check-off for at least 24,000 bushels of corn entitling me to a free 3-year membership.
____ I have not paid the minimum promotional check-off on corn, but wish to become a member.

(Circle one): 1 Year = $35 3 Years = $85

New Membership _____ Renewal _____

By signing below, I certify that I have sold and checked off the above numbers of bushels of corn within one year of this date. I authorize and assign payment of the above checked dollars for a membership in the North Dakota Corn Growers Association.

Signature: _____Date:_____

LEARNING FROM AG'S TECHNICAL REVOLUTION

Carl Peterson
President, CEO
Peterson Farms Seed

The only thing creating more buzz than talk of a technical revolution in agriculture is a swarm of June mosquitos at dusk. And for many of us that have tried to implement some of the earliest versions of some of those technologies, it can be just as infuriating.

But this season on our farm, we saw a glimpse of the potential of these technologies. And we're excited that they will soon provide data which when acted upon, will make real differences in our yields.

For a number of years, we have spread urea "hot streaks" on all the corn fields on our farm in an effort to compare parts of the field where we know nitrogen is not limited to the rest of the field as a check on our fertility program.

We have looked for these "hot streak" strips on UAV photos, on the ground and with yield maps, but have never been able to find any real differences. This year all that changed.

Three things that drove those changes:

1) We added software to our spreading tractor that allowed us to capture the GPS coordinates of the "hot streaks." This allowed us to overlay those streaks on our yield maps.

2) We changed from an OEM yield monitor to Precision Planting's YieldSense monitor. The greater accuracy and better precision gave us much better data to analyze.

3) We began using SMS and Ag Data Viewer software to statistically analyze the data we generated.

So what did we learn?

We learned that on several of our heavy clay fields, much of the damage we attributed to weakened corn plants from excessive spring rains, was actually nitrogen deficiency caused by denitrification. We showed a 20 bushel increase in our "hot streaks" in those fields and we believe that a late application of nitrogen would have recovered that yield on several hundred acres on our farm in 2015. Even at today's lower prices, 20 bushels per acre is real money!

Interestingly, we did not see those differences on our tiled fields. That tells me that the better drainage in those fields prevented the anaerobic activity that depleted the nitrogen on the non-tiled ground. And it tells me much of the yield bump we saw on our tiled ground in 2015 can be attributed to less nitrogen loss there.

So how will what we learned change what we do?

Next year we will again put the nitrogen "hot streaks" in each of our corn fields. We will be certain to log them so we can capture them in our analytical software.

We plan to reduce our preplant nitrogen application by about 40#/acre. If we have a late spring or a poor start to the growing season, we will keep that money in our pocket—with today's lower prices, we need to watch our expenses.

If we have a more favorable season or if tests show significant denitrification, we plan to side-dress or make a late season application of nitrogen. On our heavy soils around Prosper, it is often impossible to make a traditional side-dress application in a timely fashion so we will plan a surface application of 28 percent using 360YieldCenter's Y-drop adapter. This should give us enough time to determine the need and make the application.

We will be extensively testing one of the crop modeling nitrogen managers. ClimatePro (not yet available in our region), Encirca, and 360YieldCenter are the three most advanced programs. We tried 360YieldCenter towards the end of the 2014 season, and it seems the best fit for our farm.

None of these systems is foolproof or perfect, but all of them provided guidance that can help us fine tune our nitrogen program.

These nitrogen management tools will help us save nitrogen and increase our yields.

And we will continue to work with new tools, looking for data that is actionable through satellite photos, drones, probabilistic weather models and all the other wondrous technologies currently on the horizon.

None of this stuff is simple. None of it is particularly easy to learn. But especially in times of lower commodity prices, we need to coax every possible bushel from each of our fields.

2015 will mark my 35th cropping season. We have seen a lot of changes over those years. But I expect even greater change in the seasons I have left. And I can't wait!

Carl Peterson is a founder and CEO of Peterson Farms Seed in Harwood, ND. The Peterson Farms Seed brand of corn and soybeans is sold in North Dakota, Minnesota and eastern South Dakota through a network of qualified seed dealers. Over the past 19 years, Carl has led the company to become the largest independent seed company in the region. He prides himself on building a company where team members enjoy coming to work – and where each member can be challenged to continue to grow.

MARSH-BECKER JOINS ND CORN STAFF

CJ Marsh-Becker is the Office Assistant for the ND Corn Utilization Council. CJ is a graduate from Moorhead State University with a degree in Business Administration. She has extensive experience in financial and administrative support in the healthcare, banking and insurance industries. CJ and her husband Fritz reside in Casselton. Her hobbies include crocheting and painting.

2015 CORPORATE SPONSORS

Thank you for your support!

PLATINUM LEVEL

DEKALB
DuPont Pioneer
Tharaldson Ethanol

GOLD LEVEL

Dyna-Gro Seed
Farm & Ranch Guide
Mustang Seeds
Peterson Farms Seed
Proseed
Wensman Seed

SILVER LEVEL

AgCountry Farm Credit Services
Conklin AgroVantage/AgroValley, Inc.
Bayer Crop Science
Ellingson Drainage
Mycogen
Nuseed
Thunder Seed
Titan Machinery
Westeel USA

BRONZE LEVEL

BASF The Chemical Company
Butler Machinery
Columbia Grain, Inc.
Gateway Building Systems
Legend Seeds
Monsanto BioAg
ND Stockmen's Association
REA Hybrids
Red River Farm Network
USDA NASS

North Dakota ethanol facilities produce ethanol and high-quality livestock feed

By Sheyna Strommen for the North Dakota Ethanol Council

North Dakota's corn farmers produced approximately 388 million bushels of corn in the 2013/2014 crop year and an estimated 314 million bushels in the 2014/2015 crop year. The state's four ethanol plants worked with the state's farmers and ranchers to convert about 40 percent of that production into renewable fuels and high-quality livestock feed.

NDSA member David Spickler of Bismarck works as the vice president of marketing and risk management for Midwest AgEnergy Group, a company that owns Blue Flint Ethanol near Underwood and Dakota Spirit AgEnergy near Spiritwood, a new plant that will begin operation in May. Spickler said the feed value of dried distillers grains (DDGs) surpasses corn, with three times the amount of protein as corn and equivalent energy. It has become a desirable co-product feed for livestock.

This first article in a year-long series details the transformation of corn into ethanol and DDGs. It's a process that takes 72 hours, from start to finish.

Producing ethanol

The ethanol production process starts by grinding the corn so it is more easily and quickly processed. Once ground, the corn's starch is converted into sugar. The sugar is then fed to microbes that use it for food. Ethanol and carbon dioxide are produced in the process. A final step purifies the ethanol to the desired concentration.

"In the ethanol production process, after all of the starch has been converted to ethanol in fermentation, the ethanol is removed," Spickler explained. "What remains is a slurry of water and non-fermentable solids which are mainly protein fiber and fat."

Co-producing distillers grains

The slurry is further distilled to produce high-quality livestock feed – either wet distillers grains (WDGs) or DDGs. Production plants like Blue Flint send the slurry through a centrifuge to be further separated into two streams – a liquid stream and a solid stream.

According to Spickler, the solids stream contains approximately 65 percent moisture and must be sent through a drying process that brings it down to 12 percent moisture.

Similarly, the liquid stream coming off of the centrifuge contains approximately 7 percent suspended solids. This liquid is sent through an evaporation process that concentrates the liquid to up to 35 percent solids. Once concentrated, a portion of the corn oil in this liquid stream is removed to be sold as a byproduct. The remaining liquid or "syrup" is then added back to the solids stream in the drying process to be included as part of the final DDGs product.

Quality assurance measures

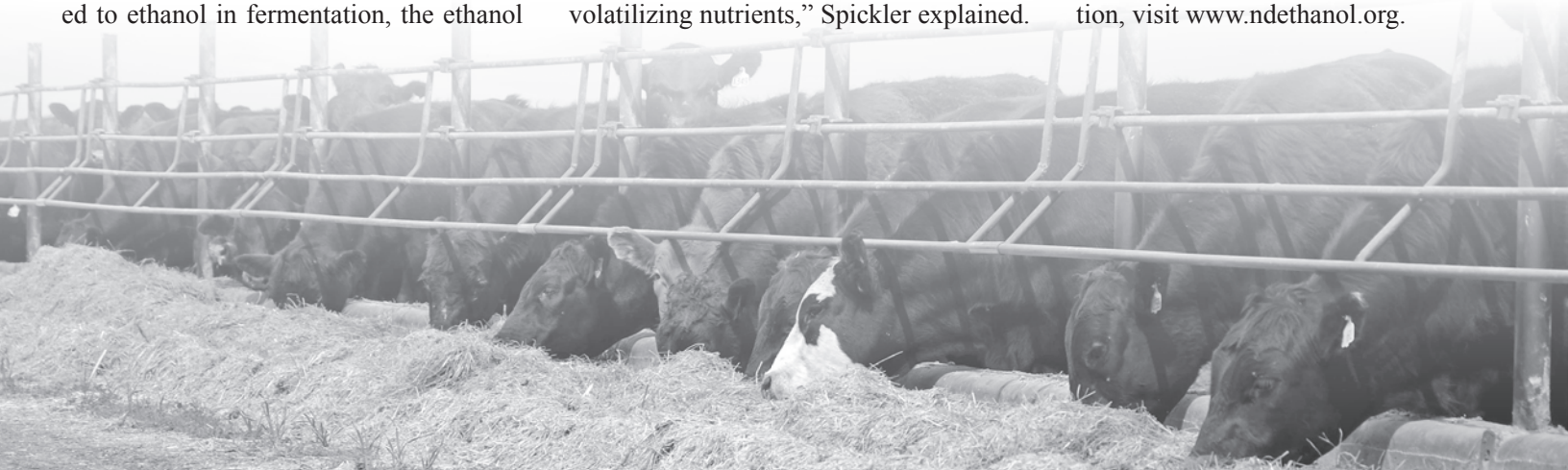
Blue Flint Ethanol manufactures both modified distillers grains (MDGs) and DDGs. Both are subject to plant-level controls and quality assurance parameters.

"Blue Flint utilizes steam tube dryers to dry at a low temperature and to avoid volatilizing nutrients," Spickler explained. "We have in-process moisture analyzers and automated diversion gates to automatically segregate any product not hitting quality specs." Blue Flint tests all major nutrients daily to assure a consistent, quality feed source.

A common misconception is that MDGs and/or WDGs have comparatively shorter shelf lives, Spickler said. "In fact, both products lend themselves well to long-term storage in bulk stockpiles, such as in a concrete bunker." According to Spickler, university research and Blue Flint's local experience indicate that MDGs can be stored in this manner for several months with minimal spoilage, if done properly. "WDGs can be tougher to store in the winter due to freezing, while freezing or chunking is seldom an issue with MDGs," he added.

Throughout 2015, the North Dakota Ethanol Council, which represents North Dakota's four ethanol plants – Blue Flint Ethanol of Underwood; Hankinson Renewable Energy Energy of Hankinson; Red Trail Energy, LLC, of Richardton; and Tharaldson Ethanol Plant of Casselton – is proud to work with the NDSA to highlight the existing and potential role of DDGs in livestock production. In future articles we'll explore contracting options, fat level impact on feed quality and DDGs use in cow/calf operations, backgrounding, finishing, seedstock production and more.

For more ethanol production information, visit www.ndethanol.org.



SOIL HEALTH & LAND MANAGEMENT

NDSU EXTENSION SERVICE

Café Talks are BACK!

Meet with NDSU Extension and Research to talk about on-farm soil health issues

Bring your questions…share your ideas…

The goal of these sessions is to get Soil Health information shared between producers and NDSU. We want to know what issues you're facing (for example, salinity, sodicity, compaction) and work with you to identify solutions that make sense for your "bottom line".

Using a laid back setting and small groups, NDSU Soil Health Specialist (Abbey Wick), Research/Extension Faculty (for example: Tom DeSutter, Frank Casey, David Ripplinger, Dave Franzen, Marisol Berti, Berlin Nelson etc.) and County Extension Agents will be available to answer your questions. These meetings are entirely driven by producers!

For more information: **www.ndsu.edu/soilhealth**

Brock Schouldis
Richland County Extension - 701-642-7793

Melissa Blawat
Sargent County Extension - 701-724-3355 (Ext. 5)

Alyssa Scheve
Traill County Extension - 701-636-5665

Michael Knudson
Grand Forks County Extension -701-780-8229

SOIL HEALTH CAFÉ TALKS 2015

Feb 5 & 19

9 - 10:30 a.m.
Milnor Grain

12 - 1:30 p.m.
Wahpeton Fryn' Pan

Feb 12 & 26

9 - 10:30 a.m.
Hillsboro Our Town Bakery

12 - 1:30 p.m.
Thompson Brewskis

NORTH DAKOTA CORN COUNCIL

North Dakota Soybean Council
Our World Is Growing.

NORTH DAKOTA WHEAT COMMISSION
Building Bigger Better Markets

NORTH DAKOTA CORN GROWER MEMBER EXAMINES EXPORT MARKETS - IN CUSTOMER, COMPETITOR COUNTRIES

North Dakota Corn Grower member Bart Schott recently returned from the U.S. Grains Council's (USGC) Grain Export Mission (GEM). This event provides a unique opportunity to see the global market in which they work from the eyes of both customers and competitors.

Schott from Kulm, N.D. traveled in one of two groups of mission participants who departed November 30 for South America to learn about local conditions, trade opportunities and constraints and to meet with foreign contacts eager for insight into the U.S. production and export systems. Schott and his group visited Colombia and Brazil while another GEM group visited Argentina and Mexico.

Schott's experience taught him how important it is to have the U.S. Grains Council present in the countries that the U.S. trades with. Schott explains, "In Colombia and Panama we have seen big increases in corn trade to these folks. It was nice to visit feed mills in these countries. Knowing that the U.S. Grains Council was there made us feel at home and not like strangers in a foreign land. It was an honor to be on this trip. I was quite excited to travel to Brazil, as I especially wanted to see their farming practices. I've always wanted to see how Brazilian farmers were able to bring their corn to market as there is poor transportation infrastructure. What I found is that they are resilient and make it work so that they can live."

Colombia is the second largest corn importer in the Latin American region and a country in which the United States traditionally captured more than 80 percent of the market, though there recently had been an erosion in U.S. market share due to unfavorable tariff treatment.

This year, Colombian buyers returned to purchasing U.S. corn, driven by price and advantages from the implementation of the U.S.-Colombia free trade agreement (FTA). In fact, the country exceeded its 2.4 million metric ton (94.5 million bushel) tariff rate quota (TRQ) in June but still continued to purchase U.S. corn.

Schott's team also visited Brazil, a critical competitor for U.S agricultural exports but a market that faces many challenges with infrastructure. Understanding the current reality and the future prospects of Brazil's agricultural production is vital for U.S. farmers as they continue to export their commodities into the global marketplace.

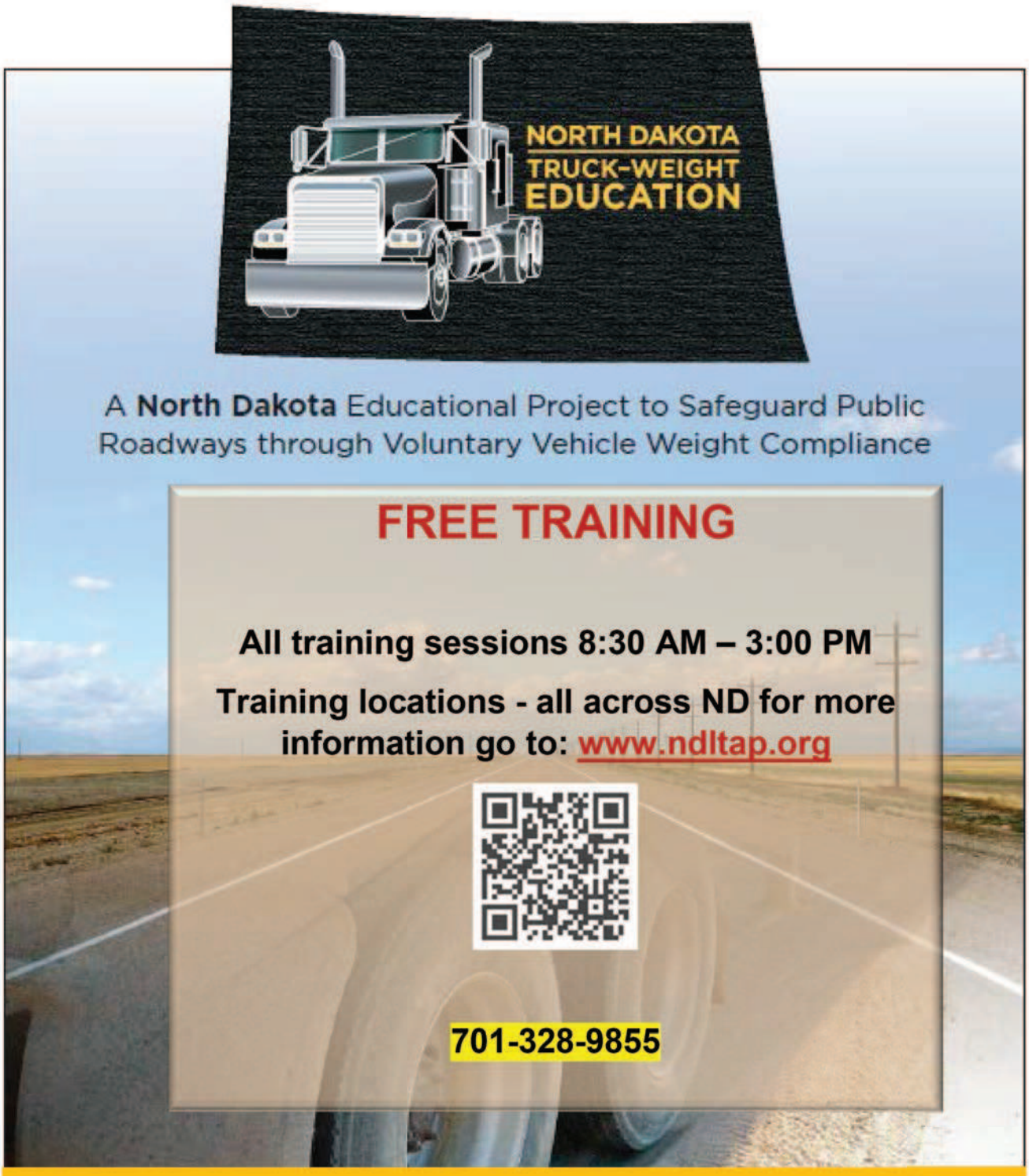
Both GEM groups completed their missions in Panama with a tour of the Panama Canal, which is in the process of being expanded.

"We had the opportunity to view the new part of the canal. The new construction will be opened in the next couple of months. This is a massive endeavor and it is really worth it for trade. Bigger locks and dams will benefit U.S. trade and move larger quantities of grain through the new canal. This is truly is big deal!" Schott said.

North Dakota is an active member of the U.S. Grains Council, a private, non-profit organization that works to develop exports in more than 50 countries from 10 worldwide offices and its Washington, D.C., headquarters. The GEM is a long-time program of the Council that builds awareness of the global grain trade among future U.S. agriculture leaders.

"The purpose of the GEM is for participants to gain a clearer understanding of the challenges, opportunities and competition we face in the international marketplace," said Ron Gray, USGC chairman, whose family farms in Illinois. "With 95 percent of the world's population living outside our borders, global awareness and connections are increasingly vital for everyone involved in agriculture."

Updates on the GEM will also be posted on the Council's social media including Facebook, Twitter and Flickr.



- **Feb. 12, 2015 — Cooperstown, N.D.**
  Griggs Courthouse — 808 Rollin Ave. SW

- **Feb. 13, 2015 — Jamestown, N.D.**
  ND Farmers Union Building — 1415 12th Ave. SE

NDSU | UPPER GREAT PLAINS TRANSPORTATION INSTITUTE
NORTH DAKOTA LOCAL TECHNICAL ASSISTANCE PROGRAM

NDDOT North Dakota Department of Transportation

MONITORING FIELD MICROCLIMATES

John Vaadeland
Dyna-Gro Agronomist

North Dakota
NW Minnesota
NE Montana Division

I have often felt that when it comes to crop production, no matter what you're growing, as long as you do everything up to par you probably still don't have more than 25-30% influence on the final yield.

When I say "manage everything up to par" I mean that any variables you have control over are taken care of to the best of your ability with your bottom line always in the forefront of every decision.

Examples of controlled variables include but are not limited to:

- Soil samples have been properly taken and fertilizer applied according to University recommendations and realistic yield goals.
- Seed selection has been based on local and regional replicated yield data and planted according to company's specifications.
- Weed issues have been diagnosed and have been controlled in a timely manner as well as any potential insect and disease problems.
- Harvest losses have been minimized by using proper combine settings and adjustments.

Each grower might have a slightly different list and a different answer as to how each variable is managed, but everyone's ultimate goal is to receive the highest possible return on their investment.

As we all know, weather is the single biggest variable that we have no control over. Temperature, air pressure, relative humidity, dew point, precipitation, wind speed and direction, and sunlight or cloud cover by far have the largest impact on crops that are grown each season, yet are seldom monitored on a farm level let alone a single field level. Knowing exactly what is happening weather-wise in each field can not only provide valuable information for in-season management decisions, but also help fine tune management decisions for subsequent years.

A lot of weather data is available on the internet from various websites, however, many times the data collection points are miles away from a growers farm or field. Climatic conditions generally don't vary too much across a 10-20 mile range, but over a 30-50 mile range or more can vary dramatically. For this reason, a certain crop, brand, or variety planted in one field may end up yielding much differently from the very same thing planted several miles down the road.

As the agronomist for Dyna-Gro Seed with CPS's North Dakota Division, I have been using micro stations to collect weather data from our Dyna-Gro Innovative corn and soybean plots. These data loggers are small, reasonably priced, and allow for several different types of data to be collected. (See photo #1)

From the data collected, we are able to accurately determine heat units from planting to emergence, emergence to flowering, and flowering to maturity. This information allows us to see subtle differences between corn hybrids of similar maturities and to make better informed decisions on where they should be placed throughout our region.

Micro station used for weather data collection.

Micro stations also help to accurately determine rainfall and the soil and plant response to that moisture. This is especially valuable information to know during the flowering period of both corn and soybeans and the impact soil

moisture may have on kernel or pod development. It's easy to see what is happening above ground, but many times what is happening below ground ends up being nothing more than a guess. Sensors help take the "guess" out of what's happening below ground from a moisture standpoint.

I've found out over the years that if you know exactly what the soil and air temperatures have been in your fields along with solar radiation, rainfall, and soil moisture, educated answers can be derived for explaining either good or poor crop performance the majority of the time.

Whether it's too cold, too hot, too wet, too dry, too cloudy, (or just too good to be true), our weather has the largest impact on crop yields each and every year.

Monitoring individual farm or field microclimates can be used for improving management decisions in-season as well as for many seasons to come.

2015-16 RESEARCH SUMMIT

Dr. Abbey Wick presents at ND Corn's 2015-16 Research Summit.

Research is integral to the mission of the NDCUC and NDCGA. Each year a Research Summit is held for researchers to present their proposals to the Corn Board to potentially receive funding for their projects during the 2015-16 fiscal year. The 2015-16 Research Summit was held on December 3, 2014 at the Kelly Inn & Suites in Fargo.

A big emphasis for 2015-16 will be to analyze and quantify the fertilizer value of distiller grains.

More information about research projects and their results will be printed in the upcoming Research Update sometime this spring.

MAXIMIZE PROFITS WITH A NEW YIELDTRAC PLANTER

Kip Hines
Marketing Specialist

TITAN MACHINERY

A brand new red planter will be running through area fields this spring. The 36-row, 22-inch Yieldtrac is fresh off the assembly line at the Titan Innovation Center in Fargo, ND. The new 36R-22 planter is the third model built combining superior Case IH planting technology on the proven Yieldtrac bar. The front-folding, Yieldtrac bar was first designed in the Red River Valley for Titan Machinery customers with 22-inch rows and soggy soil. The 24R-22 Yieldtrac made its debut in 2012 and producers immediately recognized the innovative Agronomic Advantages of the innovative planter. The initial success of Yieldtrac created demand for other row spacing and configurations, so engineers immediate went to work on the 24R-30 model first released in 2014. Both models have helped farmers recover compaction-related yield loss on hundreds of thousands of acres in five different states and one Canadian province.

"This is by far the best planter I've seen," says Bill Sczepanski. He should know, because Sczepanski and his sons farm 27-thousand acres of primarily row crops around Stephen, MN. Sczepanski first purchased two 24R-22 Yieldtracs in 2013, and their money-making performance made his decision very easy when it was time to buy a third planter. "Usually when you harvest, you can find the skips and doubles, and to be honest, I couldn't find any," says Sczepanski. " Anytime you have doubles-it costs you money. It was a no-brainer!"

You can maximize farm profits by minimizing yield-robbing compaction while planting. That's why the biggest feature of Yieldtrac is the track undercarriage, with over 1,500 square inches of belt and only 14 pounds per square inch(PSI) pressing on the ground. "The tracks definitely carry you through," adds Sczepanski. "It gets us through the low spots and we can seed places we couldn't seed before."

All Yieldtracs feature in-line wing wheels, when combined with the tracks, minimize compaction and "pinched" rows. The two additional wheels on each wing of the 36R-22 Yieldtrac are spaced two rows (44 inches) apart to virtually eliminate pinched rows on that model too. 24-row Yieldtracs leave only four tracks for every field pass. Most conventional 24-row planters leave eight tracks, and their tires require up to 90 PSI. The more pressure in your tires, the more pressure there is compacting the soil and limiting root development. A 2011 DuPont Pioneer study (available at Pioneer.com) across southern Minnesota showed an average corn yield loss of 11 bu/acre in the center section of planters compared to the outside wings, mainly due to compaction. Minimal field marks and tire pressure not only put more bushels in your bins in the fall, but they also widen the window of opportunity when it's time to plant.

Yieldtrac is the product of a partnership between Case IH and Titan Machinery. Right out of the box, the Case IH Early Riser® planting system has long been considered the industry leader for performance, without having to purchase expensive planter add-ons. "They are very accurate," says Sczepanski. "You set them at 4 or 5 inches–It's right on–it really is!" Yieldtrac gives producers three more opportunities to put the Case IH planting solution on their farm. The planters are named Yieldtrac because farmers will be tracking more yield in their fields at harvest, after planting with Yieldtrac in the spring.

More information and Yieldtrac customer stories are posted at www.TitanMachinery.com/yieldtrac.

NCGA POLICY AND PRIORITY CONFERENCE

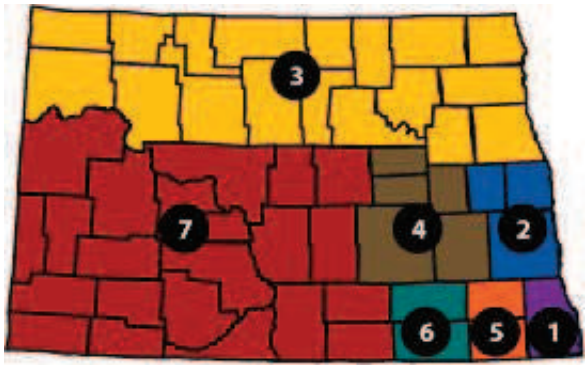
North Dakota Corn Growers Association (NDCGA) President Kim Swenson and National Corn Board Member Kevin Skunes and NDCGA Board Members Bart Schott and Scott German attended the NCGA Policy and Priority Conference in St. Louis, Mo. on January 14-15, where all corn states set priorities for 2015. North Dakota's priority recommendations for the NCGA are:

1. Defend the RFS at all cost
2. Ethanol infrastructre and E-15 to E-85 usage
3. EPA Regulations
4. Image & Activism
5. Federal Taxes

NDCGA President Kim Swenson speaks at the NCGA Policy and Priority Conference in St. Louis, Mo.

DISTRICT ELECTIONS TO BE HELD AT ANNUAL MEETING

North Dakota Corn Growers Association Districts



NORTH DAKOTA CORN GROWERS ASSOCIATION

Elections for Districts 1, 3 and 5 will be held at the North Dakota Corn Growers Annual Meeting (CornVention) Wednesday, February 18 at the Fargo Holiday Inn. Elections will be conducted over the noon luncheon in Harvest Hall. District 1 is Richland County and has one board seat up for re-election. District 3 comprises the 18 counties in northern North Dakota that border Minnesota, Montana and Canada. District 3 has one board seat up for election. District 5 comprises Ransom and Sargent counties and has two board seats up for election. Eligible producers for election to the corn growers board are defined as any person that plants or causes to be planted a corn crop in which the person has an ownership interest, with the intent that upon maturity the crop will be harvested and has met these requirements during the immediate preceding growing season or during the next available growing season. A member of the Corn Growers Board may not have requested a refund during the preceding biennium. If you have any questions on the Corn Growers district elections please contact tom@ndcorn.org.

CORN GROWERS TESTIFY FOR IMPROVED BOND SCHEDULE

ND Corn Board Members Bart Schott and Randy Melvin testify before the ND Public Service Commission.

On December 15, 2014 and January 5, 2015 members of the NDCGA public policy committee provided testimony to the North Dakota Public Service Commission (PSC) on proposed rule changes to our states grain elevator bonding laws. Randy Melvin, Bart Schott and Mike Clemens provided testimony favoring improvements in North Dakota bonding laws that were proposed by the PSC's rulemaking process.

Two primary changes were proposed by the PSC. The first is a 30 percent increase in bond levels for entities that have been in business six years or less in North Dakota. The second major change is higher bonding requirements for facilities that turn grain more than seven times annually over their existing capacity based bond.

In 2012, the North Dakota Corn Growers Association co-funded a study with the North Dakota Soybean Growers Association and the US Durum Growers Association to evaluate how North Dakota compares to other states in mechanisms used to protect growers in cases of grain insolvencies. Dr. William Wilson and Bruce Dahl of the Department of Agribusiness and Applied Science at NDSU released the study in October 2014 entitled "Risk Exposure of Financial Failure for North Dakota Grain Handling." Dr. Wilson and Mr. Dahl created a simulation model to quantify and illustrate the prospective risks of failure. The model differentiated cooperative and corporate firms separately due to tax structure. Instructively, the model evaluated typical margins on corn, wheat & soybeans. The model also took into account the volatile freight margins experienced in the last 24 months.

Page 24 lists recommendations for further review and/or analysis. It appears that the most important considerations for North Dakota include:

1) Increasing the maximum payment from the Credit Sale Contract Indemnity Fund. Currently, the fund pays 80 percent of the claims, up to a maximum of $280,000 per producer. Given the increase in producer size, production and market volatility, this value is probably inadequate. Indeed, given current market parameters, the maximum would have to increase to provide equivalent coverage as originally intended by this mechanism.

2) There are several recent insolvencies that could potentially lower the Indemnity fund balance to near $3.6 million, which is much less than earlier minimum levels at which assessments would be re-imposed.

3) Re-evaluating the structure of the mechanisms. Alternatives include considering

   - Value of the commodity. Currently, the mechanisms in North Dakota are based on storage capacity (or sales).
   - Whether to use indemnity funds or bonding, or to use both. Currently, North Dakota is one of the few states that uses both methods.
   - Adding net worth requirements. Typically, minimum net worth requirements are imposed and an additional bond is required to make up the difference for shortfalls.
   - The relationships between claims and indemnity fund min/max suggest that, if average payouts for claims increase, then minimums and maximums for the indemnity fund would likely need to increase to be consistent with other states.

4) Dry beans: This crop has greater risks than other crops. Other states' bonding requirements for dry beans are much greater than those in North Dakota.

The purpose of this study was to identify the changes in relevant risks that confront grain and oilseed producers in North Dakota and to assess the adequacy of mechanisms designed to mitigate these risks. The intent was not to prescribe specific changes but, rather, to identify those areas worthy of consideration for legislative changes to assure protections for growers. The complete study can be found at http://ageconsearch.umn.edu/handle/189418

Dr. William Wilson of the Department of Agribusiness and Applied Science at NDSU testifies before the ND Public Service Commission.

COUNTY REPRESENTATIVE ELECTIONS

This winter County Corn Representative elections are being held for Districts 1, 2 and 5. County Corn elections are generally held at your extension service winter crop improvement meetings. Each of the following Districts will be electing one County Corn Representative: District 1– Richland County. District 2 – Cass, Steele and Traill counties. District 5 – Ransom and Sargent counties. Eligible producers for election as county corn representatives are defined as any person that plants or causes to be planted a corn crop in which the person has an ownership interest, with the intent that upon maturity the crop will be harvested and has met these requirements during the immediate preceding growing season or during the next available growing season. A member of the Council may not have requested a refund during the preceding biennium. The North Dakota Corn Council board determines funding for checkoff programs including research, education, market development efforts as well as participation in programs under the auspices of other state, regional, national and international promotion groups. If you have any questions about serving as a county representative please contact tom@ndcorn.org.

NORTH DAKOTA CORN COUNCIL

POPULATIONS AND VARIABLE RATE SEEDING FOR CORN

Eric Nelson, Ph.D.
Territory Agronomist

Variable Rate Seeding

Corn growers and university agronomists generally agree that a seeding rate of around 33,000 seeds/acre (spa) is necessary to produce 180 to 190 bu/acre. A rate of about 38,000 spa can produce 240 to 250 bu/acre, and a population of 42,000 to 43,000 spa has the potential to produce 300 bu/acre. They also recognize that some fields, and some portions of otherwise highly productive fields, are capable of producing no more than 100 bu/acre and the seeding rate in those fields or management zones should be reduced to 18,000 to 24,000 spa.

Adjusting corn seeding rates to variable soil conditions in a field can improve overall field productivity. Corn planters with the capability of varying seeding rates on-the-go are becoming more common. VRS has been shown to be most practical in fields with soil variability, particularly in areas with less than ideal growing conditions. Optimum corn seeding rates may vary from 5,000 to 12,000 plants/acre (ppa) across a field due to variations in soil productivity. The key to success with VRS begins with identifying specific management zones within each field.

Management Zones

Monsanto agronomists have accumulated years of data showing how specific corn products perform at various seeding rates and under various soil and growing conditions. Matching products with the highest yield potential to soil productivity levels throughout a field is essential for maximizing yield potential. Growers should accumulate both yield history and soil data from each field to identify management zones where specific corn products and/or VRS may increase yield potential.

Value of VRS

VRS is a tool to increase yields on soils/areas of fields where yield potential is high as well as on areas of fields that are low in organic matter/made up of coarse soils with lower yield potential. VRS can help match yield potential with seeding rate and effectively increase yield in both areas.

Yield monitors are a very effective tool in identifying zones with different yield potential. However, even growers without yield monitors know which fields, and areas of fields, yield better or worse. If a field never yields over 120 bu/acre, it is not a candidate for high plant populations. Conversely, fields with achieved yield at or above 200 bu/acre would not be maximized with low plant populations. Reducing plant populations on low productivity acres reduces competition among corn plants and reduces the risk of barren stalks in the most stressed areas.

Yield Data Recommendations

To develop a VRS plan, farmers should compile field-by-field records, including:

- A minimum of 3 years of yield data, 2 of which are corn, with an average yield of 120 bu/acre or greater.
- Field coverage must be 85% or greater.
- Grower provides a target yield, based on fertility program.

Soil Data Recommendations

A variable rate prescription should be based on management zones in each field. Soil types are often a starting point for creating zones. Soil test information to accurately characterize those zones is important to truly reflect yield potential and variability.

- For 2015, farmers should provide soil samples from 9/1/2010 or later.
- Sampling resolution should be 3 acres or less and referenced to a grid.
- Depth of sample should be 0-6 inches or 0-8 inches.
- Recommended soil test data includes: organic matter (OM), cation exchange capacity (CEC), water pH, buffer pH (if pH is <6.8), potassium, phosphorus, calcium, and magnesium.

- Soil EC (soluble salts or 1:1 soil to water) is recommended on all soil samples taken after 9/1/13 west of the Mississippi River.

Planter Set-up

With all the data collected and a VRS prescription in place, growers should be aware that planter set-up and operation can greatly influence VRS success. Data from studies at the Monsanto Learning Center at Scott, Mississippi, showed that for each 1 MPH increase in planting speed, corn yield decreased by 4.3 bu/acre when averaged across planter meter types and under the conditions of this trial. Another study showed that a 1 inch increase in the standard deviation of seed spacing resulted in a 5.05 bu/acre yield decrease. VRS prescription, product selection, proper fertility, and planter accuracy combine to improve corn yield potential.

Sources

2013 Research reports, Monsanto Learning Center at Scott, Mississippi.

LIVING AG IN THE CLASSROOM

Manager of Communications Betsy Armour talks to 3rd graders at the "Ag and YOUth" program in Jamestown, N.D. on January 14.

NDCGA and NDCUC will be participating in Living Ag in the Classroom events this spring to educate elementary school-aged children about agriculture in the state of North Dakota.

NDCGA and NDCUC staff will present information to students about corn in a fun and unique way.

The first part of the presentation is about the three different types of corn: popcorn, sweet corn and field corn.

After the three types of corn are identified, then the discussion turns to the four different uses of corn. The four "F" uses of corn are: food, feed, fiber and fuel.

During the second half of the presentation, the students are asked questions about corn by spinning a wheel.

Approximately 4,000 students will be educated by the NDCGA and NDCUC at the following 2015 events:

- Ag and YOUth, January 14 — Jamestown, N.D.
- Living Ag in the Classroom, February 10-11 — Bismarck, N.D.
- Living Ag in the Classroom, March 3-6 — West Fargo, N.D.
- Living Ag in the Classroom, TBD — Lisbon, N.D.

INTRODUCING DUPONT™ LUMIVIA™ INSECTICIDE SEED TREATMENT

The DuPont Seed Treatment Enterprise is introducing a new seed treatment solution for North Dakota corn growers.

DuPont™ Lumivia™ insecticide is a highly active insecticide that protects against a broad spectrum of insects that damage corn plants, including cutworms, wireworms, grubs and fall armyworms. A new class of chemical, DuPont™ Lumivia™ insecticide seed treatment helps corn growers achieve better stand establishment, uniformity and yield. The new treatment is a combination of the standard Pioneer Premium Seed Treatment (PPST) 250 corn seed treatment (4 fungicides & Cruiser® 250 insecticide) with the addition of LumiviaTM which is a chloranthraniliprole.

This new solution will be available in the PPST lineup as PPST 250 plus DuPont™ Lumivia™ for select Pioneer® brand corn products. PPST 250 will remain the standard treatment package for all other Pioneer brand corn products for the 2015 growing season.

"Growers are planting corn as early as they can," says DuPont Pioneer commercial unit lead Bill Even. "They often plant a lot of acres in a short time and have one shot a year at getting seed off to a great start to maximize yield potential," he notes. "Early planting increases the risk of insect pressure. DuPont™ Lumivia™ insecticide seed treatment helps minimize these stresses."

In 2013 and 2014, agronomy research trials showed nearly a three-bushel-per-acre yield bump on average, with 95 of 160 locations showing an average of eight more bushels per acre.

Growers want to plant faster and more accurately. The application process for DuPont™ Lumivia™ insecticide seed treatment was designed by the in-house DuPont Integrated Seed Science Center Network to stay firmly on the seed and flow smoothly through the planter.

"We're developing products with environmental stewardship and sustainable technologies in mind," Even says. "As seed treatments become more complex, it's essential that we develop products and engage in robust testing procedures that ensure safe and effective use."

Seed Treatments Play a Critical Role in Agriculture

Seed treatments – including fungicides, insecticides, nematicides and biological amendments – play a critical role in agriculture and the production of a healthy crop. In addition to helping manage against early-season pests and diseases, they deliver high levels of efficacy at reduced active ingredient usage rates compared to foliar or soil applied applications.

Neonicotinoids, a modern class of insecticides that have largely replaced many older insecticides because of their safety and effectiveness in pest management programs, are the subject of ongoing debate. Some studies associate the use of neonicotinoids, a class of neuro-active insecticides and the active ingredients in many seed treatments, with declining pollinator health. Some researchers point out other factors. Most scientists and bee experts agree that poor bee health is a result of multiple factors, including parasites, diseases, nutrition, inadvertent pesticide exposure, weather and hive management practices.

DuPont Pioneer, like other seed companies, provides seed treatments to meet the needs of corn growers. We are committed to environmental stewardship and to providing the best available products to our customers. We recognize the importance of both pest control options and pollinators to the agricultural industry. These are not mutually exclusive. Pollinator health is a complex and interconnected issue that we must thoroughly understand.

Seed treatment management and responsible stewardship play a vital role in sustaining our environment while maximizing crop yield. Here are some best management practice reminders:

- Always read and follow the label directions and recommendations for proper handling, use and disposal of treated seed.
- Always follow planter manufacturer recommendations and avoid excess use of talc and graphite. For pneumatic planters, direct the exhaust toward the soil surface.
- Be aware of the environment in and around your field, taking note of nearby hives and flowering plants and weeds, which could be attractive to pollinators.

- Limit dust movement from seed packages containing seed treatment. For example, consider factors such as wind speed and direction, and avoid shaking the bottom of the treated seed bag when filling planting equipment.
- Ensure all seeds are planted and incorporated into the soil at proper planting depth.

2015 NDCGA Board of Directors

District 1 – Carson Klosterman: Wyndmere (Vice President)
District 1 – Andrew Braaten: Barney
District 2 – Randy Melvin: Buffalo (Secretary/Treasurer)
District 2 – James Aarsvold: Blanchard
District 3 – Darren Kadlec: Pisek
District 3 – Kim Swenson: Lakota (President)
District 4 – Robert Hanson: Wimbeldon
District 4 – Ryan Wanzek: Jamestown
District 5 – Jerome Freeberg: Lisbon
District 5 – Joe Breker: Havana
District 6 – Chris Erlandson: Oakes
District 6 – Bart Schott: Kulm
District 7 – Anthony Mock: Kintyre
District 7 – Clark Price: Hensler

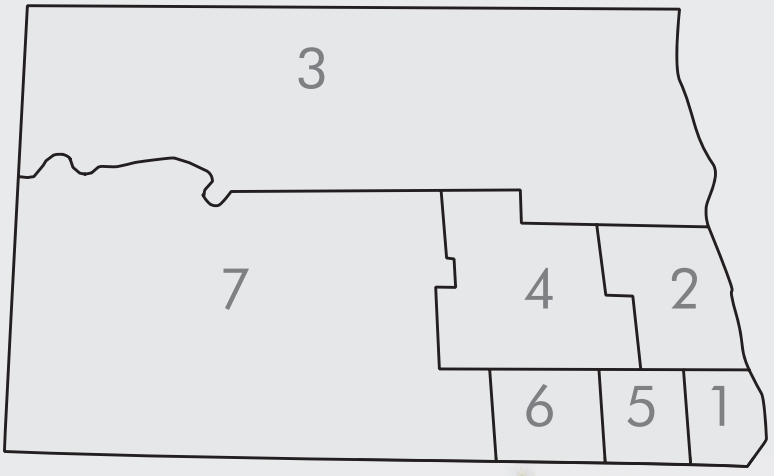
Director-at-large – Mike Clemens: Wimbledon
Director-at-large – Jeff Enger: Marion
Director-at-large – Wallie Hardie: Wahpeton
Director-at-large – Larry Hoffmann: Wheatland

NDCGA Industry Directors

Eric Berge – Gavilon Grain, New Rockford, N.D.
Vern Anderson – Livestock Consultant, Carrington, N.D.
Gary Geske – Latham Hi Tech Seeds, Enderlin, N.D.
Ray Kotchian – Prairieland Ag Inc., Fargo, N.D.

ND Corn Utilization Council

District 1 – Arnie Anderson: Hankinson
District 2 – Kevin Skunes: Arthur
District 3 – Paul Belzer: Cando (Chairman)
District 4 – Dave Swanson: New Rockford
District 5 – Dan Qual: Lisbon
District 6 – Scott German: Oakes (Secretary/ Treasurer)
District 7 – Paul R. Anderson: Coleharbor (Vice Chairman)



NORTH DAKOTA CORN GROWERS ASSOCIATION
NORTH DAKOTA CORN COUNCIL

1411 32nd St. South, Suite 2 • Fargo, ND 58103-6304
ndcorn.org

PRSRT STD
U.S. Postage Paid
Fargo, ND
Permit #1159

GROWING A HEALTHY, PROFITABLE BUSINESS CLIMATE FOR NORTHERN CORN